STEREO DIRECTORY & BUYING GUIDE 1980

COMPLETE BUYING INFORMATION ON OVER 2000 MODELS

RECEIVERS • TURNTABLES • CARTRIDGES
TAPE DECKS • SPEAKER SYSTEMS
AMPLIFIERS • CAR STEREO

BONUS
• HOW TO BUY, UPGRADE, AND MAINTAIN YOUR MUSIC SYSTEM

Plus:
"Super" Discs
DiscKit™
Record Ecology from Discwasher

The DiscKit is total record care in lifetime storage. The DiscKit combines essential Discwasher record care products in a beautifully milled walnut tray with dustcover.

Organized Record Ecology
DiscKit includes:
- the Discwasher D3 Record Cleaning System
- the DC-1 Pad Cleaner
- the Zerostat Anti-Static Instrument
- the SC-1 Precision Stylus Cleaner

All mounted in the Discorganizer™, a walnut tray with smokey dustcover, which stores your Discwasher products in an extremely efficient and space-conservative manner. The Discorganizer also has spaces for an additional headshell, screwdrivers, etc.

Financial Ecology
DiscKit is a purchase of Discwasher ultimate record care products at a substantial savings over the same products purchased separately. For approximately the cost of eight quality records, you can get the DiscKit to preserve your entire collection.

Discorganizer (walnut storage tray with dustcover) is available as a separate product.

DiscKeeper™
Precision Record Rack

A Proper Resting Place
DiscKeeper is an innovative storage system with capacity to hold approximately 50 valuable albums (your “active list” of recordings) with an unprecedented degree of convenience and safety. The DiscKeeper™ compression sections pull forward so that you can “page through” all of the stored albums, as in a record store, for front-cover examination and album retrieval.

Warp Not, Waste Not
Each storage section of the DiscKeeper has a calculated compression bar to hold records perfectly flat and upright. This compression system is to eliminate “shell warp” which is the warp caused by loosely storing albums at approximately 4° or greater of “lean” which may add permanent warp to the discs. By using the stored albums as a “cushion” and by having a very gentle compression system, DiscKeeper holds the albums perfectly upright and flat and without the possibility of warpage.

Quality on Your Wall
DiscKeeper is made of solid walnut, and custom-formed anodized aluminum in pleasing shades of natural wood and matte black. Simple wall-mounting hardware is included with each DiscKeeper, and creative applications will allow the storage system to be installed in multiples, on audio equipment racks, or attached back-to-back for greater capacity.

V.R.P.™
Valuable Recording Protector Record Sleeves

V.R.P.™ Record Sleeves are conventional in size and use. They simply do more than other record sleeves. V.R.P. benefits justify your investigation.

The V.R.P. Difference:
Smoothness. V.R.P. sleeves are extremely smooth for scratch-free record removal/replacement. They are significantly easier to use than paper or “polysleeves”.
Oozeness. Most polysleeves and/or polylined paper sleeves show “stabilizer drift” where the economical additives in the plastic ooze onto records. V.R.P. sleeves are made of an incredibly stable material that protects, even under unusual conditions of heat and pressure, where polysleeves can gum the record surface and where paper sleeves will “texture” the record surface.
No static in store. V.R.P. sleeves are made of an anti-static material that reduces charge of records during storage, and most importantly causes minimal charge when the record is removed from the sleeve.

If your records are valuable, you should use the Discwasher V.R.P. Record Sleeves—protective inner sleeves that add to quality record life.

CIRCLE NO. 27 ON READER SERVICE CARD
**SC-1™**
**The Only Stylus Cleaner**

The SC-1 is a stylus cleaning system with a precision, large diameter nylon brush and a magnifying mirror which retract into a walnut case for storage.

**The Naked Truth**
Discwasher’s research shows that when a record is played, the delicate diamond stylus accumulates a glazing, or coating, of contamination and dust that is not apparent to the naked eye. The stylus then becomes a grinding, abrasive instrument rather than a precision tracking instrument. A dirty stylus becomes a serious threat to record life, as well as stylus life.

**The Brush System**
To clean a stylus properly, the brush must be stiff enough to remove the subtle waxy coatings, but gentle enough to avoid damaging delicate cartridge assemblies. Discwasher advises against any use of alcohol, which is extremely dangerous to some stylus diamond adhesives, and which also will harden the crucial rubber polymers which hold the cantilever in position, and radically change cartridge performance.

The SC-1 Stylus Cleaner uses nylon bristles bound together in a specific, calculated density to provide thousands of cleaning tip surfaces and proper stiffness for convenient and correct cleaning operations. Two drops of D3 fluid give extra cleaning action to the SC-1.

**To See What You’ve Done**
The SC-1 also has a magnifying mirror opposite the brush to inspect stylus for cleanliness, for lint particles in the cartridge opening, and to check cartridge/headshell leads without removing the headshell.

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**Zerostat®**
**Anti-Static Device**

Zerostat is a truly effective, safe instrument for audiophiles and photographers to eliminate static on virtually any surface. With Zerostat, there are no clogging residues, no cartridges to replace, nothing to plug in, and no radioactivity.

**The Charges of Life**
All plastic records, dustcovers, and even special metal surfaces develop static charges with use. There are many ways to deal with these charges. Conductive liquid coatings have an extremely high risk on delicate vinyl recordings with clogging deposition and possible vinyl modification.

The Zerostat Instrument neutralizes surfaces of any charge by showering a large working area with positive charges on trigger squeeze, and with negative charges on trigger release. The sum is neutral. No buffing is needed, no coating is present, and no chemical modification takes place.

**Try Our Piezo**
The Zerostat Instrument operates by a dual piezo capsule pressurized by a patented roller cam system that forces electron coronae to be emitted from the gold-plated pin inside the insulated barrel section. A single pin is superior to double pin emitters for ion dispersion and “range” of delivery. Zerostat contains an internal safety “arc” system that limits output voltage to functional and yet safe limits. This internal arcing system (causing occasional “clicking” sounds) also allows the piezo crystals to last longer while giving maximum output.

**Under the Cover**
Tonearms and dustcovers have a mutual attraction because of electrostatic forces generated by the plastic surfaces and metal parts. A tonearm often can be lifted off the record by rubbing the dustcover. A simple squeeze and release of the Zerostat Instrument directed toward the dustcover will cause the static charge to be eliminated, and the tonearm/cartridge will be playing the record at the set stylus force. The Zerostat is a simple, easy and safe solution to static problems and static attraction—and very economical.

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**D'Stat® II**
**Turntable Mat**

D'Stat II is a soft, felt-like turntable mat which actually eliminates electrostatic charges on the turntable, and which buffers the resonance interaction of records and standard mats.

**Tested as The Best**
The Swedish Test Institute reported that the D'Stat II is the best of four accessory turntable mats tested in the reduction of electrostatic charges on the turntable. The uniquely conductive fibers of D'Stat II actually hold polar-charged electrons, and these internal fibers can therefore donate and receive charges whereas other turntable mats only act as conductors to pass around (equalize) static charges.

**A Delicate Cushion**
Recent research has shown that a cartridge sets up sonic resonances between a playing disc and a hard turntable surface. In addition, transfer of floor vibration through the turntable is magnified by the turntable surface to the disc and causes additive “flavors” of dishonest sound to enter the playback chain. D'Stat II buffers these subtle warps and allows the true characteristics of an audio system to be perceived.
PROTECT YOUR INVESTMENT WITH DISHWASHER®
POSTULATE: Your records are valuable aids to pleasure and relaxation.

POSTULATE: Your record investment totals more than $1000 (one thousand dollars), and should be protected.

Supporting data: Replacement costs are escalating; some specimens unavailable.

Supporting data: Dust is the most destructive element to records. Dust settles on all records and may be welded in by the tracking stylus.

PROSPECTUS: The DISCWSHER D3 RECORD CLEANING SYSTEM, with unique unidirectional micro-fibers, lifts off dust—rather than just lining it up. Results are visual, sonic and clearly protective of investment. Cost of system is only $15 (fifteen dollars). Has lifetime milled walnut handle and includes DC-1 Pad Cleaner.

ADDENDUM: Be guarded of imitations. Sound investments should be protected by the proven expertise of Discwasher Labs.

Seek out Discwasher® products at dealers worldwide who are interested in preserving your musical portfolio.
Bought expensive speakers?

Better not listen to ours!

However, if you're looking for incredible sounding speakers at an affordable price, by all means do! You will find that for less money than you planned on spending you can get much better sounding speakers than you dreamed you could ever afford. Polk Audio loudspeakers have received worldwide praise because people recognize that they offer remarkable value. Critical acclaim such as the following makes it clear why Polk speakers have become famous for offering the best possible sound for the money.

"Polk Audio is a small, Maryland-based company whose speakers enjoy an enviable reputation among audiophiles who would prefer to own such exotica as the Beveridge System 2SW-1 ($7000 per pair) or Pyramid Metronome ($5200 per pair) but don't have the golden wallets to match their golden ears!" The Complete Buyer's Guide to Stereo/Hi-Fi Equipment

"Audio experts know that the price of a speaker is not always directly proportional to its quality. Nowhere at CES was that fact more dramatically demonstrated than in room 900 of the Pick Congress where the folks from Polk Audio of Baltimore were demonstrating their speaker line..." High Fidelity Trade News

"They (Polk 10's) are a high definition speaker system deserving the very best associated electronics. And at their price, they are simply a steal!" Audio Advisor-Audiogram

Polk Audio loudspeakers, starting around $125 each, are available at the world's finest hi-fi stores. Write us for complete information on our products and the location of the Polk Audio dealer nearest you.

Polk Audio Inc. 1205 S. Carey St., Baltimore, Md. 21230 Dept. B8

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INCRECIBLE SOUND-AFFORDABLE PRICE

CIRCLE NO. 9 ON READER SERVICE CARD

STEREO DIRECTORY & BUYING GUIDE
THE COVER
1. TEAC X-10R Open-Reel Tape Recorder
2. BEYER M818 Dynamic Microphones
3. ADS L300C Car Speaker
4. STAX SR-Sigma Electrostatic Earspeaker
5. dbx 21 Disc/Tape Decoder
6. CLARION PE-751B In-Dash AM-FM Stereo Receiver/Cassette Player
7. STAX SRM-1 Adapter Box
8. AUDIO PULSE 1000 Digital Time Delay System
9. NIKKO Gamma V Digital Stereo Tuner
10. EUMIG FL-1000 Stereo Cassette Deck
11. H.H. SCOTT 390R AM-FM Stereo Receiver
12. AUDIOVOX HCE-750 Car Equalizer/Preamplifier
13. INFINITY Reference Standard 2.5 Speaker System
14. DUAL CS-7310-60 Automatic Single-Play Turntable

COVER PHOTO: Philip Gottheil

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Introducing TDK metal.  
The Music Mirror.

The era of metal particle tape has arrived. Metal-ready cassette decks are already in the stores, and more are on their way. There are also a number of metal cassettes on the market, and all of them have a high coercivity and remanence—their magnetic energy is roughly four times that of the best oxide tapes. But that does not mean that all metal cassettes are alike. Not by a long shot.

TDK's metal cassette, MA-R, looks, feels and performs like no other cassette. That's why we call it "The Music Mirror." We've used advanced manufacturing technology to solve the problems inherent in metal tape. If left untreated, metal particles oxidize upon contact with water vapor and oxygen in the atmosphere—they actually "rust." TDK has developed a unique way to coat each and every particle with a process that protects them from the atmosphere, even at the critical exposed edge of the tape. The result is a tape that is resistant to oxidation. In fact, the overall stability of MA-R is well within the limits that have been set for conventional cassettes. But superior tape is only part of MA-R's story. TDK's new Reference Standard Mechanism is so revolutionary in design and performance, that its influence will be felt for years to come.

For starters, there's the one-piece, die-cast metal main-frame. Metal is far more resistant to warpage than plastic, and unibody construction eliminates performance differences between the A and B sides. The frame and mechanism are sandwiched between two clear covers held in place by six computer-torqued, double-threaded locking screws that will not slip because of vibration.

MA-R's amazing mechanism is visible for all to see, thanks to a transparent slip sheet. Our unique double hub-clamp is an integral part of a strong and circular tape storage system. (MA-R's two clamps are color-coded red and black, as a visual reference).

Our newly-designed, seamless, water-wheel-type rollers rotate around stainless steel pins, which are micro-polished for circularity. Our new dual-spring pressure pad assembly allows for more flexibility, yet provides more horizontal support for uniform tape to head contact. MA-R even includes removable, replaceable erase-prevention lugs, a new standard in protection and flexibility.

Ask your TDK dealer to show you the new MA-R cassette. Hold it in your hands and feel its weight. Look at the ingenuity and precision of the shell and mechanism. Then listen to it perform in one of the new metal decks. All your senses will tell you that this isn't just another new cassette—it's one of the memorable audio products of our time.

TDK Electronics Corp., Garden City, N.Y. 11530.
Better than belt. Better than direct.

What's better than belt and direct drive? The best of both in one turntable. The specs of direct drive with the acoustic and mechanical isolation of a belt drive. Until now, unheard of. But now you can hear it all on Philips' exclusive, new Direct Control turntables.

How did Philips do it? The way you'd expect a worldwide leader in electronics to do it—with the world's best electronic technology.

PHILIPS' EXCLUSIVE DIRECT CONTROL ELECTRONIC DRIVE SYSTEM. In all Philips Direct Control turntables a mini-computer at the driving disc constantly checks and re-checks the platter speed. Instantly correcting for any variations in line voltage, frequency, pressure on the platter, temperature—even belt slippage. That's how all Philips Direct Control turntables keep the speed constant and accurate.

DIRECT CONTROL FREE-FLOATING SUBCHASSIS. Specially designed to give Philips Direct Control turntables superb acoustic and mechanical isolation. To cushion the platter, the tonearm—and protect your valuable records—from unexpected jolts, shocks and knocks. And to keep the rumble remarkably low.

DIRECT CONTROL = TOTAL Turntable Design. But Philips doesn't stop there. For us Direct Control is more than an exclusive new drive and suspension system—it's a completely new concept in total turntable design. Direct Control is specially designed straight, low mass, tubular aluminum tonearms, with very low friction bearings. To track even your most warped records accurately.

DIRECT CONTROL ELECTRONIC FEATURES. Direct Control means reliable electronic touch switches for silent, vibration-free operation. Accurate electronic pitch controls. Digital and LED indicators to monitor platter speed and identify functions. And photo-electronic sensors to initiate the automatic tonearm return.
DIRECT CONTROL RECORD PROTECTION. Philips even built in an accurate stylus pressure gauge, to keep the pressure off your valuable record collection. Nobody ever thought of that before. But Philips thinks of everything.

ALL AT A PRICE THAT'S WELL UNDER CONTROL. Philips' exclusive Direct Control turntables—the new state-of-the-art—from $160 to $250. With Quartz Control, $400.

By joining our European research facilities with our American know-how, Philips produces a full line of audio equipment high on performance and value. That's what sets us apart from the competition. Here and around the world.

EVERYONE WHO KNOWS, KNOWS Philips

High Fidelity Laboratories, Ltd.
Have you ever heard all the FM you paid for? Even if you own a very sophisticated receiver, you rarely receive the FM it was built to deliver. The reasons boil down to the antenna. And that's why B-I-C invented The Beam Box, the first electronically directable FM antenna. Unlike the fixed dipole antenna, it can “face” all points on the compass. You simply tune to the signal's direction. And while it can't make a weak signal stronger, by discriminating it seems that it is. The Beam Box will virtually eliminate multipath reflections, and improve both stereo separation and signal-to-noise ratio. What's more, when you fine tune it to a signal's frequency, you tune out unwanted frequencies. For details write B-I-C AVNET, Dept. B, Westbury, N.Y. 11590. The Beam Box.
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FOUR OF A KIND.

The new AR Vertical™ Speakers
They simply had to happen.
Because when a speaker as spectacular and full of innovation as the AR9 is introduced, it's only a matter of time 'til its most important design features are incorporated into other speakers.
To be brief.
The AR9 presented the concept of an array of vertical mid and highrange drivers to give a very precise stereo image.
This design feature is now part of all AR Vertical Speakers.
The AR9 introduced the AR Acoustic Blanket™ which absorbs reflections from the front of the enclosure and noticeably smooths high end response...another innovation that is now part of all AR Vertical Speakers.
Placing woofers in the side of the enclosure (and thus close to the wall behind the speaker) improves bass response dramatically in the AR9. Side-mounted woofers and newly designed slim enclosures accomplish the same objective in the other AR Vertical Speakers.
Liquid-cooled high end drivers give the AR9 terrific power handling capacity.
All the AR Vertical Speakers share these drivers with minor design variations.
So there you are.
Four of a kind (left to right). The AR92, a three-way system with new 10” woofer at about $300. The AR90, a four-way system with a pair of 10” woofers at about $500 each. The AR9, a four-way system with a pair of 12” woofers about $750. And the AR91 with 12” woofer at about $400 each.
They’re the finest expression of AR’s continuing pursuit of “truth in listening.”
And they’re speakers that are going to change your mind about speakers.
Get the literature and give a listen at your AR dealers. Or write for information to AR, 10 American Drive, Norwood, Mass., 02062.
Audio Pro
Stereo Components for No Compromise Sound

1. Subwoofer B2-5C for tight, clean, powerful bass, flat down to the limit of hearing (20 Hz). Comes complete with built-in amplifier and very versatile crossover filter.

2 & 3. Biamped A4-14 full range speaker with built-in subwoofer plus unique room-effect compensating controls. Do not let its small size fool you—its sound is gigantic. Tight, clean bass, flat to 30 Hz. Midrange and treble clean and open with exceptional stereo imaging.

4. Receiver TA-150. "All too often, equipment that boasts... sophisticated control techniques falls down when it comes to sound. The TA-150 is a brilliant exception.”

*Review by Ralphe Neil, June 1979 issue of Australian Hi-Fi

Hear the no compromise sound of Audio Pro equipment at dealers nationwide.

Call TOLL FREE 800-638-0228 for name and address of Audio Pro dealers in your area; Maryland residents call collect 301-459-3292. Or, if you'd like, write directly to: Audio Pro, 4720-Q Boston Way, Lanham, MD 20801.
Getting Started in Component Stereo

Here is a systematic approach to making component buying decisions.

To the novice contemplating the purchase of his first stereo high fidelity component system, the thousands of units from which he must choose can easily seem like an ocean ready to overwhelm and confound him—and the number grows larger each year. To complicate the problem even more, the prices the consumer is likely to be substantial, a factor that makes the decision seem even more weighty. Let's say you've decided that a high-quality music-reproduction system belongs in your home, and you even have an idea how to spend in acquiring one. You are now faced with questions like: How do I begin? How many components do I need? What features are necessary and worthwhile, and which should I forgo in the interest of economy? Will I want to upgrade the system later (most new buyers eventually do)? If so, how can that be made easy to do?

In the next few pages, we will try to help you answer these questions. With what you will learn serving as a background and guide, and with the assistance of an informed, reputable audio dealer, you should be able to select a component system which will meet your requirements and provide you with many hours of enjoyable listening.

The Basic Components

Most first-time stereo component system buyers select a four-piece component system—two loudspeakers, a stereo receiver, and a turntable for playing records. The loudspeakers reproduce stereophonic sound with its principal spacial characteristics. The electrical power needed to activate or "drive" the loudspeakers is provided by a stereo receiver, which is really three components in one. It incorporates an AM-FM or FM tuner section which picks up the radio signals broadcast by stations in your area, a preamplifier-control section which handles the weak signals from your phonograph turntable system and selects such other program sources, and finally a power
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amplifier that raises the program signals to power levels adequate for loudspeakers.

The turntable, too, is a compound component consisting of the platter and drive system, the tonearm, and the phonograph cartridge or "pickup" whose stylus (needle) traces the minute undulations contained in record grooves and translates them to electrical signals. All these subcomponents could be purchased separately, but most often the platter, drive system, and tonearm form an integrated unit and the pickup is added separately.

The subcomponents of a stereo receiver can be bought either as a separate tuner, preamplifier-control unit, and power amplifier, or as a tuner and an integrated amplifier that contains the preamplifier-control unit and the power amplifier. The receiver, with its all-in-one approach to the electronic section of a component system, nearly always turns out to be the least expensive route, but there are some trade-offs to be considered. Suppose you live in an area where there are few, if any, FM stations or FM programs to which you would care to listen. In that case, the unused FM tuner section may offset the economy of the receiver. You might be better off with an integrated amplifier, eliminating the radio entirely. Interconnections between components are standardized and fully compatible, so that if you later decide to add a tuner after all, you can easily do so. The dollar total of your purchases might then exceed that of a receiver, but you will have spread your buying over a longer period and will have purchased what you need only when you need it. Separate tuners, like receivers, can be had either with AM and FM reception capabilities or with FM only.

Another possible reason for choosing separates is that they lend themselves more readily to upgrading. For example, if your first system included a receiver with a 20-watt-per-channel power output rating and you decided to buy new loudspeakers that require much more power than that, you would have to trade in the entire receiver, even if its preamplifier-control and tuner sections were perfectly satisfactory. On the other hand, if you owned a separate tuner, a preamplifier control unit, and a power amplifier, only the power amplifier would have to be replaced.

Generally speaking, well-matched separates offer somewhat more control flexibility than do integrated receivers, and, in some cases, better sound quality, too. Over the past few years, however, the differences in sound quality have almost disappeared. As a first-time buyer, you are probably best off with a receiver—unless you have a cogent reason for choosing separates.

Controls, Features, and Tradeoffs. You may be awestruck by the profusion of controls and lights found on the front panels of receivers, preamplifiers and integrated amplifiers. These, which vary from model to model or from manufacturer to manufacturer, essentially serve two major functions. Some of them are used to alter tonal quality to suit the listener's tastes and acoustic requirements; others serve as a central switchboard, directing audio signals from records, tape, radio or even TV, to their destinations. Some controls may be invaluable to you, while others seem useless. All add to the cost.

Commonly found controls on receivers or integrated amplifiers are bass and treble tone controls. As their names suggest, they boost or cut either the bass frequencies or the treble frequencies of music. In most units, one control for bass and another for treble take care of both stereo channels. More expensive models may feature separate bass and treble controls for each stereo channel. Still more elaborate systems may add a third control which adjusts the intensity of mid-frequencies. A few receivers and amplifiers feature five or more separate controls, each governing just a small portion of the audible frequency spectrum. Some tone control systems also provide a means for varying the frequency at which the boost or cut begins.

The tape monitor circuit is controlled by another front-panel switch. It enables you to hook a tape deck into your system in such a way that you can listen to the program being recorded or to the playback of the recording. If you decide on a three-headed tape deck (which has separate record and playback tape heads), you may, using the tape monitor feature, also be able to monitor recordings a fraction of a second after they have been made. Almost all modern receivers have at least one tape monitor circuit, but some have two or even three. The additional circuit and its associated tape-copying switches will be useful if you plan to own a second tape deck (or can borrow one) and hope to be able to copy tapes from one machine to the next. Obviously, if you have no plans to own even a single tape deck, you need not concern yourself with tape monitors.

All receivers, integrated amplifiers, and separate preamplifiers have a pair of phono input jacks or terminals that accept the cables from your turntable system. Some have two sets of phono inputs, which you might favor if you intend to ultimately own two record players: you might have a high quality single-play turntable system for your most precious records and serious listening, and a multiple-play record player, or changer, for more casual music use.

Other switches relate to record playing as well. For example, you may find a low-cut or infrasonic filter switch that cuts out any frequencies too low to be heard. More often than not, they are not part of the music but arise from turntable vibration or record warps. Eliminating these signals keeps your amplifier from wasting power on them and indirectly reduces distortion of reproduced music. High-cut filters reduce the audible effects of record surface noise, tape hiss and FM background noise, all of which are

| TABLE 1: GUIDE TO POWER-AMPLIFIER REQUIREMENTS FOR SPEAKER EFFICIENCY AND ROOM SIZE
| High Sound Pressure Level (in dB) Possible for a Room of Indicated Volume (in cu ft) |
|-----------------|-----------------|-----------------|-----------------|
| Amplifier | Low-Efficiency Systems | Medium-Efficiency Systems | High-Efficiency Systems |
| (Continuous Watts per Channel) | 3000 Cu Ft | 3000 Cu Ft | 3000 Cu Ft | 3000 Cu Ft |
| 10 | 94 | 92 | 91 | 97 | 95 | 93 | 102 | 101 | 100 | dB |
| 70 | 97 | 95 | 93 | 100 | 98 | 96 | 105 | 104 | 103 | dB |
| 35 | 98.5 | 97.5 | 95.5 | 102.5 | 101.5 | 99 | 107 | 106 | 105 | dB |
| 50 | 101 | 99 | 96 | 103.5 | 102.5 | 100 | 108 | 107 | 106 | dB |
| 75 | 103 | 101 | 98 | 105.5 | 104.5 | 103 | 112 | 111 | 110 | dB |
| 100 | 104 | 102 | 101 | 106.5 | 105.5 | 104 | 112 | 111 | 110 | dB |
| 125 | 105 | 103 | 102 | 108 | 107 | 106 | 113 | 112 | 111 | dB |

Numbers given are for "average" room furnishings—neither too reflective nor too absorptive. Rooms having heavy draperies, rugs, and much upholstered furniture may require somewhat more power to achieve the sound level shown. Overly "live" rooms may require a bit less power for the same results.

CAUTION: Not all speaker systems can safely accept all power levels shown. Check with the manufacturer regarding maximum power permissible.

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fairly concentrated at high frequencies. More often than not, such filters "throw away" some of the high frequency (treble) content in the music program and the noise. If your program sources are nice and quiet, a high-cut filter may not be important to you.

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The demand for Micro-Acoustics cartridge clinics is so great, we simply can't keep up.

So we've done the next best thing.

But a word about the best thing first. If you've ever been to a Micro-Acoustics Clinic in your dealer's showroom, you know that it involves the most comprehensive examination of a cartridge ever devised. When you leave, you clearly understand what your cartridge is doing, and, alas, what it is not. You become aware, for example, not only how faithfully your cartridge is tracking the groove, but how it performs in many critical areas such as square wave and transient ability, IM distortion and capacitance effects.

The next best thing is our special test record. It's like none you've ever heard before. The record is specifically designed to test both tracking and transient ability. One side contains a remarkable series of electronic and musical tests, while the other side is pure music, for sheer enjoyment.

Of course, we, and your dealer, will do everything we can to let you know when there's a clinic scheduled in your area. In the meantime, we suggest this unique record is almost like attending a Micro-Acoustics Clinic — every time you decide to use it.

Just one friendly note of warning. Knowing the results of a diagnosis is sometimes a painful experience. But only when there's nothing you can do about it. Fortunately, in this instance, you can do something. Like listening to one of our Micro-Acoustics direct-coupled cartridges, which are equal to the challenge of any clinic of any kind.

Micro-Acoustics Corporation
8 Westchester Plaza, Elmsford, NY 10523

Enclosed is $5.00 each for

Name
Address
City State Zip

Micro-Acoustics
Because good tracking isn't enough.
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The features we have discussed relative to the preamplifier and amplifier sections of a receiver (or in separate components) are summarized in Table I. That Table also indicates, in a general way, which features are likely to be found in low, medium and high-priced products. As a careful shopper you will want to find equipment that offers all the features and sound quality you need at the lowest possible price.

- Tuners and Tuner Modules. Most receivers and separate tuners have AM as well as FM reception capabilities, but the AM section of most such products is little more than a convenience for listening to news broadcasts, sporting events and other programs not normally available over FM channels. In most instances, manufacturers of tuners and receivers incorporate minimum-quality AM circuits in these products. AM radio, in any case, is too limited in frequency range and too susceptible to static and noise for a high-fidelity program source. Unless you find it necessary to hear AM stations on your music system, you may want to sacrifice the AM radio feature in the receiver or tuner you choose.

An interesting feature which has recently found its way into a few receivers and many tuners is called frequency synthesizing. While not directly related to the sound quality and performance of the FM circuitry, this innovation does insure that stations will be tuned in optimally. Accurate tuning is important if minimum distortion is to be obtained. Frequency synthesis usually raises the cost of a product containing it materially, so unless you find it difficult to tune in FM stations accurately by ear or to use the tuning meters supplied, this extra convenience is not necessary.

Other FM tuner features to look for are summarized in Table II, along with their price range. It is possible to spend as much money on a high-quality separate FM tuner as most audio enthusiasts spend on their complete component systems, but such expenditure is hardly sensible unless there are a lot of high-quality FM broadcasts in your area. Some stations, scattered across the U.S., transmit superb FM signals and use nothing but the best mint-condition recordings as program sources. If you are fortunate enough to live near such a station, you may want to spend a bit more on the FM section of your system.

- Power. "How much power will I need?" is perhaps the most difficult question faced by anyone about to purchase a high-fidelity stereo system. The range of choice seems vast, running from as little as 10 watts per channel to several hundred watts per channel. If 20 watts of audio power is enough for some listeners, why do others require 200 watts, or even more? Surely they don't want the music 20 times as loud.

Loudness, in truth, is one of three factors that govern the amount of power you will need in the amplifier section of your system. Louder music reproduction takes more amplifier power, sometimes a lot more, as we shall see. The second factor is the size of your listening room. To fill an auditorium with realistic sound levels takes more audio power than it does to fill a 10' x 12' dorm or bedroom with the same intensity of sound. The third factor has to do with the loudspeakers you select for your stereo system. Some speakers can produce ear-shattering sound levels with just a few watts applied to them while others will only sound moderately loud when driven by a hundred or more watts of power.

It may surprise you to learn that a 50-watt amplifier, driving a given set of speakers in a given room will not produce twice the level of clean sound given by a 25-watt amplifier. To double the loudness of 25 watts you would have to substitute 500 watts. That's because the sense of loudness in human hearing is anything but linear. The 50-watt unit reaches its limits by producing sounds only slightly louder than those developed by the 25-watt unit.

Because loudness is logarithmic rather than linear, we use a logarithmic unit of measurement, the decibel (abbreviated dB) to measure relative sound levels. Doubling the power input to a speaker makes it deliver only 3 dB more sound output. (One dB is said to be the smallest level change that can be detected by the human ear.) The ten-fold increase needed to double apparent loudness is expressed as a change of 20 dB.

Absolute sound levels can also be expressed in dB if a reference level is specified. In measurements of so-called Sound Pressure Level (SPL), 0 dB, the reference, is set at a level thought to be inferior designs. Again, there are trade-offs. To make a small speaker system capable of strong bass output, the designer must give up efficiency. There are numerous small, sealed-box systems of low efficiency that illustrate this point while producing very fine sound. On the other hand, a large, floor-standing speaker might sound as good as one of the so-called bookshelf types while using just a small fraction of the amplifier power. The large speaker will probably cost more as well as take up more floor space, but its higher efficiency will allow a considerably smaller expenditure for a receiver or amplifier.

| TABLE II—PREAMPLIFIER/CONTROL SECTION FEATURES |
|-----------------------------|-----------|-----------|
| FEATURE                     | PRICE RANGE |
|                             | LOW  | MEDIUM | HIGH |
| Low-Cut Filter              |        |        |       |
| High-Cut Filter             |        |        |       |
| Treble and Bass Tones       |        |        |       |
| Microphone Input            |        |        |       |
| Pre-Amp Input               |        |        |       |
| Phono 1 & Phono 2 Inputs    |        |        |       |
| 1 Tape Monitor              |        |        |       |
| 2 Tape Monitor              |        |        |       |
| Selectable Bass  & Treble   |        |        |       |
| Loudness Control            |        |        |       |
| Microphone Input            |        |        |       |

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use Table III to predict the amplifier power you'll need. Notice that the table is divided into three major sections: using low, medium, or high efficiency speakers. Since the amplifier power requirements depend upon the efficiency of the speakers you select, the first components you need to choose are the loudspeakers. Start by listening to a variety of speaker systems which are in your price range, or perhaps a bit above. Compare two pairs of loudspeakers by listening alternately to each pair in what is called an "A-B" comparison test. Use music which is familiar to you, and make certain that the salesman adjusts the levels when switching from one pair to the other, so that you are judging sound quality and tonal balance rather than efficiency. After a few moments, you will be able to eliminate one of the two pairs. Repeat the process, matching a new candidate against the preferred earlier choice. Eventually you will zero in on the speaker pair that seems most right to your ears.

At this point, you will want to find out whether you have selected a high-efficiency pair, a medium efficiency system or a low-efficiency speaker pair. The speaker manufacturer's literature or the salesperson will advise you about this, and often make recommendations regarding suitable power capability for your amplifier or receiver. Alternatively, you can now use Table III to find the power needed to deliver the sound pressure levels you think you will need in your listening room. As a final check, hook up an amplifier or receiver which is rated at the power level you have calculated to the speakers of your choice. Turn up the volume to what you think is the loudest listening level you will ever require. Then turn it up even a bit further. Don't go too far, because an increase in loudness you can just about hear will take double the power. If sound remains undistorted and clear, with no break-up of peaks in the music, you have probably chosen an adequate power rating for your receiver or amplifier, which should be selected next.

1. The Right Receiver or Amplifier. We have already dealt at some length with the features and controls found on most receivers and amplifiers. By now you should have decided which of these features are important to you and which you can do without. Incidentally, if your choice of speakers results in your needing a very high-powered receiver or amplifier and cost is no object, go right ahead and buy all the watts you need. If, on the other hand, the cost of adequate power is beyond your means, your only course is to seek out a pair of speakers that require less power.

Besides features and controls, you will be concerned with the performance specifications of the receiver or amplifier you choose. We have already discussed power ratings, but a statement of the wattage of a receiver or amplifier is not enough unless it is accompanied by a statement of maximum distortion levels, the range of frequencies over which that rated power can be delivered at or below its rated distortion, and the type of speaker "load" into which that power can be delivered (usually 8-ohms, the typical impedance of many speakers, but sometimes 4-ohms, a value of impedance common with some speaker designs).

There are many other performance specifications with which you will be confronted. Space does not permit a complete analysis of the importance of each of these specifications, but we have prepared some basic, if general guidelines in the form of Table IV, which lists the more important specifications for a tuner, amplifier, turntable, cassette tape deck and open-reel tape deck. While price is, of course, a factor in the performance of any product, it is not always essential to achieve the "best" level of performance for every one of the specifications. For example, consider the question of selectivity, listed in the tuner section of the table. Selectivity, stated in dB, is a measure of the tuner's (or tuner section's) ability to tune to a desired signal without encountering interference from other stations whose frequencies may be close to that of the desired signal. If you live in a crowded metropolitan area where several stations are positioned close to each other in frequency, this may be an important specification for you to consider and 80 or more dB of selectivity may indeed be essential. On the other hand, if you live in an area where there are few stations, widely spaced across the dial, a high order of selectivity is of less importance. You will want to concentrate on sensitivity, especially if your location is far from the transmitter. To learn more about

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### Table III—FM Tuner Features

<table>
<thead>
<tr>
<th>FEATURE</th>
<th>PRICE RANGE</th>
<th>PURPOSE OR ADVANTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>LOW</td>
<td>MEDIUM</td>
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<tr>
<td>Twin Tuning</td>
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<td>X</td>
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<tr>
<td>Meters</td>
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<td>FM Muting</td>
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<td>X</td>
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<tr>
<td>Selectable I-F Bandwidth</td>
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<tr>
<td>&quot;MPX&quot; Blend Switch</td>
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<td>X</td>
</tr>
<tr>
<td>Touch-Sensitive AFC Tuning Knob</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Variable Muting</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Station PreSelect</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Switches</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dolby FM (built in)</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>
Even the most enlightened consumer can get eaten alive in the hi-fi jungle.

There are probably few places where the phrase “caveat emptor”- let the buyer beware— is more applicable than in high fidelity.

The average consumer walks into a hi-fi store only to be confronted by a morass of receivers, turntables and tape decks, running the gamut from the unaffordable to the unpronounceable. And to make matters worse, the salesman seems to speak some bizarre dialect about megahertz and transient response.

At Sony, we sympathize with the plight of the music lover caught in this rather distressing situation. And to this end we offer some reassurance:

Since 1949, Sony has been at the very forefront of high fidelity. (In fact, our name is derived from the Latin word “sonus” for sound.)

And while the technology has changed, one thing hasn't:

Since the beginning we've never put our name on anything that wasn't the best.

The V4 receiver: You don't need an engineering degree to understand what makes it superior.

Put as clearly as possible, the V4 was designed for people who are as interested in getting good value as they are good sound.

In terms of power, for example, the V4 offers ample wattage to fill almost any size living room with clean, clear sound. (55 watts per channel at 8 ohms from 20 to 20,000 hertz, with less than 0.1% total harmonic distortion.)

It has absolutely no audible distortion.

It features the same kind of “direct coupled” circuitry used in the most expensive professional broadcast amplifiers to ensure rich bass.

It's completely encased in metal to reduce interference.

It's capable of running two sets of speakers without straining, and has something called a “phase-locked-loop IC stereo multiplex stage” that guarantees extraordinary FM reception.

All of which explains why if you pay a few dollars less for one of our competitor's receivers it's probably because you're getting less receiver.
The X30 turntable: Proof, once again, that Sony is the real pioneer in high fidelity.

Today, virtually all of the world's most expensive turntables feature "quartz lock." An electronic circuit that works like a quartz watch to ensure perfect turntable speed.

Now Sony has improved on this incredibly accurate system in the only way possible: by making it less expensive. But to buy the X30 on its price alone would be selling it short.

Like today's most expensive turntables, the X30 features a direct-drive motor that eliminates pulleys and unreliable belts. But unlike models built by Pioneer and Technics, our direct-drive motor is both brushless and slotless—which means it's more accurate.

Instead of using an inexpensive particle-board base like many of our competitors, the X30's base is made of a Sony patented "bulk molding compound" that reduces acoustic feedback.

And we've even made the X30's platter mat slightly concave—so if your records are a bit warped, they won't sound that way.

SSU-2070 speakers: Sony remains one of the only hi-fi companies to produce our own speaker cones, crossover units, and even the cabinets themselves.

The law of the jungle: Survival of the smartest.

Obviously, we don't have enough space here to tell you the whole Sony hi-fi story. Like the way our new micro components use Sony developed "pulse power supplies" that reduce distortion almost to the point of being unmeasurable.

Or the way our new SSU-2070 speaker system guarantees you'll hear every part of the music with distortion reducing carbon fiber speaker cones. And a computer-designed speaker arrangement that makes sure you hear the music exactly as it was recorded.

The point of all this, however, is that for over three decades Sony has built superior audio equipment. Extraordinary products whose reputation for quality, value and reliability is unsurpassed.

So even if you don't know watts from ohms, at least you'll be able to survive in the hi-fi jungle by knowing Sony.

For more information, or the name of your nearest Sony dealer, write us at Sony, P.O. Box CN-04050, Trenton, N.J. 08650.

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the meaning and importance of specifications, we suggest that you read one of the many excellent books written on this subject. One such book, a purely instructional work that makes no attempt to sell or recommend particular products or brands, is The Official Guide To High Fidelity, published by the Institute of High Fidelity (IHF), a trade association of high fidelity component manufacturers. It can be obtained by mail, for $4.95, by writing to the IHF at 489 Fifth Avenue, New York, N.Y. 10017.

Choosing a Turntable

Record playing is likely to provide a large segment of your music programming. For this reason, you will want to select your turntable system with great care. Your first concern will be whether to select a single-play machine or one that can handle several records sequentially and automatically. These days, many of the machines designed to play several records sequentially can also be used as single-play turntable systems by installing alternate centerhole spindles supplied with the equipment. On the other hand, single-play turntable systems available today come with varying degrees of automation, including everything from automatic lift of the tonearm after completion of play to systems that initiate play, sense required speed and tone-arm set-down position, return the tonearm to its rest position after completion of play and even turn themselves off.

Aside from the many convenience features incorporated into modern turntables (and which may or may not be important to you, depending upon your budget and taste), there are a few fundamental performance specifications that you will need to evaluate before making your final selection. Speed accuracy is one: If a turntable rotates at incorrect speed, music will be reproduced too high or low in pitch. Many turntables come equipped with stroboscopic markings and speed adjustment controls to help you adjust the rotation of the platter to precise 33 1/3 or 45 revolutions per minute and also to enable you to alter speed by a few percent, should you wish, say, to play a musical instrument that is slightly out of tune along with a record. Besides rotating at correct overall speed, a turntable must also rotate with as steady a speed as possible. Waver- ing of speed, if it occurs at a relatively low rate, is called wow while more rapid fluctuations are termed flutter.

Both sound unpleasant if present to any significant degree. Wow-and-flutter are often expressed in specification sheets as a single percentage value, and the lower that number, the better.

Noise generated by the motor that drives the turntable or by elements of the drive mechanism is called rumble. Such low frequency vibrations can be picked up by the phono cartridge, amplified by the preamplifier and amplifier of your stereo system and ultimately reproduced via the loudspeakers. In most cases, rumble is so low in frequency that it cannot be heard directly. However, it can overdrive the preamplifier, power amplifier, and loudspeaker, causing distortion of audible signals that are passing through. Rumble is specified as a negative number of decibels telling how much lower in sound level the rumble content is compared with a standardized tone. Thus, a

-60 dB rumble figure is poorer than a

-65 dB figure. When comparing numbers, be sure that they are all specified the same way—according to the ARRL, Din B, or other standard.

There are several methods for driving a turntable platter, the two most popular of which are belt-drive and direct drive. In a belt drive system, a rubber-like precision belt is used to transfer rotational energy from a relatively high speed motor shaft to the turntable platter itself. Direct-drive motors, on the other hand, rotate at the same speed as the turntable and their shafts are directly coupled to the platter. While manufacturers may insist that one of these methods is superior to the other, either system, when properly engineered, can give precise speed, low rumble, and low wow-and-flutter. As with all high fidelity components, you get pretty much what you pay for, and if your main concern is performance, you should be guided by the few turntable specifications listed in Table IV, adding those convenience features that are important to you and that you can afford.

- The Most Neglected Component. We come now to a component that plays a large role in determining the quality of sound you will get from your records— the phono cartridge. The cartridge, like the loudspeaker, is a transducer, but it works in reverse, converting mechanical motion (as it traces the undulations in the record groove) to equivalent electrical signals. Also like loudspeakers, cartridges are best judged by subjective listening tests. It is essential that the cartridge you select work compatibly in the tonearm of the turntable system you have chosen. Manufacturer's literature and your audio dealer can be helpful in assuring this. Clearly, a cartridge designed to play records properly with a downward tracking force of one gram or so would not work well in a tonearm whose friction can only be overcome by a downward tracking force of three or more grams.

Most high fidelity cartridges generate their output by varying the magnetic field cutting a set of fixed coils. These include the moving-magnet, moving-iron, and similar types that can be connected directly to the phono inputs on your amplifier or receiver. In others, aptly known as moving coil (MC) cartridges, the coils move and the magnetic field is fixed. These usually have very weak output and require either a step-up transformer or an additional preamplifier (sometimes called a preamp or a head-amp) before they can be matched with ordinary amplifiers or receivers. These are generally more expensive than fixed-coil types, but some audio enthusiasts believe that the added cost is justified by what they consider a special sound.

Adding A Tape Deck

Beyond the basic set of components we have discussed thus far, perhaps the most popular additional component to be considered is a tape deck. Of the three tape deck formats you can choose—reel-to-reel, cassette or 8-track cartridge—by far the most popular for home systems is the cassette deck. Open-reel decks once ruled the market, but because of the improvements in cassette decks as well as in the tape formulations used for cassettes, reel-to-reel decks have largely become confined to semi-professional and professional recording applications. As for the 8-track cartridge format, most experts do not consider this endless-loop form of tape package to be capable of true high fidelity performance, and its last stronghold seems to be in automotive use. However, the cassette deck is gaining fast even there.

Modern cassette decks typically include a built-in noise reduction system such as Dolby and switching facilities that enable you to use a variety of tape formulations such as ferric oxide, ferric-chrome combinations, chromium dioxide (or equivalent) and, in many recently introduced models, pure metal particle tape. Most cassette decks combine recording and play functions in a single head, using a second head to erase material previously recorded on the tape. Some costlier decks offer separate record and play heads. This feature permits you to monitor recordings by means of the playback head an instant after they are made.

The chief virtue of the pure metal-particle tape is its ability to accept higher recording levels, particularly at the high-frequency end of the audio
spectrum, where previous tape formulations tend to impose limited dynamic range. If you hope to use this new formulation of tape, make certain that the cassette tape deck you purchase is specifically designed to handle it. Recordings made on metal tape can generally be played back on older machines, but such decks cannot properly record on the new metal tapes, nor can they erase it properly. At the moment, the cost of the new metal tape is approximately twice that of conventional high-quality tape formulations. Prospective purchasers should carefully weigh the advantages of this new tape versus its higher cost.

Table IV details the more important specifications for both cassette and open reel decks and gives you an idea of the performance you can expect in low, medium and high-priced machines of each type.

The Importance of a Balanced System

Whether you intend to spend $400 or $500 for your first component high fidelity system or several thousands of dollars, the importance of maintaining a good balance between the various components you purchase cannot be overstressed. If your budget is $500.00, for example, it would make little sense to spend $350.00 of that sum on a receiver and be left with only $150.00 for loudspeakers, turntable and cartridge. A general rule of thumb (but by no means a hard and fast one) is to apportion about 40% of your budget for the receiver, 25% for the record playing components and 35% for the loudspeakers in a basic system. For a five-piece system consisting of a pair of loudspeakers, an integrated amplifier, a separate tuner and a turntable system, you might try 25% for the receiver, 30% for the loudspeakers, 25% for the tuner and the remainder for the record playing components. In a system involving a separate amplifier and preamplifier, appropriate percentages might be 20% for the power amp, 15% for the preamp, 30% for the speakers, 18% for the tuner and the remainder for the turntable and cartridge. Tape recording facilities should be considered separately from the basic system, as should add-on components.

Armed with the foregoing information, and with the assistance of a reputable audio dealer, you should be in a good position to examine the models listed in the accompanying Directory. When you narrow down the models in each category to a group that meets your budget requirements, visit your local dealer and discuss your requirements and plans with him. Don't overlook the possibility of adding a set of stereo headphones to your basic system. Just about any system you are likely to choose has provisions for stereo headphone listening and many music lovers find that reproduction via headphones can provide a thoroughly enjoyable and "private" listening experience that is sometimes preferable to reproduction via loudspeakers. Then, too, if your taste in components exceeds your budget, you can put off the purchase of those ultimate (but high-priced) loudspeakers that have captured your ears and taste by starting out with just a pair of phones until such time as you can replenish your bank account and can afford the speakers of your choice.

If there is any final advice we can offer it is to keep your cool while buying and don’t let yourself be rushed into anything. You’ll presumably be listening to your system for a long time, so an extra day or two used to reach a sensible decision is entirely justified. If there is a conflict between the verdict of your ears and other information or advice, trust your ears—they’re yours and you can’t change them very much. Happy listening!

---

**TABLE IV—TYPICAL SPECIFICATIONS OF HI-FI COMPONENTS**

<table>
<thead>
<tr>
<th>COMPONENT TYPE</th>
<th>LOW</th>
<th>MEDIUM</th>
<th>HIGH</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TUNER (OR TUNER SECTION OF RECEIVER)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HF Sensitivity (µV dBf) (mono)</td>
<td>3.0 (14.7)</td>
<td>2.0 (11.2)</td>
<td>1.8 (10.3)</td>
</tr>
<tr>
<td>50 dB quieting sensitivity</td>
<td>or lower</td>
<td>or lower</td>
<td>or lower</td>
</tr>
<tr>
<td>S/N (dB); mono; stereo</td>
<td>10(25.2)/50(39.1)</td>
<td>5(19.2)/40(37.2)</td>
<td>3(14.7)/30(34.7)</td>
</tr>
<tr>
<td>Selectivity (dB)</td>
<td>60/50</td>
<td>60/60</td>
<td>70/60</td>
</tr>
<tr>
<td>Capture Ratio (dB)</td>
<td>50 or more</td>
<td>50 or more</td>
<td>80 or more</td>
</tr>
<tr>
<td>THD (%) (1 kHz, mono/stereo)</td>
<td>3.0 or less</td>
<td>2.0 or less</td>
<td>1.3 or less</td>
</tr>
<tr>
<td>Stereo Separation (dB, 1 kHz)</td>
<td>30 or more</td>
<td>30 or more</td>
<td>0.2 or less</td>
</tr>
<tr>
<td>AM Suppression (dB)</td>
<td>40 or more</td>
<td>50 or more</td>
<td>40 or more</td>
</tr>
<tr>
<td><strong>AMPLIFIER (OR RECEIVER AMP)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power Out/Channel (Continuous watts)</td>
<td>10-30</td>
<td>30-100</td>
<td>over 100</td>
</tr>
<tr>
<td>Rated THD (at full output) (%)</td>
<td>1.0 or less</td>
<td>0.5 or less</td>
<td>0.2 or less</td>
</tr>
<tr>
<td>Rated IM Distortion (%)</td>
<td>1.0 or less</td>
<td>0.5 or less</td>
<td>0.2 or less</td>
</tr>
<tr>
<td>Damping factor</td>
<td>30 or more</td>
<td>30 or more</td>
<td>50 or more</td>
</tr>
<tr>
<td>Phono Hum (dB below 10 mV input)</td>
<td>60 or more</td>
<td>65 or more</td>
<td>70 or more</td>
</tr>
<tr>
<td>Aux Hum (dB below rated output)</td>
<td>70 or more</td>
<td>75 or more</td>
<td>80 or more</td>
</tr>
<tr>
<td><strong>TURNTABLE SYSTEMS</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wow and Flutter (% Wrms)</td>
<td>0.15 or less</td>
<td>0.10 or less</td>
<td>0.05 or less</td>
</tr>
<tr>
<td>Rumble (dB, per Din B)</td>
<td>55 or more</td>
<td>60 or more</td>
<td>70 or more</td>
</tr>
<tr>
<td><strong>CASSETTE DECKS</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Frequency Response (Hz±3dB)</td>
<td>50-12,000</td>
<td>30-15,000</td>
<td>20-18,000</td>
</tr>
<tr>
<td>Wow and Flutter (% Wrms)</td>
<td>0.2 or less</td>
<td>0.12 or less</td>
<td>0.1 or less</td>
</tr>
<tr>
<td>S/N (dB, less Dolby)</td>
<td>45 or more</td>
<td>48 or more</td>
<td>50 or more</td>
</tr>
<tr>
<td><strong>OPEN-REEL DECKS</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Highest Speed (ips)</td>
<td>7½</td>
<td>7½</td>
<td>15</td>
</tr>
<tr>
<td>Freq. Response at highest speed (Hz±dB)</td>
<td>40-15,000</td>
<td>30-20,000</td>
<td>20-21,000</td>
</tr>
<tr>
<td>S/N (dB)</td>
<td>50 or more</td>
<td>55 or more</td>
<td>60 or more</td>
</tr>
<tr>
<td>Wow and Flutter (%)</td>
<td>0.15 or less</td>
<td>0.1 or less</td>
<td>0.07 or less</td>
</tr>
</tbody>
</table>

1980 EDITION
All your records will sound better with Dual's new ULM tonearm and cartridge system.

Even if they look like this.

Although none of your records may be in such bad shape, many are probably warped enough to present serious problems to conventional turntables.

The high inertia of a typical tonearm and cartridge combination, with approximately 18 grams total effective mass, causes the stylus to dig in riding up the warp and to take off on the way down. Tracking angle and tracking force vary widely—as much as 30 percent. And a warp as small as 1.5mm (which is barely discernible) can generate harmonic distortion of 2.7 percent. That's audible!

These problems have now been solved by Dual's new Ultra Low Mass tonearm and cartridge system.

Dual's research into the effects of mass on record playback led to a collaboration with Ortofon. A cartridge was developed with substantially less mass than any in existence. It weighs just 2.5 grams, including mounting bracket and hardware.

At the same time, the mass of the Dual tonearm was further reduced so that a perfectly matched tonearm and cartridge system emerged. Its total effective mass is just 8 grams. That's less than half the mass of conventional tonearm and cartridge combinations.

Tracking a record with the same 1.5mm warp, the ULM system reduces harmonic distortion to only 0.01 percent. That's 270 times less than that produced by the conventional tonearm and cartridge.

Not only is the overall sound audibly improved, but stylus and record life are significantly extended.

To experience the demonstrable advantages of ULM, bring a badly warped record to your Dual dealer. Listen to it played with the ULM tonearm and cartridge. (All nine new Dual turntables feature this system.)

You will hear the difference that ULM can make on all your records.

For the complete ULM story, please write to United Audio directly.

ULM.

A major breakthrough in record playback technology.
A stereo system needs periodic maintenance and an occasional touch of tender, loving care. An expert tells you what to check, what to clean, what to replace, and what to upgrade.

One of the advantages of owning a component high-fidelity system is that replacement of even a single component in that system can often make a significant difference in the sound of the system. Chances are good that if your system is five years old or older, a system that today costs no more would sound just a little better. Few product categories can boast such achievements in this age of monetary inflation.

On the other hand, if your system is relatively new and you feel that its sound quality is deteriorating noticeably, the fault may not lie with the components, but with your failure to maintain them properly. Preventive maintenance is as important for a stereo component system as it is for your automobile—and a lot less costly than corrective maintenance.

- **Turntable and Record Maintenance.** Modern record players require virtually no maintenance. Motors are usually permanently lubricated and should operate smoothly and quietly for many years. Cartridges, on the other hand, are subject to wear with steady use. More specifically, the stylus (which is in constant contact with the record grooves) will show signs of wear after hundreds of hours of use, even though the tip is made of industrial diamond. Periodic inspection of the stylus tip by your dealer, using a microscope designed for that purpose, can help to insure against a ragged stylus tip doing damage to your record collection. But unless your dealer can perform a point-by-point comparison of your stylus against a brand new one, he may not detect subtle wear that, while not dangerous to records, may cause loss of fidelity. To check on this we recommend cleaning your stylus with one of the special brushes and solutions sold for the purpose and comparing its sound with that of a replacement. If the new one sounds any better, use it and discard the original. Otherwise, return the original. Cleaning, incidentally, should be done more often than the sonic check.

continued on page 26
Killer!

That's a Jensen car audio system. That's the thrill of being there.

You've got to want the best. The max in music. The Killer. Then there's only one way to go.

The Jensen R430 car stereo receiver teamed with a Jensen Separates speaker system.


A separate, trunk-mounted Power Amp gives you up to 60 watts RMS when you need it. The Bi-amplification mode distributes that power perfectly for knock-out realism.

More? Lots more. But look what the R430 teams up with.

The Jensen Separates. The revolutionary car speaker system that gives a faultless interpretation of everything the R430 sends it.

Imagine individual woofers, tweeters, and midrange units custom positioned throughout your car... for unparalleled sound reproduction. Coupled with an under-dash control unit that lets you balance the music to your personal taste. That's the Separates.

Touch the "Bi-Amp" switch on the R430 Receiver and each individual woofer, tweeter and midrange gets the precise frequency range and power to put you right in the concert.

This system's a killer. That's the Jensen R430 Receiver and Separates.

That's the thrill of being there.

JENSEN

The thrill of being there.

For more information, write Jensen Sound Laboratories, 4136 N. United Parkway, Schiller Park, Ill. 60176

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CIRCLE NO. 17 ON READER SERVICE CARD
Hi-Fi Doctor...

Dozens of record care products are available, too. Some of these are simple brushes, designed to remove dust and dirt which collect in the grooves of records. Others are fluid solutions which are used in combination with felt pads or brushes to remove dust and dirt from record grooves. There are also devices and solutions which reduce the static charges that would otherwise build up on the surface of records and attract particles of dust and dirt to the record surface. Finally, there are products which when applied to a record surface, deposit a micro-thin friction-reducing coating which acts to reduce wear of record and stylus alike. One key to good record reproduction is freedom from dust and dirt—either on the record itself or on the stylus tip.

In addition to keeping your records clean, it is important to store them in their protective sleeves and jackets positioned vertically in an environment that is neither too hot nor too cold. The vinyl compound from which records are made will undergo warping when subjected to extremes of temperature.

- **Tape and Tape Deck Care.** Cassette tapes should always be stored in their plastic housings and should be kept in the same type of environment as records. Cassette shells have erasure protection tabs on the side opposite the head-access slots. These should be broken off if you plan to preserve whatever you have recorded onto a given cassette. To re-record the cassette, cover the hole exposed by the broken tab with a bit of cellophane tape. A tape recorder requires as much if not more maintenance than any other single high fidelity component. The coatings of magnetic particles applied to the tape surface, no matter how well imbedded, leave deposits on the surfaces of the tape heads and other parts with which the moving tape comes in contact. Accordingly, these parts should be cleaned frequently—as often as every twenty to forty hours of use. Inexpensive tape-head cleaning kits containing tipped sticks and cleaning fluid are readily available (often supplied with the machines themselves), though ordinary denatured alcohol applied to the tip of a cotton tipped stick works about as well. Most manufacturers of cassette tape decks describe proper cleaning procedure in the owner's manual for their particular machines. You would be well advised to follow these instructions.

- **Audio Electronics.** There is little that the owner of a receiver, amplifier or preamplifier need do to keep the equipment in top operating condition. Occasional dusting off of the cabinets containing this type of equipment is nothing more than common sense, as is making sure that any components that produce heat are well ventilated. You can help to forestall problems with switches and controls by turning or flipping them through their full ranges every now and then. This will retard corrosion that could eventually cause noise and "dead spots.”

  Inspection of all connections to and from the receiver or amplifier is also an easy, worthwhile procedure. In time, plugs used on the ends of audio cables may become corroded so that good, low-resistance contact between plugs and jacks no longer exist. Plugs and jacks can be cleaned with fine sandpaper or steel wool. In some cases it is less troublesome to replace cables having corroded plugs with new ones. Some audio specialists even offer gold-plated connectors which eliminate such problems permanently but are quite costly.

  Unless a loudspeaker has been abused by excessive power input or rough handling, there is no reason why it should not perform like new for many years. If a loudspeaker does fail, it is best to have it serviced by the manufacturer or his authorized agency. The same applies to electronic components such as receivers, tuners, amplifiers and preamplifiers. (Although most solid-state (transistorized) components operate on fairly low supply voltages, there are dangerous voltages present inside most audio equipment chassis.) In general, makers of high-fidelity equipment offer reasonably comprehensive warranties that often represent additional, hidden value added to the component you have purchased.

- **FM Antennas.** Tuners and receivers can produce listenable audio from extremely weak FM signals, but they deliver better fidelity if the signal they receive is substantial. The flexible wire antennas normally "thrown in" with these products will work acceptably if properly oriented and used in relatively strong signal areas, but you can probably coax better performance from a set of "rabbit ears" with switchable reception pattern. Specially designed, tunable antennas, sometimes amplified, represent another step up. The pinnacle of FM reception is obtained at any given location with an outdoor, directional FM antenna—with or without amplification, depending on how strong the signals are.

  In addition to providing a stronger signal, many outdoor antennas can favor desired signals while rejecting interfering signals from other directions. These include reflected signals from the same station, arriving a split second after the primary signal. Such "multipath" signals cause the "ghosts," sometimes visible on TV. In FM reception—particularly stereo—multipath signals lead to annoying distortion and sometimes loss of stereo separation or an increase in hiss. A good directional antenna can be oriented to receive signals directly from the transmitter while rejecting reflected signals that arrive at different angles. The cost of such an installation is usually but a small fraction of the total investment in audio equipment and is well worth it.

  If installation of an outdoor FM antenna is prohibited in your location, the use of an existing TV antenna may prove almost as good. Coupling devices known as splitters permit simultaneous use of your TV antenna for both TV and FM. Beware, though, of TV antennas that have "traps" to filter out FM signals and prevent them from causing TV interference. And don’t overlook cable TV systems. Many, though not all, are capable of supplying high-grade FM signals.

Upgrading Your System

Improving the sound quality of your component system doesn’t necessarily
ners may not have changed significantly since you purchased them, they are almost certainly the weakest link in your system. You may be tired of the compromises in their design, and further, your hearing and appreciation of faithful reproduction may be keener than when you bought the system. Fortunately, after investing in better speakers, you need not necessarily discard the first pair. Most amplifiers and receivers are able to drive two pairs of speakers—although not necessarily at the same time—so that you can relegate the older pair to a secondary location such as a bedroom or den. Your new speakers will have to be at least as efficient as the old ones. If they are not, realistic volume levels may require a more powerful amplifier or receiver.

**Signal Processing Devices.** In recent years, components have been developed whose sole purpose is to modify the signals being amplified by your basic receiver or amplifier. If this seems contradictory to the principle of faithful reproduction of sound (flat frequency response, etc.), bear in mind that most of the program material available is not recorded. For example, records, tapes, and FM broadcasts cannot deliver both the loudest and softest sounds you would hear in a live concert. Accordingly, engineers must compress the dynamics before transmitting or transcribing the music. It is possible, to a degree, to reverse the process by adding an electronic component known as an expander that makes louder signals louder and soft signals softer in an effort to restore the original dynamic range.

If you do live recording work with your tape deck, you are likely to run into the same problem with dynamic range that a recording engineer does. There are devices, known as companions, that comprise a matched compressor and expander. During the recording of live music you can compress the dynamic range so that extremes of level are not lost in the noise and do not cause overload; during playback, the signals are expanded to their original range of intensities.

Most of us can easily tell when we are listening to a recording in a small room as opposed to a concert in a large auditorium. Even if the full dynamic range is available, the acoustics of a listening room cannot approximate those of the concert hall—and our hearing detects the discrepancy. But devices have been developed that electronically approximate the sound field we perceive in a large auditorium. These devices, generally called audio time-delay units, delay the original recorded signals in much the same way that sound reflections from the walls, ceiling, and floor of a concert hall produce signals delayed with respect to the primary signals from on-stage. Electronic time delay units generally require a second pair of speakers, usually positioned at the rear or sides of the listening room, to which the delayed signals are routed. The two sets of signals combine in our hearing system to give the illusion that we are seated in a large listening space. Such time-delay units require additional power amplifiers, while others have the needed additional channels of amplification built right in. The secondary loudspeakers, however, need not have as wide a frequency response as the primary pair.

Bass and treble controls of the type found on most receivers can help to restore balance to an otherwise unbalanced sound, but they can only go so far, since each control affects a wide—often too wide—swath of frequencies. Manufacturers have addressed this problem by offering components known as equalizers. Easily inserted into the signal path of your system (via a tape-monitor circuit or between the preamplifier and power amplifier), equalizers are nothing more than elaborate tone controls. Graphic equalizers divide the audio spectrum into five, ten or even twenty or more small segments, each controllable by its own level or knob. This fine resolution permits you to tailor the response of your system with far greater precision than that possible with simple bass and treble controls. Parametric equalizers are like conventional tone controls, in that they divide the audio spectrum into relatively few segments, but each segment can be varied in width and frequency location as well as in intensity. Graphic equalizers are, by and large, easier to use but properly used, either type can give virtually flat frequency response at your favorite listening chair.

Test records are often supplied with equalizers, but for true precision, test instruments known as real-time audio analyzers should be used in the adjustment process. Your audio dealer may offer this adjustment service or may be able to recommend a sound contractor who can do the job. There are even one or two such analyzers made for consumer use and, if the high-fidelity bug bites hard enough, you may want to purchase one someday.

Another type of signal processor, incredible as it may seem, removes audible "pops and clicks" from records without materially affecting the sounds contained in the grooves. These devices deal only with sharp pops and clicks and do not reduce record surface noise. But there are devices known as dynamic filters that distinguish between high-frequency noise and high frequencies of a musical nature, reducing the former but not the latter and thus quieting surface noise.

All of these and many more signal-processing devices are there to serve your musical needs. Many of them have minor side effects, so it pays to auditor processors carefully to be sure you won't continually be annoyed with "errors" you might perceive. In general, the good done by signal processing far outweighs the harm. Which ones you add to your system will depend upon your listening requirements and your sophistication with respect to sound reproduction of music.

**The Audio Future**

Today, there is talk of entirely new approaches to sound reproduction. Already, we have examples of phonograph discs which were made from master tapes which were digitally recorded. Such master tapes can contain the full dynamic range of music, with ultra low levels of distortion and unmeasurable levels of wow-and-flutter.

Before long, the discs themselves will be digitally recorded. That will mean that an entirely new means of record playing will evolve—one which may possibly use a beam of laser light to "read" what's on the disc instead of the mechanical stylus we now use. And who can say when it will end? Digital recording may be superseded by still more amazing technology in the future. Complementing advanced and dedicated manufacturers whose engineers strive constantly to improve sound reproduction are an equally dedicated group of audiophiles who want the best equipment available. As a second- or third-time system buyer, or as an owner who seeks to upgrade his high-fidelity system, you are quite possibly one of them.
The key high fidelity component guaranteed to improve any stereo system.

Original Master Recordings
by
MOBILE FIDELITY SOUND LAB

Super Jac
Heavy Duty Packaging

Dust Free & Static Free
Rice Paper Inner Sleeves

Special Care
Plating

Original Generation
Stereo Master
Tape Source

Super-Fi
Super Stars
Limited Editions

Available from select audio and record stores coast to coast.
Specialty Disc: More Fidelity in Recording
By Harold A. Rodgers
Better records with low distortion and wide dynamic range may help your system realize its potential.

When Edison invented the phonograph, he established, in a manner of speaking, a pipeline extending from the recording studio to the home of anyone who owned a phonograph record and the equipment on which to play it. By modern standards, that pipeline had a lot of leaks, and many of us wonder how some of Edison's contemporaries could laud the sound produced by his apparatus as "indistinguishable from the original."

The advent of electrical recording sealed some of the worst leaks, and subsequent improvements in microphones and recording-studio equipment took care of most of the remainder. But in the meantime, home equipment had undergone a revolution too, leaving many audiophiles convinced that their music systems were capable of better performance than could be squeezed out of the records available. Record companies, for the most part, seem to have taken the position that the quality of their products was sufficient to satisfy the overwhelming majority of the market, and upgrading it for the benefit of the few whose playback equipment would let them hear the difference was simply not economically justified. And there the matter stood—until recently.

- The Making of a Disc. To understand the steps by which the modern, high-end, specialty disc came into being, it will be necessary to digress for a time and examine the way in which records are produced. By far the overwhelming majority of disc records begin life as tape recordings. Often, the original recording is made on 16, 24, or more separate tracks that are "mixed down" to make a two-channel version, but whatever its origins, the two-channel tape is the starting point for disc manufacture.

The signal from the tape is fed to a cutting lathe on which a lacquer blank rotates, much the way it would on any turntable. A stylus activated by the signal from the tape cuts a groove in the blank that corresponds to the signal. At this point, the lacquer master, as it is now called, is plated with metal. The metal master thus formed, bearing a groove impression, is checked for quality. If the engineer tries to get too much material on a single side and puts the grooves too close together, a loud signal may cause overcutting and ruin the take. On the other hand, if he is too conservative and places the grooves farther apart than necessary, he may run out of recording time before the end of the selection, also ruining the take. All of this places an additional burden on the musicians, who must not surprise the engineer with any unplanned changes in loudness or tempo.

Perhaps the most serious limitation of direct cutting is that a metal master, of which there is only one, can only produce a limited number of stampers. Since stampers often have distressingly short lifetimes, its rare to find as many as 50,000 copies available for a direct-cut edition. Here is a difficult economic situation in which the cost of a difficult and risky recording technique must be recovered from a limited amount of product. Small wonder that such discs are expensive items.
Specialty Discs...

- Keeping the Advantages of Tapes. The problems of direct cutting being as difficult as they are, it is not surprising that some specialty disc makers prefer to use tape for the original recording. Working on the premise that much of the signal degradation associated with tape is a result of aging, they make the transfer to the lacquer disc immediately after the master tape is recorded. Plating of the master disc is also done right away, as this too is felt to be a point at which aging can detract from sonic fidelity. Only the metal master is considered to be stable.

In another approach to the use of tape as a transfer medium, advanced compander systems operate on the signal before recording and after playback, reducing the noise level, extending dynamic range, and, by allowing lower recording levels, reducing distortion. Generally, these extremely careful tape transfers produce discs whose sonic characteristics place them a good cut above those ordinarily available. Many listeners find that their sound rivals, but does not quite equal, that of a well made direct cut. But unlike direct cuts, recordings made on tape can be edited, which allows errors to be removed.

Digital tape recording, a relative newcomer to the scene, has proved itself the most powerful tape recording system yet developed. With a 90 dB dynamic range and almost vanishingly small noise and distortion, digital recording challenges the human ear to detect its imperfections. In addition to these virtues, a digital master can be copied through an unlimited number of generations with remaining each dub sonically identical to the master. Although digital tapes must be edited electronically rather than by means of the time-tested razor blade and splicing block, they can be spliced in a way that is virtually undetectable by any means as long as there are no tattle-tale discrepancies of musical pitch or tempo between the joined segments.

Discs made as transfers from digital master tapes are available and have demonstrated excellent sound quality. They are so good that some observers speculate that digital transfers may drive direct cutting into obsolescence. Right now, though, direct cutting still has a large contingent of devoted followers.

- Upgrading Disc Transfers. The tape recorder is not the only component in the pipeline that allows fidelity to leak away. One notable source of distortion is the disc cutting process itself. Unfortunately, the signal cut into the disc by the cutting stylus is not a perfect replica of the signal delivered to the drive coils. As is the case with playback stylus, the distortion the cutter produces is a function of the velocity with which it moves in tracing the groove, not the amplitude of the signal that is being cut. A playback stylus, of course, must trace the groove as it has been cut, with the disc rotating at the proper speed. Otherwise, the music will not be heard at the correct pitch and tempo.

During the cutting process, however, no one is listening. It makes no difference what speed the cutter runs at as long as the groove in the lacquer is properly cut. Therefore, it is possible to run both the tape playback and the cutting lathe at the normal speed. When this is done, the range of velocities to which the cutting stylus is subject is reduced by one-half. Now the cutter is operating where its distortion performance is considerably better. Another benefit, that cutting engineers appreciate, is that the power required to drive the cutter is reduced by a factor of four. The demands on the drive amplifier and cooling system are thereby markedly reduced.

Of course, there is more involved in half-speed cutting than just running the tape recorder and cutting lathe at reduced speed. Appropriate compensation must be made in the tape playback equalization and the RIAA disc pre-emphasis. These adjustments allow the signal to be well worth taking, or, as it turns out, the tape recorder too works better at half speed.

In many tape recorders, the tendency of the tape heads' inductance to roll off high-frequency response is compensated by networks that are resonant near 20 kHz. This maintains high-frequency response, but sharp transients may cause these networks to "ring" slightly and produce high-frequency smearing. At half-speed the spectra of these transients fall below the resonances, resulting in a cleaner playback.

Naturally enough, only recordings made on tape can be transferred to disc at half speed. This is being done with some new digital recordings, and some companies are leasing master tapes of notable records and reissuing them in half-speed-cut versions. These do not sound quite as good as direct cuts and digital transfers, or even analog tape transfers in which the tape has not been stored for a long time. But they are demonstrably better than the original commercial versions. And half-speed cutting can be applied to any existing master tape.

This points up what has so far been a dilemma for the prospective buyer of discs. One end of the scale there are discs of maximum fidelity carrying performances by relative unknowns; at the other end there is the usual run of commercial discs carrying recordings of first-line artists. Bridging the gap somewhat are the half-speed-cut re-releases, but these are relatively few. Don't go away, though. Indications are that the artists and the technology are beginning to come together, as some of the major record companies are beginning to experiment with digital recording.

- Discs with Noise Reduction. No matter how advanced the technology used ahead of it, discs inherently have less dynamic range than music really demands. Rigorously careful manufacturing through all stages helps (that's part of what the hefty prices specialty discs command is for), but even then, the medium is limited. One interesting solution that has been tried is to apply noise reduction to the discs themselves. That is, the disc contains a highly compressed version of the recording, which, as it emerges from the phono preamp, is fed to an expander that returns the signal to its normal form, greatly reducing the noise from the disc in the bargain. The disadvantage here is that the expander is needed in the playback chain.

A system of this type—and a few encoded discs—was introduced by dbx several years ago, but never really caught on. The company has recently reintroduced the system, this time with a low-cost, disc-playback-only expander and a larger catalog of discs. It has been suggested that direct-cut and digitally-transferred discs with dbx encoding will be introduced soon. Telefunken has demonstrated that its High-Com II noise-reduction can be used in the same way, and, further, that it is more "compatible" in the sense that it is not as unpalatable to listen to undeencoded as some other noise-reduction systems are. No commercial application of this system to discs has yet been made, however.

- Conclusion. Specialty discs of all types have evolved to meet a need in the market—the demand for disc records capable of doing justice to a fine home music-reproduction system. That does not necessarily mean that you need a very expensive system in order to hear the difference; it is audible on equipment of quite modest capabilities. It does mean that to hear all of the difference, your equipment will have to be first rate. And the difference can be stunning! Some audiophiles use specialty discs to challenge and test their systems. If low recorded distortion, wide dynamic range, and excellent frequency response interest you, try a specialty disc and see if your system is up to snuff. You can probably find some at your local audio salon.

continued on page 32
The one and only computer-locked, digital drive changer-turntable. BIC introduces the 80Z. With a brain equal to room-size computers of just 10 years ago. A microprocessor that instructs a system intelligent enough to actually read and adjust platter speed (not simply motor speed). A unique digital drive system that's capable of unequalled nominal speed accuracy (to within .01 rpm). With a digital read-out that's over 300% more accurate than any strobe. The state-of-the-art 80Z is one of six new belt drive, straight tone arm BIC models. For complete details write BIC AVNET, Dept. Z, Westbury, N.Y. 11590. The new 80Z Changer-Turntable.
Sampler of Specialty Discs Sources

American Gramophone Co.  
24310 2nd Place West  
Bothell, WA 98011

Angel Records  
1760 North Vine Street  
Los Angeles, CA 90028

Atlantic Records  
75 Rockefeller Plaza  
New York, NY 10019

Audio Source  
1185 Chess Drive  
Foster City, CA 94404

Century Records  
6550 Sunset Blvd.  
Los Angeles, CA 90028

Crystal Clear  
P.O. Box 3864  
San Francisco, CA 94119

dbx, Incorporated  
71 Chapel Street  
Newton, Mass. 02154

Decibel Records  
P.O. Box 631  
Lexington, Mass. 02173

Delos Records  
853 Via de la Paz  
Pacific Palisades, CA 90272

Direct-Disk Records  
16 Music Circle South  
Nashville, Tenn. 37203

Discwasher  
1407 N Providence Rd.  
Columbia, MO 65201

D & W Records  
Great White Whale  
348 E. 84th Street  
New York, N.Y. 10028

Great American Gramophone Co.  
6550 Sunset Blvd.  
Hollywood, CA 90028

Golden Crest Records  
220 Broadway  
Huntington Station, N.Y. 11746

Gryphon Productions  
157 W. 57th Street  
New York, N.Y. 10019

Halpern Sounds  
P.O. Box 720  
Palo Alto, CA 94302

Island Records  
7720 Sunset Blvd.  
Los Angeles, CA 90046

Insight Records  
7726 Morgan Avenue South  
Minneapolis, Minn. 55423

Mark Levinson Acoustic Rec. LTD  
55 Circular Avenue  
Hamden, CT 06514

M & K Sound  
8719 Wilshire Blvd.  
Beverly Hills, CA 90211

Mobile Fidelity Sound Labs  
P.O. Box 919  
Chatsworth, CA 91311

Nautilus Records  
761 Shell Beach Rd.  
Shell Beach, CA 93449

Orinda Records  
23 Altarinda Rd.  
Orinda, CA 94643

Phase One Recording Studios  
3015 Kennedy Rd., Unit 10  
Scarborough, Ont. M1V 1E7, Canada

Philips Records  
810 Seventh Avenue  
New York, N.Y. 10019

RCA LTD  
225 Mutual Street  
Toronto, Ont. M5B 2B4, Canada

Reference Recordings  
P.O. Box 5046  
Berkeley, CA 94705

Sailbury Labs  
33 Harbour Sq.  
Suite 2226, Toronto, Ont.  
M5J 2G2

Sheffield Labs  
P.O. Box 5332  
Santa Barbara, CA 93108

Sonar Records Corporation  
P.O. Box 455, Kingsbridge Station  
Bronx, New York 10463

Varese International  
6404 Wilshire Blvd.  
Los Angeles, CA 90048

Worldway, Incorporated  
111 Ellis Street  
San Francisco, CA 94102
Great bass used to mean great furniture. But KLH just changed the rules.

The KLH-3 gives you clean bass, flat down to 40 Hz (−3dB), in a cabinet just 8” x 12” x 6”. The reason is one of the most sophisticated components ever integrated into a speaker system:

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The computer is a separate module that sits next to your receiver. It continually monitors the bass signal and controls woofer excursion to deliver bass equal to speakers four times larger.

Bass you feel, as well as hear.

The KLH-3 also makes use of the latest technology in speaker cone material: polypropylene.* For a clear, uncolored mid-range and high end.

Introducing the Computer Controlled KLH-3.

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Don't think of it as a great small speaker. Think of it as the first great speaker that happens to be small. To find out where you can hear the full line of KLH Computer Controlled speakers,™ call 800-225-6042 (in Mass. 800-532-9566). KLH Research and Development Corp., 145 University Ave., Westwood, MA 02090. In Canada: The Pringle Group, Ontario.

*Pat. applied for.
**Manufacturer's suggested retail price.
Pioneer technology has become so sophisticated that today, buying a car stereo may seem more complicated than buying a car.

Our current line consists of 80 pieces of car stereo equipment. A far cry from the days when autosound meant an AM radio or an 8-track player.

Well, seeing as there's so much going on at your Pioneer dealer right now. And seeing as the time has never been riper to get your ears into our kind of stereo, the purpose of this ad is to give you an up-to-the-minute overview of Pioneer Super-systems.

By the time you finish reading, you'll be as far along as we are.
Next, we incorporate a 7-band graphic equalizer/dual amp balancer, the CD-7. Just as a recording studio compensates for drapes and carpet, the CD-7 lets you shape the music to match the interior of your car.

Which combine miniaturized versions of specialized speakers all in one package. "More Than Meets The Eye"

Now that you've read how far we've come, it's time for us to grab you by the ear.

Call toll-free for your nearest Pioneer dealer at these numbers (800) 447-4700, or, in Illinois (800) 322-4400. Because he has his greatest selection ever on hand right now.

Persuasive Speakers

We have over 30 speakers. But again, to show you how far we've come, we've highlighted how high and low we've gone. Our TS-T3 tweeters can reach highs previously unheard of in a car. And our TS-W203 woofers are guaranteed to hit rock bottom.

We also have two-way and three-way speakers.

Put our ears to your wall. Back by popular demand for the fifth printing.

If you're still a little foggy about where you fit into car stereo, your dealer can show you how to order an entire library of books by Steve Tillack, our resident car stereo authority. Including "How To Buy Car Stereo" and "All About TS-W203 woofer, TS-T3 tweeter."

Car Stereo Components" And be sure to ask about Pioneer T-shirts, visors and posters.

So get your ears down to your Pioneer dealer.
And hear how good car stereo sounds when it's pushed to the limits.

©1979 Pioneer Electronics of America, 1925 E. Dominguez St., Long Beach, CA 90810.
The new Sansui G-4700.

A double-digital receiver with all the right numbers.

Digital readouts and digital circuitry. Great specs. And the best price/performance ratio in the business. All the right numbers. That's the new Sansui G-4700. Just look what we offer:

Double-Digital Design: The front panel of the G-4700 has a bright electronic digital readout that shows the frequency of the station you've selected; and behind the front panel is one of the most advanced tuning systems in the world.

Sansui's patented Digitally Quartz-Locked Circuit uses a precise quartz crystal time base to keep your station locked in, even through many hours of listening or if you turn the receiver off and back on again.

Conventional quartz-controlled receivers use analog phase comparison circuits that can become inaccurate because of harmonic interference. Our system uses a new LS1C (Large Scale Integrated Circuit) digital processor that actually counts the vibrations of the quartz crystal to compare to the tuned frequency. The frequency is perfectly locked in the instant you find the station you want.

With this unique Digitally Quartz-Locked system, the G-4700 delivers high sensitivity (15dBf, mono); a better signal-to-noise ratio (75dB); and a better spurious rejection ratio (70dB).

DC power amplifier: Power is ample for almost any speaker made, with 50 watts per channel, min. RMS, both channels driven into 8 ohms from 20 to 20,000Hz with no more than 0.05% THD.

And the wide bandwidth DC power amp circuit responds quickly to transient music signals for the most accurate and pleasing music reproduction. What you hear is clean and sharp, just the way it was recorded.

Electronic LED power meters: Don't worry if your present speakers can't handle 50 watts. The array of fast-acting LED's (Light Emitting Diodes) on the Sansui G-4700 lets you monitor and control the output level so you don't damage your speakers.

Electronic tuning meters: Two fluorescent readouts help to zero-in on each station with accuracy and ease. Both the signal strength and center-tune indicators operate digitally for precise station selection, and the nearby LED verifies that the quartz circuit has locked in your station.

Superb human engineering: A full complement of genuinely useful knobs, switches and jacks gives you complete control over what you hear and how you hear it.

Ask your authorized Sansui dealer to demonstrate the G-4700. Listen to the music. You'll love what you hear. Look at the numbers. You'll love what you see.

SANSUI ELECTRONICS CORP.
Lyndhurst, New Jersey 07071 - Gardena, Ca. 90247
SANSUI ELECTRIC CO., LTD., Tokyo, Japan
SANSUI AUDIO EUROPE S.A., Antwerp, Belgium
In Canada: Electronic Distributors

SANSUI
**ADVENT**

**300 FM Stereo Receiver**
Combines Holman phono preamp circuit, FM multi-
plex tuner, and 30-W power amplifier; FM sensitiv-
ity 2.5 µV; frequency response 20-20,000 Hz;
power bandwidth 40-20,000 Hz; 1% max. (mono, adj. channel), 0.1% THD; sensitivity for 0.05% THD 18
mV/44k ohms (mono); 200 mV/470,000 ohms (tape); power consumption 300 W/ch continuous, 300 ohms.

**AX-7700U Stereo Receiver**
Features digital amplifier with dual LED bar graph power meter with range selector; bass, midrange, and treble controls; tape 1 and 2 and dub 1-to-2 monitor selectors; A-B speaker switching; hi-fi filter; balance control; loudness selector; power output; AM sensitivity 1.9 mV; IF sensitivity 1.8 µV; FM IHF sensitivity 1.8 µV; AM IHF selectivity 70 dB; stereo separation 30 dB at 1000 Hz; frequency response 30-15,000 Hz; max. THD 0.05%; IM dist. 0.1%; S/N at 65 dBf 70 dB;

**AKAI**

**AA-R50 Stereo Receiver**
Features dc amplifier with dual LED bar graph power meter with range selector; bass, midrange, and treble controls; tape 1 and 2 and dub 1-to-2 monitor selectors; A-B speaker switching; hi-fi filter; balance control; loudness selector; power output; sensitivity for 50 dB quieting 18 mV/44k ohms (mono); 200 mV/470,000 ohms (tape); power consumption 300 W/ch continuous, 300 ohms.

**AA-R30 Stereo Receiver**
Features LED bar graph power indicator with range selector; tape 1 and 2 and dub 1-to-2 monitor selectors; A-B speaker switching; AM/FM selectivity 60 dB (mono). 1.9 mV (IFH). S/N 72 dB (mono). 60 W/ch continuous, both channels driven into 4 ohms at 0.05% THD. AM IHF sensitivity 1.8 µV; IF sensitivity 0.2% THD.

**AIWA**

**AX-7800U Stereo Receiver**
Power amp, features nine-LED power indicator dis-
yplay (switchable signal-strength function) and two-
speaker switching; 60 W/ch continuous, both chan-
nels driven into 8 ohms from 20-20,000 Hz with
0.7% THD; damping factor 35 at 8 ohms; 70 W/ch continuous. 30 dB. S/N 90 dB; THD 0.1%; FM separation 30 dB at 1000 Hz; frequency response 30-15,000 Hz; max. THD 0.1%; IM dist. 0.1%; S/N at 65 dBf 70 dB; power consumption 300 W/ch continuous, 300 ohms.

**TUNER**: features five-LED signal-strength and three-
LED tuning indicators; mode and muting switches, clock with selector buttons and optical readout. Power amp features double complementary differ-
ential input stage; 70 W/ch continuous, both chan-
nels driven into 8 ohms at 0.1% THD, 90 W/ch continuous, both channels driven into 4 ohms at 0.1% THD; frequency response 10-100,000 Hz.

**BANG & OLUFSEN**

**Beomaster 4400 FM Receiver**
FM stereo receiver. Amp section: features dual LED power supplies. Bessel filter (designed to eliminate TID), and dc voltage overload protective relay with LED in power amp; bass and treble tone controls designed around active filter circuits; linear control; balance control; two-speaker handling; two-deck tape monitoring; low and high filters. 70 W/ch continuous into 4 ohms; frequency response 20-20,000 Hz; max. THD 0.1%; IM dist. 0.1%; input sensitivity/impedance 2.2 mV/47,000 ohms (phono), 200 mV/470,000 ohms (tape); balance control; slideband tuning; sensitivity for 50 dB quieting 18 dB (mono). 38 dB (stereo); THD at 50 dB quieting 1%. max. (stereo, 6 kHz); S/N at 65 dB (stereo). 67 dB (stereo); capture ratio 2 dB (mono); AM suppression 50 dB (mono); selectivity 1 dB (mono, adj. channel), 58 dB (mono, alternate channel); image response —69 dB (mono); -f response -85 dB (mono). 117-115 kHz; 30-310 W; 3-4/" H X 10/" W X 5/" D... $850

**Beomaster 2400 FM Receiver**
Low-profile design with no visible knobs; electronic touch-control switching; preset FM station capability; wireless remote control. Amplifier section: 30 W/ch continuous power into 4 ohms from 20-20,000 Hz at 0.2% THD; IM dist. 0.15%; TPA-150. TA-150 without power amplifier... $995
Csill

ters and tuning dial, behind bottom front panel;
6' ." H x 20' W x 163/." D
$799

RECEIVERS

550 Stereo Receiver
Features source and room compensation controls.
Power amp: features dc circuitry; two -speaker
switching; 40 W/ch continuous, both channels dri-

phono sensitivity 3 mV; S/N better than 60 dB

ven into 8 ohms from 20-20,000 Hz with 0.3%

phono, 65 dB tape; stereo separation 56 dB at 1
kHz, 38 dB from 250-10,000 Hz. Tuner section:
usable sensitivity 19.2 dBf (5.0 µV) mono; 50 -dB
quieting sensitivity 38.9 dBf (47 µV) stereo, 18.5
dBf (4.6 µV) mono; S/N 70 dB mono, 66 dB stereo
at 65 dBf; frequency response 30-15,000 Hz t 1.5

THD and 0.09%

dB; THD at 50 -dB quieting 1.0% or less; IM distortion 0.5% mono, 0.6% stereo; capture ratio 4.5 dB
mono; alternate channel selectivity 58 dB; AM sup-

2.75 mV/47k ohms (phono), 150 mV/50k ohms

pression 50 dB; i-f rejection 85 dB; spurious re-

20-20,000 Hz +0.5 dB (aux. and tape); phono overload 100 mV at 1000 Hz, 1.0% THD. FM tuner:
features mode switch, FM muting, and loudness
switch; signal -strength and tuning meters; IHF usa-

sponse rejection 87 dB; subcarrier suppression 45
dB at 19 kHz, 50 dB at 38 kHz; stereo separation
35 dB at 1 kHz, 29 dB at 100 Hz, 24 dB at 10 kHz.
Front panel touch switches control two volume (with
illuminated volume direction increase/decrease as
volume does same), phono/tape selection and up to

five preset FM stations with illuminated display;
functions duplicated (except only four preset stations) on optional wireless remote. Additional controls under hinged top panel include main tuning
dial, afc switch, bass, treble and balance controls;
"volume memory" presets volume level when unit is
turned on. 2'/," H x 24'/.,"W x 9'z.." D.
$650
Beomaster 1900. 2400 less remote control unit
$550

dist.; power bandwidth
20-20,000 Hz; S/N 87 dB (A weighted). Preamp:
features equalizer with low and high frequency slide
controls, wide/narrow low -frequency switch, and
low filter switch; balance slide control; tape monitor
switch; input selector; input sensitivity/impedance

Combines four bridged power amplifiers (or two
stereo pairs), preamplifier, equalizer, compensation
circuitry and two headphone amplifiers; designed to

IM

frequency response

-0.5 dB

(phono

ble sensitivity 2.0 µV (mono), 3.5 µV (stereo);
50 -dB quieting 3.8 µV (mono), 40 µV (stereo);
S/N 65 dB (mono), 60 dB (stereo); frequency response 30-15,000 Hz + 1/ -3 dB; THD 0.25%
(mono), 0.5% (stereo); capture ratio 1.9 dB; alternate channel selectivity 60 dB; image rejection 65
dB; spurious rejection 80 dB; stereo separation 40
dB at 1000 Hz. AM 20 -dB usable sensitivity 350
µV/m (ferrite antenna), 50 µV (external antenna);
S/N 40 dB. Oiled walnut cabinet; 5't.," H

x 12'/." D

W

$349

CALIBRE
240 Stereo Receiver
AM -FM stereo receiver with FM Dolby circuitry.
Power amp: features two -speaker switching; 42 WI

ch continuous, both channels driven into 8 ohms
from 20-20,000 Hz with 0.05% THD and IM dist.

µV (mono), 39.8 µV (stereo); THD at 1000 Hz
0.1%; S/N 72 dB; capture ratio 1.5 dB; alternate

age according to program material played. Power
amp: features four direct -coupled power amplifiers;
complete protection circuitry; two -speaker switching; 100 W/ch continuous, both channels driven
into 8 ohms from 20-20,000 Hz with 0.09% THD
and IM dist.; power bandwidth 20-20,000 Hz; S/N
(A weighted) 90 dB (inputs shorted). Preamp: features automatic CMOS switching logic gain and
equalization controls through rear -panel programming of number and types of speakers being used
with LED indicator (Bose 901 Speaker System designed to complement Spatial Control'"' Receiver);
t low- and high -frequency slide controls with wide/
narrow low -frequency range selector, source and
room compensation selector, and low filter; balance
slide control; narrow/wide spatial slide control with
in/out selection and LED indicator; two -deck tape
monitoring; input selectors with LEDs; input sensitivity/impedance 2.0 mV/47k ohms (phono), 200
mV/50k ohms (aux. and tape); frequency response

channel selectivity 66 dB
$375
225. Similar to 240 without Dolby noise -reduction

circuitry; 26 W/ch continuous under same conditions; FM alternate channel selectivity 60 dB. $280
215. Similar to 225 minus tape dubbing and LED
signal -strength display; 16 W ch under same conditions; FM S/N 68 dB
$230

38

sponse 20-20,000 Hz -'0.5 dB; phono sensitivity 2
mV; input impedance 50k ohms phono, 100k ohms
others;

max.

phono

input 220 mV;

S/N

(A -

weighted) 78 dB phono, 95 dB others. Tuner section: FM usable sensitivity 9.8 dBf (1.7 µV); 50 -dB
quieting sensitivity 13.2 dBf (2.5 µV) mono, 35.9
dBf (34 µV) stereo; FM distortion 0.2-0.4% stereo,
0.1-0.3% mono; capture ratio 0.8 dB; selectivity
80 dB; AM suppression 65 dB; i-f rejection 100 dB;
image rejection 90 dB; spurious response rejection
100 dB; subcarrier rejection 65 dB; stereo separa-

tion 45 dB at 1000 Hz. 40 dB from 100-10,000
Hz. AM section: sensitivity 300 µV/m; selectivity
40 dB; S/N 55 dB; image rejection 50 dB; i-f rejection 45 dB. Features power -level, signal -strength,
and center -channel meters, Dolby de -emphasis (25
µsec) switch; two tape monitors with one-way dubbing; three speaker outputs; switchable FM muting;
loudness; MPX and subsonic filters; calibrated volume control; illuminated function display
$800
RS2010. Similar to RS2015. 100 W/ch at 0.09%
THD; 200 mV max. phono input; S/N 76 dB phono,
90 dB aux. Tuner specs as for RS2015. Features
same, but no tape -dub switch. 6":i." H x 20' ,." W
x
D
$600

RS2007. Similar to RS2010, but 75 W/ch; max.
phono input 180 mV. Tuner: FM usable sensitivity
10.8 dBf (1.9 µV) mono; 50 -dB quieting sensitivity
14.2 dBf (2.8 µV) mono, 36.8 dBf (38 µV) stereo;
capture ratio 1.0 dB; selectivity 68 dB; S/N 70 dB

mono, 66 dB stereo; AM suppression 55 dB; i-f
rejection 100 dB; image rejection 56 dB; spurious
response rejection 85 dB; subcarrier rejection 65
dB; FM distortion 0.15% mono, 0.2% stereo. Features same, with less elaborate function display,
single-phono circuit, and two speaker outputs

RS2004A. Similar to RS2007 but 45 W/ch at 0.1%

THD; IM dist. 0.1%; max. phono input 150 mV.

with 0.02% THO and IM dist.; S/N (A weighted) 80
dB (phono); phono overload 220 mV. FM tune' sec-

AM -FM

tion: IHF usable sensitivity 1.7 µV (mono), 3 µV
(stereo); 50 -dB quieting 2.7 µV (mono), 36 µV
(stereo); S/N 72 dB (mono), 74 dB (stereo); THD
0.1% at 1000 Hz; capture ratio 0.8 dB; alternate
channel selectivity 85 dB
$900
Amplifier: 75 With continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.04%
THD and IM dist.; S/N 80 dB (phono, A weighted);

(mono), 0.25% (stereo); capture ratio 1.8 dB; alternate channel selectivity 70 dB; image rejection 80
dB; spurious rejection 100 dB; stereo separation 45
dB at 1000 Hz. AM 20 -dB usable sensitivity 250
µV/m (ferrite antenna), 25 µV (external antenna);
S/N 45 dB. Oiled walnut cabinet with all controls,
except volume and tuning controls plus lighted me-

(20-20,000 Hz) at 0.05% THD; IM dist. 0.05%;
power bandwidth 20-20,000 Hz; frequency re-

Features same except single tape monitor, no power
meters, no filters, no mono mode switch. 5', " H
Wx
H
$400

120 W/ch continuous, both
channels driven into 8 ohms from 20-20,000 Hz

dB (tape and aux.); S/N (A weighted) 83 dB (phono,
inputs shorted); phono overload 145 mV. FM tuner:
MOS FET front end; PLL multiplex stereo decoder;

50 -dB quieting 3.5 µV (mono), 35 µV (stereo);
S/N 70 dB (mono), 65 dB (stereo); frequency response 30-15,000 Hz +0.2/ -1.0 dB; THD 1.0%

N

Ti

Amplifier section:

12.0D FM Stereo Receiver

7.5D Stereo Receiver

FM muting; mode selector with LED; loudness

Has five -band graphic equalizer. Amplifier section:
150 W/ch continuous power into 8 ohms

$500

CONCEPT

-0.3 dB (phono RIAA), 20-20,000 Hz *0.1/ -0.5

switch; signal -strength and FM tuning meters; IHF
usable sensitivity 1.9 µV (mono), 3.3 µV (stereo);

RS2015 Stereo Receiver

RIAA),

Preamp: features bass and treble controls; balance
control; two-way tape dubbing and monitoring; high
filter; mute, mono, and loudness switches; phono
S/N 80 dB (A weighted); phono overload 210 mV.
Tuner: features three -LED signal -strength and FM
tuning indicator display; FM IHF usable sens tivity
1.9 µV (mono), 2.5 µV (stereo); 50 -dB quieting 2 8

enable listener to widen or narrow spatial sound im-

FISHER

(aux. and tape); S/N (A weighted) 76 dB (phono);

BOSE
Spatial ControlTu Receiver

S/N 68 dB (mono), 72 dB (stereo); capture ratio
1.1 dB; alternate channel selectivity 78 dB ... $490

R52003 Stereo Receiver
stereo receiver with five -band graphic
equalizer. Amplifier/equalizer: features two -speaker
switching; tape/source monitor switch; volume/balance control; loudness contour switch; input selec-

tor with LED function display; equalizer defeat
switch; 30 W/ch continuous, both channels driven
into 8 ohms from 20-20,000 Hz with 0.04% THD
and IM dist.; damping factor 40; input sensitivity/
impedance 2 mV/50k ohms (phono), 150 mV/100k
ohms (tape and aux.); frequency response -0.5 dB

from 30-15,000 Hz (phono), 20-20,000 Hz *0.5

phono overload 220 mV. FM tuner: IHF usable sensitivity 1.7 µV (mono), 4.5 µV (stereo); 50 -dB
quieting 2.7 µV (mono), 36 µV (stereo); THD 0.1%;
S/N 70 dB (mono), 72 dB (stereo); capture ratio 1
dB; alternate channel selectivity 80 dB
$620

dB (aux.); S/N (IHF A) 76 dB (phono), 90 dB (tape
and aux.); equalizer center frequencies set at 50,

4.5D Stereo Receiver

ing 2.8 µV (mono), 38 µV (stereo); S/N 70 dB

Amplifier: 45 W/ch continuous, both channels dri-

ven into 8 ohms from 20-20,000 Hz with 0 04%
THD and IM dist.; S/N 78 dB (phono, A weighted);
phono overload 220 mV. FM tuner section: IHF usable sensitivity 1.8 µV (mono), 6 µV (stereo); 50 -dB
quieting 2.8µV (mono). 38 µV (stereo); THD 0.1%;

250, 1000, 4500, and 15,000 Hz, t 10 dB boost
or cut. Tuner: features signal -strength and center
tuning meters; FM muting switch; FM usable sensitivity 1.9 µV (mono), 4.6 µV (stereo); 50 -dB quiet(mono), 66 dB (stereo); THD 0.15% (mono), 0.2%
(stereo); frequency response 20-15,000 Hz -0.5
dB; capture ratio 1.0 dB; alternate channel selec-

tivity 68 dB t400 kHz; image rejection 56 dB; i-f
rejection 100 dB; spurious rejection 85 dB; stereo
separation 45 dB at 1000 Hz; AM usable sensitivity

STEREO DIRECTORY & BUYING GUIDE


STAY TUNED

With the revolutionary new AIWA AX-7800 receiver!

Now AIWA proudly introduces an exceptional high fidelity receiver designed to make tuning faster, easier and more accurate than ever: the revolutionary new AX-7800. With the same quartz-locked digital-synthesized tuning system utilized on the most sophisticated and expensive FM tuners available today.

Now perfect tuning is as simple as pressing a button. There's no more fumbling or fidgeting with tuning knobs, dials and center tuning meters.

The new AIWA AX-7800 simply doesn't have any.

Instead, it provides an instant digital readout that's perfectly tuned to the actual station frequency being received.

Drift is impossible. Because AIWA's quartz crystal oscillator locks instantly and precisely into the center of each succeeding station's assigned frequency. Now when you tune the new AIWA AX-7800, you stay tuned.

With unerring accuracy that even separates weaker stations from their stronger neighbors. Something no conventional receiver with AFC can do.

AIWA's new AX-7800 is loaded with features. Like Memory Tuning that lets you preset up to 6 FM and 6 AM stations. Like a highly visible 9-point LED peak power bar graph. Like independent bass and treble frequency turnover controls.

And the AX-7800's DC-power amplifier gives you 60 Watts per channel RMS at 8 ohms from 20Hz to 20KHz. With no more than 0.05% THD.

Right now, almost no receivers have all these advanced features. Regardless of price. That's why you'll be pleasantly surprised by the AX-7800's affordable price tag.

So stay tuned to the AIWA AX-7800 for easier tuning and easier listening. You won't find another receiver more in tune with the times than the revolutionary new AIWA AX-7800.

Upgrade to AIWA

Distributed in the U.S. by AIWA AMERICA INC, 35 Oxford Drive, Moonachie, New Jersey 07074
Distributed in Canada by SHRIR3 (CANADA) LTD
CIRCLE NO. 56 ON READER SERVICE CARD
300 µV/m; 5.5" H x 19" W x 14" D: $330
RS2002. Similar to RS2003 without tuning meter; 20 W/ch with 0.09% THD and IM dist.; damping factor 20: $250
RS1035A Stereo Receiver 35 W/ch continuous sine wave into 8 ohms from 20-20,000 Hz with 0.2% THD and IM dist.; Preamp section: 30-15,000 Hz ± 1 dB (phone), 20-20,000 Hz ± 1 dB (aux.); input sensitivity/impedance 2 mV/50k ohms (phone), 150 mV/100k ohms (tape and aux.); phono overload 110 mV at 1000 Hz, 1% THD; S/N (IHF A) 90 dB (aux.), 75 dB (phone): FM tuner: usable sensitivity 4.6 dBf (3.0 µV) (stereo); capture ratio 1.0 dB; alternate channel selectivity 68 dB + 400 kHz; image rejection 56 dB; i-f rejection 70 dB; stereo separation 40 dB at 1000 Hz; frequency response 20-15,000 Hz. + 1.5 dB; AM sensitivity 300 µV/m; 6." W x 19" H x 13" D: $280
MC2500 Stereo Receiver Amplifier section: 18 W/ch continuous power into 8 ohms (60-20,000 Hz) at 1% THD; IM dist.: 0.5%; frequency response 20-20,000 Hz: + 2 dB; phono sensitivity 2 mV (magnetic), 300 mV (ceramic); input impedance 50 k ohms phono, 500 k ohms (magnetic phono, 100k ohms); phono max. input 100 µV, S/N 70 dB phone, 85 dB aux. Tuner section: FM usable sensitivity 1.4 dBf (2.8 µV), 50 dB quieting sensitivity 19.2 dBf (5.0 µV) mono, 38.3 dBf (45 µV) stereo; FM distortion 0.5%; stereo, 0.3% mono; capture ratio 1.2 dB; selectivity 100 kHz (60 Hz), i-f rejection 60 dB; image rejection 56 dB; spurious response rejection 80 dB; subcarrier rejection 45 dB; stereo separation 35 dB at 1 kHz, 30 dB at 100 Hz and 10 kHz; alternate channel rejection over 300 ohms. AM section: sensitivity 300 µV/m, selectivity 40 dB; S/N 50 dB; image rejection 45 dB; i-f rejection 45 dB. Features two biased illuminated tuning meters, high filter, switchable loudness, two speaker outputs, magnetic and ceramic phono inputs, 5/8" H x 20" W x 14" D: $200
HARMAN/KARDON hk670 Stereo Receiver Features "SQM" tuning meter (indicates signal strength, direction, and strength meter only), and dual -gate MOS FET and five -ganged lines'/frequency capacitors in front end; PLL IC in FM multplex circuit; subsonic filter; audio muting; two -way tape dubbing and monitor -select switch; power/ speaker output only, no tape monitor; $399
hk450. Similar to hk670, but 40 W/ch; damping factor 30; frequency response 3-100,000 Hz + 0.5 dB. Features similar, but lower filter only, no de-emphasis switch, one way tape dubbing, signal -strength meter only: $339
hk450. Similar to hk560, but 30 W/ch with 0.1% THD and IM dist.; frequency response 2-20,000 Hz: + 0.5 dB, 3 m/sec rise time at 20,000 Hz; phono sensitivity 2 mV (ax., tape), 85 dB (phone); TUNER section: FM usable sensitivity 10.8 dBf (1.9 µV) mono, 50 dB quieting sensitivity 14.7 dBf (3.0 µV) mono, 37.2 dBf (40 µV) stereo; S/N 75 dB; FM dist. 0.5% at 5 kHz and 0.18% at 1 kHz; stereo: $139
hk560. Similar to hk670, but 40 W/ch; damping factor 30; frequency response 3-100,000 Hz + 0.5 dB. Features similar, but lower filter only, no de-emphasis switch, one way tape dubbing, signal -strength meter only: $399
SR-504 Stereo Receiver 27 W/ch continuous into 8 ohms from 20-20,000 Hz with 0.08% THD; input sensitivity -impedance 2.5 mV/47,000 ohms (phono), 200 mV/40,000 ohms (tape, aux.); S/N 1.8 µV mono, 1.5 µV stereo; THD at 1000 Hz 0.1% (mono), 0.3% (stereo); frequency response 30,000 Hz; phono input overload 130 dB, ±0.5% at full power; frequency response 10-40,000 Hz; stereo selectivity 45 dB at 1000 Hz, alternate channel selectivity 75 dB; i-f rejection 65 dB at 0.08% THD under same conditions; damping factor 40 at 1000 Hz, 8 ohms; aux. frequency response 40,000 Hz: + 1 dB: phono overload 250 mA, aux. and tape S/N 70 dB; FM usable sensitivity 1.5 µV stereo, 3.1 µV (mono), 5.5 µV (stereo) and 50 dB quieting 3.9 µV (mono), 39 µV (stereo); FM frequency response 30,12,000 Hz: + 0.5 dB; alternate channel selectivity 75 dB; image rejection 56 dB; i-f rejection 80 dB, AM ferrite antenna 370 µV/m, 5." H x 18" W x 14" D: $450
SR-604. Similar to SR-504 minus midrange control, DIN input, LCD input indicators, and tuner section: MOS FET and three -gate linear frequency capacitors in front end; PLL IC in FM multiplex circuit; subsonic filter; audio muting; two -way tape dubbing, and subsonic filter; 35 W/ch with 0.05% THD, power bandwidth 10-30,000 Hz, phono input sensitivity -impedance 3 mV/50k ohms, phono overload 130 dB, 30-40,000 Hz, phono S/N 70 dB; tape frequency response 30,10,000 Hz: + 2 dB, FM usable sensitivity 1.8 µV mono, FM stereo HD 0.3% at 1000 Hz, alternate channel selectivity 75 dB; i-f rejection 56 dB; i-f rejection 80 dB; AM ferrite antenna sensitivity 300 µV/m, 5." H x 18" W x 14" D: $350
SR-610 Stereo Receiver Power amp; features integrated hybrid IC circuitry; dual -five -LED power logarithmic meter display (also combines functions of signal -strength and center -tuning) with meter select switch; power/speaker output only, no tape monitor; $280

HEATH AR-1515 Stereo Receiver Amplifier: 70 W/ch min. continuous into 8 ohms at 0.08% THD over 20-20,000 Hz; IM dist. less than 0.02% at full power; frequency response 8-45,000 Hz: ± 3 dB; FM usable sensitivity 2 mV (mag. phono), 200 mV (aux., tape, and dub); FM sensitivity 1.8 µV for 30 dB quieting; capture ratio 1.3 dB. 6." H x 21" W x 15" D Kit: $600
AR-1540, Dolby FM module (kit) $40
AR-1429 Stereo Receiver Amplifier: 35 W/ch min. continuous into 8 ohms at 0.1% THD over 20-20,000 Hz; IM dist. less than 0.02% at full power; frequency response 5-45,000 Hz: ± 0/-1 dB at 1 W. Tuner: input sensitivity 2 mV (mag. phono), 200 mV (aux., tape, and monitor); FM sensitivity 3.5 µV (16.1 dBf) mono, capture ratio 1.5 dB. Features two tuning meters, stereo indicator, main and remote speaker selector, and headphone jack: 4." H x 20" W x 3." D: $350
SR-2004 Stereo Receiver Power amp; features combined low -and high -power Class G amplification; dual power output meters; 15 W/ch min. continuous into 8 ohms at 0.5% THD, power bandwidth 10-40,000 Hz; frequency response 7,100,000 Hz: ± 1 dB; FM response 20-15,000 Hz: ± 1 dB; channel separation 40 dB typically: 35 dB min.; sensitivity 2 µV; capture ratio 2:1, pre-assembly, stereo: input: stereo light; headphone jack: 3." H x 17" W x 13" D: $200
HITACHI SR-504 Stereo Receiver 27 W/ch continuous into 8 ohms from 20-20,000 Hz with 0.08% THD; input sensitivity -impedance 2.5 mV/47,000 ohms (phono), 200 mV/40,000 ohms (tape, aux.); S/N 1.8 µV mono, 1.5 µV stereo; THD at 1000 Hz 0.1% (mono), 0.3% (stereo); frequency response 30,000 Hz; phono input overload 130 dB, ±0.5% at full power; frequency response 10-40,000 Hz; stereo selectivity 45 dB at 1000 Hz, alternate channel selectivity 75 dB; i-f rejection 56 dB; i-f rejection 80 dB; AM ferrite antenna sensitivity 300 µV/m, 5." H x 19" W x 15" D: $350
SR-904 Stereo Receiver Power amp; features Class G amplification; electronic power protection circuitry with LED, dual power meters; two -speaker switching; 70 W/ch min. continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.09% THD; power bandwidth 10-40,000 Hz, damping factor 45 at 1000 Hz, 8 ohms; phono overload 100 mV; aux. overload 200 mV; phono input overload 130 dB, ±0.5% at full power; frequency response 8-45,000 Hz; FM usable sensitivity 2 mV (mag. phono), 200 mV (aux., tape, and dub); FM sensitivity 1.8 µV for 30 dB quieting; capture ratio 1.3 dB, 6." H x 21" W x 15" D: $1095

STEREO DIRECTORY & BUYING GUIDE
The new Kenwood receivers actually outperform all other receivers, as well as our competitors’ separate amplifiers and tuners in transient response.

The reason is Kenwood’s exclusive technical breakthrough: Hi-Speed. It allows our receivers to react more quickly to musical changes. So what comes out of your receiver matches precisely what went in.

You’ll hear the difference as dramatically accurate, open sound with superior imaging and detail. Like hearing an individual singer in a vocal group.

Hi-Speed is available in four models, all DC-amplified for clean bass response. Each one also has switchable wide and narrow IF bands for low-distortion FM reception, plus dual power meters.

And each Hi-Speed receiver has unique individual features that make a real difference in the tonal quality of music. Like dual power supplies that eliminate crosstalk distortion. Or a pulse count detector that digitally reduces FM distortion by half while significantly reducing background noise. Or a built-in equalizer with ten turnover frequencies for full acoustic control.

Whichever model you choose, you’ll be getting the most advanced receiver technology and performance available today. Advances far beyond the competition.

Your Kenwood dealer will be happy to demonstrate Hi-Speed, now.
sensitivity 3.9 µV (mono), 39 µV (stereo); S/N 75 dB (mono), 70 dB (stereo); THD at 1000 Hz 0.15% (mono), 0.3% (stereo); frequency response 30-12,000 Hz ±2 dB; capture ratio 1.0 dB; alternate channel selectivity 76 dB; image rejection 50 dB; i-f and spurious rejection 80 dB; stereo separation 40 dB at 1000 Hz; AM sensitivity 20 µV (IHF), 4.17•+•X = 17••W + 10••V•D

£250

SR-2010. Similar to SR-4010 without power output and tuning meter display and subsonic filter; 15 W with 0.3% THD and IMD dist.; FM/S/N 74 dB (mono), 68 dB (stereo); alternate channel selectivity 55 dB

£200

JR-3001. Similar to JR-3001 except 35 W/ch under same conditions. THD: IMP; digit 0.01%; aux. and tape input sensitivity/impedance 150 mV/50,000 ohms; phono overload 180 mV at 1000 Hz; signal-strength and center-tuning meters only. £390

R-7 Stereo Receiver
Power amp: features fully complementary OCL amp circuitry; triple power protection; two-switcher; switching circuits are different, both channels driven into 8 ohms from 20-20,000 Hz with 0.03% THD and IMD dist.; damping factor 45 from 20-20,000, 8 ohms. Preamp: features low-noise phono equalizer; bass and treble controls; balance; loudness and source/monitor switches; switch; input selector; sensitivity/impedance: 2.5 mV/47k ohms (phono), 170 mV/40k ohms (aux and tape); frequency response 10-40,000 Hz (1 kHz); stereo; S/N 115 dB; frequency response 20-15,000 Hz -3 dB (aux and tape). Preamp features: PLL multiplex demodulator; FM control for speed scanning and tuning; twin tuning with pilot signal canceller; thumb-controlled lateral fader and five-band SEA graphic equalizer; four-gang IM attenuator and 50-Hz boost switches; two-way tape input and monitoring; mono switch; FM usable sensitivity 0.9 µV (mono); 50µV quetting 1.5 µV, 225 µV (stereo); frequency response 30-15,000 Hz +0.5/-1 dB; 15-50,000 Hz (phono RIAA), 15-50,000 Hz +1/-1 dB (aux and tape). Tuner: features PLL multiplex demodulator IC; double FM/AM booster; two-way speaker switching; two-way tape input sensitivity/impedance 120 mV/40k ohms; phono overload 120 mV; 5/16" H x 16" W x 13/4" D

£300

R-35. Similar to R-7 minus FM tuning meter; output 25 W/ch with 0.1% THD and 115 dB S/N. Preamp: features bass, middle, and treble controls with tone defeat; loudness switch; subsonic and high filters; -20 dB attenuation; FM receiver with booster switches; two-way tape input sensitivity/impedance 120 mV/40k ohms; phono overload 120 mV; 5/16" H x 16" W x 13/4" D

£220

Kenwood

KR-9050 DC Stereo Receiver
Power amp: features dc circuitry, dual peak power meters with left/right peak LEDs, and dual power supply; 200 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.02% THD; IIM dist. 0.007%; slew rate 200 µVs; rise time 0.9 µs; damping factor 100 from 20-20,000 Hz. Preamp: features bass and treble slide controls with bass and treble tone controls; balance and loudness controls; center frequency set at 40, 250, 1000, 5000, and 20,000 Hz -3 dB; alternate channel selectivity 80 dB; FM THD 0.03% (mono), 0.08% (stereo); FM frequency response 20-15,000 Hz +0.5/-1 dB; FM capture ratio 1.0 dB; AM usable sensitivity 250 µV/m. Simulated walnut grain cabinet; 6" x 22" W x 16" D

£820

KR-7050 DC Stereo Receiver
Power amp: features dc circuitry, dual peak power meters, and dc coupled switch (also functions as subsonic filter); 80 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.02% THD; IIM dist. 0.007%; slew rate 200 µVs; rise time 0.9 µs; damping factor 100 from 20-20,000 Hz. Preamp: features bass and treble slide controls with bass and treble tone controls; balance and loudness controls; center frequency set at 40, 250, 1000, 5000, and 20,000 Hz -3 dB; alternate channel selectivity 80 dB; FM THD 0.03% (mono), 0.08% (stereo); FM frequency response 20-15,000 Hz +0.5/-1 dB; FM capture ratio 1.0 dB; AM usable sensitivity 250 µV/m. Simulated walnut grain cabinet; 6" x 22" W x 16" D

£660

KR-5050 DC Stereo Receiver
Power amp: features dc circuitry, dual peak power meters; 45 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.03% THD; IIM dist. 0.02%; damping factor 28 from 20-20,000 Hz. Preamp: features bass and treble controls; balance and loudness controls; two-way speaker switching; two-way tape monitors and B-to-A tape dubbing; high-fidelity switched microphone and mic input; has rear panel FM de-emphasis switch; power output 60 W/ch continuous; THD: IMP; digit 0.01%; FM THD 0.005%; FM usable sensitivity 250 µV/m. Simulated walnut grain cabinet; 6" x 22" W x 16" D

£499

KR-5050 DC Stereo Receiver
Power amp: features dc circuitry, dual peak power meters; 45 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.03% THD; IIM dist. 0.02%; damping factor 28 from 20-20,000 Hz. Preamp: features bass and treble controls; balance and loudness controls; two-way speaker switching; two-way tape monitors and B-to-A tape dubbing; high-fidelity switched microphone and mic input; has rear panel FM de-emphasis switch; power output 60 W/ch continuous; THD: IMP; digit 0.01%; FM THD 0.005%; FM usable sensitivity 250 µV/m. Simulated walnut grain cabinet; 6" x 22" W x 16" D

£499

JVC

KR-9050 DC Stereo Receiver
Power amp: features dc circuitry, dual peak power meters with left/right peak LEDs, and dual power supply; 200 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.02% THD; IIM dist. 0.007%; slew rate 200 µVs; rise time 0.9 µs; damping factor 100 from 20-20,000 Hz. Preamp: features bass and treble slide controls with bass and treble tone controls; balance and loudness controls; center frequency set at 40, 250, 1000, 5000, and 20,000 Hz -3 dB; alternate channel selectivity 80 dB; FM THD 0.03% (mono), 0.08% (stereo); FM frequency response 20-15,000 Hz +0.5/-1 dB; FM capture ratio 1.0 dB; AM usable sensitivity 250 µV/m. Simulated walnut grain cabinet; 6" x 22" W x 16" D

£820

KR-7050 DC Stereo Receiver
Power amp: features dc circuitry, dual peak power meters, and dc coupled switch (also functions as subsonic filter); 80 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.02% THD; IIM dist. 0.007%; slew rate 200 µVs; rise time 0.9 µs; damping factor 100 from 20-20,000 Hz. Preamp: features bass and treble slide controls with bass and treble tone controls; balance and loudness controls; center frequency set at 40, 250, 1000, 5000, and 20,000 Hz -3 dB; alternate channel selectivity 80 dB; FM THD 0.03% (mono), 0.08% (stereo); FM frequency response 20-15,000 Hz +0.5/-1 dB; FM capture ratio 1.0 dB; AM usable sensitivity 250 µV/m. Simulated walnut grain cabinet; 6" x 22" W x 16" D

£660

KR-5050 DC Stereo Receiver
Power amp: features dc circuitry, dual peak power meters; 45 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.03% THD; IIM dist. 0.02%; damping factor 28 from 20-20,000 Hz. Preamp: features bass and treble controls; balance and loudness controls; two-way speaker switching; two-way tape monitors and B-to-A tape dubbing; high-fidelity switched microphone and mic input; has rear panel FM de-emphasis switch; power output 60 W/ch continuous; THD: IMP; digit 0.01%; FM THD 0.005%; FM usable sensitivity 250 µV/m. Simulated walnut grain cabinet; 6" x 22" W x 16" D

£499

JR-9050 DC Stereo Receiver
Power amp: features dc circuitry, dual peak power meters; 45 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.03% THD; IIM dist. 0.02%; damping factor 28 from 20-20,000 Hz. Preamp: features bass and treble controls; balance and loudness controls; two-way speaker switching; two-way tape monitors and B-to-A tape dubbing; high-fidelity switched microphone and mic input; has rear panel FM de-emphasis switch; power output 60 W/ch continuous; THD: IMP; digit 0.01%; FM THD 0.005%; FM usable sensitivity 250 µV/m. Simulated walnut grain cabinet; 6" x 22" W x 16" D

£499

Stereo Directory & Buying Guide
LAFAYETTE

LR-120db Stereo Receiver
Features Dobly noise-reduction system; switchable turnover on bass and treble for extended range tone controls; dual reversible tape monitors for tape-to-tape doothing; signal-strength and FM center-tuning meters; left-right power meters; three-speaker capability; mic jack and mixing; two headphone jacks.
Amplifier: 120 Wich continuous into 8 ohms from 20-20,000 Hz with 0.3% THD; hum and noise -90 dB (aux., tape), -70 dB (magnetic phone 1 and 2); input sensitivity for rated output 2.5 mV (phone high), 5 mV (10 mV low phone, 150 mV (aux., tape), 5 mV/10,000 ohms (mic); phone overload 150 mV at rated output; tape output level 0.15 mV at rated input. FM tuner: usable sensitivity 2.0 µV; alternate channel selectivity 30 dB; S/N 67 dB; spurious response -55 dB; image response -45 dB. AM section: sensitivity 25 µV; alternate channel selectivity 55 dB; S/N 74 dB; spurious response -60 dB.

LR-990 Stereo Receiver
Features 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 doothing. Amplifier: 90 Wich continuous into 8 ohms over 20-20,000 Hz with 0.1% THD; hum and noise -80 dB (aux., tape), -65 dB (phone, low), -60 dB (phone, high), 5 mV (phone, low), 15 mV (aux., tape); input sensitivity for rated output 2.5 mV (phone, low), 5 mV (10 mV low phone, 150 mV (aux., tape), 5 mV/10,000 ohms (mic); phone overload 150 mV at rated output; tape output level 0.15 mV at rated input. FM tuner: usable sensitivity 2.0 µV; alternate channel selectivity 30 dB; S/N 74 dB; spurious response -55 dB; image response -45 dB. AM section: sensitivity 25 µV; alternate channel selectivity 30 dB; S/N 74 dB; spurious response -60 dB.

Criteron Mk V Stereo Receiver
Features dual tape monitors; meter, loudness switch, and separate signal-strength and center-tuning meters. Amplifier: 44 Wich into 8 ohms from 20-20,000 Hz with 0.3% THD and IM dist.; hum and noise -80 dB (aux., tape); input sensitivity for rated output 2.5 mV (phone, high), 5 mV (10 mV low phone, 150 mV (aux., tape), 5 mV/10,000 ohms (mic); phone overload 150 mV at rated output; tape output level 0.15 mV at rated input. FM tuner: usable sensitivity 2.0 µV; alternate channel selectivity 60 dB (1 kHz, stereo); S/N 65 dB; spurious response -75 dB; image response -75 dB; tape output level 0.77 V. AM section: usable sensitivity 20 µV; alternate channel selectivity 30 dB; S/N 65 dB; spurious response -55 dB.

LR-3030A Stereo Receiver
Features dual tape monitors; derived four-channel circuit built-in; dual tuning meters; three tone controls. Amplifier: 30 Wich continuous into 8 ohms over 20-20,000 Hz with 0.5% THD and IM dist.; hum and noise -75 dB (aux., tape), -60 dB (phone); input sensitivity for rated output 3.5 mV (phone, high), 7 mV (phone, low, 150 mV (aux., tape); phone overload 0.18 Cm (high), 0.36 Cm (low); tape output level 0.15 V (at rated input). FM tuner section: sensitivity 2 µV; alternate channel selectivity 70 dB; capture ratio 1.5 dB; FM dist. 0.25% at 100 Hz; stereo; i-f rejection 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 section: sensitivity 25 µV; image response -40 dB; alternate channel selectivity 55 dB; tape output level 0.3 V. UL approved. 5./.x 16"x x 11". D. Approved.

LUX

R-1120 Stereo Receiver
Amplifier: 120 WIch continuous power into 8 ohms with both channels driven: 90 WIch continuous into 8 ohms from 10-20,000 Hz; THD 0.03%; IM dist. no more than 0.05%; frequency response 10-60,000 Hz = 1 dB; input sensitivity 2.6 mV phone, 160 mV line; phone overload 175 mV; S/N, weighted (IHF "A") 94 dB phone, 95 dB line, unweighted, 66 dB (phone), 86 dB (line); filter frequencies, (12 db/oct) subsonic 15 Hz, low-cut 70 Hz, high-cut 70 Hz, 7.5 kHz, FM tuner: sensitivity 20 µV, frequency response 50 dB quieting, 14.1 dB (2.8 µV) mono, 36.8 dB (38.0 µV) stereo; IHF usable sensitivity 10.3 dB (1.8 µV) mono, 17.2 dB (4.0 µV) stereo; frequency response 700 Hz, center frequency 1 kHz, 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 (stereo); SCA rejection 60 dB. FM tuner section: usable sensitivity (IHF) 200 µV/m; image rejection 75 dB; i-f rejection 80 dB; S/N 52 dB; dist. 0.5%; selectivity 32 dB. Has loudness, peak indicator, speaker switch, tape doothing switch. ... $995
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R-1070 Stereo Receiver
Amplifier: features dc and pre out/main in; circuitry: LED peak level indicators; tape dubbing; 75 W/ch into 8 ohms from 20-20,000 Hz with 0.015% THD; IM dist. 0.15%; frequency response 15-100,000 Hz; input sensitivity 2.7 mV (phono), 160 mV (tuner, aux., tape), 1 V (main in); phono overload 160 mV; S/N (HI-FI A) 86 dB (phono), 106 dB (tuner, aux., tape). FM tuner section: features wide/narrow i-f bandwidth selector; IHF usable sensitivity 1.8 µV (mono); S/N 75 dB; frequency response 30-15,000 Hz ±1 dB; AM suppression 62 dB; 7.9" H x 19"W x 16" D....$795

R-1050 Stereo Receiver
55 W/ch continuous power into 8 ohms with both channels driven (20-20,000 Hz); THD and IM dist. 0.05%; frequency response 10-50,000 Hz +0/- 1 dB. Features: LED peak-power level 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 dB (4.5 µV); selectivity 70 dB; AM suppression 52 dB; S/N 75 dB; frequency response 30-15,000 Hz +0.5/-1 dB; AM selectivity; one tape monitor circuit. FM tuner: features dual -power TADF r-f front end; Gyro-Touch™ tuning; FM muting/mode and mono/ stereo switch; signal-strength/multipath and FM tuning meters; FM IHF usable sensitivity 1.7 µV (mono); S/N 50 dB quieting 2.5 µV (mono), 35 µV (stereo); S/N 80 dB (mono), 72 dB (stereo); 1000 Hz 0.15% (mono), 0.25% (stereo); 50 -dB quieting 2.7 µV (mono); S/N 75 dB; frequency response 10-50,000 Hz ±1.0 µV from 400 kHz -20 MHz to 10 µV at 100 kHz for 90% modulation; max bandwidth 8 kHz. Features: includes r-f preselector, quartz crystal PLL digital synthesis tuning with LED six-digit frequency readout display to 100 Hz; AM; USB/LSB/CW/RTTY (with external converter) reception mode and i-f filter selectors. Specifications: for 4000-100 MHz: fm -filtering; spurious response rejection 90 dB; stereo separation 45 dB at 1 kHz; frequency response 30-15,000 Hz +0/-1 .5 dB; AM distortion 0.2%; frequency response 30-15,000 Hz +0/-1.5 dB; AM distortion 0.3% at 1000 Hz; alternate channel selectivity 60 dB; i-f and spurious rejection 80 dB $275

SR6000 Stereo Receiver
Power amp: features dc circuitry; LED power output logarithmic display; two-speaker switching; 70 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.025% THD and IM dist.; damping factor 50 at 20 Hz. Preamp: features bass, midrange, treble, and center control; 6 dB/octave low (20 Hz) and high (18 kHz) filters; loudness compensation switch; red mode selectieve with two-way tape dubbing and monitoring; input sensitivity/impedance 2.7 mV/47k ohms (phono), 160 mV/25k ohms (high level); preamp overload 225 mV; S/N (A weighted) 90 dB (phono), 98 dB (high level); frequency response 0.2 to 20,000 Hz ±2 dB; program noise rejection 75 dB; signal-strength/multipath and FM tuning selectors. FM tuner section: features wide/narrow i-f bandwidth selector; IHF usable sensitivity 1.8 µV (mono); 50 -dB quieting 2.5 µV (mono), 35 µV (stereo); S/N 80 dB (mono), 72 dB (stereo); 1000 Hz 0.15% (mono), 0.25% (stereo); frequency response 15-100,000 Hz; capture ratio 1.0 dB; alternate channel selectivity 65 dB; image rejection 55 dB; -i-f and spurious rejection 90 dB; stereo separation 45 dB at 1 kHz; AM usable sensitivity 20 mV; S/N 50 kHz -29.7 MHz continuous; reception modes AM, upper and lower sideband, CW, RTTY (with external converter); CW mechanical filter and 1200 -Hz RTTY mechanical filter. 7" H x 193/4" W x 15" D. $1600

DR 55. Similar to DR 44 minus six-digit LED freqency readout and mechanical filters for USB/LSB....$800

R-33C Professional AM Receiver
General coverage, AM/CW/SSB receiver with digital frequency synthesis and selectable modes; input sensitivity to 100 Hz. Amplifier section: 2 W into 8 ohms, 1 W into 1000 ohms; internal 4-in monitor speaker with external speaker connectors; frequency coverage 50 -29.7 kHz continuous; reception modes AM, upper and lower sideband, CW, RTTY (with external converter); sensitivity for 4-kHz AM bandwidth varies from 1.0 µV (400 kHz -20 MHz) to 10 µV (1 kHz) for 10 dB S/N; image rejection 70 dB; r-f blocking 100 dB above 1 µV, cross-modulation 65 dB above 1 µV; hum and noise 55 dB below full output; harmonic distortion 6% for 50% modulation, 1% for 90% modulation; max bandwidth 8 kHz. Features: audio notch filter, i-f output jack, noise limiter, quartz-crystal PLL digital synthesis, independent selection of reception mode and i-f bandwidth tuning meter. Options include r-f preselector, 600-ohm balanced audio output, 400-Hz CW and 1200-Hz RTTY filters, rack mount. 5" H x 17.5" W x 14" D. $2450

DR 22C. Similar to DR 33C, but 5-digit, 1-kHz readout; no separate i-f filter switch; minimum band-

R-2385 Stereo Receiver
185 W/ch continuous into 8 ohms from 20-20,000 Hz with 0.05% THD, 250 W/ch continuous into 4 ohms at 0.1% THD; five-gang dual-gate MOS FET FM front end; PLL FM multiplexer modulator; full complementarily 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; 7.9" H x 19"W x 17" D. ...$1600

SR2000 Stereo Receiver
Power amp: features direct-coupled complementary output stages for stereo; two-speaker switching; 30 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.04% THD and IM dist.; damping factor 36 at 20 Hz. Preamp: features bass, midrange, and treble controls; loudness compensation switch; tape monitor switch; input selector; input sensitivity/impedance 2.7 mV/47k ohms (phono), 160 mV/25k ohms (high level); phono overload 225 mV; S/N (A weighted) 90 dB (phono), 98 dB (high level); frequency response 0.2 to 20,000 Hz ±2 dB; program noise rejection 75 dB; signal-strength/multipath and FM tuning selectors. FM tuner section: features wide/narrow i-f bandwidth selector; IHF usable sensitivity 1.8 µV (mono); 50 -dB quieting 2.7 µV (mono), 35 µV (stereo); S/N 75 dB (mono), 68 dB (stereo); 1000 Hz 0.15% (mono), 0.25% (stereo); frequency response 30-15,000 Hz +0/-1 .5 dB; cap-
NAD (USA)

7080 Stereo Receiver
Power amp: features eight high-current output transistors; filtered and regulated power supplies; main/remote speaker switching; 90 Wich continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.03% THD and IM dist.; slew rate 40 V/µsec; balance-one-way tape dubbing and monitoring with LEDs; input selector with LEDs; input sensitivity/impedance 2.5 mV/47k ohms; signal-strength and tuning meters; FM muting, stereo de-emphasis switch; has one-way tape dubbing; servo-lock instead of quartz-lock tuning. 6'/6" H x 21'/1/4" W x 15'/1/4" D...

$850

7045. Similar to 7060 except 45 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.03% THD and IM dist.; damping factor 50 into 8 ohms at 1000 Hz. Preamp features bass, mindrange, and treble controls; loudness, audio muting, and subsonic and high filter switches; two-way tape recording and dubbing; input selector with LEDs. Tuner features T-locked tuning system with dual-gate MOS FET front end; signal-strength and tuning meters; mono, 25-µsec de-emphasis and FM muting switches; LED stereo and T-locked indicators; FM usable sensitivity 1.8 µV; FM separation 48 dB at 1 kHz. Champagne gold panel with rosewood cabinet; 7" H x 21'/1/4" W x 15" D...

$330

5080 Stereo Receiver
Features touch-activated electronic switching for all functions; triple transistor phono preamplifier; motor-driven variable capacitor for automatic tuning; four-preamp FM stations; SAW i-f filter; PLL IC multiplex demodulator; quartz servo-lock tuning. 6'/6" H x 21'/1/4" W x 15'/1/4" D...

$850

5045. Similar to 5060 except 45 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.03% THD and IM dist.; damping factor 50 into 8 ohms at 1000 Hz. Preamp features bass, mindrange, and treble controls; loudness, audio muting, and subsonic and high filter switches; two-way tape recording and dubbing; input selector with LEDs. Tuner features T-locked tuning system with dual-gate MOS FET front end; signal-strength and tuning meters; mono, 25-µsec de-emphasis and FM muting switches; LED stereo and T-locked indicators; FM usable sensitivity 1.8 µV; FM separation 48 dB at 1 kHz. Champagne gold panel with rosewood cabinet; 7" H x 21'/1/4" W x 15" D...

$330

5050 Stereo Receiver
Features touch-activated electronic switching for all functions; triple transistor phono preamplifier; motor-driven variable capacitor for automatic tuning; four-preamp FM stations; SAW i-f filter; PLL IC multiplex demodulator; quartz servo-lock tuning. 6'/6" H x 21'/1/4" W x 15'/1/4" D...

$850
SA-5601 Stereo Receiver
Power amp: features two-power switching, and two-color LED power protection indicators; 65 W/channel continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.03% THD. Preamp: features bass, midrange, and treble controls; low- and high-cut filters; loudness switch; input selector; switchable speaker selector; left/right power meters; FM/FM S/N 75 dB; FM IHF selectivity 80 dB; brushed aluminum faceplate; 9" x 16" x 17.5" D $360

SA-5905. Same as SA-5601 except with ebony finish $800

SA-5401 Stereo Receiver
Power amp: features two-power switching and two-color power LED indicator; 65 W/channel continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.03% THD. Preamp: features bass, midrange, and treble controls; low- and high-cut filters; loudness switch; input selector; RIM deviation +0.2 dB; phono overload 280 mV; phono rejection 90 dB; Tuner: features Opto-lock tuning with LED indicator; signal-strength and tuning meters; hi-biend, FM muting, and air check calibrator switches; AM/FM switch; FM IHF usable sensitivity 1.7 µV; S/N 80 dB (mono), 73 dB (stereo); FM THD 0.1% (mono), 0.3% (stereo); IHF selectivity 80 dB; brushed aluminum faceplate; 7.2" H x 21.7" W x 15.9" D $520

SA-5401. Same as SA-5401 except with ebony finish $470

SA-5325 Stereo Receiver
Power amplifier section: features pure complementary SEPP OCL circuitry; dual LED instantaneous power output bar display; two-power switching with LEDs; 8- and 4-channel speaker impedance switch; 125 W/channel continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.05% THD and IM dist. Preamp: includes ten-band graphic equalizer display with center frequencies set at 60, 125, 250, 500, 1000, 2000, 4000, 8000, 16,000, and 32,000 Hz. Feature: built-in AM/FM stereo receiver with built-in stereo cassette player/recorder. Power amp section: direct-coupled circuitry; two-power switching; 25 W/channel continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.02% THD; frequency response 50-15,000 Hz; AM sensitivity 300 µV/m and 55 dB; FM IHF usable sensitivity 1.9 µV (mono); S/N 75 dB; THD 0.1% (mono), 0.2% (stereo); IHF selectivity 60 dB; brushed aluminum faceplate; 5" x 14.9" x 16.8" D $360

SA-5201 Stereo Receiver
Amplifier: features two-power switching; LED power protection indicator; bass and treble controls; low- and high-cut filters; loudness switch; input selector; one-way tape dubbing with monitor switch; loudness switch; input selector; 45 W/channel continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.04% THD; phono S/N 73 dB; phono overload 150 mV. Tuner: features signal-strength and tuning meters; hi-biend, FM muting, and air check calibrator switches; FM IHF usable sensitivity 1.9 µV (mono); S/N 73 dB (mono), 67 dB (stereo); FM THD 0.2% (mono), 0.4% (stereo); FM IHF selectivity 60 dB; brushed aluminum faceplate; 6.5" H x 19" W x 15" D $360

SA-5010 Stereo Receiver
Amplifier: features two-power switching; loudness control; one-way tape dubbing; 25 W/channel continuous, both channels driven into 8 ohms with 0.05% THD; phono S/N 73 dB; phono overload 150 mV. Tuner: features five-LED signal-strength and three LED tuning meter display; FM muting and air check calibrator switches; IHF usable sensitivity 1.9 µV (mono); S/N 73 dB (mono), 67 dB (stereo); FM THD 0.1% (mono), 0.2% (stereo); IHF selectivity 60 dB; brushed aluminum faceplate; 5" x 14.9" W x 11.4" D $280

STA-5105. Same as SA 5101 but with ebony finish $280

PANASONIC

RA-7700 Receiver/Cassette Deck
AM-FM stereo receiver with built-in cassette stereo player/recorder. Power amp section: direct-coupled circuitry; two-power switching; 25 W/channel continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.03% THD; frequency response 5-60,000 Hz; RIAA phono deviation +18.6 dB -19.6 dB from 30-20,000 Hz; input sensitivity 2.5 mV/100k ohms (phono), 150 mV/10k ohms (aux.), and Dolby in); FM/FM S/N 75 dB; FM IHF usable sensitivity 1.9 µV (monor; 30 dB quieting sensitivity 1.5 µV; THD 0.2% mono, 0.3% stereo; S/N 65 dB; alternate channel selectivity 70dB; capture ratio 1.5 dB; image rejection 30 dB; alternate channel selectivity 60 dB; alternate channel selectivity 30 dB; i-f rejection 35 dB; FM deviation 10 kHz, 60 kHz interference 100 dB, 4000 Hz interference 60 dB, and 16,000 Hz interference 60 dB. Unit features at-
AH787 Stereo Receiver

Amplifier section: features bass and midrange; 270 W into 8 ohms from 20-20,000 Hz with 0.04% THD; AM: sensitivity 10.8 dBf (1.7 µV) mono; 30 dB from 30-15,000 Hz. Features similar, with only tape monitor switch, no filter, no subcarrier rejection 55 dB; stereo separation 45 dB at 1 kHz; 25/75 µsec de-emphasis switch for FM Dolby B; Dolby B; 6" x 19" x 16" x 16" W x 16" D $220

SX-1980 Stereo Receiver

Amplifier section: features bass and midrange; 270 W into 8 ohms from 20-20,000 Hz with 0.04% THD; AM: sensitivity 10.8 dBf (1.7 µV) mono; 30 dB from 30-15,000 Hz. Features similar, with only tape monitor switch, no filter, no subcarrier rejection 55 dB; stereo separation 45 dB at 1 kHz; 25/75 µsec de-emphasis switch for FM Dolby B; Dolby B; 6" x 19" x 16" x 16" W x 16" D $220

STA-2000D Stereo Receiver

Amplifier section: features bass and midrange; 270 W into 8 ohms from 20-20,000 Hz with 0.04% THD; AM: sensitivity 10.8 dBf (1.7 µV) mono; 30 dB from 30-15,000 Hz. Features similar, with only tape monitor switch, no filter, no subcarrier rejection 55 dB; stereo separation 45 dB at 1 kHz; 25/75 µsec de-emphasis switch for FM Dolby B; Dolby B; 6" x 19" x 16" x 16" W x 16" D $220
**ROTEL**

**RX-1603 Stereo Receiver**
Amplifier: 40 W/ch continuous into 8 ohms from 20-20,000 Hz with 0.05% THD; frequency response 20-20,000 Hz ±0.5 dB. FM tuner: IHF sensitivity 11.6 µV (1.7 µV) mono, 29.1 dBf (stereo); stereo HD 0.15% at 1000 Hz; stereo separation 38 dB at 1000 Hz; AM sensitivity 200 µV/m (IHF). Features MOSFET; two speaker systems; headphone jack. 125 mm H x 400 mm W x 252 mm D... $310

**RX-2003 Stereo Receiver**
Amplifier: 20 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.05% THD and 60 dB S/N; phono overload 42 µV (stereo); S/N 70 dB; capture ratio 1.0 dB; image rejection 55 dB; stereo separation 45 dB at 1000 Hz; AM sensitivity 200 µV/m (IHF, ferrite antenna). Features MOSFET; two speaker systems; headphone jack. 125 mm H x 235 mm W x 115 mm D... $300

**RX-604 Stereo Receiver**
Power amp: features dc circuitry; dual power supplies; 60 W/ch continuous into 8 ohms from 20-20,000 Hz with 0.05% THD and 120dB S/N; FM tuner: IHF sensitivity 11.6 µV (1.7 µV) mono, 29.1 dBf (stereo); stereo HD 0.15% at 1000 Hz; stereo separation 38 dB at 1000 Hz; AM sensitivity 200 µV/m (IHF). Features MOSFET; two speaker systems; headphone jack. 125 mm H x 400 mm W x 252 mm D... $220

**SAE**

**R18 Stereo Receiver**
Amplifier: features LED power and tape output bar graph display; parametric equalizer; moving-coil input. 24 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.05% THD. Tuner: features digital frequency readout;...
R12 Stereo Receiver
Amplifier: features LED power and tape output bar graph display; parametric equalizer with tape EQ; external processor input; bass, midrange, and treble controls; power output 60 W/ch continuous from 20-20,000 Hz with 0.05% THD; front panel digital readout; FM sensitivity 0.73 µV (IHF, mono); S/N 65 dB stereo, 70 dB mono; AM sensitivity 0.5 µV (IHF); FM S/N 76 dB; FM noise 0.15%. Power output is 30 W/ch with 0.06% THD; FM tuning precision 0.003%. Tuner features signal-strength and tuning readouts LED digital frequency readout; FM noise 0.15%. Power output is 30 W/ch with 0.06% THD; FM tuning precision 0.003%. Tuner features signal-strength and tuning readouts LED digital frequency readout; FM noise 0.15%. Power output is 30 W/ch with 0.06% THD; FM tuning precision 0.003%.
rear on CD-4. Features Type-A QS vario-matrix decoder, QS synthesizer, SQ decoder, and CD-4 de-modulator; four channel mode selector; balancing and selectable source controls for front and back channels; Dolby noise reduction available for FM or tape use; mic mixing; "Peak Range" tuning indicator with 250-KHz calibrations; dual tuning meters, four power level meters; built-in Dolby calibration; simultaneously selectable with and without Dolby encoding. FM tuner: sensitivity for 50 dB quieting, 15.6 dBf mono, 38 meters, four power level meters; built-in Dolby calibration, rear on CD -4. Features Type -A QS vario-matrix de-dubbing and monitoring; subsonic and high filters; treble turnover frequency selectors; two-way tape dubbing and monitoring; 20 dB muting; input selector with LEDs; input sensitivity/impedance 2.5 m/V(ohms) (phono M.M), 250 µ/V(ohms) (phono M.C), 150 µ/V(ohms) (aux. and tape); THD at 1000 Hz ±0.2 dB from 20-20,000 Hz (phono RIAA), 10-40,000 Hz ±0.5 dB (aux. and tape); S/N (HIF A) 85 dB (phono M.M), 70 dB (phono M.C), 95 dB (aux. and tape); frequency response 20-20,000 Hz ±0.4 dB (MM), 20 m/V(ohms) (M.M); 20 m/V(ohms) (aux. and tape). Tuner: features dual-gate MOS FET front end; "sampling quartz locked" tuning system with illuminated analog dial and digital frequency readout; quartz locked switch with LED; signal-strength and tuning meters; two phono inputs. 6 f H x 23/16" W x 16/" D $1150

SANYO

PLUS 200 Stereo Receiver

Power amp section: features full input-to-output dc coupling; fluid convection radiator; dual power supplies; may be separated with optional "umbilical" cord. 12 LED peak power display with 0, 10, X.1, and X1 power display range selector; three-way speaker switching; 200 W/ch continuous, both channels driven into 4 or 6 ohms from 20-20,000 Hz with 0.04% THD; frequency response 7,100-100,000 Hz with ±1 dB; selectivity 50,000 Hz with ±1 dB; S/N 110 dB (IHF A); damping factor 60; slew rate 170 V/us; Preamp: features low-noise class-A phono preamp with moving-coil cartridge capability; bass, midrange, and treble controls with tone defeat and bass and treble turnover frequency selectors; two-way tape dubbing and monitoring; ±20 dB muting; two tape dubbing and monitoring; -20 dB muting; input selector with LEDs; input sensitivity/impedance 2.5 m/V(ohms) (phono M.M), 250 µ/V(ohms) (phono M.C), 150 µ/V(ohms) (aux. and tape); THD at 1000 Hz ±0.2 dB from 20-20,000 Hz (phono RIAA), 10-40,000 Hz ±0.5 dB (aux. and tape); S/N (HIF A) 85 dB (phono M.M), 70 dB (phono M.C), 95 dB (aux. and tape); frequency response 20-20,000 Hz ±0.4 dB (MM), 20 m/V(ohms) (M.M); 20 m/V(ohms) (aux. and tape). Tuner: features dual-gate MOS FET front end; "sampling quartz locked" tuning system with illuminated analog dial and digital frequency readout; quartz locked switch with LED; signal-strength and tuning meters; two phono inputs. 6 f H x 23/16" W x 16/" D $1150

JCX 2900K Stereo Receiver

Amplifier section: 120 W/ch continuous input to 8 ohms at 0.08% THD, both channels driven; power bandwidth 20-20,000 Hz; frequency response 20-30,000 Hz ±0.2 dB; phono sensitivity 2.5 m/V; maximum input 250 m/V (MM), 25 m/V (aux and tape); max. phono input 250 m/V (MM), 25 m/V (aux and tape); frequency response 20-30,000 Hz ±0.2 dB; phono S/N 75 dB (IHF A); max. phono overload 16 W/ch continuous, both channels driven into 8 ohms from 40-20,000 Hz with 0.04% THD; frequency response ±1 dB; selectivity 80 dB; i-f rejection 100 dB; alternate channel selectivity 75 dB; spurious rejection 100 dB; image rejection 80 dB; image rejection 70 dB; max. phono overload 150 m/V, stereo; damping factor 50; stereo separation 40 dB at 1000 Hz $1 70

H. H. SCOTT

390R Stereo Receiver

Amplifier section: 120 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz at 0.03% THD and IM dist.; damping factor 100; frequency response 20-20,000 Hz ±0.25 dB; phono sensitivity 2.5 or 5 m/V switchable; max. input 300 or 600 m/V (weighted, inputs shorted) 90 dB, 90 dB tape/aux. FM tuner section: usable sensitivity 9.6 dBf (1.7 µV) mono, 50-50 dB quieting 2.7 m/V (mono), 39 µ/V (stereo); S/N 75 dB (mono), 70 dB (stereo); THD at 1000 Hz 0.2% (mono), 0.3% (stereo); frequency response 20-15,000 Hz +/−1 dB, alternater channel selectivity 75 dB; capture ratio 1.2 dB; stereo separation 45 dB at 1000 Hz; spurious rejection 80 dB; image rejection 70 dB; i-f rejection 90 dB; AM usable sensitivity 300 µ/V/m (ferrite, external antenna). 5 1/4" H x 18" W x 11 1/4" D $550

PLUS 55, similar, but two speaker outputs, no hi-blend. 6" H x 20'2/" W x 15 D $ 400

JJD 2600K Stereo Receiver

Input sensitivity 10.3 dBf (1.8 µV), S/N 73 dB mono, 68 dB stereo; distortion 0.15% mono, 0.2% stereo at 1 kHz; stereo separation 100 dB; alternate channel selectivity 70 dB; spurious rejection 70 dB; FM front end; "sampling quartz locked" tuning system with illuminated analog dial and digital frequency readout; quartz locked switch with LED; signal-strength and tuning meters; two phono inputs. 6 1/4" H x 21" W x 16 1/4" D $550

JJD 2505K Stereo Receiver

Input sensitivity 10.3 dBf (1.8 µV), S/N 73 dB mono, 68 dB stereo; distortion 0.15% mono, 0.2% stereo at 1 kHz; stereo separation 100 dB; alternate channel selectivity 70 dB; spurious rejection 70 dB; FM front end; "sampling quartz locked" tuning system with LED locked indicator; signal-strength and tuning meters; power bandwidth 20-20,000 Hz; frequency response 20-30,000 Hz ±0.2 dB; phono sensitivity 2.5 m/V; maximum input 250 m/V (MM), 25 m/V (aux and tape); max. phono input 250 m/V (MM), 25 m/V (aux and tape); frequency response 20-30,000 Hz ±0.2 dB; phono S/N 75 dB (IHF A); max. phono overload 150 m/V, stereo; damping factor 50; stereo separation 40 dB at 1000 Hz $1 70

PLUS 75 Stereo Receiver

Power amp: features dc, all-differential drive, and IC circuitry; dual seven-LED peak power bar graph display; dual power meters; two-way speaker switching; 75 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.03% THD and IM dist.; frequency response 7-100,000 Hz +/−1 dB; S/N 110 dB (IHF A); damping factor 50; input sensitivity/impedance 1 W/47 ohms; slew rate 80 V/us. Preamp: features low-noise class-A phono preamp with moving-coil cartridge capability; bass, midrange, and treble controls with tone defeat and bass and treble turnover frequency selectors; subsonic and high filters; two-way tape dubbing and monitoring; -20 dB muting; input selector with LEDs; input sensitivity/impedance 2.5 m/V(ohms) (phono M.M), 250 µ/V(ohms) (phono M.C), 150 µ/V(ohms) (aux. and tape); THD at 1000 Hz ±0.2 dB from 20-20,000 Hz (phono RIAA), 10-40,000 Hz ±0.5 dB (aux. and tape); S/N (HIF A) 85 dB (phono M.M), 70 dB (phono M.C), 95 dB (aux. and tape); frequency response 20-20,000 Hz ±0.4 dB (MM), 20 m/V(ohms) (M.M); 20 m/V(ohms) (aux. and tape). Tuner: features dual-gate MOS FET front end; "sampling quartz locked" tuning with LED locked indicator; signal-strength and tuning meters; power bandwidth 20-20,000 Hz; frequency response 20-30,000 Hz ±0.2 dB; phono sensitivity 2.5 m/V; maximum input 250 m/V (MM), 25 m/V (aux and tape); max. phono input 250 m/V (MM), 25 m/V (aux and tape); frequency response 20-30,000 Hz ±0.2 dB; phono S/N 75 dB (IHF A); max. phono overload 150 m/V, stereo; damping factor 50; stereo separation 40 dB at 1000 Hz $1 70

FET front end, "sampling quartz locked" tuning with LED locked indicator; signal-strength and tuning meters; power bandwidth 20-20,000 Hz; frequency response 20-30,000 Hz ±0.2 dB; phono sensitivity 2.5 m/V; maximum input 250 m/V (MM), 25 m/V (aux and tape); max. phono input 250 m/V (MM), 25 m/V (aux and tape); frequency response 20-30,000 Hz ±0.2 dB; phono S/N 75 dB (IHF A); max. phono overload 150 m/V, stereo; damping factor 50; stereo separation 40 dB at 1000 Hz $1 70
If you can find a receiver that does more.

Scott's new 390R is perhaps the most complete receiver ever made.

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CIRCLE NO. 2 ON READER SERVICE CARD
SHERWOOD

S-7650 CP Stereo Receiver
Amplifier section: 45 W/ch (16.5 dBW) continuous into 8 ohms; distortion 0.7% mono, 1.4% stereo; THD and IM distortion 0.2%; 100 dB (aux) and 100 dB (tuner); AM/FM tuning 100 kW; FM frequency range 50-150 kHz; FM stereo capture ratio 1.8 dB; FM selectivity 50 dB; AM suppression 60 dB; stereo THD and IM distortion 0.8%; stereo S/N 72 dB.

SYNERGISTICS

S-1000 Stereo Receiver
Amplifier section: 330 W/ch continuous power into 8 ohms from 20-20,000 Hz at 0.2% THD and IM distortion; distortion 0.7% mono, 1.4% stereo; THD and IM distortion 0.2%; 100 dB (aux); FM frequency range 50-150 kHz; FM stereo capture ratio 1.8 dB; FM selectivity 50 dB; AM suppression 60 dB; stereo THD and IM distortion 0.8%; stereo S/N 72 dB.

TECHNICS

SA-1000 Stereo Receiver
Amplifier section: 330 W/ch continuous power into 8 ohms from 20-20,000 Hz at 0.2% THD and IM distortion; distortion 0.7% mono, 1.4% stereo; THD and IM distortion 0.2%; 100 dB (aux); FM frequency range 50-150 kHz; FM stereo capture ratio 1.8 dB; FM selectivity 50 dB; AM suppression 60 dB; stereo THD and IM distortion 0.8%; stereo S/N 72 dB.
120 dB; image rejection 100 dB; spurious response
110 dB; subcarrier rejection 70 dB; stereo
separation 50 dB at 100 Hz, 40 dB at 10,000 Hz;
antenna 75-ohm coax connector. AM section: sensi-
tivity 30 µV, 250 µV/µm; selectivity 35 dB; image
rejection 90 dB; i-f rejection 80 dB. Features LED
power-level indicator arrays for each channel with display-
range select; bass, mids, treble; input selection indicator lights; front-
panel phono-impedance and capacitance selectors; tape dubbing;
provisions for two tape recorders and display -range select;
tivity 30 µV, 250 µV/m; selectivity 35 dB; image
antenna 75-ohm coax connector. AM section: sensi-
tivity 9.3 dBf (3.0 µV); DIN stereo sensitivity
37.2 dBf (42 µV) stereo; stereo separation 50 dB at 1
kHz; antenna 75 ohm and 300-ohm antenna terminals. AM IM
rejection 50 dB, i-f rejection 70 dB; spurious response 80 dB. Features similar,
but without midrange control. 6½" H x 19½" W x
12½ "D. $530
SA-500. Similar to SA-600, but 55 W/ch continu-
ous, both channels driven into 8 ohms, from 20-20,000 Hz at 0.03% THD and
mid. frequencies; FM bandwidth 10-35,000 Hz; damping factor 50. Preamp:
frequencies/impedance 2.5 mV/47k ohms (phono),
150 mV/47k ohms (tuner, aux., tape); phono
voltage/impedance 2.5 mV/47k ohms (phono),
150 mV/47k ohms (tuner, aux., tape); phono
overload 0.1% mono, 0.2% stereo; phase
meters; 22-40,000 Hz +0/-1.5 dB; damping factor
80 dB; image rejection 60 dB; i-f rejection 90 dB;
spurious rejection 75 dB; stereo separation 45 dB at
1000 Hz. AM sensitivity 300 µV/µm and S/N 50 dB.
Brushed aluminum front panel with tone and
speaker controls hidden behind retractable cover;
walnut side panels; 7½" H x 12½" W x 18½" D. $550
SA-650 Stereo Receiver
Power amp: features dc circuitry; triple-secondary power transformer and twin filter capacitors; two-
speaker switching; 50 W/ch continuous, both chan-
els driven into 8 ohms, from 20-20,000 Hz at 0.03% THD and
mid. frequencies; power bandwidth 10-35,000 Hz; damping factor 50. Preamp:
frequencies and treble controls; selectability 35 dB; image
rejection 100 dB; subcarrier rejection 60 dB; spurious
response 80 dB; input selector; input sensitivity
2.5 mV/47k ohms (phono, 150 mV/47k ohms
(tuner, aux., tape); phono overload 0.1% mono, 0.2%
stereo; phase meters; 22-40,000 Hz +0/-1.5 dB; damping factor
80 dB; image rejection 60 dB; i-f rejection 90 dB;
spurious rejection 75 dB; stereo separation 45 dB at
1000 Hz. AM sensitivity 300 µV/µm and S/N 50 dB.
Brushed aluminum front panel with tone and
speaker controls hidden behind lower half of front panel; 4½" H
x 18 9/16 W x 15 4/16 D. $520
SA-750 Stereo Receiver
Amplifier section: 50 W/ch continuous power into 8 ohms (20-20,000 Hz) at 0.08% THD, both channels;
frequency bandwidth 10-30,000 Hz; damping factor 50. Preamp:
frequencies and treble controls; selectability 35 dB; image
rejection 100 dB; subcarrier rejection 60 dB; spurious
response 80 dB; input selector; input sensitivity
2.5 mV/47k ohms (phono, 150 mV/47k ohms
(tuner, aux., tape); phono overload 0.1% mono, 0.2%
stereo; phase meters; 22-40,000 Hz +0/-1.5 dB; damping factor
80 dB; image rejection 60 dB; i-f rejection 90 dB;
spurious rejection 75 dB; stereo separation 45 dB at
1000 Hz. AM sensitivity 300 µV/µm and S/N 50 dB.
Brushed aluminum front panel with tone and
speaker controls hidden behind lower half of front panel; 4½" H
x 18 9/16 W x 15 4/16 D. $520
TOSHIBA
SA-7150 Stereo Receiver
Digital-synthesizer-controlled receiver with digital fre-
quency readout and six-station memory. Amplifier section: features OCL circuitry, toroidal power
transformer, peak-reading power meters, and three-
speaker switching; 150 W/ch continuous power into 8 ohms (20-20,000 Hz) at 0.08% THD, both channels;
frequency response 20-20,000 Hz +0/-0.5 dB; damping factor 50. Preamp:
frequencies and treble controls; selectability 35 dB; image
rejection 100 dB; subcarrier rejection 60 dB; spurious
response 80 dB; input selector; input sensitivity
2.5 mV/47k ohms (phono, 150 mV/47k ohms
(tuner, aux., tape); phono overload 0.1% mono, 0.2%
stereo; phase meters; 22-40,000 Hz +0/-1.5 dB; damping factor
80 dB; image rejection 60 dB; i-f rejection 90 dB;
spurious rejection 75 dB; stereo separation 45 dB at
1000 Hz. AM sensitivity 300 µV/µm and S/N 50 dB.
Brushed aluminum front panel with tone and
speaker controls hidden behind retractable cover;
walnut side panels; 7½" H x 12½" W x 18½" D. $550
SA-810 Stereo Receiver
Features bass and treble controls with tone defeat; sub-
sound, loudness, and dynamic range compression; digital-
way tape dubbing and monitoring; input selector; input sensitivity/impedance 2.5 mV/47k ohms (phono),
150 mV/47k ohms (tuner, aux., tape); phono
overload 0.1% mono, 0.2% stereo; phase
meters; 22-40,000 Hz +0/-1.5 dB; damping factor
80 dB; image rejection 60 dB; i-f rejection 90 dB;
spurious rejection 75 dB; stereo separation 45 dB at
1000 Hz. AM sensitivity 300 µV/µm and S/N 50 dB.
Brushed aluminum front panel with tone and
speaker controls hidden behind lower half of front panel; 4½" H
x 18 9/16 W x 15 4/16 D. $520
CR-2040 Stereo Receiver

- Features:
  - 41-position volume attenuator.
  - 5/\pi" H X 18 3/4" W X 17 3/4" D.

- Specifications:
  - Damping factor: 70; frequency response 0-100,000 Hz ±2/-3 dB; phono sensitivity 2 mV (MM), 50 mV (MC); maximum input level: 110 mV (MM) (IHF), 110 mV (MC); input impedance 47k, 68k, 100k ohms
  - FM sensitivity 0.7 µV; selectivity 20-20,000 Hz +0.6/-2 dB; audio output level (right-channel meter doubles as signal-strength indicator) 20-20,000 Hz with 0.05% THD and IM dist.; damping factor 40 from 20-20,000 Hz
  - Power input: 15 W/ch, 30 W into 8 ohms
  - Power output: 80 W/ch under same conditions
  - Phono load capacitance switch; input sensitivity/impedance 2.5 mV/50k ohms
  - FM section: usable sensitivity 13.7 dBf (4 µV) mono, 39.2 dBf (50 µV) stereo; AM sensitivity 25.8 dBf (100 µV) mono, 60.0 dBf (100 µV) stereo; max. mono distortion 0.4%; IM dist. 0.2% mono, 0.4% stereo; provision for two speaker pairs; tone controls; loudness and balance controls; low and high filters; -20 dB audio muting; two-way tape dubbing; input selector with separate phono input load capacitance switch; input sensitivity/impedance 2.5 mV/100k, 68k, 47k, 33k ohms (phono MM), 100 µV (MC7051) into 120 mVAT (phono ohms, aux. and tape); phono overload 270 mV (MM), 11 mV (MC); frequency response ±0.2 dB from 20-20,000 Hz (phono RIAA), 5-100,000 Hz (+0.2/-1 dB, aux. and tape); HD 0.01% (MM), 0.05% (MC), IM dist. 0.2% (aux. and tape); S/N (IHF/new IHF) 95 dB/76 dB (MM), 86 dB/79 dB (MC), 100 dB/81 dB (aux. and tape). Tuner: features 3-band (FM), 2-band (AM) stereo/dual-conversion tuning circuit in front end; built-in automatic local/distant i-f selector with LEDs; PLL multiplex ic demodulator; signal-strength (switchable to right power output reading) and FM tuning meters; muting/ optimum tuning system lock switch; mode and adaptor switches, etc.

- Weight:
  - 5'7" H x 24" W x 19 3/4" D. $380

CR-3020 Stereo Receiver

- Amplifier section: 170 Wich continuous, both channels driven into 8 ohms from 20-20,000 Hz at 0.1% THD, 200 Wicha into 4 ohms, IM dist. 0.03%;
  - Damping factor: 112 dB (2.0 µV) mono, 50-dB quieting sensitivity 15.3 dB (3.2 µV) mono, 37.2 dB (40 µV) stereo; FM section: usable sensitivity 17.3 dBf (4 µV) mono, 39.2 dBf (50 µV) stereo; AM sensitivity 25.8 dBf (100 µV) mono, 60.0 dBf (100 µV) stereo; max. mono distortion 0.4%; IM dist. 0.2% mono, 0.4% stereo; provision for two speaker pairs; tone controls; loudness and balance controls; low and high filters; -20 dB audio muting; two-way tape dubbing; input selector with separate phono input load capacitance switch; input sensitivity/impedance 2.5 mV/100k, 68k, 47k, 33k ohms (phono MM), 100 µV (MC7051) into 120 mVAT (phono ohms, aux. and tape); phono overload 270 mV (MM), 11 mV (MC); frequency response ±0.2 dB from 20-20,000 Hz (phono RIAA), 5-100,000 Hz (+0.2/-1 dB, aux. and tape); HD 0.01% (MM), 0.05% (MC), IM dist. 0.2% (aux. and tape); S/N (IHF/new IHF) 95 dB/76 dB (MM), 86 dB/79 dB (MC), 100 dB/81 dB (aux. and tape). Tuner: features 3-band (FM), 2-band (AM) stereo/dual-conversion tuning circuit in front end; built-in automatic local/distant i-f selector with LEDs; PLL multiplex ic demodulator; signal-strength (switchable to right power output reading) and FM tuning meters; muting/ optimum tuning system lock switch; mode and adaptor switches, etc.

- Weight:
  - 5'7" H x 24" W x 19 3/4" D. $380

CR-420 Stereo Receiver

- Amplifier section: 225 Wich continuous, both channels driven into 8 ohms from 20-20,000 Hz at 0.05% THD and IM dist.; damping factor 30 from 20-20,000 Hz
  - Preamp: features bass and treble controls; low and high filters; source/tape monitor switch; loudness control; input selector with magnetic or ceramic phono inputs and 8-OHM. FM section: sensitivity/impedance 2.5 mV/50k ohms (phantograph) 150 µmW2/50k ohms (ceramic phono), 150 mV50k ohms (aux. and tape); phono overload 125 mV at 100 Hz; frequency response 20-20,000 Hz, 30-10,000 Hz, 0.08% (mono), 0.1% (stereo); 6'/7/" H x 18 1/4" W X 14 1/2" D. $650

ZENITH

MC7051 Stereo Receiver

Power amp section: features direct-coupled OCL circuitry; two electrolytic capacitors; speaker overload protection circuit; two-speaker switching; 40 Wicha into 8 ohms, 80 Wicha into 4 ohms
  - Features:
    - Power amp section: features direct-coupled OCL circuitry; two electrolytic capacitors; speaker overload protection circuit; two-speaker switching; 40 Wicha into 8 ohms, 80 Wicha into 4 ohms
  - Weight:
    - 5'7" H x 24" W x 19 3/4" D. $380
Tape outputs; two-way tape dubbing with tape 1 and tape monitor impedance 10k ohms; (mic, dual balanced low- or high-impedance inputs); input sensitivity 2-10 mV (phono), -60 dBm 4.0 V rms; THD and IM dist. 0.01%; S/N -84 dB response 5-100,000 Hz +0.25 dB; rated output 2 V and source and third-source monitor switch; input noise 90 dB below 0.8 V input (high level), 73 dB Hz; harmonic and IM dist. 0.02% max.; 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 ac outlets (three switched). 117-V ac (220-V models available, $5 additional), 5 W. $168 BSWP. High. Similar to BSWP but +6 dB gain on all inputs $175

**ACCUPHASE**

**C-200 Stereo Preamplifier**

Frequency response 20-20,000 Hz +0/-0.2 dB; input sensitivity 0.5 mV (phono), 0.05 V (high level); phono input capacitance 50-430 pF; phono overload 250 mV; phono overload 375 mV; frequency response 5-200,000 Hz ±0.1 dB; THD and IM dist. 0.09%; S/N 70 dB (phono). $1195

**SA-C22U Mini Stereo Preamplifier**

Features differential circuit with dual positive and negative power supplies; defeatable bass and treble controls; low filter; mode and -20-dB muting switches; source/tape monitor switch; loudness switch; balance control; input selectors with LEDs. Input sensitivity/impedance 2.5 mV/47k ohms (phono), 150 mV/47k ohms (tuner, aux., tape); RIAA deviation ±0.2 dB from 20-20,000 Hz; S/N 80 dB (phono), 85 dB (tuner and aux.); 2%V x 8%/W x 6%/D $140

**AGI**

**511A Stereo Preamplifier**

Features bi-amplified phono stage; dual feedback system with electrolytic coupler and separate ac feedback loop; no filters or tone controls, front-panel input select buttons, one-way tape dubbing with two-deck monitor switches, mono switch, and tone send selector (controls external processor loop for equalizers and other signal processors). Gain 33.0 dB ±0.25 dB at 1000 Hz (phono), 18.9 dB ±0.25 dB at 1000 Hz (Option H high gain phono); input impedance 47k ohms (phono), 39k ohms (high level); phono overload at 1000 Hz 160 mV (phono), 70 mV (Option H high gain phono); max. output into 10,000 ohms 7 V (phono), 9.5 V (high level); output impedance 220 ohms at rec out (phono), 47 Ohms (high level); hum and noise below 10 mV at 1000 Hz -88 dB (phono, A weighted), -80 dB (phono, unweighted), -106 dB below full output from 20-20,000 Hz (high level, unweighted); frequency response ±1.5 dB (Option H phono), ±0.1 dB (high level); slew rate 250 V/µsec (phono), 50 V/µsec (high level); rise time at 2 V peak-to-peak 0.01 µsec max. (phono), 0.25 µsec max. (high level); THD and IM dist. 0.005%; Option G (gold-finish panel and knobs) and Option H (high-gain phono stage) are available at extra cost but must be requested at time of purchase of 511A; 5V/Hz x 74 x 100 D $495 Option F. High or low 12 dB/octave Butterworth filter at -3 dB user-specified frequency: $50 Oak hardwood cabinet for 511A $70 Walnut hardwood cabinet for 511A $75

**AB SYSTEMS**

**The Nine Twelve Mixer Preamplifier**

Features two-channel mixer mixing on program or tape outputs; two-way tape dubbing with tape 1 and 2 and source and third-source monitor switch; input selector; external EQ switch; loudness and auto mute switches; timer delay output relay. Frequency response 5-100,000 Hz ±0.25 dB; rated output 4.0 V rms; THD and IM dist. 0.01%; S/N -84 dB (A); input sensitivity 2-10 mV (phono), -60 dBm (mic, dual balanced low- or high-impedance inputs), 250 mV (high level); phono overload 250 mV; tape monitor impedance 10k ohms; 1/4" x 19" W x 9" D. $525

**ACE AUDIO**

**3000 Stereo Preamplifier**

2 V rated output into 10,000-ohm load, 8 V (max.); gain 20 dB (high-level inputs), 60 dB (phono input); phono overload 90 mV; frequency response 20-20,000 Hz 0.1 dB, -1 dB at 1 and 75,000 Hz; harmonic and IM dist. 0.02% max.; hum and noise 90 dB below 0.8 V input (high level), 73 dB below 8 mV input (phono); RIAA phono equalization ±0.5 dB; input impedance 33,000 ohms (high level), 47,000 ohms (phono); output impedance 470 ohms; outputs: main, tapes 1 and 2; inputs: phono, tuner, aux., and tapes 1 and 2; volume and balance controls; three ac outlets (1000 W max.), one switched; two unswitched; 120.- or 240-V ac, 5 W, 2/4" x 14/5" x 7/D $250 AWC-1. Walnut case. $50

**Holman Preamplifier**

Features dc phono preamp with FET/bipolar differential pair input configuration; optional plug-in preamp for moving-coil cartridges; three-tape deck input selector switch with two tape monitor loops and dubbing switches; 32-step attenuator volume control; variable mode control and balance control; tone defeat switch; high filter switchable between 40,000 Hz and 8000 Hz (12 dB/octave rolloff); treble and bass controls; headphone amplifier output; front-panel mute control; THD at rated output 0.01%, IM dist. 0.01% (SMpte), IM dist. 0.006%; frequency response 20-20,000 Hz ±0.5 dB; input sensitivity/impedance 5 mv RMS/47K ohms, 100,000 ohms (phono 1 and 2), 320 mV RMS/50,000 ohms (high level); 2.0 V rms output level; phono overload 150 mV rms at 1000 Hz, line input overload 10 V rms at 1000 Hz; gain 36.5 dB (phono to tape), 18 dB (high level to main); S/N ("A" weighted) 80 dB below input reference level of 10 mV rms at 1000 Hz (phono 1 and 2), 106 dB V peak (line). 3.12" x 15.04" x 8.19" D $502

**APT**

**Basic Stereo Preamplifier**

High-level inputs (FM, aux. 1 and 2); sensitivity 0.1 V for 1 V output; input impedance 41,000 ohms at full volume, 50,000 ohms at -20 dB setting; output impedance 100 ohms; harmonic and IM dist. 0.05% at 2 V output; frequency response 20-20,000 Hz ±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 impedance 47,000 ohms; harmonic dist. 0.05% (midband); RIAA equalization ±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 ac outlets (three switched). 117-V ac (220-V models available, $5 additional), 5 W. $168 BSWP. High. Similar to BSWP but +6 dB gain on all inputs $175

**AIWA**

**SA-220 Mini Stereo Preamplifier**

Features differential circuit with dual positive and negative power supplies; defeatable bass and treble controls; low filter; mode and -20-dB muting switches; source/tape monitor switch; loudness switch; balance control; input selectors with LEDs. Input sensitivity/impedance 2.5 mV/47k ohms (phono), 150 mV/47k ohms (tuner, aux., tape); RIAA deviation ±0.2 dB from 20-20,000 Hz; S/N 80 dB (phono), 85 dB (tuner and aux.); 2%/W x 8%/W x 6%/D $140
**PREAMPLIFIERS**

**AUDIO RESEARCH**

**SP-6A Stereo Preamplifier**
Features segmented 2-dB gain control; front-panel mute switch; rear-panel gain switch (-10 dB); separate on/off switch; indicator for three and power receptacles. Max. input 700 mV at 1000 Hz (magnetic phono); input impedance 50,000 ohms (all inputs); input impedance 500 ohms at 1000 Hz (all outputs); rated output (HIF) 5 V rms from 20-30,000 Hz (all outputs), 60 V rms at 1000 Hz into 100,000-ohm load at 1.0% THD (main out); S/N at 3 V rms per dB; frequency response 10-30,000 Hz ±0.25 dB (high level); RIAA phono deviation ±0.25 dB from 30-15,000 Hz; HD less than 0.0005% at 5 V rms out (HIF); IM dist. less than 0.005% at 5 V rms out (HIF SMPTE); gain 34 dB (magnetic phono in to tape out), 60 dB (magnetic phono in to main out), 0 dB (high level in to tape out), 26 dB (high level in to main out). $6195

WC-2. Walnut finished wood cabinet for SP-4A. $100

**SP-4A Stereo Preamplifier**
Features provisions for alternate compensation of magnetic phono sections; shielded power supply and head amp sections; main output turn-on delay; gold-contact switching controls. Frequency response 1-100,000 Hz ±0.5 dB; 2 V rated output (10 V overload); 0.003% THD and IM dist. at rated output; S/N 84 dB (phono, 10 mV input); sensitivity 0.1 V (high level), 2 mV (phono); phono overload 300 mV; tape impedance/output 2000 ohms/0.5 V; 3/4" H x 19" W x 8½" D. $1195

WC-2. Walnut finished wood cabinet for SP-4A. $90

**SP-5 Stereo Preamplifier**
Frequency response 1-100,000 Hz ±0.5 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 impedance/output 2000 ohms/0.5 V; 3/4" H x 19" W x 8½" D. $895

WC-2. Walnut finished wood cabinet for SP-5. $90

**AUDIO SCIENTIFIC by SUPREX**

**Two-Section Stereo Preamplifier**
Dual-section stereo preamplifier features independently housed power supply; variable phono capacitance loading; frequency response 5-100,000 Hz ±0.5 dB; dist. 0.001%; S/N 110 dB (A weighted). $350

**AUDIENCE**

**Differt 1A Preamplifier**
Features three switch positions for moving-coil cartridge: standard (47,000 ohms and 0 dB), medium- and high-level; 100-dB dynamic range (phono); max. output voltage 8 V rms into 600 ohms (line out), 10 V rms into 5000 ohms (phono at tape out); THD less than 0.01% at rated output; 0 dB below rated output (high level to line out); frequency response 20-20,000 Hz ±0.25 dB (high level and phono RIAA). Features all-discrete circuitry; three-pole (18 dB/octave) subsonic filter; separate bass and treble tone controls equalized at ±15 dB at 50 and 15,000 Hz; front-panel defeat switch for removal of tone controls; four high-level inputs (tuner, aux., tape 1 and 2, equalizer phono); one switched and two unswitched ac outlets; full facilities for interfacing with two tape machines; 3½" H x 19" W x 10½" D. $439

Cabinet. $41

**BOZAK**

**919 Mixer/Preamp**
Designed to be used with the 929 power amplifier; features bass, treble, and midrange 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 midrange, 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 (RIA phono equalization) 30-15,000 Hz ±0.5 dB; has full complement of inputs, outputs, and operating controls; matte black panel; optional walnut veneer enclosure extra. $875

**909 Preamplifier**
Features plug-in circuits; all-silicon circuitry; active filters; flat or equalized switchable tape outputs; 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 ±0.25 dB; dist. 0.1% IM and harmonic; S/N unweighted 80 dB (phono), 90 dB (high level); 12 V output into 600 ohms. $490

**CARVER**

**C-4000 Stereo Preamplifier**
Features sonic audio hologram generator designed to recreate vector sound field present during original recording and to locate musical instruments precisely in space; built-in three-channel time delay system with 25-W amp and user-selectable 60/80 msc initial delay and five primary delays; third-generation audio-correlator noise-reduction system and peak unlimiter; separate left and right bass and treble controls with turnover frequency switches and tone defeat; cartridge matching; two-way tape dubbing and monitoring; external signal processor input; infrasonic filter. Frequency response ±0.25 dB from 20-20,000 Hz (phono RIAA), 5-200,000 Hz ±1 dB (high level); input sensitivity 0.85 mV (phono); 50 mV (high level); phono overload 150 mV at 1000 Hz; phono gain 35 dB. Noise reduction 20 dB from 2500-20,000 Hz, 10 dB from 200-20,000 Hz. Sonic hologram image resolution 5° arc in horizontal plane, 20° arc in vertical plane. Peak unlimiter total dynamic range recovery 6 dB. Time delay: delay time 85 msc max.; dist. 0.2%; bandwidth 20-10,000 Hz, feed forward to 19,000 Hz. 6½" H x 19" W x 8½" D. $867

**STEREO DIRECTORY & BUYING GUIDE**
CONRAD-JOHNSON

Vacuum Tube Stereo Preamplifier
Features low-noise metal film resistors and polyesters and mica capacitors in audio circuitry and vacuum tube design, two-deck tape monitoring with one-way dubbing; input selector for two phono, tuner, tape, and aux.; mode control switch; two amplifier outputs. Frequency response 2,100,000 (bandpass), +0.25 dB from 20-20,000 Hz (phono RIAA), ±0.30 dB below 10 mV in (phono), 84 dB below 2.5 V out (high level); THD and IM dist. 0.05%, gain 35 dB (phono), 28 dB (high level); max. output 25 V; phono overload 500 mV at 1000 Hz; 4% X 14" W x 11" D x 7 3/4" H. $585

CROWN

DB-2 Control Center/Preamplifier
Three-piece stereo control preamp consisting of switching module with all controls, power supply, and phono module A (phono preamp stage for placement at turntable). Features digital control-setting displays, digital interface for wireless remote control system, and eight dual-channel touch-button selectable inputs, including two for external signal processors and one micable input. Specifications: frequency response into 10,000 ohms from 10-50,000 Hz ±0.1 dB; 1-100,000 Hz ±0.5 dB; 2.5 V rated output, 11 V rms max. output; phase response into 10,000 ohms from 20-20,000 Hz ±8 dB, hum and noise below rated output 97 max. (unweighted), 101 max. (A weighted); IM dist. 0.0033% max., maximum 0.01% output for 20-20,000 Hz ±0.25 dB, 1000 ohms; output impedance 25,000 ohms (high level); bass and treble controls with tone defeat; low filter; two-deck tape monitor switch with two-way dubbing; input selector for two phono, tuner, tape monitor switch with two-way dubbing; input selector. Frequency response ±0.5 dB from 20-20,000 Hz (phono, line); ±0.25 dB from 20-20,000 Hz, 1:0.25 dB from 20-20,000 Hz (phono). $550

DENON

PRA-1003 Control Amplifier
Silicon transistor stereo control amplifier. Equalizer: input sensitivity/impedance 2.5 mV/50,000 ohms (phono 1); 2.5 mV/30k, 50k, and 100,000 ohms (phono 2); 320 mV max. input; THD 0.003% at 3 and 20 V from 20-20,000 Hz; RIAA deviation ±0.2 dB from 20-20,000 Hz; 50 mV/50k ohms (phono 1), 500 mV/50k ohms (phono 2); frequency response 2-20,000 Hz ±0.5 dB (phono, line); ±0.2 dB from 20-20,000 Hz; 100 dB (tuner, aux, and phono); 10 V max. output, THD 0.003% at 3 and 20 V from 20-20,000 Hz, 0.007% at 10 V from 20-20,000 Hz; frequency response 10-100,000 Hz +0/-1 dB, S/N 100 dB min. (RIAA "A"), -84 dB (flat unweighted), -89 dB (RIAA), -94 dB (flat, 5000 Hz, 10,000 Hz at 6 dB/octave); IRR deviation 100 dB min. at 20 and 1000 Hz, 85 dB min. at 20 V from 20-20,000 Hz gain control at 0, -10, and -20 db, bass control 50 Hz ±10 db, treble 200 Hz ±10 dB, 18 octave low filter rolloff, 6 dB/octave high filter rolloff. Features independent REC FUNCTION knob to hook up with phono 1 or tuner, FETs and ICL input circuit with no coupling condenser, separate left/right equalizer amps, pure-complementary pushpull circuitry, and headphone amplifier, 170 mm H x 410 mm W x 270 mm D. $550

EUMIG

C-1000 Stereo Preamplifier
Features dc circuitry, built-in moving-coil head amp; bass and treble controls with tone defeat, low cut (15 and 70 Hz) and high cut (2000 and 12,000 Hz) filter switches; loudness and mode switches, tape monitor switch with two-way dubbing; input selector. Frequency response 0-200,000 Hz ±1 dB (overall); +0.5 dB from 20-20,000 Hz (phono RIAA); S/N 80 dB (moving magnet), 70 dB (moving-coil), 100 dB (tuner, aux, tape); THD 0.005% from 20-20,000 Hz, black matte or chrome finish. 19-in rack mountable. $580

Straight Line One Preamplifier
Features precision-stepped gain control (2 dB steps); balance control; low filter; two-deck tape monitor buttons; dual-channel preamp overall in discrete sections for phono, tuner, and aux. 1 and 2. Input sensitivity 2.5 mV (phono), 250 mV (high level); phono overload 33-330 mV; frequency response 20,200,000 Hz; 20-20,000 Hz (phono RIAA), ±0.2 dB from 20,200,000 Hz at rated output; output gain from 30-50 dB, 2.5 V at 1000 Hz; input impedance 47,000 or 100,000 ohms; output impedance 600 ohms with max. 11 V rms; 3% H x 14" W x 7 3/4" H. Switching Module and Power Supply have saturated aluminum front panel with charcoal Lexan inlet, other surfaces black anodized. Phono Module A has black anodized steel finish. $2395

DB SYSTEMS

DB-1A Preamplifier
THD less than 0.0008% from 20-20,000 Hz; IM dist. less than 0.001%, frequency response: (phone) 10-40,000 Hz ±0.07 dB, (high level) 2-50,000 Hz ±0.01 dB; S/N (HF A weighted) 89 dB (phono), 90 dB (line); filters: (low cut) flat, 20 Hz, 36 Hz at 6 dB/octave (phono only), (high cut) flat, 5000 Hz, 10,000 Hz at 6 dB/octave, output impedance 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; balance, volume, low cut, high cut, tape monitor (includes "mute" position); requires separate regulated power supply (included); 8 X 3.2 X 7" $400

DAVID HAFLER

DH-101 Streo Preamplifier
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/µsec; phonof overload 200 mV (1 kHz); hum and noise (unweighted) -88 dB (phono, 1 kHz, 10 mV input output); -90 dB (high level, 1 V); frequency response 2-20,000 Hz +0.5 dB (phono), 20-20,000 Hz +0/-0.25 dB (high level); gain 34 dB (phono, 1 kHz), 201, 203 dB (high level); input impedance 25,000 ohms (high level); bass and treble controls; provision for patching in external equipment; three switched ac convenience outlets; 3.25" H x 13.75" W x 8.38" D. Kit. $200

Assembled $300

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57
HARMAN/KARDON

Citation 17 Preamplifier
Incorporates equalizer section; high-frequency and subsonic filters; two tape monitor loops controlled by front-panel switches; two phono, three high-level aux., and tuner inputs; switching for two sets of speakers and two headphone jacks; stepped attenuator; Max. output 14 V rms into 2200 ohms; 0.002% THD and 0.0025% IM dist. at 2 V output; S/N 102 dB (2 V, high-frequency filter in); input sensitivity 2.8 mV for 2 V rms output; phono preamp: 80 mV (10 dB input, 1 kHz), input 2 mV; 2 V at tape (1 kHz); overload 180 mV (1 kHz); 4%" H x 16%" W x 12%" D. $499

Citation 17s. Similar to Citation 17 but without equalizer section. $349

CW-17. Walnut enclosure for 17 and 17s. $40

P-11/17. Rack panel for 17 and 17s. $30

Citation RPM. Rack panel mount for 17 and 17s. $188

Citation CRM. Floor-standing rack mount for 17 and 17s. $285

HEATH

AP-1800 Stereo Preamplifier
Features built-in moving-coil cartridge head amplifier; switchable phono capacitance/input sensitivity selector; attenuator volume control; tone controls with two filters. Output 1.5 V; THD and IM dist. 0.002%; switches up to 1500 W using ac; 5%" H x 19%" W x 11%" D. Kit. $380

AP-1615 Stereo Preamplifier
Basic preamp; THD and IM dist. 0.05%; -65 dB hum and noise (phone); frequency response 20-20,000 Hz +/-0.2 dB; phono input 100 dB dynamic range; built-in subsounic filter; tape dubbing facilities; hi and lo filters; power on/off relay; solid walnut end panels; 4"%" H x 17%" W x 8" D. $140

HITACHI

HCA-8300 Preamplifier
Features bass and treble controls with tone defeat; left/center/right balance control; subsonic filter; two-way tape dubbing and monitoring; mode, loudness, and -20 dB muting switches; input selector. Input sensitivity/impedance 2.5 mV/50k ohms (phono), 150 mV/40k ohms (tuner, aux., tape); phono overload 150 mV, frequency response 20-20,000 Hz +0.3 dB (phono), 20-20,000 Hz +0/-1 dB (tuner, aux., tape); S/N (IHF A) 83 dB (phono), 90 dB (tuner, aux., tape); HD 0.005%; 3%" H x 17%" W x 10%" D. $200

HCA-6500 Preamplifier
Features bass and treble controls with tone defeat; left/center/right balance control; subsonic filter; two-way tape dubbing and monitoring; mode, loudness, and -20 dB muting switches; input selector. Input sensitivity/impedance 2 mV/33,000, 47,000, 80,000 ohms (tuner, aux., tape); capacitance selectable, 100 or 330 pF; max. input 350 mV (phono, 1 kHz), 35 V (tuner, aux.); rated output 1 V (output), 150 mV (rec. out); output impedance 600 ohms (phono, rec. out, tuner, aux., monitor, pre out); IM dist. 0.002% from RIM curve (phono), ±0/-1 dB (tuner, aux., tape); S/N (IHF A) 75 dB (phono 1 and 2), better than 100 dB (tuner, aux. 1 and 2, monitor 1 and 2); S/N (IHF "A") better than 96 dB (tuner, aux., tape). $350

JVC

JP-S7 S.E.A. Preamplifier
Input sensitivity/impedance 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), 150 mV (rec. out); output impedance 600 ohms (phono, rec. out, tuner, aux., monitor, pre out); IM dist. 0.002% from RIM curve (phono), ±0/-1 dB (tuner, aux., tape); S.E.A. graphic equalizer has 10 controls (one per octave) with ±12 dB range; subsonic and high filters; 6%" H x 22%" W x 10%" D. $750

EQ-7070 Phono Equalizer Preamp
Features built-in moving-coil head amplifier, high-gain equalizer amp with dc circuitry, and dual-FET push-pull dc amplifier, input selector with separate phono selector and cartridge load capacitance/re sistance selects; two-deck tape/source monitor switch; detented volume/balance control; LED standby and operation indicators. Input sensitivity/impedance 0.1 mV/11 ohms (phono 1 MC), 0.025 mV/2.5 ohms (phono 2 MC), 1.8 mV/100, 33k, 50k, 100k ohms (phono 1, 2, 3 MM), 160mV/50k ohms (aux, tuner, tape); phono overload 15 V (MC 1), 3.8 mV (MC 2), 300 mV (MM 1, 2, 3); THD 0.01% (phono, 20 V at rec out, phono), 7 V at pre out); S/N 75 dB (2 mV, high-frequency filter in); input sensitivity 2.8 mV for 2 V rms output; phono preamp: 80 mV (10 dB input, 1 kHz), input 2 mV; 2 V at tape (1 kHz); overload 180 mV (1 kHz); 4%" H x 16%" W x 14%" D. $950

P-3030 Control Preamplifier
Input sensitivity/impedance 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), 0.050% (IM dist.) at 1000 Hz; THD 0.005% (phono, aux., tuner and tape), 0.5-20,000 Hz +0/-0.5 dB (tuner, aux.). $350

KENWOOD

Audio Purlit Group
L-07CII Control Preamplifier
Features low-level impedance circuitry, two independent phono equalizers for moving-coil and moving-magnet cartridges, and cascade differential buffer amplifier circuitry; bass and treble tone controls; 18-Hz subsounic filter; output switch; two-way tape dubbing; input selector. Frequency response +0.2 dB from 20-20,000 Hz (RIAA phone 1) and from 30-20,000 Hz (RIAA phone 2), 1-350,000 Hz +0/-3 dB (tuner, aux., and tape play); THD 0.004% from 20-20,000 Hz at 1 V out (tuner, aux., tape), and at 3 V output (phono 1, 0.008% from 20-20,000 Hz at 1 V out (phono 2). Input sensitivity/impedance 2.5 mV/50k ohms (phono 1), 0.2 mV/6000 ohms (phono 2), 140 mV/25k ohms (tuner, aux., tape); S/N 90 dB (phono 1), 70 dB (phono 2), 108 dB (tuner, aux., tape); max. input 450 mV (phono 1), 40 mV (phono 2); includes low-impedance cable and remote power switch for connection to L-09M, L-07MI, and L-05M power amplifiers; 3%" H x 18%" W x 13%" D. $900

LUX

C-12 Preamplifier
Direct-coupled stereo preamplifier. Features DML-C2S2 drift suppressor, 18-Hz subsounic filter; headphone equalizer; subsounic filter; input impedance adjsus.; tape monitor, tape dubbing, and record off switch; audio attenuator with preset position; extra ac outlet (two switched and one unswitched). Output 1 V/1000 ohms (pre out), 150 mV/100 ohms (rec. out); THD 0.005% (phono, rec. out, tuner, aux., monitor, pre out); IM dist. 0.002% (phono, rec. out, tuner, aux., monitor, pre out); maximum power output 20-20,000 Hz ±0.2 dB (phono 1 and 2), 1-2000 Hz -0.5 dB (tuner, aux. 1 and 2, monitor 1 and 2); S/N (IHF "A") better than 96 dB (phono 1, 2), better than 100 dB (tuner, aux. 1 and 2, monitor 1 and 2); phono overload 300 min. THD 0.005% (phono, aux., tape out); S/N (IHF "A") better than 100 dB (tuner, aux., tape out). $530

Laboratory Reference Series
Luxman SC5S Stereo Control Preamp
Features linear equalizer, switch-selected subsounic notch circuits, selectable sharp high frequency filters, tape dubbing and monitoring, muting switch. Output 1 V (pre out), 150 mV (rec. out), 18 V (max); THD 0.005%; IM dist. 0.002%; frequency response RIM phono, 20-20,000 Hz +0/-0.5 dB (tuner, aux.), 0.5-20000 Hz +0/-0.5 dB (tuner, aux.). $200
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 impedance 30,000, 50,000, 100,000 ohms (phono), 50,000 ohms (tuner, aux.); output impedance 500 ohms; crosstalk -80 dB (phono), -95 dB (tuner, aux.); phono overload 300 mV rms (1 kHz); residual noise 0.33 mV (phono), 5 µV (tuner, aux.), 4 Hz x 17.7 W x 16.0 D…. $895

MARANTZ
3250B Preamp/Control Console
Includes moving-coil head amplifier. THD and IM dist. 0.01% at 3-V output from 20-20,000 Hz. Features selectable tone tumbors; bass, midrange, and treble slide tone controls; independent tape-to-tape copy; two-recorder tape monitoring circuitry; low (18 dB/octave at 15 Hz) and high (18 dB/octave at 10 kHz) filters. 5.5" H x 16.5" W x 9.5" D….. $350

MERIDIAN by ANGLO-AMERICAN
101 Stereo Preamplifier
Features choice of moving-coil or standard pickup cartridge input; one-way tape dubbing with tape/source monitor switch; mono switch; optional input modules to optimize listening configurations available. Input sensitivity 1.4 mV (phono), 450 mV (high level); phono overload 160 mV, frequency response 20-20,000 Hz ±0.5 dB (phono RIAA), 50-20,000 Hz ±0.5 dB (high level); THD and IM dist. 0.01%; chocolate brown textured enamel finish with gold-plated lettering; 2" H x 5.5" W x 12.5" D….. $465

METRON
PR-1 Preamplifier
Features multiple-stepped attenuator volume control adjustable in 2 dB increments; separate stepped bass and treble controls ±10 dB, detented balance control; input selector switch with LED; tape monitor switch; tape dubbing switch; 20 dB muting switch; subsonic filter (-9 dB/octave at 10 Hz), headphone jack. Input sensitivity (IHF) 0.5 mV (phono 1 and 2), 55 mV (aux. and tuner), 62 mV (tape, 0.45 mV at 1000 Hz (mic), phono input impedance 47k ohms, phono overload 230 mV at 1000 Hz, THD and SMPTE IM dist. 0.01% (phono to main out), RIAA phono deviation ±0.2 dB from 30-15,000 Hz, 5-200,000 Hz ±3 dB (mic), 50-20,000 Hz -3 dB (mic), S/N (IHF A) 84 dB (weighted), 73 dB (unweighted), aux., tuner, and tape 92 dB (unweighted). 2.8 H x 18.9 W x 14.2 D…... $330

NAIM by AUDIOPHILE SYSTEMS
NAC 32 Preamplifier
Features input selector for moving-magnet and moving-coil phono cartridges, tuner, and two tape; volume and balance controls, mode switch; normal, mute, and tape monitor switch. Input sensitivity 2.0 mV (phono MM), 0.1 mV (phono MC), 75 mV (high level); max. phono overload 200 mV (MM), 10 mV (MC); frequency response 20-20,000 Hz ±0.5 dB, THD and IM dist. 0.02%, 3" H x 8" W x 12" D….. $920

NAC 125 Preamplifier
Features input selector for moving-coil phono cartridge, tuner, and tape; volume and balance controls. Input sensitivity 0.1 mV (phono), 75 mV (high level); phono overload 10 mV, frequency response 20-20,000 Hz ±0.5 dB, THD and IM dist. 0.02%, 3" H x 5" W x 12" D….. $650

MITSUBISHI
DA-P20 Stereo Preamplifier
Dual-mono docking preamplifier. Specifications: input sensitivity/impedance 0.1 mV/10 ohms (phono MC), 2.3 mV/60k ohms (phono MM), 150 mV/50k ohms (tuner, aux., tape 1/2); RIAA deviation ±0.2 dB from 20-20,000 Hz (phono MM), ±0/0.5 dB from 10-100,000 Hz (tuner, tape 1/2), THD 0.005% (phono MC), 0.003% (phono MM), 0.002% (tuner, aux., tape 1/2); S/N (IHF A) 77 dB into 47 ohms (phono MM), 84 dB, closed circuit (tuner, MC/MM), 100 dB for phono MC/MM, 100 dB for tuner and tape 1/2; phono overload 12 mV at 1000 Hz with 0.1% THD (phono MC), 290 mV (phono MM); output level/impedance 1 V/600 ohms, rated, 18 V max., 150 mV/600 ohms (tape 1/2); load impedance 8-16 ohms. Features attenuator-type level controls: independent tone controls, tone-defeat, and output level controls for each channel; provisions for two tape decks with duplication and monitoring facilities from one to the other; subsonic filter, A, B or A+B speaker selections. 6½" H x 16½" W x 8½" D. $345

M-P01 Micro-Preamplifier
With built-in moving-coil phono cartridge. Specifications: input sensitivity/impedance 100 µV/10 ohms (phono MC), 2.3 mV/50k ohms (phono MM), 150 mV/50k ohms (tuner, aux., tape 1/2); RIAA deviation ±0.2 dB from 20-20,000 Hz (phono), ±0.5 dB from 10-100,000 Hz (tuner); THD at 1 V output from 20-20,000 Hz ±0.005%. (phono), 0.003% (phono MM), 0.002% (high level); S/N (IHF A) 77dB (phono MC), 90 dB (phono MM for 10 mV out), 110 dB, closed circuit (high level); phono overload at 12 mV (MC), 290 mV (MM); output level/impedance 1 V/600 ohms, rated (preamp out), 150 mV/600 ohms at rated output (tape 1/2). Features digital tone controls with LEDs, provisions for two tape decks with tape duplication and monitoring facilities from one to the other, and gold-plated phono input terminals. 2½" H x 10½" W x 9½" D….. $370

DA-P10 Stereo Preamplifier
Two completely separate amplifiers for left and right channels, frequency response 30-15,000 Hz ±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 0.005% (S/N (IHF A) 73 dB (phono), 90 dB (tuner, aux., play); phono overload 270 mV; input sensitivity/impedance 2.2 mV/50k ohms (phono 1 and 2), 150 mV/60k ohms (tuner, aux., play); output level 9 V max. (pre out, 50,000 ohms), 50 mV (headphones, 8 ohms); 6½" H x 16½" W x 8½" D. $330

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Stereo Preamplifiers

**410 Stereo Preamplifier**

Frequency response 20-50,000 Hz ±0.15 dB (aux., tape), RIAM ±0.3 dB (phono); S/N (IHF A) 95 dB (phono), 95 dB (tuner and tape); input sensitivity 20-20,000 Hz ±0.4 dB (high level), RIAM phono deviation ±0.4 dB; gain 40 dB (phono), 20 dB (high level); S/N (IHF "A") 80 dB (phono), 85 dB (high level); two monitor switches for two-deck operation; separate dc headphone amplifier; 22-dB stepped attenuator volume control; ultrasonic filter; switched outlets handle 1100 W; 7"H x 19" W x 13" D. $420

**2000 Series Two Stereo Preamplifier**

Features separate bass and treble tone controls for each channel, bass and treble equalizer, and automatic circuitry which switches critical signal paths to 14 relays; tactile pushbutton controls; phono stage for moving-magnet cartridges and phono stage for moving-coil cartridges; tone control circuitry; two headphone jacks. THD and IM distortion less than 0.01% from 20-20,000 Hz; 20 V rms output; S/N 99 dB (phono), 90 dB (tuner); 1 V rms; 10 V, rack mountable; 50, 200, or 500 ohms (phono MC), 50,000 ohms (high level); phono overload 120 V (MM), 12 V (MC). 3½"H x 19"W x 8"D. $580

**ONKYO**

P-303 Preamplifier

Features two mono amplifiers, separate moving-coil amplifier with provision for moving-magnet cartridge, and equalizer amplifier circuitry; 32-dB, 4-band attenuator volume control; transistor kill circuit with reed relay; power voltage, balance and output; selectable input sensitivity/impedance 2 MΩ (aux, tape); phono overload 20 mV (aux, tape); 150 mV/m; 50,000 ohms (tuner, aux), S/N 89 dB (phono); 100 dB (aux, tape); RIAM equalization ±0.2 dB, frequency response 10-100,000 Hz ±0.1 dB (high level); 10 V; rack must be placed in front of monitor, 2½"H x 19"W x 11½" D. $240

**SPEC-1 Stereo Preamplifier**

Input sensitivity/impedance 2.5 mV/50,000 ohms (phono, mike), 150 mV/10,000 ohms (tuner, aux., tape); 0.01% THD at 2 V output; frequency response 30-15,000 Hz ±2.0 dB (phono), 10-70,000 Hz ±0.5 to 0.75 dB (tuner, aux., tape); tone controls; filters; mixing facilities; level adjust; input impedance selector; 6½"H x 18¾"W x 16¾"D. $650

**KIKKO**

**PIONEER**

**SPEC-1 Stereo Preamplifier**

Input sensitivity/impedance 2.5 mV/50,000 ohms (phono, mike), 150 mV/10,000 ohms (tuner, aux., tape); 0.01% THD at 2 V output; frequency response 30-15,000 Hz ±2.0 dB (phono), 10-70,000 Hz ±0.5 to 0.75 dB (tuner, aux., tape); tone controls; filters; mixing facilities; level adjust; input impedance selector; 6½"H x 18¾"W x 16¾"D. $650

**RG DYNAMICS**

**3000 Series Two Stereo Preamplifier**

Features single-pass noise-reduction and dynamic-range-recovery systems, tape frequency response 20-20,000 Hz ±0.4 dB (high level), RIAM phono deviation ±0.4 dB; gain 40 dB (phono), 20 dB (high level); S/N (IHF "A") 80 dB (phono), 85 dB (high level); two monitor switches for two-deck operation; separate dc headphone amplifier; 22-dB stepped attenuator volume control; ultrasonic filter; switched outlets handle 1100 W; 7"H x 19" W x 10" D. $700

**3000 Series Two Stereo Preamplifier**

Features CMS logic memory system which switches critical signal paths to 14 relays; tactile pushbutton controls; phono stage for moving-magnet cartridges and phono stage for moving-coil cartridges; tone control circuitry; two headphone jacks. THD and IM distortion less than 0.01% from 20-20,000 Hz; 20 V rms output; S/N 99 dB (phono), 90 dB (tuner); 1 V rms; 10 V, rack mountable; 50, 200, or 500 ohms (phono MC), 50,000 ohms (high level); phono overload 120 V (MM), 12 V (MC). 3½"H x 19"W x 8"D. $580

**ROTEL**

**RC-5000 Stereo Preamplifier**

Stereo dc amplifier configuration with dc NF phono equalizer and dc NF graphic equalizer; includes 4-band octave equalizer ±10 dB from 100-10,000 Hz, four-gang attenuated volume control, independent recording selector; subsonic and supersonic filters; full tape dubbing with three tape decks; stereo mic mixing; two independent power supplies; gold-plated input jacks and input/output facilities; third power supply for relays and headphone amplifier; two headphone jacks. THD and IM distortion 0.002% (aux.) from 20-20,000 Hz; S/N (IHF "A") 85 dB (phono), 95 dB (tuner and tape); input sensitivity/impedance 2.8 mV/30-100,000 ohms (phono), 1 mV/50,000 ohms (tuner), 0.1 mV/30,000 ohms (phono MC), 150 mV/50,000 ohms (aux, tape), 5 mV/500 and 50,000 ohms (mic), 150 mV/600 ohms (main unit); 12 dB/octave low filter at 15 and 60 Hz, 12 dB/octave high filter at 7000 and 24,000 Hz; 7⅛"H x 19" W x 16½"D. $1600

**PHILIPS**

**AH 5721 Stereo Preamplifier**

Built-in moving-coil head amplifier. Features 10-band octave equalizer ±10 dB from 100-10,000 Hz, four-gang attenuated volume control, independent recording selector; subsonic and supersonic filters, full tape dubbing with three tape decks; stereo mic mixing; two independent power supplies; gold-plated input jacks and input/output facility; third power supply for relays and headphone amplifier; two headphone jacks. THD and IM distortion 0.002% (aux.) from 20-20,000 Hz; S/N (IHF "A") 85 dB (phono), 95 dB (tuner and tape); input sensitivity/impedance 2.8 mV/30-100,000 ohms (phono), 1 mV/50,000 ohms (tuner), 0.1 mV/30,000 ohms (phono MC), 150 mV/50,000 ohms (aux, tape), 5 mV/500 and 50,000 ohms (mic), 150 mV/600 ohms (main unit); 12 dB/octave low filter at 15 and 60 Hz, 12 dB/octave high filter at 7000 and 24,000 Hz; 7⅛"H x 19" W x 16½"D. $1600

**STEREO DIRECTORY & BUYING GUIDE**
phono equalizer and built-in moving-coil head ampli-
plier. Features attenuated volume control; left/ right bass and treble tone controls ±10 dB/octave
from 100-10,000 Hz; independent recording selec-
tor, subsonic and supersonic filters; full tape dub-
bing with two tape decks; shielded split power sup-
plies; gold-plated input jacks; headphone jack. THD
and IM dist. 0.002% from 20-20,000 Hz; S/N (IHF
"A") 80 dB (phono), 70 dB (head amp); THD and IM
dist. 0.05% from 20-20,000 Hz; 12 dB/octave filter at
15 Hz, 12 dB/octave high filter at 24,000 Hz; 5%$530
RC-1000 Stereo Control Amplifier
Features OP equalizer amplifier and moving-coil head equalizer. Equalizer: ten-band octave equal-
izer with center frequencies set at 32, 63, 125, 250, 500, 1000, 2000, 4000, 8000, and 16,000
Hz, ±12 dB boost or cut. Preamp: features three-
position phono load impedance selector switch;
two-way tape dubbing and monitoring; subsonic fil-
ter; -15 dB muting, input sensitivity/impedance
2.5 mV/35k, 50k, 70k ohms (MM), 0.2 mV/30
ohms (MC), 150 mV/50k ohms (aux. and tuner); fre-equency response 5-70,000 Hz ±0.25 dB; THD
0.003%; S/N (SMPTE) 50 dB (MM), 45 dB (MC), 90
dB (aux. and tuner); 3/4"H x 14"W x 8"D. $320
H. H. Scott
Alpha 1 Preamplifier
Features bass, midrange, and treble controls with
tone defeat and bass and treble turnover frequency
controls; 12 dB/octave low (for 3 dB at 40 and 80
Hz) and high (-3 dB at 8000 and 12,000 Hz) fil-
ters; mic mix control; two-track dubbing, level;
tape monitoring and dubbing. Input sensitivity 2.5
mV/47k ohms (phono MM), 100 µV/100 ohms
(phono 1 and 2), 0.125 mV/3 or 40 ohms switchable
(head amp), 100 µV/100 ohms (aux.); THD 0.006%
at 1 V out, 0 dB gain (aux.); RIAA phono deviation ±0.2 dB; S/N (IHF "A") at rated input 85 dB (phono 1 and 2), 75 dB (head
amp), 105 dB (tuner, aux., and tape); bass tone
tone control ±10 dB at 25 Hz with 150-Hz turnover
and at 50 Hz with 300-Hz turnover; treble tone con-
trol ±10 dB at 20,000 Hz with 4000-Hz turnover
and at 40,000 Hz with 8000-Hz turnover; high (12 dB/
 octave above 9000 Hz) and low (12 dB/octave be-
low 30 Hz) filters; gold-plated phono inputs. 6½"H x
18½"W x 12½"D. $820
TA-E68B Stereo Preamplifier
Features direct-coupled circuitry; built-in moving-
coil head amp; selectable phono input impedance
selector; two pairs of preamp outputs include bass-
boost/subsonic filter. $600

SANSUI
CA-F1 DD/DDC Preamplifier
Features "Diamond Differential dc circuitry" in
phono equalizer section; phono moving-coil, phono
moving-magnet, tuner, and aux. input selector; A-B
speaker switching; tape 1, 2, and source monitor
control; separate bass and treble controls with tone
defeat switch; balance control; loudness contour;
switchable subsonic filter control; main outputs can
be fed to one or two power amps. Frequency re-
sponse ±0.2 dB from 20-20,000 Hz (RIAA phono)
5-600,000 Hz (aux., tuner, and tape); THD
0.005%, S/N 90 dB (phono); 100 dB (aux.,
tuner, and tape); THD 0.006%, S/N 90 dB (phono);
phono overload 350 mV; nominal output 1 V, matte
black finish with detachable rack-mount adaptors...

495

SANYO
PLUS CS5 Stereo Preamplifier
Features low-noise moving-coil pre-preampl,
discrete op amp stages and compensation; 12 dB/octave low equalizer, and dc-coupled class-A circuitry; bipolar power
supplies; passive volume and balance controls and
passive subsonic filter switch; bass and treble con-
trols with turnover frequency switches and tone de-
feat; two-way tape dubbing and monitoring; input
and mode selectors. Input sensitivity/impedance
2.5 mV/47k ohms (phono MM), 100 µV/100 ohms
(phono MSC, 150 mV/47k ohms aux. and tape);
frequency response 0.2 dB from 20-20,000 Hz
(phono RIAA), 10-40,000 Hz ±0.5 dB (aux.
and tape); S/N (IHF A) 85 dB (phono MM), 70
dB (phono MSC), 100 dB (aux. and tape); max.
input 250 µV rms (MM), 10 µV rms (MSC). includes
rack-mount handles; 1½"H x 19 W (with handles)
× 10½"D. $250

SOUNDCASTMEN
SP4002 Signal Processor/Pream
Combination preamplifier and 10-band octave
equalizer. Preamplifier section features two sepa-

SERIES 20
C-21 Stereo Preamplifier
Features left/right gain controls; source/tape moni-
tor switch; cartridge resistance and capacitance controls; subsonic filter; Input sensitivity/impedance
2.5 mV/100 Ohms, 0.125 mV/250 ohms (phono and
tape); phono overload 300 mV at 1000 Hz;
frequency response ±0.2 dB from 20-20,000 Hz
(phono), 10-100,000 Hz 0 dB (aux.); THD 0.006%
(SMPTE); S/N (A weighted) 75 dB (phono), 90
dB (tuner, aux., tape); rated output level 2.5 mV; in-
cludes EIA rack-mount handles; 5½"H x 19"W x
14"D. $390

SONY
TA-E68B Stereo Reference Preamplifier
Dual mono preamp features direct-coupled circuitry;
built-in moving-coil head amp with separate power supply; dual-FETs and bipolar transistors in EQ and buffer stages; switch for two
tape decks and source; input selector with separate selectable phono input impedance control;
subsonic filter; three-position audio muting; balance and mode controls. Input sensitivity/impedance 2.5
mV/50k ohms (phono 1), 2.5 mV/10k-50k ohms
(phono 2). 0.125 mV/25 or 100 ohms (head amp),
150 mV/50k ohms (tuner, aux., tape); max. input
250 mV rms (head amp), 0.25 mV rms (tuner, aux.
appears to be a scanned page of a catalog or a manual for audio equipment, containing technical specifications and product descriptions. The text includes details about various preamplifiers, their features, specifications, and prices. The section also mentions other brands and equipment, such as phono equalizers, stereo preamplifiers, and control centers. The document appears to be from a catalog or a similar publication, providing information about the products and their specifications. The text is formatted in a typical catalog style, with product names followed by detailed specifications and pricing information. The document is likely intended for audiophiles or audio enthusiasts, providing them with the necessary information to make informed purchasing decisions.
PE2217R Stereo Preamplifier

Combines two discrete phono preamplifiers, discrete line amplifier, pushbutton patching, and equalizer. Features interlocked pushbuttons; discrete-octave equalization control (10 octaves/ch, ±12 dB); full spectrum level control/channel; zero-gain equalization balance; two or three tape deck dubbing capability with front-panel automatic LED tape monitoring output jacks; line/tape equalization selector; auto equalizer/defeat; two headphone jacks; mono selector; reverse/stereo mode; four switched and two unswitched ac outlets. Specifications: frequency response 5-100,000 Hz; 0.003% THD; 100 mV phono overload.

SL 10 Preamplifier

Direct-coupled cascade/class A stereo amplifier features built-in moving-coil pre-preamp with separate power supply; discrete design with tank transformer and polyastrene capacitors in signal path; 20,000-µF supply regulation; individually adjustable rear-panel impedance and capacitance settings for phono input; tape monitor switch; channel balance control. Frequency response -0.5 dB (RIAA phono), 0-5000 Hz; 0 -3 dB (high level); THD 0.01% from 20-20,000 Hz (mono), 0.003% from 20-500 Hz (high level); SMPTE IM dist. 0.025% at 1-V output (mono), 0.008% at 2-V output (high level); 5 V out (high level); S/N (A weighted) 90 dB (mono), 86 dB (high level); phono overload 320 mV; 3.5" H x 19" W x 8" D...

SY-665 Stereo Preamplifier

Features built-in moving-coil FET head amp and two parallel equalizer with current noise reduction circuit and tone control amplifier circuitry; bass and treble controls; subsonic filter; -20-dB audio muting; mode switch; two-way tape dubbing; input selector with separate phono input selector and two phono cartridge head amplifier and low-noise dual FET phono equalizer with current noise reduction circuit and tone control amplifier circuitry; bass and treble controls; subsonic filter; -20-dB audio muting; mode switch; two-way tape dubbing; input selector with separate phono input selector and two phono cartridge.

C-2a Preamplifier

DC phono preamplifier features low-noise moving-coil cartridge head amp and low-noise dual FET phono equalizer with current noise reduction circuit and tone control amplifier circuitry; bass and treble controls; subsonic filter; -20-dB audio muting; mode switch; two-way tape dubbing; input selector with separate phono level controls; and tone bypass switch for tone control amp; bass and treble controls; subsonic filter; -20-dB audio muting; mode switch; two-way tape dubbing; input selector with separate phono input selector and two phono cartridge head amplifier and low-noise dual FET phono equalizer with current noise reduction circuit and tone control amplifier circuitry; bass and treble controls; subsonic filter; -20-dB audio muting; mode switch; two-way tape dubbing; input selector with separate phono input selector and two phono cartridge.

C-30 Power Amplifier

Features built-in moving-coil FE head amp and two parallel equalizer with current noise reduction circuit and tone control amplifier circuitry; bass and treble controls; subsonic filter; -20-dB audio muting; mode switch; two-way tape dubbing; input selector with separate phono input selector and two phono cartridge head amplifier and low-noise dual FET phono equalizer with current noise reduction circuit and tone control amplifier circuitry; bass and treble controls; subsonic filter; -20-dB audio muting; mode switch; two-way tape dubbing; input selector with separate phono input selector and two phono cartridge.

YAMAHA 301 Stereo Preamplifier

Features built-in moving-coil FET head amp and two parallel equalizer with current noise reduction circuit and tone control amplifier circuitry; bass and treble controls; subsonic filter; -20-dB audio muting; mode switch; two-way tape dubbing; input selector with separate phono input selector and two phono cartridge head amplifier and low-noise dual FET phono equalizer with current noise reduction circuit and tone control amplifier circuitry; bass and treble controls; subsonic filter; -20-dB audio muting; mode switch; two-way tape dubbing; input selector with separate phono input selector and two phono cartridge.
The Four-Ten Power Amplifier

Features solid-state circuitry; RCA multiple emitter power transistors; dual 1/4" phono jack inputs; dc latch speaker protection; rear-panel input level controls; channel one and two level controls with LED indicator display, remote/sequential ac power control. 205 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.25% THD and 0.1% IM dist.; 400 W/ch continuous into 16 ohms; rear-panel input level control; frequency response 20-20,000 Hz ±0.25 dB, THD and IM dist. 0.1% from 0.25 W rated power, 20-15,000 Hz; hum and noise -101 dB, input sensitivity 2.5 V rms; subsonic filter 18 dB/octave; cutoff frequency 17 Hz; incorporates two independent power supplies; front-panel stereo headphone jack; motorized power switches for mono operation; two-channel power supply to form cascode action; speaker load switch (from 2-16 ohms) with front-panel switch for mono operation; two speaker line fuse holders; logic circuitry; front-panel power supply fuses; three built-in fans. 350 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.06% dist.; frequency response 20-20,000 Hz ±0.2 dB; dist. 0.04% at 30 W, 1000 Hz; 51 V 5/5 95 dB; input sensitivity/impedance 0.75 V rms/25k ohms; crosstalk 70 dB at 1000 Hz between channels; dynamic headroom 12 dB at 4 or 8 ohms; frequency response 20-20,000 Hz ±0.12 dB; hum and noise 90 dB below rated output; 6" H x 17" W x 8" D $750

SA-P22U Mini Power Amplifier

Mini stereo power amplifier features dc circuitry; toroidal power transformer with dual electrolytic capacitors; five LED logarithmic power output display; two-speaker switching; self-resetting protection circuit. 30 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.06% dist.; frequency response 20-20,000 Hz ±0.2 dB; dist. 0.04% at 30 W, 1000 Hz; S/N 95 dB; input sensitivity/impedance 400 mV/47k ohms; damping factor 45 at 1000 Hz, 8 ohms; 2¼" H x 8" W x 6¾" D $210

AMBER BY H&H INTERNATIONAL

Series 70 Power Amplifier

Modular stereo power amplifier with built-in bridging circuit with rear-panel switch for mono operation; passive power supply with two massive filter capacitors; 70 W/ch into 8 ohms, 200 W mono into 8 ohms; THD and IM dist. 0.01%; frequency response 100,000 Hz - 3 dB; slew rate 20 V/µsec; 7½" H x 19" W x 8" D $475

APT

Apt 1 Amplifier

Features dc circuitry; mono bridging; rear-panel speaker load switch (from 2-16 ohms) with front-panel LED readout for adjustment; two-color LED readout for signal at output and overload detection; relay protection. 100 W/ch continuous, both channels driven into 4 or 8 ohms with 0.03% THD; dynamic headroom 3 dB at 4 or 8 ohms; frequency response 0-20,000 Hz +0/-0.5 dB; slew factor 10 mV/µsec; 3½" H x 16.9" W x 10.19" D $640

Apt 2 Power Amplifier

Class ABD power amplifier with 12-power MOS FETs in output stage and switching-mode power supply to form cascade action; speaker load switch (2-16 ohms); LEO overload, speaker thermal index, and peak voltage level indicators; interchangeable input circuit board for optional inputs. 200 W/ch continuous, both channels driven into 4 or 8 ohms with 0.03% THD approx. $1450

AUDIO RESEARCH

D-350B Stereo Power Amplifier

Linear two-channel power amplifier. Features power-line monitor meter with identified operating ranges; output power monitor meters; built-in speaker line fuse holders; logic circuitry; front-panel power supply fuses; three built-in fans. 350 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.25% THD; IM dist. less than 0.1% at rated output; S/N 110 dB (unweighted); input sensitivity/impedance 1.35 V rms/30,000 ohms. 10½" H x 19" W x 17¼" D $3500

D-79 Power Amplifier

Vacuum tube power amplifier features cathode current bias adjust with separate controls/ch and LEDs; dual power monitors metered as safe operation/continuously under same conditions; no mono bridging.

Real Power for the Real World: The Apt 1 Amplifier

Apt Corporation believes there's only one good reason to create a new product: a genuine need. The Apt 1 Amplifier is just such a product. With 3 dB of Dynamic Headroom, it can deliver as much as twice its 100W average rated power (20 Hz-20 kHz @ 0.03% THD) on musical peaks—just as program material so often requires. And, it can deliver this extra performance into any actual loudspeaker, not just on the test bench. The Apt 1 also incorporates new approaches to power supply, driver stage, and protection circuit design, which all contribute to a uniquely useful amplifier.

Problem Solving in a Real System: The Holman Preamplifier

You don't live in an ideal world—neither does your stereo music system. The Holman Preamp is the result of over 2 man-years of research into how and why components behave in real-world hifi systems. As such, it provides an unprecedented balance of features and performance, which combine toward a common goal: sonic excellence.

The Holman Preamp and the Apt 1 Amplifier; individually or together they make music systems work better, and sound better.
2 POWER AMPLIFIERS

1560 Power Amplifier

Class A stereo power amplifier; 50 W/ch continuous; frequency response 8-150,000 Hz ± 0.5 dB; S/N 115 dB (A weighted); dist. 0.005% at 50 W...

$550

AUDIENCE

DM 700 Power Amplifier

Combines two bridged mono amplifiers on one chassis. Features dual power output meters with YU meter range selector and peak-clipping LED indicators. 350 W/ch; both channels driven into 8 ohms from 20-20,000 Hz; 500 W into 4 ohms; THD and IM dist. less than 0.05% at 350 W; frequency response at rated power 10-20,000 Hz ± 0.2 dB; hum and noise ~ 100 dB; slew rate 80 V/µsec; input sensitivity/impedance 1.15 V/27 kΩ; frequency response 10-20,000 Hz ±0.2 dB; 2M Power Amplifier

Features clipping LEDs, twin YU meters, YU meter range selector switch, and ac switch; 100 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz; 120 W/ch into 8 ohms; THD and IM dist. less than 0.05% at 100 W; power bandwidth 10-20,000 Hz ±0.2 dB; frequency response 10-60,000 Hz ±0.2 dB at 1 W; hum and noise ~ 100 dB; damping factor 150; input sensitivity/impedance 1.0 V RMS/33 kΩ. Includes front panel rack mount; 5'/4" H x 17'/4" W x 13'/4" D...

$1400

MCA-2-80 Power Amplifier

Stereo power amplifier with all-silicon solid-state circuitry; open and short-circuit protection; overheat protection. 80 W/ch continuous total output; frequency response 20-20,000 Hz ±0.5 dB; HD 0.5% from 20-10,000 Hz; noise ~ 80 dB; distortion at rated output; input sensitivity 0.7 V for rated output; anodized brushed aluminum finish; 5'/4" H x 19" W x 12" D...

$740

BOZAK

CMA-2-65 Power Amplifier

Dual power amplifiers feature direct-coupled circuitry; electronically protected output; overheat protection. 65 W/ch continuous into 8 ohms, 130 W total; frequency response 100-200,000 Hz ±0.1 dB; THD 0.1% at 1000 Hz; IM dist. 0.2% (SMPTE); damping factor 100 at 2000 and 1000 Hz; rise time < 1 µsec; S/N 90 dB unweighted; input sensitivity 0.6 V; 5'/4" H x 19" W x 10'/4" D...

$575

BRYSTON

4B Stereo Power Amplifier

200 W/ch into 8 ohms (400 W into 8 ohms, 80 W bridged into 8 ohms) over 20-20,000 Hz with 0.05% THD and 0.025% IM dist. at 100 W; S/N 90 dB; crosstalk below 100 dB; slew rate 60 V/µsec; damping factor 500 (8 ohms, 20 Hz); input sensitivity/impedance 1 V RMS/50 kΩ; has bridging switch; each channel separated back to line cord; LED pilot light and overdrive (clipping) indicators; 5'/4" H x 19" W x 13'/4" D...

$1295

CMA-1-100M Power Amplifier

Mono version of CMA-2-80; frequency response 20-20,000 Hz ±1 dB; input sensitivity 1.0 V...

$500

CRAVE

M-400 Power Amplifier

Features magnetic field circuitry that eliminates need for oversized heatsinks, power transformers...

$669

CARVER

C-500 Power Amplifier

Features FET signal circuitry and extra output transistors; dual moving LED switchable peak/peak hold bar graph display with 3-LED display; left/right sensitivity controls with +15 dB sensitivity display switch; LED overload indicators. 251 W/ch continuous into 8 ohms from 20-20,000 Hz with 0.05% THD and 0.025% IM dist. at 120 W; crosstalk below 100 dB; damping factor 500 (8 ohms, 20 Hz); noise ~ 80 dB; distortion at rated output; frequency response 1-250,000 Hz ±0.25 dB; S/N 110 dB (A weighted); slew rate 80 V/µsec; dynamic range 70 dB. Brushed champagne gold finish with brown trim; 6'/4" H x 19" W x 9'/4" D...

$659

ANL AUDIO SCIENTIFIC by SUPEREX

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 20-20,000 Hz ±0.2 dB; THD at 1000 Hz 0.1%; response 3-100,000 Hz ±0.3 dB at 1 W; damping factor 100 at 20 and 1000 Hz; S/N (unweighted) 115 dB (A weighted); distortion 0.025% at 350 W, 1000 Hz; THD and IM dist. at 350 W 0.05% and 0.025%, respectively; subsonic switch; damping factor 100; input level controls; 32 dB gain; black front panel; optional walnut veneer enclosure extra...

$525

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 ±0.2 dB; S/N (unweighted) 90 dB; subsonic switch; damping factor 100; input level controls; 32 dB gain; black front panel; optional walnut veneer enclosure extra...

$525

1500 Power Amplifier

Class A power amplifier; features separate left and right LED power output bar graph display with three-LED clipping and display range selector; 85 W/ch...

$825

CMA-2-40 Power Amplifier

Stereo power amplifier with all-silicon solid-state circuitry; open and short-circuit protection; overheat protection. 40 W/ch continuous total output; frequency response 20-20,000 Hz ±0.5 dB; HD 0.5% from 20-10,000 Hz; noise ~ 80 dB; distortion at rated output; input sensitivity 0.7 V for rated output; anodized brushed aluminum finish; 5'/4" H x 19" W x 12" D...

$740

CARVER

M-400 Power Amplifier

Features magnetic field circuitry that eliminates need for oversized heatsinks, power transformers...

$669

STEREO DIRECTORY & BUYING GUIDE
and electrolytic capacitors; dual moving LED vertical peak display with VU ballistics. 200 W/ch

continuous into 8 ohms from 1-20,000 Hz with 0.05% THD and 0.06% IM dist.; frequency response 1-250,000 Hz ± 0.25 dB; S/N 100 dB (A weighted); slew rate 80 V/µsec; dynamic range 50 dB. Brushed champagne gold finish with brown trim, 6" H x 61/2" W x 6 1/2" D. ...$349

CONRAD-JOHNSON

Vacuum Tube Power Amplifier

Features low-noise parts in audio circuitry and vacuum tube design; LED power indicator; 75 W/ch continuous, both channels driven into 4, 8, or 16 ohms from 30-15,000 Hz with 0.1% THD and IM dist., 150 W mono; frequency response 20-20,000 Hz ± 0.5 dB; input sensitivity 1.19 V ±2% for 80 W into 8 ohms; phase response +0/-15 degrees (0-20,000 Hz, 1 W); damping factor greater than 750; input impedance 25,000 ohms ±30%; short, mismatch, open circuit, thermal, and input overload protection; 120-, 128-, 240-, 248-, and 256-V ac ±10%; 50-400 Hz, 40 W (idle), 510 W (at rated output); fits 19-in standard rack mount; includes IOC (input/output comparator); 5/8" H x 17" W x 8 1/2" D. ...$599 SR. Cabinet ...$445

PL-1 Power Amplifier

Features LED input-output comparator readout display; monostable or dual-channel power amplifiers into 8 ohms from 20-20,000 Hz with 0.05% THD; 0.00095% IM dist. at 50 W; frequency response 5-100,000 Hz ±0/-20 dB; S/N 110 dB below rated output; 3/4" H x 19" W x 12 1/2" D. ...$499

D-75 Power Amplifier

Single- or dual-channel power amplifier. Features two 100 W/ch continuous power amplifiers into 8 ohms from 20-10,000 Hz at 0.05% THD; 45 W/ch continuous into 4 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 impedance 25,000 ohms ±30%; short, mismatch, open circuit, thermal, and input overload protection; 120- and 240-V ac ±10%, 50-400 Hz, 30 W (idle), 250 W (at rated output); includes IOC (input/output comparator); 5/8" H x 17" W x 8 1/2" D. ...$599 SR. Cabinet ...$445

PL-1 Power Amplifier

Features LED input-output comparator readout display; monostable or dual-channel power amplifiers into 8 ohms from 20-20,000 Hz with 0.05% THD; 0.00095% IM dist. at 50 W; frequency response 5-100,000 Hz ±0/-20 dB; S/N 110 dB below rated output; 3/4" H x 19" W x 12 1/2" D. ...$499

SA-2 Power Amplifier

Features dual-LED input/output comparator display indicators; stereo/mono switch; remote mute; four on-board computers that analyze demand and immediate history of amplifier and load for max. output power; two-speed fan cooling. 220 W continuous into 8 ohms from 20-20,000 Hz with 0.05% THD and 0.01% IM dist.; frequency response 0-80,000 Hz +0/-1.5 dB; S/N 110 dB (A weighted); 7" H x 19" W x 14 1/2" D. ...$1959

PSA-2 Power Amplifier

Features dual-channel LED overload, signal, and standby indicators; LED power meter; high-impedance balanced inputs; switchable high and low-pass filters (for true bi-amplification); 50 pulse/sec test tone generator; limiter compressor with variable threshold; five/sec turn on delay monitored; switch; two-speed fan cooling. 220 W continuous into 8 ohms from 20-20,000 Hz with 0.05% THD and 0.01% IM dist; frequency response 0-80,000 Hz +0/-1.5 dB at 1 W; S/N 110 dB below rated output; 7" H x 19" W x 14 1/2" D. ...$1495

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 0-100,000 Hz ±1 dB (1 W into 8 ohms); input sensitivity 1.71 V ± 2% for 155 W into 8 ohms; phase response +0/-15 degrees (0-20,000 Hz, 1 W); damping factor greater than 750; input impedance 25,000 ohms ±30%; short, mismatch, open circuit, thermal, and input overload protection; 120-, 128-, 240-, and 248-V ac ±10%; 50-400 Hz, 40 W (idle), 510 W (at rated output); fits 19-in standard rack mount; includes IOC (input/output comparator); 5/8" H x 17" W x 8 1/2" D. ...$599 SR. Cabinet ...$445

D-150A Stereo/Mono Power 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 0-100,000 Hz ±1 dB (1 W into 8 ohms); input sensitivity 1.91 V ± 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 impedance 25,000 ohms ±30%; short, mismatch, open circuit, thermal, and input overload protection; 120- and 240-V ac ±10%, 50-400 Hz, 30 W (idle), 250 W (at rated output); includes IOC (input/output comparator); 5/8" H x 17" W x 8 1/2" D. ...$599 SR. Cabinet ...$445

DB SYSTEMS

DB-6 Power Amplifier

Features Class A, FET, and digital circuitry; 12 dB/
2 POWER AMPLIFIERS

octave subsonic filter; peak-clipping LEDs; electronic clamp (in place of relays); 40 W/chn continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.003% THD, 60 W continuous into 4 ohms; THD 0.008% at 1000 Hz; IM dist. less than 0.002%, frequency response 20-20,000 Hz +0/-1 dB; input sensitivity/impedance 1 V/50,000 ohms; S/N 112 dB at 1 V in (A weighted), 96 dB at 1 W in 8 ohms (A weighted), slew rate 15 V/μsec; damping factor greater than 400 from 20-10,000 Hz, 40 at 20,000 Hz. 4.9" H x 16" W x 12.8" D $595

POA-1003 Power Amplifier
100 W/chn continuous both channels driven into 4 ohms from 20-20,000 Hz at 0.03% THD, 85 W/chn continuous into 8 ohms; IM dist. 0.02%; power bandwidth 3-70,000 Hz; frequency response 0-100,000 Hz +0/-1 dB; input sensitivity/impedance 1 V RMS/50k ohms; output impedance 0.04 ohms; damping factor 200 into 8 ohms; S/N 119 dB (IHF "A"); 6 dB/octave rolloff. Features cascade coupling at first stage, low noise FET differential amp, complementary ICL/OCL circuitry and left/right power transformer meters. 200 mm H x 410 mm W x 285 mm D $870

DENON

A-75VI Power Amplifier
75 W/chn continuous into 8 ohms from 0-50,000 Hz with 0.1% THD and IM dist., 140 W/chn into 4 ohms; power bandwidth 400,000 Hz into 8 ohms; linear frequency response 0-200,000 Hz +0/-0.3 dB; overload recovery 2.5 μsec, rise time 2.7 μsec, slew rate 105 V/μsec; input sensitivity/impedance 1.4 V RMS/100,000 ohms (47 pF); output voltage ±40; S/N 100 dB (unweighted), features digital time meter for total operating hours; calibrator with input trim knobs to match A-75 to preamp or drive source; microswitch-activated power switch; load 1/2, normal/supply, standby, and power on LEDs; 125 W/ch continuous into 8 ohms from 0-20,000 Hz with 0.16% THD; frequency response 5-80,000 Hz; THD over 20-20,000 Hz; Class G amplification; pure complementary OCL circuitry; two peak meters; left and right output level controls; subsonic filter; 200 W/ch continuous into 4 or 8 ohms from 20-20,000 Hz with 0.1% THD; frequency response 5-80,000 Hz ±1 dB; input sensitivity/impedance 1 V/50,000 ohms $650

EAR-1/2M. Similar to DB-6 except bridged mono amplifier with 140 W continuous with 0.008% THD, 225 W continuous into 4 ohms; slew rate greater than 30 V/μsec $650

ELECTRO RESEARCH

A-75 Power Amplifier
75 W/chn continuous into 8 ohms from 0-50,000 Hz with 1.1% THD and IM dist., 150 W/chn into 4 ohms; power bandwidth 400,000 Hz into 8 ohms; linear frequency response 0-200,000 Hz +0/-0.3 dB; overload recovery 2.5 μsec, rise time 2.7 μsec, slew rate 105 V/μsec; input sensitivity/impedance 1.4 V RMS/100,000 ohms (47 pF); output voltage ±40; S/N 100 dB (unweighted), features digital time meter for total operating hours; calibrator with input trim knobs to match A-75 to preamp or drive source; microswitch-activated power switch; load 1/2, normal/supply, standby, and reset/frequency indicators; 7" H x 19" W x 18" D $2185

HARMAN/KARDON

Citation 16a Power Amplifier
150 W/chn continuous into 8 ohms over 20-20,000 Hz with 0.05% THD; power bandwidth 5-45,000 Hz $300

HARMAH/KARDON

Citation 16b Power Amplifier
150 W/chn continuous into 8 ohms over 20-20,000 Hz with 0.05% THD; power bandwidth 5-45,000 Hz $300

HEATH

AA-1640 Stereo Power Amplifier
200 W/ch min. continuous 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 1.25 V for full rated output; turn-on delay, relay, and fuses to protect speakers; optional peak-reading meters display output in db and watts into 8 ohms; 125 W/ch continuous into 8 ohms; load impedance 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); 96/4" H x 17"W x 16" D $500

AA-1660 Stereo Power Amplifier
Features left/right peak output, high temperature, and program legends; 6’1/4" H x 18’1/4" W x 14’1/4" D $350

JVC

M-7070 Mono Power Amplifier
Features dc circuitry with power MOS FETs in output stage; Class-D power supply; 12-LED peak power bar graph display; two-speaker switching; 120 W into 8 ohms from 20-20,000 Hz with 0.003% THD, 240 W into 4 ohms; frequency response 0-100,000 Hz ±0/-0.5 dB; S/N 120 dB $350

STEREO DIRECTORY & BUYING GUIDE
M-12 Mono Power Amplifier

Direct-coupled mono power amplifier. Features input power supply for left/right channels; DML-IIc to suppress dc drift; input capacitor in/out selector; input attenuator. 150 W continuous into 8 ohms from 20-20,000 Hz with 0.006% THD and IM dist.; frequency response 0-100,000 Hz ±0.004% THD; features dc circuitry for zero phase-shift distortion; two illuminated 3¾ in VU meters; separate left/right gain controls; LED peak indicators. 5¾ "H x 16¾ "W x 11¾ "D. $465

Laboratory Reference Series

Luxman SM21 DC Stereo Power Amp

Features pure dc design; class A/B output stage; separate dual polarity supplies for each channel; speaker and amplifier protection circuits; electronic automatic power switch 100,000 Hz 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 890 mV; input impedance 50,000 ohms; residual hum and noise ±0.1 mV; crosstalk -90 dB (CCIR); chocolate brown textured enamel finish with gold-blocked lettering; 4" H x 18.9" W x 12.4" D. $1295

MARANTZ

300DC Power Amplifier

Fully complementary, dc amplifier. 152 W/ch continuous into 8 ohms at 0.03% THD. 108 W/ch continuous into 4 ohms from 20-20,000 Hz at 0.05% THD; features dc circuitry for zero phase-shift distortion; two illuminated 3¾ in VU meters; separate left/right gain controls; LED peak indicators. 5¾ "H x 16¾ "W x 11¾ "D. $725
**200W Power Amplifier**

- **Features:**
  - Mono amplifiers with own power supply.
  - Large heatsinks; dc amplifier circuitry; relay operated protective circuit; three-step low-cut filter; power, cutoff frequency, and left/right level adjuster; +0/-1 dB; load impedance 4-16 ohms.

- **Specifications:**
  - 50 ohms; 0.05% THD, 200 W continuous into 4 ohms.
  - Frequency response: 0.1-160,000 Hz; S/N 110 dB (IHF "A"); embossed vinyl over metal cabinet; 6 "H x 17" W x 12 "D.

- **Price:** $580

**M-505 Stereo Power Amplifier**

- **Features:**
  - Two mono amplifiers with own power supply.
  - Large heatsinks; dc amplifier circuitry; relay operated protective circuit; three-step low-cut filter; power, cutoff frequency, and left/right level adjuster; +0/-1 dB; load impedance 4-16 ohms.

- **Specifications:**
  - 50 ohms; 0.05% THD, 200 W continuous into 4 ohms.
  - Frequency response: 0.1-160,000 Hz; S/N 110 dB (IHF "A"); embossed vinyl over metal cabinet; 6 "H x 17" W x 12 "D.

- **Price:** $580

**420 Stereo Power Amplifier**

- **Features:**
  - Mono amplifiers with own power supply.
  - Large heatsinks; dc amplifier circuitry; relay operated protective circuit; three-step low-cut filter; power, cutoff frequency, and left/right level adjuster; +0/-1 dB; load impedance 4-16 ohms.

- **Specifications:**
  - 50 ohms; 0.05% THD, 200 W continuous into 4 ohms.
  - Frequency response: 0.1-160,000 Hz; S/N 110 dB (IHF "A"); embossed vinyl over metal cabinet; 6 "H x 17" W x 12 "D.

- **Price:** $580

**360 Stereo Power Amplifier**

- **Features:**
  - Two stereo amplifiers with own power supply.
  - Large heatsinks; dc amplifier circuitry; relay operated protective circuit; three-step low-cut filter; power, cutoff frequency, and left/right level adjuster; +0/-1 dB; load impedance 4-16 ohms.

- **Specifications:**
  - 50 ohms; 0.05% THD, 200 W continuous into 4 ohms.
  - Frequency response: 0.1-160,000 Hz; S/N 110 dB (IHF "A"); embossed vinyl over metal cabinet; 6 "H x 17" W x 12 "D.

- **Price:** $580

**300 Series Two Stereo Power Amplifier**

- **Features:**
  - Two stereo amplifiers with own power supply.
  - Large heatsinks; dc amplifier circuitry; relay operated protective circuit; three-step low-cut filter; power, cutoff frequency, and left/right level adjuster; +0/-1 dB; load impedance 4-16 ohms.

- **Specifications:**
  - 50 ohms; 0.05% THD, 200 W continuous into 4 ohms.
  - Frequency response: 0.1-160,000 Hz; S/N 110 dB (IHF "A"); embossed vinyl over metal cabinet; 6 "H x 17" W x 12 "D.

- **Price:** $580

**210 Series Two Stereo Power Amplifier**

- **Features:**
  - Two stereo amplifiers with own power supply.
  - Large heatsinks; dc amplifier circuitry; relay operated protective circuit; three-step low-cut filter; power, cutoff frequency, and left/right level adjuster; +0/-1 dB; load impedance 4-16 ohms.

- **Specifications:**
  - 50 ohms; 0.05% THD, 200 W continuous into 4 ohms.
  - Frequency response: 0.1-160,000 Hz; S/N 110 dB (IHF "A"); embossed vinyl over metal cabinet; 6 "H x 17" W x 12 "D.

- **Price:** $580

**100 Series Two Stereo Power Amplifier**

- **Features:**
  - Two stereo amplifiers with own power supply.
  - Large heatsinks; dc amplifier circuitry; relay operated protective circuit; three-step low-cut filter; power, cutoff frequency, and left/right level adjuster; +0/-1 dB; load impedance 4-16 ohms.

- **Specifications:**
  - 50 ohms; 0.05% THD, 200 W continuous into 4 ohms.
  - Frequency response: 0.1-160,000 Hz; S/N 110 dB (IHF "A"); embossed vinyl over metal cabinet; 6 "H x 17" W x 12 "D.

- **Price:** $580

**PS Audio**

**PS Model One Power Amplifier**

- **Class A power amplifier with front panel power switch and LED; 80 W continuous into 8 ohms; slew rate 75 V/μsec.**

- **Price:** $380

**Phillips**

**AH 578 Stereo Power Amplifier**

- **Features:**
  - Switchable subsonic filter; function display; level control; memory lock; two output meters; thermal and speaker protection.

- **Specifications:**
  - 210 W continuous into 8 ohms over 20-20,000 Hz with 0.006% THD; IM dist. 0.04% at rated power; frequency response 10-30,000 Hz ± 0.15 dB; separation 60 dB (1 kHz); damping factor protection circuits; 6 "H x 18" W x 13" D.

- **Price:** $680

**QSC**

**A 41 Power Amplifier**

- **Features:**
  - Ac-coupled circuitry providing dc and sub audio protection; dual power supplies; mono bridging switch; continuous flow cooling system; high temperature compensated heatsinks.

- **Specifications:**
  - Horizontal stepped input/output rear panel with balanced XLR-type and balanced/unbalanced ¼" phone jacks and three-pin inputs; gain controls for both channels.

- **Price:** $824

**Stereo Directory & Buying Guide**
20-20,000 Hz +0/-1 dB; S/N 95 dB (A weighted); THD 1.5%; dynamic headroom 1.5 dB; clipping headroom 0.35 dB; damping factor 200 from 20-20,000 Hz; input impedance 50K ohms balanced, 25K ohms unbalanced; 5\% H x 9' W x 5" D. $
\$428$

4.2. Similar to A 5.1 except 40 W/ch continuous under same conditions. $
\$358$

3.7. Similar to A 4.2 except mono power operation; 90 W/ch continuous under same conditions. $
\$328$

ROTEL

RB-5000 Stereo Power Amplifier

Features two average power meters with three-position sensitivity switch (0, –10, and –20 dB) plus 16-LED peak indicators; standby and overload protection, and three speaker select LED indicators; three level controls; signal path; thermal, signal relay, and electronic protection, and LED display for output monitoring. 5\% H x 19' W x 8 1/2" D.

$250$

WMC-3. Unassembled walnut cabinet $
\$45$

3100 Stereo Power Amplifier

50 W/ch continuous; both channels driven into 8 ohms from 20-20,000 Hz with 0.05% THD and IM dist.; frequency response 20-20,000 Hz +0/-0.25 dB; S/N 100 dB; input sensitivity 1.0 V. Features fully complementary circuits, toroidal power supply, thermal, signal relay, and electronic protection, and LED display for output monitoring. 5\% H x 19' W x 8 1/2" D.

$300$

WMC-3. Unassembled walnut cabinet $
\$45$

SANSUI

BA-F1 DD/DC Power Amplifier

Features “Diamond Differential dc circuitry”; dual peak power meters calibrated in dB and W; left/right input level controls; speaker switching for two systems.

$665$

PLUS P55 Power Amplifier

Features dc-coupled FET circuitry and MOS FET output stage; fluid convection radiator dissipates heat to liquid; three-way output protection and turn-on delay relay with LED; dual-12 LED graphic peak power display with X0.1 and X1 display range selection; two-way speaker switching; channel strapping for single-channel operation. Output 110 W/ch continuous; both channels driven into 8 ohms from 10-20,000 Hz with 0.008% THD; frequency response 500-5,000 Hz +0/-3 dB; slew rate 200 V/\mu sec; rise time 0.5 \mu sec; S/N 125 dB; matte black finish with detachable rack mount handles.

$790$

SAE

2600 Stereo Power Amplifier

400 W/ch continuous; both channels driven into 8 ohms over 20-20,000 Hz with 0.05% THD and IM dist.; frequency response 20-20,000 Hz +0/-0.25 dB; S/N -90 dB; input sensitivity 2.2 V; relay protection for speakers; fully complementary parallel output stage; 7'H x 19" W x 14" D. $1350$

2400L Stereo Power Amplifier

200 W/ch continuous; both channels driven into 8 ohms over 20-20,000 Hz with 0.05% THD and IM dist.; frequency response 20-20,000 Hz +0/-0.25 dB; S/N 100 dB; input sensitivity 1.5 V; relay protection for speakers; watchdog timer; complementary parallel double differential inputs and complementary series-connected output stages; LED display; feedback level control; 7" H x 19" W x 12 1/2" D. $850$

WMC-2. Unassembled walnut cabinet $
\$50$

2300 Stereo Power Amplifier

150 W/ch continuous; both channels driven into 8 ohms from 20-20,000 Hz with 0.05% THD and IM dist.; frequency response 20-20,000 Hz +0/-0.25 dB; S/N 100 dB; input sensitivity 1.5 V. Features fully complementary circuits, toroidal power supply, full protection, and LED display for output monitoring. 5\% H x 19" W x 12 1/2" D. $
\$700$

M-5. Unassembled roll-around rack walnut cabinet for 2300. $
\$40$

2200 Stereo Power Amplifier

100 W/ch continuous; both channels driven into 8 ohms over 20-20,000 Hz with 0.05% THD and IM dist.; frequency response 20-20,000 Hz +0/-0.25 dB; S/N 100 dB; sensitivity 1.5 V rms for rated output, 100,000 ohms; LED display; 5.25" H X 19" W X 8 1/2" D.

$500$

WMC-3. Unassembled walnut cabinet

H.H. SCOTT

Alpha 6 Power Amplifier

Features dc-circuitry; dual-computer-grade 10,000\mu uf electrolytic capacitors; bimodal electronic relay protection; two logarithmic power meters; two-way speaker switching; separate channel level controls. 60 W/ch continuous; both channels driven into 8 ohms from 20-20,000 Hz with 0.008% THD and IM dist.; frequency response 2-20,000 Hz +0/-3 dB; slew rate 180 V/\mu sec; input sensitivity/impedance 1 V/10K ohms; includes rack-mount handles; fits optional EIA-standard rack; 3 3/4" H x 17" W x 14" D.

$350$

SOUND CRAFTSMEN

"New Class H" Stereo Power Amplifiers

Features all-stage direct-coupled design circuitry; three-mode amplification (Class A, Class B, Class mono); pulse-locked power supply; two sets of inputs for direct- or capacitor-coupled operation. 80 W/ch continuous; both channels driven into 8 ohms from 20-20,000 Hz with 0.007% (stereo) and 0.015% (mono) THD (Class B), 18 W/ch under same conditions (Class A), 200 W (mono)

$600$

M-22 Stereo Power Amplifier

Class A stereo power amplifier with two-stage Darling- inson push pull OCL dc circuitry; 30 W/ch continuous, both channels driven into 8 ohms from 10-30,000 Hz with 0.01% THD and 0.005% IM dist.; frequency response 2-150,000 Hz +0/-1 dB; damping factor 60 from 20-20,000 Hz; 8 ohms, S/N 106 dB (IHF A); input sensitivity/impedance 1 W/10K ohms; speaker output 4-16 ohms; 6" x 16" x 8" W x 14" D.

$1200$

TA-N88B Stereo Power Amplifier

Stereo power amplifier with pulse-width modulation circuitry and complementary push-pull vertical FET output circuitry; features pulse-locked power supply system and three stages of amplifier/speaker protection circuitry; 160 W/ch continuous into 8 ohms from 20-20,000 Hz with max. 0.5% THD; IM dist. 0.1%; S/N 110 dB (closed circuit, "A"); frequency response 5-40,000 Hz +0/-0.5% 1 dB; damping factor 20 at 1000 Hz; input sensitivity/impedance 1.4 W/50K ohms; speaker impedance 8 ohms; suitable for-in 19" rack mount; 3" H x 18 1/4" W x 14 1/4" D.

$1050$

TA-N78B Stereo Power Amplifier

Stereo power amplifier with dual-FET input and vertical FET output circuitry; all-stage direct-coupled dc design; features four separate power transformers; signal capacitors in signal path; muting and complete protection circuitry; two pairs of rear-panel inputs for dc or capacitor-coupled operation. 100 W/ch continuous into 8 ohms from 20-20,000 Hz with max. 0.1% THD and IM dist.; frequency response 0.01-100,000 Hz +0/-1 db (dc coupled); S/N 120 dB ("A"); damping factor 10 at 1000 Hz; input sensitivity/impedance 1.3 W/50K ohms; brushed aluminum finish; 6" x 17 1/2" W X 13" D.

$920$

TA-N86B Power Amplifier

Features all-stage direct-coupled design circuitry; three-mode amplification (Class B, Class A, mono); pulse-locked power supply; two sets of inputs for direct- or capacitor-coupled operation. 80 W/ch continuous; both channels driven into 8 ohms from 20-20,000 Hz with 0.007% (stereo) and 0.015% (mono) THD (Class B), 18 W/ch under same conditions (Class A), 200 W (mono)
### SPECTRO ACOUSTICS

#### 500SR Stereo Power Amplifier
- 250 Wch continuous into 8 ohms over 20-20,000 Hz with 0.15% THD and IM dist.; dynamic headroom 1.4 dB at 8 ohms, 340 Wch; slew rate 24 V/µsec; input sensitivity 1.5 V rms for rated output; noise 107 dB below rated output; LED power level indicators, gain attenuators, and readout attenuators.

#### DA-80 Stereo Power Amplifier
- 45 Wch 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 1.26 V; protective circuits for shorts, speakers, and thermal overload; class A amplifier; dc coupling.

#### 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.; residual hum and noise – 100 dB; input sensitivity 1.26 V; protective circuits for shorts, speakers, and thermal overload; class A amplifier; dc coupling.

#### A740 Stereo Power Amplifier
- 100 Wch into 8 ohms over 45-15,000 Hz with 0.1% dist.; frequency response 20-20,000 Hz ±0.5 dB; sensitivity 1 Vr for rated output; features 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; input 7 x 17" W x 14" D

### TECHNICS

#### SE-9060 Power Amplifier
- Stereo dc power amplifier with six power supplies and mono bridging; 70 Wch sine wave continuous into 8 ohms over 20-20,000 Hz with 0.02% THD and IM dist.; 180 W mono; frequency response 20-20,000 Hz +0/-0.1 dB; S/N (IHF A) 115 dB; damping factor 70; load impedance 4-16 ohms ($650)

### TOSHIBA

#### SC-865 Power Amplifier
- Features OCL-dc circuitry; toroidal power transformer and two shunted V-type metalized film capacitors; dual peak power meters; two-speaker switching; switchable dc/5-Hz subsonic operation; –20 dB muting switch. 65 Wch continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.02% THD and IM dist.; IHF power bandwidth 5-70,000 Hz; frequency response 0-80,000 Hz ±1 dB; damping factor 60; S/N 117 dB (IHF A); input level/impedance 1 V/47 kohms; 3.8 H x 16.5" W x 13.9 D

### M-15 Micro Power Amplifier
- OCL-dc circuitry; twoMono power transformers and two filter capacitors; LED-indicated two-speaker and BTL switches. 40 Wch continuous, both channels driven into 8 ohms from 20-20,000 Hz, 0.02% THD and IM dist.; S/N (IHF) 115 dB into 8 ohms; 0.05% THD and IM dist.; frequency response 0-80,000 Hz ±1 dB; power bandwidth 5-50,000 Hz, both channels driven, at 0.1% THD; S/N (IHF "A") 95 dB (main in); 3" x 16" W x 9" D ($180)

### SC-335 Stereo Power Amplifier
- Features audio muting switch (–20 dB); left/right power meters with power range selector switch; dual pair speaker drive selection; stereo headphone jack; input level muting circuit and muting protection circuit; dual-LED level bar graph display; LED overload indicator; illuminated two-speaker switching; separate left and right channel muting and dc/ac input switch on rear panel. 240 Wch continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.003% THD, power bandwith 10-100,000 Hz at half rated power; THD 0.005% from 10-20,000 Hz, 0.1% from 100-1000 Hz, IHF power bandwidth 10-100,000 Hz (–0.7 ±0.5 dB) Hz (dc mode, 120 W, 8 ohms), 10 (-1.5 ±0.5 dB) Hz (ac mode, 120 W, 8 ohms), 7 (-1.5 ±0.5 dB) Hz (ac mode, 120 W, 8 ohms).

### YAMAHA

#### M-2 Power Amplifier
- DC power amplifier features dual FET with cascode bootstrap circuit in input stage and three-stage emitter-follower complementary triple push-pull dc circuitry with linear-transfer bias circuit in output stage; high-capacity toroidal power transformer and two high-capacity toroidal power transformer, dc detection, and muting protection circuits; dual-LED level bar graph display; LED overload indicator; illuminated two-speaker switching; separate left and right channel muting and dc/ac input switch on rear panel. 240 Wch continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.003% THD, power bandwith 10-100,000 Hz at half rated power; THD 0.005% from 10-20,000 Hz, 0.1% from 100-1000 Hz, IHF power bandwidth 10-100,000 Hz (–0.7 ±0.5 dB) Hz (dc mode, 120 W, 8 ohms), 10 (-1.5 ±0.5 dB) Hz (ac mode, 120 W, 8 ohms), 7 (-1.5 ±0.5 dB) Hz (ac mode, 120 W, 8 ohms).

#### M-4. Similar to M-2 without linear-transfer bias circuitry and muting protection circuit; 120 Wch under same conditions; THD 0.005% from 10-20,000 Hz, 0.1% from 8 ohms, S/N 118 dB (IHF A); 5" x 17" W x 14" D

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### ABOUT PRICES...

With the repeal of Fair Trade Laws, manufacturers are now providing "Suggested Retail" or "Fair Retail Value" figures for the guidance of their dealers and customers. Prices in this Directory are those provided by the manufacturers under these conditions.
E202 Integrated Stereo Amplifier
100 Wch continuous into 8 ohms over 20-20,000 Hz with 0.1% THD (140 Wch into 4 ohms, 50 Wch 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 impedance 30,000, 47,000, 100,000 ohms (switchable); 6" H x 18" W x 14" D. $800

AWE-2 Walnut case. $50

AKIO by TZL INTERNATIONAL

AU-80 Stereo Integrated Amplifier
Power amp: features dual power output meters; two-speaker switching; 40 W/ch continuous into 4 ohms with 0.2% HD at 1000 Hz. Preamp features bass and treble controls; low and high filters; loudness, mode, and tape/source monitor switches. 9" H x 17" W x 8¼" D. $260

AIWA

AA-8700 Stereo Integrated Amplifier
Power amp: features dc circuitry; logarithmic compression peak power meters; two-speaker switching; 75 Wch continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.02% THD and IM dist.; frequency response 5-100,000 Hz ±0/-3 dB; damping factor 60 at 8 ohms from 20-20,000 Hz. Preamp: features built-in moving coil head amplifier; bass and treble controls with turnover frequency switches and six-LED turnover frequency display; low and high filters; loudness and turntable switches; balance control; two-way tape dubbing and monitoring with separate tape 3 play/record control; mode switch; input selector with LEDs and phono cartridge. $300

AA-8300U Stereo Integrated Amplifier
Power amp: features dual peak power meters; two-speaker switching; 45 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.1% THD and IM dist.; damping factor 45 at 8 ohms from 20-20,000 Hz. Preamp: features bass and treble controls; low and high filters; loudness and -15 dB muting; two-way tape dubbing and monitoring; balance/control knob; input sensitivity/impedance 2.5 mV/47k ohms (phono MC), 150 mV/47k ohms (aux., tape, and DIN); phono overload 280 mV (MM); RIAA deviation ±0.2 dB from 30-15,000 Hz; S/N (IHF A) 83 dB (MM), 70 dB (MC) ±3 dB; hum and noise -94 dB (main amp). $550

AM-2650 Stereo Integrated Amplifier
Features illuminated power meters; high- and low-frequency filter switches; separate bass and treble controls; tape 1 and 2 dub/1-to-2 and 2-to-1 source tape monitor selector; phono 1/phone 2/tuner/aux. input selector; speaker switching for two systems; balance control; tone, audio mute, stereo/mono, and loudness switches; direct-coupled complementary OCL circuitry. Power amp: 65 W/ch continuous into 8 ohms from 20-20,000 Hz with 0.08% THD; S/N (IHF A) 80 dB (phono), 90 dB (aux.); frequency response 30-15,000 Hz ±0/-3 dB; tone control -9 dB at 100 Hz (bass), +9 dB at 10,000 Hz (treble). 5.7" H x 17.3" W x 16.9" D. $475

AM-2450. Similar to AM-2650 without audio mute, high- and low-frequency filter selectors, and tone control. 85 W/ch continuous into 8 ohms from 20-20,000 Hz with 0.1% THD. $225

PA-850 Stereo Integrated Amplifier
Power amp: 110 Wch continuous into 4 ohms at 0.05% THD, 85 Wch continuous into 8 ohms at 0.001% THD; IM dist. 0.02% max.; power bandwidth 5-100,000 Hz into 8 ohms; frequency response 0.5 W output from 5-100,000 Hz ±0/-1 dB; input sensitivity/impedance 2.5 mV/47k ohms (phono), 150 mV/47k ohms (aux., tape, and DIN). $300

PMA-630 Stereo Integrated Amplifier
Power amp: features purely complementary push-pull dc circuitry; heavy-duty power transformer with two block capacitors; two-speaker switching; 80 Wch continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.008% THD; IM dist. 0.005%; frequency response 0-100,000 Hz +0/-1 dB; S/N 112 dB (IHFA); input sensitivity/impedance 320 mV/100k ohms. Preamp: features defeeted volume control; balance control; switch-
ble 20- and 40-Hz subsonic filter; loudness switch; two-way tape dubbing and monitoring; rec out selector; input selector; input sensitivity/impedance

2.5 mV/50k ohms (phono 1 and 2), 320 mV/30k ohms (tuner, aux., tape); phono overload 200 mV at 1000 Hz; gain 89 dB; RIAA phono deviation ±0.2 dB; THD 0.003% at 10 V out; rated output 2.5 V; S/N 86 dB (phono), 112 dB (tuner and aux.); components: 70-630 tuner, brushed aluminum front panel; 145 mm H x 434 mm W x 390 mm D. ...$460

PMA-501 Integrated Amplifier
Three-stage, direct-coupled equalizer amplifier. Power amplifier: 65 Wc continuous in 4 ohms from 20-20,000 Hz at 0.005% THD, 50 Wc continuous into 8 ohms; IM dist. and HD at rated output max. ±0.05%; power bandwidth 5-50,000 Hz; both channels driven into 8 ohms; frequency response from 5-100,000 Hz ±1 dB at 0.05% THD; input sensitivity/impedance 1 Vrms/50k ohms ±0.1%; 180 µV/100k ohms (tuner, phono); output power 200 mV at 0.005% THD; THD under same conditions 0.005%; S/N 86 dB (phono MM), 68 dB (phono RIM), 10-100,000 Hz ±0.5/-2.5 dB (tuner and aux.); S/N (IHF A) 82 dB (phono MM), 62 dB (phono RIM), 10-100,000 Hz ±0.5/-2.5 dB (tuner and aux.); HD 0.002% (MM), 0.01% (MC), 0.005% (tuner, aux., tape); two-way tape dubbing and monitoring; recessed front panel; dimensions: 5'/3" H x 17'/1" W x 15'/3" D. ...$600

HA-5700 Stereo Integrated Amplifier
Power amp: features MOS FETS; two-transformer power supply circuitry; dual LED power logarithmic meter display with x1.1 and x1 range selector; selector; input selector; input sensitivity/impedance 1.5 Vrms/0.5k ohms (MM), 300 mV/100k ohms (tuner, aux., tape); S/N 95 dB (phono), 150 mV/30k ohms (tuner, aux., tape); phono overload 200 mV (MM), 5 V (MC); frequency response 20-20,000 Hz ±0.2 dB (phono); 20-20,000 Hz ±0.2 dB (tuner and aux.); S/N (IHF A) 86 dB (phono MM), 68 dB (phono RIM), 10-100,000 Hz ±0.5/-2.5 dB (tuner and aux.); HD 0.002% (MM), 0.01% (MC), 0.005% (tuner, aux., tape); two-way tape dubbing and monitoring; loudness and mode selectors; two-way tape dubbing and monitoring; recessed front panel; dimensions: 5'/3" H x 17'/1" W x 15'/3" D. ...$430

HA-4500 Stereo Integrated Amplifier
Power amp: features pure complementary OCL output circuitry; dual LED power logarithmic meter display with x1.1 and x1 range selector; both channels driven into 8 ohms from 20-20,000 Hz with 0.05% THD; power bandwidth 10-50,000 Hz; damping factor 35. Preamp: features bass and treble controls; subsonic filter; loudness and mode selectors; two-way tape dubbing and monitoring; volume control in four steps; source and tape monitoring and dubbing; -16-dB muting switch; -16-dB muting switch; iHF power bandwidth 10-50,000 Hz; damping factor 0.05%

HITACHI
HA-7700 Stereo Integrated Amplifier
Power amp: features MOS FETS and dc circuitry; both channels driven into 8 ohms from 20-20,000 Hz at 0.02% THD and IM dist.; THD and IM dist. at rated output 0.005% at 1000 Hz; frequency response 20-20,000 Hz ±0.5/-4.5 dB (phono), 150 mV/33k ohms (tuner, aux., tape); phono overload 200 mV; S/N (IHF A) 75 dB (phono), 90 dB (tuner and aux.); frequency response 20-20,000 Hz ±0.5/-1.5 dB; input selector buttons with LEDs; input sensitivity/impedance 150 mV/10k ohms (tuner and aux.); S/N (IHF A) 85 dB (phono), 65 dB (tuner and aux.); HD 0.002% (MM), 0.01% (MC), 0.005% (tuner, aux., tape); two-way tape dubbing and monitoring; rece...
JA-577 Stereo Integrated Amplifier

All-stage dc power amp, phono equalizer, and tone control circuits. Power amplifier: 65 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz at 0.02% THD; THD 0.005% at 1000 Hz, 65 W output; IM dist. 0.01% at 65 W output; damping factor 50 from 20-20,000 Hz into 8 ohms; load impedance 4-16 ohms (Sys. 1 or 2), 8-16 ohms (Sys. 1 + 2). Preamp: input sensitivity/impedance 2.5 mV/47k ohms (phono), 150 mV/50k ohms (tuner, aux., tape 1, 2); max. input 200 mV rms; S/N (IHF "A") 80 dB (phono), 100 dB (tuner, aux.), RIAA phono equalization ±0.3 dB; frequency response 5-100,000 Hz +0/-1 dB; subsonic filter rolloff -6 dB/octave at 18 Hz. Frequency response 3-100,000 Hz +0/-1 dB; subsonic filter rolloff -6 dB/octave at 18 Hz. Features twin power tube terminals, pre-out/main-in switch, and twin power meters; 6½" H x 17¼" W x 13½" D. $240

JA-555 Stereo Integrated Amplifier

All-stage, dc power amplifier, phono equalizer, and tone control circuits. Power amplifier: 60 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz at 0.02% THD; THD 0.005% at 1000 Hz, 60 W output; IM dist. 0.01% at 60 W output; damping factor 50 from 20-20,000 Hz into 8 ohms; load impedance 4-16 ohms (Sys. 1 or 2), 8-16 ohms (Sys. 1 + 2). Preamp: input sensitivity/impedance 2.5 mV/47k ohms (phono), 200 mV/50k ohms (tuner, aux., tape 1, 2); max. input 230 mV rms; S/N (IHF "A") 81 dB (phono), 105 dB (tuner, aux., tape); RIAA phono equalization ±0.3 dB; frequency response 5-100,000 Hz +0/-2 dB; 3V4" H x 16'/d" W x 18'4" D. $340

JA-S44 Stereo Integrated Amplifier

DC power amplifier with SEA stereo graphic equalizer. Power amplifier: 45 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz by 0.02% THD; THD 0.005% continuous into 4 ohms at 1000 Hz, 0.005% THD; THD 0.005% at 60 W output; IM dist. 0.01% at 60 W output; damping factor 50 from 20-20,000 Hz into 8 ohms; load impedance 4-16 ohms (Sys. 1 or 2), 8-16 ohms (Sys. 1 + 2). Preamp: input sensitivity/impedance 2.5 mV/47k ohms (phono), 160 mV/50k ohms (tuner, aux., tape 1, 2); max. input 200 mV rms; S/N (IHF "A") 80 dB (phono), 100 dB (tuner, aux., tape); RIAA phono equalization ±0.3 dB; frequency response 5-100,000 Hz +0/-2 dB; subsonic filter rolloff -6 dB/octave at 18 Hz; muting -20 dB. Features separate power supplies, dc-balanced attenuator volume control, and twin power meters; 6½" H x 16½" W x 12½" D. $340

JA-S22 Stereo Integrated Amplifier

DC power amplifier. Power amplifier: 45 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz at 0.02% THD; THD 0.005% continuous into 4 ohms at 1000 Hz, 0.005% THD; THD 0.005% at 60 W output; IM dist. 0.01% at 60 W output; damping factor 50 from 20-20,000 Hz into 8 ohms; load impedance 4-16 ohms (Sys. 1 or 2), 8-16 ohms (Sys. 1 + 2). Preamp: input sensitivity/impedance 2.5 mV/47k ohms (phono), 160 mV/50k ohms (tuner, aux., tape 1, 2); max. input 200 mV rms; S/N (IHF "A") 80 dB (phono), 100 dB (tuner, aux., tape); RIAA phono equalization ±0.3 dB; frequency response 5-100,000 Hz +0/-2 dB; subsonic filter rolloff -6 dB/octave at 18 Hz; muting -20 dB. Features separate power supplies, dc-balanced attenuator volume control, and twin power meters; 6½" H x 16½" W x 12½" D. $340

JA-801 DC Integrated Amplifier

Power amp: features dc circuitry with dc coupled switch, dual peak power meters, and dual power supplies; 110 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.01% THD; THD 0.003% at 200-20,000 Hz; slew rate = 150 V/µsec; rise time 0.8 µsec; frequency response 0-400,000 Hz -3 dB (dc coupled), 18-400,000 Hz = 0.15% THD; THD 0.005% at 60 W output; IM dist. 0.01% at 60 W output; damping factor 50 from 20-20,000 Hz, 8 ohms. Preamp: features bass and treble controls; two-deck moving coil head amp and super-low-noise moving-magnet phono equalizer amp; bass and treble tone control, loudness and balance, mic mixing with mic level control, and input selector; phono frequency response ±0.4 dB from 30-15,000 Hz (RIAA); input sensitivity/impedance 2.5 mV/50k ohms (phono and mic), 150 mV/30k ohms (tuner, aux., and tape); S/N (IHF "A") 77 dB (phono), 105 dB (tuner, aux., tape); RIAA phono frequency response ±0.3 dB from 20-20,000 Hz. $499

KA-907 DC Integrated Amplifier

Power amp: features dc circuitry, dc coupled selector with LED, full complementary circuit design, and dual power supplies, LED power safety indica- tor; output 150 Wich continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.01% THD; IM dist. 0.0045%; damping factor 100 from 0-20,000 Hz; slew rate = 230 V/µsec; rise time 0.9 µsec; frequency response 0-400,000 Hz -3 dB (dc coupled on), 1-400,000 Hz +0/-3 dB (dc coupled off). Preamp: features built-in low-noise moving-coil head amp and super-low-noise moving-magnet phono equalizer. $550

KA-305 Stereo Integrated Amplifier

Power amplifier: 40 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.08% THD; IM dist. 0.004%; damping factor 40; frequency response 3-100,000 Hz ±3 dB. Preamp: features bass and treble controls, loudness and balance, mic mixing with mic level control, and input selector; phono frequency response ±0.4 dB from 30-15,000 Hz (RIAA); input sensitivity/impedance 2.5 mV/50k ohms (phono and mic). $499

KA-405. Similar to KA-305 except dc amplifier with peak power meters, two-way tape dubbing with source monitor switch, and LED input selector displays 55 W/ch with 0.05% THD; IM dist. 0.004%; frequency response 2-250,000 Hz +0/-3 dB; S/N 83 dB; phono overload 210 mV... $299

KA-3700 Integrated Amplifier

Power amplifier: 20 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.08% THD; IM dist. 0.04%; frequency response 20-20,000 Hz ±1 dB; sensitivity 2.5 mV (phono), 150 mV (high level); S/N (A weighted) 72 dB (phono), 100 dB (aux.); frequency response 15-20,000 Hz ±0.4 dB (phono RIAA); phono overload 150 mV, 5'/"H x 15'W x 11'/d" D. $159

Audio Purist Group

600 Stereo Integrated Amplifier

Power amp: 130 W/ch continuous into 8 ohms over 20-20,000 Hz with 0.08% THD; dual power supplies; ASO protection circuitry; one-way power meter; input 220 mV; dual-level attenuation before and after control preamp section; negative feedback tone controls; selectable turnover points (150, 400, 3000, and 100 Hz for balance control); defeat switch; four-position loud-ness control; high/low steep-slope filters; dual tape provision with "tape-through" circuit; selectable cartridge impedance; provision for two phono, two aux., tuner, and three speaker systems; 6½" H x 17¼" W x 15½" D... $550

NEED MORE INFORMATION?
Write directly to the manufacturer or distributor. A list of names and addresses starts on page 9.
INTGREAT AMPLIFIERS

L-11 Integrated Amplifier
Features moving-coil position and input transformer socket; linear equalizer; two-position subsonic filter; headphone jack; two tape deck capstan switches; separate selectors; tape monitor circuit; speaker protection circuit; ac power outlet. Power amplifier: 100 W/8 Ohm continuous, both channels driven into 8 ohms from 20-20,000 Hz at 0.02% THD and IM dist.; frequency response 250-100,000 Hz +/– 1 dB; input sensitivity 300 mV; hum and noise –100 dB (IHF “A”); damping factor 80. Preamp: input sensitivity 2.5 V (phono 1 and 2); 300 mV (tuner, aux.); S/N (IHF “A”) 92 dB (phono); frequency response 20-20,000 Hz ±0.2 dB (phono); 250-1000 Hz +/– 1 dB (tuner, aux., monitor 1 and 2). $945

L-10 Integrated Amplifier
Features variable tonal range of +2/-2.5 dB; speaker protection circuit; subsonic filter; tape 1 and 2 recording selectors; tape monitor switch; headphone jack; extra ac outlets (switched and un-switched). Power amplifier: 55 W/8 Ohm continuous, both channels driven into 8 ohms from 20-20,000 Hz at 0.015% THD and IM dist.; frequency response 0-100,000 Hz +/– 1 dB; input sensitivity 300 mV; hum and noise –100 dB (IHF “A”); damping factor 80. Preamp: output 300 mV; input sensitivity 3 V (phono), 300 mV (tuner, aux.); S/N (IHF “A”) 90 dB (phono); 100 dB (tuner, aux.); frequency response 20-20,000 Hz ±1 dB (phono), 0-100,000 Hz +/– 1 dB (tuner, aux.). $795

L-5 Integrated Amplifier
Features bass and treble controls (+12 dB range); headphone jack; tape dubbing circuit; tape monitor circuit; tape deck capstan switches; separate selectors; speaker protection circuit; ac power outlet. Power amplifier: 60 W/8 Ohm continuous, both channels driven into 8 ohms from 20-20,000 Hz at 0.07% THD and IM dist.; frequency response 0-100,000 Hz +/– 1 dB; input sensitivity 1.5 V; damping factor 80. Preamp: input sensitivity 2.5 V (phono 1 and 2), 150 mV (aux., tuner, and monitor 1 and 2); S/N (IHF “A”) 92 dB (phono); frequency response 20-20,000 Hz ±0.5 dB (phono), 100-100,000 Hz +/– 1 dB (tuner, aux., monitor 1 and 2). $595

L-3 Integrated Amplifier
Features bass and treble tone controls (+11 dB range); headphone jack; tape dubbing circuit; tape monitor circuit; ac power outlet. Power amplifier: 35 W/8 Ohm continuous, both channels driven into 8 ohms from 20-20,000 Hz at 0.05% THD and IM dist.; frequency response 0-100,000 Hz +/– 1 dB; input sensitivity 300 mV; damping factor 80 Preamp: input sensitivity 2.5 V (phono), 150 mV (aux., tuner, monitor 1 and 2); S/N (IHF “A”) 87 dB (phono); frequency response 30-18,000 Hz ±0.5 dB (phono), 15-60,000 Hz +/– 1 dB (tuner, aux., monitor 1 and 2). $395

Laboratory Reference Series
Luxman SL15 Integrated Amplifier
Stereo integrated amplifier with direct-coupled dc preamps and power amps and class AB output stages; connections for tuner, two tapes, two auxiliary inputs. Features phono subsonic filter, two-level muting switch, and illuminated power meters. Power amplifier: 80 W/8 Ohm continuous, both channels driven into 8 ohms from 20-20,000 Hz at 0.02% THD and IM dist.; frequency response 0-100,000 Hz ±0.5 dB; S/N greater than 100 dB (IHF “A”); damping factor 80. Preamp: input sensitivity 3 mV (phono), 300 mV (aux.); other features include dc offset warning light, electrostatic speaker switch, outputs for LED peak indicator, and speaker-amplifier...
A-7040 Stereo Integrated Amplifier
Power amp; features servo-controlled circuitry; all-stage direct-coupled OCL circuit; dual power supplies; electronic amp and speaker protector relays; dual eight-LED peak meter bar display with center power LED; X1 and X2 pushbutton range selector; 110 W RMS; 200 W peak; 1% THD; 20-20,000 Hz; S/N 80 dB (phono 1 and 2), 150 mV/50k ohms (tuner, aux.); phono overload 200 mV RMS at 100 Hz, 4.5 mVrms X 16'/W X 12'/D. $430

SM-4305 Stereo Integrated Amplifier
Power amp; features two-channel switching; dual LED power output bar display graph display; two-switching; two-channel power LED protection indicator; 70 W/c continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.01% THD; Preamp; features bass and treble controls with variable tone defeat; balance control; 15 and 30 Hz subsonic and 8000 and 15,000 Hz high pass filters; mono mode; two-way tape dubbing and monitoring; loudness and 20-dB muting; input selector with LEDs; S/N 75 dB (phono, low); 85 dB (phono high); 90 dB (aux); RIAA deviation ±0.3 dB from 20-20,000 Hz; phono overload 300 mV; ebony faceplate; 2.9" H X 16.9" W X 15" D. $460

SM-3201 Integrated Amplifier
40 W/c continuous into 8 ohms over 20-20,000 Hz with 0.19% THD; 2 output meters; two-tape dubbing; volume, balance and loudness controls; headphone jack. 35 W/c continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.05% THD; IM dist.; S/N 75 dB; phono overload 170 mV; bass and treble tone control range ±8 dB; RIAA deviation ±0.5 dB from 20-20,000 Hz. $200

PHILIPS
AH-388 Integrated Amplifier
Power amp; 80 W continuous into 8 ohms from 20-20,000 Hz with 0.05% THD; IM dist. 0.05% at 100 Hz; S/N 68 dB (phono 1 and 2), 65 dB (mic), 85 dB (aux and tuner); dist. 0.02% (equalizer). Features step detented volume control; center detented bass control; separate bass (±10 dB) and treble (±12 dB) controls; high and low filters; ±6 dB octaves; volume, balance and loudness; no mic jack and mixing. $360

AH-3881 Black chassis.

AH-3884 Similar to AH-388 except 40 W continuous; S/N 65 dB (phono 1 and 2); mic); bass and treble controls ±10 dB; switchable four-speaker capability. $380

AH-3841 Black chassis. $350

PIONEER
SA-9800 Stereo Integrated Amplifier
Power amp section; features dual-LCD peak power bar graph display with dim/bright meter switch; two-channel switching; features separate left/right power meters; two deck provisions for tape dubbing; tape monitor switch; volume, balance, and loudness controls; headphone jack. 35 W/c continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.08% THD and IM dist.; S/N 75 dB; phono overload 170 mV; RIAA deviation ±0.3 dB from 20-20,000 Hz; bass and treble tone control range ±9 dB. $240

JCPENNY
3865 Integrated Amplifier
Features separate left/right power meters; two deck provisions for tape dubbing; tape monitor switch; volume, balance, and loudness controls; headphone jack. $260

SM-2025. Same as SM-3201, except inebony finish. $260

SA-9800 Stereo Integrated Amplifier
Power amp section; features dual-LCD peak power bar graph display with dim/bright meter switch; two-channel switching; features separate left/right power meters; two deck provisions for tape dubbing; tape monitor switch; volume, balance, and loudness controls; headphone jack. 35 W/c continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.08% THD and IM dist.; S/N 75 dB; phono overload 170 mV; RIAA deviation ±0.3 dB from 20-20,000 Hz; bass and treble tone control range ±9 dB. $240

3835 Integrated Amplifier
Features separate left/right power meters; two deck provisions for tape dubbing; tape monitor switch; volume, balance, and loudness controls; headphone jack. $260

SM-2025. Same as SM-3201, except in ebony finish. $260
SA-8600 Stereo Integrated Amplifier
Power amp: features dc circuitry in hybrid Class A/B configuration; non-switching output; dual power supplies; four emitter transistors/ch; dual-Led peak power bar graph display; two-speaker switching; 80 W/ch continuous, both channels driven into 8 ohms from 10-20,000 Hz with 0.005% THD and 0.002% IM dist.; frequency response 5-200,000 Hz ±0.2 dB; damping factor 55 from 20-20,000 Hz; 8 ohms; hum and noise -118 dB (short-circuited); input sensitivity/impedance 1 V/50k ohms. Preamp: features dc flat amp and low-noise phono equalizer; bass and treble controls with tone defeat; subsonic and high filters; balance and mode switches; loudness and -20 dB muting; two-way tape dubbing and monitoring; input selector with two-cartridge load capacitance selectors; input sensitivity/impedance 2.5 mV/50k ohms (phono 1 and 2), 150 mV/50k ohms (tuner, aux., tape); phono overload 250 mV; THD Chrominance 0.006% from 10-50,000 Hz; frequency response ±0.2 dB from 20-20,000 Hz (phono RIAA), 5-100,000 Hz +0/-1 dB (tuner, aux., tape); S/N (A, short-circuited) 90 dB (phone), 110 dB (tuner, aux., tape). Walnut-grain vinyl cabinet; 6'/2" H x 14'/2" W x 25-20,000 Hz ±1 dB (tuner, tape, aux); S/N 70 dB (tuner, tape); phono overload 450 mV. Features stepped bass and treble controls with turnover switches; full tape dubbing; loudness switch; audio muting switch; peak LED bar-chart power indicators; additional capacitance and load impedance controls; two speaker pair connections; headphone jack. 15V x 14'/2" D. $485

RA-2040 Stereo Integrated Amplifier
Power amplifier: dc OIL complementary push-pull power circuitry; 120 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.01% THD and IM dist., 140 W/ch continuous into 4 ohms at 1000 Hz; frequency response 0-20,000 Hz ±3 dB. Preamp: features dc FET phono equalizer and RIAA equalization, S/N (IHF "A") 80 dB (phone), 100 dB (tuner and tape), input sensitivity/impedance 2 mV/50,000 ohms (phone 1 and 2), 0.1 mV/33 ohms (moving-coil phono), 150 V/50,000 ohms (tuner, aux., tape), 980 V/33,000 ohms (main in); 12 dB/octave subsonic filter at 15 Hz, 12 dB/octave supersonic filter at 24,000 Hz, phono overload 450 mV. Features stepped bass and treble controls with turnover switches; full tape dubbing; loudness switch; audio muting switch; peak LED bar-chart power indicators; additional capacitance and load impedance controls; two speaker pair connections; headphone jack. 5'/V x 19'/2" W x 11'/2" D. $1880

AU-819 DD/DC Integrated Amplifier
Features "Diamond Differential dc circuitry"; bass control with 150 and 300 Hz turnover frequency selectors, treble control with 3000 and 6000 Hz turnover frequency selectors; tone defeat; switchable subsonic filter; -20 dB muting; jump switch (bypasses 14-dB gain of preamp output section); loudness compensation switch; A and B speaker switching; two-way tape dubbing and monitoring; input selector with LEDs for moving-magnet phono 2, moving-coil and moving-magnet phono 1 (switchable to built-in ICL dc pre-amp), tuner, and aux. Power amp: 110 W/ch continuous, both channels driven into 8 ohms from 5-20,000 Hz with 0.008% THD; frequency response 0-500,000 Hz, slew rate 260 V/µsec; rise time 0.5 µsec. Phono preamp: frequency response ±0.2 dB from 20-20,000 Hz (RIAA); S/N 91 dB (moving-magnet), 76 dB (moving-coil), 100 dB (aux.); phono overload 330 mV, matte black finish with rack-mounting. $1450
6000 Hz turnover frequency selectors; frequency response 20-20,000 Hz (0.008 THD); hum and noise -80 dB (phono 1 and 2), -100 dB (aux., tuner, tape); input sensitivity/impedance 2.5 mV/47k ohms (phono 1 and 2), 150 mV/47k ohms (aux., tuner, and tape); phono overload 150 mV rms (phono 1 and 2). Rear-panel switch for preamp/power amp separation; matte black finish; EIA rack-mount brackets; 6" H x 18¼" W x 16½" D (with rack mount).......

$255

AU-417. Similar to AU-317 except power output 50 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.03% THD; power amp frequency response 0-200,000 Hz +0/- 2.5 dB; slew rate (0-10 dB at 8000 Hz) 77.8 dB; phono overload 200 mV;..........

$350

AU-21711 Integrated Amplifier

Features bass, treble, and balance controls; high frequency response -0.2 dB from 20-20,000 Hz; channel separation 65 dB (phono);RIAA phono deviation ±0.5 dB from 30-15,000 Hz; phono overload 180 mV; 0.02% THD and IM dist.; input sensitivity/impedance 2.5 mV (phono), switchable 2.5/5.0 mV (phono 2), 150 mV (high level); S/N (phono MM), 95 dB (high level); RIAR equality ±0.5 dB from 20-20,000 Hz, high level at 1 W; phono overload switchable 180 and 360 mV; separate bass (±10 dB with 0.05% THD and IM dist.); S/N (weighted, input shorted) 85 dB (phono), 90 dB (high level); phono overload 180 mV; channel separation 60 dB (phono), 70 dB (high level); no subsonic filter. Features similar except two-position mode selector and no access to powe...
ven into 8 ohms from 20-20,000 Hz with 0.2% THD and IM dist.; frequency response 5-110,000 Hz ±1 dB; S/N 105 dB (IHF A weighted); damping factor 30:1 at 8 ohms; input sensitivity/impedance 1.0 V/50k ohms. Preamp: features bass and treble controls with tone defeat; subsonic and high filters; loudness and mode switches; two-way tape dubbing and monitoring; mic mixing; input selector; input sensitivity/impedance 2.5 mV/50k ohms (phono), 0.25 mV/100 ohms (MC), 150 mV/50k ohms (tuner, aux., tape); max. phono input 250 mV (MM), 25 mA (MC); phono RIAA equalization ±0.2 dB; S/N (IHF A) 80 dB (MC), 100 dB (tuner, aux., tape); 6"x1/4" H x 17" W x 13" D. \[ \ldots \]\[ $450 \]

TA-F40. Similar to TA-F60 minus subsonic filter; two-way tape dubbing with monitor switch; two tape monitors with two-way tape switch; switch has dual six LED peak power level indicators and tape monitor switch; 50 W/in under same conditions, power amp frequency response 5-70,000 Hz 4-0/ -1 dB; damping factor better than 75 at 8 ohms. Preamp: features built-in moving-coil head amp; bass and treble controls with turnover frequencies; subsonic filter, S/N 102 at 10 mV in (phono). \[ \ldots \]\[ $1000 \]

TA-F50 Integrated Amplifier Features electronic feedback in power amp output integrators; 30 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.03% THD; S/N 86 dB (phono); frequency response 5-60,000 Hz +0/-2 dB, 3"x1/4" H x 17" W x 13" D. \[ \ldots \]\[ $250 \]

Precise Series

TA-P7F Mini Stereo Integrated Amplifier Power amp: features pulse power supply; Thermo-Dynamic cooling system; LED peak power indicators; 50 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz with 0.03% THD; S/N 98 dB at 10 mV in (phono) \[ \ldots \]\[ $175 \]

B750 Integrated Amplifier Fully compatible integrated stereo amplifier with equalizer connections and tape copy circuitry. Amplifier: 80 W/ch continuous, both channels driven into 8 ohms from 20-20,000 Hz +0.5 dB with 0.2% THD; damping factor better than 75 at 8 ohms; input sensitivity/impedance 1 V/47k ohms (main amp), 1 V/10,000 ohms (power amp); output load 400 mV, 9 V (tuner, aux, tape); amplifier switch with two-way tape dubbing; bass and treble controls with turnover frequencies; subsonic filter; S/N 90 dB at 25 mV in (phono), pearl-gray metal cabinet. \[ \ldots \]\[ $175 \]

SU-8099 Stereo Integrated Amplifier Power amp: features dc circuitry; fluorescent peak-reading power meter display with range selector and LED dimmer; 115 W/ch continuous into 8 ohms from 20-20,000 Hz at 0.01% THD and low (12 dB/octave at 50 Hz) filters; balanced control; two-deck capability with tape copy function; switchable A/B and A/B speaker selector; bass and treble controls with turnover frequencies; subsonic filter, S/N 102 at 10 mV in (phono). \[ \ldots \]\[ $600 \]

SU-8088 Stereo Integrated Amplifier Power amp section: features dc circuitry and fluorescent peak-reading power meter display with range selector and dimmer control; 90 W/ch continuous into 8 ohms from 20-20,000 Hz with 0.01% THD. Preamp: features built-in moving-coil head amp; bass and treble controls with turnover frequency output and power amp inaccessible for outboard equalizer or other accessory; two headphone jacks. 6"x1/4" H x 13" W x 13" D. \[ \ldots \]\[ $999 \]

SU-8077 Stereo Integrated Amplifier Power amp: features dc circuitry and fluorescent peak-reading power meter display with range selector and LED dimmer; 60 W/ch continuous into 8 ohms from 20-20,000 Hz with 0.02% THD. Preamp: features built-in moving-coil head amp; two-way tape monitor switch with two-way tape dubbing; bass and treble controls with turnover frequencies; subsonic filter; S/N 100 at 10 mV in (phono). \[ \ldots \]\[ $450 \]

SU-8055 Stereo Integrated Amplifier Power amp: features dc circuitry and fluorescent peak-reading power meter display with range selector and LED dimmer; 47 W/ch continuous into 8 ohms from 20-20,000 Hz with 0.02% THD. Preamp: features three-stage dc phono equalizer; bass and treble controls with turnover frequencies; subsonic filter; accommodates moving-coil cartridges; S/N 98 at 10 mV in (phono). \[ \ldots \]\[ $300 \]

SU-8044 Stereo Integrated Amplifier Power amp: features dc circuitry and fluorescent peak-reading power meter display with range selector and LED dimmer; 38 W/ch continuous into 8 ohms from 20-20,000 Hz with 0.02% THD. Preamp: features three-stage direct-coupled phono equalizer; bass and treble controls with tonal defeat; subsonic filter; includes two-way tape dubbing. \[ \ldots \]\[ $260 \]

SU-8011 Stereo Integrated Amplifier Power amp: features dc circuitry; power supply with floating-coil transformer; LED peak-power meter indicators with range selectors; switches; 25 W/ch continuous into 8 ohms from 20-20,000 Hz with 0.08% THD. Preamp: features three-stage direct-coupled phono equalizer; bass and treble controls with turnover frequencies; subsonic filter; includes two-way tape dubbing. \[ \ldots \]\[ $175 \]
from 20-20,000 Hz at 0.05% THD, 50 W/ch continuous into 4 ohms from 20-20,000 Hz at 0.1% THD; THD and IM dist. 0.02% with 8-ohm load; damping factor 50 into 8 ohms at 1000 Hz. Preamplifier: input sensitivity/impedance 2.5 mV/47k ohms (phone), 150 mV/47k ohms (tuner, aux., tape PB); max. input level 150 mV at 1000 Hz (phone); S/N 97 dB for 10 mV, shorted (phone), 100 dB (tuner, aux., tape PB); output sensitivity/impedance 150 mV/600 ohms (rec. out); RIAA deviation +0.3/-0.3 dB from 30-15,000 Hz, 10-100,000 Hz +2/-2 dB (tuner, aux., tape PB); high filter rolloff -5 dB/octave at 10,000 Hz. Features main direct switch to bypass tone-control amp; dual power meters; input and rec. out selectors; variable loudness contour; master volume control; two-front-panel speaker connectors, stereo headphone jack; and three rear ac outlets. 6½"H x 17½"W x 14½"D. $300

YAMAHA

CA-201 Integrated Amplifier
Amplifier section switchable between classes A and B; 120 W/ch continuous (class B), 30 W/ch continuous (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 µV input sensitivity; tone control amp has tone, filter, and buffer amps; two-ganged volume control 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 impedance (47,000, 68,000, and 100,000 ohms); switching for independent use of preamp and power sections; audio muting switch. $800

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 65 dB S/N (IHF A) and 50 µV 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 impedances for MM cartridges (47,000, 68,000, and 100,000 ohms); switching for independent use of preamp and power sections; audio muting switch. $670

A-1 Integrated Amplifier
DC integrated amplifier with built-in head amplifier for moving-coil cartridges. Power amplifier: 70 W/ch continuous, both channels driven from 8 ohms from 20-20,000 Hz at 0.02% THD; THD 0.005% max.; IM 0.003% max.; power bandwidth 10-50,000 Hz; frequency response 20-20,000 Hz +0/-0.2 dB; damping factor over 100 at 8 ohms, 1000 Hz. Preamplifier: input sensitivity/impedance 2.5 mV/47k ohms (phone), 60 µV/10k ohms (phone moving magnet), 200 mV/47k ohms (tuner, aux., tape); max. input level 230 mV rms (moving magnet), 6 mV rms (moving coil); S/N at 10 mV ref. level better than 97 dB (phone moving magnet), better than 82 dB (phone moving coil), 112 dB min. (tuner, aux., tape); output sensitivity/impedance 200 mV/600 ohms (record playback); 2 V/600 ohms (peak); RIAA deviation +0/-0.2 dB, 20-20,000 Hz +0/-0.2 dB (tuner, aux.); channel separation at 1000 Hz 70 dB min. at 5.1-ohm input (tuner), 75 dB min. at 5100-ohm input (phone moving magnet), 75 dB min. (phone moving coil, input level not specified); headphone output 39 mV (8 ohms, rated output). Features FET input circuitry employed in power amplifier, tone control and equalizer; dual power meters; separate rec. and output selectors; variable loudness; and high filter and power amp direct switches. 4½"H x 17½"W x 15"D. $630

CA-810 Integrated Amplifier
65 W/ch continuous 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 µV 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 impedance selectable (47,000, 68,000, 100,000 ohms); rec. out selector switch. $430

CA-610II Stereo Integrated Amplifier
Power amplifier: 45 W/ch continuous into 8 ohms...
ACCUPHASE

T-100 AM-FM Stereo Tuner
FM sensitivity 11.2 dB (2 µV); capture ratio 1.5 dB; S/N 73 dB (mono), THD 0.1% at 1000 Hz; stereo separation 45 dB at 1000 Hz; response 20-15,000 Hz +0/-1 dB, 6.5" H x 17.7" W x 14.5" D. $750

AIKO by TZL INTERNATIONAL

TU-81 AM-FM Stereo Tuner
Features signal-strength and tuning meters; four-band and muting switches. FM usable sensitivity 1.9 µV (monol mono), IHF S/N 70 dB; THD 0.1% (mono), 0.25% (stereo); stereo separation 45 dB at 1000 Hz. AM section: IHF sensitivity 20 µV (external antenna), 250 µV/m (bar antenna); S/N 50 dB. 2"H x 8.5"W x 6.5"D. $220

AIWA

AT-9700 FM Stereo Tuner
Features MOS FET multiplex circuitry; quartz-controlled servo-lock tuning with LED digital frequency readout display; ten-LED signal-strength and three-LED tuning indicator displays; LED indicator selector; automatic sharp/norma-normal selectivity selector with LEDs; output level control; volume selector with LEDs. FM usable sensitivity 10.3 dB (normal), 12.8 dB (sharp); 50-dB quieting, 15.3 dB (normal) and sharp); stereo 35.3 dB (normal) and sharp); S/N 80 dB (normal) and sharp). $225

SU-9300U AM-FM Stereo Tuner
Features PLL multiplex circuitry; circuit signal-and muting switches; signal-strength and tuning meters. FM section: IHF usable sensitivity 1.9 µV (mono); S/N 60 dB; THD 0.2%; AM S/N 45 dB; 5"H x 17"W x 8.4"D. $520

EN DENON

TU-850 FM Tuner
Features five-band capacitor using MOS FET, two-system i-f section, PLL/IC stereo demodulation circuitry, recording level check, high-predictivity tuning, and two multi-functioning level meters to measure amplifier output. IHF sensitivity 9.8 dBf (1.7 µV); capture ratio 0.8 dB; image response -110 dB; i-f response -110 dB; AM suppression 65 dB; S/N 84 dB; THD 0.02% (stereo), 0.05% (mono); 164 mm H x 434 mm W x 20 mm D. $480

TU-500 FM Tuner
Features separate offset/LUT meters, multiplex terminal, five-band capacitor variable dual-gate MOS FET and oscillator circuit, two separate i-f sections, PLL decoder, "Stereo Only" switch, and headphone jack. IHF sensitivity 9.8 dBf (1.7 µV); capture ratio 1.0 dB; image response -110 dB; AM suppression 65 dB; S/N 84 dB; THD 0.2% at 1000 Hz (mono and stereo), 0.3% from 50-5000 Hz (stereo), 0.3% from 50-10,000 Hz (mono); stereo separation 45 dB at 1000 Hz, 40 dB from 100-10,000 Hz 140 mm H x 430 mm W x 350 mm D. $415

TU-630 FM Tuner
Features dual-gate MOS FETs and five-ganged variable capacitor in front end; dual-gate MOS FETs and four-ganged frequency rectilinear variable capacitor in front end; signal strength and FM tuning meters; AM/mono FM input selector; output level control; noise canceller switch; power switch with level adjuster; LED power and stereo FM indicators. FM section: IHF sensitivity 1.6 µV; capture ratio 1.2 dB; IHF selectivity 80 dB; image, i-f, and spurious rejection 110 dB at 98 MHz; S/N 75 dB; frequency response 20-15,000 Hz ±1/-3 dB; HD 0.1% (mono), 0.15% (stereo); stereo separation 45 dB at 1000 Hz. $225

SI-R22U Mini Stereo AM-FM Tuner
Features dual-gate MOS FET front end; PLL IC multiplex demodulator; quartz digital frequency tuning with LED digital frequency readout display; five-band switch; AM/FM input selector; LED stereo FM indicator. FM section: IHF sensitivity 1.9 µV; capture ratio 1.3 dB; IHF selectivity 65 dB; image rejection 60 dB at 98 MHz; i-f rejection 85 dB at 98 MHz; S/N 70 dB; HD 0.1%; AM suppression 65 dB; THD 0.02% (stereo). $210

LED signal-strength indicator display; hi blend, afc/muting, and band switches. FM section: usable sensitivity 1.9 µV (mono); S/N 73 dB (mono), 70 dB (stereo); frequency response 50-10,000 Hz ±0.5 dB; dist. 0.15% (mono), 0.25% (stereo); capture ratio 1.5 dB; alternate channel selectivity 70 dB ±400 kHz; i-f rejection 80 dB; stereo separation 45 dB at 1000 Hz. AM IHF sensitivity 20 µV (external antenna), 250 µV/m (bar antenna); S/N 50 dB. 2"H x 8.5" W x 6.5" D. $200

FM-1 FM Tuner
Features quartz-crystal IC frequency synthesizer tuning with forward/reverse continuous scan and auto search-and-stop operations; five-station memory preset; LED digital frequency readout display; 20-LED analog tuning indicator dial; LED signal-strength and multipath meter displays; 25- or 75-kV ac power amplifiers; carrier band filter and muting switches. FM usable sensitivity 10.8 dBf (mono); 50-dB quieting 2.75 µV (mono), 35 µV (stereo); S/N 70 dB (mono), 65 dB (stereo); THD 0.1% (mono), 0.09% (stereo); frequency response 30-15,000 Hz ±0.5 dB; capture ratio 2.0 dB; alternate channel selectivity 75 dB; image and spurious rejection 114 dB; stereo separation 45 dB at 1000 Hz; 5"H x 19" W x 15" D. $995

CROWN

FM-1 FM Tuner
Features quartz-crystal IC frequency synthesizer with LED digital frequency readout display; five-band switch; AM/FM input selector; LED stereo FM indicator. FM section: usable sensitivity 1.9 µV; capture ratio 1.3 dB; IHF selectivity 65 dB; image rejection 60 dB at 98 MHz; i-f rejection 85 dB at 98 MHz; S/N 70 dB; HD 0.1%; AM suppression 65 dB; THD 0.02% (stereo). $210

FM-1 FM Tuner
Features quartz-crystal IC frequency synthesizer
TU-501 AM-FM Stereo Tuner

- AM: sensitivity 250 µV/m (IHF), ferrite antenna; 12 µV (IHF), sensitivity 34 dB at ±1000 Hz; S/N 45 dB; 0.3%. Matte black finish; 6'/8" H x 17'8.5" W x 13'9" D...
- Price: $795

FT-440B AM-FM Stereo Tuner

- Features FET and four-stage linear frequency variable capacitor in front end; PLL IC in multiplex demodulator circuit; signal-strength and tuning meters; FM mute and hi-blend selectors; 440-Hz recording level check oscillator; output level control. FM section: usable sensitivity 1.7 µV (mono), 5.0 µV (stereo); 50-dB quieting 3.5 µV (mono), 39 µV (stereo); S/N 76 dB (mono), 70 dB (stereo); HD at 1000 Hz 0.1% (mono), 0.25% (stereo); frequency response 30-15,000 Hz ±1 dB, capture ratio 1.0 dB; alternate channel selectivity 80 dB (IFM); image rejection 75 dB; and spurious rejection 65 dB.
- AM section: sensitivity 250 µV (IHF, ferrite antenna), 12 µV (IHF); sensitivity 34 dB at ±1000 Hz; S/N 45 dB; 0.3%. Matte black finish; 6'/8" H x 17'8.5" W x 13'9" D...
- Price: $330

HARMAN/KARDON

 Citation 18 FM Tuner

- Features FM quieting meter for tuning; two-stage muting system (wide and narrow); pushbutton for external processor use; 0.2% I-F; 0.3% (stereo); S/N 50 dB; image rejection 20-15,000 Hz 0.1% (stereo); frequency response 30-15,000 Hz 0.5/-1.2 dB; THD at 1000 Hz 0.1% (stereo); 5x/i. H x 17'8.5" W x 13'9" D...
- Price: $230

DRACO LABS

 Micro/CPU FM Tuner

- Features six-section varactor front end; PLL micro/CPU FM Tuner
- PLL multi-plex demodulator. FM section: usable sensitivity 1.8 V/m (mono), 3.5 V/m (stereo); S/N 83 dB (mono), 75 dB (stereo); frequency response 20-15,000 Hz ±0.5 dB; alternate channel selectivity 65 dB; image rejection 70 dB; and spurious rejection 65 dB at 1000 Hz.
- AM section: sensitivity 12 µV (IHF), 300 µV/m (IHF, ferrite antenna); S/N 53 dB. 4'/8" H x 17'8.5" W x 10'3/8" D...
- Price: $280

HEATH

 AJ-1800 AM-FM Stereo Tuner

- Features digital-synthesized tuning with LED digital frequency readout display; wide/narrow bandwidth selection switches. Dolby noise-reduction system; hi-blend, mono/stereo, and AM switch; signal-strength/multipath meter with switch; tuning meter. FM section: usable sensitivity 1.8 V/m (mono), 3.5 V/m (stereo); S/N 83 dB (mono), 75 dB (stereo); frequency response 20-15,000 Hz ±0.5 dB; alternate channel selectivity 40 dB (wide), 80 dB (narrow); 5%± H x 19" W x 14" D. Kit.
- Price: $279

HITACHI

 FT-8000 FM Stereo Tuner

- Features quartz crystal digitally-synthesized PLL tuning system with auto scan/manual tuning; four gang variable capacitance diode and dual-gate MOS FETs in electronic front end; multiplex demodulator circuitry; six station memory preset with LED memory write and erase indicators; LED digital frequency/clock readout display; five-LED signal-strength indicators; multipath switch; mono/mute, hi-blend, and 440-Hz record level switches. Usable sensitivity 11.2 dB (new IFH), 1.0 µV (75 ohms, IFH); 50-dB quieting 3.3 µV (mono), 40 µV (stereo); S/N 72 dB (mono), 68 dB (stereo); frequency response 20-15,000 Hz 0.7/-0.01 dB; HD at 1000 Hz 0.12% (mono), 0.15% (stereo); capture ratio 1.2 dB; alternate channel selectivity 80 dB (IFH); image rejection 70 dB; i-f rejection 85 dB; spurious rejection 100 dB; stereo separation 45 dB at 1000 Hz; 3'/4" H x 17'8.5" W x 15'9/8" D...
- Price: $460

FT-5000 AM-FM Stereo Tuner

- Features dual-gate MOS-FETs and four-gang variable capacitance diode in electronic front end; multiplex demodulator circuit; quartz crystal digitally-synthesized PLL tuning system with auto scan/manual tuning; four gang variable capacitance diode and dual-gate MOS FETs in electronic front end; multiplex demodulator circuitry; six station memory preset with LED memory write and erase indicators; LED digital frequency/clock readout display; five-LED signal-strength indicators; multipath switch; mono/mute, hi-blend, and 440-Hz record level switches. Usable sensitivity 11.2 dB (new IFH), 1.0 µV (75 ohms, IFH); 50-dB quieting 3.3 µV (mono), 40 µV (stereo); S/N 72 dB (mono), 68 dB (stereo); frequency response 20-15,000 Hz 0.7/-0.01 dB; HD at 1000 Hz 0.12% (mono), 0.15% (stereo); capture ratio 1.2 dB; alternate channel selectivity 80 dB (IFH); image rejection 70 dB; i-f rejection 85 dB; spurious rejection 100 dB; stereo separation 45 dB at 1000 Hz; 3'/4" H x 17'8.5" W x 15'9/8" D...
- Price: $460

JVC

 T-3030 FM Stereo Tuner

- Digital frequency synthesizer FM tuner; sensitivity 1 µV; image response 110 dB; i-f response 110 dB; 45 dB quieting (stereo), 25, 50, and 75 µsec de-emphasis; variable output level; seven pre-selected station memory; LED digital frequency display; five-LED signal strength indicator; automatic 50-dB quieting noise filter (switchable); 2'/4" H x 16'8.5" W x 13'9/8" D...
- Price: $650

T-M Micro FM Tuner

- Features quartz PLL frequency-synthesizer microprocessor-controlled tuning with auto/manual up/down scanning; five-station memory preset with LEDs and memory write; LED digital frequency/clock readout display; five-LED signal-strength indicator display. Usable sensitivity 0.9 µV; 50-dB alternate channel selectivity 75 dB (IFH); image and i-f rejection 70 dB; stereo separation 45 dB at 1000 Hz; AM selectivity 65 dB; 100 dB; HD 0.4% 17'8.5" W x 14'9/8" D...
- Price: $330
It's called The System, from Mitsubishi.
And we don't call it ritzy simply to justify its price.
Because as anyone who knows woofers from tweeters will tell you, there's more to ritzy than mere expense.
There's a pre-amplifier with complete dual-monaural construction and a built-in head amp for moving coil phonograph cartridges.
A 75 watt, 100 watt, or 150 watt amplifier, each capable of 80 dB inter-channel separation, a high signal-to-noise ratio and low distortion.
A Logic Control Turntable that breaks every record in the industry for completely automatic operation. Not to mention its specially designed high-resolution, low-resonance tone arm for faultless sound.
A three-head, closed loop, dual-capstan drive tape deck, complete with feather touch controls that let you record professional quality cassette tapes.
Impressed? There's more. An AM/FM stereo tuner with a quartz-PLL synthesizer, plus LED's and digital readout, for the ultimate in tuning accuracy and convenience.
Peak meters that can dock with the amplifier and monitor your equipment channel by channel. So you can maintain perfect balance and protect the system from overload.
And last, but not least ritzy, our exclusive new MS-40 loudspeakers.
They completely eliminate the spurious vibrations caused by conventional paper cone speakers, because they aren't made from paper.
Instead, we make our cone with an aluminum honeycomb core in a sandwich of glass fiber. The honeycomb structure is rigid enough to maintain its shape, yet light enough to be exceptionally responsive.
Put each of these remarkable components together in one handsome rack, and you've got The System.
One name. One look. From one company, with one standard of quality. Excellence.

MITSUBISHI AUDIO SYSTEMS

CIRCLE NO. 4 ON READER SERVICE CARD
T-40P AM-FM Stereo Tuner
Features four-band electronic varicap in FM front end; quartz PLL frequency synthesizer tuning with automatic-tuning AM; frequency preset with LEDs and memo bar; LED digital frequency readout display; PLL multiplex with automatic pilot carrier, mode, muting, and AM/FM switches; LED signal strength bar display; frequency preset with LEDs; AM section: usable sensitivity 1.6 µV (mono), 50-dB quieting 3.0 µV (mono), 25 µV (stereo); S/N 70 dB (mono), 65 dB (stereo); frequency response 20-15,000 Hz +0.5/-3.0 dB; AM section: usable sensitivity 150 µV/m (Bar antenna); 4V/4' H x 16'/4" W x 11'/4" D $370

JT-V77 AM-FM Stereo Tuner
Features PLL multiplex demodulator with recording level calibrator and automatic pilot carrier signal, four-band tuning capacitor; automatic tuning hold circuit; single-clip four and one-resonator ceramic filters; YU record level meters. FM section: sensitivity 10.3 dB (1.8 µV); frequency response 20-15,000 Hz +0.5/-0.8; 50-dB quieting 38.3 dB (38 µV) stereo, 16.8 dB (3.8 µV) mono; S/N 72 dB stereo, 78 dB (mono); capture ratio 0.10 dB; alternate channel selectivity 75 dB; image response 70 dB; i-f response 245-95 dB; S/N 50 dB; frequency response 10,000 Hz, 50 dB at 1000 Hz, 75 dB at 1000 Hz, 300 Hz at 1000 Hz; AM section: usable sensitivity 300 µV (bar antenna), 300 µV (external antenna); image response 245 dB; S/N 50 dB; 6V/4' H x 17'/4" W x 13'/4" D $320

JT-V22 AM-FM Stereo Tuner
Features IC PLL multiplex demodulator; FET radio-frequency amplifier and frequency-linear three-band tuning capacitor; AM/FM signal strength and FM channel-select tuning meters; muting switch; FM-linear tuning dial; and AM bar antenna. FM section: sensitivity 11.2 dB (2.0 µV); 50-dB quieting sensitivity 38.3 dB (45 µV) stereo, 17.2 dB (4.0 µV) mono; S/N 65 dB (stereo), 73 dB (mono); capture ratio 1.5 dB; alternate channel selectivity 70 dB; image response 58 dB (98 MHz); i-f response -95 dB; AM suppression 45 dB; stereo separation 40 dB at 100 Hz, 45 dB (mono); i-f response and 30 dB at 10,000 Hz, 75 and 300 ohm antenna input impedance. AM section: sensitivity 300 µV/m (bar antenna), 50 µV (external antenna); image response -45 dB; S/N 50 dB; 6V/4' H x 17'/4" W x 13'/4" D $190

T-V5 AM-FM Stereo Tuner
Features FET-RF and three-band tuning capacitor in front end; PLL multiple IC demodulator; LED signal-strength and FM tuning bar indicators; selector, mode, and muting switches. FM section: usable sensitivity 0.9 µV (mono), 50-dB quieting 14.8 dB (mono), 38.3 dB (stereo); S/N 82 dB (mono), 70 dB (stereo); frequency response 50-15,000 Hz +0.5/-1 dB; AM section: usable sensitivity 300 µV/m (bar antenna), 30 µV (external antenna); image response 245 dB; S/N 50 dB; 6V/4' H x 16'/4" W x 12'/4" D $180
full Dolby system; 400-Hz test tone; FM muting level control; and output
level control. Usable sensitivity 10.3 dBf (1.8 µV); 50-dB quieting 2.5 µV (stereo);
response 30-15,000 Hz ± 0.5 dB; dist. 0.1% (mono); S/N 67 dB (CCIR); separation 50 dB;
2°H × 5.5°W × 12°D ……… $555

**METRON**

**DFM-1 AM-FM Stereo Tuner**
Features dual MOS FETS and five-gang varactor tuning in front end; digitally-synthesized quartz-lock tuning with auto/manual up/down scan tuning and LED digital frequency readout display; 12:1 scan memory preset in AM and FM modes; adjustable muting; wide/narrow i-f bandwidth selector; five-LED signal-strength indicator display; output level control. FM 50-dB quieting 39 µV (stereo); 5070 dB (stereo); 0.07% (stereo); capture ratio 1.2 dB; alternate channel selectivity 87 dB ……… $700

**MITSUBISHI**

**DA-C20 Tuner-Preamplifier**
AM/FM stereo combination has individual-channel semiconductors and moving coil head amplifier. Also features locked tuning, detent volume control and independent output controls. FM section: sensitivity 11.2 dB (2.0 µV) mono, 22.7 dB (7.5 µV) stereo; THD (1000 Hz) 0.05% (mono), 0.2% (stereo); 40-dB quieting 5.0 dBf (50 µV mono), 9.2 dBf (25 µV stereo); S/N 75 dB (stereo); response frequency 30-15,000 Hz ± 1 dB; THD (1000 Hz, 65 dBf) 0.0% (stereo wide), 0.5% (stereo narrow); selectivity 45 dB (wide), 75 dB (narrow); capture ratio 0.8 dB (wide), 1.5 dB (narrow); stereo separation at 1000 Hz 45 dB (wide), 40 dB (narrow). AM section: sensitivity 45 dB (bar antenna); selectivity 30 dB; THD 0.8% (narrow); THD (1000 Hz) 0.1% (narrow); 1/100 MHz (phono MC), 2.3 MHz/50,000 ohms (phono MM, 100 PF), 150 MHz/50,000 ohms (tuner, aux., play); output level max. 18 V; S/N (IHFA "W") 77 dB (stereo); 64 dB (7.5 µV stereo); capture ratio 1.0 dB; alternate channel tones with defeat switches; signal strength and tuning meters; front-panel headphone jack. 6"H × 16"W × 9½"D ……… $1040

**DA-F20 FM Stereo Tuner**
Features both conventional tuning and digital frequency control – DFM with quartz-PLL synthesizer; switchable selectivity; inter-station muting; signal-strength and center-tuning LEDS; tape record level check signal; variable and fixed output level. Specifications: sensitivity 19.2 dBf (2.0 µV), stereo 22.7 dBf (7.5 µV); 50-dB quieting sensitivity 19.2 dBf (5.0 µV), 39.2 dBf (50 µV stereo); S/N 75 dB (stereo), 70 dB (narrow); alternate channel selectivity 45 dB (wide), 75 dB (narrow); stereo separation 50 dB at 1000 Hz (narrow); THD at 1000 Hz and 65 dBf 0.08% (stereo wide), 0.25% (stereo narrow); capture ratio 0.8 dB (wide), 1.3 dB (narrow). 6"H × 16"W × 10½"D ……… $510

**DA-C7 AM-FM Tuner-Preamp**
Features dual MOS-FET and four-gang tuned LC filters; recording level check signal. Specifications: sensitivity 1.8 µV; 50-dB quieting 2.5 µV (mono), 50 dB (stereo); THD 30 kHz, 1/100 MHz 0.05%; (800 mod, 1 kHz) 1.5%; audio output 1 V rms, 5000 ohms, +2 dBm, 600 ohm optional; tuning meter; 110/220 V, 100 Hz. 6½"H × 17½"W × 14½"D ……… $280

**ST300. Similar to ST400 minus LED digital frequency counter, subsonic filter, independent output level controls. FM section: sensitivity 19 dBf (mono); 50-dB quieting 2.8 µV (mono); FM S/N 75 dB (mono), 68 dB (stereo). ……… $225

**MCKAY DYMKE**

**AM7 International AM Tuner**
AM-only (150-300 kHz and 540-1600 kHz) solid-state tuner. Sensitivity: 3 µV medium-wave, 6 µV long-wave at 10 dB S/N; 6 dB r-f bandwidth ± 4 kHz (narrow), ± 7.5 kHz (wide); 50 dB r-f bandwidth ± 14 kHz (wide); THD 30° (mod, 1 kHz) 0.5%; (800 mod, 1 kHz) 1.5%; audio output 1 V rms, 50000 ohms, +2 dbm, 600 ohm optional; tuning meter; 110220 V, 60 Hz. 3½"H × 17½"W × 10½"D ……… $365

**AM5 AM Tuner**
AM-only solid-state tuner. Sensitivity 3 µV for 10 dB (stereo); 6 dB r-f bandwidth ± 4 kHz; wide mode ± 10 kHz; modulation response ~3 dB at 15 kHz and 9 kHz; THD (30° mod, 1 kHz) 0.5%; 800 modulation 1.5%; front-mounted side volume control; 6 V at 1000 OHMs (pow); 250 V at 10 kHz (19-inch rack-mount hardware); designed to be used with active directional antenna (Dymke DA5). $340

**MERIDIAN by ANGLO-AMERICAN**

**104 FM Tuner**
Features dual MOS-FETS with double-balanced mixer in front end; six-station preset and one
buffer circuit in oscillator; quartz-controlled tuning with up/down scanning and LED digital frequency display; seven-station preset automatic tuning; signal-strength bar display; stereo indicators; multiplex and pilot canceller circuits. Usable sensitivity 1.7 µV (IHF); frequency response 30-15,000 Hz ±1.5 dB; THD mono 0.1% (wide), 0.2% (narrow); stereo 0.2% (wide), 0.3% (narrow); S/N selectivity 35 dB (narrow), 80 dB (wide); stereo separation 50 dB (wide) and 45 dB (narrow) at 1000 Hz; ebony faceplate; 21.6" H x 21.9" W x 15.5" D. $400

ST-4405 AM-FM Stereo Tuner
Features five LED signal-strength and three-LED tuning meter displays; air-check calibrator; high-blend, FM muting and mode switches; pilot canceller; variable output terminal. FM section: HF usable sensitivity 1.7 µV; S/N 75 dB (mono), 70 dB (stereo); frequency response 30-15,000 Hz ±1.5 dB; THD mono 0.2% (wide), 0.3% (narrow); stereo 0.2% (wide), 0.3% (narrow); S/N selectivity 35 dB (narrow), 80 dB (wide); stereo separation 50 dB (wide) and 45 dB (narrow) at 1000 Hz; ebony faceplate; 21.6" H x 19.9" W x 15.5" D. $250

ST-4201 AM-FM Stereo Tuner
Features dual gate MOS FET end and PLL multiplex circuitry; i-f detector; FM air-check calibrator; dual tuning meters; muting; hi-blend switch. FM section: sensitivity 1.7 µV (IHF); frequency response 30-15,000 Hz ±1.5 dB; S/N 72 dB (mono), S/N 75 dB (stereo); THD 0.2% (mono and stereo); S/N 70 dB (stereo); alternate channel selectivity 55 dB; FM muting and record level check; 12-LED signal-strength bar graph display; three-LED tuning meter; hi-blend switch; FM muting; mode switch; multipath monitor switch; variable output terminal; pilot canceller. FM section: HF usable sensitivity 1.9 µV; S/N 75 dB (mono), 70 dB (stereo); frequency response 30-15,000 Hz ±1.5 dB; THD mono 0.2% (wide), 0.3% (narrow); stereo 0.2% (wide), 0.3% (narrow); S/N selectivity 35 dB (narrow), 80 dB (wide); stereo separation 50 dB (wide) and 45 dB (narrow) at 1000 Hz; ebony faceplate; 21.6" H x 19.9" W x 15.5" D. $230

OPTONICA

ST-9405 AM-FM Stereo Tuner
Features digitally-synthesized tuning with auto search/scan tuning; LED digital frequency readout display; ten-station memory preset with LED indicators; wide/narrow i-f bandwidth selector with LED; threshold/local/distinct switch; air-check calibrator; 12-LED signal-strength bar graph display; three-LED tuning meter; hi-blend switch; FM muting; mode switch; multipath monitor switch; variable output terminal; pilot canceller. FM section: HF usable sensitivity 1.7 µV (IHF); S/N 75 dB (mono), 70 dB (stereo); frequency response 30-15,000 Hz ±1.5 dB; THD mono 0.1% (wide), 0.2% (narrow), stereo 0.2% (wide), 0.3% (narrow); S/N selectivity 35 dB (narrow), 80 dB (wide); stereo separation 50 dB (wide) and 45 dB (narrow) at 1000 Hz; ebony faceplate; 21.6" H x 19.9" W x 15.5" D. $100

ST-7405 AM-FM Stereo Tuner
Features Upto-Lock tuning system with LED indicators; LED digital frequency readout display; seven-LED signal-strength and center tuning meter displays; narrow/wide i-f bandwidth selector with LED; multipath monitor switch; air-check calibrator; pilot canceller; hi-blend switch; FM muting switch; mode switch; variable output terminal. FM section: HF usable sensitivity 1.7 µV; S/N 75 dB (mono), 70 dB (stereo); frequency response 30-15,000 Hz ±1.5 dB; THD mono 0.1% (wide), 0.2% (narrow); stereo 0.2% (wide), 0.3% (narrow); S/N selectivity 35 dB (narrow), 80 dB (wide); stereo separation 50 dB (wide) and 45 dB (narrow) at 1000 Hz; ebony faceplate; 21.6" H x 19.9" W x 15.5" D. $450

STEREO DIRECTORY & BUYING GUIDE
AH673 AM-FM Stereo Tuner
Has signal strength/multipath and center tuning meters; display function lights; AM and FM output level controls; FM muting; LED touch switches. FM section: AM-FM stereo, 50-µV stereo, 22-µV monaural; FM quieting ratio 2.2 µV mono; 30-µV stereo; capture ratio 1 dB; AM response –50 dB; i-f response –110 dB; stereo separation 50 dB (1 kHz). FM sensitivity 150 µV (modulation); image rejection 150 µV (modulation); antenna response –68 dB; i-f response –52 dB; hum and noise –60 dB. 5¾" H x 18" W x 13¾" D $530
AH6731. Black chassis...

$550

AH185 AM-FM Stereo Tuner
Features illuminated FM tuning and signal-strength meters; flywheel tuning; stereo indicator light; AM antenna automatic level control; mono mode; multiplex filter; and AFC. FM section: usable sensitivity 1.7 µV mono; 50-µV quieting sensitivity 3.5 µV; capture ratio 1.2 dB; AM rejection 60 dB; i-f rejection 60 dB; stereo rejection 50 dB at 1000 Hz. AM section: sensitivity 180 µV/m (IHF, ferrite antenna); 15 µV (IHF, external antenna); selectivity 30 dB; 327/" W x 16/" H x 14-1/4" D...

$350

PIONEER

TX-9800 AM-FM Stereo Tuner
Features a high-performance system with LED, signal-strength and center tuning meters; wide/narrow AM-FM-i bandwidth selector; multiplex noise filter; FM muting/mode and function switches with LEDs; output level control; FM section: usable sensitivity 1.6 µV (mono); 29 dB stereo; mono S/N 80 dB (IHF); stereo HD 0.07% (wide), 0.15% (narrow); capture ratio 1.0 dB; alternate channel selectivity 35 dB; AM separation 70 dB at 1400 Hz; i-f rejection 60 dB at 600,000 Hz; 5¾" H x 14" W x 14-1/4" D...

$1330

AH1851. Black chassis...

$350

TX-7800 AM-FM Stereo Tuner
Features dual-gate MOS FET and frequency-linear four-gang variable capacitor in front end; sensitivity 3.2 dB; alternate channel sensitivity 3.2 dB; AM quieting 200 µV/m (IHF, ferrite antenna); 300-µV stereo; capture ratio 1.0 dB; alternate channel selectivity 75 dB; image rejection 85 dB; i-f rejection 100 dB; spurious rejection 95 dB; stereo separation 50 dB at 1000 Hz. AM section: sensitivity 0.2% THD; AM rejection 60 dB; AM suppression 100 dB; AM rejection 75 dB; stereo rejection 70 dB; stereo separation 40 dB at 1000 Hz, S/N 60 dB; THD 0.03% (stereo), 0.15% (mono); stereo separation 35 dB from 50-10,000 Hz. $400

$370

RT-2100 FM Stereo Tuner
Quartz PLL FM tuner with built-in Dolby noise-reduction circuit. Features quartz PLL tuning and multiplex section with dual wide/narrow band selection; LED signal-strength and center-tuning configuration readout, digital station readout; FM muting switch; multipath switch; flywheel tuning; IHF sensitivity 1.5 µV mono, 29 dBf stereo; mono S/N 80 dB (IHF); stereo HD 0.07% (wide), 0.2% (narrow); capture ratio 1.0 dB; alternate channel selectivity 35 dB (wide), 80 dB (narrow); stereo separation 50 dB (wide) and i-f rejection 115 dB; AM suppression 55 dB; frequency response 30-15,000 Hz ±0.5 dB, 5¾" H x 19" W x 12¾" D...

$600

RT-2000 FM Stereo Tuner
Sensitivity section included; IHF sensitivity 9.3 dBf (1.6 µV mono, 30 dBf stereo; stereo HD 0.1% capture ratio 1.0 dB; alternate channel selectivity 75 dB (IHF); frequency response 30-15,000 Hz ±0.5 dB, stereo separation 45 dB at 1000 Hz. AM section: IHF sensitivity 12.5 µV, S/N 50 dB; image rejection 60 dB; selectivity 40 dB. Features similar less LED meter displays and Dolby noise-reduction circuit, has signal-strength and tuning meters...

$430

RT-1000 AM-FM Stereo Tuner
Features FET i-f stage; PLL demodulator; quadrature discriminator; LED signal-strength and tuning indicator display; function switch with LEDs; wide/narrow AM-i bandwidth selector; multiplex noise filter; FM muting/mode switch; output level control; FM section: usable sensitivity 1.6 µV (mono); 29 dB stereo; stereo rejection 50 dB; AM rejection 60 dB; AM suppression 100 dB; AM rejection 75 dB; stereo rejection 70 dB; stereo separation 40 dB at 1000 Hz, AM usable sensitivity 200 µV/m (IHF, ferrite antenna); selectivity 30 dB; 3¾" H x 16" W x 11¾" D...

$250

SAE

8000 FM Digital Tuner
Features LED digital frequency display; five-gang, dual-gate FET front end; log meters for center-channel tuning and signal strength. Sensitivity 8.5 dBf (1.6 µV), linear-phase multichannel i-f filters with PLL MPX circuitry; 0.2% THD; capture ratio 1.5 dB; AM suppression 100 dB; AM rejection 75 dB; selectivity 120 dB; stereo separation 30 dB over 50-15,000 Hz; 5¾" H x 19" W x 11¾" D...

$700

T14 AM-FM Stereo Tuner
Features varactor front end; LED digital frequency readout; quartz-lock and synthesized touch tuning; five-station memory preset for AM and FM; LED signal-strength display; stereo separation 35 dB from 50-10,000 Hz, 0.07% stereo, 0.15% mono; stereo separation 35 dB from 50-10,000 Hz, 0.07%.

$550

3200 FM Digital Tuner
Features digital frequency readout; front-end and line-in phase filters; signal-strength and center tuning LED displays; 75- and 300-ohm antenna inputs; tape out jack. IHF usable sensitivity 10.3 dBf (1.8 µV); 50-µV quieting sensitivity 37.2 dB (40 µV less than 0.07% stereo, 0.15% mono; stereo separation 35 dB from 50-10,000 Hz, 0.400

$400

T7 AM-FM Stereo Tuner
Features digital frequency readout; quartz-lock tuning; LED signal-strength/multipath and output level bar graph displays. 50 dB quieting 34.8 dBf (stereo); S/N 67 dB; THD 0.02% (stereo), 0.11% (mono).

$375

T3U AM-FM Stereo Tuner
Features 'near AM-FM dial; signal-strength and frequency meters; multiplex section with dual wide/narrow band switches; tape out jack. IHF sensitivity 10.3 dBf (1.8 µV); capture ratio 1.5 dB; THD 0.15% mono, 0.25% stereo...

$275

SANSUI

TU-X1 AM-FM Stereo Tuner
Features separate AM and FM tuning systems with signal-strength (combined signal-strength/multipath) display in FM) and tuning meters, switchable output level control, switchable muting, and wide/narrow i-f bandwidth controls in each section; seven-gang tuning capacitor; dc composite and dc audio output amplifiers; FM section and synchronized PLL product decoder circuitry in AM section; LED AM and FM wide and narrow FM and stereo indicators; calibration tone switch control; noise filter; super/lowr beat canceller. FM IHF sensitivity 1.49 µV, 50-µV quieting sensitivity 34.0 dBf (stereo); dist. 0.03% (stereo); selectivity 80 dB (narrow band), 55 dB (wide band); S/N 80 dB (stereo); matte black finish...

$980

TU-919 AM-FM Stereo Tuner
Digitally-controlled quartz-locked AM-FM stereo tuner features four-digit frequency readout; signal-strength and tuning meters; calibration tone selector; FM muting switch; two i-f wide/narrow bandwidth selectors for AM and FM; auto noise filter; input selector for autofocus and AM; output level control; LED FM stereo and quartz lock indicators. FM section: IHF sensitivity 1.54 µV; 50-µV quieting 34.0 dBf (stereo); dist. 0.06% (stereo); S/N 82 dB; THD 0.15% mono, 0.25% stereo; matte black finish with detachable rack-mount handles...

$585

TU-717 AM-FM Stereo Tuner
Features dual-gate MOS FET and four-gang tuning capacitor in front end; wide/narrow i-f bandwidth selector; signal-strength and tuning meters, calibration level control; muting and noise canceller controls; output level control; input selector for autofocus and AM and FM. LED output level control; LED FM stereo and quartz lock indicators. FM section: IHF sensitivity 4.9 µV mono, 50-µV quieting sensitivity 10.3 dBf (1.8 µV); stereo separation 34.8 dBf (stereo); S/N 67 dB; THD 0.07% stereo, 0.15% mono...

$425
EAR PHASE Ceramic filter; PLL stereo demodulator; signal-strength and tuning meters; muting and noise canceler switches; output level control; input selector for auto/mono FM and AM with FM stereo LED. FM section: IHF sensitivity 10.1 dBf (mono); frequency response 20-15,000 Hz ±0.5~1 dB; dist. 0.07% (mono), 0.05% (stereo); SATIN-BLACK front panel with detachable rack-mount handles.

SANYO

PLUS T55 AM-FM Stereo Tuner Features four variable tuning diodes in FM front end; quartz-lock frequency synthesizer digital tuning with LED analog and frequency digital readout display; 12-station memory tuning with LEDs; fluorescent signal-strength and AM-FM tuning display; variable FM muting threshold; wide-narrow i-f bandwidth selector; passive four- pole LC multiplex filter; input selector and output level control. FM section: usable sensitivity 1.8 µV (mono); 50-dB quieting 3.0 µV (mono), 36 µV (stereo); THD at 1000 Hz, mono 0.15% (narrow), 0.09% (wide), stereo 0.2% (narrow), 0.19% (wide); frequency response 20-15,000 Hz ±1~2 dB; alternate channel selectivity 80 dB (narrow), 55 dB (wide), ±400 Hz; capture ratio 1.8 dB (narrow), 1.2 dB (wide); stereo separation 42 dB (narrow), and 48 dB (wide) at 1000 Hz; spurious rejection 80 dB; image rejection 70 dB; I-f rejection 90 dB. AM section: usable sensitivity 300 V/m (ferrite, external antenna); SFN 67 dB (mono), 84 dB (stereo); dist. at 1000 Hz 0.3% (normal), 0.05% (stereo); frequency response 20-15,000 Hz ±0.1~0.3 dB; capture ratio 2.0 dB (narrow); alternate channel selectivity 80 dB (narrow), ±400 kHz (narrow); image-rejection sensitivity 3.5 µV (mono), 33.5 µV (stereo); SFN 72 dB (mono), 67 dB (stereo); frequency response 25-15,000 Hz ±2 dB; dist. 0.15% (mono), 0.3% (stereo); capture ratio 1.5 dB; alternate channel selectivity 60 dB; image rejection 65 dB; I-f rejection 85 dB; spurious rejection 80 dB; stereo separation 45 dB at 1000 Hz. AM usable sensitivity 250 µV/m (bar antenna) and 45 dB SFN. 5½" H x 17" W x 11¹/2" D. $250

SHERWOOD

S-32 CP AM-FM Stereo Tuner Features cross-coupled PLL stereo multiplex demodulator; high inertia flywheel tuning; signal-strength and tuning meters; multiplex noise filter; FM muting, output level control; selector switch with LEDs. FM section: IHF usable sensitivity 1.7 µV (mono); 50-dB quieting 2.8 µV (mono); IHF SFN 74 dB (mono), 68 dB (stereo); frequency response range 30-15,000 Hz ±0.1~0.2 dB; THD at 1000 Hz 0.1% (mono), 0.2% (stereo); capture ratio 1.0 dB (normal); alternate channel selectivity 70 dB; image rejection 60 dB; I-f rejection 75 dB; spurious rejection 85 dB; stereo separation 45 dB at 1000 Hz. AM sensitivity 15 µV. 5½" H x 17" W x 12½" D. $310

S-30T AM-FM Stereo Tuner Features four-gang FM tuning capacitor and dual-gate MOS FETs in front end; combined signal-strength=center-tuner metering; muting and mode switches; rear-panel 25/50/75 µsec def-emphasis switch. FM section: IHF sensitivity 1.8 µV; 50-dB quieting sensitivity 3.5 µV (mono), 33 µV (stereo); SFN 75 dB (mono), 70 dB (stereo); frequency response range 25-15,000 Hz ±2 dB; dist. 0.1% (mono), 0.2% (stereo); capture ratio 1.0 dB; alternate channel selectivity 70 dB; image rejection 80 dB; I-f and spurious response rejection 90 dB; stereo separation 50 dB at 1000 Hz. AM usable sensitivity 250 µV/m (bar antenna) and 50 dB SFN. 5½" H x 17" W x 11¹/2" D. $250

SONY

ST-360 AM FM Stereo Tuner Features variable diode and MOS FET amplification in front end; quartz lock frequency synthesis tuning with LED digital frequency readout; eight-station memory preset with LEDs; manual or autotune selection; LED multipath/signal strength display meter; selectable muting and built-in 400-Hz calibration test tone controls; front-panel insert cards to indicate preset stations. 50-dB quieting sensitivity 3.5 µV (mono), 40 µV (stereo); SFN 77 dB (mono), 72 dB (stereo); frequency response range 20-15,000 Hz ±0.15/ -0.5 dB; stereo separation 30-15,000 Hz ±0.2~/0.5 dB; THD and IMD at 1000 Hz 0.06% (mono), 0.08% (stereo); capture ratio 1.0 dB; alternate channel selectivity 85 dB at 400 Hz; image rejection 85 dB; I-f rejection 95 dB; spurious response ~100 dB; stereo separation 50 dB at 1000 Hz; AM suppression 60 dB; 5½" H x 17" W x 12½" D. $400

ST-A6B FM Stereo Tuner Features seven-gang tuning capacitor and dual-gate MOS FET i-f front end; PLL IC stereo multiplex demodulator, selectable muting and built-in 400-Hz calibration test tone controls; front-panel insert cards to indicate preset stations. 50-dB quieting sensitivity 3.5 µV (mono), 40 µV (stereo); SFN 77 dB (mono), 72 dB (stereo); frequency response range 20-15,000 Hz ±0.15/ -0.5 dB; stereo separation 30-15,000 Hz ±0.2~/0.5 dB; THD and IMD at 1000 Hz 0.06% (mono), 0.08% (stereo); capture ratio 1.0 dB; alternate channel selectivity 85 dB at 400 Hz; image rejection 85 dB; I-f rejection 95 dB; spurious response ~100 dB; stereo separation 50 dB at 1000 Hz; AM suppression 60 dB; 5½" H x 17" W x 12½" D. $400

ST-37B AM FM Stereo Tuner Quartz-crystal frequency synthesizer FM tuner with "X-tal Lock" tuning system which eliminates need for center-tuning and AFC circuit. Features digital frequency display; linear tuning dial with LED; i-f bandwidth selector; signal-strength tuning meter with switchable multipath; connections for FM Dolby adapter and 25 µsec de-emphasis; adjustable interstation-noise muting threshold; adjustable output level for program-source level matching; hi-blend switch. Usable sensitivity 8.8 dBf (1.5 µV); 50-dB quieting sensitivity 14.2 dB (2.8 µV) mono, 34.6 dB (30 µV) stereo; SFN 80 dB (mono), 75 dB stereo; capture ratio 0.8 dB (normal), 1.8 dB (narrow); alternate channel selectivity 50 dB at 40000 Hz (normal) 120 dB at 400000 Hz (narrow); image rejection 90 dB; AM suppression 60 dB; THD and IMD at 1000 Hz 0.2% (normal), 0.2% (narrow); stereo 0.8% (normal), 0.3% (narrow); frequency response 20-15,000 Hz ±0.2~/0.5 dB; stereo separation 55 dB at 1000 Hz (normal), 45 dB at 1000 Hz (narrow); output level 750 mV fixed, 1.5 V variable, 190 dB S/N, 6½" H x 18" W x 16½" D. $900

STEREO DIRECTORY & BUYING GUIDE
quartz lock frequency synthesis tuning with LED digital frequency display; eight-station memory preset; manual or autoscanning tuning; LED signal-strength meter display; defeatable muting; front-panel insert cards indicate preset stations; features: touch function controls with LEDs. 50-µV quieting at 75 ohms 18.1 dBf (2.2 µV) mono, 38.1 dBf (22 µV) stereo; THD at 1000 Hz 0.08% (mono) and stereo wide, 0.15% (mono narrow); S/N 80 dB mono; frequency response 20-18,000 Hz +/− 0.5 dB; variable capture ratio 0.8 dB (wide), 90 dB (narrow); alternate channel selectivity 25 dB (wide), image response −135 dB, f-i rejection −135 dB; AM suppression 58 dB (wide); stereo separation 50 dB (1 kHz, wide)...

ST-8077 AM-FM Stereo Tuner
Features active servo-lock fine tuning circuit with active sensor LED tuning indicator; SAW f-i filter; 15-kHz pilot-signal canceller circuit; built-in digital frequency synthesizer FM tuner with manual/auto mode. Usable sensitivity 14.8 dBf (3 µV) mono, 36 dBf (35 µV) stereo; THD 0.05% (mono and stereo); S/N 88 dB (mono); frequency response 10-18,000 Hz +/− 3 dB; capture ratio 1 dB; alternate channel selectivity 82 dB; AM suppression 120 dB; f-i rejection −120 dB; AM suppression 60 dB; stereo separation 55 dB at 1000 Hz; output 0.5 V fixed, 1 variable. 2.9" H x 17.4" W x 13" D...

$300

TOSHIBA
F15 Micro FM Stereo Tuner
Features PLL quartz crystal digital synthesizer tuning with up/down scan tuning and LED digital frequency/memory channel readout; ten-station memory preset; THD multipath switch; variable muting with up/down scan tuning and LED digital frequency/memory channel readout; ten-station memory preset; THD multipath switch; variable muting with automatic disengagement of AFC; muting circuit; signal strength and center-zero metering; 33-Hz recording signal generation filter. 16.1 dBf (2.2 µV) mono, 38.1 dBf (22 µV) stereo; THD 0.05% (mono and stereo); S/N 88 dB (mono); frequency response 10-18,000 Hz +/− 3 dB; capture ratio 1 dB; alternate channel selectivity 82 dB; AM suppression 120 dB; f-i rejection −120 dB; AM suppression 60 dB; stereo separation 55 dB at 1000 Hz; output 0.5 V fixed, 1 variable. 2.9" H x 17.4" W x 13" D...

$365

CT-1010 AM-FM Stereo Tuner
Has PLL multiplexer decoder; wide-gap five-group variable capacitor; image response −110 dB; sensitivity 1.9 µV; 19-kHz pilot carrier cancellation; manual tuning with automatic disengagement of AFC; muting circuit; signal strength and center-zero metering; 33-Hz recording signal generation filter. 16.1 dBf (2.2 µV) mono, 38.1 dBf (22 µV) stereo; THD 0.05% (mono and stereo); S/N 88 dB (mono); frequency response 10-18,000 Hz +/− 3 dB; capture ratio 1 dB; alternate channel selectivity 82 dB; AM suppression 120 dB; f-i rejection −120 dB; AM suppression 60 dB; stereo separation 55 dB at 1000 Hz; output 0.5 V fixed, 1 variable. 2.9" H x 17.4" W x 13" D...

$750

YAMAHA
T-2 FM Stereo Tuner
Features DX selection circuitry for automatic selection of i-f bandwidth; signal quality meter; record calibration system; direct-current amplifiers. FM section: sensitivity 9.8 dBf (1.5 µV); 50-µV quieting sensitivity 0.95 µV (mono); THD 0.4%; capture ratio 1 dB; alternate channel selectivity 82 dB; AM suppression 120 dB; f-i rejection −120 dB; AM suppression 60 dB; stereo separation 55 dB at 1000 Hz; output 0.5 V fixed, 1 variable. 2.9" H x 17.4" W x 13" D...

$285

SPECTRO ACOUSTICS
STUDER/REVOX
B760 FM Digital Tuner
Digital frequency synthesizer FM tuner with manual or memory tuning capacity of up to 15 pre-tuned channels through pushbutton operation; five-digit LED front-panel display of station frequencies; variable muting and separation; Dolby-B card option available; logarithmic signal-strength and center-tuning meters; multipath scope output; quieting sensitivity 2.5 µV; capture ratio 0.95 dB; spurious, image, and f-i rejection 106 dB or better; mid-band separation 42 dB; AM suppression 75 dB; THD less than 0.12% (stereo and mono); S/N 75 dB; 6" H x 17" W x 13" D...

$1649

TECHNICS
ST-9030 FM Stereo Tuner
Professional Series component; has automatic narrow and wide i-f bandwidth selection; PLL MPX IC circuitry; pilot and subcarrier cancelling circuits; servo tuning circuit; eight-ganged variable tuning capacitor; signal meter (linear to 81 dBf); sensitivity 1.2 µV; 50-µV quieting sensitivity at 75 ohms 18.1 dBf (2.2 µV) mono, 38.1 dBf (22 µV) stereo; THD at 1000 Hz 0.08% (mono and stereo wide, 0.15% (mono narrow); S/N 80 dB mono; frequency response 20-18,000 Hz +/− 0.5 dB; capture ratio 0.8 dB (wide), 90 dB (narrow); alternate channel selectivity 25 dB (wide), image response −135 dB, f-i rejection −135 dB; AM suppression 58 dB (wide); stereo separation 50 dB (1 kHz, wide)...

_provided by 1980 EDITION_
Introducing the ADC 1700DD turntable.
The quality begins with the tonearm...

...and keeps on going.

The tonearm you'll find on the ADC 1700DD reduces mass and resonance to new lows. So the music you hear comes out pure and clean.

Our engineers have combined the latest advancements of audio technology to create the amazing 1700DD, the first low mass, low resonance turntable.

The famous LMF carbon fibre tonearm was the model for the sleek black anodized aluminum tonearm found on the ADC 1700DD. The headshell is molded carbon fibre, long known for its low mass to high tensile strength ratio. The viscous cueing is a gentle 4mm/sec., and the tempered spring anti-skate adjustment is infinitely variable to 3.5 grams. The pivot system uses stainless steel instrument bearings, which are hand-picked and perfectly matched to both the outer and inner races for virtually frictionless movement. All this makes it the best tonearm found on an integrated turntable.

The base on the ADC 1700DD turntable is constructed of a highly dense structural foam which absorbs and neutralizes resonance and feedback. The speed selection control is an electronic microswitch which will respond to your lightest touch.

Supporting this resonance-canceling base are energy absorbing, resonance-tuned rubber suspension feet. These suspension feet help to stabilize the base while controlling resonance.

The motor in the ADC 1700DD is also present standard of excellence: Direct Drive Quartz Phase-Locked Loop. A quartz crystal is used in the reference oscillator of the motor. An electronic phase comparator constantly monitors any variance in the speed, making instantaneous corrections. Even when out of the Quartz-Locked mode, the optical scanning system keeps drift at below 0.2%. Wow and flutter are less than .03%. Rumble is an incredible 70dB Din B.

The result of all these breakthroughs is pure, uninterrupted enjoyment.

We invite you to a demonstration of this and the other remarkable ADC turntables at your nearest franchised dealer.

Or write for further information to: ADC Professional Products, a division of BSA Consumer Products Group, Route 303, Blauvelt, N.Y. 10913. Distributed in Canada by BSA (Canada) Ltd., Ontario.

ADC. We build breakthroughs.

CIRCLE NO. 47 ON READER SERVICE CARD
ADC

3001-DD Turntable
Two-speed (33 1/3 and 45 rpm) direct-drive turntable without tonearm; dc brushless motor; stroke with -5% speed adjustment; wow and flutter 0.035% (DIN 45-507); rumble -70 dB (DIN B); 3" H × 18" × W × 14" × D

$250

ADC PROFESSIONAL PRODUCTS

1700DD Semi-Automatic Single-Play
Two-speed (33 1/3 and 45 rpm) direct-drive quartz PLL turntable with automatic return arm; electronic phase comparator monitors speed change; low-mass black anodized aluminum tubular straight tonearm; molded carbon fiber headshell; viscous-damped cueing; spring anti-skate adjustment; microswitch electronic controls; electronic speed and pitch controls; digital speed display; aluminum platter; resonance-tuned suspension feet; includes removable hinged dustcover.

$280

16000DD. Similar to 17000DD except has illuminated strobeoscope for speed monitoring and anti-static mat on platter; minus quartz PLL motor and digital speed display.

$230

1510FG. Similar to 16000DD except belt-drive system with S-shaped arm; FG servo-controlled dc motor.

$190

phono professional products

AIWA

LP-3000U Automatic Single-Play
Two-speed (33 1/3 and 45 rpm) linear-track phonograph turntable with automatic tonearm; pulse-synthesized quartz PLL servomotor; 7" × in-line track and statically-balanced zinc diecast straight tonearm with removable 16.5-g aluminum diecast headshell and independent motor drive; 31-cm zinc diecast platter. Features microprocessor-controlled automatic 15-selection programming with auto repeat (includes repeat of selection segment); cue and view, forward and back skipping, and pause; infrared LED disc sensor with disc size selector for view, forward and back skipping, and pause; electronic upper and lower control boards; oil-damped cueing. Wow and flutter 0.05%; rumble 80 dB, -70 dB (DIN B); tracking force range 0-3 g; cartridge weight range 3-14 g; resonant corner frequency 24 Hz; S/N 53 dB (DIN A); 15" × W × 13 × D

$160

AKAI

AP-307 Automatic Single Play
Two-speed (33 1/3 and 45 rpm) direct-drive quartz PLL turntable with automatic tonearm; discolith-coil dc servomotor and geared motor for tonearm drive; 220-mm static-balanced S-shaped tonearm with anti-skate and stylus overhang adjustments; 314-mm aluminum alloy diecast platter. Features quartz lock switch; built-in strobe light; -2.5% variable pitch control; manual arm and magnetic cartridge; pitch control (-6%); automatic cueing and adjustable anti-skating; 15% in aluminum alloy diecast platter. Features digital speed readout display; pitch control (-6% in 1% steps) with LED digital readout; speed adjust; rec-synch mechanism; built-in muting; solenoid feather-touch controls. Wow and flutter 0.025% rms; rumble -75 dB (DIN B); tracking force range 0-3 g; cartridge weight range 3-14 g; resin cabinet with height-adjustable insulators; removable hinged dustcover; 6" H × 18" × W × 14" × D

$400

AP-2200 Semi-Automatic Single-Play
Two-speed (33 1/3 and 45 rpm) direct-drive turntable with automatic lift/return tonearm; 8-pole linear torque dc servomotor; front-panel controls; one-row strobescope with pilot lamp; variable pitch control; 3% S-shaped arm (effective length 215 mm); anti-skating; viscous-damped cueing; rubber headshell; aluminum diecast platter; magnetic cartridge; stylus pressure gauge; adjustable insulators; wow and flutter 0.025% rms; 0.05% dB (IEC "B"); 70 dB (DIN "B"); tracking force 0.3 g; cartridge weight range 5-8.5 g; silver panel with removable hinged smoked acrylic dustcover and rubber insulation feet; S/N 75 dB (DIN B); tracking force 0.025%, 0.07% (DIN); rumble 60 dB; wow and flutter 0.025% (DIN), 0.05% (JIS); rumble -49 dB (DIN A); -70 dB (DIN B); tracking force range 0-3 g; cartridge weight 4-12 g. Silver panel with removable hinged smoked acrylic dustcover; rubbler insulation feet; includes low capacitance cord; 6" × H × 17" × W × 13" × D

$120

AP-207 Automatic Single-Play
Two-speed (33 1/3 and 45 rpm) direct-drive turntable with automatic tonearm; discolith-coil dc servomotor and geared motor for tonearm drive; 220-mm static-balanced S-shaped tonearm with anti-skate and stylus overhang adjustments; 314-mm aluminum alloy diecast platter. Features electronic speed selector (1000 Hz ±15% accuracy); -2.5% variable pitch control; built-in strobe light; manual operation control; auto repeat; oil damped cueing. Wow and flutter 0.035% (DIN), 0.025% (JIS); rumble -49 dB (DIN A); -70 dB (DIN B); tracking force range 0.3 g; cartridge weight range 4-12 g; silver panel and protective board cabinet with removable hinged smoked acrylic dustcover and rubber insulation feet; includes low capacitance cord; 6" × H × 17" × W × 13" × D

$200

AP-208. Similar to AP-207 except semi-automatic with auto-return tonearm and discolith coil dc servomotor; no auto repeat

$160

AP-100 Semi-Automatic Single-Play
Two-speed (33 1/3 and 45 rpm) belt-drive turntable with manual return tonearm; four-pole synchronous motor; 220-mm static-balanced S-shaped tonearm with anti-skating and stylus overhang adjustments; oil-damped cueing; 330-mm aluminum diecast platter. Wow and flutter 0.025% rms (JIS); S/N 53 dB (JIS), 43 dB (DIN A), 64 dB (DIN B); tracking force range 0-4 g; cartridge weight range 5-8.5 g; silver panel with removable hinged smoked acrylic dustcover and rubber insulation feet; 5¾" H × 17¼" W × 14 ¾" D

$100

AP-B10C Manual Single-Play
Two-speed (33 1/3 and 45 rpm) belt-drive turntable with manual return tonearm and magnetic cartridge; four-pole synchronous motor; low mass straight arm with anti-skating and stylus overhang adjustments; damped cueing. Wow and flutter 0.5%; rumble -65 dB (DIN B); 5.3" H × 17.3" W × 14" D

$600

ARISTON by OSAWA

RD11S Manual Single-Play
Two-speed (33 1/3 and 45 rpm) belt-drive turntable with manual return tonearm (not included); 24-pole synchronous brushless dc servomotor; multiple-cast aluminum-zinc alloy platter; speed adjustment ±4%; wow and flutter 0.05%; rumble -80 dB, weighted; tonearm board and turntable suspended from top plate to DIN A; recommended tonearm Osa Duchess (and Ultracraft AC-300 MKII; teak base with precision shock-absorbent feet; leveling bubble.

$600

BANG & OLUFSEN

Beogram 4004 Automatic Single-Play
Two-speed (33 1/3 and 45 rpm) computer-controlled...
turntable with automatic/manual tonearm, 24-pole, 300-rpm motor, and 9-in dynamically-balanced straight tonearm. Features repeat capability (up to six times) with auto shutoff; variable pitch with illuminated strobe; oil-damped cueing with cue rate control and three-scale anti-skating adjustment; isomeric shock-mount feet; black cabinet with removable friction-hinged dustcover...

402 Automatic Changer Turntable
Two-speed (33 1/3 and 45 rpm) six-record automatic changer/single-play turntable with 9-in statically balanced straight tonearm with jewel vertical bearings and stylus overhang and 24-pole 300-rpm motor. Features continuous repeat (up to six times); oil-damped cueing with cue rate control; three-scale anti-skating; isomeric shock-mount feet; black cabinet with removable friction-hinged dustcover. $150

201. Similar to 402 except has counterbalanced low-mass straight tonearm; minus isomer shock-mount feet. $100

Beogram 3400 Automatic Single-Play
Two-speed (33 1/3 and 45 rpm) electronically-controlled belt-drive turntable with automatic tonearm; servo-controlled dc motor; low-mass tonearm with MMC 20EN pickup cartridge with elliptical nude diamond stylus. Features one-touch automatic operation with power-assisted manual operation; optical scan actuator arm sensor; anti-skating adjust; leaf spring/pendulum suspension system. Wow and flutter ≤0.025%; rumble ≤0.65 dB (DIN A); tracking error 0.04 degree max.; rosewood veneer base; 4"H x 19"W x 14.5"D. $850

SP85 Automatic Single-Play
Two-speed (33 1/3 and 45 rpm) microprocessor-controlled quartz crystal isolated belt-drive turntable with automatic/manual tonearm, 24-pole, 300-rpm motor, and 9-in dynamically-balanced straight tonearm with plug-in arm tube. Features digital pitch control with four-character actual speed/electronic stopwatch readout; microprocessor operations controls; continuous repeat (up to six times) with auto shutoff; oil-damped cue rate control and three-scale anti-skating; isomeric shock-mount feet; black cabinet with friction-hinged removable dustcover. $240

B & C
80Z. Same as SP85 except six-record automatic changer with single-play spindle. $240

CONNOISSEUR by HERVIC
BD103 Transmission Unit
Three-speed (33 1/3, 45, and 78 rpm) belt-drive turntable; low-voltage dc electronically-controlled servomotor with external power supply to eliminate hum fields; replaceable tonearm mounting discs; electronic speed adjustment; 12-in platter; illuminated stroboscope; comes with base and dustcover; 5½"H x 18¼"W x 15¼"D. $248

BD103/A. Same as BD103 except with Connoisseur tonearm; magnetically damped arm; unipolar/double-knife-edged tonearm with anti-skate and adjustable effective mass; rumble ~77 dB; hum ~100 dB; wow and flutter 0.05%; plug-in headshell. $370

BD2A Single-Play/Automatic Cue Up
Integrated turntable with SAU2 arm and pickup assembly; has push-button speed control; hydraulic lift and lowering of tonearm plus auto lift at record end; anti-vibration springs; lightweight cartridge shell with self-cleaning contacts. Two-speed (33 1/3 and 45 rpm) belt-drive; 60-Hz synchronous constant speed 450 rpm; rumble ~65 dB (DIN); hum ~80 dB; wow and flutter 0.065%; 10-in aluminum platter; comes with arm, vinyl wing dustcover, but without record needle. 5½"H x 18½"W x 15¼"D. $200

Walnut veneer base. $220

BD101 Transmission Turntable
Two-speed (33 1/3 and 45 rpm) belt-drive turntable with automatic tangential-track- ing tonearm, tachometer-controlled dc motor and separate dc motor for arm drive; short low-mass electronic-circuited straight tonearm with MMC 20EN pickup cartridge with elliptical naked diamond stylus. Features one-touch automatic operation with power-assisted manual operation; optical scan actuator arm sensor; anti-skating adjust; leaf spring/pendulum suspension system. Wow and flutter ≤0.025%; rumble ≤0.65 dB (DIN A); tracking error 0.04 degree max.; rosewood veneer base; 4"H x 19"W x 14.5"D. $850

STEREO DIRECTORY & BUYING GUIDE
without tonearm; 16-pole synchronous ac motor; 12 in platter; wow and flutter 0.065% rms; rumble ~65 dB (DIN B)...

DENON

DP-6700 Quartz-Controlled Single-Play
Two-speed (33 and 45 rpm) direct-drive turntable with quartz-crystal phase-locked speed control; ac motor regulated by pulse-width modulation, stylus force; stylus force applied around vertical pivot; anti-skating calibrated for conical and elliptical stylus; adjustable pitch control for 33 1/3 and 45 rpm; illuminated strobe; cueing system damped in both directions; stylus overhang adjustment; dustcover included; base 31/4" H x 16 1/2" W x 14 1/2" D...

DP-50F Automatic Single-Play
Two-speed (33 1/3 and 45 rpm) PLL quartz direct-drive turntable with automatic servo-controlled tonearm; ac servomotor: 244 mm statically-balanced S-shaped tonearm with separate angular control motor and impact-molded light metal head shell; 300 mm diecast aluminum platter. Features 7 in and 12 in disc size selector buttons; illuminated strobe; standby mode for end of cue; repeat and playback from any groove; front-panel anti-skating dial; wood veneer base with two-toned polished metal trim. Wow and flutter 0.015% rms; rumble better than -85 dB; starting time less than 1 sec at 33 1/3 rpm; effective length 9 1/4", tracking error 2.5° max.; 16 1/4" H x 16" W x 16" D $690

DP-2500 Quartz-Controlled Single-Play
Two-speed (33 1/3 and 45 rpm) direct-drive turntable with automatic tonearm and quartz-crystal phase-locked speed control; ac servomotor regulated by magnetic pulse detection; electrical dc brake for stop mode; illuminated strobe; dynamically damped and statically balanced tonearm; anti-skating and cueing devices, aluminum alloy head shell; slide-switch speed selection; wow and flutter 0.015% max; rumble better than -75 dB; starting time less than 1 sec (33 1/3 rpm); effective tonearm length 9" in; vinyl plywood cabinet with acrylic resin cover; 9 1/4" H x 19 1/4" W x 16 1/4" D $525

DP-2550. Similar to 2500 but with marble base...

DP-1200 Semi-Automatic Single-Play
Two-speed (33 1/3 and 45 rpm) direct drive turntable with auto lift/shutoff tonearm; ac servomotor; Denon DA 307 dynamically damped and statically balanced tonearm with oil-damped cueing and adjustable height; servo speed control; record-end sensor, standby end of cue switch. Wow and flutter 0.018% rms; rumble -75 (DIN B); starting time 1.5 sec; marble base and laminated plywood cabinet; 6 1/2" H x 19 1/4" W x 15 1/4" D $375

DP-30L Semi-Automatic Single-Play
Two-speed (33 1/3 and 45 rpm) direct drive turntable with auto lift/shutoff tonearm; ac servomotor; 270 mm statically-balanced S-shaped tonearm with touch control cueing and separate motor. Wow and flutter 0.018% rms; high-density resin compound base with anti-vibration feet...

Single-Play Turntable
C5710. Fully automatic, single play turntable with ULM tonearm. Features anti-resonance filter user-tunable to specific mass and compliance of high-performance cartridge; quartz reference oscillator...

Why do so many people own ESR turntables? Because nothing comes close to them in features, for the price. For instance, take a look at our BSR Quanta line. All BSR Quanta turntables are belt driven. So you can be sure of smooth, quiet performance. But a turntable also needs constant speed control. That's why the BSR Quanta 550SX has an electronic speed control. Wow and flutter are less than 0.06% (WRMS). While rumble is better than -65 dB (DIN B). The 550SX and the 450SX have another BSR advantage: They can be single play turntables. Or multi-play. There's no worry about record damage thanks to the special Autoglide edge. Which gently lowers up to six records.

BSR

CIRCLE NO. 61 ON READER SERVICE CARD

1980 EDITION
Automatic Multiple-Play Changers

Additional features of Dual fully automatic multi-play turntables include variable-belt drive system; automatic and manual operation of both single- and multi-plays; variable mode with interchangeable rotating single-play spindle; 6% pitch control; electronic multiple-play spindle holds up to six records; records may be removed from platter without removing spindle.

1264. ULM tonearm; 12-in platter; illuminated strobe; tunable anti-resonance filter; continuous repeat switch; rumble <70 dB, wow and flutter <0.04%; rumble <70 dB, wow and flutter <0.05% rms; "DIN B"; tracking force range 0.7-3.5 g; tracking error ±0.035% degrees; 11-in platter; effective arm length 193 mm; gray walnut base; 5" H x 17" W x 14 1/4" D. $275 1257. Compact version of 1264 without illuminated strobe, continuous repeat, and filter; 10" in platter. $180

MT6310 Semi-Automatic Single-Play

Two-speed (33 1/3 and 45 rpm) belt-drive turntable with automatic tonearm and option of manual stop/start; pitch control; stereo magnetic cartridge, S-shaped balanced tonearm; viscous damped cueing, adjustable anti-skate; 60 dB ("DIN B"); tracking force range 0.6-3.5 g; tracking error ±0.035% degrees; 11-in platter; effective arm length 193 mm; gray walnut base; 5" H x 17" W x 14 1/4" D. $120

GARRARD

GT350 Automatic Multi-/Single-Play

Two-speed (33 1/3 and 45 rpm) belt-drive multi-/single-play turntable with manual single-play or, automatic single- or multi-play tonearm; 1000 rpm dc servo motor; 7-g S-shaped gimbal-support arm with cartridge; anti-skating and damped cueing; servo electronic- and pitch control; has synchro-lab motor; direct-drive brushless dc servo motor; has synchro-lab motor; direct-drive brushless dc servo motor; includes dustcover and base; wow and flutter 0.15%; rumble 55 dB ("DIN B"). $120

DD132 Automatic Multi-/Single-Play

Two-speed (33 1/3 and 45 rpm) belt-drive multi-/single-play turntable with manual single-play or, automatic single- or multi-play tonearm; 1000 rpm dc servo motor; low-mass J-shaped gimbal-support arm with detachable headshell; calibrated anti-skating; servo electronic-control; direct-drive brushless dc servo motor; includes dustcover and base; wow and flutter 0.15%; rumble 55 dB ("DIN B"). $120

HARMAN/KARDON

ST-8 Semi-Automatic Single-Play

Two-speed (33 1/3 and 45 rpm) adjustable +5.5% belt-drive turntable with automatic lift tonearm; brushless dc motor; automatic speed control; illuminated strobe; touch control operation; straight tubular tonearm; damped cueing; adjustable feet. $180

HT-860 Automatic Multi-Play

Two-speed (33 1/3 and 45 rpm) quartz-locked direct-drive turntable with automatic tonearm; brushless, coreless, S-shaped balance arm with cartridge; 230-mm statically-balanced S-shaped tubular tonearm with built-in anti-skating and low-mass resonance-damped magnesium plug-in headshell; die-cast aluminum platter. Featue IC logic-controlled soft-touch operations buttons operable with cover down; touch-button arm operation in forward and reverse, continuous movement, and height adjustment; cueing, selecting, and playback of user and arm; variable pitch control (-9.9% in 1.0% steps); automatic record size electric-eye sensor; electronic memory repeat (up to nine times on one
with manual tonearm. Speed controlled by quartz-locked, dual servo system; servocontrol system operates for both speed increase and decrease; digital speed indicator, pitch adjustable ±6 Hz from 440-Hz standard "A" in 1-Hz increments; power by coreless dc 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 laminate aluminum diecast platter, heavy-duty cast aluminum platter; 13-mm aluminum alloy diecast platter with single-pattern strobe; Wow and flutter 0.025% rms; rumble -78 dB (DIN B); tracking force range 0-3 g; cartridge weight range 4-10 g; includes detachable plastic dust cover that does not cover operation controls; aluminum diecast base and air-suspension insulator feet; 5'/4" H x 18'/4" W x 15' D. $400

HT-463 Automatic Single-Play Two-speed (33'1/3 and 45 rpm) quartz-locked direct-drive turntable with auto return/cut tonearm; brushless, slotless dc servonotor motor; 220-mm statically-balanced S-shaped pipe tonearm with built-in anti-skating and dual servo system; 13-mm aluminum alloy diecast platter with single-pattern platter; Wow and flutter 0.025% rms; rumble -78 dB (DIN B); tracking force range 0-3 g; cartridge weight range 4-10 g; includes anti-resonant compression base cabinet with free-standing four-pole synchronous motor... $300

HT-356 Semi-Automatic Single-Play Two-speed (33'1/3 and 45 rpm) quartz-locked direct-drive turntable with auto return/cut tonearm; brushless, slotless dc servonotor motor; 220-mm statically-balanced S-shaped pipe tonearm with built-in anti-skating and dual servo system; 300-mm aluminum diecast platter with single-pattern strobe; Wow and flutter 0.025% rms; rumble -73 dB (DIN B); tracking force range 0-3 g; cartridge weight range 4-10 g; includes removable hinged dust cover; anti-resonant compression base cabinet with free-standing four-pole synchronous motor... $240

HT-354 Semi-Automatic Single-Play Two-speed (33'1/3 and 45 rpm) quartz-locked direct-drive turntable with auto return/cut tonearm; brushless, slotless dc servonotor motor; 220-mm statically-balanced S-shaped pipe tonearm with built-in anti-skating and dual servo system; 300-mm aluminum diecast platter with single-pattern platter; Wow and flutter 0.025% rms; rumble -73 dB (DIN B); tracking force range 0-3 g; cartridge weight range 4-10 g; includes removable hinged dust cover; anti-resonant compression base cabinet with free-standing four-pole synchronous motor... $160

HT-342 Semi-Automatic Single-Play Two-speed (33'1/3 and 45 rpm) belt-drive turntable with auto return/cut tonearm; four-pole synchronous motor with 8-mm statically-balanced S-shaped pipe tonearm with tracking-force adjustment, viscous-damped cueing, anti-skating, and universal plug-in headshell; 310-mm aluminum alloy diecast platter with single-pattern platter; Wow and flutter 0.025% rms; rumble -73 dB (DIN B); tracking force range 0-3 g; cartridge weight range 4-10 g; includes removable hinged dust cover; anti-resonant compression base cabinet with free-standing four-pole synchronous motor... $120

KENWOOD

KD-750 Manual Single-Play Two-speed (33'1/3 and 45 rpm) quartz PLL direct-drive turntable with auto return/cut tonearm; 20-pole 30-slot brushless dc servomotor; 9%-in statically-balanced S-shaped pipe tonearm with weight-decoupling system and Collet chuck-type arm; T-shaped magnetic suspension headshell with stand; 13-mm aluminum alloy diecast platter. Features adjustable tonearm height and anti-skating; viscous-damped cueing lever; speed and start/stop microswitch; cueing and lock power, and speed indicators; electronic braking; stylus pressure direct readout counter. Wow and flutter 0.025% rms; rumble -73 dB (DIN weighted); tracking force range 0-3 g; cartridge weight range 4-10 g; includes low-capacitance phono cables with gold-plated terminals and EP adaptor with overhang gauge; piano-finish walnut veneer particleboard and anti-resonant compression base cabinet with free-stop acrylic dustcover; 6''H x 14'/4" W x 14'/2" D... $520

KD-650 Manual Single-Play Two-speed (33'1/3 and 45 rpm) quartz PLL direct-drive turntable with manual tonearm; 20-pole 30-slot brushless dc servomotor; 9%-in statically-balanced S-shaped pipe tonearm with oil-damped cueing, static-type anti-skating control, gold-plated contact points, and lightweight diecast aluminum headshell with stand; 13-in 5.7-lb aluminum alloy diecast platter. Features illuminated strobe; start/stop and speed selectors with LEDs; all-electronic braking system; anti-vibration rubber plate sheet; LED quartz-lock and power indicators. Wow and flutter 0.025% rms; rumble -73 dB (DIN weighted), -55 dB (DIN unweighted); tracking force range 0-3 g; cartridge weight range 2-12 g; includes low-resistance phono cables with gold-plated terminals and EP adaptor with overhang gauge; anti-resonant compression base laminate particle cabinet with ribbed non-resonant aluminum diecast; 6''H x 19 '/2" W x 18'1/2" D... $400

KD-660. Same as KD-650 except with auto return/shutoff tonearm function; 12'-in aluminum alloy diecast platter. Features illuminated strobe; anti-skating and viscous-damped cueing; fine speed adjustment; stylus pressure direct readout counter; direct selection. Wow and flutter 0.025% rms; rumble -73 dB (DIN weighted), -53 dB (DIN unweighted); tracking force range 0-3 g; cartridge weight range 3-10 g; includes low-capacitance phono cables and EP anti-resonant compression base laminate particle cabinet with acryllic styrene dustcover; 6"H x 18'/4" W x 14'/4" D... $285

KD-7300. Same as KD-550 without arm... $250

KD-5070 Automatic Single-Play Two-speed (33'1/3 and 45 rpm) direct-drive turntable with 8-in statically-balanced S-shaped automatic tonarm; aluminum alloy diecast platter; 20-pole 30-slot brushless dc servomotor and 12-pole synchronorm gear motor for automatic arm; 12'-in 3.3-lb aluminum alloy diecast platter. Features illuminated strobe; anti-skating and viscous-damped cueing; speed adjustment; LED, stylus pressure direct readout counter. Wow and flutter 0.025% rms; rumble -73 dB (DIN weighted), -53 dB (DIN unweighted); tracking force range 0-3 g; cartridge weight range 3-10 g; includes low-capacitance phono cables and EP anti-resonant compression base laminate particle cabinet with acryllic styrene dustcover; 6''H x 18'/4" W x 14'/4" D... $200

KD-3100 Semi-Automatic Single-Play Two-speed (33'1/3 and 45 rpm) direct-drive turntable with auto return/cut tonearm; four-pole synchronous motor with 8-mm statically-balanced S-shaped pipe tonearm... $200

KD-2000 Semi-Automatic Single-Play Two-speed (33'1/3 and 45 rpm) belt-drive turntable with auto return/cut tonearm; four-pole synchronous motor; 8%-in statically-balanced S-shaped pipe tonearm with plug-in headshell; 12-in zinc alloy diecast platter. Features anti-skating and viscous-damped cueing; stop microswitch; cueing lock, power, and speed indicators; electronic braking; stylus pressure direct readout counter. Wow and flutter 0.055% rms; rumble -65 dB (DIN weighted); tracking force range 0-3 g; cartridge weight range 4-10 g; includes EP adaptor; ABS copolymer resin base; 5'/4" H x 18'/4" W x 14'/4" D... $158
P0270. Same as PD277 without tonearm.

P0272. Similar to PD277 except has manually balanced low-mass straight tonearm with electronically controlled auto-lift/shut off tonearm; dc servomotor; brushless slotless high-torque dc motor; 8.5-in. straight tonearm with removable headshell; acoustic decoupled counterweight, and vertical viscos-damped cueing; 12-1.6-in. dynamically-balanced stereo; weight and flutter 0.05% (NAB weighted); rumble 72 dB (NAB RRL); includes dustcover and walnut-finish base; 5'/4" H x 17'/2" W x 14'/2" D...

700 Semi-Automatic Single-Play

Two-speed (33'/8 and 45 rpm) quartz-locked direct-drive turntable with automatic tonearm; dc servomotor; oil-damped cueing; stroke 5-in.; and viscous damping; shock isolating foot; 0.15-3 g; 5'/4" H x 17'/2" W x 13'/2" D...

6025 Semi-Automatic Single-Play

Two-speed (33'/8 and 45 rpm) belt-drive turntable with automatic return/shut off arm; four pole ac-synchronous motor; reject button; damped cueing; anti-skating; and variable pitch control. Wow and flutter -75 dB (DIN "B"); tracking force range 0-3 g; start-up time N revolution to full speed; JIS; 17'/2" W x 13'/2" D...

DQ-1000 Single-Play Automatic

Direct-drive, quartz PLL servomotor-controlled motor; will accept three tonearms because of special casing 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...

DQ-3 Semi-Automatic Single-Play

Two-speed (33'/8 and 45 rpm) direct-drive quartz-locked PLL turntable with automatic tonearm; dc servomotor; control box 60 mm H x 96 mm W x 192 mm D...

DQ-3 Semi-Automatic Single-Play

Two-speed (33'/8 and 45 rpm) direct-drive quartz-locked PLL turntable with automatic tonearm; dc servomotor; two-step brake servomotor; and variable pitch control. Wow and flutter -75 dB (DIN "B");

DQ-1000 Semi-Automatic Single-Play

Two-speed (33'/8 and 45 rpm) direct-drive turntable with automatic tonearm; dc servomotor; calibrated balance and stylus force adjustment; front-mounted capacitance controls; S-shaped tonearm; bi-directional viscos-damped cueing; resonance-absorbing feet; wow and flutter 0.03%; rumble -65 dB; includes base and dustcover; UL approved...

T-4000. Similar to T-4000 except belt-drive, four-pole synchronous motor; driven by FG servomotor; minus motor-driven horizontal arm...
with plug-in magnesium headshell; wow and flutter 0.05% wrms; rubber -67 dB (DIN B).
$212-$200. Similar to 5040 minus strobe and pitch control; has 4-pole synchronous motor; arm same as 5080; wow and flutter 0.06% wrms; rumble 65 dB (DIN B) .................. $177.

ONKYO

CP-1030F Automatic Single-Play
Two-speed (33⅓ and 45 rpm) quartz-locked direct-drive turntable with automatic tonearm; brushless, coreless, slotless quartz dc motor; arm for arm function; low-mass statically balanced straight tubular arm with detachable non-resonant carbon fiber headshell and direct-reading tracking force counterbalance; 1.4 kg aluminum diecast platter; 31 cm bevel-half aluminum diecast platter with detachable headshell with ADC type connector and direct-readout tracking force counterbalance; 31 cm bevel-ribbed aluminum diecast platter. Features continuous repeat; separate speed adjust controls (-2% accuracy); two-tiered strobe; anti-skating with dial adjustment; oil-damped cueing by automatic and manual function; opto-electric shut-off; double-insulated rubber feet. Wow and flutter 0.03% wrms; S/N 75 dB (DIN B); cartridge weight range 5.8-5 g; includes hinged dustcover (does not cover front-panel controls). $315.

CP-1020F Automatic Single-Play
Two-speed (33⅓ and 45 rpm) direct-drive turntable with automatic tonearm; brushless, coreless, slotless FG series dc motor and dc motor for tonearm. 224 mm statically balanced straight pipe tonearm with detachable headshell with ADC type connector and direct-readout tracking force counterbalance; 31 cm bevel-ribbed aluminum diecast platter. Features continuous repeat; separate speed adjust controls (-2% accuracy); two-tiered strobe; anti-skating with dial adjustment; oil-damped cueing by automatic and manual function; opto-electric shut-off; double-insulated rubber feet. Wow and flutter 0.03% wrms; S/N 75 dB (DIN B); cartridge weight range 5.8-5 g; includes hinged dustcover (does not cover front-panel controls). $315.

CP-1010A Semi-Automatic Single-Play
Two-speed (33⅓ and 45 rpm) belt-drive turntable with auto-return/auto cut tonearm; 24 pole FG series dc motor; 213 mm statically balanced straight pipe arm with detachable headshell with ADC-type connector and direct-readout tracking force counterbalance; 31 cm bevel-ribbed aluminum diecast platter. Features separate speed controls (-2% accuracy); anti-skating with adjustable dial; oil-damped cueing by automatic and manual function; double-insulated rubber feet. Wow and flutter 0.03% wrms; S/N 75 dB (DIN B); cartridge weight range 5.8-5 g; includes hinged removable dustcover (does not cover front-panel controls). $45 rpm adaptor. $325; 5⅔ rpm adaptor. $179. $14.95 D. $250.

OPITONICA

RP-9705 Automatic Single-Play
Two-speed (33⅓ and 45 rpm) programmable microprocessor-controlled quartz-locked direct-drive turntable with automatic tonearm and separate remote control unit; statically-balanced and sensor tonearms with direct-readout stylus force, anti-skating; viscous-damped cueing; and overhang mark. Features automatic programmable music selector (programs up to ten different selections or one selections repeatedly "ten times"), programmer also plays portions of selections; separated remote control with complete programming functions; LED pre-program and play-program digital readout; solenoid operations controls. Wow and flutter 0.028% wrms; rumble 70 dB (DIN B); nylon turntable base... $1200.

PP-7705 Automatic Single-Play
Two-speed (33⅓ and 45 rpm) quartz-lock direct-drive turntable with automatic tonearm; coreless, quartz-locked dc motor; 8.3 in-statically balanced J-shaped tonearm and separate sensor tonearm. Features nine-program auto-program locale device; stroke with -4% pitch control; anti-skating and viscous-damped cueing; overhang mark; direct-read out stylus force; solenoid operations controls with LEDs. Wow and flutter 0.035% wrms; rumble 68 dB (DIN B); min. tracking force 1.0 g; nylon base. 4.3" H. 18.9" W. 15.1" D. $400.

PP-4705 Automatic Single-Play
Two-speed (33⅓ and 45 rpm) direct-drive turntable with automatic tonearm; coreless FG dc servomotor, platter with strobe and -4% pitch control; 8.3 in-statically balanced J-shaped tonearm with direct-readout stylus force, anti-skating, viscous-damped cueing, and overhang mark; solenoid operations controls with LEDs. Wow and flutter 0.035% wrms; rumble 68 dB (DIN B); min. tracking force 1.0 g; nylon base. 4.3" H. 18.9" W. 15.1" D. $400.

Panasonic

SL-H401 Automatic Single-Play
Two-speed (33⅓ and 45 rpm) belt-drive turntable with automatic tonearm; FG dc servomotor; 12-in aluminum turntable platter with illuminated strobe; variable pitch control (±10%); automatically balanced arm (length 8.65 in) with moving magnetic cartridge and anti-skating/viscous-damped cueing; electronic speed switching; heavy-duty base material with separate isolators; detachable hinged dustcover... $170-$190.

SL-H301 Semi-Automatic Single/Play
Two-speed (33⅓ and 45 rpm) belt-drive turntable with automatic return tonearm; dc servomotor; 12-in aluminum diecast platter with illuminated strobe; automatic repeat. Wow and flutter 0.06% wrms; rumble 60 dB (DIN B); 12-in platter; tonearm length 8.65 in; tracking force 1.0 g; wood composition base; detachable plastic dustcover; 5½" H. 17½" W. 14.0" D. $200.

PHASE LINEAR

8000 Series Two Auto Single-Play
Two-speed (33⅓ and 45 rpm); PLL quartz locked direct-drive turntable with manual/automatic tonearm; PLL Hall-effect motor; 12.2-in. aluminum die-cast platter; 7.5-in. linear motor tangential tracking; statically-balanced straight tonearm; three-diameter disc size selector; automatic repeat; Wow... $110-$130.

J.C. PENNEY

MCS 6800 Semi-Auto Single-Multi-Play
Two-speed (33⅓ and 45 rpm) programmable belt-drive turntable with automatic tonearm; 24 pole ac synchronous motor; 11½-in. recessed platter; straight tonearm with decoupled counter weight, preset anti-skating, and electro-optical sensing magnetic cartridge; four remote control unit for programming within 50-ft radius; six-record multi-play capability, can program up to 27 selections from six records or 13 selections from one record; electronically controlled cue, pause, and muting; auto record speed record/speed selection. Wow and flutter 0.05% wrms; rumble -65 dB (DIN B); includes removable hinged dustcover (all controls outside cover), 45-rpm adaptor, 9-V battery for remote unit, and rotating manual and multi-play spindles; anti-resonant plastic black finish cabinet; 7½" H. 17½" W. 17½" R. D. $300.

6700 Automatic Single-Multi-Play
Two-speed (33⅓ and 45 rpm) direct-drive dc servo-controlled single/multi-play turntable with automatic arm operation; speed deviation 0.06%; fine speed control; strobe; S-shaped tubular tonearm with cue/pause and anti-skating; arm length 9.06 in.; wow and flutter 0.03% wrms (JIS); rumble 73 dB (IEC A weighted); tracking error 3.5 degres; includes universal pickup mount, 45-rpm adaptor, and dustcover; 6½" H. 17½" W. 14½" D. $230.

6601. Similar to 6700 except single-play with automatic return/stop tonearm; wow and flutter 0.15% wrms; S/N 85 dB (DIN B). $190.

MCS 6710 Semi-Auto Single-Multi-Play
Two-speed (33⅓ and 45 rpm) direct-drive turntable with auto-return/shut/off tonearm; dc servomotor; 12-in. aluminum diecast recessed platter with strobe and -6% pitch control; S-shaped tubular arm with dettachable cue/pause controls; electronic speed switching; electronic speed change; Wow and flutter 0.05% wrms; rumble 65 dB (IEC A weighted); tracking force range 0.3 g; includes manual and umbrella spindles, 45-rpm adaptor, and removable tinted plastic dustcover; 6½" H. < 1½" W. 14" D. $160.

6503 Semi-Automatic Single-Play
Two-speed (33⅓ and 45 rpm) belt-drive dc servo-controlled turntable with auto-return tonearm; stop top tonearm; speed deviation 0.16%; fine speed control; strobe; S-shaped tubular arm (length 8.65 in) with anti-skating and cue/pause controls; wow and flutter 0.05% wrms (JIS); rumble 65 dB (IEC A weighted); tracking error 3.5 degrees; includes dustcover/black wood cabinet; 5½" H. 16½" W. 13½" D. $130.

5602. Same as 6503 except has woodgrain vinyl cabinet... $130.

MCS 5620 Single/Multi-Play
Two-speed (33⅓ and 45 rpm) belt-drive dc servo-controlled turntable with auto-return/stop top tonearm; speed deviation 0.16%; fine speed control; strobe; S-shaped tubular arm with illuminated strobe; variable pitch control (±10%); automatically balanced arm (length 8.65 in) with moving magnetic cartridge and anti-skating/viscous-damped cueing; electronic speed switching; heavy-duty base material with separate isolators; detachable hinged dustcover... $170-$190.
AF685 Semi-Automatic Single-Play

Two-speed (33' 1/3 and 45 rpm) belt-drive with auto return/shut off tonearm; electronically controlled dc motor; viscous-damped cueing, anti-skating; control arm balanced arm adjustable for 0.4 g stylus force; wow and flutter less than 0.1% (DIN); rumble below 60 dB (DIN "B" weighting); speed drift less than 0.2%; tracking error less than 0.03% (rms); comes with dustcover and base; 5' x H: 16" x W: 13.5" x D: 7". $170

LAB 260 Automatic Single-Play

Two-speed (33' 1/3 and 45 rpm) belt-drive turntable with automatic tonearm; 4-pole synchronous motor, removable headshell; cueing; wow and flutter 0.09%; rumble 60 dB (DIN B); walnut veneer base; 5' x H: 17" x W: 14" x D: 8". $200

AF977 Automatic Single-Play

Two-speed (33' 1/3 and 45 rpm) digital quartz PLL belt drive turntable with automatic tonearm; Direct Control tacho-generator motor; has tubular straight arm. Features LED digital speed readout; pitch control (-0.002%), adjustable anti-skating and stylus force feedback (0.3 g range); wow and flutter 0.02% rms; $750

PL-514. Similar to PL-516 minus fine pitch control (-3% accuracy); anti-skating and cue; spring-loaded sidetonearm; dc servomotor; 4-pole synchronous motor; 11'-in synchronous motor; adjustable anti-skating; pitch control; wow and flutter 0.04% (DIN 45 507); rumble 70 dB (DIN 45 539 B); tracking force range 0.4 g; 5½" H: 17" W: 14" x D: 8". $329

PL-630 Automatic Single-Play

Two-speed (33' 1/3 and 45 rpm) quartz-PLL direct-drive turntable with automatic lead-in/return/offset time. Features stroboscope with speed controls (-4% accuracy); anti-skating and cue; spring loaded sidetonearm; wow and flutter 0.025% rms; rumble 65 dB (DIN "B"); effective arm length 237 mm; magnesium headshell; electro-magnetic suspension system; Wow and flutter 0.1% wrms; rumble below 0.1% (DIN); pitch control (3% range), and calibrated anti-skating; 8½" H: 17½" W: 14" x D: 10". $449

PL-610. Similar to PL-630 except automatic-return tonearm. $399

PL-560. Similar to PL-630 minus full electronic operation and electronic electrical distortion and flutter. PL-560 with anti-skating and damped cueing; anti-skating; 90 dB (DIN 45 507); tracking force 0.75-3 g; includes detachable dustcover; 5" H: 15½" W: 14" x D: 8". $329

PL-516. Similar to PL-514 except belt drive system with FG servo dc motor, anti-skating with digital control; wow and flutter 0.045% rms; rumble 68 dB (DIN "B"); 5½" H: 17½" W: 14" x D: 8". $159

PL-514. Similar to PL-516 minus fine pitch control and strobe; four-pole synchronous motor; wow and flutter 0.055% rms; rumble 65 dB. $139

PL-512. Similar to PL-514 except manual operation; minus anti-skating and damped cueing; 9½" H: 17½" W: 14" x D: 8". $199

AF834 Automatic Single-Play

Two-speed (33' 1/3 and 45 rpm) belt-drive turntable with automatic tonearm; Direct Control tacho-generator motor; has tubular straight arm. Features LED digital speed readout; pitch control (-0.002%), adjustable anti-skating and stylus force feedback (0.3 g range); wow and flutter 0.02% rms; $400

180T Semi-Automatic Single-Play

Two-speed (33' 1/3 and 45 rpm) direct-drive turntable with auto return/shut off tonearm; Direct Control tacho-generator motor; has tubular straight arm. Features LED digital speed readout; front panel touch-sensitive buttons and LEDs; pitch control (range +-6%), and meter display; electronic optical end of play detection; electronic cueing device and quick stop; anti-skating; S-curved gimbal-supported tonearm (effective length 237 mm); magnesium headshell; coaxial suspension system Wow and flutter 0.025% rms; rumble 65 dB (JIS); 75 dB (DIN "B"). Includes removeable hinged acrylic dustcover. 5" x H: 18" W: 16" x D: 3¼". $449

PL-610. Similar to PL-630 except automatic-return tonearm. $399

PL-560. Similar to PL-630 minus full electronic operation and electronic electrical distortion and flutter. PL-560 with anti-skating and damped cueing; anti-skating; 90 dB (DIN 45 507); tracking force 0.75-3 g; includes detachable dustcover; 5" H: 15½" W: 14" x D: 8". $329

PL-516. Similar to PL-514 except belt drive system with FG servo dc motor, anti-skating with digital control; wow and flutter 0.045% rms; rumble 68 dB (DIN "B"); 5½" H: 17½" W: 14" x D: 8". $159

PL-514. Similar to PL-516 minus fine pitch control and strobe; four-pole synchronous motor; wow and flutter 0.055% rms; rumble 65 dB. $139

PL-512. Similar to PL-514 except manual operation; minus anti-skating and damped cueing; 9½" H: 17½" W: 14" x D: 8". $199

AF877 Semi-Automatic Single-Play

Two-speed (33' 1/3 and 45 rpm) belt-drive electronically-controlled dc turntable with photo-electronic stop; auto return and reject tonearm; electronic touch controls with electronic speed adjustment (-3%); direct-reading stylus force gauge; straight tubular arm (effective length 8.46-in); anti-skating adjustment; viscous-damped cueing; pitch controls with nine-element LED bar; wow and flutter 0.03% rms; rumble 70 dB (DIN "B"); tracking error 0.9 degree, 9 hz/cm; tracking force range 0.3 g; in cludes detachable headshell and damped cueing; 5½" H: 16½" W: 13½" D: 7½". $260

AF877. Similar to AF878 except manual tonearm with photo-electronic stop; three-element LED bar; wow and flutter 0.05% rms; rumble 65 dB (DIN "B"). $630

AF877. Similar to AF876 except automatic tone arm; no electronic touch controls; tracking force 0.4 g. $200

LAB 250 Manual Single-Play

Two-speed (33' 1/3 and 45 rpm) belt-drive manual player with automatic return/shut off tonearm; four-pole synchronous motor; wow and flutter 0.09%; rumble 60 dB (DIN B); walnut veneer base; 5' x H: 17" W: 14" x D: 8". $140

LAB-110 Automatic Single-Play

Three-speed (33', 45, and 78 rpm) turntable with automatic/manual tonearm; damped cuing; cueing with auto lilt; four-pole induction motor; adjustable tracking; supplied with magnetic cartridge with diamodl stylus and dustcover; simulated walnut base; 5½" H: 15½" W: 14½" D: 8½". $60

ROTEL

RP-9400 Automatic Single-Play

Two-speed (33' 1/3 and 45 rpm) quartz-lock PLL direct-drive turntable with automatic tonearm; dc servomotor; and statically-balanced straight arm with glass fiber headshell. Features stroboscope with speed controls (-4% accuracy); anti-skating and cue; spring loaded sidetonearm; wow and flutter 0.025% rms; rumble 63 dB (IEC B); tracking force range 0.75 g; includes detachable dustcover; 6½" H: 17½" W: 14" D: 8". $375

RP-6400 Automatic Single-Play

Two-speed (33' 1/3 and 45 rpm) direct-drive turntable with auto return/lead-in/shutoff arm, dc servomotor, and statically-balanced straight arm with glass fiber headshell. Features stroboscope with speed controls (-3% accuracy); anti-skating and cue; wow and flutter 0.04% rms; rumble 58 dB (IEC B); .

STEREO DIRECTORY & BUYING GUIDE
**SANSUI**

**SR-929 Manual Single-Play**
Two-speed (33" and 45 rpm), quartz servo direct drive turntable with manual tonearm; 20-pole, 30-slot dc brushless motor; quartz crystal controlled direct spindle drive; 9" H. in statically balanced S-shaped tonearm with height-adjustable needle point and knife edge support and vertical stylus alignment; 114" W. in aluminum die-cast platter; concrete resin base. Features oscillator-driven 30-slot dc brushless motor; quartz crystal-controlled speed indicator; anti-skating; univer sal headshell. Wow and flutter 0.028%; rumble 55 dB (IEC B); tracking force range 1.3 g; includes detachable dustcover; 5' H. x 17'' W. x 13'' D. $160

**SANYO**

**PLUS G60 Automatic Single-Play**
Two-speed (33" and 45 rpm) PLL quartz-locked direct drive turntable with automatic tonearm; 20-pole 30-slot brushless dc servomotor and separate motor for arm lift; 9.33-in. in aluminum diecast platter; 9" H. in statically balanced S-shaped tonearm with height-adjustable two-point pivot support and vertical stylus alignment. Features quartz crystal oscillator speed control (0.002% accuracy); ±2.5% pitch control; quartz-locked strobe; electronic brake; direct readout tracking force dial; up-front controls; lever/weight anti-skating; oil-damped cueing. Wow and flutter 0.025% rms; tracking 72 db (DIN B); mini-tracking force 0.5 g; cartridge weight range 4 g; includes hinged removable dustcover. $135

**PLUS Q50. Similar to PLUS G60 without LED read outs.** $300

**PLUS Q40 Automatic Single-Play**
Two-speed (33" and 45 rpm) quartz-locked direct drive turntable with automatic arm; 20-pole 30-slot brushless dc servomotor; 8.66-in. in straight alumi num tubular arm with ABS headshell and calibrated counterweight; 2.2 lb aluminum diecast platter. Features front-panel control switch controls; disc size selector for 7, 10, and 12 in discs; Wow and flutter 0.025% rms; tracking 73 db (DIN B); tracking force range 0-3 g; cartridge weight range 4-10 g; includes 45-rpm adaptor and hinged dustcover (does not cover controls); 6" H. x 17'' W. x 13'' D. $510

**PLUS Q5. Similar to Q40 without LED readouts; no disc size selector; 5" H. x 17'' W. x 15'' D. $180

**TP1030 Automatic Single-Play**
Two-speed (33" and 45 rpm) two-motor servo controlled brushless dc direct drive turntable with auto tonearm. Features electronic speed change (± 3% speed adjustment); illuminated strobescope; S-shaped counterbalanced arm tonearm with plug-in headshell; anti-skating; cueing control; automatic continuous repeat; reject button; auto-shutoff. Wow and flutter 0.03% rms; tracking range 0.3 g; tracking error 0.15 degrees; 6" H. x 18'' W. x 15'' D. $170

**TP1012A Semi-Automatic Single-Play**
Two-speed (33" and 45 rpm) dc servo-controlled direct drive turntable with end-of-record automatic return/shut-off tonearm. Features speed adjustment ± 3%; illuminated strobescope; S-shaped counterbalanced arm; anti-skating; cueing control; reject control. Wow and flutter 0.04% rms; tracking range 0.3 g; tracking error 0.15 degrees; tracking force range 0.3 g; 5" H. x 17'' W. x 14'' D. $140

**TP1010. Similar to TP1012 except PLL dc servo-controlled belt drive turntable with auto return shut off laterally-balanced tonearm; wow and flutter 0.05%...** $120

**TP1010C. TP1010 with unmounted Pickering magnetic stereo cartridge...** $130

**TP1005 Semi-Automatic Single-Play**
Two-speed (33" and 45 rpm) belt drive turntable with auto return tonearm; 68 pole tacho generator PLL servomotor; 220 mm S-shaped tonearm with plug-in headshell and calibrated counterweight; 17''W. diecast aluminum platter. Features adjustable anti-skating; viscous damped cueing; electronic pushbutton pitch control. Wow and flutter 0.05% rms; tracking range 60 db; tracking force range 0.3 g; hinged dustcover; 5.7" H. x 17'' W. x 14" D... $90

**TP1005C. TP1005 with unmounted magnetic stereo cartridge...** $100

**H.H. SCOTT**

**PS97XXV Automatic Single-Play**
Two-speed (33" and 45 rpm) quartz PLL direct drive turntable with automatic tonearm with single play or repeat functions; high torque motor with switching commutator; LED speed readout; overrange gauge, sub weight, hexagon wrench keys. Rumble 55 db; tracking force range 0-3 g; cartridge weight range 4-9 g; includes spare headshell; 7" H. x 13'' W. x 13'' D. $260

**PS77XXV. Similar to PS97XXV except semi-automatic with automatic return/shut-off tonearm; no record selector; 7'' H. x 13'' W. x 13'' D...** $235

**PS87A Automatic Single-Play**
Two-speed (33" and 45 rpm) direct drive turntable with automatic tonearm with single play or repeat functions; 72 pole FG ac servomotor; pushbutton speed change; 12-in. aluminum platter with strobe; strobe light with adjustable speed controls; S-shaped unipoint suspension statically-balanced tonearm; S-shaped counterbalanced arm tonearm. Features adjustable anti-skating; stylus pressure control; record size selector. Wow and flutter 0.03% rms; tracking range 60 db; tracking force range 1-3 g; cartridge weight range 4-9 g; includes spare headshell; 6" H. x 17'' W. x 13'' D... $510

**FR-D4 Automatic Single-Play**
Two-speed (33" and 45 rpm) computer-controlled direct drive turntable with automatic "Dyna Optimized Balanced" S-shaped tonearm; brushless dc servomotor and motor for arm lift; 9" H. in statically balanced S-shaped tonearm with headshell; anti-skating; cueing control; reject control. Wow and flutter 0.025% wms; rumble 72 db; tracking force range 0.5 g; includes dustcover with automatic hinges. $240

**FR-D3 Semi-Automatic Single-Play**
Two-speed (33" and 45 rpm) electronically-controlled direct drive turntable with automatic return/shut off tonearm; 20-pole 30-slot brushless motor, aluminum alloy diecast platter; 8" H. in statically balanced S-shaped tonearm. Features wide-band strobe control; 3% pitch control; up-front controls (dustcover; dustcover); 45 rpm record spindle adaptor; cartridge mounting gauge. Wow and flutter 0.028% wms; S/N 72 db (DIN B); mini-tracking force 1 g; includes hinged removable dustcover. $190

**FR-B2005 Semi-Automatic Single-Play**
Two-speed (33" and 45 rpm) belt drive turntable with auto return tonearm; synchronous four pole motor; 9" H. in statically-balanced S-shaped arm. Wow and flutter 0.07% rms; rumble 65 db (DIN B); mini-tracking force 1 g; cartridge weight range 4 g; includes hinged removable dustcover. $135

**SANYO**

**PLUS 060 Automatic Single-Play**
Two-speed (33" and 45 rpm) PLL quartz-locked direct drive turntable with automatic tonearm; 20-pole 30-slot brushless dc servomotor and separate motor for arm lift; 9.33-in. in straight carbon fiber tonearm with carbon fiber headshell and calibrated counterweight; 17''W., 2.2 lb aluminum diecast platter. Features quartz locked double servo speed control; four pushbutton controls with LEDs; stylus timer clock display/reset with memory; LED digital strobe; tracking force range 0-3 g; 5" H. x 17'' W. $180

**PLUS 050. Similar to PLUS 060 without LED read outs** $300

**PLUS 040 Automatic Single-Play**
Two-speed (33" and 45 rpm) quartz-locked direct drive turntable with automatic arm; 20-pole 30-slot brushless dc servomotor; 8.66-in. in straight alumi num tubular arm with ABS headshell and calibrated counterweight; 2.2 lb aluminum diecast platter. Features front-panel control switch controls; disc size selector for 7, 10, and 12 in discs; Wow and flutter 0.025% rms; tracking 73 db (DIN B); tracking force range 0-3 g; cartridge weight range 4-10 g; includes 45-rpm adaptor and hinged dustcover (does not cover controls); 6" H. x 17'' W. x 13'' D. $510

**PLUS 040A. Similar to PLUS 040 without LED readouts.** $600

**PLUS 030 Automatic Single-Play**
Two-speed (33" and 45 rpm) two-motor servo controlled brushless dc direct drive turntable with auto tonearm. Features electronic speed change (± 3% speed adjustment); illuminated strobescope; S-shaped counterbalanced arm tonearm with plug-in headshell; anti-skating; cueing control; automatic continuous repeat; reject button; auto-shutoff. Wow and flutter 0.03% rms; tracking range 0.3 g; tracking error 0.15 degrees; 6" H. x 18'' W. x 15'' D... $170

**PLUS 020 Automatic Single-Play**
Two-speed (33" and 45 rpm) quartz PLL direct drive turntable with automatic "Dyna Optimized Balanced" S-shaped tonearm; brushless drive direct servomotor and separate motor for arm lift; 9" H. in statically balanced S-shaped tonearm. Features built-in quartz locked double servo speed control. Wow and flutter 0.025% wrms; rumble 72 db (DIN B); tracking force range 0.5 g; cartridge weight range 4-11 g; 11.205 g with subcounterweight; includes overhang gauge, sub weight, hexagon wrench keys. 45 rpm record spindle adaptor, and hinged dustcover; 6" H. x 19'' W. x 15'' D... $440

**FR-Q5 Automatic Single-Play**
Two-speed (33" and 45 rpm) computer-controlled quartz PLL direct drive turntable with automatic...
with automatic return/shutoff arm; four-pole ac synchronous motor; no spare headshell holder; wow and flutter 0.03% wrms; rumble -75 dB (DIN B); startup time 1.5 sec at 33⅓ rpm. $625

TURNTABLES

 SERIES 20

PLC-590 Single-Play
Two-speed (33⅓ and 45 rpm) quartz PLL direct-drive turntable with automatic return/shutoff arm; quartz PLL Hall motor; 12⅛-in aluminum alloy diecast platter with pitch indicator; electronic quick stop. Wow and flutter 0.025% wrms; rumble -75 dB (DIN B); start-up time 1¼ rotation; includes height-adjustable feet, insulators, and free-hinge acrylic dustcover; 7¼" H x 19½" W x 15½" D. $550

PS-800 Semi-Automatic Single-Play
Two-speed (33⅓ and 45 rpm) quartz-crystal direct-drive turntable with auto return/shutoff or manual return arm; 4⅛-in aluminum alloy headshell with four-clamp headshell connector; 12⅛-in diecast aluminum platter (4 lb, 14 oz). $899

SPECS

Feedback automatic tonearm; brushless slotless BSL motor; 9½-in in-stabi...
Why we created our own total system.

We simply had to. Because no chain is stronger than its weakest link. And no music system is better than the distortion or noise coming from any of its components.

We wanted to make sure that when you choose one Revox you get all that it has to offer.

The total Revox system delivers virtually distortion-free music from every source and in any mode—music reproduction so true that it is unmatched by any other system available today.

All the components in the Revox system are designed to meet the professional quality standards that have been set by the Revox B77 open reel recorder with its ingenious logic control system. The B750 integrated amplifier, for example, is renowned for its fast transient response to all musical signals and for its low TIM. It is paired with the incredible B760 digital synthesizer FM tuner with the unusual capability of programming 15 stations which you can recall at the push of a button. The B790 direct drive, quartz controlled turntable reduces tracking distortion to an absolute minimum using a revolutionary new system called Linatrack.

For an unmatched musical experience, listen to our matched components at your franchised Revox dealer. Or write to us for details.
motor; quartz-synthesizer pitch control in 0.1% increments (+9.9%) with LED digital display; start-up time; wow and flutter 0.025% wrms; rumble -56 dB (DIN A) -78 dB (DIN B); diecast aluminum base...

**SL-1300MK2 Automatic Quartz-Locked**

Two-speed (33 1/3 and 45 rpm) single-play automatic turntable with quartz-lock speed control active on normal-speed and pitch-control modes; touch control; can be operated manually. Speed drift within...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 second (1 turn); electronic braking; wow and flutter 0.025% wrms (JIS); rumble -73 dB or less (DIN "B")...

**SL-1400MK2**

Similar to SL-1300MK2, but with manual start, manual and automatic shut-off and arm return at end of record. Single-play or continuous play...

**SL-1400MK2**

Similar to SL-1300MK2, but with completely manual control of arm...

**SL-1600MK2 Automatic Single-Play**

Two-speed (33 1/3 and 45 rpm) quartz-locked direct drive turntable with automatic tonearm; gimbal-suspension S-shaped tonearm with variable height adjustment and double cueing; four-line strobe calibration; 

**SL-1600MK2**

Similar to SL-1600MK2, but with semi-automatic with auto return arm...

**SL-1700MK2**

Similar to SL-1600MK2...

**SL-1800MK2**

Similar to SL-1700MK2 except has manual tonearm...

**SL-1800MK2**

Similar to SL-1700MK2 except has manual tonearm...

**SL-1301 Single-Play Automatic**

Two-speed (33 1/3 and 45 rpm) quartz-phase-locked, direct-drive turntable with automatic arm; brushless dc motor; gimbal-suspension S-shaped tonearm with variable height adjustment and double cueing; four-line strobe calibration; S-shaped gimbal-suspension arm (effective length 9" -in); anti-skating control; oil-damped cueing in both directions; electronic braking within 0.002%;...rumble 70 dB (DIN "B"); tracking error +1 degree (inner groove)...

**SL-1400**

Similar to SL-1301 except has auto lead-in, auto return arm and...track error less than 0.18/"cm (0.4/"in).

**SL-1200MK2 Manual Single-Play**

Two-speed (33 1/3 and 45 rpm) quartz-locked direct drive turntable with manual tonearm; brushless dc motor; gimbal-suspension S-shaped tonearm with variable height adjustment;...rumble 56 dB (DIN A) -78 dB (DIN B); aluminum diecast cabinet and visco-elastic base material for acoustic isolation...

**SL-3350 Automatic Multiple-Play**

Two-speed (33 1/3 and 45 rpm) direct-drive turntable with manual tonearm; brushless dc motor; gimbal-suspension S-shaped tonearm with variable height adjustment;...rumble 75 dB; cartridge weight range 4.5-10.5 g; dense particleboard cabinet with acoustic insulator feet;
It is very easy for a turntable maker to claim high quality, precision workmanship and durability. So turntable advertising and sales literature—including ours—is not at all bashful about talking "quality".

It is not so easy, however, to put your money where your mouth is. You have to have far, far better than average construction if you are going to extend the usual one-year guarantee to two years. Or three years. Or even to four years.

**Thorens turntables are so well built we are able to give you a five-year guarantee—500% longer than most guarantees!**

All Thorens turntables now offered are guaranteed for five full years from the date of purchase. The Isotrack tonearms are included in the guarantee.

**Every model covered**

All Thorens turntables now offered carry our five-year guarantee—irrespective of the price you pay. (The guarantee covers both parts and labor). Naturally, the higher priced models offer more features, but there is never any compromise with Thorens quality. Dollar for dollar you can't get better sound.

Before you make that all important decision on a turntable, don’t you think it would be a good idea to take a good hard look at a Thorens? If you don’t know the location of the nearest authorized Thorens dealer, we will be glad to send you his name, address, and a copy of our guarantee. Elpa Marketing Industries, Inc., One Thorens Ave., New Hyde Park, N.Y. 11040. U.S. distributor for Thorens turntables.

**TD-105C**
- Extremely low price for Thorens quality and performance.
- Servo-controlled electronic belt-drive.
- Low effective mass, low resonance TP22 Isotrack tonearm for maximum tracking ability with minimum record wear.
- Friction-free velocity-sensing auto shut-off/return.
  Suggested retail $300.00

**TD-104C**
- Identical to TD-105 less auto shut-off/return.
  Suggested retail $250.00
**YAMAHA**

YP-D10 Semi-Automatic Single-Play
Two-speed (33 1/3 and 45 rpm), direct-drive turntable with automatic lift/stop tonearm. Features YPA-1000 tonearm with auto return/cut tonearm, four-pole synchronous motor; 8% in statically-balanced S-shaped arm with universal plug-in aluminum headshell; oil-damped cueing, and direct-readout tracking force and anti-skating dials (phono cartridge not included); 12-in diecast aluminum platter. Wow and flutter 0.07% rms; wow and flutter 0.003% rms; rumble 52 dB (DIN B); cartridge weight range 5.5-20 g; includes acrylic dustcover; simulated walnut finish cabinet; $300

SR-F770 Automatic Single-Play
Two-speed (33 1/3 and 45 rpm) belt-drive turntable with automatic tonearm, PLL FG servomotor; 310-mm aluminum diecast platter; 214-mm statically balanced S-shaped arm with removable aluminum headshell and magnet; cartridge weight range 5.7 g to 10.5 g; 3% pitch control; $200

SR-F452 Automatic Single-Play
Two-speed (33 1/3 and 45 rpm) belt-drive turntable with automatic tonearm; PLL FG servomotor; 310-mm aluminum diecast platter; 214-mm statically balanced S-shaped arm with removable aluminum headshell and magnet; cartridge weight range 5.7 g to 10.5 g; 3% pitch control; $200

**ZENITH**

MC9050 Semi-Automatic Single-Play
Two-speed (33 1/3 and 45 rpm) direct-drive turntable with auto return/cut/stop tonearm; 45-rpm adaptor; counterbalanced S-shaped arm with Shure M75E cartridge and diamond stylus; magnetic cartridge with diamond stylus; lathed aluminum platter. Features built in strobe and pitch control; adjustable stylus pressure, two-way viscous damped cueing; adjustable anti-skating; includes acrylic hinged dustcover; metallic gold-finish base; $140

**VISONIK**

VT9300 Automatic Single-Play
Two-speed (33 1/3 and 45 rpm) quartz locked PLL direct drive turntable with auto return/cut tonearm, coreless and slotless quartz locked DC Hall motor; 242-mm statically balanced gimbal supported S-shaped aluminum tonearm with aluminum EIA standard plug-in headshell, height adjuster, and anti-skating counterbalance; 31-mm aluminum diecast platter. Features no-contact opto-electronic auto stop/cue lever; Wow and flutter 0.025% rms; rumble 77 dB (IEC '98 weighted); cartridge weight range 3.5-10 g; includes acrylic dustcover; $315

YP-D8 Semi-Automatic Single-Play
Two-speed (33 1/3 and 45 rpm), direct-drive turntable with automatic lift/stop tonearm. Features FG servos with 12-pole, 24-slot DC servomotor; S-shaped arm on gimbal support; oil-damped cueing lever; wow and flutter less than 0.03% rms; rumble 60 dB (IEC '98, DIN 'B'); effective arm length 8% in; tracking force range 0.3 g; includes dustcover, $670

YP-D7 Semi-Automatic Single-Play
Two-speed (33 1/3 and 45 rpm) quartz locked PLL direct drive turntable with auto return/cut tonearm, coreless and slotless quartz locked DC Hall motor; 242-mm statically balanced gimbal supported S-shaped aluminum tonearm with aluminum EIA standard plug-in headshell, height adjuster, and anti-skating counterbalance; 31-mm aluminum diecast platter. Features no-contact opto-electronic auto stop/cue lever; Wow and flutter 0.025% rms; rumble 77 dB (IEC '98 weighted); cartridge weight range 3.5-10 g; includes acrylic dustcover; $440

YP-D4 Semi-Automatic Single-Play
Two-speed (33 1/3 and 45 rpm) direct drive turntable with auto return tonearm, coreless and slotless DC Hall motor; 8% in statically-balanced S-shaped tubular aluminum tonearm with aluminum headshell, counterweighting, tracking force dial, anti-skating, and cue; 12-in diecast aluminum platter with single-tier stroboscope; pitch control (1-4%) Wow and flutter 0.055% peak (IEC '98 weighted); rumble 77 dB (IEC '98 weighted); tracking force 0.3 g; cartridge weight range 4.0 g; includes 3 mm thick acrylic dustcover; low-resistance particleboard cabinet with double folded rubber insulators; $230

YP-B4 Automatic Single-Play
Two-speed (33 1/3 and 45 rpm), belt-drive turntable with automatic tonearm; LPR FG servomotor; 316-mm aluminum diecast platter; 215-mm statically balanced gimbal supported S-shaped arm with Shure M75E cartridge and diamond stylus; magnetic cartridge with diamond stylus; lathed aluminum platter. Features built in strobe and pitch control; adjustable stylus pressure; two-way viscous damped cueing; adjustable anti-skating; includes acrylic hinged dustcover; metallic gold-finish base; $250

MC9030 Automatic Single/Multiple-Play
Two-speed (33 1/3 and 45 rpm) belt drive turntable with automatic tonearm; four pole high torque synchronous motor, 11-in aluminum platter, aluminum S-shaped balanced tubular tonearm with Shure M75ECS magnetic cartridge with elliptical diamond stylus. Features four position mode selector for single-record play, multiple record play, continuous repeat, and auto shutoff, viscous damped cueing, adjustable anti-skating. Wow and flutter 0.2% rms; rumble 50 dB (DIN B); includes 45-rpm single-play adaptor, single-play 33 1/3 rpm record spindle, and spring-loaded hinged acrylic dustcover, $150

MC9035 Automatic Single/Multiple-Play
Two-speed (33 1/3 and 45 rpm) belt drive turntable with automatic tonearm; 24 pole synchronous motor; aluminum tubular S-shaped arm with counter weight balance assembly and Shure magnetic cartridge with diamond stylus; 11-in raised metal platter. Features three-position mode selector for single record play with auto anti-skate device, continuous repeat and auto shutoff, and six-time one-record continuous repeat; bi-directional viscous damped cueing, adjustable anti-skating and stylus force control. Wow and flutter 0.2% rms; rumble 50 dB (DIN B); includes 45-rpm single-play adaptor, multiple play and single-play 33 1/3 rpm spindle and acrylic dustcover, $140

MC9025 Automatic Single/Multiple-Play
Two-speed (33 1/3 and 45 rpm) belt drive turntable with automatic tonearm; 24 pole synchronous motor; aluminum tubular S-shaped arm with counter weight balance assembly and Shure M74CS magnetic cartridge with diamond stylus; 11-in metal platter. Includes 45 rpm adaptor, multiple play and single-play 33 1/3 rpm spindle, and acrylic dustcover, $110

STEREO DIRECTORY & BUYING GUIDE
If you don't clean and preserve your records with Sound Guard, you're only scratching the surface.

Have you ever considered what it would cost to replace your record collection at today's prices? With that kind of investment at stake, it's no wonder that many music lovers have become more aware of record care. Regular cleaning of your records is important and necessary, but cleaning alone won't prevent them from wearing out. To protect your investment you need more than cleaning. You need both Sound Guard Cleaner and Sound Guard Preservative.

Sound Guard Record Preservative is a revolutionary dry lubricant which virtually eliminates record wear without affecting the fidelity of the record. And when you drag the hardest substance found in nature—diamond—through the soft, intricate vinyl canyons of a phonograph record at phenomenal rates of acceleration, it doesn't matter how light you're tracking. Something's got to give, and that's the vinyl. But with a Sound Guard-treated record, even after 100 plays, there is no audible degradation of performance.*

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Sound Guard offers the only complete program of record preservation and maintenance. It requires a little more time and effort than just cleaning. But how much did you say it would cost you to replace your record collection?

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PHONO CARTRIDGES (includes Tonearms)

ADC

ZLM Phono Cartridge
Induced-magnet omni-pivotal phono cartridge; output 1 mV at 1 cm/sec; frequency response 10-20,000 Hz; channel separation 30 dB (1 kHz); tracking force 0.5-1.25 g; 0.0002 x 0.0015-in nude Aplcic tapered cantilever stylus assembly; supplied with stylus brush, screwdriver, signed frequency response curve, and all mounting hardware...................... $135

QLM 33 Mk III Phono Cartridge
Induced-magnet phono cartridge; output 1.2 mV at 10 kHz; frequency response 20-20,000 Hz; tracking force range 1.2-2 g; 0.7-mil spherical diamond-tipped stylus...

QLM 36 Mk III Phono Cartridge
Induced-magnet omni-pivotal phono cartridge; output 1.1 mV at 1 cm/sec; frequency response 15-20,000 Hz; channel separation 26 dB (1 kHz); tracking force 0.31.2 g; Diasa (nude) 0.3 x 0.7 mil straight cantilever stylus assembly; supplied with screwdriver and all mounting hardware....... $80

ADCOM

Adcom Crosscoax Phono Cartridge
Moving-coil cartridge with output 2.5 mV at 5 cm/sec; frequency response 20-20,000 Hz; channel balance 0.2 dB; tracking force 1.8 g; nude-mounted grain oriented diamond stylus with a choice of Shibata, hyperelliptical, or elliptical (biradial) tip; effective tip mass 0.35 mg; thn beryllium cantilever; weight 5.5 g........................ $159 to $249

AKG

P755 Phono Cartridge
Output voltage (5 mV/cm/sec) 3.75; frequency response 10-28,000 Hz; channel balance 0.25 dB; tracking force 0.75-1.25 g; 0.2 x 0.7 mil elliptical diamond stylus; supplied with frequency response/cross-talk curve and screwdriver; weight 5.86 g................ $165

P8E Phono Cartridge
Output voltage (5 mV/cm/sec) 4; frequency response 10-23,000 Hz; channel balance 0.1 dB; tracking force 0.75-1.25 g; 0.2 x 0.7 mil elliptical diamond stylus; includes frequency response/cross-talk curve and screwdriver; weight 5.86 g........ $115

P7E Phono Cartridge
Output voltage (5 mV/cm/sec) 4, at 1.5 mV at 1 cm/sec; frequency response 20-20,000 Hz; channel separation 26 dB (1 kHz); tracking force 3-5 g; bushed 0.7 mil spherical straight cantilever stylus assembly; supplied with all mounting hardware....... $35

XLM Mk II Phono Cartridge
Induced-magnet omnipivotal phono cartridge; output 1.1 mV at 1 cm/sec; frequency response 15-24,000 Hz; 2 dB; separation 26 dB at 1 kHz; tracking force range 0.3-1.2 g; 0.3 x 0.7 mil elliptical diamond tip stylus................... $100

P6E Phono Cartridge
Output voltage (5 mV/cm/sec) 6.25; frequency response 20-20,000 Hz; channel balance 0.25 dB; tracking force 1.25-2.5 g; 0.3 x 0.7 mil elliptical diamond stylus; weight 5.86 g................ $80

P8R Phono Cartridge
Output voltage (5 mV/cm/sec) 6.25; frequency response 20-20,000 Hz; channel balance 0.25 dB; tracking force 1.25-2.5 g; 0.3 x 0.7 mil elliptical diamond stylus; weight 5.86 g................ $60

FULL-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 dist. 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 impedance 47,000 ohms ±5%; frequency response 20-20,000 Hz ±0.5 dB of RIAA curve; channel separation 80 dB at 10 kHz; max. output 8 V rms into 47,000 ohms or higher, 7 V rms into 10,000 ohms; channel balance within ±0.1 dB... $170

AUDIO RESEARCH

MCP-22 Moving-Coil Preamplifier
Vacuum-tube moving-coil preamp features input and output controls and five-position gain and impedance controls; front-panel preamp and outlets on switches with LEDs, output and mute switches. Frequency response ±0.25 dB from 30-40,000 Hz (phone RIAA); HD 0.01% at 2 V rms out; IM dist. 0.005% at 2 V rms out (SMPTE); gain range 50-54 dB in 6-dB steps; max. input 500 mV at 1 kHz; input impedance 10, 30, 100, 300, and 820 ohms; rated output 2 V rms from 20-20,000 Hz; output impedance 50 ohms; noise -1 µV includes rack-mount handles; 5½" H x 19" W x 10" D................ $1195

MCP-2 Pre-Preamplifier
Frequency response 20-20,000 Hz ±0.25 dB; HD and IM dist. less than 0.005% at rated output (IHF); max. input 50 mV rms; max. output 0.25 V rms; output impedance 50 ohms. Features front-panel switch selectable gain +6 db from 10-34 dB; front-panel switch selectable input impedance at 10, 30, 100, 300, and 5000 (3-10000 ohms); front-panel mute/operate switch; front-panel input/output selection switches; three switched and one unswitched power receptacles................. $495

WC-2. Walnut-finished wood cabinet for MCP-2... $90

1980 EDITION
**PHONO CARTRIDGES**

- **MCP-1 "Pre" Preamplifier**
  - Frequency response 50-20,000 Hz; S/N 80 dB; input voltage 10 mV; sensitivity 100 mV (phono); output parallel 100 mV;
  - Moving coil pre-amp for SP-4 and SP-5. $250

**AUDIO-TECHNICA**

- **AT32 Phono Cartridge**
  - Dual moving coil-phono cartridge; output 0.4 mV; frequency response 20-20,000 Hz; channel balance/separation = 0.75 dB/30 dB at 1000 Hz; tracking force 1.2 g; bonded 0.7 x 0.7 mil nude-mounted elliptical stylus on 0.12 mm square shank diamond needle. $300

- **AT50SS Phono Cartridge**
  - Frequency response 5-50,000 Hz; output 2.7 mV at 5 cm/sec; channel balance/separation = 0.75 dB/35 dB at 1000 Hz; tracking force 0.75-1.75 g; nude-mounted square-shank Shibata stylus; bonded elliptical diamond stylus; replaceable stylus ATN25S ($125). $250

- **AT15XE Phono Cartridge**
  - Output 2.7 mV at 5 cm/sec; frequency response 5-30,000 Hz; channel balance/separation = 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 frequency response curves for both channels; replacement stylus ATN15XE ($85). $175

- **AT14s Phono Cartridge**
  - Output 2.7 mV at 5 cm/sec; frequency response 5-45,000 Hz; channel balance/separation = 1 dB/27 dB at 1 kHz; tracking force 0.75-1.75 g; square-shank nude-mounted Shibata stylus; replacement stylus ATN14 ($75). $150

- **AT30e Phono Cartridge**
  - Moving-coil type; output 0.28 mV at 5 cm/sec; frequency response 15-25,000 Hz; channel balance/separation = 0.75 dB/25 dB at 1000 Hz; tracking force range 1.4-2 g; 0.3 x 0.7 mil nude-mounted elliptical stylus; replacement stylus ATN30e ($65). $125

- **AT12s Phono Cartridge**
  - Output 2.7 mV at 5 cm/sec; frequency response 15-45,000 Hz; channel balance/separation = 1 dB/26 dB at 1 kHz; tracking force 0.75-1.75 g; Shibata stylus; replacement stylus ATN12s ($60). $120

- **AT13e Phono Cartridge**
  - Output 4.2 mV at 5 cm/sec; frequency response 10-30,000 Hz; channel balance/separation = 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 ($50). $100

- **AT12xe Phono Cartridge**
  - Output 4.2 mV at 5 cm/sec; frequency response 15-28,000 Hz; channel balance/separation = 1.5 dB/23 dB at 1 kHz; tracking force 1.2 g; 0.4 x 0.7 mil square-shank diamond stylus; bonded mounted to thin-wall styli tube; replacement stylus ATS12 ($45). $85

- **AT22 Phono Cartridge**
  - Output 4.2 mV at 5 cm/sec; frequency response 15-25,000 Hz; channel balance/separation = 1.5 dB/23 dB at 1 kHz; tracking force 1.2 g; bonded 0.7 x 0.7 mil diamond stylus; replacement stylus ATS12 ($45). $85

- **AT11E Phono Cartridge**
  - Output 4.8 mV at 5 cm/sec; frequency response 15-25,000 Hz; channel balance/separation = 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 ATS12 ($45). $70

- **AT11 Phono Cartridge**
  - Output 4.8 mV at 5 cm/sec; frequency response 15-22,000 Hz; channel balance/separation = 1.5 dB/21 dB at 1 kHz; tracking force 1.5-2.5 g; bonded elliptical tip; replacement stylus ATS11 ($30). $50

- **AT10 Phono Cartridge**
  - Output 4.8 mV at 5 cm/sec; frequency response 20-20,000 Hz; channel balance/separation = 2 dB/20 dB at 1 kHz; tracking force 2-3 g; spherical bonded tip; replacement stylus ATS10 ($25). $40

- **"Omnitrich" Series**
  - **AT24 Phono Cartridge**
    - Moving-magnet phono cartridge with toroidal coils; output 2.2 mV at 5 cm/sec; frequency response 5-15,000 Hz; channel balance/ separation ± 1.5 dB; channel load 100,000 Hz; DC rejection 90 dB; weight 9 g. $175

- **AT13 Phono Cartridge**
  - Output 2.7 mV at 5 cm/sec; frequency response 20-20,000 Hz; channel balance/separation = 0.75 dB/23 dB at 1 kHz; tracking force 0.8-1.6 g; bonded square-shank 0.2 x 0.7 mil elliptical stylus; bonded elliptical diamond stylus; replacement stylus ATN2 ($150). $250

- **AT -L2. Optional hydraulic arm lift**
  - Includes all basic elements of the AT -1005 II plus exclusive pneumatics arm lift with convenient control lever; 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 for track anti-skating adjustment; arm height ± 0.05 mm adjustment with separate micro-adjust lever; stylus force gauge with sliding ring-weight calibrated to 0.1 g. $75

- **AT1009 Tonearm**
  - Includes all basic elements of the AT-1005 II plus integral type with own headshell from direct plug-in; replacement stylus AT25 ($150). $275

- **AT650 Moving-Coil Transformer**
  - Passive transformer, no batteries or power supply required; variable impedance 3, 20, 40 ohms and pass; frequency response 10-100,000 Hz; THD 0.00% at 0.5 mV; input 6.2 g. $250

- **AT630 Moving-Coil Transformer**
  - Frequency response 15-100,000 Hz; input impedance 47,000 ohms; channel balance 0.5 dB; THD 0.01% at 0.5 mV input. $95

**AUDIO TECHNOLOGY**

- **440 Head Amplifier/Phono Preamplifier**
  - RIAA equalizer (IMF) with built-in phono amp; frequency response 20-20,000 Hz ± 0.25 dB over 0-20,000 Hz bandwidth; THD and IM dist. 0.001%; S/N 90 dB ("A" weighted); slew rate 15 V/µsec; drives 600 ohm load to 5 Vrms; will accommodate moving magnet and moving coil cartridges; resistive and capacitive loading for over 120 cartridge combinations; programmable gain 40-70 dB; 1/2", H x 7/4" W x 5" D. $210

**BANG & OLUFSEN**

- **MMC Series Phono Cartridges**
  - Low-inductance low-mass (4 g) phono cartridges with "Moving Micro Cross" armature.

- **MMC 20DL**
  - Features single-crystal sapphire cantilever with nude multi-radiial contact line diamond stylus; effective tip mass 0.3 g; output 2.12 mV/47 kohms at 5 cm lateral runs; frequency response 20-20,000 Hz ± 1 dB; channel separation 30 dB at 1000 Hz; dynamic compliance 0.6 mV/47 kohms; output impedance 6.2 g. $125

- **MMC 20EN**
  - Aluminum cantilever with 5 x 17 µm elliptical diamond stylus; effective tip mass 0.4 g; output 2.12 mV/47 kohms at 5 cm lateral runs; frequency response 20-20,000 Hz ± 1 dB; channel separation 30 dB at 1000 Hz; dynamic compliance 0.6 mV/47 kohms; output impedance 6.2 g. $125

- **MMC 20e**
  - Aluminum cantilever with 5 x 17 µm elliptical diamond stylus; effective tip mass 0.5 g; output 2.12 mV/47 kohms; frequency response 20-20,000 Hz ± 2.5 dB; channel separation 30 dB at 1000 Hz; dynamic compliance 0.6 mV/47 kohms; sensitivity 0.6 mV/47 kohms; output impedance 6.2 g. $125

- **MMC 10e**
  - Similar to MMC 20E except frequency response 20-20,000 Hz ± 3 dB. $60
SP-12 Phono Cartridge
Moving-iron type; output 0.3 mV/cm/sec; frequency response 15-25,000 Hz ± 3 dB; has 0.2 x 0.7-mil elliptical stylus; tracking force 1 to 1½ g; 15-degree tracking angle; channel separation 25 dB at 1000 Hz; compliance 25 x 10⁻⁷ cm³/dyne; replacement stylus 5430………………$85

CONNOISSEUR by HERVIC
SAU4 Tonearm
Viscous-damped unipivot tonearm with antiskating graduated weights and bi-directional damped cueing; 87¾ in from pivot to stylus; tracking force range 0.4 g; effective mass 4.6 g…………………….$135

SAU2 Tonearm
Double-gimbal suspension ball-bearing tonearm with removable headshell; bi-directional damped cueing; 10 in from pivot to stylus; tracking force range 0.25-6 g; effective mass 4.6 g…………………$80

DECCA
MK VI Elliptical Cartridge
Stereo cartridge with elliptical stylil: tracking force 1½ g; 5 MV output at 5 cm/sec; recommended load resistance 50,000 ohms; channel separation 20 dB at 1000 Hz; recommended cable load 250-300 pf; cartridge weight 4 g; factory-replaceable stylus……………….……$200
Replacement stylus (gold)…………………………………………..$80

MK VI Spherical Cartridge
Stereo cartridge with spherical stylil: tracking force 2 g; 7½ MV output at 5 cm/sec; otherwise similar to elliptical model………………………………………….$150
Replacement stylus (plum)………………………………………….$70

London International Tonearm
Separate tonearm features frictionless jeweled unipivot magnetic floating assembly, magnetic anti-skating, optional vertical and lateral fluid damping, micro-cantilever type tracking-force adjustment, spirit level in headshell, adjustable stylus overhang provisions; effective arm mass 9 g; effective arm friction better than 0.02 g lateral and vertical; tracking force 1½-3 g; cable capacitance 120 μf/ft; cartridge weight range 5-12 g; pivot-to-stylus distance 9½-in; height adj. 2½-in max., 1½-in min….$150

DENON
DL-103D Moving-Coil Cartridge
Output 0.25 mV at 50 m/sec/sec; frequency response 20-65,000 Hz; channel separation 28 dB at 1000 Hz; channel balance 1 dB max. at 1000 Hz; 100-ohm load impedance; compliance 12 x 10⁻⁷ cm³/dyne; tracking force 1½-3 g; elliptical diamond stylus; weight 7.5 g………………..$267

DL-103/T Moving-Coil Cartridge
Includes cartridge transformer. Cartridge: output 0.3 mV at 50 m/m/sec; frequency response 20-45,000 Hz; channel separation over 25 dB at 1000 Hz; channel balance 1 dB max. at 1000 Hz; 100-ohm load impedance; compliance 5 x 10⁻⁷ cm³/dyne; tracking force 2.5 ±0.3 g; round stylus; weight 8.5 g. Transformer: 1.10 step-up ratio; 40-ohm primary impedance, 4000-ohm secondary impedance; frequency response 20-40,000 Hz ± 1 dB; 50 k ohm load impedance; 38 mm H x 51 mm W x 10 mm D. DL-103. Same as DL-103/T minus cartridge transformer………………….……..$140

AY-320 Cartridge Transformer
For moving-coil type. 1:10 step-up ratio; 3-40-ohm

At last a moving coil cartridge you can recommend to your best friend!

New AT30E Stereo Phono Cartridge with Vector-Aligned™
Dual Moving MicroCoils™ and user-replaceable Stylus

The subtle, yet unique characteristics of moving coil cartridges have had their admirers for years. A top-quality moving coil cartridge exhibits remarkable sonic clarity and transparency. This performance can be attributed to the very low mass, and low inductance of the tiny coils used to sense the stylus motion. But until now, moving coil cartridge popularity has been limited by three major problems which seemed almost inherent to moving coil designs.

1) It seemed impossible to make a user-replaceable stylus assembly without compromising performance.
2) Most moving coil cartridges exhibited relatively low tracking ability due to rather stiff cantilever mounting systems; and
3) Output of the cartridge was below the level needed for commonly available amplifier inputs.

Introducing the new Audio-Technica AT30E and the end to all three problems! Our design approach is simple and direct. Rather than locate the coils in the cartridge body, they are integral with the stylus assembly. If the stylus becomes worn or damaged, the entire moving system, coils and stylus can be replaced, just like a moving magnet cartridge. Large, gold-plated connectors insure loss-free connections so vital at the low voltages generated by a good moving coil cartridge.

The result is easy field replacement with no penalty in terms of performance.

Careful research indicated that good tracking and moving coil design were indeed compatible. By controlling effective mass and utilizing a radial damping system similar to our famed Dual Magnet™ cartridges, we have achieved excellent tracking ability throughout the audio range. Compliance is individually controlled during manufacture of each assembly to optimize performance.

We can't take credit for solving the low output problem. The AT30E output is similar to many other fine moving coil cartridges. But an increasing number of amplifiers and receivers are featuring built-in "pre-amplifiers" or "head amplifiers" to accommodate moving coil cartridges directly. Thus the new systems buyer can make a cartridge choice based on sonic characteristics rather than on input compatibility.

In addition, Audio-Technica offers the Model AT630 Transformer for matching to conventional amplifier inputs.

The new Audio-Technica AT30E Dual Moving Micro-Coil Stereo Phono Cartridge. With the introduction of this remarkable new design, every important barrier to full enjoyment of the moving coil listening experience has been removed. Progress in sound reproduction from Audio-Technica… a leader in advanced technology.
frequency response 5-20,000 Hz ± 1.5 dB; channel separation 30 dB at 1000 Hz, 15 dB at 10,000 Hz; 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 4.3 g without stylus hood.$200

2002-Stereo Cartridge

Frequency response 5-20,000 Hz ± 1.5 dB; tracking force separation 0.7-1.4 g, channel separation 25 dB at 1000 Hz, 15 dB at 10,000 Hz; 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 4.3 g without stylus hood.$200

282-Stereo Cartridge

0.0002 x 0.0007 elliptical diamond stylus; frequency response 5-20,000 Hz ± 2 dB; channel separation 25 dB at 1000 Hz, 15 dB at 10,000 Hz; 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.$95

NAGATRON

HV9100 Ribbon Stereo Phono Cartridge

Fine wire ribbon-magnetic cartridge; constant magnetic flux; no internal coil; uses one-point support for straight-line titanium stylus cartridge; elliptical nude diamond stylus; in-cartridge weight 4 g, 3.2 g without stylus hood; tracking force range 0.7-1.4 g, channel separation 25 dB at 1000 Hz, 15 dB at 10,000 Hz; 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.$95

200 Series

Two-channel cobalt-alloy magnet structure; universal moving-coil pickup cartridge; frequency response 20-20,000 Hz; channel separation 1.0/25 dB at 1000 Hz; recommended load 30,000-100,000 ohms; 50,000 ohms nominal; dynamic compliance 8 x 10^-6 cm/dyne at 1000 Hz; static compliance 20 x 10^-6 cm/dyne.$120

2200E. 0.3 x 0.7 mil shaped elliptical diamond sty- mulus with aluminum-carbide fiber cantilever; effective mass 0.60 mg.$84

2005. 0.5 mil spherical diamond stylus with aluminum UT-58 cantilever; mass 0.85 mg.$45

100 Series

Two-channel induced magnet with super-precision shield; frequency response 20-20,000 Hz; effective mass 0.85 mg; channel balance/separation 1.0/25 dB at 1000 Hz; output 0.4 mV at 50 mm/sec (1000 Hz); recommended load 30,000-100,000 ohms; 50,000 ohms nominal; dynamic compliance more than 8 x 10^-6 cm/dyne at 1000 Hz; static compliance 20 x 10^-6 cm/dyne.$120

195E. 0.3 x 0.7 mil elliptical diamond stylus; integral head shell.$55

185E. 0.3 x 0.7 mil elliptical diamond stylus; universal mount.$45

175IS. 0.5 mil spherical diamond stylus; integral head shell.$43

165S. 0.5 mil spherical diamond stylus; universal mount.$35

NAKAMICHI

MC-1000 Reference Pickup

Moving-coil pickup cartridge; high 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; impedance 3.5 ohms; compliance 16 x 10^-6 cm/dyne; tracking force 1.5-2.1 g; features Shibata stylus; supplied with SME-type shell and integral mounting base.$305

MC500. Similar to MC-1000 but with duralumin cantilever and no tonearm shell; output 0.9 mV (1 kHz, 5 cm/sec); response 20-35,000 Hz; channel separation 25 dB at 1 kHz; impedance 20 ohms; compliance 7 x 10^-6 cm/dyne; tracking force 1.9-2.5 g; elliptical stylus.$135

MCB-100. Moving-coil pickup booster with double-screened, specially wound transformer; frequency response 10-65,000 Hz; load impedance 50,000 ohms; input impedance 2:20 ohms.$120

MB-150 Moving-Coil Booster Amplifier

Switchable gain 22 or 38 dB; equivalent input noise 156 dB (IHF "A" weighted); THD less than 0.005%, 20-20,000 Hz; frequency response 10-100,000 Hz +/− 0.5 dB, 22 dB gain setting; requires PS-100 Power Supply; 2" x 4" x 12".$100

ONKYO

MC-100 Stereo Phono Cartridge

Moving-coil magnesium-alloy phon cartridge; effective mass 0.6 mg.$135

350E. 0.3 x 0.7 mil spherical diamond sty- mulus; effective mass 0.6 mg.$135

350E. 0.3 x 0.7 mil spherical diamond sty- mulus with aluminum UT-58 cantilever; effective mass 0.6 mg.$135

340E. 0.3 x 0.7 mil bonded elliptical diamond sty- mulus; effective mass 0.6 mg.$135

340E. 0.3 x 0.7 mil bonded elliptical diamond sty- mulus with aluminum cantilever and permalloy mi- cro tubular armature; super permalloy magnet structure; frequency response 20-20,000 Hz; dy- namic compliance 8 x 10^-6 cm/dyne/100 Hz; weight 6 g.$70

ORTOFON

MC30 Phono Cartridge

Moving-coil pickup cartridge; output 0.8 mV at 5 cm/sec at 1000 Hz; frequency response 20-20,000 Hz; channel separation 25 dB at 1000 Hz; compliance 13 mm/mN lateral, 13 mm/mN horizontal; load impedance 47,000 ohms; tracking force 1.5 g; fine line stylus; wide range damping system.$600

MC20 Phono Cartridge

Moving-coil pickup cartridge; output 0.07 mV at 5 cm/sec (1 kHz); frequency response 20-20,000 Hz; channel separation 25 dB at 1000 Hz; load impedance 47,000 ohms; tracking force 1.5-2 g; beryllium-filled stepped cantilever; three-part damping system; square-pole piece; requires transformer or pre-amplifier; weight 7 g.$205

Concorde 30 Phono Cartridge

Variable magnetic shunt-moving-magnet cartridge; output 3 mV at 5 cm/sec at 1000 Hz; frequency response 20-25,000 Hz; channel separation 25 dB at 1000 Hz; compliance 25 x 10^-6 cm/dyne lateral, 28 x 10^-6 cm/dyne vertical; load impedance 47,000 ohms; tracking force 1.2-1.8 g; fine line stylus.$305

Concorde 20. Similar to Concorde 30 except output 3.5 mV at 5 cm/sec at 1000 Hz; frequency response 20-20,000 Hz; compliance 22 x 10^-6 cm/cycle lateral, 15 x 10^-6 cm/cycle vertical; tracking force 1.5-2.1 g.$125

LM20. Similar to Concorde 20 except weight 2.6 g.$115

LM20H Phono Cartridge

Variable magnetic shunt-moving-magnet cartridge; output 3 mV at 5 cm/sec at 1000 Hz; channel separation 25 dB at 1000 Hz; compliance 35 x 10^-6 cm/dyne lateral, 40 x 10^-6 cm/dyne vertical; load impedance 47,000 ohms; tracking force 0.8-1.2 g; fine line stylus; ultra-high compliance for use with low-mass tonearms only; 2.6 g.$145

LM30H. Similar to LM20H with frequency response 20-25,000 Hz.$150

LM30 Phono Cartridge

Variable magnetic shunt-moving-magnetic cartridge; output 3 mV at 5 cm/sec at 1000 Hz; frequency response 20-25,000 Hz; channel separation 25 dB at 1000 Hz; compliance 25 x 10^-6 cm/dyne lateral, 28 x 10^-6 cm/dyne vertical; load impedance 47,000 ohms; tracking force 1.2-1.8 g; fine line stylus; weight 2.6 g.$150

MC10 Phono Cartridge

Moving-coil pickup cartridge; output 0.1 mV at 5 cm/sec (1 kHz); frequency response 10-20,000 Hz; channel separation 25 dB at 1000 Hz; load impedance 47,000 ohms; tracking force 1.7-2.3 g; 0.3 x 0.7 mil elliptical stylus.$145

VMS20E MkII Cartridge

Variable magnetic shunt-moving-magnet type; output 5 mV at 5 cm/sec (1 kHz); frequency response 20-20,000 Hz; channel separation 25 dB at 1000 Hz; load impedance 47,000 ohms; tracking force 0.75-1.5 g; 0.3 x 0.7 mil elliptical stylus; removable capacitance matching device.$90

FF15E MK II Phono Cartridge

Variable magnetic shunt-moving-magnet cartridge; output 5 mV at 5 cm/sec at 1000 Hz; frequency response 20-20,000 Hz ± 1 dB; channel separation 25 dB at 1000 Hz; load impedance 47,000 ohms; tracking force 1.3-1.8 g; 0.3 x 0.7 mil elliptical stylus.$55

OSAWA

MP-20 Phono Cartridge

Moving permanent-magnet cathode cobalt magnet.
in fiberglass-reinforced plastic body; butyl rubber cantilever damper; triangular diamond stylus; boron stylius cantilever; gold-plated cartridge pins; frequency response 20-17,000 Hz; dynamic compliance 9 x 10^-6 cm/dyne 1.75 Pre-mounted in Osawa High Performance headshell $200 300MP Phono Cartridge Permalloy-induced magnet design for S/N; carbon fiber cantilever; cantilever magnet; butyl cantilever damper; 0.3 x 0.7 mil elliptical diamond stylus; frequency response 20-20,000 Hz; channel separation 25 dB at 100 Hz; dynamic compliance 8 x 10^-6 cm/dyne; weight 5.5 g $75 10MPPhono Cartridge Permalloy-induced magnet design; cantilever magnet; butyl cantilever damper; 0.3 x 0.7 mil elliptical bonded diamond stylus; frequency response 20-20,000 Hz; separation 25 dB at 100 Hz; dynamic compliance 8 x 10^-6 cm/dyne; weight 5.5 g $45 Ultracraft AC-300MKIII Tonearm Single needle-point support with adjustable oil damping; accepts interchangeable straight or S-shaped fiberglass fiber arm stems; with straight tubular stem $385 Other stems $60 AC-300MKIII. Same as Ultracraft AC-300MKIII except has black anodized brass arm $500 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 Dusmatamic brush; replacement stylus D3000 $100 XV-15/1200E Phono Cartridge Output 4.4 mV at 5.5 cm/sec; frequency response 10-30,000 Hz; 0.2 x 0.7 mil elliptical stylus; tracking force 0.5-1.25 g; channel separation 35 dB; features Dusmatamic brush; replacement stylus D1200 $80 XV-15/750E Phono Cartridge Output 4.4 mV at 5.5 cm/sec; frequency response 10-25,000 Hz; 0.3 x 0.7 mil elliptical stylus; tracking force 0.5-1.5 g; channel separation 35 dB; features Dusmatamic brush; replacement stylus D750 $65 XV-15/625DJ Phono Cartridge Designed for disco use; output 0.8 mV/cm/sec; channel separation 30 dB; tracking force 1.4-2 g; 0.7 x 0.7 mil elliptical stylus $60 XV-15/625E Phono Cartridge Output 4.4 mV at 5.5 cm/sec; frequency response 10-25,000 Hz; 0.3 x 0.7 mil elliptical diamond stylus; tracking force 0.75-1.5 g; channel separation 35 dB; features Dusmatamic brush; replacement stylus D625 $60 XV-15/400E Phono Cartridge Output 5.5 mV at 5.5 cm/sec; frequency response 10-20,000 Hz; 0.4 x 0.7 mil elliptical stylus; tracking force 1.5-1.5 g; channel separation 35 dB; features Dusmatamic brush; replacement stylus D4000 $55 XV-15/350 Phono Cartridge Output 6 mV at 5.5 cm/sec; frequency response 10-25,000 Hz; 0.4 x 0.7 mil elliptical stylus; tracking force 2.4 g; channel separation 35 dB; features Dusmatamic brush; replacement stylus D350 $40 XV-15/150 Phono Cartridge Output 8 mV at 5.5 cm/sec; frequency response 10-20,000 Hz; 0.7 mil spherical stylus; tracking force 2.4 g; channel separation 35 dB; features Dusmatamic brush; replacement stylus D150 $35 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 Dusmatamic brush; replacement stylus D100 $30 XXV-15 Macro IV AME Phono Cartridge Output 5.5 mV at 5.5 cm/sec; frequency response 20-20,000 Hz; 0.4 x 0.7 mil elliptical stylus; tracking force 1.2 g; channel separation 30 dB; features Dusmatamic brush; replacement stylus DAME $50 V-15 Micro IV AME Phono Cartridge Output 5.5 mV at 5.5 cm/sec; frequency response 20-20,000 Hz; 0.4 x 0.7 mil elliptical stylus; tracking force 2.4 g; channel separation 28 dB; features Dusmatamic brush; replacement stylus DIV-AME $40 V-15 Micro IV AME Phono Cartridge Output 6 mV at 5.5 cm/sec; frequency response 20-20,000 Hz; 0.7 mil spherical stylus; tracking force 3.5 g; channel separation 26 dB; features Dusmatamic brush; replacement stylus DIV-AME $35 V-15 Micro IV AME 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 Dusmatamic brush; replacement stylus DIV-AME $30 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 g; channel separation 26 dB; features Dusmatamic brush; replacement stylus DIV-AC $25 V-15 Micro IV AT Phono Cartridge Output 5 mV at 5.5 cm/sec; frequency response 20-18,000 Hz; 0.7 mil spherical stylus; tracking force 2.4 g; channel separation 35 dB; features Dusmatamic brush; replacement stylus DIV-AT $30 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 g; channel separation 26 dB; features Dusmatamic brush; replacement stylus DIV-AC $25 4-Channel XVJ/4500-Q Phono Cartridge For stereo, four-channel operation; output 3.4 mV at 5.5 cm/sec; frequency response 10-20,000 Hz (100,000-ohm 100-pf load); Quadrahedral diamond stylus; tracking force 1.5-2 g; channel separation 35 dB; features Dusmatamic brush $125 UV-15/2400-Q Phono Cartridge For discrete four-channel playback; output 3.4 mV at 5.5 cm/sec; frequency response 10-20,000 Hz (100,000-ohm 100-pf load); Quadrahedral diamond stylus; tracking force 1.5-2 g; channel separation 35 dB; features Dusmatamic brush $125 PP-1 Stereo Preamp Preamp with rumble filter; input impedance 47,000 ohms; gain at 1 kHz 38 dB; frequency response (RIAA) 30-15,000 Hz ±2 dB; S/N 60 dB $30 SATIN M-188X 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 x 10^-6 cm/dyne; tracking force 0.5-1.5 g; 0.2 x 2.5 ml Shibata Diamond stylus; any phono input impedance over 30 ohms may be used; user-replaceable stylus mounts in magnetic mounting; needs no transformer or head amp; special formula damping lubricant $300 M-18X Phono Cartridge Moving-coil phono cartridge with fixed-pivot for the stylus cantilever mechanism; for stereo and four-channel operation; output 2.5 mV; frequency response 10-35,000 Hz; compliance 20 x 10^-6 cm/dyne; tracking force 0.5-1.5 g; 0.1 x 2.5 ml Shibata Diamond stylus; any phono input impedance over 30 ohms may be used; user-replaceable stylus mounts in magnetic mounting; needs no transformer or head amp $275 M-18E Phono Cartridge Moving-coil phono cartridge with fixed-pivot for the stylus cantilever mechanism; output 2.5 mV; frequency response 10-30,000 Hz; compliance 15 x 10^-6 cm/dyne; tracking force 0.5-1.5 g; 0.1 x 2.5 ml Shibata Diamond stylus; any phono input impedance over 30 ohms may be used; user-replaceable stylus mounts in magnetic mounting; needs no transformer or head amp $250 112
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From one of the oldest names in sound development comes the latest sound innovation... the Stereohedron Stylus tip... with expanded contact area for truest fidelity. And now it's available from Pickering in three great cartridges. The critically acclaimed XSV/3000, the new XSV/4000 with expanded frequency response range, and the ultimate in high compliance, the XSV/5000 with the most faithful low frequency trackability for rich bass response plus traceability to capture all the high frequency information contained in today's finest recordings... creating a whole new experience in recorded sound.

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CIRCLE NO. 73 ON READER SERVICE CARD
Stereo Directory & Buying Guide

M-117G Phono Cartridge
Moving-coil phono cartridge with fixed-point pivot; output 3 mV; frequency response 20-25,000 Hz; compliance 12 x 10^-6 cm/dyne; tracking force 0.5-1.5 g; 0.2 x 0.7 mil elliptical diamond stylus; uses replaceable stylus mounts in magnetic mounting; needs no transformer or head amp...$175

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 bi-elliptical (elliptical) stylus; replacement stylus N93E...$56

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 bi-elliptical stylus; replacement stylus N70EJ...$49

M70B Phono Cartridge
Output 5 mV 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 N70B...$44

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 N75EJ...$62

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); 0.2 x 0.7 mil bi-elliptical (elliptical) stylus; replacement stylus N55E...$46

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); 0.4 x 0.7 mil bi-elliptical (elliptical) stylus; replacement stylus N44E...$40

SC35C Phono Cartridge
Professional 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 0.75-1.25 g; 0.2 x 0.7 mil bi-elliptical (elliptical) stylus; replacement stylus VN35E...$103

MK10T. Transformer matches MK 110E and SE6E to conventional magnetic phone inputs...$95

MK12T. Moving-coil transformer with selector for 3, 20, 40 ohms or passive impedance...$300

MK9E Phono Cartridge
Frequency response 10-25,000 Hz; output 2.2 mV at 5 cm/sec; tracking force 0.8-1.6 g; channel balance/separation 0.75 dB/30 dB at 1000 Hz; 0.2 x 0.7 mil elliptical squash-shank nude diamond stylus; 0.3 mil beryllium cantilever; replacement stylus TK9 ($175)...$275

MK7E Phono Cartridge
Frequency response 5-30,000 Hz; output 2.7 mV at 5 cm/sec; channel balance/separation 0.75 dB/30 dB at 1000 Hz; tracking force 1-1.5 g; 0.2 x 0.7 mil squash-shank miniature elliptical stylus; micro- mass tapered tube cantilever; replacement stylus TK7 ($100)...$185

MK5E Phono Cartridge
Frequency response 15-28,000 Hz; output 4.2 mV at 5 cm/sec; channel balance/separation 1.0/25 dB at 1000 Hz; tracking force 1.5 g; 0.2 x 0.7 mil squash-shank elliptical stylus; low-friction cueing control; cartridge weight range 4-9 g; cartridge weight range 4-9 g; cartridge weight range 4-9 g...$177

MK300E/SE. Same as MK3009 Series II but in detachable headshell...$190

SME309 Series II Tonearm
Incorporates non-detachable shell for reduced weight; low-friction pivots for vertical axis and knife- edges for horizontal axis; ball slides on bedplate for tracking adjustment with protractor; arm mass di-

M-117G Phono Cartridge
Moving-coil phono cartridge with fixed-point pivot; output 3 mV; frequency response 10-25,000 Hz; channel separation 25 dB at 1000 Hz; tracking force 0.75-1.25 g; 0.2 x 0.7 mil bi-elliptical (elliptical) stylus; features viscous damped dynamic stabilizer; replacement stylus VN45HE...$165

M-117G Phono Cartridge
Moving-coil phono cartridge with fixed-point pivot; output 3 mV; frequency response 10-25,000 Hz; channel separation 25 dB at 1000 Hz; tracking force 0.75-1.25 g; 0.2 x 0.7 mil bi-elliptical (elliptical) stylus; features MASAR tip and SIDE-GUARD stylus deflector; replacement stylus SS39ED...$100

M93E Phono Cartridge
Output 4.7 mV at 5 cm/sec peak velocity (1 kHz); frequency response 20-20,000 Hz; channel separation 25 dB at 1000 Hz; tracking force 0.75-1.5 g; 0.2 x 0.7 mil bi-elliptical (elliptical) stylus; features MASAR tip and SIDE-GUARD stylus deflector; replacement stylus SS39ED...$100

M93E Phono Cartridge
Output 4.7 mV at 5 cm/sec peak velocity (1 kHz); frequency response 20-20,000 Hz; channel separation 25 dB at 1000 Hz; tracking force 0.75-1.5 g; 0.2 x 0.7 mil bi-elliptical (elliptical) stylus; features MASAR tip and SIDE-GUARD stylus deflector; replacement stylus SS39ED...$100

M93E Phono Cartridge
Output 4.7 mV at 5 cm/sec peak velocity (1 kHz); frequency response 20-20,000 Hz; channel separation 25 dB at 1000 Hz; tracking force 0.75-1.5 g; 0.2 x 0.7 mil bi-elliptical (elliptical) stylus; features MASAR tip and SIDE-GUARD stylus deflector; replacement stylus SS39ED...$100

M93E Phono Cartridge
Output 4.7 mV at 5 cm/sec peak velocity (1 kHz); frequency response 20-20,000 Hz; channel separation 25 dB at 1000 Hz; tracking force 0.75-1.5 g; 0.2 x 0.7 mil bi-elliptical (elliptical) stylus; features MASAR tip and SIDE-GUARD stylus deflector; replacement stylus SS39ED...$100

M93E Phono Cartridge
Output 4.7 mV at 5 cm/sec peak velocity (1 kHz); frequency response 20-20,000 Hz; channel separation 25 dB at 1000 Hz; tracking force 0.75-1.5 g; 0.2 x 0.7 mil bi-elliptical (elliptical) stylus; features MASAR tip and SIDE-GUARD stylus deflector; replacement stylus SS39ED...$100

M93E Phono Cartridge
Output 4.7 mV at 5 cm/sec peak velocity (1 kHz); frequency response 20-20,000 Hz; channel separation 25 dB at 1000 Hz; tracking force 0.75-1.5 g; 0.2 x 0.7 mil bi-elliptical (elliptical) stylus; features MASAR tip and SIDE-GUARD stylus deflector; replacement stylus SS39ED...$100
fact: there's a Shure cartridge that's correct for your system—and your checkbook:

V15 Type IV—The perfectionist's pickup—overcomes such ever-present problems as warp, static electricity, and dust. Ultra-flat response. Reduced distortion. Unprecedented trackability. ¾ to 1 ½ grams tracking. Premium-priced.

V15 Type III—Second only to the Type IV. Ultra-flat, wide range response. Super trackability. ¾ to 1 ½ grams tracking. Best-buy pricing.

M95HE—New mid-priced cartridge with distortion-reducing Hyperelliptical stylus. Flat response. ¾ to 1 ½ grams tracking.

M95EJ—Superb performance for heavier tracking (1 ½ to 3 grams) systems. Biradial (Elliptical) stylus. Moderately priced.

M70 Series—Modestly priced cartridges with truly noteworthy performance. 1 ½ to 3 grams tracking. Biradial or Spherical stylus.

M3D—The low-cost cartridge that began it all nearly two decades ago. ³/₄ to 6 grams tracking. Replacement stylus still available. As they are for virtually all Shure stereo cartridges ever made.

fact: the phono cartridge is the heart of hi-fi...

The hi-fi phono cartridge functions as the source of sound. If the recording is linked with the balance of the hi-fi system, therefore, its role in high fidelity is absolutely critical. Just as the camera can be no better than its lens, even the finest hi-fi system in the world can transcend the limitations of an inferior cartridge. The cartridge represents a relatively modest investment which can audibly upgrade the sound of your entire record playback system.

Consult with your nearby Shure dealer who will help you select the Shure phono cartridge that is correct for your system and your checkbook. We especially recommend that you audition the Shure V15 Type IV. Discriminating critics throughout the world praise this cartridge as the new standard for faithful sound re-creation. It overcomes such ever-present problems as dust, static electricity, “hot” signals, and record warp that cause “clicks” or “pops,” and distorted record reproduction. May we send you our brochure?
PHONO CARTRIDGES

Sonus Series II
Gold Phon Cartridges
Electromagnetically balanced cartridges with interchangeable styli among Gold models; output 0.8 mV ± 2 dB; compliance 50 cm/s dyne × 10⁻⁶; channel balance +0.1 dB; channel separation 30 dB at 1000 Hz; 20 from 20,000 Hz; load impedance 47,000 ohms/ch; tracking force range 0.75-1.5 g; weight 5.5 g. ... $250

Silver Phon Cartridges
Similar in principal characteristics to Gold series; output 1.0 mV ± 2 dB; 47,000 ohms; load capacitance 275 pF; tracking force range 3.5-6.5 g; weight 5.5 g. Silver "P". Modified-line contact-form ground stylus designed for extended high-frequency response quadrrophonic recordings; frequency response 10-16,000 Hz ± 1 dB; (replacement stylus $40). $99

Black Phon Cartridges
Output 1.0 mV ± 2 dB; 5 mV at 5 cm/sec; frequency response 10-10,000 Hz ± 1 dB; 10-20,000 Hz ± 2/1-1 dB; channel balance/separation ± 2 dB at 25/625 at 1000 Hz; load impedance/ch 47,000 ohms; tracking range 1.5-2.5 g; weight 5.5 g. Silver "E". Elliptical stylus (replacement stylus $30); response 10-16,000 Hz ± 1 dB. $88

SONY
XL-55Pro Phono Cartridge
Figure-8 design moving-coil phono cartridge with integrated magnesium headshell and aluminum, beryllium, and carbon fiber composite cantilever; output 0.2 mV at 5 cm/sec, 1000 Hz, 45 degrees; frequency response 10-50,000 Hz; channel separation 30 dB; channel balance 1 dB at 1000 Hz; compliance 15 × 10⁻⁴ cm/dyne; recommended tracking force 2.0 g; 0.3 x 0.8 elliptical stylus; includes stylus brush and stylus guard; 22 g. ... $300

STANTON
881S Phono Cartridge
Output 0.9 mV/cm/sec; frequency response 10-25,000 Hz; channel balance/separation (1 kHz) ± 1 dB/35 dB; load impedance 47,000 ohms; load capacitance 275 pF; tracking force 0.75-1.5 g; nude Stereohedron stylus; weight 5.7 g with self-supporting (1 g) brush; replacement stylus DB1, D810 for mono LP's, D827 for 78's. ... $150

516 Triple-E Phono Type
Output 0.7 mV/cm/sec ± 2 dB; frequency response 20-20,000 Hz ± 2.5 dB; channel balance/separation ± 2 dB at 35/150 (1 kHz); load impedance 47,000 ohms; load capacitance 275 pF; tracking force 1.2 g; 0.3 x 0.7 mil elliptical diamond stylus; weight 5 g; replacement stylus DB6000E, D6010 for LP's, D6027 for 78's. ... $115

680E Disco Cartridge
Output 1.0 mV/cm/sec ± 2 dB; frequency response 20-18,000 Hz; channel balance/separation ± 2 dB/35/150 (1 kHz); load impedance 47,000 ohms; load capacitance 275 pF; tracking force 0.75-1.5 g; 3 x 2.8 mil Stereohedron stylus; weight 6.3 g with self-supporting (1 g) brush; replacement stylus 6800SEE-E, D6810 for LP's, D6827 for 78's. ... $290

681 Triple-E Phono Cartridge
Output 0.7 mV/cm/sec ± 2 dB; frequency response 10-12,000 Hz ± 1.5 dB; load impedance 47,000 ohms; load capacitance 275 pF; tracking force 0.75-1.5 g; 0.2 x 0.7 mil elliptical diamond stylus; weight 5.5 g; replacement stylus D6800EE. ... $90

680S Disco Cartridge
Output 1.1 mV/cm/sec ± 2 dB; frequency response 20-20,000 Hz; channel balance/separation 2 dB/10-12,000 Hz ± 1.5 dB; load impedance 47,000 ohms; load capacitance 275 pF; tracking force 0.75-1.5 g; 0.3 x 0.7 mil elliptical diamond stylus; weight 5.5 g; replacement stylus D6808EE. ... $90

500A Phono Cartridge
Output 1.0 mV/cm/sec ± 2 dB; frequency response 20-10,000 Hz ± 1 dB; channel balance/separation ± 2 dB/35/150 (1 kHz); load impedance 47,000 ohms; load capacitance 275 pF; tracking force 1.2 g; 0.4 x 0.7 mil elliptical diamond stylus; weight 5 g; replacement stylus D5100E, D5110 for LP's, D5127 for 78's. ... $40

500A11 Phono Cartridge
Output 1.0 mV/cm/sec ± 2 dB; frequency response 20-10,000 Hz ± 1 dB; channel balance/separation ± 2 dB/35/150 (1 kHz); load impedance 47,000 ohms; load capacitance 275 pF; tracking force 1.2 g; 0.4 x 0.7 mil elliptical diamond stylus; weight 5 g; replacement stylus D5105AA, D5110 for LP's, D5127 for 78's. ... $35

500E Phono Cartridge
Output 1.0 mV/cm/sec ± 2 dB; frequency response 20-10,000 Hz ± 1 dB; channel balance/separation ± 2 dB/35/150 (1 kHz); load impedance 47,000 ohms; load capacitance 275 pF; tracking force 1.2 g; 0.4 x 0.7 mil elliptical diamond stylus; weight 5 g; replacement stylus D5100EE, D5110 for LP's, D5127 for 78's. ... $35

780/4D Phono Cartridge
Designed to play discrete four-channel records as well as standard stereo discs or four-channel matrixed compatible records; response 10-50,000 Hz (when terminated in recommended load of 100 k ohms and 100 pf); tracking force 1.3 g; channel separation 35 dB; output 0.7 mV at 5 cm/sec ± 2 dB; impedance and resistance 750 ohms; features "Quadrahedral" stylus. ... $125

780/4L. Same as 780/4DQ except frequency response is 10-45,000 Hz. ... $75

THORENS
TMC 70 Phono Cartridge
Moving-coil pick-up cartridges; designed for Thorens Turntables; 10-15 Hz; dynamic compliance 12 x 10⁻⁶ cm/dyne; tracking force range 2.5-3 g; 10μm line fine-line diamond stylus; may be expected to playback double (22-ohm) phon pre-emphasis. ... $550

TMC-63. Same as TMC 70 except for Thorens' 211 Mk 11 and 11 Mk II turntable arms. ... $550

YAMAHA
MC-1X Phono Cartridge
Integrated moving-coil phono cartridge with tapered tubular beryllium cantilever and twin dual coreless coil wires in aluminum diecast housing; output 0.2 mV at 5 cm/sec, 1000 Hz; channel separation 28 dB at 1000 Hz; frequency response 20-20,000 Hz; recommended stylus pressure 1.8 ± 0.2 g; 0.1 mm square pure diamond stylus with special-contrast 4 x 40-micron elliptic tip; replacement stylus by factory; weight 18.5 g ± 1.1 g. ... $10

MC-1S. Same as MC-1X except has universal unmounted headshell; weight 7.8 g ± 0.1 g. ... $200
We can. Thanks to the revolutionary Omni-Pivot System™ in our new ADC Improved Series cartridges. We can also honestly say ADC has never sounded better. Definition and stereo separation are incredible. Even the most complex musical passages are reproduced in full detail with absolute neutrality.

The new Omni-Pivot System™ is a major advance in micro-technology. There are no restrictive armature governors, wires or adhesives. Instead, each armature is micro-machined to perfectly lock into a newly formulated S-9 high definition suspension block. We think it's a real breakthrough. But we'd like you to be the judge.

Above is the frequency response of a new ADC ZLM Improved cartridge. The wider and flatter the response, the better it is. Do we have to state the obvious? We didn't think so.

Now look at the same cartridge after 1000 playing hours. See any difference? You won't hear any difference either. The ADC ZLM Improved cartridge showed less than a 1dB change in response after 1000 hours!

Now the good news gets even better. The Omni-Pivot System™ comes in a wide range of new ADC Improved Series cartridges. The ZLM, XLM MKIII and MKII, and QLM-36 MKIII. All featuring new snap-down stylus protectors.

If you already own a fine ADC cartridge, the Omni-Pivot System™ is yours for just the price of a replacement stylus.

Listen to any new ADC Improved cartridge. After you've heard us, we'd like to hear from you. Write Audio Dynamics Corp., Pickett District Rd., New Milford, Ct. 06776, or call our toll-free number (800) 243-9544.
At 17/8, it outperforms other cassette decks. At 3 3/4, it's in the open-reel class. BIC introduces the T-4M. With full metal tape capability, and performance so unprecedented it puts cassette technology on a new plane. Thanks to BIC's exclusive Broadband Electronics, at 17/8 ips the T-4M ranks with the world's finest cassette decks. At 3 3/4, it challenges even expensive open-reel machines. The numbers speak for themselves: guaranteed frequency response of 20 Hz to 23 kHz ±3dB at 3 3/4 on 70 μSec tape (20 Hz to 21 kHz at 17/8!). For complete literature write BIC/AVNET, Dept. T, Westbury, N.Y. 11590. The new T-4M Two-Speed Cassette Deck.
### AIWA

**AD-6900 Mk II U Cassette Deck**
Front-loading, wireless-remote-controlled metal-compatible stereo cassette deck with Dolby noise-reduction system, 38-pulse FG servomotor, and Sendist Guard head. Features three-position bias adjust for LH, FeCr, and CrO₂ tapes; S/N 65 dB (Dolby on, FeCr tape); frequency response 20-19,000 Hz ±3 dB (FeCr tape); 20-16,000 Hz ±3 dB (LH tape); fast-winding time 90 sec (C-60); 5/8" H x 16⅛" W x 13" D. $550

**AD-L40U Cassette Deck**
Front-loading stereo cassette deck with Dolby noise-reduction system, 38-pulse FG servomotor, and Ferrite Guard tape head. Features three-position bias and equalization for LH, FeCr, and CrO₂ tapes; S/N 65 dB (FeCr tape); frequency response 20-19,000 Hz ±3 dB (FeCr tape); 20-16,000 Hz ±3 dB (LH tape); fast-winding time 90 sec (C-60); 5/8" H x 17⅛" W x 13" D. $490

**AD-6600 Cassette Deck**
Front-loading stereo cassette deck with Dolby noise-reduction system, 38-pulse FG servomotor, and Ferrite Guard head. Features three-position bias and equalization for LH, FeCr, and CrO₂ tapes; S/N 65 dB (FeCr tape); frequency response 20-19,000 Hz ±3 dB (FeCr tape); 20-16,000 Hz ±3 dB (LH tape); fast-winding time 90 sec (C-60). Wow and flutter 0.04% wrms; S/N 65 dB (Dolby on, FeCr tape); frequency response 20-17,000 Hz (FeCr tape); 20-17,000 Hz (LH tape); fast-winding time 90 sec (C-60); 5/8" H x 16⅛" W x 13" D. $380

**AD-6350U Cassette Deck**
Front-loading stereo cassette deck with Dolby noise-reduction system, dc servomotor, and ferrite head. Features three-position tape selector, bias fine-adjust; rec mute, LED VU and peak-level indicators; built-in timer standby; full auto stop; cue and review; mechanical pause, line/mic input selector; record indicator lamp; oil-damped eject. Wow and flutter 0.08% wrms; S/N 65 dB (FeCr tape with Dolby); fast-winding time 85 sec (C-60); 5/8" H x 16⅛" W x 13" D. $320

**AD-M200U Cassette Deck**
Front-loading stereo cassette deck with Dolby noise-reduction system, dc servomotor, and ultra-hard permalloy head. Features separate bias and equalization for LH, FeCr, and CrO₂ tapes; LH fine bias adjust; dual VU meters with +3 and -7 dB peak-reading LEDs; record level control with line/mic input selector; output control; full auto stop; cue and review, piano-key tape function controls. Wow and flutter 0.06% wrms; frequency response ±3 dB at 100 Hz ±0.5 dB at 1 kHz, 10 kHz; S/N 65 dB (FeCr tape with Dolby); input sensitivity/impedance 0.3 mV/3k ohms (mic), 0.8 mV/50k ohms (line), 2 mV/100k ohms (headphone); 5/8" H x 17½" W x 13¼" D. $260

**SD-L22U Mini Cassette Deck**
Front-loading mini stereo cassette deck with Dolby noise-reduction system. Features five-point LED peak meter level display, LH/CrO₂ tape selector, record level control with line/mic input selector; LED tape running indicator; three-digit tape counter with reset, line/mic input selector; S/N 60 dB with CrO₂ tape. Wow and flutter 0.07% wrms; S/N 320

### AKAI

**GXC-5700II Cassette Deck**
Vertical-style front-loading stereo cassette deck with dual-process Dolby noise-reduction system, separate crystal-ferrite and glass GX recording, playback, and erase heads, FG dc servo capstan motor and two dc reel motors, and closed-loop double-reduction system, 38-pulse FG servomotor in dual-capstan drive system, and three-head combination V-cut Ferrite Guard record/playback and erase heads. Features separate three-position bias and equalization for LH, FeCr, and CrO₂ tapes and "Flat Response Tuning System," omni (mic), 50 mV/50k ohms with peak hold, peak, and VU LED controls; separate mic and line recording level controls; output level slide control; three-digit level readout; source monitor switch; separate record and output level controls; timer provision; wow and flutter 0.05% wrms; S/N 65 dB (Dolby on, FeCr tape); frequency response 20-17,000 Hz (FeCr tape); 20-17,000 Hz (LH tape); fast-winding time 90 sec (C-60); 5/8" H x 16⅛" W x 13" D. $750

**AD-6700 Cassette Deck**
Front-loading, wireless-remote-controlled digital compatible stereo cassette deck with Dolby noise-reduction system, 38-pulse FG servo and electronically-controlled dc servomotors, and Sendist Guard record/playback and double-gap ferrite erase heads. Features isolated tape function controls on machine and on separate wireless remote control unit; three-digit tape counter with reset and memory stop/replay; external record/play/record timer provision; includes wireless infrared remote control; wow and flutter 0.04% wrms; frequency response +2/-3 dB at 0 VU 25-9000 Hz (CrO₂), to 12,500 Hz (metal), at -20 VU +2/-3 dB 25-14,000 Hz (LH), to 17,000 Hz (CrO₂), to 18,000 Hz (metal); S/N 68 dB with FeCr tape, Dolby on; input sensitivity/impedance 0.25 mV/200-10,000 ohms (mic), 75 mV/50,000 ohms (line); output level/impedance 0.41 V/50,000 ohms (line), 2 mV/8k ohms (headphone); 5/8" H x 17½" W x 12¾" D. $1000

**AD-6550 Cassette Deck**
Front-loading stereo cassette deck with Dolby noise-reduction system, 38-pulse FG servomotor, and Ferrite Guard system; dc servomotor, and Sendist Guard head. Features three-position bias and equalization for LH, FeCr, and CrO₂ tapes; S/N 65 dB with Dolby, FeCr tape; frequency response 20-17,000 Hz (FeCr tape); 20-17,000 Hz (LH tape); fast-winding time 90 sec (C-60). Wow and flutter 0.04% wrms; frequency response ±3 dB at 100 Hz ±0.5 dB at 1 kHz, 10 kHz; S/N 65 dB (FeCr tape with Dolby); input sensitivity/impedance 0.3 mV/3000 ohms (mic), 50 mV/50k ohms (line), 2 mV/8k ohms (headphone); 5/8" H x 17½" W x 13¼" D. $490

**AD-6450 Cassette Deck**
Front-loading stereo cassette deck with Dolby noise-reduction system, 38-pulse FG servomotor, and Ferrite Guard tape head. Features three-step tape selector switches, bias and equalizer selectors; LH bias fine tuning; two-step peak-level indicator lamps, front-panel VU meters; oil-damped cassette ejection; front-panel DIN record/play jack; separate record and output level controls; timer record provision. Wow and flutter 0.05% wrms; S/N 65 dB (Dolby on, FeCr tape); frequency response 20-17,000 Hz (FeCr tape); 20-17,000 Hz (LH tape); fast-winding time 90 sec (C-60); 5/8" H x 16⅛" W x 13" D. $380

**AD-M100U Cassette Deck**
Similar to AD-M200U without peak-reading LEDs; LH bias fine adjust, and output level control; has auto CrO₂ tape selector and separate left/right record level controls with line/mic input selector; wow and flutter 0.07% wrms; S/N 60 dB with CrO₂ tape. Wow and flutter 0.08% wrms; S/N 65 dB (Dolby on, FeCr tape); frequency response 20-17,000 Hz (FeCr tape); 20-17,000 Hz (LH tape); fast-winding time 85 sec (C-60); 5/8" H x 16⅛" W x 13" D. $210

**GXC-5700IIU Cassette Deck**
Vertical-style front-loading stereo cassette deck with dual-process Dolby noise-reduction system, separate crystal-ferrite and glass GX recording, playback, and erase heads, FG dc servo capstan motor and two dc reel motors, and closed-loop double-
CASSETTE TAPE MACHINES

TAPE MACHINES

Tape counter with memory search and LED; dual VU recording/playback and two erase heads, and electronically-controlled dc motor; features IPLS (Instant Program Location System); mic/line mixing; tape/source monitor switch; output level control; four-position bias and equalization for low noise, low noise/high output, CrO₂, and FeCr tapes; one mic/jack, one line/jack. $375

CS-732D Cassette Deck
Front-loading stereo cassette deck with Dolby noise-reduction system, permanent recording/playback and two erase heads, and electronically-controlled dc motor. Features three-position bias and equalization for hi, normal, and lo tapes; adjustable Dolby calibration; microphone and line buttons; separate servo control. $350

CS-706D Cassette Deck
Front-loading stereo cassette deck with Dolby noise-reduction system, crystal ferrite and glass GX recording/playback and erase heads, and electronically-controlled dc motor. Features automatic bias selection; automatic reverse/forward play; and wide-gap record, narrow-gap playback, and erase heads. Features three-digit tape counter with memory and reset; seven-digit tape counter with reset, auto repeat, and memory rewind; record/play/tape switch; mic/line mixing; tape/source monitor switch; output level control; calendar; electronic volume control; three-digit tape counter with memory and reset; 70-speed and 33/3 ips speeds; S/N 46 dB with Dolby C (39 dB), 50 dB with Dolby B (43 dB), 52 dB with Dolby A (45 dB). $499
When you bought it, cassettes cost a buck and noise reduction meant turning it down.

Now you're ready for JVC's new metal-compatible decks.

Aren't you glad you waited to get a new cassette deck?
Because the ultimate technology is here: metal particle tape.

Less tape hiss, higher highs, lower lows, louder output, a wider dynamic range of loud and soft passages. In short, you can finally record a cassette that's virtually indistinguishable from the source.

But getting this kind of performance out of metal tape means putting special circuitry and tape heads into the cassette deck.

That's why most other manufacturers have only added metal compatibility to their expensive top-of-the-line decks.*

Only JVC is far enough ahead to offer you six metal models starting at under $300, suggested retail price.

Packed with features like ultra-hard, low distortion Sen-Alloy heads, Spectro-Peak and Multi-Peak metering, systems that let anyone record a perfect cassette, Super-ANRS noise reduction and B.E.S.T., an automatic computer that finetunes tape to deck in less than 30 seconds.

So before you consider metal tape an unaffordable audiophile's luxury, call 800-221-7502 (in NY State call 212-476-8300) for the name of your nearest JVC dealer. Or write to US JVC Corp., 58-75 Queens Midtown Expressway, Maspeth, NY 11378.

He'll prove to your ears and your pocketbook that you're ready for metal particle tape technology.

Correct at time of printing

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drive system, direct load and lock system, and Sensordetector/playback head. Features equalized LED peak level indicators, two-way memory switch; switchable multiple filter, selectable limiter, logic-controlled intermode switching; six-position bias and equalization; separate line and mic input control; auto-shutoff, fast forward/rewind time 65 sec (C-60). Wow and flutter 0.045% rms; frequency response 20-16,000 Hz (Fe), to 16,000 Hz (Co), to 16,000 Hz (metal); HD 0.5%; S/N with Dolby 66 dB (Fe and Co), 67 dB (Fe and metal), 5.5" H x 17" W x 13.5" D.
two mic jacks; variable speed control for playback, fast-winding time 60 sec (C-60). Wow and flutter 0.05% rms; frequency response 20-17,500 Hz (low-noise, FeCr, Co, ThD); THD 1.2% at 3 dB below Dolby level; S/N 65 dB; sensitivity (microphone) 0.25 mV, 300-5000 ohms (mic); output level 550 mV, 7½” H x 17½” W x 10” D...$450

D-580 Cassette Deck
Front-loading stereo cassette deck with Dolby noise-reduction system, dc servo-controlled motor, and super hard permalloy SL record/playback and erase heads. Features automatic tape function controls; edit button; auto rewind and auto play/rewind switch; recorded tape position indicator; power-assisted tape function controls; wow and flutter 0.05% rms; frequency response 3 dB from 30-15,000 Hz (C-60), 30-13,500 Hz (FeCr), 30-15,000 Hz (FeCr), and to 18,000 Hz (Cr0,); S/N (weighted) 46 dB; $380

D-590 Cassette Deck
Front-loading stereo cassette deck with Dolby noise-reduction system, dc servo-controlled motor, and super hard permalloy SL record/playback and erase heads. Features automatic tape function controls; edit button; auto rewind and auto play/rewind switch; recorded tape position indicator; power-assisted tape function controls; wow and flutter 0.05% rms; frequency response 3 dB from 30-15,000 Hz (C-60), 30-13,500 Hz (FeCr), 30-15,000 Hz (FeCr), and to 18,000 Hz (Cr0,); S/N (weighted) 46 dB; $380

D-550R Cassette Deck
Front-loading stereo cassette deck with Dolby noise-reduction system, dc servo-controlled motor, and super hard permalloy SL record/playback and erase heads. Features automatic tape function controls; edit button; auto rewind and auto play/rewind switch; recorded tape position indicator; power-assisted tape function controls; wow and flutter 0.05% rms; frequency response 3 dB from 30-15,000 Hz (C-60), 30-13,500 Hz (FeCr), 30-15,000 Hz (FeCr), and to 18,000 Hz (Cr0,); S/N (weighted) 46 dB; $380
KJC-3030 Cassette Deck
Front-loading stereo cassette deck with super ANRS noise-reduction system and recording equalizer circuit; servo capstan and dc reel motors, and Sen-Alloy record/playback and double-gap ferrite erase heads. Features pushbutton full-logic solenoid operation; independent mic and line inputs; three-position bias and equalization selection; spectro-peak level indicator with 25 LEDs indicates the levels (-10, -5, 0, +3, +6 dB) of five frequency ranges (100, 300, 1000, 3000, 10,000 Hz), two-digit LED level indicators; automatic level meter; channel separation 30 dB at 1000 Hz; wow and flutter 0.01% wrms; THD 0.1%; S/N 66 dB, 56 dB (above 5 kHz with ANRS); wow and flutter 0.05% wrms; THD 0.3% at 8 VU, 1000 Hz; S/N 45 dB.

KDC-A8 Cassette Deck
Front-loading computerized metal-compatible stereo cassette deck with Super ANRS (automatic frequency equalization system). X-cut at SA (Sen-Alloy) record/playback and two-gap SA erase heads, and FG dc servomotor and, and Sen-Alloy record/playback and double-gap ferrite erase heads. Features pushbutton full-logic solenoid operation; independent mic and line inputs; three-position bias and equalization selection; spectro-peak level indicator with 25 LEDs indicates the levels (-10, -5, 0, +3, +6 dB) of five frequency ranges, 100, 300, 1000, 3000, 10,000 Hz, two-digit LED level indicators; automatic level meter; channel separation 30 dB at 1000 Hz; wow and flutter 0.01% wrms; THD 0.1%; S/N 66 dB, 56 dB (above 5 kHz with ANRS); wow and flutter 0.05% wrms; THD 0.3% at 8 VU, 1000 Hz; S/N 45 dB.

KDC-55 Cassette Deck
Front-loading stereo cassette deck with super ANRS noise-reduction system and recording equalization; FG dc servomotor, and Sen-Alloy record/playback and double-gap ferrite erase heads. Features pushbutton full-logic solenoid operation; independent mic and line inputs; three-position bias and equalization selection; spectro-peak level indicator with 25 LEDs indicates the levels (-10, -5, 0, +3, +6 dB) of five frequency ranges (100, 300, 1000, 3000, 10,000 Hz), two-digit LED level indicators; automatic level meter; channel separation 30 dB at 1000 Hz; wow and flutter 0.01% wrms; THD 0.1%; S/N 66 dB, 56 dB (above 5 kHz with ANRS); wow and flutter 0.05% wrms; THD 0.3% at 8 VU, 1000 Hz; S/N 45 dB.

KDC-1635I Portable Cassette Deck
Top-loading portable stereo cassette deck with super ANRS noise-reduction system, electronic governor coreless dc motor, and Sen-Alloy recordPlayback and double-gap ferrite erase heads. Features pushbutton full-logic solenoid operation; independent mic and line inputs; three-position bias and equalization selection; spectro-peak level indicator with 25 LEDs indicates the levels (-10, -5, 0, +3, +6 dB) of five frequency ranges, 100, 300, 1000, 3000, 10,000 Hz, two-digit LED level indicators; automatic level meter; channel separation 30 dB at 1000 Hz; wow and flutter 0.01% wrms; THD 0.1%; S/N 66 dB, 56 dB (above 5 kHz with ANRS); wow and flutter 0.05% wrms; THD 0.3% at 8 VU, 1000 Hz; S/N 45 dB.

KDC-25 Cassette Deck
Front-loading stereo cassette deck with Dolby noise-reduction system, FG dc servomotor, and Sen-Alloy record/playback and double-gap ferrite erase heads. Features three-position bias and equalization selection; five LEDs for multi-point (-10, -5, 0, +3, +6 dB) peak level indication; built-in microphone with volume control; rotating control for left and right channel recording levels; automatic tape-end stop; two VU level meters; three-digit tape counter; 6'6" H x 14" W x 10" D.
LUX 5K50 STEREO CASSETTE DECK

REDEFINING THE ART OF CASSETTE PERFORMANCE

For over half a century, the name Lux has meant advanced technology and sophisticated designs—qualities sought by dedicated music lovers around the world. And now, Lux's audiophile engineers have focused their attention on the cassette format.

Some of the special features of the new 5K50: Real-time processing DC amplifiers for both record and playback, a unique modular tape-transport system featuring three motors and separate three-head configuration, Lux's dual Plasma record level meter, and most significant, Lux's recently developed BRBS Variable Bias Control System.

Real-time processing DC circuits bring Lux quality amplification to the cassette format for extended bandwidth, low distortion, and exceptional signal-to-noise ratios.

The highly sophisticated tape transport extracts the best possible performance from any cassette... and there's further improvement when Lux cassettes are used. Each of the three heads is precisely designed for its special task, as are the three motors that provide the separate drives for the dual-capstans and reel hubs. The capstan drive motor is a quartz-referenced phase-locked-loop direct-drive unit, while coreless motors for the reels provide total stability with the precise torque and tension required for an effective dual-capstan transport system.

When a Lux cassette tape is loaded, an electronic digital counter provides the exact minute and second of tape use. The electronic counter functions normally for standard cassette. A plasma fluorescent display indicates peak levels from -40 to +8 dB per channel with a special +10 dB scale for metal-particle tapes.

To eliminate the distortion inherent in conventional tape bias circuits, Lux developed the Bridge Recording Bias System. These special circuits enable the user to adjust the recorder for best possible response with any tape, while eliminating those components and circuits which in conventional decks cause transient distortion and phase shift.

And there is so much more. Electronic IC logic control with feather-touch pushbuttons replace mechanical operation and attendant noise and wear problem. Human engineered control clusters: a hard-head azimuth adjustment with built-in indicators for optimum setting for any tape. Signal-to-noise ratios up to 69 dB and frequency response from 30 to 20,000 Hz, depending on cluster, or the tape used.

The expense of the Lux 5K50 cassette deck is fully justified not only by what Lux puts into it, but the performance the user can get out of it. Also look into the other Lux cassette decks, Models K-12, K-10 and K-5, ranging in price from $495 to $2,300... each an embodiment of Lux quality.

To experience the Lux lineup of high-performance cassette decks, see your local Lux dealer or write to Mr. Robert Bowman, Vice President of Sales at Lux Audio of America Ltd.
Stereo Directory & buying guide

KX-1030 Cassette Deck
Front-loading stereo cassette deck with Dolby noise-reduction system, electronically-controlled dc motor, ac bias system (85 kHz frequency), and hard permalloy record/play and ferrite erase heads. Features full auto shut-off, three-position bias selector for normal, chrome, and reserve tapes; two bias position normal for chrome and LED; Dolby C mode. Memory rewinding, auto stop in all modes; memory rewind; LED record-level indicator. Wow and flutter 0.06% wrms; THD 1.4% at 0 VU, 1000 Hz; frequency response 35-15,000 Hz; S/N 60 dB, 64 dB (Dolby with C), 65 dB (Dolby with C, CrO2 tape); frequency response 35-15,000 Hz x 3 dB (normal tape), 35-15,000 Hz x 3 dB (CrO2 tape), HD 1% at 1 kHz, 0 VU with normal tape; fast-winding time 80 sec (C-60); line output 77.5 mV at 100k ohms, line output 775 mV at 100k ohms; headphone impedance 8-16 ohms; 6 1/2" H x 15 1/2" W x 13 1/4" D. $325

KX-650 Cassette Deck
Front-loading stereo cassette deck with Dolby noise-reduction system, electronically-controlled dc motor, ac bias system (85 kHz frequency), and hard permalloy record/play and ferrite erase heads. Features full auto shut-off, three-position equalization selector for normal, chrome, and reserve tapes; two bias position normal for chrome and LED; Dolby C mode. Memory rewinding, auto stop in all modes; memory rewind; LED record-level indicator, mic/DIN-line-att mic/DIN input selector, illuminated VU meters; three-speed tape counter, two mic jacks and headphone jack. Wow and flutter 0.05% wrms, frequency response 40-13,000 Hz (normal), to 15,000 Hz (CrO2 and ferrite chrome), all < 3 dB; S/N 62 dB (normal with Dolby), 64 dB (Dolby C mode) with left channel doubling as mono mic jack; two large illuminated VU meters, plasma level meter with upper 12 dots for peak hold; variable bias with “Bridge Recording by Bias Current and Signal Current”; azimuth adjustment with two lamps, search cue; IC logic-controlled operations; equalization for normal, CrO2, and EX (metal) tapes; tape/source monitor switch; separate mic/line record level controls; REC mute; headphone jack; two mic jacks, 400 and 5000 Hz oscillator, provision for optional remote control. Wow and flutter 0.03% wrms; S/N with Dolby 66 dB (CrO2), 65 dB (LH); frequency response 30-20,000 Hz (CrO2), to 16,000 Hz (normal) = 3 dB; S/N with Dolby 65 dB (CrO2), 64 dB (LH); S/N with EX (metal) > 65 dB (CrO2), 64 dB (LH); HD less than 1.5% at 1 kHz, 0 VU with normal tape; input sensitivity/impedance 77.5 mV/80k ohms (line 1 and 2), 16.0 mV/3k ohms (DIN), -12 dB (mic/DIN), 0.15 mV/10k ohms (mic 1 and 2); output level/load impedance 775 mV at 0 VU/100k ohms (lines 1 and 2) and DIN); 48.9 mV/16 ohms (headphone); fast-winding time 85 sec (C-60); line output 77.5 mV at 56k ohms, line output 775 mV at 100k ohms; headphone impedance 8-16 ohms; 6 1/2" H x 15 1/2" W x 13 1/4" D. $450

LKX-650 Cassette Deck
Front-loading stereo cassette deck with Dolby noise-reduction system, electronically-controlled dc motor, ac bias system (85 kHz frequency), and hard permalloy record/play and ferrite erase heads. Features full auto shut-off, three-position bias selector for normal, chrome, and reserve tapes; separate line and mic input volume controls, audio timer, memory index; LED record/Dolby/memory index display; full auto shut-off, independent record/playback level controls; illuminated cassette compartment; three-digit tape counter, headphone jack; two mic jacks with left-channel doubling as mono mic jack; two large illuminated VU meters. Wow and flutter 0.05% wrms, ±18% (DIN); frequency response 30-13,000 Hz (normal) and 16,000 Hz (CrO2 and ferrite chrome), all < 3 dB; S/N (DIN weighted) 62 dB (normal with Dolby), 64 dB (CrO2, normal with Dolby), HD 1.0% at 1 kHz, 0 VU with normal tape; input sensitivity/impedance 77.5 mV/50k ohms (line 1 and 2), 10.9 mV/5k ohms (mic 1 and 2), 0.2 mV/10k ohms (mic 1 and 2); output level/load impedance 775 mV at 0 VU/100k ohms (lines 1 and 2) and 50 mV/8-16 ohms (headphone); fast-winding time 85 sec (C-60). $350

LAFAYETTE

R-600 Cassette Deck
Front-loading stereo cassette deck with Dolby noise-reduction system, electronically-controlled dc motor, and three-speed microprocessor-controlled tape heads; separate mic/line level controls, rec mute, headphone jack; two mic jacks and headphone jack. Wow and flutter 0.05% wrms, S/N with Dolby 69 dB (metal), 65 dB (CrO2), 63 dB (LH); frequency response ± 3 dB from 30-20,000 Hz (metal), to 18,000 Hz (CrO2), and to 16,000 Hz (LH); HD 1.5% at 1 kHz, 0 VU with normal tape; input sensitivity/impedance 100 mV/50k ohms (mic), 0.25 mV/50k ohms (mic), 30 mV/1k ohms (DIN); output level/load impedance 580 mV (headphones), ε 15W 17/2', 14' D. $995

K-10 Cassette Deck
Similar to K-12 except has digital tape counter, electronic LED peak level meter, and auto rewind/playback; input sensitivity 0.45 mV (mic), 2 mV/1k ohms (DIN), 12 mV/1k ohms (mic 1 and 2); output level/load impedance 489 mV at 0 VU/100k ohms (lines 1 and 2) and DIN); 48.9 mV/16 ohms (headphone); 6 1/2" H x 15 1/2" W x 11 1/4" D. $300

R-225 Cassette Deck
Front-loading stereo cassette deck with Dolby noise-reduction system, servocommutator, and motorized head. Features oil damped cassette eject; "feather-touch" control keys, full auto stop; two mic jacks and headphone jack; three-speed recording; record level controls; dual mic and line inputsensitivity/impedance 77.5 mV/50k ohms (line), 10.9 mV/5k ohms (mic 1 and 2), 0.2 mV/10k ohms (mic 1 and 2); output level/load impedance 775 mV at 0 VU/100k ohms (lines 1 and 2) and 50 mV/8-16 ohms (headphone); fast-winding time 85 sec (C-60). $300

R-150 Cassette Deck
Front-loading stereo cassette deck with Dolby noise-reduction system and electronically-controlled dc motor. Features auto shut-off, independent bias and equalization; record level controls, dual mic and line inputsensitivity/impedance 77.5 mV/50k ohms (line), 10.9 mV/5k ohms (mic 1 and 2), 0.2 mV/10k ohms (mic 1 and 2); output level/load impedance 775 mV at 0 VU/100k ohms (lines 1 and 2) and 50 mV/8-16 ohms (headphone); fast-winding time 85 sec (C-60). $300

LUX

SK-500 Cassette Deck
Front-loading metal-compatible stereo cassette deck with processed dc record/playback amp circuitry, quartz-locked direct-drive dual capstan motor and two control rel motors, ferrite record and erase and Sendust playback heads, and Dolby noise-reduction system. Features four-dig, seven-segment LED electronic tape counter display (also reads record/playback time in min and sec) with memory and reset; fluorescent green plasma level meter with upper 12 dots for peak hold; variable bias with "Bridge Recording by Bias Current and Signal Current"; azimuth adjustment with two lamps, search cue; IC logic-controlled operations; equalization for normal, CrO2, and EX (metal) tapes; tape/source monitor switch; separate mic/line record level controls; rec mute; headphone jack; two mic jacks, 400 and 5000 Hz oscillator, provision for optional remote control. Wow and flutter 0.03% wrms; S/N with Dolby 66 dB (CrO2), 65 dB (LH); frequency response 30-20,000 Hz (CrO2), to 16,000 Hz (normal) ± 3 dB; S/N with Dolby 65 dB (CrO2), 64 dB (LH); S/N with EX (metal) > 65 dB (CrO2), 64 dB (LH); HD less than 1.5% at 1 kHz, 0 VU with normal tape; input sensitivity/impedance 77.5 mV/80k ohms (line 1 and 2), 16.0 mV/3k ohms (DIN), -12 dB (mic/DIN), 0.15 mV/10k ohms (mic 1 and 2); output level/load impedance 775 mV at 0 VU/100k ohms (lines 1 and 2) and DIN); 48.9 mV/16 ohms (headphone); 6 1/2" H x 15 1/2" W x 11 1/4" D. $300

MARANTZ

SD 9000 Cassette Compudeck
Two-speed (1/2" and 3") plus digital microprocessor-controlled metal-compatible front-loading stereo cassette deck with dual Dolby circuitry. Sendust alloy three-head system, and two servo-controlled motors. Compudeck microprocessor programming and selection circuitry features random access memory and sequential access memory playback programming. Compact design of the sendust/metal head combines keyboard tape counter start/stop and memory call with counter memory mode selector; timer on/off with clock functions; timer/counter/lockout selector switch; program start/skip/advance with program.
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DT-30 Cassette Deck

Direct front-loading stereo cassette deck with Dolby noise-reduction system, closed-loop dual capstan drive dc servomotor, separate ferrite recording and erase heads, high-Q R-core filter, and twin power lines for recording equalizer amplifier. Features sendoloid-operated microswitch controls; automatic spacing-pause button; dual peak-reading VU meters; three-position bias and equalization for normal, special, and FEcr tapes; 35-22,000 Hz frequency response; auto slacker tape take-up; electronic feather-touch tape function controls with LED play, pause, and record indicators; total memory rewind; separate left and right record level controls; three-position EQ switch; two VU meters with LED peak-level indicator; three-sec peak-hold for readings above 0 dB; separate mic and line input level recording controls plus master recording control with preset; three-position bias and equalization for normal, special, and FEcr tapes; 1000 Hz; input sensitivity 0.3 mV (mic), 0.3 mV (1000 Hz); frequency response 35-22,000 Hz; -3 dB (with Dolby); inputs 0.2 mV at 10,000 ohms (mike), 50 mV at 50,000 ohms (line); outputs 1 V max. (line, variable), 300 mV channel max. into 8 ohms (headphone); 1/4" H $1,000.00 700 II. Similar to 1000 but without auto rewind or DNL; 1/4" H + 20 dB/ V "W x 5" D. $1140

RM-10. Remote control duplicates control systems of 1000 II and 700 II; controls all tape motion including record; can also be used with 580 Series; 15-ft cable... $50

HC-3000. Extra heavy duty carrying cabinet covered in leatherette, double protected; crystal Meramylo playback head and record head azimuth alignment beacon, and dual capstan, closed-loop transport with dc servomotor drive. Features full IC logic transport control, autotype sensor, and Sendoloid noise-reduction system and DNL, Crystalloy record/playback and sendoloid tape counter with reset and memory rewind; Wow and flutter 0.045% rms; SN/Db 62 dB with Dolby, normal tape (A weighted); frequency response 25-16,000 Hz -3 dB (Dolby and Cb), 15,000 Hz -3 dB (Dolby and Cb); HD 1.5% at 0 dB; input sensitivity/impedance 0.5 mV/10k ohms (mic), 35 mV/50k ohms (line), 6 mV/25k ohms ( Din); fast winding time 70 sec (C-60), 90 sec (C-70); 17.7 W x 6.0 D. $425

NAKAMICHI

1001 II Cassette Deck

Three head stereo record/play deck with Dolby noise-reduction system and Crystal Permalloy playback head and record head azimuth alignment beacon, and dual capstan, closed-loop transport with dc servomotor drive. Features full IC logic transport control, autotype sensor, and Sendoloid noise-reduction system and DNL, Crystalloy record/playback and sendoloid tape counter with reset and memory rewind; Wow and flutter 0.045% rms; SN/Db 62 dB with Dolby, normal tape (A weighted); frequency response 25-16,000 Hz -3 dB (Dolby and Cb), 15,000 Hz -3 dB (Dolby and Cb); HD 1.5% at 0 dB; input sensitivity/impedance 0.5 mV/10k ohms (mic), 35 mV/50k ohms (line), 6 mV/25k ohms ( Din); fast winding time 70 sec (C-60), 90 sec (C-70); 17.7 W x 6.0 D. $425

SD 6000 Cassette Deck

Two-speed (1/4" and 3/4" ips) metal-compatible front-loading cassette deck with Dolby noise-reduction system. Sendoloid alloy record/playback and erase heads, and two servo-controlled motors. Features LED bar graph peak-level meters; three-digit tape counter with reset and memory options; balance control; separate mic and line input level recording controls; separate left and right record level controls; two mic jacks; three-position bias and equalization for normal, special, and Cr02 tapes; 35-16,000 Hz frequency response; inputs 0.2 mV at 10,000 ohms (mike), 50 mV at 50,000 ohms (line); outputs 1 V max. (line, variable), 300 mV channel max. into 8 ohms (headphone); 1/4" H + 20 dB/ V "W x 8" D. $365

Similar to HC-1000 but for 700 II; includes soft cover attached; metal hinged door for connection access... $325

DS-200. Digital timer turns system on at present time; 24-hour timer switch; phase-corrected double NF playback amplifiers; RAM program search system with LED program indicator; manual high-speed cueing; fluorescent VU meter; peak-reading meter display with meter calibration/peak hold/VU motor switch; three-position tape selector for EX, SX, and ZX (metal) tapes with separate EQ switch; tape/sensor monitor switch; timer start; playback pitch selection; three-digit tape counter with reset and memory rewind; Wow and flutter 0.045% rms; SN/Db 62 dB with Dolby, normal tape (A weighted); frequency response 25-16,000 Hz -3 dB (Dolby and Cb), 15,000 Hz -3 dB (Dolby and Cb); HD 1.5% at 0 dB; input sensitivity/impedance 0.5 mV/10k ohms (mic), 35 mV/50k ohms (line), 6 mV/25k ohms ( Din); fast winding time 70 sec (C-60), 90 sec (C-70); 17.7 W x 6.0 D. $425

SD 9000 Cassette Deck

Similar to SD 9000 without tape/sensor monitor switch; has single-Dolby circuitry... $650

SD 5000 Cassette Deck

3000 similar to SD 5000 without tape/sensor monitor switch; has 12 dB with Dolby over 5000 Hz; 71 dB (3' ips), 68 dB (1' ips); frequency response -3 dB at 3' ips 35-15,000 Hz (FeCr), to 15,000 Hz (special); S/N 65 dB 1/4" H + 20 dB/ V "W x 8" D. $365

Similar to HC-1000 but for 700 II; includes soft cover attached; metal hinged door for connection access... $325

DS-200. Digital timer turns system on at present time; 24-hour timer switch; phase-corrected double NF playback amplifiers; RAM program search system with LED program indicator; manual high-speed cueing; fluorescent VU meter; peak-reading meter display with meter calibration/peak hold/VU motor switch; three-position tape selector for EX, SX, and ZX (metal) tapes with separate EQ switch; tape/sensor monitor switch; timer start; playback pitch selection; three-digit tape counter with reset and memory rewind; Wow and flutter 0.045% rms; SN/Db 62 dB with Dolby, normal tape (A weighted); frequency response 25-16,000 Hz -3 dB (Dolby and Cb), 15,000 Hz -3 dB (Dolby and Cb); HD 1.5% at 0 dB; input sensitivity/impedance 0.5 mV/10k ohms (mic), 35 mV/50k ohms (line), 6 mV/25k ohms ( Din); fast winding time 70 sec (C-60), 90 sec (C-70); 17.7 W x 6.0 D. $425

680 Cassette Deck

Front-loading two-speed (1/4" and 3/4" ips) metal-compatible stereo cassette deck with Dolby noise-reduction system, PLl dc servo main, dc reel, and dc cam motors, and Crystalloy record/playback and EBL direct-flux erase heads in discrete three-head configuration. Features double NF dc record and phase-corrected double NF playback amplifiers; RAM program search system with LED program indicator; manual high-speed cueing; fluorescent VU meter; peak-reading meter display with meter calibration/peak hold/VU motor switch; three-position tape selector for EX, SX, and ZX (metal) tapes with separate EQ switch; tape/sensor monitor switch; timer start; playback pitch selection; three-digit tape counter with reset and memory rewind; Sendoloid tape function controls. Wow and flutter 0.04% rms; SN/Db 62 dB with Dolby, normal tape (A weighted); frequency response 25-16,000 Hz -3 dB (Dolby and Cb); HD 1.5% at 0 dB; input sensitivity/impedance 0.5 mV/10k ohms (mic), 35 mV/50k ohms (line), 6 mV/25k ohms ( Din); fast winding time 70 sec (C-60), 90 sec (C-70); 17.7 W x 6.0 D. $180

1980 EDITION 129
582 Discrete Cassette Deck
Metal-compatible stereo cassette deck with Dolby noise-reduction system, Second Generation Direct-Flux erase head, Crystalloy playback SuperHead, and Crystalloy playback Super-deck with Dolby noise-reduction system, frequency response 20-18,000 Hz (normal), to 18,000 Hz (high), to 20,000 Hz (metal); S/N 60 dB with metal tape, Dolby out; input level/impedance 0.3 mV/5k ohms (line), 500 mV/100k ohms (line); output level 775 mV at 0 V (line out); 6" x 17" W x 14 1/2" D. $800

TA-2040 Cassette Deck
Front-loading metal-compatible stereo cassette deck with Dolby noise-reduction system, frequency response 20-18,000 Hz (normal), to 20,000 Hz (high), to 20,000 Hz (metal); S/N 60 dB with metal tape, Dolby out; input level/impedance 0.3 mV/5k ohms (line), 500 mV/100k ohms (line); output level 775 mV at 0 V (line out); 6" x 17" W x 14 1/2" D. $800

NEAL by KMAL
320 Cassette Deck
Front-loading stereo cassette deck with Dolby noise-reduction system and three motors. Features tape selector for normal and special tapes, bias and tone calibration selectors; mic, DIN, and line input selectors; record level, balance, and output level controls; solenoid tape function controls with LEDs; dual peak level meters. Wow and flutter 0.09% rms (DIN weighted); S/N with Dolby 64 dB (special ferric and chrome), 72 dB (normal ferric); frequency response 30-35,000 Hz (0.2%), 15-15,000 Hz (-3 dB), 35-15,000 Hz (-3 dB); fast winding time 50 sec (C-60); 446 mm H x 226 mm W x 115 mm D. $995

PEALCORDER by OLYMPUS
D130 Microcassette Recorder/Player
Two-hour two-speed modular pocket microcassette recorder/player with capstan drive, coreless motor (can drive 8-ohm 10-in woofer), and ferrite record head. Includes built-in electret condenser microphone; 45 mm dynamic speaker; auto-shut-off; LED record/battery check indicator; front-panel function selector, reset and start/stop buttons, and tape speed switch; side-mounted cassette eject button, record, play and stop pushbutton controls, top-mounted four-way function switches review, rewind, cue and fast forward functions; earphone, microphone, mic input and output controls; high/low impedance headphone jacks. Wow and flutter 0.05% at 1 kHz, 0.08% at 40 Hz, 0.1% at 400 Hz, 0.3% at 6 kHz, and 1.5% at 15 kHz. $630

TA-630DS Cassette Deck
Front-loading stereo cassette deck with dual-Dolby circuitry, PLL dc servomotor in two-belt drive transport, and hyperbaric S&F Sendast head. Features "Accubias" with built-in 400- and 10,000-Hz oscillators, Accubias with Accubias II, three-position bias and equalization for Cr0, FeCr, and normal tapes; three-digit tape counter with reset and memory recall; auto stereo/mono switchover; phone jack (8-200 ohm headphones); slow eject; fast forward/rewind time 90 sec (C-60). Wow and flutter 0.05% rms; frequency response 20-18,000 Hz (normal), to 16,000 Hz (high), to 20,000 Hz (metal); S/N 60 dB with metal tape, Dolby out; input level/impedance 0.3 mV/5k ohms (line), 500 mV/100k ohms (line); output level 775 mV at 0 V (line out); 6" x 17" W x 14 1/2" D. $800

TA-2010 Cassette Deck
Front-loading stereo cassette deck with dual-Dolby circuitry, dc servomotor, and hard permalloy head. Features built-in electret condenser microphone; 45-mm dynamic speaker; auto-shut-off, LED record/battery check indicator; front-panel function selector, reset and start/stop buttons, and tape speed switch with side-mounted cassette eject button, record, play and stop pushbutton controls, top-mounted four-way function switches review, rewind, cue and fast forward functions; earphone, microphone, mic input and output controls; high/low impedance headphone jacks. Wow and flutter 0.05% at 1 kHz, 0.08% at 40 Hz, 0.1% at 400 Hz, 0.3% at 6 kHz, and 1.5% at 15 kHz. $630

ONKYO
TA-2060 Cassette Deck
Front-loading stereo metal-compatible stereo cassette deck with Dolby noise-reduction system and two-channel Dolby recording calibrations, PLL dc servomotor and DC reel motors in two-capstan drive system, and Sendast alloy record and playback and laminate core erase heads. Features automatic "Accu-Bias" control with built-in 400- and 10,000-Hz oscillators (compatible with all tape formulations), separate bias and equalization for metal, high, and normal tapes, electronic logic-controlled ferritehead tape function control, DU meters with left/right 10-step LED peak indicators, fade out controls, mic mixing, three-digit tape counter with reset and memory recall, built-in timer function operational with optional audio amplifier, three-position bias and equalization for Cr0, FeCr, and normal tapes; side-mounted deactivator switch for quartz system. Tape speeds: 2.4 cm/sec and 4.8 cm/sec (1.2 cm/sec); 8 cm/sec and 16 cm/sec (6 cm/sec); input level/impedance 0.3 mV/5k ohms (line), 500 mV/100k ohms (line); output level/impedance 480 mV/50k ohms (line), 1000 mV/10k ohms (line), 2000 mV/1k ohms (line), 3400 mV/500 ohms (line). $570 and $400 (without battery). $630 and $550, Hard carrying case for 550. $60

OPTIONICA
RT-6502 Cassette Deck
Front-loading microprocessor-controlled metal-compatible stereo cassette deck with Dolby noise-reduction system, frequency response 20-18,000 Hz (normal), to 16,000 Hz (high), to 20,000 Hz (metal); S/N 60 dB with metal tape, Dolby out; input level/impedance 0.3 mV/5k ohms (line), 50 mV/50k ohms (line); output level/impedance 480 mV/50k ohms (line), 1000 mV/10k ohms (line), 2000 mV/1k ohms (line), 3400 mV/500 ohms (line). $1100 and $800 (without battery). $125 and $60 (without battery). "$1350.
RT-6202 Cassette Deck

Front-loading metal-compatible stereo cassette deck with Dolby noise-reduction system. Features nine-position Auto Program Locate Device (APLD) that locates any selection in forward or reverse; logic-solenoid-controlled transport; Opto peak level display with peak hold; mic/line mixing; output volume control with dual Dolby noise-reduction system, normal, CrO₂, FeCr, and metal particle tapes; timer/stop/start mechanism. Wow and flutter 0.04% wrms; frequency response 20-17,000 Hz (normal), 18,000 Hz (CrO₂), to 20,000 Hz (metal); S/N 68 dB with Dolby. RT-6206, RT-6202 with ebony finish $470.

RT-6501 Cassette Deck

Front-loading microprocessor-controlled cassette deck with Dolby noise-reduction system, frequency generator servomotor, and perpendicular head. Features Automatic Program Locate Device (APLD) with five separate memory functions (can be directed to find start and automatically play any segment of tape by going either forward or in reverse; can be programmed to turn itself on and off, and repeatedly going either forward or reverse, or stop and automatically play any segment of a tape), four-position bias and equalization for normal, CrO₂, FeCr, and metal particle tapes; timer/stop/start mechanism. Wow and flutter 0.04% wrms; frequency response 25,150 Hz (normal), to 17,000 Hz (CrO₂), to 18,000 Hz (metal); S/N 67 dB with Dolby. RT-6206, RT-6202 with ebony finish $470.

RT-6201 Cassette Deck

Front-loading stereo cassette deck with Dolby noise-reduction system, two electronic governor dc motors and capstan and reel drives, and Sendust alloy recording head. Features Auto Program Search for capstan and reel drives, and Sendust alloy recording head. Frequency response 30-14,000 Hz -3 dB (CrO₂ tape), 30.15,000 Hz -3 dB (FeCr tape); S/N 62 dB with Dolby; input sensitivity/impedance 0.2 mV/50k ohms (mike), 50 mV/50k ohms (aux); output level/impedance 500 mV/50k ohms (line), 0.5 mW/8 ohms (headphones). Wow and flutter 0.085% wrms; fast-winding time 100 sec (C-60); 6.3 "X 16.3" W X 9.6" D. RT-1515B. RT-1515 with ebony finish $250.

RS-612US Cassette Deck

Cassette deck with Dolby noise-reduction system, LH tape head and ferrite erase head, and electronic speed-control dc motor. Features separate bias and equalization selectors; twin VU meters; record/level controls; glide-open deck switch; lockable pause control; record/indicator lamp; digital tape counter; auto-stop. Wow and flutter 0.12% wrms; S/N 65 dB (Dolby on), 55 dB (Dolby of), frequency response 30,15,000 Hz (CrO₂ tape), 30,13,000 Hz (normal tape); input sensitivity/impedance 0.25 mV/400 ohms (mike), 60 mV/90ohm (line); output/impedance 420 mW/8 ohms (line), 46 mV/60% (headphone); fast-winding time 90 sec (C-60). 5" X 16" W X 9" D. $300.

RS-600US Cassette Deck

Cassette deck with Dolby noise-reduction system, super-alloy head for rec/playback and ferrite head for erase, and dc motor. Features three-position bias and equalization control; twin level meters; record/playback level controls with preset markers; limiter switch; noise filter switch; digital tape counter; auto-stop/lockable pause control. Wow and flutter 0.15% wrms; S/N 69 dB (Dolby on), 59 dB (Dolby of), frequency response 40,13,000 Hz (CrO₂, and FeCr tapes), 40,11,000 Hz (normal tape); input sensitivity/impedance 0.25 mV/600 ohms (mike), 64 mV/90k ohms (line); output/impedance 0.7V/50k ohms (line), 0.45 mV/8 ohms (headphone); fast-winding time 120 sec (C-60). 3" X 14" W X 9" D. RT-6205, RT-6201 with ebony finish $370.

RT-6001 Cassette Deck

Cassette deck with Dolby noise-reduction system. Features Auto Program Search System (APSS); position bias and equalization for normal, FeCr, and metal particle tapes; Opto peak level display with peak hold; electronic auto stop; output volume control; mic/line mixing; frequency response 25,15,000 Hz (normal); to 16,000 Hz (CrO₂), to 18,000 Hz (metal); S/N 67 dB with Dolby. RT-6205, RT-6201 with ebony finish $370.

RT-6001 Cassette Deck

Cassette deck with Dolby noise-reduction system. Features Auto Program Search System (APSS); position bias and equalization for normal, FeCr, and metal particle tapes; Opto peak level display with peak hold; electronic auto stop; output volume control; mic/line mixing; frequency response 25,15,000 Hz (normal); to 16,000 Hz (CrO₂), to 18,000 Hz (metal); S/N 67 dB with Dolby. RT-6205, RT-6201 with ebony finish $370.
CT-F850 Cassette Deck
Front-loading metal-compatible stereo cassette deck with Dolby noise-reduction system, electronically controlled dc servomotor with builtin generator for capstan drive and closed-loop capstan transport, and Alesis erasure heads. Features microphone and line level control, high-torque dc servomotor and stationary four-track record/playback and two ferrite erase heads. Features auto reverse, line/mic-DIN input selector; soft-touch buttons; switch for fold tape mounting; LED Dolby; bias and equalization for standard, FeCrO, and metal tapes; illuminated cassette compartment; fast forward/rewind time 85 sec (C-60). Wow and flutter 0.04% wms; frequency response 25-15,000 Hz = 3 dB (standard LH tape), 25-17,000 Hz = 3 dB (chromium dioxide and FeCrO tapes), 25-18,000 Hz = 3 dB (metal); S/N 59 dB (Dolby off), 69 dB (Dolby on); HD 1.3% at 0 dB; mike input sensitivity 0.3 mV/100 mV/30k ohms; 7"xH x 16"W x 14/"D. $595

CT-F750 Cassette Deck
Front-loading metal-compatible stereo cassette deck with Dolby noise-reduction system, high-torque dc servomotor, and stationary four-track record/playback and two ferrite erase heads. Features auto reverse, line/mic-DIN input selector; soft-touch buttons; switch for fold tape mounting; LED Dolby; bias and equalization for standard, FeCrO, and metal tapes; illuminated cassette compartment; fast forward/rewind time 85 sec (C-60). Wow and flutter 0.04% wms; frequency response 20-15,000 Hz (standard), 17,000 Hz (FeCrO and Cr0,0), 18,000 Hz (metal), all = 3 dB; S/N 69 dB with Dolby; HD 1.2% at 0 dB; mike input sensitivity/impedance 0.3 mV/100 mV/10k ohms; 5"xH x 16"W x 13/4"D. $395

CT-F650 Cassette Deck
Front-loading metal-compatible stereo cassette deck with Dolby noise-reduction system, electronically controlled dc servomotor and motor, and dc fast-moving, and "Single-Crystal-Ferrite Solid" record/playback and Alesis erase heads. Features four memory functions; monitoring while recording capability; two 24-segment Fluorscan average/peak/peak-hold meters; automatic bias and equalization controls; multiplexer filter, mic/line mixing and recording; auto stop; quartz-locked pitch control; fast forward/rewind time 65 sec (C-60). Wow and flutter 0.05% wms; frequency response 20-15,000 Hz (standard), to 17,000 Hz (chromo ferrichrome), to 18,000 Hz (metal); S/N 69 dB with Dolby; HD 1.2%; 5/"xH x 16"W x 13/4"D. $295

CT-F500 Cassette Deck
Front-loading stereo cassette deck with Dolby noise-reduction system, dc servomotor, and hard permalloy record and playback heads with ferrite erasure heads. Features flywheel capstan drive; automatic shut-off in all modes; soft-damping cassette holder; three-mode tape bias/equalization switching; left/right mic jacks; two large VU meters; three-digit tape counter; record and Dolby on indicators; fast-forwarding time 90 sec (C-60). Wow and flutter 0.05% wms; frequency response 40-13,000 Hz = 3 dB (STereo tape, S/M/A Tape, Supertape Gold Tone); THD 0.9%; S/N 64 dB weighted with Supertape Gold Dolby CECIR. REALISTIC

SCT-3000 Cassette Deck
Stereo cassette deck with dual-Dolby noise-reduction system, three heads, and dual capstan drive. Features Alesis erasure heads. Features three-position bias and equalization; full auto stop; power assist controls; record and output level controls; dual VU meters; headphone and left and right mic jacks; push levers for fast forward, rewind, pause, stop, and eject. Frequency response 30-16,000 Hz (Cr03 tape); wow and flutter 0.06% wms; S/N 61 dB; 5/"xH x 17"W x 10/"D. $400

SCT-16 Cassette Deck
Front-loading stereo cassette deck with Dolby noise-reduction system, three memory heads permit monitoring with or without Dolby while recording, and dual capstan drive servomotor. Features three-position bias and equalization; full auto stop; power assist controls; headphone and left/right microphone jacks; push levers for fast forward, rewind, pause, stop, and eject. Frequency response 30-15,000 Hz (Cr03 tape); wow and flutter 0.07% wms; S/N 60 dB; 5/"xH x 15/4"W x 11/"D. $300

SCT-19 Cassette Deck
Front-loading stereo cassette deck with Dolby noise-reduction system. Features dual VU meters; full auto stop; bias and equalization controls; record and output level controls; headphone and left/right microphone jacks; push lever stop/stop, rewind, fast forward, and pause. Frequency response 30-14,000 Hz (Cr03 tape); wow and flutter 0.12% wms; S/N 59 dB; 5/"xH x 15/4"W x 11/"D. $200

SCT-20 Cassette Deck
Front-loading stereo cassette deck with Dolby noise-reduction system. Features dual VU meters; auto stop; bias and equalization switching; tape counter; headphone and left/right microphone jacks; push lever rewind, fast forward, and pause. Frequency response 30-14,000 Hz (Cr03 tape); wow and flutter 0.19% wms; S/N 53 dB; THD 2% at 1 kHz (O VU); 3/4"xH x 11/4"W x 9/4"D. $150

REFERENCE BY QUADRAX

412D Cassette Deck
Front-loading metal-compatible stereo cassette deck with Dolby noise-reduction system and two heads. Features dual VU meters with peak-reading LED, metal, special, and normal tape selector buttons; separate left/right input selectors; three-digit tape counter with reset; piano-key tape function controls include one for door. Wow and flutter 0.06% wms; frequency response 30-18,000 Hz = 3 dB (metal); S/N 62 dB with Dolby; 6/"xH x 16/4"W x 10/"D. $250

REWEL

ROTEL

RD-1000 Cassette Deck
Front-loading stereo cassette deck with Dolby noise-reduction system, FG servomotor and dc servo reels, and hard permalloy record/playback heads with ferrite erase heads. Featuresnormally controlled dc servomotor with two ferrite erase heads. Features three-position bias and equalization controls with LEDs; auto stop, auto repeat, and auto rewind; three-digit tape counter with memory rewind/play; two VU meters with peak indicators; normal, FeCr0, and Cr0,0 tape selectors; record/play timer buttons with optional external timer; direct-function change without going through stop; fast-forwarding time 90 sec (C-60). Wow and flutter 0.054% wms; S/N 65 dB; 5/"xH x 16/4"W x 11/"D. $440

RD-2200 Cassette Deck
Front-loading stereo cassette deck with Dolby noise-reduction system, electronic governor dc motor, and Sendust recording/playback and ferrite erase heads. Features three-position bias and equalization controls for normal, Cr0,0, and FeCr0 tapes with adjustable bias control; input selector for line, mic, and record mute; multiplexer filter, 13-element LED bar chart peak level indicator; three-digit tape counter; pushbutton controls for reset and memory rewind; operation controls for eject, record, rewind, play, fast forward/rewind, and pause. $150

RD-2200 S. Same as RD-2200 except metal-compati ble deck with three-digit tape selection; 5/"xH x 19"W x 10/"D. $450

RD-2200 Cassette Deck
Front-loading stereo cassette deck with Dolby noise-reduction system, electronic governor dc motor, and Sendust recording/playback head. Features three-position bias and equalization with bias adjust; two VU meters; LED peak indicators; two VU meters; input selector for line and mic/DIN; multiplexer filter; headphone and two mic jacks; damped ejection; tape counter. Wow and flutter 0.05%, frequency response 30-17,000 Hz = 3 dB (normal) and 30-15,000 Hz = 3 dB (Cr03 and FeCr0 tapes); S/N 64 dB with Dolby in; rack mountable. $450

RD-2200M. Same as RD-2200 except metal-compatible deck with three-digit tape selection; 5/"xH x 19"W x 10/"D. $450

RD-250 Cassette Deck
Front-loading stereo cassette deck with Dolby noise-reduction system, electronic governor dc motor, and Sendust recording/playback head. Features three-position bias and equalization with bias adjust; two VU meters; LED peak indicators; two VU meters; input selector for line and mic/DIN; multiplexer filter; headphone and two mic jacks; damped ejection; tape counter. Wow and flutter 0.05%, frequency response 30-17,000 Hz = 3 dB (normal) and 30-15,000 Hz = 3 dB (Cr03 and FeCr0 tapes); S/N 63 dB with Dolby in; rack mountable; 5/"xH x 19"W x 10/"D. $370

RD-25F Cassette Deck
Front-loading stereo cassette deck with Dolby noise-reduction system, electronic governor dc motor, and Sendust recording/playback head. Features three-position bias and equalization with bias adjust; two VU meters; LED peak indicators; two VU meters; input selector for line and mic/DIN; multiplexer filter; headphone and two mic jacks; damped ejection; tape counter. Wow and flutter 0.06%; frequency response 30-14,000 Hz = 3 dB (normal and LH tapes); 30-16,000 Hz = 3 dB (FeCr0 and FeCr0 tapes); 30-15,000 Hz = 3 dB (Cr03), 30-16,000 Hz (FeCr0); S/N 63 dB with Dolby in; rack mountable; 5/"xH x 19"W x 10/"D. $340

RD-18F Cassette Deck
Front-loading stereo cassette deck with Dolby noise-reduction system, electronic governor dc motor, and hard permalloy record/playback and ferrite core erase heads. Features three-position bias and equalization with bias adjust; two VU meters; LED peak indicators; two VU meters; input selector for line and mic/DIN; multiplexer filter; headphone and two mic jacks; damped ejection; tape counter. Wow and flutter 0.09%; frequency response 30-13,000 Hz (normal), 30-15,000 Hz (Cr03, FeCr0, and FeCr0 tapes); S/N 63 dB with Cr03, Dolby in; 5/"xH x 16/4"W x 10/"D. $250

RD-15F Cassette Deck
Front-loading stereo cassette deck with Dolby noise-
frequency response 20-13,000 Hz - 3 dB (normal and VU meters; cue and review; auto shutoff; tape super hard permalloy record/playback head. Feature reduction system, electronic governor dc motor, and super hard permalloy record/playback and ferrite core erase heads. Features record level controls; three-digit tape counter; total automatic shutoff; two-position tape selector switch (Normal/CrO₂); dual microphonic shock head; record level indicator; fast-winding time 90 sec (C-60). Wow and flutter: 0.4% wms; frequency response 30-14,000 Hz (normal tape), 30-16,000 Hz (CrO₂, tape). THD 2% with normal tape; S/N 55 dB at 400 Hz; input sensitivity (mic) 10k ohms, (line-in) 50k ohms; $450

STD-2000 Cassette Deck
Automatic front-loading stereo cassette deck with Dolby noise-reduction system, electronically-controlled dc motor, and super hard permalloy record/play and erase heads. Features and controls: tape level meter; three-digit tape counter; record indicator; fast-forward/rewind time 90 sec (C-60). Wow and flutter: 0.058% wms; frequency response 30-14,000 Hz (normal tape), 30-18,000 Hz (CrO₂, tape); S/N 56 dB (CrO₂, tape, with filter, Doxy off) improved by 5 dB at 5 kHz and 10 dB at 5 kHz with Dolby on; Crosstalk 35 dB at channel, 55 dB at track; input impedance (mic) 10k ohms, (line-in) 50k ohms; input impedence (mic) 5k ohms, (line-in) 50k ohms; chrome-finished panel and wood cabinet or black finish; 5" + 17" W x 11 1/2" D $310

STD-2200 Cassette Deck
Front-loading stereo cassette deck with Dolby noise-reduction system, electronically-controlled dc motor, and super hard permalloy record/playback and ferrite core erase heads. Features automatic shutoff; electronic governor dc motor, and super hard permalloy record/playback and ferrite core erase heads. Features record level controls; three-digit tape counter; total automatic shutoff; two-position tape selector switch (Normal/CrO₂); dual microphonic shock head; record level indicator; fast-winding time 90 sec (C-60). Wow and flutter: 0.4% wms; frequency response 30-14,000 Hz (normal tape), 30-16,000 Hz (CrO₂, tape). THD 2% with normal tape; S/N 55 dB at 400 Hz; input sensitivity (mic) 10k ohms, (line-in) 50k ohms; $450

STD-2300 Cassette Deck
Front-loading stereo cassette deck with Dolby noise-reduction system, electronically-controlled dc motor, and super hard permalloy record/playback and ferrite core erase heads. Features automatic shutoff; electronic governor dc motor, and super hard permalloy record/playback and ferrite core erase heads. Features record level controls; three-digit tape counter; total automatic shutoff; two-position tape selector switch (Normal/CrO₂); dual microphonic shock head; record level indicator; fast-winding time 90 sec (C-60). Wow and flutter: 0.4% wms; frequency response 30-14,000 Hz (normal tape), 30-16,000 Hz (CrO₂, tape). THD 2% with normal tape; S/N 55 dB at 400 Hz; input sensitivity (mic) 10k ohms, (line-in) 50k ohms; $450

STD-2500 Cassette Deck
Front-loading stereo cassette deck with Dolby noise-reduction system, electronically-controlled dc motor, and super hard permalloy record/playback and ferrite core erase heads. Features and controls: tape level meter; three-digit tape counter; record indicator; fast-forward/rewind time 90 sec (C-60). Wow and flutter: 0.058% wms; frequency response 30-14,000 Hz (normal tape), 30-16,000 Hz (CrO₂, tape). THD 2% with normal tape; S/N 55 dB at 400 Hz; input sensitivity (mic) 10k ohms, (line-in) 50k ohms; $450

STD-1870 Cassette Deck
Front-loading stereo cassette deck with Dolby noise-reduction system, electronically-controlled dc motor, and super hard permalloy record/playback and ferrite core erase heads. Features and controls: tape level meter; three-digit tape counter; record indicator; fast-forward/rewind time 90 sec (C-60). Wow and flutter: 0.058% wms; frequency response 30-14,000 Hz (normal tape), 30-16,000 Hz (CrO₂, tape). THD 1% with normal tape; S/N 55 dB at 400 Hz; input sensitivity (mic) 10k ohms, (line-in) 50k ohms; Crosstalk 35 dB at channel, 55 dB at track; input impedance (mic) 10k ohms, (line-in) 50k ohms; chrome-finished panel and wood cabinet or black finish; 5" + 17" W x 11 1/2" D $280

STD-1850 Cassette Deck
Front-loading stereo cassette deck with Dolby noise-reduction system, electronically-controlled dc motor, and super hard permalloy record/playback and ferrite core erase heads. Features and controls: tape level meter; three-digit tape counter; record indicator; fast-forward/rewind time 90 sec (C-60). Wow and flutter: 0.058% wms; frequency response 30-14,000 Hz (normal tape), 30-16,000 Hz (CrO₂, tape). THD 2% with normal tape; S/N 55 dB at 400 Hz; input sensitivity (mic) 10k ohms, (line-in) 50k ohms; Crosstalk 35 dB at channel, 55 dB at track; input impedance (mic) 10k ohms, (line-in) 50k ohms; chrome-finished panel and wood cabinet or black finish; 5" + 17" W x 11 1/2" D $250

STD-1750 Cassette Deck
Front-loading stereo cassette deck with Dolby noise-reduction system, mechanically governed dc motor, and super hard permalloy record/playback and ferrite core erase heads. Features record level controls; three-digit tape counter; total automatic shutoff; two-position tape selector switch (Normal/CrO₂); dual microphonic shock head; record level indicator; fast-winding time 90 sec (C-60). Wow and flutter: 0.4% wms; frequency response 30-14,000 Hz (normal tape), 30-16,000 Hz (CrO₂, tape). THD 2% with normal tape; S/N 55 dB at 400 Hz; input sensitivity (mic) 10k ohms, (line-in) 50k ohms; $450

STD-1650 Cassette Deck
Front-loading stereo cassette deck with Dolby noise-reduction system, mechanical governor dc motor, and super hard permalloy record/playback and ferrite core erase heads. Features record level controls; three-digit tape counter; total automatic shutoff; two-position tape selector switch (Normal/CrO₂); dual microphonic shock head; record level indicator; fast-winding time 90 sec (C-60). Wow and flutter: 0.16% wms; frequency response 40-13,000 Hz (normal tape), 40-15,000 Hz (CrO₂, tape). THD 2% with normal tape; S/N 55 dB at 400 Hz; input sensitivity (mic) 10k ohms, (line-in) 50k ohms; $450

SANSUI

SC-3300 Cassette Deck
"Direct-O-Matic" front-loading metal-compatible stereo cassette deck with Dolby circuitry, FG servo capstan and reel motors with holdback tension mechanism, special record/playback and ferrite erase heads. Features automatic shutoff; electronic governor dc motor, and super hard permalloy record/playback and ferrite core erase heads. Features record level controls; three-digit tape counter; total automatic shutoff; two-position tape selector switch (Normal/CrO₂); dual microphonic shock head; record level indicator; fast-winding time 90 sec (C-60). Wow and flutter: 0.038% wms; frequency response 3-20,000 Hz (metal), to 17,000 Hz (CrO₂); S/N 69 dB with Dolby; black matte finish with detachable rack-mounting handles; 7 1/4" H x 19" W (handles on) 12" D $520

SC-3300 Cassette Deck
"Direct-O-Matic" front-loading metal-compatible stereo cassette deck with Dolby noise-reduction system. FG servo capstan and reel motors with holdback tension mechanism, special record/playback and ferrite erase heads. Features automatic shutoff; electronic governor dc motor, and super hard permalloy record/playback and ferrite core erase heads. Features record level controls; three-digit tape counter; total automatic shutoff; two-position tape selector switch (Normal/CrO₂); dual microphonic shock head; record level indicator; fast-winding time 90 sec (C-60). Wow and flutter: 0.4% wms; frequency response 30-14,000 Hz (normal tape), 30-16,000 Hz (CrO₂, tape). THD 2% with normal tape; S/N 55 dB at 400 Hz; input sensitivity (mic) 10k ohms, (line-in) 50k ohms; $450

SC-3330 Cassette Deck
Same as SC-3300 except has black matte finish with detachable rack-mounting handles; 7 1/4" H x 19" W (handles on) 12" D $420

SC-1300 Cassette Deck
"Direct-O-Matic" front-loading metal-compatible stereo cassette deck with Dolby noise-reduction system, mechanically governed dc motor, and super hard permalloy record/playback and ferrite core erase heads. Features record level controls; three-digit tape counter; total automatic shutoff; two-position tape selector switch (Normal/CrO₂); dual microphonic shock head; record level indicator; fast-winding time 90 sec (C-60). Wow and flutter: 0.4% wms; frequency response 30-14,000 Hz (normal tape), 30-16,000 Hz (CrO₂, tape). THD 2% with normal tape; S/N 55 dB at 400 Hz; input sensitivity (mic) 10k ohms, (line-in) 50k ohms; $450

1980 EDITION 133
Stereo cassette deck with Dolby noise-reduction system, dc drive motor and constant-tension holdback mechanism, stereo record/playback and erase heads. Features 16-segment LED peak-reading indicators; three-position bias and equalization for metal, CrO₂, and normal tapes; record/mute; tape lead-in; separate input/output level controls; provision for external timer activation. Wow and flutter 0.05%; frequency response 20-16,000 Hz ±3 dB (metal and CrO₂); S/N 69 dB with Dolby; simulated smoked walnut finish; 6'/1" H x 16'/1" W x 12'/1" D .... $320

D-90 Cassette Deck
Front-loading stereo cassette deck with Dolby noise-reduction system, dc servomotor, and super-hard permalloy record/playback and erase heads. Features separate bias and equalization for normal, FeCr, and CrO₂ tapes; dual VU meters; record level control; punched out tape; locking pause control; maximum tape speed with auto shut-off. Wow and flutter 0.055%; frequency response ±3 dB 35-15,000 Hz (CrO₂), to 14,000 Hz (normal) / S/N 65 dB with Dolby; metal cabinet; 5'/1" H x 16'/1" W x 10'/1" D .... $200

SANYO
RD530 Cassette Deck
Front-loading stereo cassette deck with Dolby noise-reduction system, PLL dc servomotor with 34 stator and 34 rotor poles, and permalloy recording head. Features LED peak indicators; separate calibrated input and output level controls; two left and right microphone jacks; headphone jack; metal cabinet. Wow and flutter 0.1%; frequency response 30-17,000 Hz ±3 dB (CrO₂); S/N 60 dB (Dolby with CrO₂), 5'/2" H x 14'/1" W x 8" D .... $130

RD5340 Cassette Deck
Front-loading stereo cassette deck with Dolby noise-reduction system, dc servomotor, and hard permalloy record/playback and erase heads. Features dual fluorescent peak-load bar graphic display; bias and equalization buttons for normal, FeCr, and CrO₂ tapes; timer standby with optional external timer; bidirectional type tape selection indicator; separate bias and equalization for metal, CrO₂, and normal tapes; damped door. Wow and flutter 0.04%; frequency response ±3 dB 30-19,000 Hz (metal), to 18,000 Hz (CrO₂ and FeCr), to 15,000 Hz (normal); / S/N 64 dB (Dolby with CrO₂), 5'/4" H x 16'/1" W x 10'/1" D .... $230

RD8400A Cassette/8-Track Deck
Front-loading unit combines cassette record/play back with 8-track cartridge record/playback, 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 45 dB; wow and flutter 0.25% rms, speed accuracy ±2.5%; CrO₂/standard tape selector; tape control; pause control. 8-track section: frequency response 30-12,000 Hz / S/N 42 dB; wow and flutter 0.25% rms, speed accuracy ±2.5%; CrO₂/standard tape selector; end-of-tape indicators; locking pause; two lighted VU meters; separate record-level controls .... $200

RD5035 Cassette Deck
Front-loading metal-compatible stereo cassette deck with Dolby noise-reduction system, Sendust Alloy record/playback and ferrite erase heads, and dc servomotor. Features separate bias for metal, CrO₂, FeCr, and normal tapes with LEDs; two input level controls for both channels; multiplex filter; dual VU meters; digital tape counter with reset; auto stop; air dried cassette door; headphone jack; two mic jacks with left jack doubling as mono mic. Wow and flutter 0.08%; frequency response 30-19,000 Hz .......... $190

RD5250 Cassette Deck
Stereo record/playback cassette deck with Dolby noise-reduction system; tape selector; permalloy recording head; auto stop; separate input/output level controls; separate LED record on and Dolby indicators; two large VU meters; locking pause control; bias/equalization switching; full automatic stop; viscous damping cassette door. S/N 1330. Same as SC-1300 except has black matte finish with detachable rack-mounting handles, 6'/6" H x 19" W (with handles) x 12'/1" D ...... $320

RD5030 Cassette Deck
Front-loading stereo cassette deck with Dolby noise-reduction system; tape select switch for normal, CrO₂, and FeCr noise reduction; auto stop; separate bias and equalization switching (CrO₂ and normal); separate input/output level controls; two large VU meters; frequency response 30-14,000 Hz ±3 dB (CrO₂); S/N 60 dB (Dolby with CrO₂), S/N 56 dB (Dolby on) . $160

RD5008 Cassette Deck
Front-loading microprocessor-controlled metal-compatible stereo cassette deck with dual-Dolby noise-reduction system, dc servo capstan and dc governor reel motors, and separate but integrated improved mechanical and ferrite erase head; solenoid transport control. Features digital tape counter readout display with reset and memory rewind; auto rewind and repeat; PLL speed control; timer standby for record/playback with provision for external timer/programmer; tape/source monitor switch; defeatable FM multiplex filter; defeatable peak limiter; normal, FeCr, CrO₂, and metal tape selection indicators; tape counter indication; LED record, pause and play indicators; two VU meters with peak LEDs; removable damping door. Wow and flutter 0.04% rms, frequency response ±3 dB 30-19,000 Hz (metal), to 18,000 Hz (CrO₂ and FeCr), to 15,000 Hz (normal); / S/N 64 dB (Dolby with CrO₂), 5'/1" H x 16'/1" W x 10'/1" D .... $330

PLUS Series
RD5372 Cassette Deck
Front-loading microprocessor-controlled metal-compatible stereo cassette deck with Dolby noise-reduction system, dc servo capstan and dc governor reel motors, and separate but integrated improved mechanical and ferrite erase head; solenoid transport control. Features digital tape counter readout display with reset and memory rewind; auto rewind and repeat; PLL speed control; timer standby for record/playback with provision for external timer/programmer; tape/source monitor switch; defeatable FM multiplex filter; defeatable peak limiter; normal, FeCr, CrO₂, and metal tape selection indicators; tape counter indication; LED record, pause and play indicators; two VU meters with peak LEDs; removable damping door. Wow and flutter 0.04% rms, frequency response ±3 dB 30-19,000 Hz (metal), to 18,000 Hz (CrO₂ and FeCr), to 15,000 Hz (normal); / S/N 64 dB (Dolby with CrO₂), 5'/1" H x 16'/1" W x 10'/1" D .... $330

D62 Cassette Deck
Front-loading metal-compatible stereo cassette deck with Dolby noise-reduction system, Sendust Alloy record/playback and ferrite erase heads, and dc servomotor. Features separate bias for metal, CrO₂, FeCr, and normal tapes; S/N 64 dB (CrO₂ with Dolby), S/N 69 dB (normal); timer standby with provision for external timer/programmer; variable output 100%/automatic stop; tape memory rewind; LED record, Dolby, and peak level indicators; dual VU meters; three-digit tape counter; line/mic input selector; headphone and two mic jacks; black metal finish. Wow and flutter 0.07% rms, frequency response 25-14,000 Hz (normal), 25-16,000 Hz (CrO₂ and FeCr) tapes; S/N (1'" weight) 64 dB with Dolby, 56 dB normal; fast forward and rewind time 90 sec/erase 70 sec, 5'/1" H x 17' W x 11'/2" D .... $250

SHARP
RT-4488 Cassette Deck
determination, frequency-generating sensor, and a superhard permalloy head. Features auto program locate device (APLD), Dolby noise-reduction system, servo-controlled dc motor, narrow gap permalloy head. Features two VU meters; LED peak level indicator; mic/mic head. Features two VU meters; LED peak level indicator; mic/mic head. Features two VU meters; LED peak level indicator; mic/mic head. Features two VU meters; LED peak level indicator; mic/mic head. Features three-way power supply through ac, battery, or car/boat 12-V adapter operation, two VU meters with peak LED indicators; LED battery life span; three-position tape switch for normal, ferrichrome, and Cr03 tape; high-level input; 20-db micro phone attenuator; dual input controls; built-in monitor, speaker, and headphone jack; auto shutoff;...
CASSETTE TAPE MACHINES

TANDBERG

TCD 440A Cassette Deck

Metal-compatible stereo cassette deck with dual Dolby noise-reduction system, separate record, playback, and Tandberg erase heads (80 dB erasure at 10 kHz and 60 dB erasure at 100 Hz), and three motors in dual capstan transport system. Features "DYNEQ™" record equalization circuitry designed to automatically adjust record pre-emphasis of deck to maximize potential treble response, while simultaneously minimizing treble distortion; "Ac- tilinear" recording system; dual peak-reading meters with second scale reflecting metal-particle signal levels; VU meter test oscillator; bias adjust controls for ferric, CrO₂, and metal tapes with set of left/right LEDs; separate slider input and output level controls; source/tape monitor button; record preset; three-digit tape counter with preset, PROM logic-controlled tape function controls; with LED Dolby Dub, tape I and II/metal, source/tape, rec preset on/off; and power on/off indicators; optional PCM infrared wireless remote control available. Frequency response 30-20,000 Hz; S/N 70 dB (IHF A weighted); analoged matte black finish $1600

TCD 340A Cassette Deck

Front-loading stereo cassette deck with four Dolby B processors, three motors, and separate adjustable azimuth recording and playback heads and dual-gate erase head. Features Actilinear recording system; solenoidless operation; electronic logic tape function controls; equalized peak-reading/VU meters; variable input/output controls; mode indicator lights; tape selector switch; multiplexer filter; front-panel electronic editing; memory function with built-in damped or digital tape counter; digital tape counter. Wow and flutter 0.12% wrms, 0.08% (IHF A weighted); frequency response 20-20,000 Hz; S/N 65 dB (IEC A); horizontal or vertical operation; rack mountable $1150

TCD 320 Cassette Deck

Horizontal- or vertical-operating stereo cassette deck with Dolby B noise-reduction system and synchronous recording/replay, fast forward, and backwind motors in dual capstan closed-loop transport system. Features self-adjusting input amplifier; equalized peak-reading VU meters; detachable multiplexer filter; headphones output and playback volume controls; wow and flutter 0.13% wrms (record/playback), 0.09% (IHF A); frequency response 18-18,000 Hz; S/N 65 dB min $700

TCR-222 Cassette Deck

Top-loading cassette deck for mono recording and playback; has three motor system, one synchronous hysteresis motor for recording and playback and two servo dc motors for fast winding, and dual-capstan closed-loop drive system. Features peak-reading meter; tape counter; output and input level controls; bass/treble controls; large built-in speakers for treble distortion; "Ac- tilinear" record/play with three-position bias and equalization; electronic logic tape function controls; separate three-position monitor switch; music sensor button; three-position bias and equalization; two line inputs 60 mV, 50,000-ohm impedance; mic/line switch; power on/off, and power on/off indicators; optional PCM infrared wireless remote control available. Frequency response 30-16,000 Hz, over 10,000 Hz, 90 dB with dbx; 147 mm H x 440 mm W x 345 mm D $650

TEAC

C-1 Cassette Deck

Front-loading stereo cassette deck with Dolby noise-reduction system and three-head reproduction system and dc servomotor. Features automatic bias switch system with calibrated bias switch and fine bias adjust for normal, CrO₂, and metal tapes; two peak-reading meters; tape/source monitor switch; separate mic and line record level controls; three-digit tape counter with memory rewind; rec mute; piano-key tape function controls. Wow and flutter 0.07% wrms; frequency response 30-17,000 Hz (metal); 35 dB at 1 kHz and 10 dB over 5000 Hz with Dolby; 160 mm H x 410 mm W x 300 mm D $550

A-501 Cassette Deck

Front-loading stereo cassette deck with Dolby noise-reduction system, SG servo-controlled dc motor, and two heads for erase and record/playback. Features newly developed recording/stereo tape head; electronic editing; programmable audio reverse/continuous play; programmable timer function; recorder/mute; source/tape monitor with memory rewind; provision for optional remote control unit $700

CX-650 Cassette Deck

Front-loading stereo cassette deck with Dolby noise-reduction system. Features solenoid-operated bi-directional record/play; feather-touch micro-switched logic tape function controls; separate three-position equalization; electronic logic tape function controls; separate three-position monitor switch; switchable Dolby/programmable auto reverse/continuous play; programmable timer function; rec mute; tape counter with memory rewind; provision for optional remote control unit $600

A-601R Cassette Deck

Front-loading stereo cassette deck with Dolby noise-reduction system and dbx circuitry, dc servomotor, and high-density ferrite erase and record/playback heads. Features feature touch microprocessor-controlled tape function controls, rec/mute control; programmable record/play timer; three-position bias and equalization; separate left and right record level controls; output level control; mic/line switch; three-digit tape counter with memory rewind. Wow and flutter 0.06% wrms; frequency response 30-15,000 Hz (chrome); S/N 55 dB, improved 5 dB at 1 kHz and 10 dB over 5000 Hz with Dolby; two mic inputs 0.25 mV (72 dB) at 600-ohm impedance; line inputs 60 mV, 50,000-ohm impedance; 56 dB at 1 kHz, 55 dB at 10 kHz. $1600

A-500R Cassette Deck

Front-loading stereo cassette deck with Dolby noise-reduction system and dbx circuitry, dc servomotor, and three-head reproduction system and dc servomotor. Features automatic bias switch system with calibrated bias switch and fine bias adjust for normal, CrO₂, and metal tapes; two peak-reading meters; tape/source monitor switch; separate mic and line record level controls; three-digit tape counter with memory rewind; rec mute; piano-key tape function controls. Wow and flutter 0.07% wrms; frequency response 30-17,000 Hz (metal); 35 dB at 1 kHz and 10 dB over 5000 Hz with Dolby; 160 mm H x 410 mm W x 300 mm D $550

A-430 Cassette Deck

Front-loading metal-compatible stereo cassette deck with dual Dolby noise-reduction system, three-head reproduction system and dc servomotor. Features automatic bias switch system with calibrated bias switch and fine bias adjust for normal, CrO₂, and metal tapes; two peak-reading meters; tape/source monitor switch; separate mic and line record level controls; three-digit tape counter with memory rewind; rec mute; piano-key tape function controls. Wow and flutter 0.07% wrms; frequency response 30-17,000 Hz (metal); 35 dB at 1 kHz and 10 dB over 5000 Hz with Dolby; 160 mm H x 410 mm W x 300 mm D $550
A-300 Cassette Deck
Front-loading stereo cassette deck with dual-Dolby circuitry, tension servo system with FG dc servomotor, and three-head system. Features mic/line mixing; output level control; separate three-position bias and equalization selectors; tape counter with memory rewind $425

CX-270 Cassette Deck
Front-loading stereo cassette deck with Dolby noise-reduction system and servo-controlled transport motors. Features fluorescent bar graph VU meters with selectable peak-hold manual/automatic reset modes; three-position bias and equalization selectors for normal and CrO₂ tapes; mic/DIN and line input selector; separate left/right record level controls; LED record and Dolby; piano-key tape function controls. Wow and flutter: 0.07% wrms; frequency response 30-16,000 Hz (CrO₂), S/N 67 dB with Dolby. $200

M-124 Syncaset Cassette Deck
Front-loading Simul-Sync stereo cassette deck with Dolby noise-reduction system, FG dc servomotor, and record/reverse record/erase heads. Features Simul-Sync (for monitoring on one track while simultaneously recording on another through the same head) with cross-fade switch for slight blending of left and right channels; mic blend control with left/right and mixed left/right sync switch; independent bias and equalization selectors for normal and CrO₂ tapes; separate left and right record level controls; mic/DIN and line input selector; three-digit tape counter with memory rewind; two VU meters; fast forward/rewind time 90 sec (C-60). Wow and flutter 0.07% (NAB weighted); frequency response 30-30,000 Hz (CrO₂), S/N 65 dB, improved 5 dB at 100 Hz; wow and flutter 0.03% at 5000 Hz with Dolby; input sensitivity/impedance 60 mV/50k ohms (line), 0.25 mV/600 ohms (mic); 6", 6½" x 16½" x 11" h $450

TECHNICS by PANASONIC

RS-M68 Cassette Deck
Front-loading stereo cassette deck with Dolby noise-reduction system, FG dc servomotor, and four-track Sendust Extra (SX) record/playback head. Features full auto reverse record/erase heads. Features Simul-Sync (for monitoring on one track while simultaneously recording on another through the same head) with cross-fade switch for slight blending of left and right channels; mic blend control with left/right and mixed left/right sync switch; independent bias and equalization selectors for normal and CrO₂ tapes; separate left and right record level controls; mic/DIN and line input selector; three-digit tape counter with memory rewind; two VU meters; fast forward/rewind time 90 sec (C-60). Wow and flutter 0.07% (NAB weighted); frequency response 30-16,000 Hz (CrO₂), S/N 55 dB, improved 5 dB at 100 Hz; wow and flutter 0.03% at 5000 Hz with Dolby; input sensitivity/impedance 60 mV/50k ohms (line), 0.25 mV/600 ohms (mic); 6", 6½" x 16½" x 11" h $550

RS-M44 Cassette Deck
Front-loading stereo cassette deck with Dolby noise-reduction system, FG dc servomotor, and HFP record/playback head. Features two-color fluorescent bar graph peak meters; separate three-position bias and equalization for normal, FeCr, and CrO₂ tapes; cue and review with quick review; three-digit tape counter; memory auto play/memory rewind/rewind auto play; timer standby and timer/wave; wow and flutter 0.05% wrms; frequency response 30-17,000 Hz (CrO₂, FeCr); S/N 67 dB with Dolby. $450

RS-M44 Cassette Deck
Front-loading stereo cassette deck with Dolby noise-reduction system, FG dc servomotor, and HFP record/playback head. Features two-color fluorescent bar graph peak meters; separate three-position bias and equalization for normal, FeCr, and CrO₂ tapes; cue and review with quick review; three-digit tape counter; memory auto play/memory rewind/rewind auto play; timer standby and timer/wave; wow and flutter 0.05% wrms; frequency response 30-17,000 Hz (CrO₂, FeCr); S/N 67 dB with Dolby. $450

RS-M33. Similar to RS-M44 except without bias reduction system, FG dc servomotor, and HPF record/playback heads. Features dual-color fluorescent bar graph peak meters; separate three-position bias and equalization for normal, FeCr, and CrO₂ tapes; cue and review with quick review; rewind auto play; wow and flutter 0.05% wrms; frequency response 30-16,000 Hz (CrO₂, FeCr); S/N 67 dB with Dolby. $300

RS-M22 Cassette Deck
Front-loading stereo cassette deck with Dolby noise-reduction system, electronically-controlled dc motor, and LH record/playback head. Features fluorescent bar graph peak meters; separate three-position bias and equalization for normal, FeCr, and CrO₂ tapes; cue and review with quick review; record/play timer with external timer; record/play level control; three-digit tape counter; memory auto play/reverse; timer switch with external timer; dual VU meters. Wow and flutter 0.06% wrms; frequency response 30-15,000 Hz + 3 dB; S/N 56 dB without Dolby, 64 dB with Dolby; 5½" H x 17½" W x 13½" D $1300

Professional Series

RS-9900US Cassette Deck
Incorporates closed-loop, double-capstan, three-motor drive, separate amplifier unit, and Dolby noise-reduction system. Features memory play/record/playback head; pitch counter; remaining tape time meter; calibration controls for Dolby record and playback, bias, equalization; tape selection/mounting; double motor; separate three-digit tape selector for normal, FeCr, and CrO₂ tapes; cue and review with quick review; winding time 70 sec (C-60); two HPF record/play and erase heads. Features dual-color fluorescent bar graph peak meters; separate three-position bias and equalization for normal, FeCr, and CrO₂ tapes; cue and review with quick review; wind; pitch control; remaining tape time meter; calibration adjustments; limiter and mute controls; electronic full auto-stop; record/erasure level control; record/play timer with external timer; remote control capability with optional unit. Wow and flutter 0.04% wrms; S/N 65 dB with Dolby, chrome; 1¾% 0.7%; input level/impedance 0.25 mV/600 ohms (mic), 70 mV/50k ohms (line); fast forward/rewind time 70 sec (C-60); 4½" H x 10½" W x 7½" D; $550 Silver finish

RS-PCX40 Cassette Deck
Front-loading programmable metal-compatible stereo cassette deck with Dolby noise-reduction system and All-Sendust record/playback and ferrite erase heads. Features digital ic-controlled programmable multi-music quick sensor system (programs up to six musical selections) with play/skip button; dual LED bar graph peak-level meters with switchable dolby/dolby indicator; auto repeat and auto program; tape editor switch; separate bias and equalization for normal, FeCr, and metal tapes; separate left/right record level controls; output level control; three-digit tape counter with reset and memory rewind; cue and review; switchable Dolby; digital ic-compatible programmable multi-music quick sensor system; programmable multi-music quick sensor system, memory rewind, auto program, and tape editor control. $300

THORENS

PC-650 Cassette Deck
Front-loading stereo cassette deck with Dolby noise-reduction system, two motors, and three-head assembly. Features bias and equalization for Fe, FeCr, and CrO₂ tapes; separate line and mic/DIN input selectors with mic/DIN switch and mic input-mic/pass/record/mic input-mic record/playback and ferrite erase heads. Features dual LED peak level bar graph display; ic logic tape function controls; FeCr tape selector switch; three-digit tape counter with memory rewind and reset; timer switch with external timer; dual VU meters. Wow and flutter 0.06% wrms; frequency response 30-15,000 Hz + 3 dB; S/N 56 dB without Dolby, 64 dB with Dolby; 5½" H x 17½" W x 13½" D $1300

TOSHIBA

D15 Micro Cassette Deck
Front-loading stereo cassette deck with Dolby noise-reduction system, dc servo and dc motors, and sendust record/playback and ferrite erase heads. Features dual LED peak level bar graph display; ic logic tape function controls; FeCr tape selector switch; three-digit tape counter with reset and memory; recorder level control; record/play timer with external timer; remote control capability with optional unit. Wow and flutter 0.04% wrms; S/N 65 dB with Dolby; chrome, 1¾% 0.7%; input level/impedance 0.25 mV/600 ohms (mic), 70 mV/50k ohms (line); fast forward/rewind time 70 sec (C-60); 4½" H x 10½" W x 7½" D; black finish $550 Silver finish

PC-X40 Cassette Deck
Front-loading programmable metal-compatible stereo cassette deck with Dolby noise-reduction system and All-Sendust record/playback and ferrite erase heads. Features digital ic-controlled programmable multi-music quick sensor system (programs up to six musical selections) with play/skip button; dual LED bar graph peak-level meters with switchable dolby/dolby indicator; auto repeat and auto program; tape editor switch; separate bias and equalization for normal, FeCr, and metal tapes; separate left/right record level controls; output level control; three-digit tape counter with reset and memory rewind; cue and review; switchable Dolby; digital ic-compatible programmable multi-music quick sensor system, memory rewind, auto program, and tape editor control. $300
PC-5460 Cassette Deck
Front-loading stereo cassette deck with Dolby noise-reduction system, servo dc motor, and all Sendust record/playback and ferrite erase heads. Features three-level/six-way independent bias/equalization system; two triplex-function meters (VU, peak, and level); two-record/playback and ferrite erase heads. Features two-level/two-way independent bias/equalization selector, twin VU meters, +6 dB LED peak indicator; left/right record level controls; output level control; switchable MPX filter; timer recording;Wow and flutter 0.06% rms; frequency response 20-17,000 Hz ± 3 dB (chrome tape); S/N 69 dB (Dolby on, chrome tape); 6" H x 16'/2" W x 11 D". $370

PC-4460 Cassette Deck
Front-loading stereo cassette deck with Dolby noise-reduction system, dc servomotor, and hard permalloy record/playback and ferrite erase heads. Features three-level/six-way independent bias/equalization selector, twin VU meters, +6 dB LED peak indicator; left/right record level controls; output level control; switchable MPX filter; timer recording;Wow and flutter 0.06% rms; frequency response 30-16,000 Hz ± 3 dB (chrome tape); S/N 69 dB (Dolby on, chrome tape); 6" H x 16'/2" W x 11 D". $330

PC-3460 Cassette Deck
Front-loading stereo cassette deck with Dolby noise-reduction system, dc servomotor, and hard permalloy record/playback and ferrite erase heads. Features three-level/six-way independent bias/equalization selectors, left/right record level controls; output level control; switchable MPX filter; cue and review; feather-touch controls. Wow and flutter 0.06% rms; frequency response 30-16,000 Hz ± 3 dB (chrome tape); S/N 67 dB (Dolby on, chrome tape); 3" H x 16'/2" W x 11 D". $230

PC-2460 Cassette Deck
Front-loading stereo cassette deck with Dolby noise-reduction system, dc servomotor, and permalloy record/playback and ferrite erase heads. Features two-wide range peak-reading level meters; two-level/four-way separate bias/equalization controls; left/right record level controls; built-in MPX filter. Wow and flutter 0.1% rms; frequency response 30-14,000 Hz ± 3 dB (chrome tape); S/N 65 dB (Dolby on, chrome tape); 6'/" H x 16'/2" W x 11 D". $170

CG-362 Cassette Deck
Stereo record/playback cassette deck with Dolby noise-reduction system and three-motor drive system. Features twin VU meters, automatic bias and equalization switch; three-position tape selector; RCA and DIN input-output connectors; digital IIC logic controls; digital tape counter; auto-stop; tape-transport control, input mixing and three-position repeat program selector; aux. output (0.5 W at 4 ohms) for driving motorized feedback speakers. Wow and flutter 0.15% rms; S/N 68 dB (Dolby on, chrome tape); frequency response 20-18,000 Hz (MPX filter off). $1186

CR-240 Portable Cassette Deck
Compact front-loading portable cassette deck with Dolby noise-reduction system, collectorless, low-power motor with electronic control, two contratrolat-
AKAI

**PRO-1000 Stereo Tape Deck**

Three-speed (15, 7½, and 3⅓ ips), 1/4-track record/play and 1/2-track play two-channel stereo system; will handle up to 10½-in reels; double capstan closed-loop drive system; one ac servomotor for capstan drive and two six-pole eddy current motors for reel drive; three GX heads and one full-track erase head. Features illuminated VU meters with changeover switch for reading peak/VU and bias; built-in mixing of four different inputs with panpots; input selector switch with 30 dB microphone attenuator, full microphone mixing capability, tape/source monitor; remote control and timer operation (optional RC-17 or RC-18); feather-touch full color logic control system; NAB playback standards; recording input level control; independent left and right output volume controls. Wow and flutter 0.025% rms (15 ips), 0.04% rms (7½ ips), 0.08% rms (3⅓ ips); frequency response 50-20,000 Hz ± 1 dB (15 ips), 40-24,000 Hz ± 3 dB (7½ ips), 60-12,000 Hz ± 3 dB (3⅓ ips); THD 1%, 1 kHz, 0 VU; S/N 60 dB; fast-forward and rewind time within 120 sec (1800-ft tape); 16.7" H x 18" W x 8" D...

$1995

**GX-6350 Stereo Tape Deck**

Two-speed (7½ and 3⅓ ips), 1/4-track, two-channel stereo record/playback stereo deck with dual-process Dolby noise-reduction system, ac servo direct-drive capstan and two reel motors, and two GX record, two GX playback, and two erase heads; handles up to 10½-in reels. Features automatic reverse in record/playback; ±6% pitch control; full logic solenoid function controls; mic/mic/mic mixing; output level control; record mute; real time counter; remote control jack. Wow and flutter 0.03% rms at 7½ ips; frequency response 30-27,000 Hz ± 3 dB with NR tape; dist. 0.5% at 7½ ips (1000 Hz, 0 VU); S/N 62 dB DIN without Dolby, improved 10 dB above 5000 Hz with Dolby; 19" H x 17.4" W x 10.1" D...

$1995

**GX-635DB Stereo Tape Deck**

Two-speed (7½ and 3⅓ ips), 1/4-track, two-channel stereo deck with GX playback, and two erase heads and center pole generator ac servo capstan and two eddy current reel motors; handles up to 7½-in reels; direct capstan drive system. Features two brake drums each fitted with Mylar brake belt for supply and take-up reels; three-position record/playback auto reverse for one-way record/playback, one-cycle record/playback, or one-cycle record and continuous playback; feather-touch solenoid operation controls with direct function control; record mute with 1-second time indicator; timer start switch with wake-up music function; mic/mic/mic mixing; control input mixing controls; automatic pause operation; dual VU meters, low noise/wide range tape selector; dual monitoring; left/right record mode selector switches; output level control; one-way damped tension arm. Wow and flutter 0.04% rms (7½ ips), 0.06% rms (3⅓ ips); frequency response ±3 dB 30-25,000 Hz (7½ ips), 19,000 Hz (3⅓ ips), both with Akai LN-150-7 tape; distortion 0.5% at 7½ ips, 0.4% at 3⅓ ips; input sensitivity/impedance 2.5 mV/2.4k ohms (mic), 70 mV/100k ohms (line); output level 0.775 V (line), 100 mV into 8 ohms (headphone); 18.7" H x 17.3" W x 9.8" D...

$850

**GX-620 Stereo Tape Deck**

Two-speed (7½ and 3⅓ ips), 1/4-track two-channel stereo/mono tape deck with ac servo direct-drive capstan and two eddy current reel motors and GX record, GX playback, and erase heads; 10½-in reel capacity. Features illuminated logic solenoid function controls with standby indicators; mic/mic/mic mixing; tape/source monitor switch; output level control; low noise/wide range tape selector; stereo/mono record selector; rec mute; see-through head cover for editing; provision for record/playback timer; two VU meters. Wow and flutter 0.03% rms at 7½ ips; frequency response 30-26,000 Hz ± 3 dB at 7½ ips; distortion 0.5% at 1000 Hz, 0 VU (7½ ips); S/N 62 dB DIN; 17.6" H x 17.3" W x 9.5" D...

$725

**GX-255 Stereo Tape Deck**

Two-speed (7½ and 3⅓ ips), 1/4-track two-channel stereo/mono tape deck with ac servo direct-drive capstan and two eddy-current reel motors and three GX heads in four-head function; 7-in reel capacity. Features auto/manual reverse playback; tape/source monitor switch; mic/mic mixing; output level control; low noise/wide range tape selector; illuminated logic solenoid tape function controls with standby indicators; see-through head cover for editing; stereo/mono record; two VU meters. Wow and flutter 0.04% rms (7½ ips); frequency response 30-24,000 Hz ± 3 dB at 7½ ips; dist. 0.5% at 1000 Hz, 0 VU (7½ ips); S/N 61 dB DIN; 16.5" H x 17.3" W x 9.5" D...

$650

**GX-4000DB Stereo Tape Deck**

Two-speed (7½ and 3⅓ ips), 1/4-track, two-channel stereo system with Dolby noise-reduction system, GX recording and playback heads and erase head, and a four-pole induction motor; handles up to 7-in reels. Features tape/source monitor and low noise/wide range selector switches; auto stop; mic/DIN/mic/mic mixing; output control; pause control; four-digit index counter with reset; LED record indicator. Wow and flutter 0.08% rms (7½ ips), 0.08% rms (3⅓ ips); frequency response ±3 dB DB-30-24,000 Hz (7½ ips), to 16,000 Hz (3⅓ ips); dist. 1.0% at 1000 Hz, 0 VU; S/N 60 dB without Dolby; input sensitivity 0.25 mV (mic), 70 mV (line), 100 mV into 10k ohms (DIN); output level 0.14% rms (7½ ips), 0.18% rms (3⅓ ips); frequency response ±3 dB at 7½ ips, 0.5 VU; S/N 5000 Hz with Dolby; 19" H x 17.3" W x 9.1" D...

$500

**GX-4000.** Same as GX-4000DB without Dolby noise-reduction system...

$400

17221 Stereo Tape Deck

Two-speed (7½ and 3⅓ ips), 1/4-track, two-channel stereo tape system with record/playback and erase heads and two-speed induction motor; handles up to 7-in reels. Features low noise/wide range tape selector switch, three-way speaker switch for mute/revert recording monitor, normal, and PA; auto shut-off, rear-panel speaker switch convertible to PA system, pause control; built-in phono equalizer amp directly records from magnetic phono cartridge; built-in 5 × 7-in speakers with speaker jacks; line and DIN in and out connections, two VU meters. Wow and flutter 0.14% rms (7½ ips), 0.18% rms (3⅓ ips); frequency response ±3 dB at 7½ ips, 0.5 VU; S/N 30-21,000 Hz (wide range tape), to 18,000 Hz (low noise), at 3⅓ ips 40-15,000 Hz (wide range), to 13,000 Hz (low noise); dist. 2.0% at 1000 Hz, 0 VU; S/N 50 DB; output 10 W total music power, 6 W continuous; crossover 60 dB (mono), 45 dB (stereo); input sensitivity/impedance 0.5 mV/100k ohms (mic), 150 mV/330k ohms (line); output level 1.23 V (line), 100 mV into 8 ohms (headphone), 5 W into 8 ohms (speaker); 14.1" H x 14" W x 9.8" D...

$475

4-Channel

**GX-630D-SS 4-Channel Tape Deck**

Two-speed (7½ and 3⅓ ips) four-channel or stereo record/playback tape system with ac servo direct-drive capstan and two eddy current reel motors and four GX glass-and-crystal ferrite heads; 10½-in reel capacity. Features A/M monitoring in either mode; full logic solenoid function controls; four-track "Quadra-Sync" dubbing circuit; mic/mic/mic/mic mixing with four separate mic and line controls; left/right track selector; pitch control ±5%; low noise/wide range tape select switch; line output control; auto...
MX-5050-BXH Four-Channel Recorder
Two-channel 1/4-inch (1-track reproduce) three-speed (internally switchable pairs of 15 and 7 1/2 ips)
max. output +28 dBm, headroom +24 dBm before clipping, load impedance 600 ohms balanced, output impedance 50 ohms balanced; headphone jack -10 dBm, 8-ohm impedance; standard 3-pin XLR connector.

Northmark Four-Channel Recorder
Features solenoid-operative direct-change function buttons; separate transport and amplifier units; plug-in head assembly; filter; continuously variable tape bias, two-step tape equalizer and tape separator with time-constant switch mechanism for use with all types of tape; wide-dynamic-range playback amplifier; independent recording amplifier for line and microphone input/output; “synchronomotor” mechanism for sound-on-sound and sound-with-sound. Wow and flutter 0.04% rms at 15 ips, 0.08% rms at 7 1/2 ips; S/N 55 dB; THD 0.8% max. at 15 ips, 0.3% max. at 7 1/2 ips; frequency range 20-20,000 Hz ±2 dB (15 ips); 35-25,000 Hz ±3 dB (both at 15 ips); distortion 2% at 1000 Hz at 185 nWb/m; vertical or horizontal operation; 21 3/4" H x 18" W x 10 3/4" D.$4595

RT-909 Stereo Tape Deck
Two-speed (3% and 7 1/2 ips), 1/4-track, three-motor, four-head stereo tape deck; DC dc servo dual-capstan motor and two six-pole inner rotor motors; accepts both 10 3/4-inch reels, 1/4-inch reels; features two-step bias and equalization selector with variable bias; Floroscan level indicators with peak and average functions; four-digit electronic counter; record and play; auto and manual reverse play; auto repeat; channel separation 25 dB; track separation 60 dB; full complement of inputs/outputs; 21 3/4" H x 18" W x 10 3/4" D.$1950

N4506 Tape Recorder
Three-motor, three-head, preamplified tape recorder features dynamic noise limiter, A-B monitor switch, two peak-reading meters, direct switchable tape direction; A-B monitor switch; dynamic noise limiter; three speeds (7 1/4, 3%, 1 1/2 ips), max. reel diameter 7 1/4" in.; frequency response 35-11,500 Hz (1 1/4 ips), to 20,000 Hz (3% ips), to 26,000 Hz (1 1/2 ips); S/N (without DNL) 60 dB (7 1/4 ips), 58 dB (3% ips), 44 dB (1 1/2 ips); wow and flutter (NAB weighted) 0.07% (7 1/4 ips), 0.3% (3% ips), 0.2% (1 1/2 ips); fast-winding time 180 sec (1800 ft); channel separation 30 dB; track separation 60 dB; full complement of inputs/outputs; 17" H x 21" W x 8 1/4" D.$690

PIONEER

RT-2022 Stereo Tape Deck
Two-speed (7 1/4 and 1 1/2 ips), 1/4-track, three-motor, three-head stereo deck; will handle up to 10 3/4-inch reels, 1/4-inch synchronous motor and two six-pole inner rotor motors for reel drive. Features solenoid-operated direct-change function buttons; separate transport and amplifier units; plug-in head assembly; filter; continuously variable tape bias, two-step tape equalizer and tape separator with time-constant switch mechanism for use with all types of tape; wide-dynamic-range playback amplifier; independent recording amplifier for line and microphone input/output; “synchronomotor” mechanism for sound-on-sound and sound-with-sound. Wow and flutter 0.04% rms at 15 ips, 0.08% rms at 7 1/2 ips; S/N 55 dB; THD 0.8% max. at 15 ips, 0.3% max. at 7 1/2 ips; frequency range 20-20,000 Hz ±3 dB (15 ips), 20-18,000 Hz ±3 dB (3% ips); S/N 60 dB (7 1/4 ips), 55 dB (3% ips); 13" H x 18" W x 10" D.$1490

OTARI

N4504 Tape Recorder
Three-motor, three-head tape recorder features two peak-reading meters; direct switchable tape direction; A-B monitor switch; dynamic noise limiter; three speeds (7 1/4, 3%, 1 1/2 ips), max. reel diameter 7 1/4" in.; frequency response 35-11,500 Hz (1 1/4 ips), to 20,000 Hz (3% ips), to 26,000 Hz (1 1/2 ips); S/N (without DNL) 60 dB (7 1/4 ips), 58 dB (3% ips), 44 dB (1 1/2 ips); wow and flutter (NAB weighted) 0.07% (7 1/4 ips), 0.3% (3% ips), 0.2% (1 1/2 ips); fast-winding time 180 sec (1800 ft); channel separation 30 dB; track separation 60 dB; full complement of inputs/outputs; 17" H x 21" W x 8 1/4" D.$690

STEREO DIRECTORY & BUYING GUIDE
play; independent L/R recording mode selectors; two bias and two equalization tape selection, full complement of inputs/outputs. Wow and flutter 0.05% wrms (7'/ips), 0.08% wrms (3'/ips); S/N 58 dB; dist. 1% max. (7'/ips); fast rewind 100 sec (7'/ips); frequency response 30-24,000 Hz ±3 dB (7'/ips); 30-16,000 Hz ±3 dB (3'/ips); cross-talk –50 dB; channel separation 50 dB; pitch control ±6% (playback only); 9'/4" H x 18"/W x 14"/D $695

RT-701 Stereo Tape Deck
Two speed (3'/ips and 7'/ips); 0.08% wrms (33'/ips); S/N 58 dB; dist. tape selectors; full complement of inputs/outputs; buttons for timer record and play; metal cage for rack or custom mounting; reel capacity 10'/4", 8etrans with LED peak level indicators; auto shut off; wow and flutter (DIN 45507/IEEE 193-1971) 0.06% (7'/ips), 0.1% (3'/ips); frequency response 2-10,000 Hz (7'/ips), up to 20,000 Hz (3'/ips); S/N on 1/4" track 62 db (7'/ips), 59 db (3'/ips), on 1/2" track 66 db (15 ips) and 63 db (31/4"); 16"/H x 14"/W x 11"/D $1499

A77 Mk IV Tape Deck
Two-speed (3'/ips and 7'/ips) and 15 ips, 1/4" -1/2" stereo tape recorder with servo-controlled capstan and two reel motors and three heads; reel capacity 10'/4" in. Features dual VU meters with LED peak level indicators, in-shut-off/relay/soyden operations controls; half-inch tape output; full IC logic control; optional remote-control or conventional front panel control; four line inputs and master input selector; electronic tape length counter; LED indicators with LED when one or both record buttons are engaged; wow and flutter 0.04% wrms NAB at 15 ips; fast-winding time 90 sec for 1000 ft; 1541F or 1521F.

A77 Mk IV Professional. Same as A77 Mk IV but only in 7'/ips and 15 ips speed; balanced and floating inputs and outputs; no input selector and level controls accessible from outside of machine; inputs and outputs via Cannon connectors...

$1950

4-Channel Tape Deck
Same as RT-2022 stereo deck except with two TAU-11 amplifier units; 37'/4" H x 18"/W x 10"/D $2010

STUDER/REVOX

A700 Stereo Tape Recorder
Three-speed (choice of 15, 7'/ips, and 3'/ips, 1/4", 1/2", and 3/4" ips, or 1", 3/4", 3/4", 3/4" ips) stereo tape recorder with plug-in head assembly (1/4" or 1/2" track available), three heads (fourth head optional), and frequency and phase servo capstan motor and two six-pole inner-rotor induction motors for reel drive; handles 7'-in reels. Features solenoid-operated direct switchable function buttons and preset function buttons for timer record and play; perimeter heads; line/mike mixing; two bias and two equalization tape selectors; full complement of inputs/outputs; fast rewind 100 sec. Wow and flutter 0.05% wrms (7'/ips), 0.08% wrms (3'/ips); S/N 58 dB; cross-talk –50 dB; channel separation 50 dB; pitch control ±6% (playback only); 9'/4" H x 18"/W x 14"/D $595

8 Channel
RT-2044 4-Channel Tape Deck
As same as RT-2022 stereo deck except with two TAU-11 amplifier units; 37'/4" H x 18"/W x 10"/D $2010

B77 Stereo Tape Recorder
Two-speed (3'/ips and 7'/ips, 15 ips) with LED indicators, including "Free" position for easy tape editing and threading; stand-by position with LED when one or both record buttons are engaged; electronically-governed speed; optional infrared (wireless) remote control or conventional cord control; four line inputs and master input selector; electronic tape length counter; electronic tape length counter; LED indicators with LED when one or both record buttons are engaged; wow and flutter 0.05% wrms (7'/ips), 0.08% wrms (3'/ips); frequency response 2-10,000 Hz (7'/ips), 20,000 Hz (3'/ips); S/N 59 db (3'/ips) on 1/2" track 66 db (15 and 7'/ips), 63 db (3'/ips) on 1/2" track 66 db (15 and 7'/ips), 63 db (3'/ips); 16"/H x 14"/W x 11"/D $1799

B77 Dolby B
Same as B77 except with Dolby B noise reduction system; line output –10 db (0.3 V), impedance greater than 20,000 ohms, unbalanced; line output –10 db (0.3 V), load impedance greater than 10,000 ohms, unbalanced; record level 0 VU referred to 3 db above; wow and flutter 0.04% rms (NAB, weighted), 0.06% peak (ANSI, weighted); fast-winding time 120 sec with 240-ft tape; frequency response 40-18,000 Hz ±3 db; load impedance greater than 20,000 ohms, balanced; 60 db unwoundness 1.0% at 400 Hz, 0 VU; overall THD 3.0% at 10 db above 0 VU; cross-talk greater than 45 db at 400 Hz; 21" H x 17"/W x 12"/D $3990

B77 Autostart
Same as B77 except with VOX control; phase linearity network; pushbutton operation with LED indicators, including "Free" position for easy tape editing and threading; stand-by position with LED when one or both record buttons are engaged; electronically-governed speed; optional infrared (wireless) remote control or conventional cord control; four line inputs and master input selector; electronic tape length counter; electronic tape length counter; LED indicators with LED when one or both record buttons are engaged; wow and flutter 0.05% wrms (7'/ips), 0.08% wrms (3'/ips); frequency response 2-10,000 Hz (7'/ips), 20,000 Hz (3'/ips); S/N 59 db (3'/ips) on 1/2" track 66 db (15 and 7'/ips), 63 db (3'/ips) on 1/2" track 66 db (15 and 7'/ips), 63 db (3'/ips); 16"/H x 14"/W x 11"/D $1799

B77 Slide Sync.
Same as B77 except with additional head for slide projector control...

$1599

TASCOM by TEAC

8-8 Recorder/Reproducer
8, 8-channel recorder/reproducer with built-in microprocessor control of all functions and electronic timer operation; connects for remote control of tape transport functions, and tape transport; tape monitor switch; for remote control of variable tape speed; line input-10 db (0.3 V), impedance greater than 20,000 ohms, unbalanced; line output –10 db (0.3 V), load impedance greater than 10,000 ohms, unbalanced; record level 0 VU referred to 3 0db above; wow and flutter 0.04% rms (NAB, weighted), 0.06% peak (ANSI, weighted); fast-winding time 120 sec with 240-ft tape; frequency response 40-18,000 Hz ±3 db; load impedance greater than 20,000 ohms, balanced; 60 db unwoundness 1.0% at 400 Hz, 0 VU; overall THD 3.0% at 10 db above 0 VU; cross-talk greater than 45 db at 400 Hz; 21" H x 17"/W x 12"/D $3990

35-2 Recorder/Reproducer
Two-channel stereo four-track stereo playback (switchable) two-speed (15 and 7'/ips ±5%) open-reel recorder/reproducer with dc servo-controlled capstan and two eddy current induction reel motors and high-density Permaflux erasure, record, playback and 4-track playback heads; 10%-in reel capacity; separate transport and electronics design; Transport features touch-button logic tape function controls with motion-sensing direct mode changes; pitch control; punch-in recording facility; cueing and edit; four-digit tape function selection; features optional dbx encode/decode; six-step bias selector and variable record EQ control; source/callibration/output monitor switch; separate left and right input/output levels; 21" H x 28.5"/W x 14"/D $6899

40-4 Recorder/Reproducer
Four-track, 1/4"-track recorder/reproducer; will take up to 10"-in reels NAB hub only, 15 ips and 7'/ips tape speed; function select panel; full IC logic tape transport; memory selector; digital counter, integrated drive control system; head for slide projector control; phase linearity network; pushbutton operation with LED indicators, including "Free" position for easy tape editing and threading; stand-by position with LED when one or both record buttons are engaged; electronically-governed speed; optional infrared (wireless) remote control or conventional cord control; four line inputs and master input selector; electronic tape length counter; electronic tape length counter; LED indicators with LED when one or both record buttons are engaged; wow and flutter 0.05% wrms (7'/ips), 0.08% wrms (3'/ips); frequency response 2-10,000 Hz (3 dB (ips), 18"/W x 16"/H x 12"/D...

$225

40-4 Recorder/Reproducer
Four-track, 1/4"-track recorder/reproducer; will take up to 10"-in reels NAB hub only, 15 ips and 7'/ips tape speed; includes function select panel, full IC logic tape transport; memory selector; digital counter, integrated drive control system; head for slide projector control; phase linearity network; pushbutton operation with LED indicators, including "Free" position for easy tape editing and threading; stand-by position with LED when one or both record buttons are engaged; electronically-governed speed; optional infrared (wireless) remote control or conventional cord control; four line inputs and master input selector; electronic tape length counter; electronic tape length counter; LED indicators with LED when one or both record buttons are engaged; wow and flutter 0.05% wrms (7'/ips), 0.08% wrms (3'/ips); frequency response 2-10,000 Hz (3 dB (ips), 18"/W x 16"/H x 12"/D...

$225
TEAC

A-6600 Stereo Tape Deck
Two speed (17% and 3% ips), 1/4-track, two-channel deck; will handle reels up to 10% in; four heads (erase, record, play, 1/4-track playback). Features two speed pitch control; cue lever; pushbutton tape function controls; three-digit counter. Wow and flutter (NAB weighted) 0.03% (7'/, ips). 

A-6100 Mark II Stereo Tape Deck
Two speed (15 and 7'/, ips), 1/4-track, two-channel deck; will handle reels up to 10% in; four heads (erase, record, play, 1/4-track playback). Features two speed pitch control; cue lever; pushbutton tape function controls; three-digit counter. Wow and flutter (NAB weighted) 0.03% (7'/, ips). 0.04% (3'/, ips); frequency response 30-28,000 Hz (7'/, ips), to 20,000 Hz (3'/, ips); S/N 63 dB; 17% "H x 17" W x 10.5" D. $1700

X-7 Stereo Tape Deck
Two-speed (7'/, and 3% ips) 1/4-track two channel tape deck with three dc motors in closed-loop dual-capstan drive system and erase, record, and playback heads; 10% in reel capacity. Features pitch control; cue lever; pushbutton tape function controls with reverse and repeat controls; two capstans, one for each direction; tape guide rollers; cueing facility for both forward and reverse tracks; record mode indicator lights; auto spacer for inserting blank spaces between selections; separate left and right level controls; master gain controls for mic and line inputs; hi and low bias and equalization settings; three-position monitor switch; peak LEDs flash at 10 VU (7'/, ips) and 8 VU (3% ips); remote control with optional RC-80. $1575

A-3440 4-Channel Tape Deck
Two-speed (15 and 7'/, ips) 1/4-track four-channel Simul-Sync tape deck with erase, record/sync and playback heads and three modes; 10% in reel capacity. Features four function select buttons with LEDs and source/sync/play output select buttons with tape/sync/source and standby functions; headphone monitor switch with four-track pushbutton; independent control level, erase control output and earphone output with mic attenuation/mic line input selecters; four VU meters; pitch control; four-digit tape counter, micro-switch tape function controls with LEDs and record/erase switch; separate left and right level controls and output level controls for each tape/source output select buttons; four mic/line in put level controls and output level controls for each channel; four VU meters; micro-controlled tape function controls; micro-controlled erase, record, and playback functions; separate bias and equalization selectors; 17"W x 17"H x 8"D. $1400

Audio Specialist Series

X-10 Stereo Tape Deck
Two-speed (7'/, and 3% ips) 1/4-track two-channel tape recorder with three dc motors in closed-loop dual-capstan drive system and erase, record, and playback heads; 10% in reel capacity. Features pitch control; cue lever; pushbutton tape function controls with reverse and repeat controls; two capstans, one for each direction; tape guide rollers; cueing facility for both forward and reverse tracks; record mode indicator lights; auto spacer for inserting blank spaces between selections; separate left and right level controls; master gain controls for mic and line inputs; hi and low bias and equalization settings; three-position monitor switch; peak LEDs flash at 10 VU (7'/, ips) and 8 VU (3% ips); remote control with optional RC-80. $1575

X-20 Stereo Tape Deck
Two-speed (7'/, and 3% ips) 1/4-track two-channel tape deck with two-speed playback; has six heads (two each, tape, record, and playback). $1150

X-6000 Stereo Tape Deck
Two-speed (17% and 3% ips) 1/4-track, two-channel deck; will handle reels up to 10% in; four heads (erase, record, play, 1/4-track playback). Features two speed pitch control; cue lever; pushbutton tape function controls; three-digit counter. Wow and flutter (NAB weighted) 0.03% (7'/, ips). 0.04% (3'/, ips); frequency response 30-28,000 Hz (7'/, ips), to 20,000 Hz (3'/, ips); S/N 63 dB; 17% "H x 17" W x 10.5" D. $1800

X-7R Stereo Tape Deck
Two-speed (7'/, and 3% ips) 1/4-track two channel tape deck with three dc motors in closed-loop dual-capstan drive system, erase, record, and playback heads; 7'-in reel capacity. Features pitch control, separate mic and line input level controls; tape/source monitor switch; output level control; two-position bias and equalization; two VU meters, pushbutton tape function controls including reverse; status bar; four-digit tape counter; provision for optional remote control unit. Wow and flutter (NAB weighted) 0.05% (7'/, ips). 0.06% (3'/, ips); frequency response 20-24,000 Hz (7'/, ips), to 20,000 Hz (3'/, ips); S/N 63 dB; 14"H x 17" W x 10.5" D. $700

X-7R. Same as X-7 except has bi-directional record/playback and auto repeat function. $800

4-Channel

A-3300X-2T Tape Deck
Two-speed (15, 7'/, ips), 1/4-track, two-channel stereo deck with three dc motors in closed-loop dual-capstan drive system; two-speed (7'/, and 3% ips) 1/4-track two-channel deck with three dc motors in closed-loop dual-capstan drive system, erase, record, and playback heads; 7'-in reel capacity. Features four function select buttons with LEDs and source/sync/play output select buttons with tape/sync/source and standby functions; headphone monitor switch with four-track pushbutton; independent level control, erase control output and earphone output with mic attenuation/mic line input selecters; four VU meters; pitch control; four-digit tape counter, micro-switch tape function controls with LEDs and record/erase switch; separate left and right level controls and output level controls for each tape/output select buttons; four mic/line input level controls and output level controls for each channel; four VU meters; micro-controlled tape function controls; micro-controlled erase, record, and playback functions; separate bias and equalization selectors; 17"W x 17"H x 8"W x 8"D. $1050

SG-561 Royal Open-Deck Deck
Four speed (7'/, 4% , 7'/, 3'/, ips), 1/4-track stereo mono/two-track recorder/play deck with interchangeable two- or four-track tape for straight or bi-directional record/playback with six heads (two each erase, record, and playback); will handle reels up to 10'/, in; four heads (erase, record, play, 1/4-track playback). Features four function select buttons with LEDs and source/sync/play output select buttons with tape/sync/source and standby functions; headphone monitor switch with four-track pushbutton; independent level control; erase control output and earphone output with mic attenuation/mic line input selecters; four VU meters; pitch control; four-digit tape counter, micro-switch tape function controls with LEDs and record/erase switch; separate left and right level controls and output level controls for each tape/output select buttons; four mic/line input level controls and output level controls for each channel; four VU meters; micro-controlled tape function controls; micro-controlled erase, record, and playback functions; separate bias and equalization selectors; 17"W x 17"H x 12"W x 12"D. $1175

SG-150S Open-Deck Deck
Compact professional deck; 1/4-track, two-channel recording/playback and 1/4-track, two-channel playback; four head system; three speeds (15, 7'/, 3'/, ips); quartz crystal phase-locked dc brushless servo direct-drive capstan motors; two-tape tension controlled dc brushless direct drive motors; isolated loop direct-drive transport system. Features full IC logic tape transport functions; direct switching from mic mode to line mode; tape stretch; separate left and right bias and equalization controls; left and right VU meters; built-in stroboscope. Wow and flutter 0.018% rms (15 ips), to 20,000 Hz (3'/, ips); input 0.12-40 mV at 200 ohms (mic). 2.4-7000 (radio), 10 W/8 ohms (stereo) $1700

SG-601 Professional Open-Deck Deck
Four speed (7'/, 4% , 7'/, 3'/, ips), 1/4-track stereo mono/two-track recorder/play deck with interchangeable two- or four-track tape for straight or bi-directional record/playback with six heads (two each erase, record, and playback); will handle reels up to 10'/, in; four heads (erase, record, play, 1/4-track playback). Features four function select buttons with LEDs and source/sync/play output select buttons with tape/sync/source and standby functions; headphone monitor switch with four-track pushbutton; independent level control; erase control output and earphone output with mic attenuation/mic line input selecters; four VU meters; pitch control; four-digit tape counter, micro-switch tape function controls with LEDs and record/erase switch; separate left and right level controls and output level controls for each tape/output select buttons; four mic/line input level controls and output level controls for each channel; four VU meters; micro-controlled tape function controls; micro-controlled erase, record, and playback functions; separate bias and equalization selectors; 17"W x 17"H x 8"W x 8"D. $1175

STEREO DIRECTORY & BUYING GUIDE
8-TRACK TAPE MACHINES

AKAI

CR-83D 8-Track Deck
Recorder/player features illuminated elapsed-time record indicator, locking pause, fast forward, independent dual record level controls, combination record/cassette head; auto stop, and continuous playback selector switch; dc servomotor; illuminated cord/play and erase head, auto stop, and continuous dual-record level controls, combination record indicator, locking pause, fast forward switches; left and right channel level controls; two level meters; tape time counter; jacks for mic and headphones; two built-in connection cords. Wow and flutter 0.15% wrms; S/N 45 dB; frequency response 50-12,000 Hz, simulated wood cabinet; 5" x 14 3/8" W x 9 3/4" D...

ER8150 8-Track/Cassette Deck
8-track and cassette deck with Dolby noise-reduction system. Wow and flutter 0.15% wrms (8-track), 0.09% wrms (cassette); frequency response 40-12,000 Hz at +3 dB; S/N 52 dB (8-track, Dolby on), 56 dB (cassette, Dolby on)...

ER8125 8-Track Deck
8-track deck has Dolby noise-reduction system and dc servomotor. Wow and flutter 0.15% wrms; frequency response 35-12,000 Hz at +3 dB; S/N 44 dB (Dolby off), 52 dB (Dolby on)...

ER8130 8-Track Deck
Incorporates Dolby noise-reduction system; wow and flutter 0.15% wrms; fast-wind 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 3/4" W x 10 3/4" D...

ER8115 8-Track Deck
Features 8-track record/play deck with dc governor motor; features dual VU meters; left/right record level controls; four-program LED indicators; locking pause control; LED tape record and tape stop indicators. Wow and flutter 0.15% wrms; frequency response 35-11,000 Hz at +3 dB, HD 1.5% at 1000 Hz; S/N 44 dB input sensitivity/impedance 0.2 mV/600 ohms (mic), 100 mV/100k ohms (line); fast-wind time 4.5 min (45 min), 8.9 min (90 min); 5" H x 12 1/2" W x 10 1/2" D...

LAFAYETTE

RK-899 8-Track Deck
Stereo 8-track deck features selectable auto stop for playback/record modes; dual record level meters; left/right mic input jacks; record level controls; pause control; walnut vinyl covered wood cabinet. Frequency response 50-10,000 Hz; wow and flutter 0.3%; 4 1/2" H x 16 1/2" W x 16 1/2" D...

ER8150A 8-Track Deck
Stereo 8-track deck features selectable auto stop for playback/record modes; dual record level meters; left/right mic input jacks; record level controls; pause control; walnut vinyl covered wood cabinet. Frequency response 50-10,000 Hz; wow and flutter 0.3%; 4 1/2" H x 16 1/2" W x 16 1/2" D...

RS-808 8-Track Deck
Front-loading 8 track record/play deck with slide-in cartridge mechanism; features auto-stop in record/playback modes with LED indicators; auto/manual program selector with LED indicators; locking pause and fast forward switches; left and right channel level controls; two level meters; tape time counter; jacks for mic and headphones; two built-in connection cords. Wow and flutter 0.15% wrms; S/N 45 dB; frequency response 50-12,000 Hz, simulated wood cabinet; 5" H x 14 3/4" W x 9 3/4" D...

FISHER

ER8155 8-Track Deck
Cassette/record deck features Duble VU meters; level controls; pushbutton fast forward, pause, and record interlock; program select button; auto stop button; stereo headphone jack; left and right microphone jacks; timer; program indicators; frequency response 50-8000 Hz; wow and flutter 0.2%; walnut-finish wood case; 4 1/4" x 14 1/8" x 8 5/8"...

RSR-808 8-Track Deck
Front-loading 8-track record/play deck features digital timer; pushbutton control of continuous play, program repeat, auto-stop, 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 wood cabinet; 4" x 16 1/4" x 10 1/4"...

TRC-883 8-Track Deck
Record/play deck features dual VU meters; level controls; pushbutton fast forward, pause, and record interlock; program select button; auto stop button; stereo headphone jack; left and right microphone jacks; timer; program indicators; frequency response 50-8000 Hz; wow and flutter 0.2%; walnut-finish wood case; 4" x 14 1/8" x 8 5/8"...

TRC-884 8-Track Deck
Record/play deck features dual VU meters; level controls; pushbutton fast forward and record interlock; program select button; stereo headphone jack; left and right microphone jacks; program indicators; frequency response 100-8000 Hz; wow and flutter 0.15%; 13 1/2" x 8 1/8" x 5"

SANYO

RD8400A Cassette/8-Track Deck
See Section 6, Cassette Tape Machines, under "Sanyo"

RD8020A 8-Track Deck
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; inputs for right/left mike and aux.; 5" H x 12" W x 10" D...

TRC-880 8-Track Deck
Record/play deck features dual VU meters; level controls; pushbutton fast forward and record interlock; program select button; stereo headphone jack; left and right microphone jacks; program indicators; frequency response 100-8000 Hz; wow and flutter 0.15%; 13 1/2" x 8 1/8" x 5"

REALISTIC

TR-803 8-Track Deck
Record/play deck features digital timer; pushbutton control of continuous play, program repeat, auto-stop, 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 wood cabinet; 4" x 16 1/4" x 10 1/4"...

TRANSAUDIO

3850 8-Track Deck
Stereo 8-track record/playback deck features push button fast forward, auto stop, restart, record, pause, and repeat; separate left/right record level controls; LED channel indicators; dual VU meters with LED stop and record indicators; two mic jacks; phone jack. Wow and flutter 0.2% wrms; frequency response 40-10,000 Hz; 3 dB, S/N 48 dB...

NOTICE TO READERS
Prices of items described are suggested prices only and are subject to change without notice. Actual selling prices are determined by the dealer.
AKAI

VT-300N Nighthawk Portable VCR
Portable 1/4-in, 30-min black-and-white video cassette recorder designed for low-light applications; modular design with optional detachable three-inch black-and-white monitor; includes Nighthawk video camera with C-mount 8:1 zoom lens, detachable 1.5-in VF-300E electronic viewfinder, and built-in omnidirectional electret microphone. Recorder has twin rotating glass and crystal ferrite heads in frequency modulation system; uses USA Standard TV signal; features quick start, piano key function controls, battery meter, and three-digit tape counter with reset; resolution 270 lines, S/N 40 dB (video), 45 dB (audio); output 1 V p-p into 75 ohms (video), -65 dB into 600 ohms (audio); audio frequency response 80-10,000 Hz; accepts Akai VX30 cassette; ac or ac 6 V battery operation; 5.7" H x 9.75" W x 10.4" D. Video camera features 500-line horizontal resolution at 15,750 Hz; video frequency 60 Hz; video output 1 V p-p composite; 8" H x 6.5" D. $2395

VT-350 Portable VCR
Portable black-and-white video cassette recorder with vertical-interval editing, variable speed frame control, and still frame; 1/4-in cassette format; 30-min recording time; twin rotating head, frequency modulation recording system; audio dubbing; includes black and white video camera with "C" lens mount, VF-300E electronic viewfinder, and 8:1 (11.5 to 90 mm) zoom lens; battery or ac power; recorder dimensions: 5.9" H x 9.75" W x 6.5" D; camera dimensions: 3.6" H x 4.3" W x 7.8" D. $2195

ActiVideo VCR/Tuner-Timer
Portable VHS two-hour color video cassette recorder with detachable color TV tuner/adapter/timer. Video recorder has rotary slant azimuth two-head scan system and NTSC color video signal system; features double-speed playback; still and single-frame advance/variable speed playback (still through four times normal speed control); front-panel remote pause control jack; three-digit tape counter with memory; sound dubbing; LED flashing dew warning, battery warning, and tape motion indicators; video horizontal resolution 240 lines; audio frequency response 50-10,000 Hz; tracking control; audio dubbing button; built-in 24-hr digital clock/timer display and automatic start/stop control; remote control; audio dubbing button; built-in electronic VHF/UHF tuner and auto fine tuning (enables user to tape program when TV is off or while watching another program); audio dubbing button; built-in VHF/UHF tuner; tape counter with memory switch and program search; remote pause control for use within 20 ft; tracking control; audio dubbing; dew indicator lamp; 6.5" H x 19.4" W x 15.9" D. $995

GENERAL ELECTRIC

IVCR0010W Video Cassette Recorder
VHS four-hour computer-programmable color video cassette recorder. Features electronic memory bank with five program select buttons as well as LED indicators, auto start, stop, and channel change, repeat program button, and four sequence indicator lights; built-in digital clock/timer display with memory recall (displays pre-programmed schedule of shows); 12-channel pushbutton electronic tuning for any combination of VHF/UHF channels; three-digit tape counter with memory and program search; remote control selector; built-in 24-hr digital clock/timer display with preselected auto start/stop; long/standard play; compact dimensions: 5.7" H x 9.75" W x 11.5" D. Video camera features 500-line horizontal resolution at 15,750 Hz; video frequency 60 Hz; video output 1 V p-p composite; 8" H x 6.5" D. $2195

IVCR0023W Video Cassette Recorder
VHS four-hour color video cassette recorder. Features built-in 24-hr digital clock/timer display with preselected auto start/stop; built-in VHF/UHF tuner; tape counter with memory switch and program search; remote pause control for use within 20 ft; tracking control; audio dubbing button; built-in S/N 45 dB; 20.5 lbs with cassette, battery pack, and controls. S/N 40 dB; 20 lbs with cassette, battery pack, and controls. $1250

GTE PHILCO

V1100 Video Cassette Recorder
VHS 2/4-hour color video cassette recorder with separate remote tape control unit. Features built-in 24-hr electronic digital clock/timer with auto shut off at end of program; built-in VHF/UHF tuners and audio system; system and NTSC color signal system. Features piano-key recording/playback controls including audio dub; three-digit tape counter with memory and program search; remote control; battery and moisture warning indicators; three-way power supply, battery pack compartment, built-in remote converter for channel 3 or 4; tracking control; built-in automatic line/camera input selection; supplied with PBP-1 battery pack, earphone, remote control, built-in remote converter, and antenna selector. Video: input -67 dBs, 10k ohms unbalanced (mic); output -20 dBs, 75 ohms unbalanced (line); frequency response 50-10,000 Hz; horizontal resolution 240 lines; audio frequency response 45 dB (video); video horizontal resolution 240 lines; audio frequency response 50-10,000 Hz; 120 V ac, 60 Hz, 28 W; 6.75" H x 19.4" W x 15.9" D. $1100

GTE SYLVANIA

VC4000 Portable VCR
Portable VHS 2/4-hour color video cassette recorder with separate remote control unit. Features separate record and playback sections; built-in 24-hr programmable digital timer; audio dubbing button; built-in electronic VHF/UHF tuner with pushbutton channel selection; battery pack and carrying strap included in record section. $1500

VC2500 Video Cassette Recorder
VHS 2/4-hour color video cassette recorder with separate remote control unit. Features built-in 24-hr electronic digital clock/timer, built-in VHF/UHF tuners with auto start/stop control, and built-in 24-hr digital clock/timer display when TV is off or while watching another program; auto threading; audio dubbing button; built-in 24-hr converter for channel 3 or 4; three-digit tape counter with memory and program search; remote control; audio dubbing button; built-in electronic VHF/UHF tuner with pushbutton channel selection; battery pack and carrying strap included in record section. $1500

JVC

HR-4100 Vidstar Portable VCR
Portable VHS two-hour color video cassette recorder with rotary slant azimuth two-head helical scan recording system and NTSC color signal system. Features piano-key recording/playback controls including audio dub; three-digit tape counter with memory and program search; remote control; battery and moisture warning indicators; three-way power supply, battery pack compartment, built-in remote converter for channel 3 or 4; tracking control; built-in automatic line/camera input selection; supplied with PBP-1 battery pack, earphone, remote control, built-in remote converter, and antenna selector. Video: input -67 dBs, 10k ohms unbalanced (mic); output -20 dBs, 75 ohms unbalanced (line); frequency response 70-10,000 Hz; S/N 45 dB; 25 lbs with cassette, battery pack, and controls. $1250

HP-4000AU Vidstar Portable VC Player
Portable VHS two-hour color video cassette player with rotary slant azimuth two-head helical scanning system and NTSC color signal system. Playback-only machine features lightweight construction, still playback key that freezes scene for up to four min; built-in remote converter for channel 3 or 4; built-in manual tape control system; audio power system; battery pack compartment, built-in remote converter for channel 3 or 4; tracking control; remote control. $1095
8225 Video Cassette Recorder

VHS programmable 2-4 hr "Tune-Touch" video cassette recorder can be preset for up to seven days to four of 14 UHF/NHF stations, plus four other chosen channels, or along program regularly for as long as tape lasts.

8225 Video Cassette Recorder
indicator; 6:1 zoom lens; 12 V dc, 13.5 W $2595

VHS-5020 Video Cassette Recorder

VHS-5020 four-channel color video cassette recorder records up to six hours of recording over seven-day period. Features digital clock/timer with on-off, built-in VHF and UHF tuners with electronic pushbutton tuning; built-in r-f modulator for channels 3 and 4; tape function automatically stops at that point. Additional features include three-digit tape counter with memory; audio dubbing; LED dio viewfinder. Also rechargeable built-in battery and power. $425

VAS05. Power supply for VHS-5020; recharges bat-
teries and enables standard ac house current opera-
tion. $130

V720. Color video camera with electronic view-
finder, 6.1 zoom lens, and beam electron micro-
scope. $960

MITSUBISHI

HS 200 U Video Cassette Recorder

VHS 2-4-6 hr 5 1/2 in three-speed color video cassette recorder with five dc servo-controlled motors in di-

cable, and 300/75 ohms VHF antenna adapter; 19 lb's with battery; 5/8" H x 12" W x 12" d. $1150

$15. Electronic variable tuner for VHS-200; 14-position electronic tuning system for 14 UHF/ 
VHF channels; remote TV channel changing; per-
mits ac home operation and off-the-air recording; 
also rechargeable built-in battery and power. $425

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**SL-5400 Video Cassette Recorder**

Betamax 4'/s-hr color video cassette recorder with direct-drive dc head and servo capstan motors in rotary-two-head, helical scan system and NTSC/175 video signal. Features BetaScan system for instant forward/reverse search and scan; built-in three-day timer/one-event programmer; fourteen-position pushbutton pushbutton; auto program selector; stop-frame capability; BetaScan Commander remote control with freeze-frame capability up to 15 ft away; audio dubbing; five recording length settings; air-damped cassette lid; remote control?; camera and microphone inputs; video inputs/outputs; automatic shut-off with sleep switch; rotary two-head helical scan recording system; 7.7' H x 19.5' W x 14.6' D. $1000

**SL-3000 Portable VCR**

Betamax 1-hour portable color video cassette recorder with rotary two-head helical scanning system and 50-7000 Hz. Includes -26 dB; earphone; tape input and output of any track for visual review; 220-track digital tape indexing, distortion- and vibration-free tape handling, smaller size and weight, and high-speed tape duplication; uses 1/4-in 100-m tape; graphic-lubricated tape; features include random access and function flexibility; LED track counter display; enter three-digit track number selector; play and record buttons with LED; up/down for preview; scan, or rewind; reset LED track counter display; repeats selected 17-sec track, locks, cancels by play or stop. $1195

**V-5420 Video Cassette Recorder**

Programmable three-hour Beta-format video cassette recorder records up to three different programs within seven-day period. Features built-in electronic digital clock/timer; memory circuits fed with day of program, program channel, program time, and program length; programmable electronic forward/reverse channel selectors (2-13) with LED channel indicators; tape sentinel; piano-key tape function controls with LED indicators; search tape counter with memory reset; LED power, record, standby, and pause indicators; audio dubbing; remote pause control. $1195

**V-5530 Video Cassette Recorder**

Portable three-hour Beta-format video cassette recorder. Features audio dubbing; remote pause; cue and review; touch reference controls; optional built-in battery supply; alligator-type cigarette lighter plug. $1250

**LVR Video Tape Recorder**

Endless-loop tape fixed-head fixed-speed one-hour color video tape recorder. System features simplified internal mechanics, 17 sec fast-access time to any track for visual review; 220-track digital tape indexing, distortion- and vibration-free tape handling, smaller size and weight, and high-speed tape duplication; uses 1/4-in 100-m tape; graphic-lubricated tape; additional features include random access and function flexibility; LED track counter display; enter three-digit track number selector; play and record buttons with LED; up/down for preview, scan, or rewind; reset LED track counter display; repeats selected 17-second track, locks, canceled by play or stop; stop and eject. Video: EIA NTSC-compatible color in and out signals; S/N 42 dB min.; resolution 240 lines (color); track access time 20 msec/track; single track loop time 16.7 sec; audio S/N 40 dB; 5/8" H x 12'/1" W x 13'/1" D. approx. $600

**SHARP**

**VC-6700 Video Cassette Recorder**

VHS microprocessor-controlled programmable six-hour video cassette recorder features memory preset that is programmable over three-week periods; auto program locate device; four-digit LED counter/... tape memory. $195

**TOSHIBA**

**V-5425 Portable VCR**

Betamax two-speed five-hour programmable portable video cassette recorder. Features compact 1-sec 30-programmable electronic tuning system that presets up to three programs per week; freeze frame, fast forward, and reverse one-hour recording; 175 lines; 220-track digital tape counter with fast forward/review auto find and counter memory rewind; LED digital clock/program frequency display with adjust switch; audio dubbing; remote control, record, long play, pause/still, and tape function indicators. $1345

**V-5420 Video Cassette Recorder**

Programmable three-hour Beta-format video cassette recorder records up to three different programs within seven-day period. Features built-in electronic digital clock/timer; memory circuits fed with day of program, program channel, program time, and program length; programmable electronic forward/reverse channel selectors (2-13) with LED channel indicators; tape sentinel; piano-key tape function controls with LED indicators; search tape counter with memory reset; LED power, record, standby, and pause indicators; audio dubbing; remote pause control. $1195
AMPEX

Grand Master II Series Cassettes
High bias; 70 µsec equalization.
366-C60 60 min. .......... $4.19
366-C90 90 min. .......... $4.79

Grand Master I Series Cassettes
Normal bias; 120 µsec equalization.
365-C60 60 min. .......... $3.69
365-C90 90 min. .......... $4.79

20/20 Series Cassettes
364-C45 45 min. .......... $2.39
364-C60 60 min. .......... $2.69
364-C90 90 min. .......... $3.79
364-C120 120 min. ...... $5.29

Plus Series Cassettes
371-C45 45 min. .......... $1.39
371-C60 60 min. .......... $1.69
371-C90 90 min. .......... $2.79
371-C120 120 min. .... $4.19

Low-Noise Series Cassettes
352-C45 45 min. .......... $0.99
352-C60 60 min. .......... $1.29
352-C90 90 min. .......... $1.89
352-C120 120 min. ... $3.39

Grand Master Series Cartridges
389-45 45 min. .......... $3.29
389 90 90 min. .......... $3.99

20/20 Series Cartridges
388-45 45 min. .......... $2.79
388 90 90 min. .......... $3.49

Plus Series Cartridges
382-45 45 min. .......... $2.29
382 90 90 min. .......... $2.79

Grand Master Series Open-Reel Tapes
356 1511J1 1200 ft, 7-in reel, 1.5 mil. $8.69
357 1511J1 1800 ft, 7-in reel, 1.0 mil. $9.99
356 1731J1 2500 ft, 10'-in NAB reel, 1.5 mil. $22.99
357 1731J1 3600 ft, 10'-in NAB reel, 1.0 mil. $26.49

Plus Series Open-Reel Tapes
372-151111 1200 ft, 7-in reel, 1.5 mil. $7.39
373-151111 1800 ft, 7-in reel, 1.0 mil. $8.99

Plus Series Open-Reel Tapes
332-151111 1200 ft, 7-in reel, 1.5 mil. $5.89
342 151111 1800 ft, 7-in reel, 1.0 mil. $7.39

Accessories
E3220BC. Demagnetizer/head cleaner for cassette players/recorders ...... $4.69
E3228BC. Demagnetizer/head cleaner for 8 track/cassette players/recorders $5.59
ST 1 Cassette storage unit .......... $1.49
G-RC1-1 Record care kit ......... $7.99
G TRCK 1 Tape recorder care kit .... $7.99

BASF

Professional I Series Cassettes
Ferric oxide; normal bias/equalization for imported decks.
60 min. .......... $3.49
90 min. .......... $4.99

Professional II Series Cassettes
Super chrome; normal bias; 70 µsec equalization.
60 min. .......... $3.69
90 min. .......... $5.29

Professional III Series Cassettes
Ferrichrome for "third" switch position.
60 min. .......... $3.69
90 min. .......... $5.29

Studio I Series Cassettes
Normal bias/equalization.
60 min. .......... $3.29
90 min. .......... $4.99

Studio II Series Cassettes
High bias, chrome equalization.
60 min. .......... $3.49
90 min. .......... $4.99

Performance Series Cassettes
Normal bias/equalization, mirror-polished tape; snap pack or mailer-box enclosure.
45 min. .......... $2.49
60 min. .......... $2.69
90 min. .......... $3.79
120 min. .......... $4.99

Studio Series 8-Track Cartridges
High output/low noise; mirror polished; boxed or carded enclosure.
45 min. .......... $2.49
60 min. .......... $2.69
90 min. .......... $3.79
120 min. .......... $4.99

Video Cassette Tape

Betamax Format
2T60, 60 min. .......... $16.95
2T120 120 min. ...... $22.95

Music Box
Black plastic storage cabinet holds up to 40 cassettes; can be mounted on wall or set on shelf. $15.00

Accessories
8-track headcleaner .......... $1.99
Cassette head cleaner ....... $1.79
7-in plastic storage box ...... $2.69
7-in plastic reel ......... $1.59

"The Music Tape" Cartridges
High output low noise with "cushion core" backing.
C 45 45 min. .......... $1.99
C 60 60 min. .......... $2.49
C 90 90 min. .......... $3.69

"The Music Tape" Cartridges
High output low noise.
BT-45 45 min. .......... $2.49
BT-60 60 min. .......... $2.79
BT-90 90 min. .......... $2.99
BT 100 100 min. ...... $3.19
BT 120 120 min. ...... $3.79

CERTRON

High Energy Gamma
Oxide formulation; durable binder system.
C 60 HE 60 min. .......... $1.99
C 90 HE 90 min. .......... $2.39
C 120 HE 120 min. ...... $2.99

Low Noise
C 30 LN 30 min. .......... $0.89
C 45 LN 45 min. .......... $0.99
C 60 LN 60 min. .......... $1.09
C 90 LN 90 min. .......... $1.49
C 120 LN 120 min. ...... $1.79

High Density
C 30 HD 30 min. .......... $1.19
C 45 HD 45 min. .......... $1.29
C 60 HD 60 min. .......... $1.49
C 90 HD 90 min. .......... $1.89
C 120 HD 120 min. ...... $2.29

Memotape for Minicassette
MT30 30 min. .......... $3.99

Video Cassette Tape

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dates all types of cassette decks; normal bias set-
ty of cassette decks and program sources; ferri-
level; bias setting of 70 µsec; compatible with vari-
curve and
Double -coated FeCr-type music tape; broad bias

MT40. 40 min .......................... $4.99

Dictation Cassette
D30. 30 min ................................ $1.69
D45. 45 min ................................ $1.79
D60. 60 min ................................ $1.89
D90. 90 min ................................ $2.39

8-Track Cartridges
8T-45. 45 min ................................ $1.49
8T-65. 65 min ................................ $1.69
8T-90. 90 min ................................ $1.99

Tape Accessories
CHC. Cassette head cleaner ............... $0.99
BT HC. 8-track head cleaner ............... $1.19

DENON

FX-I Premium Cassette Series
Pure Ferris; normal bias; 120 µsec equalization.
C46FX-I. 46 min ................. $4.29
C60FX-I. 60 min ................. $4.89
C90FX-I. 90 min ................. $6.70

FX-II Premium Cassette Series
Beritox; high bias; 70 µsec equalization.
C46FX-II. 46 min ............... $4.40
C60FX-II. 60 min ............... $5.10
C90FX-II. 90 min ............... $6.95

FL Low-Noise Cassettes
C46FL. 46 min ............................. $3.00
C60FL. 60 min ............................. $3.40
C90FL. 90 min ............................. $4.70
C120FL. 120 min ......................... $6.50

8-Track Cartridges
8T-45 ........................................ $4.20
8T-90 ........................................ $5.60

FB-151 Master 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-in reel ........................ $12.25
1800-ft., 7-in reel ........................ $15.85
3600-ft., 10'/in metal reel ............... $43.20

Video cassette Tapes
VHS Beritox; high impact ABS housing.
T-120. 2-4 hr ......................... $25.50
T-90. 1-1/2 hr ......................... $22.95
T-40. 1 hr ............................... $18.35
T-30. 0.5-1 hr ......................... $15.50
Beta videocassette Tapes.
L-900. 1-2 hr ......................... $17.50
L-360. 1-1/2 hr ......................... $14.90
L-250. 0.5-1 hr ......................... $13.25
L-125. 15-30 min ...................... $11.95

EMI by EMPIRE SCIENTIFIC

Dak Industries

ML Cassettes
Normal bias; 120 µsec equalization.
ML46. 46 min ............................. $1.49
ML60. 60 min ............................. $1.76
ML90. 90 min ............................. $2.49

HEC Cassettes
Normal bias and equalization.
HEC 40. 40 min ........................ .. $1.27
HEC 60. 60 min ........................ .. $1.57
HEC 90. 90 min ........................ .. $1.91
HEC 120. 120 min ...................... $2.96

EC Special Length Cassettes
Normal bias and equalization.
EC32. 32 min ........................... $0.91
EC62. 62 min ........................... $1.03
EC92. 92 min ........................... $1.23
EC122. 122 min ......................... $1.82

LNC Cassettes
Low noise; normal bias and equalization.
LNC30. 30 min .......................... $0.77
LNC60. 60 min .......................... $0.92
LNC90. 90 min .......................... $1.17
LNC120. 120 min ...................... $1.89

C Voice Cassettes
Normal bias and equalization.
C30. 30 min .............................. $0.69
C60. 60 min .............................. $0.81
C90. 90 min .............................. $1.04
C120. 120 min ......................... $1.74

FUJI

Metal Tape
Very high output, ultra-low noise, 7-12 dB higher
MOL than chrome; metal bias; 70 µsec equaliza-
tion.
C46. 46 min .............................. $9.98
C60. 60 min .............................. $10.97

Cassette in Polybag
2000C-90SP 180 min .................. $5.90
2000C-60SP 120 min .................. $5.90
261-C90 90 min ......................... $3.00
261-C120 120 min ...................... $5.30
2000-C90 90 min ......................... $3.00
2000-C60 60 min ......................... $2.05
2000-C90B 90 min ......................... $2.10
262-C90 90 min ......................... $2.85
262-C90. 90 min ......................... $4.25

IRISH

Low-Noise, Extended-Range Cassettes
Flip-top plastic box.
262-C60 60 min ......................... $2.85
262-C90 90 min ......................... $4.25

IRISH

Professional-Series Cassettes
In album/mailer.
261-C45 45 min ......................... $1.51
261-C60 60 min ......................... $2.20
261-C90 90 min ......................... $3.00
261-C120 120 min ...................... $5.30
2000-C30 30 min ......................... $1.40
2000-C60 60 min ......................... $1.60
2000-C90 90 min ......................... $2.05
2000-C90PB 90 min ....................... $2.10
262-C60 60 min ......................... $2.85
262-C90 90 min ......................... $4.25

Cassette in Polybag
2000C-90SP 180 min .................. $4.10

Two 8-Track Cartridges in Box
2X42. Two 42 min ......................... $3.90
2X84. Two 84 min ......................... $4.40

270 Series Tape
Low-noise, high-output, back coated.
276-151. 1200-ft. 7-in reel ............ $13.15
277-151. 1800-ft. 7-in reel ............ $17.20

200 Series Professional Tape
Standard, 1/2-mil, polyester base, 1/4-in.
231-151. 1200-ft. 7-in reel ............ $8.75
233-151. 1800-ft. 7-in reel ............ $11.25

STEREO DIRECTORY & BUYING GUIDE
You get $35.21 in bribes when you try 10 DAK ML90 high energy cassettes risk free for only $2.19 each. Your bribe is bigger than your purchase!

Hats off to Maxell. Their UDXL cassette established a new standard of sound quality for all cassettes.

The new DAK ML90 starts another new technology. A technology of protection from HI frequency loss and of extreme reliability.

Later we are going to offer you valuable bribes, just for testing these cassettes. risk free; so read on!

YOUR TIME IS Precious

Imagine yourself just finishing recording the second side of a 90 minute cassette and horrors, the cassette jams. Tape is wound around the capstan, your recorder may be damaged and you've just wasted 90 minutes of your time and perhaps lost a great recording off FM.

When we first started, 12 years ago, DAK's cassettes failed, just like many others. So we installed over $20,000 worth of high speed duplication equipment at our factory and set out to design the perfect cassette.

MOLYSULFIDE

Failure after failure. For six years we substituted, remade, tested and retested until we positively linked the major cause of cassette failure to the slip sheets, or liners in the cassette. Evidently, 3M and TDK were hot on our heels, because they have now also come out with new liners.

We developed polyester slip sheets with raised spring loaded ridges to guide each layer of tape as it winds. We coat the liners with a unique formulation of graphite and a new chemical, moly sulfide.

Moly sulfide reduces friction several times better than graphite and allows the tape to move more freely within the cassette. The polyester is tougher and makes the liner much more resistant to wear.

HI frequency protection! Tape is basically plastic, and as it moves within the cassette internal friction causes the build up of static electricity, much as rubbing a balloon against your hair, or scuffing your shoes on a carpet in dry weather.

Static electricity within the cassette was drastically reduced by the low friction of the moly sulfide and easily blew off, so that its tendency to erase very high frequencies was drastically reduced. A very important consideration for often played tapes.

MAXELL IS BETTER

Yes, honestly, if you own a $1000 cassette deck like a Nakamichi, the frequency responses of Maxell UDXL or TDK SA are superior to DAK and you just might be able to hear the difference.

DAK ML has a frequency response that is flat from 40cps to 14,500 ±3db. Virtually all cassette recorders priced under $600 are flat ±2db from 40cps to about 12,000cps, so we have over 2000cps to spare, and you'll probably never notice the difference.

No apology. We feel that we have equaled or exceeded the mechanical reliability of virtually all cassettes and offer one of the best frequency responses in the industry. Maxell UDXL is truly the Rolls Royce of the industry, and DAK is comparable to the 100% US made Cadillac or Corvette!

Price DAK manufactures the tape we sell. You avoid paying the wholesaler and retailer profits. While Maxell UDXL 90s may sell for $3.50 to $4.50 each at retail, DAK ML90s sell factory direct to you for only $2.19 each complete with deluxe boxes and index insert cards.

YOU WIN

You are paying less for the 10, 90 minute cassettes than you would pay for the comparable bribes we are offering if you went to a Radio Shack store.

CHECK THE VALUE OF THE DAK BRIBES AT RADIO SHACK

The next time your batteries are dead in a calculator, radio, flashlight or battery operated recorder, you'll be glad you have this versatile battery eliminator AC adaptor.

You'll save lots of money on batteries because now you can plug in, instead of using up expensive batteries. 4 voltages: 3, 4.5, 6 and 9 volts plus 4 plugs to fit virtually anything battery powered. Radio Shack sells a similar 4 voltage adaptor for $8.95. Think of it, 10 of the most commonly used six foot hook up cords with RCA plugs at each end. You can connect friends recorders, extra tuners, or virtually any stereo equipment. You'll certainly appreciate these cords in the years to come. Radio Shack sells their six foot cords for $1.89 each.

You need clean tape heads to make good recordings. The easiest way to anticipate your heings is with DAK's 12 oz. deluxe spray head cleaner, complete with handy snorkel tube. Radio Shack doesn't sell a single large 12 oz. can, but 12 oz. from them costs $6.65.

The comparable Radio Shack prices are not list prices, but the actual prices you would pay at a store when this ad was written.

WE WIN TOO

Customers like you are very valuable in the form of future business. We anticipate receiving over 6000 orders and 4500 repeat customers from this advertisement to add to our list of over 57,000 "actives." We are betting you will buy our cassettes and we are putting our money where our mouth is!

TRY DAK ML90 FREE

We want you to try these high energy cassettes on your own recorder without obligation for 30 days. If you aren't 100% satisfied for any reason, simply return the tapes and bribes to DAK for a full refund.

To order your 10 DAK ML90 minute high energy cassettes and receive your $35.21 bribe with your credit card, simply call toll free 800, 423-2636, (in Calif. call 213-984-1559) or send your check for $21.90 plus $3 for postage and handling for each group of 10 cassettes and bribes to DAK. (Calif. residents add 6% sales tax). DAK unconditionally guarantees all DAK cassettes for one year against any defects in material or workmanship.

Why not order an extra group of 10 DAK ML90 cassettes for yourself or a friend? We will add one free ML90 cassette to each additional 10 you buy and of course you get all 3 bribes with each group of 10 tapes.

FREE CATALOGUE "HOW TO RECORD" BOOKLET

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DAK INDUSTRIES INCORPORATED

10845 Vanowen St., North Hollywood, CA 91605

CIRCLE NO. 77 ON READER SERVICE CARD
<table>
<thead>
<tr>
<th>Model</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>UD-XL-1</td>
<td>Epitaxial Cassettes</td>
<td>Normal bias; 120 µsec equalization.</td>
</tr>
<tr>
<td>UD-XL-2</td>
<td>Epitaxial Cassettes</td>
<td>Normal bias; 120 µsec equalization.</td>
</tr>
<tr>
<td>U-Dynamic</td>
<td>Cassettes</td>
<td>Normal bias; low noise.</td>
</tr>
<tr>
<td>Low-Noise</td>
<td>Cassettes</td>
<td>Normal bias; low noise.</td>
</tr>
<tr>
<td>Ultra-Dyna</td>
<td>Magnetic Tape</td>
<td>Magnetic tape features skew adjustment facility, stainless-steel metal tape</td>
</tr>
</tbody>
</table>
Our pressure pad is locked into a special four-sided retainer to maintain perfect tape-to-head contact.

Our slip sheet is made of a substance that's so slippery, even glue can't stick to it.

Our leader not only keeps you from making recording errors, it also keeps your tape heads clean.

Our cassette is held together by steel screws to assure precise alignment and even distribution of pressure on all sides of the cassette.

Our special guide rollers make sure our tape stays perfectly aligned with your tape heads.

Our standard cassette shell is finished to higher tolerances than industry standards.

Our tape window is welded in to keep dust out.

Our recording tape is considered by most audiophiles to be the world's finest tape.

There's more to the world's best tape than the world's best tape.

Our reputation for making the world's best tape is due in part to making the world's best cassettes. In fact, we put more thought and more work into our cassettes than most manufacturers put into their tape.

We do all this, because at Maxell we believe in a simple philosophy. To get great sound out of a cassette takes a lot more than just putting great tape into it.

maxell

CIRCLE NO. 46 ON READER SERVICE CARD
features directly switch and five-position function switch for mic adjustment; internal battery or phantom power; frequency response 10-15,000 Hz; 250-ohm output impedance; S/N 70 db; max. SPL 140 db; dynamic range 116 db; high-cut switch; pad switch; FET circuit; windscreen and shock mount; fixed mike connector; 20-ft cable; comes with carrying case; 3" diameter x 8'/u\" L.... $505

ECM-35P Cardioid Microphone
Unidirectional cardioid back electret condenser microphone designed for desk or podium use; frequency response 40-15,000 Hz; 250-ohm output impedance; S/N 66 db; max. SPL 126 db; dynamic range 98 db; movable head; battery-powered (optional power supply available); fixed mic connector; 10'-ft cable; XLR-3 mic connector; includes windscreen, carrying case, battery, and stand adapter; 1/2" diameter x 10'/u\" L.... $285

F-680 Dynamic Microphone
Unidirectional dynamic microphone for vocal/orchestral recording; frequency response 100-10,000 Hz; 250-ohm output impedance; safety lock; XLR-3 mike connector; includes double windscreen and mic holder, 1/2" dia. x 6'/u\" L.... $250

ECM-56F Electret Condenser Mike
Back electret condenser microphone; unidirectional; frequency response 20-20,000 Hz; 250-ohm output impedance; S/N 66 db; max. SPL 134 db; dynamic range 106 db; low-cut switch; external phantom power system or battery power; battery check lamp; 90 degree adjustable angle; rubber cushion in mounting reduces vibration; fixed mic connector; 20'-ft cable; 2" dia. x 8'/u\" L.... $245

ECM-65F Electret Condenser Mike
Hand-held professional back electret condenser microphone; unidirectional; frequency response 40-20,000 Hz; 250-ohm output impedance; S/N 66 db; max. SPL 117 db; dynamic range 109 db; double windscreen; phantom power system or battery power; XLR-3 mike connector; 20'-ft cable; 1/2" diameter x 7'/u\" L.... $235

ECM-50PS Electret Condenser Mike
Professional omnidirectional electret condenser microphone with miniature design; frequency response 40-14,000 Hz; 250-ohm output impedance; S/N 66 db; max. SPL 126 db; dynamic range 98 db; phantom power supply or internal battery; non-reflective satin nickel finish; comes with windscreen, carrying case and tie clip; fixed mike connector; 10'-ft cable; 1/4" diameter x 6'/u\" L.... $225

F-115 Dynamic Microphone
Omni-directional dynamic microphone for outdoor use in all weather conditions; built-in waterproof scree; wind-rejecting accessory windscreen; frequency response 40-12,000 Hz; 600-ohm output impedance; vibration-proof rubber mount included with "Cannon" plug; fixed mike connector; 20'-ft cable; 1/4" diameter x 6'/u\" L.... $160

ECM-990F Electret Condenser Mike
Single-point stereo back electret condenser microphone for studio-quality performance; omnidirectional; frequency response 40-16,000 Hz; 200-ohm output impedance; S/N 64 db; max. SPL 117 db; dynamic range 98 db; back electret/FET impedance transformer (optional); fixed microphone; 10'-ft cable; includes windscreen and mic holder; 1/4" diameter x 7'/u\" L.... $60

ECM-30 Condenser Microphone
Professional omnidirectional condenser microphone with ultra-miniature design; frequency response 50-14,000 Hz; 250-ohm output impedance; S/N 60 db; max. SPL 126 db; dynamic range 93 db; battery-powered; balanced output with "Cannon" XLR; fixed mike connector; 10'-ft cable; includes carry case, windscreen, and tie clip; 1/4" diameter x 7'/u\" L.... $105

ECM-32F Condenser Microphone
Unidirectional back electret microphone; 20-20,000 Hz frequency response; 250-ohm output impedance; S/N 66 db; max. SPL 130 db; dynamic range 102 db; output for both balanced and unbalanced circuit; FET impedance translator; battery power; low-cut switch; pad switch; comes with windscreen, carrying case, microphone, and mike holder; XLR-3 connector; 1/2" diameter x 7'/u\" L.... $100

ECM-41 Electret Condenser Microphone
Unidirectional electret condenser microphone designed for studio interviews; telescopic design; frequency response 50-13,000 Hz; 250-ohm output impedance; S/N 63 db; max. SPL 126 db; dynamic range 95 db; satin nickel finish; fixed mic connector; 8'-ft cable; XLR-3 connector; battery-powered; includes windscreen and mic holder; 1/2" diameter x 10'/u\"x19'/u\" L adjustable.... $95

ECM-33F Condenser Microphone
Similar to ECM-23F except battery or phantom powered; max. SPL 126 db; dynamic range 98 db; 1/4" diameter x 6'/u\" L.... $185

F-560 Dynamic Microphone
Unidirectional dynamic microphone designed for vocal, PA, and outdoor use; frequency response 80-13,000 Hz; 250-ohm output impedance; low-cut switch; diecast aluminum body; XLR-3 mic connector; 6'-ft 5-in cable; includes mic holder; 1/4" diameter x 6'/u\" L.... $90

ECM-170A Electret Condenser Mike
Omni-directional electret condenser microphone for semi-professional use; good for recording or lecturing outdoors; frequency response 20-20,000 Hz; 200-ohm output impedance; S/N 64 db; max. SPL 126 db; dynamic range 98 db; 200-ohm output impedance; battery powered; fixed mike connector; mini plug fits most portable tape recorders; 8'-ft cable; 1/4" diameter x 7'/u\" L.... $32

ECM-210 Dynamic Microphone
Unidirectional dynamic microphone with dual -pin plug for use with tape recorders that feature remote start and stop capability.... $35

F-99M Stereo Dynamic Microphone
One-point stereo dynamic microphone for hi-fi recording; frequency response 50-12,000 Hz; 250-ohm output impedance; mini-plugs connect to hi-fi system mic inputs; fixed mike connector; 5'-ft cable; 1/4" diameter x 6'/u\" L.... $30

F510 Dynamic Microphone
Unidirectional microphone for general amateur application; frequency response 80-12,000 Hz; 320-ohm output impedance; talk switch; built-in windscreen; rugged aluminum alloy construction; fixed mike connector; 10'-ft cable; comes with stand and plug adapter; 1/4" dia. x 7'/u\" L.... $28

F-500 Dynamic Microphone
Unidirectional microphone for general use; frequency response 80-12,000 Hz; 320-ohm output impedance; mini-plug connections; fixed mike connector; 8'-ft cable; 1/4" diameter x 7'/u\" L.... $22

F-500S Dynamic Microphone
Similar to F-500 except has dual plugs for connection to recorders that feature remote start and stop capability; start/stop switch is on microphone body.... $24

As of presstime, Sony will introduce the ECM-220FA electret condenser microphone at $50 and two wireless microphone systems. For more information, write directly to Sony.

TEAC
ME-120 Dynamic Microphone
Cardioid or omni directional dynamic electret microphone; two-position response switch; 40-18,000 Hz (cardioid), 30-16,000 Hz (omni directional); supplied with stand attachment, two wind-screens, and 15'-ft cable.... $120
ME-80. Same as ME-120 except response 50-16,000 Hz.... $50
ME-50. Same as ME-80 except cardioid; unbalanced or balanced 10,000 or 200-ohms; response 50-14,000 Hz.... $50
CAR STEREO EQUIPMENT

ALPINE

7307 Preamp/Tuner/Cassette Deck
In-dash AM-Stereo FM radio and cassette cassette player with auto eject and locking fast forward and rewind. Radio features LED digital clock and frequency readout; AM/FM LED indicators; local/distant and mono/stereo switches; built-in stereo balance and speaker fader controls; input for audio motorized antenna. Wow and flutter 0.05%; FM usable sensitivity 1.0 µV; FM S/N 72 dB. $330

7203 AM-Stereo FM Cassette Player
In-dash AM-Stereo FM radio and cassette cassette deck. Cassette deck features Dolby noise-reduction system, hard-permalloy tape head, stereo cassette and electronic glide eject; Cr02FeCr selector switch; tape auto eject at end of play or fast forward; frequency response 30-12,000 Hz; FM usable sensitivity 1.5 µV; FM S/N 60 dB (Dolby on); FM capture ratio 1.5 dB; 0.75" W; $320

7204 AM-Stereo FM Cassette Player
In-dash AM-Stereo FM radio and cassette cassette deck with automatic reverse and electronic motor speed control, adjustable shafts and trimplates and DIN standard nosepiece to fit foreign cars. Features locking fast forward and rewind, LED tape, stereo and AM/FM indicators, and local/distant, eject and AM/FM band selector switches. Wow and flutter 0.13%; frequency response 30-12,000 Hz; FM S/N 55 dB; amp output 5 W continuous; FM THD 1.0% at 1 W; FM sensitivity 1.5 µV; $200

7206 AM-Stereo FM Cassette Player
In-dash AM-Stereo FM radio and cassette cassette deck. Cassette deck features Dolby noise-reduction system, hard-permalloy tape head, stereo cassette and electronic glide eject; Cr02FeCr selector switch; tape auto eject at end of play or fast forward; frequency response 30-12,000 Hz; wow and flutter 0.13%; FM usable sensitivity 1.0 µV; FM S/N 60 dB; FM capture ratio 1.5 dB; 0.75" W; $200

ALTIUS

CLA-3740 AM-FM/Cassette Player
In-dash AM-Stereo FM radio and cassette cassette player with digital readout and clock, and stereo cassette player with auto reverse. Features tape eject, locking fast forward and rewind, and tape direction indicator. Radio features five preset pushbutton tuning, auto FM muting, hr/min adjustment, local/distant switch, stereo indicator light, and front/rear fader and left/right balance controls. Wow and flutter 0.2%; frequency response 30-12,000 Hz; FM S/N 45 dB; amp output 3 W continuous; FM THD 1.0% at 1 W; FM sensitivity 4.8 µV; FM S/N 60 dB; FM stereo separation 35 dB at 1000 Hz; 12 V negative ground; $135

CXR-2392 AM-FM/Cassette Player
Combines stereo cassette player with AM-Stereo FM radio, locking fast forward and rewind, fader, treble, and bass controls, tape indicator light; pushbutton tuning; muting; mono/stereo selector; tape-end eject; power-off eject; 4.8 ohm impedance; audio output 25 W continuous; 14.4 V dc; 7.1 in. W; $330

CXS-2376 AM-FM/Cassette Player
In-dash AM-Stereo FM radio and side-loading stereo cassette player with auto reverse and electronic motor speed control, adjustable shafts and trimplates and DIN standard nosepiece to fit foreign cars. Features locking fast forward and rewind, LED tape, stereo and AM/FM indicators, and local/distant, eject and AM/FM band selector switches. Wow and flutter 0.05%; frequency response 30-12,000 Hz; FM S/N 55 dB; amp output 5 W continuous; FM THD 1.0% at 1 W; FM sensitivity 1.5 µV; $200

ELR-3742 AM-Stereo FM/8-Track Player
In-dash AM-Stereo FM pushbutton radio with digital readout/clock display and stereo 8-track player with LED program indicators. Features five preset pushbutton tuning, auto FM muting, hr/min adjustment, local distant switch, AM-FM mode control, stereo indicator light; fader and bass/treble balance controls. Wow and flutter 0.25%; frequency response 30-18,000 Hz; S/N 50 dB; amp output 15 W continuous; FM THD 2.0% at 1 W; FM sensitivity 1.9 µV; $200

PB-4155 AM-FM/8-Track Player
Combines stereo 8-track player with AM-FM stereo radio. Features locking fast forward, separate bass and treble controls, fader control (four-way speaker balance); automatic balance control; program repeat; tape eject; stereo/mono selector; stereo channel indicator lights; power indicator light; manual channel selector; preset pushbutton tuning, local distant switch; adjustable shafts; 4.8 ohm impedance; audio output 25 W continuous; 14.4 V dc. $259

Super Separates Line

CS-032 AM-Stereo FM/Cassette Player
In-dash AM-Stereo FM tuner and cassette cassette player features Dolby noise-reduction system. Cassette features auto reverse, loudness contour, tape switch for Cr02FeCr, locking fast forward and rewind, tape eject, and LED tape direction indicator. Radio features LED AM/FM stereo indicators, local/distant switch, AM-FM mode control, stereo indicator light; fader and bass/treble balance controls. Wow and flutter 0.15%; FM S/N 60 dB with Dolby; FM sensitivity 2 µV for 30 dB quieting; stereo separation 35 dB at 1000 Hz; 7.14" H; 7.10" W; $332

CS-032 AM-Stereo FM/8-Track Player
In-dash AM-Stereo FM tuner and stereo 8-track player features locking fast forward and rewind, LED program indicators, and program repeat switch. Radio features FM muting, LED stereo indicator, local/distant switch and AM/FM mode selector. Wow and flutter ("A" weighted) 1.5%; FM S/N 60 dB; FM sensitivity 2 µV for 30 dB quieting; stereo separation 35 dB at 1000 Hz; 7.14" H; 7.10" W; $332

Super Separates Line

CS-052 AM-Stereo FM/Cassette Player
In-dash AM-Stereo FM tuner and cassette cassette player features Dolby noise-reduction system. Cassette features auto reverse, loudness contour, tape switch for Cr02FeCr, locking fast forward and rewind, tape eject, and LED tape direction indicator. Radio features LED AM/FM stereo indicators, local/distant switch, AM-FM mode control, stereo indicator light; fader and bass/treble balance controls. Wow and flutter 0.15%; FM S/N 60 dB with Dolby; FM sensitivity 2 µV for 30 dB quieting; stereo separation 35 dB at 1000 Hz; 7.14" H; 7.10" W; $332

CS-101 Preamp/40-W amplifier and five-band graphic equalizer for CS-032. $135

1980 EDITION

159
### Audiovox

<table>
<thead>
<tr>
<th>Model</th>
<th>Type</th>
<th>Features</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS-152 Cassette Deck</td>
<td>In-dash cassette deck with Dolby noise-reduction system.</td>
<td>Features include electronic tuning with green LED digital display, pushbutton sonic eject for CR-O, and separate bass, treble and balance controls.</td>
<td>$210</td>
</tr>
<tr>
<td>ID-610/CAS-310 AM-FM/Cassette</td>
<td>In-dash unit combines AM/FM radio/cassette deck player; has company's ASU noise suppression circuit for FM reception, sensitivity 1.0 mV at 1 W, 0 dB crosstalk -33 dB. Radio features variable tone control, balance control, mono/stereo switch, manual tuning control, station frequency indicators, and ASU noise suppression circuit.</td>
<td>Designed to fit most imported cars and has adjustable feel. 2&quot; x 7&quot; x 5&quot; x 5/8&quot; x 5/8&quot;</td>
<td>$303</td>
</tr>
<tr>
<td>CR-2000D AM-FM/Cassette</td>
<td>In-dash AM-FM stereo/cassette player. Can be used in domestic cars for domestic cars.</td>
<td>Features Dolby noise-reduction system, FM/FM circuitry, auto reverse, power eject control, locking fast forward and rewind, and program select switch.</td>
<td>$275</td>
</tr>
<tr>
<td>Bamberg 'E' US AM-FM/Cassette Player</td>
<td>In-dash AM-FM stereo radio/cassette player. Combines AM-FM radio, eight-track player, and recordable/replayable tape. Radio features preset electronic station selection.</td>
<td>5 W/channel, DIN Std. noise-piece, 130 mm shaft spacing.</td>
<td>$844</td>
</tr>
</tbody>
</table>

### CAMM Chromatics

<table>
<thead>
<tr>
<th>Model</th>
<th>Type</th>
<th>Features</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC-20 AM-Stereo FM/Cassette Player</td>
<td>In-dash digitally-synthesized AM-FM pushbutton radio with memory, stereo cassette player, and built-in quartz clock. In dash unit combines AM/FM radio/casset deck player, has company's ASU noise suppression circuit for FM reception, sensitivity 1.0 mV at 1 W, 0 dB crosstalk -33 dB. Radio features variable tone control, balance control, mono/stereo switch, manual tuning control, station frequency indicators, and ASU noise suppression circuit.</td>
<td>Designed to fit most imported cars and has adjustable feel. 2&quot; x 7&quot; x 5&quot; x 5/8&quot; x 5/8&quot;</td>
<td>$303</td>
</tr>
<tr>
<td>CR-2000D AM-FM/Cassette</td>
<td>In-dash AM-FM radio/cassette player. Combines AM-FM radio, eight-track player, and recordable/replayable tape. Radio features preset electronic station selection.</td>
<td>5 W/channel, DIN Std. noise-piece, 130 mm shaft spacing.</td>
<td>$844</td>
</tr>
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</table>

### STEREO DIRECTORY & BUYING GUIDE

- **BERLIN US AM-FM/Cassette Player**
  - Flexible-mount electronic remote control AM-stereo FM/LW/SW eight band radio with fast forward/rewind control. Comes with in- or under dash stereo cassette player/recorder; features pushbutton fast forward, rewind, record, playback, mic, radio and pause controls. 5 W/channel. | $1240 |
- **Audiolab**
  - Stereo cassette deck with Dolby noise-reduction system. Features Dolby circuitry, auto reverse, power eject control, locking fast forward and rewind, and program select switch. | $1085 |
- **Berlin US AM-FM/Cassette Player**
  - Flexible-mount electronic remote control AM-stereo FM/LW/SW eight band radio with fast forward/rewind control. Comes with in- or under dash stereo cassette player/recorder; features pushbutton fast forward, rewind, record, playback, mic, radio and pause controls. 5 W/channel. | $1240 |
- **Bamberg 'E' US AM-FM/Cassette Player**
  - In-dash AM-FM radio/cassette player. Combines AM-FM radio, eight-track player, and recordable/replayable tape. Radio features preset electronic station selection. | 5 W/channel, DIN Std. noise-piece, 130 mm shaft spacing. | $844 |
- **Heidelberg**
  - Similar to Bamberg 'E US without preset station selection. | $739 |
FM pushbutton preset tuning; ASU noise suppression circuitry; 5 W/ch; DIN Std. nosepiece; 130 mm shaft spacing. $218
Franklin US. Similar to Franklin US Stereo except mono radio with five-station pushbutton tuning; $5. $128

CRAIG

JS-6200 AM-Stereo FM/Cassette Player
In-dash AM-stereo FM radio/stereo cassette player features preset pushbutton tuning for up to five FM and five AM stations; LED frequency/clock display; local/distant switch; separate bass and treble controls; auto reverse, fast forward, and rewind; output 15 W/ch; FM sensitivity 1.5 μV for 30-dB quieting; 2½" H x 7½" W x 6½" D; adjustable shafts. $500
JS-6900 AM-Stereo FM/Cassette Player
In-dash AM-stereo FM radio/stereo cassette player features preset pushbutton tuning for up to five FM and five AM stations; auto reverse, locking fast forward and rewind; local/distant switch; FM muting switch; stereo indicator and direction lights; output 8 W/ch at 1.0% dist.; frequency response 50-12,000 Hz; FM sensitivity 3.0 μV for 30-dB quieting; 2½" H x 7½" W x 6½" D; adjustable shafts. $400
JS-9200. Similar to JS-6900 without preset pushbutton tuning; FM sensitivity 4.5 μV for 30-dB quieting; 2½" H x 7½" W x 5½" D. $190
JS-9380 AM-Stereo FM/Cassette Player
In-dash AM-stereo FM radio/stereo cassette player with preset pushbutton tuning for up to five FM and five AM stations; local/distant, fast forward and rewind; output 5 W/ch at 1.0% dist.; frequency response 50-12,000 Hz; FM sensitivity 4.0 μV for 30-dB quieting; 2½" H x 5¼" W x 4½" D. $200
JS-8580. Same as JS-9380 except has 8-track cassette player. $200

CLARION

PE-7518 AM-Stereo FM/Cassette Player
In-dash unit combines AM-stereo FM radio with stereo cassette player. Features five pushbutton tuning; Dolby noise-reduction on both cassette and FM. $280
PE-6844 AM/FM/Cassette Player
In-dash stereo FM radio with electronic digital tuner and stereo cassette player with Dolby noise-reduction system and auto reverse, locking fast forward/rewind switch and program indicator. Unit features digital frequency and time display; quartz clock; preset pushbutton memory. Write tuning up to five AM and five FM channels with instant recall; auto search and lock into next station, pushbutton local/distant and AM/FM selector. $570

COBRA

221GTL AM-Stereo FM/Cassette Player
In-dash AM-stereo FM radio and stereo cassette player features digital frequency readout and digital clock display; cassette has pushbutton eject, fast forward and rewind slide controls, and tape direction indicators; radio has pushbutton tuning, local/distant and mono/siatero buttons, and rotary balance, treble, bass, and fader controls; output 12 W/ch; frequency response 50-12,000 Hz; S/N 50 dB; FM sensitivity 1.9 μV. $330
222GTL. Similar to 221GTL except has 8-track player. $300

EVADIN by TZL

CR-6000 AM-Stereo FM/Cassette Player
In-dash AM-stereo FM radio and cassette player with auto reverse, locking fast forward and rewind, and pushbutton eject. Radio features pushbutton channel controls, stereo indicator light, local/distant switch, and rotary balance, treble, bass, and fader controls; FM sensitivity 4.5 μV for 30-dB quieting; 50-12,000 Hz; max. wow and flutter 0.4%/0.3%; frequency response 30-14,000 Hz; DIN Std. nosepiece. $200

FUJITSU TEN

COMPO III EP-820 AM-FM/Cassette
Microprocessor controlled AM-stereo FM radio with preamp and auto reverse cassette player with Dolby noise-reduction system. Unit features built-in five-band graphic equalizer with center frequencies at 60, 250, 1000, 3500, and 10,000 Hz, +3 dB; quartz clock and electronic tuning for constant digital frequency readout and pushbutton digital time display; preset channel selector that memorizes up to seven AM and seven FM stations for instant recall with search up/down and scan function. Cassette player features Life Time Metal tape head, equalizer switch for chrome and ferri-chrome tape, and locking fast forward and rewind slide control. Radio features auto reverse function; pushbutton fader control. Frequency response 40-14,000 Hz. $570

EP-75051 AM-FM/Cassette Player
In-dash AM-stereo FM radio with electronic digital tuner and stereo cassette player with auto reverse, locking fast forward/rewind slide control and program indicator. Unit features digital frequency and time display; quartz clock; preset pushbutton memory. Write tuning up to five AM and five FM channels with instant recall; auto search and lock into next station, pushbutton local/distant and AM/FM selector. $220

GL-7851 AM-FM/Cassette Player
In-dash AM-FM stereo radio and cassette player with digital clock/radio frequency display readout with hi/min adjust. Cassette features auto reverse, locking fast forward and rewind, and pushbutton eject; LED tape direction indicator. Radio features pushbutton stereo/mono, local/distant, AM/FM controls; bass/treble control with push program/frequency and pull balance knob; tuning control; fader control; 2½" H x 7½" W x 6½" D. $360

GL-7851 AM-FM/Cassette Player
In-dash AM-FM stereo radio and cassette player with digital clock/radio frequency display readout with hi/min adjust. Cassette features auto reverse, locking fast forward and rewind, and pushbutton eject; LED tape direction indicator. Radio features pushbutton stereo/mono, local/distant, AM/FM controls; bass/treble control with push program/frequency and pull balance knob; tuning control; fader control; 2½" H x 7½" W x 6½" D. $280

GL-7851 AM-FM/Cassette Player
In-dash AM-FM stereo radio and cassette player with digital clock/radio frequency display readout with hi/min adjust. Cassette features auto reverse, locking fast forward and rewind, and pushbutton eject; LED tape direction indicator. Radio features pushbutton stereo/mono, local/distant, AM/FM controls; bass/treble control with push program/frequency and pull balance knob; tuning control; fader control; 2½" H x 7½" W x 6½" D. $360

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GL-7851 AM-FM/Cassette Player
In-dash AM-FM stereo radio and cassette player with digital clock/radio frequency display readout with hi/min adjust. Cassette features auto reverse, locking fast forward and rewind, and pushbutton eject; LED tape direction indicator. Radio features pushbutton stereo/mono, local/distant, AM/FM controls; bass/treble control with push program/frequency and pull balance knob; tuning control; fader control; 2½" H x 7½" W x 6½" D. $130

Component System
AT-7831. AM/FM stereo radio with auto-tune switching; bass and treble tone controls; local/distant and stereo/mono pushbutton switches. $280
AT-372/E2-1. Stereo tuner with auto-tune switching. $230
SP-71131. Cassette deck with auto reverse and Dolby noise-reduction system; ascending bass and treble tone controls; wow and flutter 0.4%/0.3%; frequency response 30-14,000 Hz; S/N 50 dB. $200
CA-2000L. Five-band preamp graphic equalizer features Level Attenuator System switch, remote...
Audio Compo Marine System

Five-unit weatherproof and shock-proof component system for boat owners; all units are white.

AT-7821-M. AM-stereo FM tuner with auto search tuning, and separate bass/treble controls. $330

SP-711-M. Cassette deck with auto reverse and Dolby noise-reduction system. $249

CA-100-M. Remote control amplifier. $122

CA-200-M. Front panel graphic equalizer with remote control capability. $175

PA-130-M. Two-channel power amplifier; output 20 W/channel. $110

SSB338-M. Two-way air suspension speaker system with 4-in woofer, 8-oz magnet, and 2-in tweeter; input 20 W; impedance 8 ohms; 63 x 6 in. $180

SEX-5. Five-unit weatherproof housing for installation; 5' H x 7' W x 7' D; $80

SEX-11. One-unit weatherproof housing for installation; 10' H x 7' W x 7' D; $399

GRUNDIG

GGV 2700A/B AM-FM/Cassette Player

AM-stereo FM radio and auto reverse cassette player with locking fast forward/rewind, switch-off eject, electronic signal seeking and search/local system with LEDs, ESA electronic noise blanking on FM; local/distant and stereo/mono switch; FM selectivity 35 dB; impedance 4-8 ohms; 12 V; 633. Similar to 634E without computer program feature. $420

WKC 2035US AM-FM/Cassette Player

AM-stereo FM radio and cassette player with local/distant and stereo/mono switch, fast forward and manual eject; built-in fuse holder; DIN snap-in mounting; output 5 W/channel. $316

GCM 8200 AM-FM/Cassette Player

In-dash AM-stereo FM radio and stereo auto reverse two-channel six-bit cassette player with Flat Noise design; Motorguide cassette injection system, and built-in three-band graphic equalizer. Cassette features locking fast forward/rewind, adjustable shafts and DIN standard nosepiece for foreign and domestic cars. Radio features two memory functions for auto or manual tuned stations; 13 LED dial indicator; local/distant manual tuning switch; built-in Handic Noise Killer designed to cut out ignition noise and FM radio static distortion; power antenna cord. Wow and flutter 0.25%; frequency response 50-12,000 Hz; output 6 W/channel; FM selectivity 35 dB; impedance 4-8 ohms; 12 V; separation 50 W; power antenna cord; hour/min adjustment; FM noise blanking; AM/FM, local/distant switch; stereo indicators; individual bass/treble and fader/balance; other controls include push-button remote power amplifier, bi-amplification, loudness compensation, muting, AM/FM, local/distant, and tuner. Wow and flutter 0.2%; S/N 73 dB (FM Dolby), frequency response 30-18,000 Hz; THD 0.4% at 52 W; output 30 W/channel; FM selectivity 1.3 MHz; FM alternate channel rejection 75 dB; stereo FM separation 35 dB; capture ratio 1.5 dB; bi- amplifier output 25 W (bass), 5 W (treble); bi- amplifier crossover 1000 Hz. $530

R420. Similar to R430 without power amplifier and remote power amplification control; THD 1.0% at 16 W; bi- amplifier output 5 W (bass), 5 W (treble); output 10 W; continuous. $400

R410. Similar to R420 without bi-amplification; output 5 W continuous; $80

JENSEN

R430 AM-Stereo FM-Cassette Player

In-dash bi-amplified AM-stereo FM receiver/cassette player with Dolby noise-reduction system and player with Dolby noise-reduction system and separate power amplifiers. Features cassette door/tuner dial; pushbutton eject; fast forward/rewind; automatic flashing tape alarm reminds you when ignition is turned off to remove cassette; LED cassette and stereo indicators; individual bass/treble and balance/fader; other controls include push-button remote power amplifier, bi-amplification, loudness compensation, muting, AM/FM, local/distant, and tuner. Wow and flutter 0.2%; S/N 73 dB (FM Dolby), frequency response 30-18,000 Hz; THD 0.4% at 52 W; output 30 W/channel; FM selectivity 1.3 MHz; FM alternate channel rejection 75 dB; stereo FM separation 35 dB; capture ratio 1.5 dB; bi- amplifier output 25 W (bass), 5 W (treble); bi- amplifier crossover 1000 Hz. $530

R420. Similar to R430 without power amplifier and remote power amplification control; THD 1.0% at 16 W; bi- amplifier output 5 W (bass), 5 W (treble); output 10 W; continuous. $400

R410. Similar to R420 without bi-amplification; output 5 W continuous; $80

LAKE COMMUNICATIONS

990 AM-Stereo FM-Cassette Player

In-dash AM-stereo FM radio/cassette player features locking fast-forward/rewind/eject switch; mono/stereo switch; FM local/distant switch; stereo function indicator light; tone, volume, and balance controls, $399

CP-2300 AM-Stereo FM/Cassette Player

In-dash AM-stereo FM radio and stereo cassette player featuring locking fast forward/rewind/eject switch; mono/stereo switch; FM local/distant switch; stereo function indicator light; tone, volume, and balance controls. $80

R430 AM-Stereo FM-Cassette Player

In-dash bi-amplified AM-stereo FM receiver/B-track player with Dolby noise-reduction system and separate power amplifiers. Features cassette door/tuner dial; pushbutton eject; fast forward/rewind; automatic flashing tape alarm reminds you when ignition is turned off to remove cassette; LED cassette and stereo indicators; individual bass/treble and balance/fader; other controls include push-button remote power amplifier, bi-amplification, loudness compensation, muting, AM/FM, local/distant, and tuner. Wow and flutter 0.2%; S/N 73 dB (FM Dolby), frequency response 30-18,000 Hz; THD 0.4% at 52 W; output 30 W/channel; FM selectivity 1.3 MHz; FM alternate channel rejection 75 dB; stereo FM separation 35 dB; capture ratio 1.5 dB; bi- amplifier output 25 W (bass), 5 W (treble); bi- amplifier crossover 1000 Hz. $530

R420. Similar to R430 without power amplifier and remote power amplification control; THD 1.0% at 16 W; bi- amplifier output 5 W (bass), 5 W (treble); output 10 W; continuous. $400

R410. Similar to R420 without bi-amplification; output 5 W continuous; $80

930 AM-Stereo FM-B-Track Player

In-dash bi-amplified AM-stereo FM receiver/B-track player with Dolby noise-reduction system and separate power amplifiers. Features cassette door/tuner dial; pushbutton eject; fast forward/rewind; automatic flashing tape alarm reminds you when ignition is turned off to remove cassette; LED cassette and stereo indicators; individual bass/treble and balance/fader; other controls include push-button remote power amplifier, bi-amplification, loudness compensation, muting, AM/FM, local/distant, and tuner. Wow and flutter 0.2%; S/N 73 dB (FM Dolby), frequency response 30-18,000 Hz; THD 0.4% at 52 W; output 30 W/channel; FM selectivity 1.3 MHz; FM alternate channel rejection 75 dB; stereo FM separation 35 dB; capture ratio 1.5 dB; bi- amplifier output 25 W (bass), 5 W (treble); bi- amplifier crossover 1000 Hz. $530

Our equipment stands on its own merit as being reliable, rugged, and the highest in quality car audio. Mitsubishi has never had to rely on the easy way out.

AM/FM cassettes and 8-track. In-dash, under-dash units. Speakers. And something we're especially proud of...the Mitsubishi component separates. Tuners, tape decks, amplifiers, amplifier/equalizers. All engineered as separate units designed to ultimately come together in an awesome collective system.

See your nearest Mitsubishi dealer and point to, poke at and above all, listen to our exciting new line of car audio products.

Shown here are the RX-79 in-dash cassette with AM/FM MPX, the CV-23 control amplifier and equalizer, the CX-20 component cassette deck, the SX-30SA 2-way speaker enclosures and the SB-2SA super tweeters.

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CIRCLE NO. 48 ON READER SERVICE CARD
MARANTZ

CAR-427 CompuTuner/Cassette Deck
In-dash unit incorporates stereo CompuTuner/preamplifier/auto reverse cassette deck with digital quartz clock/radio frequency display. Cassette feature equalization system with tape FM Dolby buttons, Sendst-alloy tape head, tape equalization for special tape (includes metal-particle), memory preset tape eject and power off auto eject, and locking fast forward and rewind. "Tuner/"preamplifier features, front-to-rear preamp fader control, atmospheric interference rejection; quartz-locked synthesized tuning with ten electronic memory preset buttons and electronic standard search; center-detented bass, midrange and treble controls; loudness compensation; FM muting, FM impulse-noise blanker. Wow and flutter 0.15% rms; tape frequency range 40-13,000 Hz; output 4 W/ch continuous into 4 ohms with 0.9% THD; FM sensitivity 1.1 µV at 75 ohms (dB); capture ratio 1.5 dB; FET rf-amplifier; PLL for stereo separation, FM muting, local/distant switch; tone control; antenna trimmer; power antenna wire; adjustable center-detented bass, midrange and treble controls; volume, tone and balance controls; FM stereo separation 30 dB at 1000 Hz; 2'/" H x 7'/4" W x 5'/4" D; nose piece 2" H x 4'/4" W. $625

CAR-400 CompuTuner/Cassette Deck
In-dash unit combines stereo CompuTuner, built-in stereo amplifier, and cassette deck with digital quartz clock/radio frequency display. Cassette feature equalization system, auto eject, center-detented bass, midrange and treble controls; volume control, LED FM stereo indicator; front-to-rear preamp fader control. Wow and flutter 0.15% rms; tape frequency range 40-13,000 Hz at -3 dB; FM sensitivity 1.1 µV at 75 ohms; stereo separation 30 dB at 1000 Hz; 2'/" H x 7'/4" W x 5'/4" D; nose piece 2" H x 4'/4" W. $500

CAR-302 Tuner/Cassette Deck
In-dash unit combines AM-FM stereo tuner and stereo cassette deck. Cassette features Dolby noise-reduction system, super hard permalloy tape head, automatic tape eject and fast forward/rewind. Radio features five-station preset; atmospheric interference rejection; separate bass and treble controls; volume control, LED FM stereo indicators; front-to-rear speaker fader. Wow and flutter 0.15% rms, tape frequency range 40-13,000 Hz at -3 dB; output 2.5 W/ch into 4 ohms from 50-20,000 Hz with 0.9% THD; FM sensitivity 1.8 µV; 2'/" H x 7'/4" W x 4'/4" D; nose piece 1'/4" H x 4'/4" W. $300

CAR-301 Tuner/Preamplifier/Cassette Deck
In-dash unit combines AM-FM stereo tuner/preamplifier/cassette deck. Cassette deck features Dolby noise-reduction system, super hard permalloy tape head, auto eject, and fast forward and rewind. Radio features five-station pushbutton preset; atmospheric interference rejection; separate bass and treble controls; loudness compensation volume control; LED FM stereo indicator; preamp front-to-rear speaker fader. $270

410 AM-FM/Cassette Player
In-dash unit combines AM-FM radio and stereo cassette player; AM/FM Stereo CompuTuner with quartz-controlled synthesized digital tuning and microprocessor which provides electronic search plus instant access to 12 user-programmable stations (six AM and six FM); auto reverse cassette player with locking fast forward and rewind; wow and flutter 0.15%; tape frequency range 40-13,000 Hz; output 10 W/ch continuous into 4 ohms with 0.9% THD, FM sensitivity 1.1 µV at 75 ohms (dB); capture ratio 1.5 dB; PLL for stereo separation; fader control; FM muting; local/distant switch; bass and treble controls; loudness control; antenna trimmer; adjustable shaft spacing; quartz clock; 19" H x 7'/2" W x 5'/2" D; nose dimensions 1'/4" H x 4'/4" W (DIN standard). $500

420 AM-FM/Cassette Player
In-dash unit combines AM-FM radio and stereo cassette player; AM/FM Stereo CompuTuner with quartz controlled synthesized digital tuning and microprocessor which provides electronic station search plus instant access to 12 user-programmable stations (six AM and six FM); auto reverse cassette player with locking fast forward and rewind; wow and flutter 0.15%; tape frequency range 40-13,000 Hz; output 4 W/ch continuous into 4 ohms with 0.9% THD; FM sensitivity 1.1 µV at 75 ohms (dB); capture ratio 1.5 dB; FET rf-amplifier; PLL for stereo separation; fader control; FM muting; local/distant switch; bass and treble controls; loudness control; antenna trimmer; adjustable shaft spacing; quartz clock; 1'/4" H x 7'/4" W x 5'/4" D; nose dimensions 1'/4" H x 4'/4" W (DIN standard). $500

430 AM-FM/Cassette Player
In-dash AM/FM Stereo receiver and auto-reverse cassette player; locking fast forward and rewind; power-off eject; FET rf-amplifier; PLL for stereo separation; FM muting; local/distant switch; tone control; antenna trimmer; adjustable control shafts; volume, wow and flutter 0.15%; tape frequency range 40-13,000 Hz; output 4 W/ch continuous into 4 ohms with 0.9% THD; capture ratio 2.0 dB; FM sensitivity 1.8 µV at 75 ohms (16.36 dB); capture ratio 2.0 dB; FM selectivity 10 dB at 40 kHz; negative ground; anodized brushed aluminum faceplate in gold; chassis 2'/" H x 7'/4" W x 5'/4" D; nose piece 1'/4" H x 4'/4" W (DIN standard). $240

300 AM-FM/Cassette Player
In-dash unit combines five-station presets and auto eject cassette; PLL FM decoder; FM muting, fill-time noise blanker; automatic stereo/mono switching; control-matched, head-permamag tape head; volume, tone and balance controls; FM stereo LED indicator; locking fast-forward and rewind; wow and flutter 0.15% rms; output 4 W/ch continuous into 4 ohms with 0.9% THD; FM selectivity 35 dB at 40 kHz; FM noise blanker; FM stereo separation 30 dB at 1000 Hz; 2'/" H x 7'/4" W x 5'/4" D; nose piece 2" H x 4'/4" W. $240

MIDLAND INTERNATIONAL

67-440 AM-Stereo FM/Cassette Player
In-dash unit incorporates "MicroPrecision" electronic memory controlled AM stereo/full range monaural stereo amplifier, auto reverse cassette player with twin capstan drive, and quartz crystal digital clock. Cassette: four-pack playback head with pause, fast forward/rewind, eject; LED tape direction indicators; wow and flutter 0.2%; FM selectivity 2 dB; FM sensitivity 0.6 µV at 75 ohms (16.36 dB); FM noise killer circuit; one touch six-station pushbutton preset tuning; FM stereo separation plus AM-stereo FM radio, synthesized tuning; switchable ANL; LED indicator lights; 18 W/ch continuous with 1.0% THD; load impedance 8 ohms with 0.9% THD; capture ratio 4.0 dB; FM frequency range 40-13,000 Hz; selectivity 2300 AM-EPA/Cassette Player
In-dash unit combines AM/FM radio and stereo cassette player; front-to-rear preamp, stereo input, auto reverse, locking fast forward and rewind; features push-button AM/FM; tuning/fader control with five-station pushbutton preset; stereo/mono switch; features push-button AM/FM preset; stereo/mono switch; features push-button AM/FM CD-550. Same as 67-440 except has 8-track player with auto/manual program change and LED program lights. $400

RX-79 EM AM-FM/Cassette Player
In-dash AM-stereo FM radio/cassette player with auto reverse; features locking fast forward and rewound; four-speaker capability; tuning, balance, and fader controls with five-station pushbutton preset; stereo/mono switch; pushbutton program selector; AM/FM LED's, 18 W/ch. $250

RX-7 AM-Stereo FM/Cassette Player
In-dash AM-stereo FM radio/cassette player designed for imported cars. Cassette features auto reverse, auto eject, locking fast forward and rewind, and LED tape flow indicator; wow and flutter 0.15% rms; S/N 50 dB; 40 dB separation. Radio features FM noise killer circuit; one-touch six-station pushbutton preset tuning; radio has five-station pushbutton preset, stereo/mono switch, dual-color mode dial illumination, bass booster switch, and fader and balance controls for four-speaker 8 ohm system; dist. 0.5%, selectivity 35 dB. $240

RX-87 AM-FM/Cassette Player
In-dash AM-stereo FM radio/cassette player features AM/FM, tuning/fader control with five-station pushbutton preset; locking fast forward and eject; left and right balance controls; local/distant switch. $180

Car Stereo Components

CV-21EM. 20 Wch power amplifier with balanced transformerless circuit; loudness control; separate bass and treble controls; fader and balance controls; attenuation switch; dimmer control connection. $140

CI-20EM. AM-stereo FM tuner with noise killer circuit; local/distant switch, muting circuit, and microprocessor controlled synthesized digital tuning. $140

CX-20EM. Cassette deck with auto eject, hard permalloy head, local/distant controls, and dimmer control connections. $140

RX-72 AM/FM Stereo/Cassette Player
In-dash AM-stereo FM radio/cassette player features pushbutton AM/FM, tuning/fader control with five-station pushbutton preset; lock forward and eject; left and right balance controls; local/distant switch. $180

MOTOROLA

830SX AM-FM Radio/Cassette Player
In-dash electronic AM-FM stereo radio/cassette player with Dolby noise-reduction system. Cassette features AutoReverse, locking fast forward and rewind, and equalization switch for ferric oxide or CQ tapes; max. wow and flutter 0.105% rms at 1.0% THD. Radio has electronic touch-tuning with up to ten-station memory and "search" and "scan" functions; orange LED frequency readout and time

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display; fader control; AM/FM muting switch; loudness control; bass, treble, and balance controls; FM sensitivity 65 dB; separation 40 dB; 20 W continuous total output power into 4-ohms at 1% THD; frequency response 20-15,000 Hz; 51 mm H x 180 mm W x 150 mm D...$450

CC975AX AM-FM/Cassette Player/CB
In-dash unit combines AM-stereo FM radio and stereo cassette player; CB standby and CB/radio pushbuttons; LED channel display; pushbutton operations; removable microphone...$430

TC894AX AM-FM/Cassette Player
In-dash unit combines AM-stereo FM radio and stereo cassette player; features Dolby noise-reduction system for tape and FM radio modes; hard parallel head; tape equalization for FeCr and CrO2 tapes; loudness control; pushbutton local/distant, eject, filter, mono/stereo, and FM controls; pushbutton tuning; locking fast forward and rewind; AutoReverse; fader control; separate bass and treble controls; stereo indicator light; 24 W continuous total system power...$390

TC888AX AM-FM/Cassette Player
In-dash unit combines AM-stereo FM radio and front-loading stereo cassette player; 8 W continuous total system power; AutoReverse sensor automatically plays second side of tape; locking fast forward and rewind switch with direction indicator light; FM local/distant switch; stereo indicator light; balance controls; front-rear fader; mono/stereo switch; hard parallel head; 2.6" H x 7.1" W x 5.3" D...$250

TC885AX AM-FM/Cassette Player
In-dash unit designed for compact cars combines AM-stereo FM radio and front-loading stereo cassette player; 8 W continuous total system power; AutoReverse, hard parallel tape head; manual tuning; controls for tone, balance, and volume; locking fast forward and rewind buttons; tape eject; tone, balance, and volume controls; local/distant mono/stereo switches; stereo indicator light; hard parallel heads...$240

MUNTZ HI-Z
350 Universal Cassette Deck
Desktop, Dashboard -mount; Cassette Tape Machines, under "Nakamichi"...$440

250 Cassette Player
Designed for use with ADS subminiature biamplified speaker systems; Dolby noise reduction circuitry; selectable playback equalization; full auto shut-off; dc servomotor drive; volume, tone, and balance controls; supplied with bracket for underdash mounting and connecting cables; playback frequency response 40-17,000 Hz -3 dB; wow and flutter 0.08% wrms; S/N 62 dB (with Dolby); output 580 mV; 9" x 7" x 3"...$310

250S. Same as 250 but with ac power supply...$335

PANASONIC
Coopit RM-610 Tuner/Cassette Deck
Ceiling-mounted modular control unit incorporates stereo cassette player with auto reverse, preamp, and preamplifier with plug-in power amplifier. Tape deck...has switchable Dolby noise-reduction system; auto reverse; locking fast forward and rewind; auto eject; tape selector switch for FM, tape, and CD, Auto CUE; also features system power; AutoReverse sensor automatically multipath noise suppressor, r.f. amplifier, and dual-balanced mixer circuitry; three preset pushbutton preset or manual electronic FM tuning; auto FM stereo/mono switch; FM stereo indicator; LED display; frequency indicators; muting switch; local/distant switch; noise blanker; usable sensitivity 16 dBf; S/N 65 dB; image rejection 70 dB; i-f rejection 80 dB; selectivity 74 dB; capture ratio 1.7 dB; FM S/N 60 dB (Dolby on); FM usable sensitivity 1.1 µV into 75 ohms (12.5 dBf); FM 50-dB quieting 1.4 µV into 75 ohms (23.9 dBf); optional switches available with Nakamichi System, Hotel, and Audio...$1000

Speaker. Rear-arch surface-mount two-way air-suspension speaker system with urethane-etched 4" woofers and 2-in tweeters, max. input 65 W, frequency response 20-20,000 Hz; 4-ohm input impedance; 5" x 9" x 7.1"...$210

CQ-8700 AM Stereo/FM Cassette Player
In-dash AM-stereo FM electronic tuner digital radio clock, and cassette player with Dolby noise-reduction system and auto reverse. Cassette features locking fast forward/rewind, manual eject, and LED tape direction indicator. Radio features five-memory buttons for five AM and five FM station selections, seek control that stops on strong frequencies, manual frequency scan, squelch-controlled PLL frequency synthesis, quieting circuit, LED frequency and time display on cassette door, LED stereo and flashing signal/strength indicators, and local/distant, Dolby, and bi-amp switch. Controls include pushbutton switches, FM muting, quartz-controlled PLL frequency synthesizer, stereo indicators, built-in INQ circuit, electric antenna and dimmer leads; equalizer center frequencies set at 60, 250, 1000, 3500, and 7500 Hz. Wow and flutter 0.2%; tape frequency response 30-12,500 Hz; S/N 53 dB (Dolby off); 62 dB (Dolby on); FM frequency response 30-15,000 Hz; FM S/N 60 dB; THD 0.2%; adjustable shafts and trimmings...$700

CQ-7600 AM Stereo/FM Cassette Player
In-dash AM-stereo FM radio and Repeatrack cassette player with Dolby noise-reduction system and built-in five-band graphic equalizer. Features locking fast forward/rewind, eject button; bi-amp, Dolby, and repeatrack switches; FM muting, quartz-controlled PLL frequency synthesizer; stereo indicators; built-in INQ circuit, electric antenna and dimmer leads; equalizer center frequencies set at 60, 250, 1000, 3500, and 7500 Hz. Wow and flutter 0.2% wrms; tape frequency response 30-12,500 Hz -3 dB; S/N 63 dB (Dolby on); adjustable shafts and trimmings...$400

CQ-7400. Similar to CQ-7600 except without Dolby noise-reduction, quartz-controlled PLL frequency synthesizer, and bi-amp switch; has equalizer center frequencies set at 80, 250, 1000, 3500, 10,000 Hz at -12 dB. Wow and flutter 0.02% wrms; tape frequency response 30-12,500 Hz at -3 dB; S/N 63 dB (Dolby on); adjustable shafts and trimmings...$300

CQ-6600 AM Stereo/FM Cassette Player
In-dash AM-stereo FM radio and cassette player with INQ system. Cassette has adjustable shafts and trimmings to fit American and imported cars. Features locking fast forward/rewind; auto or manual eject; LED stereo/tape mode indicators; switchable INQ circuit designed to suppress impulsive noise on FM band; local/distant/super sensitivity control; turn, balance, fader and tone controls; pushbutton tuning; max. output 7 W/channel...$260

CQ-6800. Similar to CQ-6600 except B-track, has manual and auto program change and LED program indicators...$260

CQ-7200 Component Cassette Player
Underdash cassette player with auto reverse. Features two stage preamp and dual channel amp, separate volume, left/right tone, and balance controls; one-stage operation for forward/rewind/eject; manual program selector; LED program indicators; wow and flutter 0.3% wrms; frequency response 40-12,000 Hz at -3 dB; S/N 50 dB; output 2 W/channel at 400 Hz; THD 5%; impedance 4 ohms...$100

CX-1200. Similar to CX-7200 except B-track with Panasonic Vertical Head Movement System; wow and flutter 0.13% wrms; S/N 50 dB; output 2 W/channel...$190

CA-9600. AM stereo tuner...$100

CJ-3600. Five-band graphic equalizer/amp...$150

CJ-2600. Dashboard-mount; 10 Wc power booster...$160

The 15-inch CJ-3300, 20-Wc CJ-4000, and 50-Wc CJ-5000 in-dash amplifiers can be used with all Panasonic car cassette players.

PIONEER
KE-5000 AM Stereo/FM Cassette Player
In-dash AM-stereo FM Supertuner and stereo cassette player with dual-Dolby circuitry; electronic PLL frequency synthesizer; digital readout for station frequency and time with clock button; Dolby noise-suppression memory for five AM and five FM stations through electronic feather-touch buttons; scan/stop and seek buttons for station selection; built-in PNS noise suppression. Cassette features auto replay, locking fast forward and rewind, and Dolby noise reduction. Cassette features automatic latching center detent and volume controls; separate bass and treble controls with center detent, and volume and balance controls. Wow and flutter 0.13% wrms; tape frequency response 30-15,000 Hz -3 dB; S/N 50 dB (Dolby on); FM frequency response 30-12,500 Hz -3 dB; S/N 63 dB (Dolby on); adjustable shafts and trimmings...$420

KE-3000. Similar to KE-5000 without Dolby noise-reduction system; 2 W/channel...$360

KE-2000. Similar to KE-5000 without PNS noise suppression, electronic PLL synthesizer, digital readout, and scan tuning; LED electronic pointer display; AM/local/distant switch...$320

KPX-9500 AM Stereo/FM Cassette
In-dash AM-stereo FM Super tuner and electronically governed stereo cassette player with dual-Dolby noise-reduction system and auto reverse. Cassette features automatic latching center detent and volume controls; separate bass and treble controls with center detent, and volume and balance controls. Wow and flutter 0.13% wrms; tape frequency response 30-15,000 Hz -3 dB; S/N 60 dB (Dolby on); FM usable sensitivity 1.1 µV into 75 ohms (12.5 dBf); FM 50-dB quieting sensitivity 1.4 µV into 75 ohms (17 dBf); optional switches available with Nakamichi System, Hotel, and Audio...$450

KX-9000 AM Stereo/FM Cassette
In-dash AM-stereo FM Supertuner and electronically governed stereo cassette player; volume and balance control; auto eject; LED tuning scale; slow/fast-forward lever; separate bass and treble...$330
controls; loudness contour switch; five-station preset push button; stereo indicator; program indicator lights; FM stereo indicator light; 10-W/channel; frequency response 30-20,000 Hz; 3-8 ohm impedance; adjustable shafts; 2"H x 7" W x 6" D $210

REALISTIC

12-1886 AM-Stereo FM/Cassette Player
In-dash AM-Stereo FM radio/cassette player features adjustable shafts, locking fast-forward/rewind, stereo/mono switching, and separate controls for bass, treble, and loudness; 12-W/channel; 12-V negative ground. Same as 12-1887 except has 8-track player. $180

12-1809 Cassette Player
Cassette player with auto eject and fast forward/rewind controls. Output 24 W. $100

12-1810. Similar to 12-1809 except radio cassette player with headphone jack. $100

ROYAL SOUND

RS 2510 AM-Stereo FM/Cassette Player
In-dash AM-Stereo FM radio and reverse cassette player with LED tape direction indicator, built-in auto reverse tape change switch, locking fast forward/rewind, and manual stop/eject; auto antenna connector and RCA output jack. $270

SANKYO SEIKI

SCS-202 AM-Stereo FM/Cassette Player
In-dash AM-Stereo FM radio/cassette player is designed to fit most American and foreign cars; features four-way front-to-back and side-to-side fader; volume/tone control; pushbutton locking fast forward/rewind; red LED stereo FM and green LED tape indicators; local/distant switch; adjustable shafts; output 10 W; wow and flutter 0.3% rms; frequency response 40-12,000 Hz; S/N 48 dB; $330

SANYO

FT2200 AM-Stereo FM/Cassette Deck
In-dash unit combines AM-Stereo FM radio and met- ering; cassette deck with Dolby noise-reduction system and built-in digital quartz clock; designed for small foreign and American sub-compact cars. Cassette features Sendust Alloy record/playback head, bias head switch for normal playback; RCA; program indicator lights; FM stereo indicator light; 10-W/channel; frequency response 30-20,000 Hz; 3-8 ohm impedance; adjustable shafts; 2"H x 7" W x 6" D $230

TF1489. Similar to FT2200 except biamplified with 14-Wich woofer and 2.7-Wich tweeter amps at 5% THD; 33-W continuous output power; 4.8-ohm impedance; wow and flutter 0.08% rms; FM frequency response 60-14,000 Hz at -3 dB; 3"H x
**FOR SALE**

**SHARP**

- **FTR-8008:** In-dash AM-FM stereo radio/cassette player in-dash FM stereo radio/cassette player. Features custom auto stop; push button eject; electronic loudness, muting, high filter, AF/MF controls, local/distant controls, locking fast forward and rewind; bass, treble, balance, and fader controls; digital display; cassette; vol and fader 0.25% rms; 5µV. $100

- **FTR-8009:** In-dash AM-FM stereo radio/cassette player in-dash AM/FM stereo radio/cassette player. Features custom auto stop; push button eject; electronic loudness, muting, high filter, AF/MF controls, local/distant controls, locking fast forward and rewind; bass, treble, balance, and fader controls; digital display; cassette; vol and fader 0.25% rms; 5µV. $100

- **FTR-8010:** In-dash AM-FM stereo radio/cassette player in-dash AM/FM stereo radio/cassette player. Features custom auto stop; push button eject; electronic loudness, muting, high filter, AF/MF controls, local/distant controls, locking fast forward and rewind; bass, treble, balance, and fader controls; digital display; cassette; vol and fader 0.25% rms; 5µV. $100

- **FTR-8011:** In-dash AM-FM stereo radio/cassette player in-dash AM/FM stereo radio/cassette player. Features custom auto stop; push button eject; electronic loudness, muting, high filter, AF/MF controls, local/distant controls, locking fast forward and rewind; bass, treble, balance, and fader controls; digital display; cassette; vol and fader 0.25% rms; 5µV. $100

- **FTR-8012:** In-dash AM-FM stereo radio/cassette player in-dash AM/FM stereo radio/cassette player. Features custom auto stop; push button eject; electronic loudness, muting, high filter, AF/MF controls, local/distant controls, locking fast forward and rewind; bass, treble, balance, and fader controls; digital display; cassette; vol and fader 0.25% rms; 5µV. $100

- **FTR-8013:** In-dash AM-FM stereo radio/cassette player in-dash AM/FM stereo radio/cassette player. Features custom auto stop; push button eject; electronic loudness, muting, high filter, AF/MF controls, local/distant controls, locking fast forward and rewind; bass, treble, balance, and fader controls; digital display; cassette; vol and fader 0.25% rms; 5µV. $100
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STEREO DIRECTORY & BUYING GUIDE

12 CAR SPEAKERS

pension tweeter with single-layer high-temperature metal voice coil and 4-in diameter super-long excursion woofer with high-temperature metal voice coil; frequency response 85-20,000 Hz = 3 dB, 55-25,000 Hz @ 5 dB; 4-ohm impedance; 30 W continuous power rating; solid, bonded and anodized aluminum cabinet available in black only; swivel bracket supplied for surface mounting; (optional recess frame and foam grille for flush mounting available): 6.85" H x 4.25" W x 4.65" D $115

ALPINE

6004 Car Speaker System
Three-way 6 x 9-in car speaker system with 20-oz magnet, soft dome midrange, and Titanium dome super tweeter; frequency response 40-16,000 Hz; handles 40 W power; 4-ohm impedance; attenuator control.

AUDIOTOX

All speaker systems are complete with grilles, wire, hardware and installation instructions; use Liquid治de™ magnetic fluid injected into voice coil to increase longevity, extend frequency range, increase acoustic output and power handling; 4-8 ohm impedance; sold in pairs unless otherwise noted.

30-2656-3 D Sound
6 x 9-in triaxial speaker system with 1-in tweeter, 3-in mid-range, and 1-in aluminum voice coil; max. input 30 W peak; frequency response 40-20,000 Hz; 20 oz magnet, flush mount; 6" H x 9" W x 4" D

30-2654
6 x 9-in dual cone speaker system with 1-in tweeter 1\(\frac{1}{8}\)"-in aluminum voice coil; max. input 35 W peak; frequency response 40-18,000 Hz; 25 oz magnet; flush-mount; 6" H x 9" W x 4" D

30-2653
6 x 9-in two-way speaker system with 3-in tweeter and 1-in aluminum voice coil; max. input 25 W peak; frequency response 45-18,000 Hz; 20 oz magnet; flush mount; 6" H x 9" W x 4" D

30-2652
6 x 9-in two-way speaker system with 3-in tweeter and 1-in aluminum voice coil; max. input 20 W peak; frequency response 50-18,000 Hz; 10 oz magnet; flush mount, 6" H x 9" W x 4" D

30-2651
6 x 9-in dual cone speaker system with 1-in aluminum voice coil; max. input 25 W peak; frequency response 40-16,000 Hz; 20 oz magnet; flush mount; 6" H x 9" W x 4" D

30-2650
6 x 9-in flush-mount dual cone speaker system with 1-in aluminum voice coil; max. input 20 W peak; frequency response 50-16,000 Hz; 10 oz magnet; flush mount; 6" H x 9" W x 4" D

30-2641
5\(\frac{1}{2}\)"-in round dual cone speaker system with 1-in aluminum voice coil; max. input 20 W peak; frequency response 55-15,000 Hz; 10 oz magnet; flush mount; 5\(\frac{1}{2}\)" H x 5\(\frac{1}{2}\)" W x 4" D

30-2640
5\(\frac{1}{2}\)"-in round dual cone speaker system with 1-in aluminum voice coil; max. input 16 W peak; frequency response 60-15,000 Hz; 5\(\frac{1}{2}\) oz magnet; flush mount; 5\(\frac{1}{2}\)" H x 5\(\frac{1}{2}\)" W x 4" D

AUDIOVOX

COMP-60
Two-way car speaker system with two 6\(\frac{1}{2}\)-in woofers and 20-oz ferrite magnets and two 3\(\frac{1}{8}\)-in mylar dome tweeters; frequency response 50-20,000 Hz; 8-ohm impedance; max. input 40 W/ch; adapter kit included for installation in OEM locations; "Sound Flo" metal grill grilles.

DOME-20 Car Speaker
Coaxial 6 x 9-in car speaker system with 3-in dome tweeter.

TRYVOX-30 Car Speaker
Three-way car speaker system with separate 5\(\frac{1}{2}\)-in woofer and 20-oz magnet, 3-in midrange and 1-in short horn tweeter.

TRYVOX-40 Car Speaker
Three-way car speaker system with 4 x 10-in woofer and 20-oz magnet, 2-in midrange and 1-in short horn tweeter; self-stuffed sound flow grilles.

TRYVOX-20 Car Speaker
Three-way 6 x 9-in car speaker system; 20-oz ceramic magnet; max. input 30 W; frequency response 60-15,000 Hz; 8-ohm impedance

TRYVOX-25 Car Speaker
Three-way car speaker system; 5\(\frac{1}{2}\)-in woofer, 1\(\frac{1}{16}\)-in midrange; 1-in tweeter; 20-oz ceramic magnet; input 15 W; 8-ohm impedance; mesh grilles.

COID-69/20 Car Speaker
Coaxial 6 x 9-in car speaker system; 3-in tweeter; 20-oz ceramic magnet; frequency response 60-18,000 Hz; input 20 W; 8-ohm impedance; chrome-accented padded vinyl grilles.

COID-57/20 Car Speaker
Coaxial 5 x 7-in car speaker system; 2-in tweeter; 20-oz ceramic magnet; max. input 20 W; frequency response 100-16,000 Hz; 8-ohm impedance; dif- fuser grilles.

COSC-5 Car Speaker
Coaxial car speaker system with 5-in woofer and 5-oz magnet, and sumarium cobalt tweeter with voice coil and magnet circuit; 1\(\frac{1}{16}\)-in mounting depth; sound flow grilles

HI-COMP Line

HC-65 Car Speakers
Coaxial round speakers with 6\(\frac{1}{2}\)-in Butyl rubber-edge suspension woofer with 20-oz magnet and short horn tweeter; frequency response 60-17,000 Hz; 4-8 ohm impedance; handles 50 W/ch max.; includes dual-mounting Sound-Flo grilles

HCS-15 Car Speakers
Two-way speakers with 5-in woofer and 5-oz magnet and samarium cobalt short horn tweeter; 5\(\frac{1}{2}\)-in mounting depth; frequency response 120-15,000 Hz; 8-ohm impedance; handles 20 W/ch max; continuous; includes Sound-Flo grilles.

BLAUPUNKT

867 000 Car Speakers
Two-way flush-mount speaker system; frequency response 80-16,000 Hz; handles 25 W; fits 4\(\frac{1}{2}\)-in dia. mounting hole; $120 pr.

688 000 Car Speakers
Two-way flush-mount speaker system; frequency response 40-16,000 Hz; handles 35 W; fits 6\(\frac{3}{4}\)-in 4\(\frac{1}{2}\)-in mounting hole; 6\(\frac{1}{2}\)-in x 9\(\frac{1}{4}\)-in x 3\(\frac{1}{4}\)-in... $134 pr.

676 000 Car Speakers
Two-way flush-mount car speakers; frequency response 70-20,000 Hz; handles 25 W; fits 4\(\frac{1}{4}\)-in dia. mounting hole, max. underdeck depth 7\(\frac{1}{4}\)-in; 5\(\frac{1}{2}\)-in x 8\(\frac{1}{2}\)-in x 1\(\frac{1}{2}\)-in...

BRAUN by ADCOM

Braun L200 Car Speakers
Miniature two-way air suspension speaker system with 5\(\frac{1}{2}\)-in dynamic woofer and 1-in hemispherical dome tweeter; frequency response 40-25,000 Hz; crossover 1500 Hz at 12 db/octave; 4-ohm nominal impedance; power range 10-50 W, 40 W continuous; curved and perforated aluminum grille design; 10" H x 6\(\frac{1}{2}\)-in W x 5\(\frac{1}{4}\)-in D...

Braun Output C Car Speakers
Miniature two-way air suspension speaker system with 4-in dynamic woofer and 1-in hemispherical dome tweeter; frequency response 50-25,000 Hz; crossover 1500 Hz at 12 db/octave; 4-ohm nominal impedance; power range 10-50 W, 35 W continuous; black aluminum extrusion cabinet with black perforated aluminum grille; available in black, silver, or bronze; 4.7" H x 7.5" W x 5.7" D...

CANTON by ADCOM

HC 100 Car Speakers
Miniature two-way acoustic suspension speaker system with 4.33-in long-throw woofer and 0.75-in dome tweeter; frequency response 40-25,000 Hz; crossover 1700 Hz at 12 db/octave; nominal impedance 4-8 ohms; power range 5-60 W, 35 W continuous; diecast aluminum enclosure with perforated metal grille; available in black; one-point fixture; 120 mm H x 190 mm W x 144 mm D...

AC 200 Car Speakers
Rear deck mount two-way speaker system with 20-oz magnet and high-temperature ceramic magnet; max. input 20 W; frequency response 48-25,000 Hz; crossover 1700 Hz at 12 db/octave; handles 30 W; diecast aluminum enclosure with perforated metal grille; available in black; one-point fixture; 120 mm H x 190 mm W x 144 mm D...

CAR TAPES

JSL-1511 Car Speakers
Three-way car speakers with 5-in woofers and 20-oz magnet; frequency response 55-18,000 Hz; 8-ohm impedance; input 50 W; flush mount...

JSL-980TX. Similar to JSL-1511 except 6-in x 9-in system; frequency response 50-18,000 Hz; 70 pr.

JSL-983TX. Similar to JSL-980TX can be purchased singly or in pairs...

JSL-563TX. Similar to JSL-963TX except 5\(\frac{1}{2}\)-in system with 55-18,000 Hz frequency response...

COBRA

SP693-20 Car Speakers
Three-way car speaker system with 6 x 9-in high-compliance air suspension woofer with 20-oz ce-
ramic magnet, 3-in midrange, and 2-in tweeter with 1-in aluminum voice coil; frequency response 50-18,000 Hz, max. input 50 W, compatible with 4- or 8-ohm radio or tape units; acoustically transparent open mesh grille ... $80 pr.

SP692-20. Similar to SP692-20 except two-way system has 3-in tweeter; frequency response 50-15,000 Hz; input 30 W max. ... $60 pr.

R780 Car Speaker
5-in super full range Trans-Rib acoustical driven surface-mount enclosure in black molded, rib-braced plastic; frequency response 80-17,000 Hz ±6 dB; 50 W music power rating; 41-ohm magnet, 1 4-in diameter voice coil, 4-ohm impedance; 3-ft connecting leads; enclosure size 6" x 9" x 11" H x 9" D; two per kit ... $100

R731 Flush-Mount Car Speaker
One-way flush-mount, full-range speaker system with 5 1/4-in Trans-Rib braced-cone acoustical driven frequency response from 60-17,000 Hz ±6 dB; max. input 50 W; 4-6 ohm impedance; includes grilles, perforated metal mounting hardware; 6" x round, 2" D. ... $85

V481 Car Speaker
6 x 9-in oval speaker with 20-oz magnet; coaxially mounted 3-in tweeter; 25 W music power rating; 8-ohm impedance; 6" x H x 9" W x 4 1/2" D; two per kit ... $80

V460 Car Speaker
6 x 9-in oval speaker with 10-oz magnet and coaxially mounted 3-in tweeter; 25 W music power rating; 8-ohm impedance; 6" x H x 9" W x 3 1/2" D; two per kit ... $70

9429 Car Speaker
6 x 9-in oval speaker with 30-oz magnet; flush mount; dual impedance 4 and 8 ohms; 25 W music power rating; 1-inch diameter voice coil; 16-ft detachable connecting leads; 3 1/4-in deep; two per kit ... $60

LS-70 Car Speaker
Two-way 6 x 9-in auto speaker system with 6-in woofer and 1-in air-spring tweeter in side-by-side pattern; crossover at 1 800 Hz, 8-ohm nominal impedance; frequency response 70-20,000 Hz; dispersion 120 degrees; 3 db frequency 15,000 Hz; 3 1/2-in deep; door panel, rear deck, van/wagon wall, and 5-cutout installation; fits 6 x 9-in or 4- or 5-in cutout with optional adaptors; perforated metal grille ... $75

CSS Speaker System
Consists of two LS35 companion speakers and level control system. LS35 incorporates 3 1/2-in full-range driver with aluminum voice coil; door, side panel, or standard 6 x 9-in dash cutout mount. LCS controls front-to-back and side-to-side balance. System may be used with L70, 60 Wich input. ... $75

Type II Car Speaker Kits
The following speakers are compatible with Fosgate's Power Punch amplifiers.

Type II Power Punch kicker amplifiers.

SP-600. Two 6 x 9-in woofers and two tweeters ... $110

SP-690. Two 6 x 9-in woofers and tweeters ... $130

SP-684. Two 6 x 9-in woofers, two 4 1/2-in round midrange drivers, and two tweeters ... $170

Fujitsu TEN
Car Speaker Systems
SS885. Two-way air-suspension speaker system with 4-in woofer, 8-oz magnet, and 2-in tweeter; input 20 W; impedance 8 ohms ... $140 pr.

SS886. 4 x 9-in coaxial air-suspension speaker system with 20-oz magnet; input 20 W; impedance 8 ohms; wire mesh grilles ... $125 pr.

980 EDITION

Audiotech auto speakers

with Liqui-Glide™ for Sound-Good-Longer Sound

Audiotech auto speakers will turn you on the first time you hear them. They're still being delivered rich, powerful, undistorted sound. What's the secret? There's no distortion or aging. All Audiotech auto speakers feature Liqui-Glide, the rare and costly magnetic fluid that improves performance by dissipating heat from the voice coil, thus increasing power handling capability. Which means you can really crank them up and they won't break down. But Liqui-Glide also reduces distortion and aging, which means you may very well get more miles out of Audiotech speakers than you do out of your car.

Audiotech – for Sound-Good-Longer Sound

CIRCLE NO 69 ON READER SERVICE CARD

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FUSION ELECTRONICS

Type II Car Speaker Kits
The following speakers are compatible with Fosgate's Power Punch amplifiers.

SP-600. Two 6 x 9-in woofers and two tweeters ... $110

SP-690. Two 6 x 9-in woofers and tweeters ... $130

SP-684. Two 6 x 9-in woofers, two 4 1/2-in round midrange drivers, and two tweeters ... $170

Fujitsu TEN
Car Speaker Systems
SS885. Two-way air-suspension speaker system with 4-in woofer, 8-oz magnet, and 2-in tweeter; input 20 W; impedance 8 ohms ... $140 pr.

SS886. 4 x 9-in coaxial air-suspension speaker system with 20-oz magnet; input 20 W; impedance 8 ohms; wire mesh grilles ... $125 pr.

SS88615. Three-way 6 x 9-in top-mount-flush speaker system; input 20 W; impedance 8 ohms; wire mesh grilles ... $110 pr.

SS88513. 4 x 10-in coaxial speaker system with 10-oz magnet; input 20 W; impedance 8 ohms; wire mesh grilles ... $90 pr.

SS8855. 5-in round-door-mount speaker system with 6.6-oz magnet; input 20 W; impedance 8 ohms; comes with detachable rain guard and wire mesh grilles ... $43 pr.

SS8864. 5 1/4-in round speakers with 10-oz magnet; input 20 W ... $31 pr.

SS8865. 5 x 7-in elliptical speakers with 6-0.5-oz magnet; input 20 W ... $31 pr.

SS8863. 5-in round speakers with 8-oz magnet; input 20 W ... $30 pr.

SS84625. 5 1/4-in round speakers with 10-oz magnet; input 10 W ... $29 pr.

SS84624. 5-in round speakers with 5-4-oz magnet; input 10 W ... $26 pr.

GRUNDIG

HF 2040 Car Speakers
Two-way car speaker system with 4 1/2-in woofer with foam listing, 2-in tweeter and crossover pad; frequency response 30-20,000 Hz; input 40 W music power; 20 W nominal continuous power; crossover frequency 4000 Hz; sensitivity 91 dB SPL/W/4-ft; 4-ohm impedance; 4 1/4 H x 3 1/4 W x 3 1/4 D ... $110 pr.

HF 2025 Car Speaker
4 1/2-in integral dome speaker system with frequency response 30-20,000 Hz; max. power 40 W; 4-ohm impedance; 4 1/4 x 4 1/4 x 1 1/4 ... $75 pr.

HEPPNER

6930 Tri-Pac Car Speaker
See Section 10, Speaker Systems, under Hitachi, ... $200

INFINITY

InfinitesimaL Speaker System
Two-way mini speaker system designed for mobile situations incorporates 5-in dual-drive polypropylene cone woofer with dual voice coils and Electromagnetic Induction Tweeter (EMIT) with samarium cobalt magnets; frequency response 65-32,000 Hz ±2 db; crossover at 3000 Hz; power range 10-65 Wich continuous; 4-ohm impedance; contour control for Robbie or room environment adjustment; includes black metal mounting bracket and template for horizontal or vertical mounting anywhere in car, black anodized aluminum and oak finish with perforated aluminum grille; 11 H x 6 W x 5 1/2 D. ... $175...
**JENSEN**

**J1001 Car Speaker**

Three-way car speaker system incorporates separate woofer, midrange and tweeter. Woofer: 6 x 9-in, 20-oz magnet, frequency response 35-15,000 Hz; midrange: 3-in, 3-oz magnet, 1000-4000 Hz frequency response; tweeter: 2-in, 3-oz magnet, 4000-20,000 Hz frequency response; input 35 W; 4-8 ohm impedance, midrange and tweeter frequency controls; comes with custom grilles, wiring, and hardware...

**Series II Car Speakers**

**Triax II.** Three-way bi-amplified car speaker incorporates 6 x 9-in woofer with 20-oz barium ferrite magnet and 1 1/4-in voice coil, 3-in cone midrange, and 2-in piezo-electric tweeter; frequency response 75-15,000 Hz; sensitivity 93 dB at 1 W; max. input 100 W continuous; impedance 4-8 ohms; 9 1/2 x 6 1/4 x 3 1/8 D...

**Dynax II.** Two-way car speaker incorporates 6 x 9-in woofer with 20-oz magnet and 4 1/4-in cone tweeter, deck mounting, frequency response 75-17,000 Hz, crossover 2500 Hz - 6 db; sensitivity 91 dB at 1 W; max. input 90 W continuous; impedance 4-8 ohms; 9 1/2 x 6 1/4 x 3 1/8 D...

**C9929.** 6 x 9-in coaxial speaker; 2-in woofer; 2-in tweeter; 2 1/2-in deep; input 25 W; 50-15,000 Hz frequency response...

**C9997.** 4 x 10-in woofer; 2-in whizzer; 3 1/2-in deep; 20-oz magnet; input 25 W; 46,140-15,000 Hz frequency response...

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**KRIET**

**8974 Domaxial Car Speaker System**

6 x 9-in car speaker with 20-oz ceramic magnet and 1 1/4-in aluminum voice coil; 1-in soft dome tweeter with 5-1/2-in ceramic magnet and 1-in aluminum voice coil; input 50 W continuous, frequency response 40,200,000 Hz; 4-8 ohm impedance; kit includes two speakers, two 15-ft cables with quick-connect terminals, and hardware...

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**LAKE COMMUNICATIONS**

**6924 Car Speakers**

6 x 9-in foam air-suspension speaker system with three-way speaker chrome bridge for midrange and tweeters; 20-oz magnets; frequency response 25,200,000 Hz; 8-ohm impedance; max. input 25 W; wire mesh grilles; includes 18-ft wire kit...

**6923 Car Speakers**

6 x 9-in foam air-suspension speaker system with 3-in midrange, 2-in tweeter; 20-oz magnets; frequency response 25,200,000 Hz; 8-ohm impedance; max. input 25 W; wire mesh grilles; rubber gasket; includes 18-ft wire kit...

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**MARANTZ**

**SS-5000 Car Speaker System**

Two-way speaker system with 6 1/4-in woofer; input 1 W into 4 ohms from 20,000 2 Hz...

**SS-5100.** Same as SS-5000 except surface-mount speakers...

**SS-569 Car Speaker System**

Flush-mount five-way speaker system with 6 x 9-in woofer, 4 1/2-in midrange, 1 1/4-in foam cone, 3-in ceramic tweeter, 2-in ceramic dome super tweeter; three separate capacitive high-pass crossovers; frequency response 40,200,000 Hz; 8-ohm impedance; efficiency 92-dB SPL/W/m; max. input 30 W music; mounting gasket; wire mesh grilles...

**SS-469 Car Speaker System**

Flush-mount four-way speaker system with 6 x 9-in woofer; 2 1/2-in midrange; 1-in tweeter, and 1-in ceramic dome super tweeter; three separate capacitive high-pass crossovers; frequency response 40,200,000 Hz; 8-ohm impedance; efficiency 92-dB SPL/W/m; max. input 30 W; wire mesh grilles...

**SS-3357 Car Speaker System**

Front insertion mount 5 x 7-in three-way speaker system...

**SS-825 Car Speaker System**

Two-way speaker system with 6 1/4-in woofer, 1 1/4-in midrange, and 1-in horn super tweeter; two separate capacitive high-pass crossovers; frequency response 50,200,000 Hz; 8-ohm impedance; efficiency 92-dB SPL/W/m; max. input 20 W; wire mesh grilles; rubber gasket; includes 18-ft wire kit...

**SS-3410 Car Speaker System**

Two-way speaker system with 4 x 10-in woofers and...
**MATRECS**

4 x 10-In Car Speaker Kits
Air-suspension car speakers feature 4 x 10-in woofers with 20-oz Magnaflex ceramic magnets and Li-qui-Flex magnetic lubricating fluid, impedance 4-ohm, 1-in aluminum voice coil diameter, kit includes two speakers, grilles, wire, and hardware.

MA-0410-20TP. Tri-Power system with 2\

MA-0410-20CP. Bi-Power system with 2\-

**MITSUBISHI CAR AUDIO**

Surface-Mount Car Speakers
Two-way speaker system with 4-in woofers and 3.5-oz magnets and 1\-in tweeter with attenuator control; input 50 W; aluminum die-cast baffle board enclosure.

M69-20C. Two-way, surface-mount speakers; 3\-in woofers with 20-oz magnets; 2\-in tweeters; 25 W input

M69-20T. Two three-way 6 x 9-in speakers for flush mounting on rear decks; integral 2\-in tweeters; 25 W input

M69-20C. Two coaxial 6 x 9-in speakers with 20-oz magnets and 1\-in voice coil; oval/flush mount; 25 W input

**MOTOROLA**

Pow-R-Handlers Car Speakers
Professional series car speakers feature 1-in voice coils, rolled-cloth-edge polycarbonate grilles, one-piece magnets, and ABS plastic mounting bases. Two per kit.

M5-20C. Two coaxial 5\-in flush mount speakers; 20-oz magnets; 2\-in tweeters; 25 W input

M69-20C. Two coaxial 6 x 9-in speakers for flush mounting on rear decks; integral 2\-in tweeters; 20-oz ceramic magnets; top or bottom loading installation; 25 W power input

M69-20T. Two three-way 6 x 9-in speakers for flush mounting on rear decks; integral 2\-in midrange and 2\-in tweeters; 20-oz ceramic magnets; formed cloth grille with wedge type extender; top or bottom loading installation; 25 W power input

**PIONEER**

Surface and Rear-Deck Speakers
TS-X9. Two-way, surface-mount speakers; 3\-in bass speaker; 1\-in treble dome radiator; 50-22,000 Hz; 4-ohm impedance; 40 W input; die-cast aluminum enclosure

TS-X5S. Two-way surface-mount speakers; 4\-in bass speaker; 4\-in passive radiator; 2\-in treble driver; 80-20,000 Hz; 4-ohm impedance; 20 W input; black molded enclosure with chrome handles

TS-X10S. Five-way, surface-mount speakers; 1\-in single cone; 80-13,000 Hz; 40 W input; 4-ohm impedance; black and chrome finish

**MR. AUDIO**

6924 Four-Axial Car Speakers
Flush-mount four-way car speaker system with 6 x 9-in air-suspension cone woofer with 20-oz ceramic magnet, separately mounted in 3-in aluminum dome midrange, 2 in aluminum dome tweeter, and 1\-in voice coil; frequency response 20-22,000 Hz; max. input 30 W; 8-ohm impedance; custom-designed mesh grilles

6923 Three-Axial Car Speakers
Flush-mount three-way car speakers with 6 x 9-in air-suspension woofer with 20-oz ceramic magnet, separately mounted; 3-in aluminum dome midrange, and 2-in aluminum dome tweeter with 1\-in voice coil; frequency response 40-20,000 Hz, sensitivity 108 dB/W; max. input 30 W; 8-ohm impedance; custom-designed mesh grilles; includes 18-ft cable

**MUNTZ HI Z**

1199 Speaker System
Two-way car speaker system incorporates separate 6 x 9-in woofer with 20-oz magnet and 60-5000 Hz frequency response and 4\-in tweeter with 500-15,000 Hz frequency response

1200 Speaker System
Four-way 6 x 9-in speaker system with 30-oz magnet; 6\-in woofer and two piezo electric tweeters; max. input 100 W; impedance 4 ohms; frequency response 30-25,000 Hz

**PANASONIC**

EAB-920 Car Speaker
Four-way 6 x 9-in speaker system with 30-oz magnet; 6\-in woofer and two piezo electric tweeters; max. input 100 W; impedance 4 ohms; frequency response 45-20,000 Hz, snap-on grille

**Pioneer**

Surface and Rear-Deck Speakers
TS-X9. Two-way, surface-mount speakers; 3\-in bass speaker; 1\-in treble dome radiator; 50-22,000 Hz; 4-ohm impedance; 40 W input; die-cast aluminum enclosure

TS-X5S. Two-way surface-mount speakers; 4\-in bass speaker; 4\-in passive radiator; 2\-in treble driver; 80-20,000 Hz; 4-ohm impedance; 20 W input; black molded enclosure with chrome handles

TS-X10S. Five-way, surface-mount speakers; 1\-in single cone; 80-13,000 Hz; 40 W input; 4-ohm impedance; black and chrome finish

1980 EDITION
12 CAR SPEAKERS

Deck Mount Speakers
TS-202. Rear deck-mount 8-in coaxial speaker system with 20-oz magnet; fits in 6 x 9-in opening; max. input 20 W; frequency response 30-20,000 Hz; mesh grille and grilleless construction; $219

TS-212. Dual cone speaker system with 20-oz magnet; max. input 20 W; frequency response 30-20,000 Hz; mesh grille and grilleless construction; $140

Door Mount Speakers
TS-105. Door and surface mount speakers; 5 1/2-in single cone; 2.9-oz magnet; 70-10,000 Hz; 8 W input; 4-ohm impedance; black and chrome finish; $30

TS-106. 6.5-in single cone with 7-oz magnet; max. input 20 W; frequency response 35-18,000 Hz; $96 pr

TS-83. Two-way speaker system with 10-oz magnet; max. input 20 W; frequency response 40-18,000 Hz; $82 pr

TS-121. 5-in single cone system needs 1-in mounting depth; max. input 20 W; frequency response 80-16,000 Hz; $52

TS-107. 4-in single cone speaker system with 6.5-oz stromium magnet; max. input 20 W; frequency response 50-16,000 Hz; $55

PSB
Alpha Car Speaker
Two-way acoustic suspension car speaker system with 3.9-in woofer and 0.88-in dome tweeter; frequency response 80-20,000 Hz; 0-12 dB; crossover at 2000 Hz; handles 35 W continuous; 4-ohm impedance; black plastic casing with cloth grille; mounting bracket and hardware included; 4.725" H x 8.4" W x 5.5" D; $220 pr

PYLE
Coaxial Speaker Packages
PK69C290-FD. Coaxial speaker system with 6 x 9-in cone woofer, 0.035-oz ceramic and bracket-mounted dome radiator tweeter with 1 1/2-in voice coil; input 100 W; impedance 8-10 ohms; package $150

PK410C160-FP. 4 x 10-in coaxial speaker system with 16-oz ceramic magnet and bracket-mounted tweeter with 1-in voice coil; input 30 W; impedance 8-10 ohms; package same as PK69C290-FD; $150

SM200. Mounting brackets for SM200 $15 pr

SM100. Mounting brackets for SM100 $219

ROYAL SOUND
RS-6100 Car Speaker System
Two-way car speaker system with 4-in woofer, ferrite magnet, 1 1/2-in voice coil, and 1 1/2-in in soft dome tweeter, ferrite magnet and 1-in voice coil; frequency response 60-20,000 Hz; 6 dB; crossover 2800 Hz (car), 5800 Hz (home); sensitivity 82 dB SPL/W/m; 4-ohm impedance; includes built-in wire mesh grilles with dust protectors, 2-in screw studs, hardware and speaker wire; $120 pr

RS 6045 Car Speaker System
Two-way car speaker system with 4-in polyurethane woofer, ferrite magnet, 0.8-in voice coil, 2-in soft dome tweeter with Alnico magnet and 1-in aluminum voice coil; frequency response 80-20,000 Hz; 6 dB; crossover at 2800 Hz; sensitivity 86 dB SPL/W/m; 8-ohm impedance; handles 22.5 W continuous power; 45 W max. input power; aluminum diecast cabinet; 7 7/8" H x 4 1/4" W x 4 1/8" D; $300

RS 6030 Car Speaker System
Two-way car speaker system with 3-in woofer, ferrite magnet, 1 1/2-in voice coil, 2-in cone tweeter, ferrite magnet, and 1-in voice coil; frequency response 100-20,000 Hz; 6 dB; crossover at 3000 Hz; handles 30 W max. power; sensitivity 92 dB SPL/W/m; 4-ohm impedance; 6" H x 3 3/8" W x 3" D; $150

SANYO
SP795 Car Speaker System
Two-way speaker system with 4-in woofer and 3-in horn tweeter, designed for Sanyo stereo systems; with 6000 Hz rolloff, 4- or 8-ohm impedance; max. input 25 W continuous power, frequency response 100-20,000 Hz; $260

STEREO DIRECTORY & BUYING GUIDE
SPARKOMATIC

LC-100 Amplified Car Speaker System
Full-range amplifier and two 6 x 9-in air suspension woofers with coaxial high-frequency tweeters; separate slide controls for bass and treble; standard boost and tone boost switches; power meter; 18 W/channel at 10% THD delivered into 4 ohms; unit is sensitive to more than 45 dB; amplifier frequency response 20-20,000 Hz; 4 ohm impedance; total mounting versatility. $90

SK-525 Car Speakers
Three-way car speaker system has high-compliance long-exursion woofer with 10-oz magnet, air-suspension midrange, and dome horn tweeter; adjustable high frequency intensifier; frequency response 80-18,000 Hz; handles 25-50 W; impedance 4 ohms; aluminum cabinet housing; rear deck or hang-on mount; frequency response 30-18,000 Hz; hardware and wire included. $90

SK-700V Speakers for Vans & RVs
Stereo speakers for vans and recreational vehicles; 6-in air-suspension woofers with 10-oz magnets and 1-in voice coils; 30 W max.; 2-in tweeters with aluminum dust covers and Alnico magnets; 4-8 ohm impedance; total mounting versatility. $90

SK-6900 Car Speakers
Three-way speaker system with 6 x 9-in woofer, 15-oz magnet, separate hard dome midrange and die-cast aluminum mini-horn tweeter; max. input 25 W continuous power; frequency response 70-20,000 Hz; 4 or 8-ohm impedance; metal mesh grille, flush-mounting hardware, and wire included. $100

SP777 Car Speaker
6 x 9-in woofer, 20-oz magnet, hard-dome midrange and die-cast aluminum horn tweeter; for conventional or biamp system; 4- or 8-ohm impedance; max. input 30 W continuous power; frequency response 40-20,000 Hz; hardware and wire included. $40

SP410 Car Speaker System
Three-way, four-speaker system with 6 x 9-in woofers with 20-oz magnet and 3-in long-throw; designed for fewer lo s d in crossing over at 2000 Hz; 4- or 8-ohm adapters included; max. input 135 W; sensitivity 90 dB; frequency response 30-18,000 Hz; hardware and wire included. $90

SP780 Car Speaker System
Two-way, four-speaker system with 6 x 9-in woofer with 20-oz magnet and 3-in long-throw; designed for Sanyo biamp system crossing over at 2000 Hz; 4- or 8-ohm adapters included; max. input 135 W; sensitivity 90 dB; frequency response 30-18,000 Hz; hardware and wire included. $90

SK-527T Car Speaker
Similar to SK-522T except with air suspension system with 5-in woofer, 20-oz ceramic magnets, and 3-in midrange with 4-8 ohm impedance; total mounting versatility. $50

SK-520C Car Speaker
Coaxial. 5-in foam-edge air suspension woofers with 20-oz ceramic magnets and built-in coaxial 2-in tweeters. $40

SK-620C Car Speaker
Similar to SK-520C except fluff-mount with 5-in woofer. $35

SK-510 Car Speaker
Two 5-in air suspension speakers with 10-oz ceramic magnets; frequency response 90-12,000 Hz; handles 15-30 W. $25

SK-610 Car Speaker
Similar to SK-510 except fluff-mount with 2-5 in woofers. $20

DMS-3 Car Speaker System
Three-way speaker system with 6 x 9-in air suspension excursion woofer with high-temperature voice coil, with high-frequency voice coil, and 1-in dome tweeter with capacitive crossover; frequency range 55-20,000 Hz; input 3 W (3.5 in); 8-ohm impedance; quick-connect/disconnect speaker terminal; removable mounting brackets, wire, and hardware included; 7'/4" H x 4'/4" W x 4'/4" D. $165

SK-6922T-G Car Speaker Kit
"Super Trio" three-way air suspension 6 x 9-in speaker system with 20-oz ceramic midrange, ceramic dome tweeter, and 20-oz magnet; frequency response 70-20,000 Hz; handles 40 W; input range 5-40 W. $120

HE-601 Mobile Speakers
Two-way mobile speakers with 4-in soft dome air-suspension woofer, 6-oz ceramic magnet and 1-in compliance dome tweeter; 100% max. continuous input power; frequency response 120-20,000 Hz; 4-8 ohm impedance. $120

HE-531 Car Speakers
Three-way rear-deck mount speakers with 5.5-in air-suspension woofer, 9-3 oz ceramic magnet, 2-1/2-in midrange/woofer and 1-in soft dome tweeter; frequency response 50-20,000 Hz, input 50 W; 8-ohm impedance. $89

HE-641 Mobile Speakers
Two-way mobile speakers with 4-in soft dome air-suspension woofer, 6-oz ceramic magnet and 1-in compliance dome tweeter; 100% max. continuous input power; frequency response 120-20,000 Hz; 4-8 ohm impedance. $120

HE-500 Car Speaker System
Three-way mini speaker system has high-compliance 5-in woofer, 3-oz ceramic magnet, and 1-in dome tweeter; frequency range 70-20,000 Hz; 8-ohm impedance. $100

HE-510 Car Speaker System
Three-way speaker system with 6 x 9-in air suspension woofer, 9-3 oz ceramic magnet, 2-1/2-in midrange/woofer and 1-in soft dome tweeter; frequency response 50-20,000 Hz, input 50 W; 8-ohm impedance. $90

TRUSONIC

All speakers compatible with 4- or 8-ohm units; waterproof cones; chrome cast baskets; complete kit includes two speakers, grilles, wire and hardware. $90

K6943 Two-way 6 x 9-in speaker with 3'/4 in midrange and 40-oz magnet; 120-Watt power handling; frequency range 25-25,000 Hz $175

K6923 Same as K6943 except has 20-oz magnet, handles 80 W and frequency response 30-25,000 Hz. $150

K6942 Two-way 6 x 9-in speaker with 3-in tweeter and a 40-oz magnet; 120-Watt power handling. $145

K6922 Same as K6942 except has 20-oz magnet, 80 W power handling. $120

K6941 6 x 9-in speaker with 40-oz subwoofer; 130 W input; frequency response 25-2000 Hz. $120

ULTRALINE

M16 Car Speakers
Two-way air-suspension speaker system with 4'/8-in woofer and 1-1/4-in ultra-wide dispersion soft dome tweeter; frequency range 53-23,000 Hz, crossover at 2500 Hz; input range 5-50 W continuous; 4-8 ohm nominal impedance; walnut laminate finish with mobile mounting brackets included; 7'/4" H x 5'/8" W x 7'/4" D. $200

M12. Similar to M16 except with 2'/4-in tweeter; frequency response 53-18,000 Hz; input range 3-40 W continuous. $150

UD-15 CARponent Speaker System
Two-way flush/rear deck surface-mount air-suspension speaker system with 4'/4-in midrange/woofer and 1-in soft dome tweeter; crossover at 2500 Hz; nominal impedance 4-8 ohms rated; frequency response 55-22,000 Hz; input range 3-50 W continuous; coaxial steel escutcheon front panel with handles and surface mount cradle; tweeter assemblies removable for front-door panel mount; 4'/4" H x 12'/2" W x 6'/2" D. $120

UD-15 CARponent Speaker System
Two-way flush/rear deck surface-mount air-suspension speaker system with 4'/8-in midrange/woofer and 1-in soft dome tweeter; crossover at 2500 Hz; nominal impedance 4-8 ohms rated; frequency response 55-22,000 Hz; input range 3-50 W continuous; ebony matte or walnut laminated finish; can be used in home or moving vehicle; mounting bracket included; 7'/4" H x 5'/8" W x 4'/8" D. $100

VISONIK

Car Speakers See Section 10, Speakers, under "Visonik." $125

0-500MD. $100

0-302MD

ADS

Power Plate 100 Power Amp
Slim-line design power amplifier with built-in equalizers, subsonic filter, and remote turn-on. Output 50 W with continuous power into 4-ohms from 20-20,000 Hz with 0.8% THD; 50 W 90 dB; frequency response 30-20,000 Hz with 0.5 dB; 15.5 V dc negative ground; flat black satin finish; optional bolt-on handles extend height to 2'/4-in; 1'/8'' H x 12'/2" W x 6'/2" D. $300

ALPINE

3005 Amplifier
20 W car stereo amplifier with eight electronic rhythms and separate mic and line inputs, LED output meter, input sensitive 53-23,000 Hz, and tempo controls, rhythm function switch; digital time delay (60-130 msec) fader; separate bass and treble controls (± 10 dB at 100/1000 Hz); mic and PA inputs; special mic and line controls; frequency response 20-20,000 Hz; compatible with Alpine models 7100, 7111, and 7303;...... $350

3000 Graphic Equalizer
Four-channel five-band graphic equalizer with center frequencies set at 60, 250, 1000, 3500, and 10,000 Hz; ± 12 dB; unit features bi-amp in/out switch; tuner/auxiliary switch, clipping indicators; accurate digital time delay (Model 3001) with digital time delay on/off switch, digital time delay max./ min. control (0-1000 msec), and digital time delay gain control, and input sensitivity control; slide control detent midrange; 20 W output power; frequency response 20-20,000 Hz; compatible with Alpine models 7100, 7111, and 7303; $300

3003. Similar to 3000 except with preamplifier; no clipping indicators. $150

3004. Similar to 3003 without digital time delay
COMPATIBILITY; has two-channels, front-to-rear fader, power on/off switch, and clipping indicators; $120

3002 Amplifier
50 W main amplifier with pulse-regulated power supply; input sensitivity 0.1 V RMS; remote power on/off switch; frequency response 10-60,000 Hz with 0.2% THD; $250

AUDIOVOX
AMP-600B Graphic Equalizer Amplifier
Undersized graphic equalizer amplifier with fader, power level meter, and slide controls; output 30 W/ ch; 4-8 ohm impedance; $110

HI-COMP Line
HCB-830 Power Booster
Power booster with output 30 W/ ch with 0.3% THD into 4 ohms; four-channel power amp; $200

HCE-750 Equalizer/Preamp
Five-band parametric equalizer and preamplifier; equalizer center frequencies set at 35-70, 125-280, 500-1000, 1750-3500, and 6000-12,000 Hz; output 10 dB boost or cut; designed to plug into RCA preamp outputs of HI-COMP units and works with all amplifiers; $150

BLAUPUNKT
BEA-200 Equalizer/Power Amp
Five-band graphic equalizer amplifier with power amplifier and rear fader; Amplifier: output 200 W continuous into 4 ohms with 0.08% THD; $400

CAR TAPES
JS-120 Graphic Equalizer
Ten-band graphic equalizer with center frequencies set at 60, 150, 1000, 3500, 12000 Hz; frequency response 20-20,000 Hz; sensitivity 0.5 V/ RMS; input impedance 20,000 ohms; noise -80 dB; 2.4" H x 8" W x 3" D; $160

CRAIG
V503 Amplifier/Equalizer
Car stereo amplifier/four-band graphic equalizer. Amplifier: output 36 W/ch. min. continuous into 4 ohms with 0.1% THD; converter frequency response 20-150, 150-2000, 3000-20,000 Hz; electronic time delay; tone defeat and power range pushbuttons; reversible slide-out bracket; $200

V505. Similar to V503 except 24 W/amp; $145

V504. Similar to V503 except 12 W/amp $120

V501 Amplifier
Stereo amplifier; output 12 W/ch; 2.0% THD; auto power switching; compatible with four-speaker system; plug-in installation; $60

V502. Similar to V501 except with 1.0% THD; $85

DRAKO LABS
D-4SE Car Range Expander
Provides 30 dB of added dynamic range and eliminates FM and tape hiss; features spectrum display for bass, midband, and treble frequencies; expansion range slide control; display control: Attack and release rates automatically adjustable; $250

EVADIN by TZY
EQB-61 Graphic Equalizer Booster
Five-band graphic equalizer booster with transformerless direct-coupled circuitry; unit has front-to-rear fader, power-on/defeat pushbutton control, and slide controls with center detents; equalizer frequencies set at 60, 250, 1000, 3500, and 15,000 Hz; center frequencies set at 45, 175, and 20,000 Hz; decoder: $50

EQB-260 Graphic Equalizer/Booster
Miniature five-band graphic equalizer/blower with transformerless direct-coupled circuitry; output 4-8 ohms; center frequencies set at 45, 175, and 20,000 Hz; decoder: $100

EQB-280 Graphic Equalizer/Booster
Miniature five-band graphic equalizer/blower with transformerless direct-coupled circuitry; output 4-8 ohms; center frequencies set at 45, 175, and 20,000 Hz; decoder: $50

FOGSAFE ELECTRONICS
Tetra I Tetrasound
In-car or underdash roof sound decoder/preamp/equalizer converts standard car stereo radio or tape player into four separate channels producing 360-degree spatial sound field; available with trunk mount or 400-Series 200-W power biamp. Features LED peak-reading indicators with display on/off switch; front-to-back fader and left/right front and rear slide balance controls; left/right front input indicators; stereo panorama SQ decode mode switch; tape/radio input selector; input level trimmers; left/right equalization slide controls set at 45, 175, and 20,000 Hz, and 0.08% THD; incorporates automatic power dimension control, phase corrector, and base combination circuitry; separation 35 dB between channels; THD 0.08% typically, 0.15% max. from 20-20,000 Hz; max output 2.25 V RMS; max output 2.25 W at 1% THD at full level; $250

Power amp: 200 W continuous into 4 ohms; 100 W continuous into 8 ohms; frequency response 20-20,000 Hz; -0.25 dB; slew rate 60 V/µsec; damping factor 1000; sensitivity 0.5 Vrms in; input impedance 20,000 ohms; noise -80 dB; THD 0.05% at 50-W out, 4 ohms; Preamp: frequency response 20-20,000 Hz; -0.25 dB; THD 0.02% from 20-20,000 Hz; max output 10 V rms; noise -90 dB; output impedance 20,000 ohms; $250

200-Series. 200-W amplifier $895

400-Series. 200-W power biamp $1095

PR-2100 The Punch Type II
Bi-amplified power amplifier with built-in variable electronic crossover and separate active equalizer with center frequencies set at 45, 175, and 20,000 Hz. Features automatic power switching with time delay; LED array for source material level; auto system shut-off; radio and tape unit inputs; power supply for each channel and fully regulated power supply with oversized heatsinks; bridge input; 230 V/ 60 Hz, 50 W continuous into 4 ohms; THD 0.08%; $460

PR-250 The Punch Type II
Car amplifier with separate active equalizer with 45, 200, and 20,000 Hz center frequencies. Features auto system shut-off; LED array for source material level; auto system shut-off; radio and tape unit inputs; power supply for each channel; oversized heatsinks; power supply for each channel; $316

PR-220 The Punch Type II
Underdash or hidden-mount amplifier with auto stop, auto power switching with time delay, built-in six-position active equalizer, and oversized heatsinks; Output 40 W total continuous into 4 ohms; frequency response 20-20,000 Hz; noise 80 dB; 1" H x 4" W x 2" D; $250

GRUNDIG
ESO Series 70 Amplifier
35 W min. power into 4 ohm load from 20-20,000 Hz at 0.2% THD; 50 W continuous into 8 ohms; noise -10500 Hz, 0 - 1, S/N 95 dB; damping factor 300; connections for high or low level input; $178

ESO Series Equalizer/Preamplifier
Three-channel equalizer preamplifier with channel balance slide control; two peak level LED indicators; volume control with trimmer inc.; midrange and treble slide controls; switchable adjustable trim pot gain control; center frequencies set at 50, 100, and 10,000 Hz; $150; output 1 V rated; 5 V max from 20-20,000 Hz into 5000-ohms; THD 0.1%; frequency response 20-20,000 Hz; $178

STEREO DIRECTORY & BUYING GUIDE
$376

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$120

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$2

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$1

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$0

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$3

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$2

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$1

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$0
**AD-320 Power Amplifier**

Power amplifier with integrated circuitry has max. output 12 W/channel, 6 W/channel into 4 ohms at 1 kHz with 0.8% dist.; frequency response 40-20,000 Hz; 2 Vrms x 4 Vrms x 4 W = 5 3/4" D = $60

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**ROYAL SOUND**

**RC-2000 Graphic Equalizer Amplifier**

Seven-band graphic equalizer amplifier features LED threshold saturation level indicators, pushbutton loudness contour, muting, ambient, and input sensitivity selector controls, and rotary fader/volume/balance controls; fused protection circuit contains center frequencies at 50, 150, 300, 1000, 2500, 6000, and 15,000 Hz, ±12 dB; equalizer defeat switch; audio muting switch reduces sound level 20 dB; LED left/right channel "bar graph" signal level meter; 2 Vrms x 4 Vrms x 4 W = 5 3/4" D. $70

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**SPARKOMAT**

**GE-500 Graphic Equalizer/Booster**

Car stereo booster amplifier produces visual response curve on illuminated screen; slide controls for five frequency bands; 60 Hz, 250 Hz, 1000 Hz, 3.5 kHz, 10 kHz; front-seat fader control; power indicator light; audio-by-pass switch; 20 W continuous; frequency range 20-20,000 Hz; for use with all tape decks and radios, and speakers with power handling capability of 15 W or greater; 2" x 6 1/4" x 6 1/4" W x 7 7/8" D. $90

**LC-101 Power Amplifier**

Full-spectrum car power amplifier, output 36 W continuous at 10.0% THD, 30 W continuous at 1.0% THD, frequency response 20-20,000 Hz; input impedance 27 ohms; speaker load 8-ohms/ch; includes detachable wiring harness. $160

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**TENNA**

**PA-3021DF Graphic Equalizer**

Five-band graphic equalizer with dual fader that individually controls speakers front/rear and left/right; has equalizer defeat switch and BTL circuitry; center frequencies set at 60, 250, 1000, 3500, and 15,000 Hz, ±12 dB; 4 0-ohm load impedance; includes detachable harness. $120

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**VISONIK**

**A-301 Car Power Amplifier**

30 W continuous into 4 ohms from 20-20,000 Hz with 0.25% dist.; includes two dc amplifier channels; oscillator-driven push-pull inverted circuit with ferrite-core power transformer; low-current remote turn-on feature; one-piece printed circuit board construction for all components and connectors; clamped power transistors to extrude heat sinks. $150

With pair of D-302M0 speakers $200

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**PA-1 Preamplifier Equalizer**

Features bass, midrange, and treble controls; input selection for phone 1 and 2; volume and power on/off. $125
**ACE AUDIO**

*5000 Subwoofer Electronic Crossover*

Designed to operate with subwoofers or mini speaker systems; consists internally of precision metal film resistors and polystyrene capacitors mounted on single PC board; has level control and defeat switches; crossover 18 dB/octave at 100 Hz; noise ~90 dB; dist. 0.025% at 2 V out, 0.01% typically; 2/3" H x 6" W x 4/5" D. 

Kit, Construction time 1-3 hrs. $75

Assembled and tested $125

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*6000 Electronic Crossover Kit*

Designed for bi- or tri- (with two 6000s) amping; features plug-in frequency module; built-in power supply; choice of 15 crossover frequencies from 200-10,000 Hz at 12 dB/octave; has two tweeter level controls; THD or IM dist. 0.02%; input impedance 220k ohms; output impedance 100 ohms; hum and noise ~90 dB, 2/3" H x 6" W x 4/5" D.

Kit $65

Wired $90

Plug-in frequency module $28

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**ADC PROFESSIONAL PRODUCTS**

*Sound Shaper Three Paragraphic EQ*

Three 12-band parametric graphic equalizer controlling up to 36 frequency ranges per channel, ranging from 26-21,500 Hz ±12 dB; graphic equalizer center frequencies set at 32, 56, 100, 180, 320, 500, 1000, 1800, 3200, 5000, 10,000, and 18,000 Hz; features internal switching and monitoring, EQ bypass, 24 linear potentiometers, and two vertical LED signal level meters. $500

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*Sound Shaper Two MkII Equalizer*

Twelve-band stereo equalizer with center frequencies set at 30, 50, 90, 160, 300, 500, 900, 1600, 3000, 5000, 9000, and 16,000 Hz, ±12 dB boost or cut; each band/ch has linear potentiometer control with center detent. Features internal switching and monitoring with pushbutton line record and tape monitor controls; pushbutton equalization bypass; dual seven-segment ±12 dB LED meter with 1-dB adjust switch and two channel LEDs; rear-panel variable frequency spectrum level balancing controls/ch, two main and two tape monitor inputs; two main and two tape outputs. Frequency response 5-100,000 Hz ±1 dB; unity gain ±1 dB; output 10 V rms into 10k ohms; THD and IM dist. 0.02%; hum and noise ~90 dB; output impedance 100 ohms at 1000 Hz; input impedance 75k ohms; 6/3" H x 16" W x 6/5" D. $330

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*Sound Shaper One Ten Equalizer*

Ten-band stereo equalizer with center frequencies set at 31, 62, 125, 250, 500, 1000, 2000, 4000, 8000, and 16,000 Hz, ±12 dB boost or cut; each band/ch has linear potentiometer control with center detent. Features power, line record, tape monitor, and EQ bypass pushbutton controls; two main and two tape monitor inputs; two main and two tape outputs. Frequency response 5-100,000 Hz ±0.1 dB; unity gain ±1 dB; output 10 V rms into 10k ohms; THD and IM dist. 0.02%; hum and noise ~80 dB; output impedance 10 ohms at 1000 Hz; input impedance 75k ohms; 6/3" H x 14" W x 6/6" D. $230

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**ALLISON**

*The Electronic Subwoofer*

Two-channel bottom-octave equalizer and bandpass filter, rolloff 24 dB/octave below 20 Hz and 18 dB/octave above 20,000 Hz; crossover frequencies at +3 dB at 41 Hz, 35.5 Hz, 48 Hz (extends Allison loudspeakers flat to 20 Hz); FILTER ONLY position; S/N 100 dB min. ("A" weighted); used in tape monitor loop, external processor loop of preamp/control unit, integrated amp, or receiver; 2 H x 14" W x 4/5" D. $290

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**AUDIO PULSE**

*1000 Digital Time Delay System*

Digital time delay system with built-in dynamic range expander with LED gain display; features delayedelay/decay time digital display, rear-panel jacks for remote ambient defeat switch; extra external long/short outputs for 6- or 8-channel operation; LED input level display; automatic defeat of ambience system; built-in headphone amplifier with ambient mix control; ambient signal mix in front channels; tape monitor facilities; separate rear-channel ambience control; individual secondary input/output level controls. Six initial delays continuously variable from 7-95 msec; ambience control 0-1.2 sec variable; frequency response 20-10,000 Hz, ±1-3 dB, 38-20,000 Hz, ±5 dB; efficiency 90 dB/20mW at 8 ohms; 110/220 V dc; black anodized finish; 3" H x 7/8" W x 12 1/4" D. $950

API102. Secondary ducted-port speaker system designed for use with 1000; has two 6-in high-excitation woofer/midrange drivers, 2.25-in cone tweeter, and 2.25-in rear-facing cone tweeter; square column enclosure; frequency response 40-30,000 Hz; 8-ohm impedance; max. input 100 W music power; walnut end caps with wrap-around grille; 35 H x 8/3" W x 9/8" D. $350 pr.

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*Model Two Digital Time-Delay System*

Recreates multidimensional paths of live sound by electronically duplicating delayed reflected sounds; audio signals encoded digitally and fed into random access memory device at three different stages to recover audio signal. Features built-in 25-Wch integrated amplifier for precise adjustment of secondary channels and bass and treble controls; input and output level controls with LED peak level indicators; long/short delay and direct/defeat function selector. Short initial delay 19, 33 and 51 msec, long delay 39, 66, and 103 msec; reverb decay time variable from 0.1-0.6 sec; input sensitivity for 0 dB 50-150V; 3.3 V variable at 1000 Hz (low level), 1.2-60 V

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**SIGNAL PROCESSORS** (includes Mixers)

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1980 EDITION
AP52. Two-way ducted-port speaker systems and 2-in cone tweeter; frequency response tailored for Model Two Digital Time-Delay System; treble tone control 4/–7 dB at 7000 Hz; 3’,2” H (delay); bass tone control .2.5/low rated out (direct), –72 dB below rated out (depressed); output 0-1.5 V/16,000 ohms (aux); output 0.005% at 2 V rms out, 20-20,000 Hz; max. input and output 10 V rms; HD or IM dist. 0.025%………..… $90

DB-10 Bass Turbocharger
Incorporates 18 dB/octave subsonic filter to eliminate subsonic noise below 20 Hz; frequency response 0–25 dB (high); mono bass output low enough to operate; 8 V rms; HD or IM dist. 0.0025%………..… $100

EQ-2 Synergistic Equalizer
Eleven-band two-channel octave center equalizer with center frequencies set at 20, 40, 80, 160, 320, 640, 1250, 2500, 5000, 10,000, and 20,000 Hz, 1.5–15 dB boost or cut; each channel features octave frequency adjust controls; 20 dB tone controls with bass hinge points adjustable from 1800-18,000 Hz and treble hinge points adjustable from 1000-10,000 Hz; equalizer cancel and cancel master controls; and overload indicators. Rear panel has unbalanced inputs, balanced inputs with switchable unity/–10 dB gain selection, switchable single-ended/and balanced inputs, switchable single-ended/and balanced outputs, and fixed frequency crossover slopes (6 dB and 18 dB per octave); requires no power supply. Dist. unisys crossover; must be used with DB-2 power supply.

Model DB-3-100. Similar to DB-3 except two-way electronic subwoofer crossover with 18 dB/octave Butterwort crossover; must be used with DB-2 power supply.

DB-2. Power supply for DB-3-3-100.………..… $62

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

Model 124. Four-channel switchable record or play.………..… $399

Model 128. Two-channel switchable record or play plus linear and/or variable compression/expansion.………..… $450

155 Noise-Reduction System Professional format, 4-channel tape noise-reduction system gives 30 dB of tape noise reduction at all levels over the entire audio spectrum with an additional 10 dB recording level; true rms detection for accurate encoder/decoder tracking; linear decibel compression/expansion over 100 dB range; no pilot tones or level match adjustments necessary; front-panel record and play level adjust; user-changeable modular circuit boards for each channel (spares available).………..… $457

Dynamic Range Expanders 118. Compressor/limiter with peak limiting/unlimiter capability; allows recordist to make full dynamic range of stereo recordings.………..… $650

3bx. Three-band linear expander with 30 gain-change LEDs in –20 to +12 dB range; 3” H × 8 3/4” W × 7” D………..… $650

3bx-R. Remote control for 3bx; provides remote control of all parameters; master volume, program-dependent release rate; 3” H × 8 3/4” W × 7” D………..… $149

2bx. Two-band linear expander with 20 gain-change LEDs and program-dependent release rate; 3” H × 8 3/4” W × 7” D………..… $450

1bx. Single-band linear expander with ten gain-change LEDs and program-dependent release rate; 3” H × 11” W × 7 3/4” D………..… $245
ADC has four Sound Shaper® frequency equalizers that will improve your sound system. No matter how good it is. And at a cost that's lots less than trading in your components.

ADC Sound Shapers will improve your speakers. By extending the true bass response, including the critical mid bass.

ADC Sound Shapers will improve the relationship between your cartridge and speakers. From one of partial incompatibility to total compatibility.

They'll also eliminate rumble (low frequency overload), tape hiss and record scratches.

And that only scratches the surface of what ADC Sound Shapers can do. For instance, the walls, carpeting and furniture of your listening room physically bounce sound around so that some spots have less sound than other spots.

Lots less. ADC Sound Shapers will bring these "dead" spots to life.

Perhaps best of all, though, is a Sound Shaper's ability to let you re-equalize what a recording engineer mixed. If a horn section is overwhelming a piccolo, for example, you just slide the appropriate frequency lever. Presto, more piccolo. You can also vanquish a voice. Or boost a tuba.

Sound Shapers segment the entire spectrum of sound. To let you re-shape a sound track to your personal musical preferences. It's all the control you've ever dreamed of but never dreamed possible.

To get into equalizers, start with our Sound Shaper One which operates in five frequency ranges. Or our Sound Shaper One Ten which gives you greater control by operating in ten frequency ranges.

For more professional equalizers, there's our Sound Shaper Two Mk II which functions in twelve frequency ranges with a two-channel LED meter. And there's our new Sound Shaper Three Paragraphic™ Equalizer.

It combines all the advantages of a graphic equalizer with all the advantages of a parametric equalizer. Twelve primary frequency controls per channel. Plus twenty-four ancillary control positions per channel. The Sound Shaper Three is the ultimate in controlling and creating with your stereo system.

Take the ultimate step up in sound, without trading in a thing.

ADC Professional Products, a division of BSR Consumer Products Group, Route 303, Blauvelt, NY 10913. Distributed in Canada by BSR (Canada) Ltd., Ontario. *Sound Shaper is a registered trademark of Audio Dynamics Corporation.

HOW TO TRADE UP YOUR RECEIVER, TUNER, AMP, TURNTABLE, CARTRIDGE AND SPEAKERS WITHOUT TRADING IN A THING.
namic range tapes on moderately-priced recorders and obtain 20 dB or more improved (S/N), LED indicator light………………..$199

100 Subharmonic Synthesizers Synthesizers for spaces between 25 and 50 Hz from program material above 60 Hz to recreate sig- nals in bottom octave; can be inserted in tape moni- tor circuit of receiver or amplifier; synthesize and low-frequency boost controls plus bypass switch; in- put 4.7k ohms, output level 7 V rms; frequency response 20-20,000 Hz +1 db, THD 0.1%; 3/4H x 7/8W x 10 1/2 D………………..$199

21 Disc/Tape Decoder Linear decibel compression and expansion system that encodes musical signal going onto record and decodes dbx-encoded disc or tapes upon playback; features noise reduction and tape source monitor buttons; level match control; frequency response 15-30,000 Hz +0.5 db (Delphi offer); max. output 4 V rms into 10,000-ohm load; THD 0.2% at 1 kHz; hum and noise -94 dBV, 2V for 8 X/ W x 6"D………………..$109

DRACO LABS

Lab Series Dynamic Range Expander Features LED spectrum display for bass, midband, and high frequencies; 20-1000 Hz +12 dB boost or cut. Features fluorescence analyzer display with left/right mode switch, memory, and level control (covers 32-16,000 Hz frequency range over 20-26 dB range in green); 6-DB SE A switch (doubles input sensitivity to accommodate high inputs without distortion); SEA re- cord switch (transmits signal to tape deck); tape monitor switch; input monitor switch; input impedance 47 K ohms (SEA and tape monitor in); output impedance 100 ohms (SEA and tape rec out); rated output 2 V rms; frequency range 10,000 Hz - +0.5 db (SEA); THD and IM dist. 0.003%; gain 0 db - 6 Vrms, 6/2 x 17/"W x 12" D………………..$600

FOSGATE ELECTRONICS

Tetra II Tetrasound Multi-channel sound decoder system converts two-channel stereo, SQ, and CD4 program material into four separate channels; produces 360-degree spatial sound field; Tale decoder incorporates auto- matic dimension control, phase corrector, and base combination circuitry. Features decode mode switch; decode mode signal indicators with LED peak-reading display on/off switch; left/right input balance, front left/right bal- ance, and rear left/right balance slide control; in- put level trimmer posts; input level test probes; re- mote control input with on/off switch; tape monitor normal/s correlation output switch; master volu- me control. Separation 35 db between all chan- nels; THD 0.05% typically, 0.15% max. from 20-20,000 Hz at 0.5 V rms; max. output 2.5 V rms; noise -80 db at full level………………..$995

GARRARD

MRM 101 Music Recovery Module Impulse noise suppression device with phono pre- amplifier; electronically detects clicks and pops, re- ducing output level to 30 db below program level in 2.78/5 Hz (-70 db) and 20,000 Hz (-164 db). Output 30-30 db level; output gain stage boosts signal vol- tage to drive aux. inputs of phono preamp; nominal output 300 mW; rated output at 1% distortion 2.5 mV into 7,000-ohm (preamp), 0.1 % (V suspension circuitry); channel balance better than 2 dB; S/N 100 db (phono preamp), 85 db (suppression circuitry); input impedance 47,000 ohms; includes front-panel LED for suppression circuitry, LED indica- tor when suppression circuitry is in signal path, and defeat switch for suppression circuitry so unit can be used as phono preamp only; 2.7/5H x 15/"W x 12" D………………..$220

HEATH

AD-1305 Stereo Equalizer Kit Five-band. channel. graphic equalizer kit, matches Heath AP-1615 preamp; HD and IM less than 0.05%; hum and noise 90 db below rated output; slide control switches for tone flat and tape monitor; 4/"H x 17/"W x 8"D………………..$130

AD-1304 Audio Processor Separate expander (7-dB dynamic range to pro- gram) and noise-reducer (up to 10 db) circuit for 17-db total dynamic range; front-panel high-filt- switch, 12 db (Boctave at 7000 Hz linear phase); front-panel LEDs; front-panel controls; rear-panel tape monitor facilities; rated input impedance 200 V (100 V at 0.01%). (expander offer), -3 dB +4 db (expander on); frequency response 20-20,000 Hz +0/-0.2 db; THD 0.1% from 20-20,000 Hz; 12 lbs.; 4/"H x 17/"W x 8"D x 6"D KIt………………..$200

JVC

SEA-90 Graphic Equalizer Ten-band stereo graphic equalizer with center fre- quencies set at 31.5, 63, 125, 250, 500, 1000, 4000, 8000, 17,000, and 20,000 Hz; +/12 dB boost or cut. Features fluorescent analyzer display with left/right control switch, expand input, and level control (covers 2-16,000 Hz frequency range over 20-26 dB range in green). 6-DB SEA switch (doubles input sensitivity to accommodate high inputs without distortion); SEA re- cord switch (transmits signal to tape deck); tape monitor switch; input monitor switch; Input impedi- ance 47 K ohms (SEA and tape monitor in); output impedance 100 ohms (SEA and tape rec out); rated output 2 V rms; frequency range 10,000-100,000 Hz - +0.5 db; THD and IM dist. 0.003%; gain 0 db - 6 Vrms, 6/2 x 17/"W x 12" D………………..$600

SEA-90 Graphic Equalizer Ten frequency “tone zone” control ranges (one per octave) with +12 dB boost or cut; uses resonant circuits composed of resistors, capacitors and semi- conductor conductors, one for each “tone zone” or frequency range band.………………..$290

SEA-20GL Graphic Equalizer Seven frequency “tone zone” control ranges (one per 1/10 octave); each slide control covers 60, 150, 400, 1000, 4000, 6000, or 15,000 Hz, tone zone. includes defeat, record, tape monitor, and input at- tenuator (0 db - 6 db)………………..$190

BN-5 Biphonic Processor Binaural processor for binaural effects through speakers; inputs terminal Line In/Tape Play at 80 mW - 20 db, 100 ohms input impedance; output terminals Line Out at 300 mV, 8 dB output level, 3.5k ohms Tape Rec output impedance; consumes 7 W; 3/4"H x 15/"W x 9/"D………………..$280

KLH

DNF 1201A Dynamic Noise Filter Processes any two-channel or matrix mate- rial from turntable, tape deck, cassette deck, re- ceiver or tuner; pushbutton controls select proper noise reduction; sensitivity control with LED read- outs; frequency response (min. bandwidth) - 3 db at 500 Hz, -10 db at 1 kHz, - 20 db at 2.5 kHz; (max. bandwidth) +0.5 db at 1 kHz, 0 db at 20 Hz, -3 db at 3 kHz, -15 db at 10 kHz; attack time 0.4 msec and 1 msec; release time 300 msec; delay +1.5 db; THD and IM dist. no greater than 0.005% (20 Hz to 20 kHz, 2 V flat position). Accessories include range selector switch, bypass ac and power outlet………………..$495

LUX

G-11 Stereo Graphic Equalizer Stereo equalizer with 10 bands per channel (from 27.8 Hz to 14,000 Hz) + 0/-10 db. Max variable +12 db and -6 db selectable; S/N better than 110 dB (IHF “A”); gain 0 db - 6 db; output voltage at +1 more than 5 V flat at THD and IM dist. no greater than 0.005% (20 Hz to 20 kHz, 2 V flat position). Accessories include range selector switch, bypass ac and power outlet………………..$195

Laboratory Reference Series Luxman SG12 Stereo 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 boost/cut of
How can equipment designed for an average listening room perform optimally in your environment?

There's nothing particularly wrong with your stereo system. It's just that different rooms have different acoustics.

Of course, you could build a room specifically designed around the needs of your speakers, and you could rebuild it every time you upgrade your system. But we have an easier way; an MXR Graphic Equalizer that enables you to achieve maximum performance from your system, in your room...without moving walls.

Our equalizers allow you to critically adjust the frequency balance throughout the entire musical spectrum. They can help to correct certain audible inconsistencies common in many of today's records and tape recordings. You can choose the MXR equalizer that best suits your needs. We make three models that differ in flexibility and precision/sophistication, but each is built to the same exacting specifications and all three share MXR's reputation, in the professional field, for reliability and integrity.

Our popular ten band stereo EQ has one band per octave. Our stereo fifteen band model allows even greater control with two-thirds octave per slider; and for the true audiophile, the MXR thirty-one band equalizer provides ultimate control with one-third octave per slider.

Each of the MXR Graphic Equalizers can help you get the most from your stereo system by working with your room, not against it.

Your MXR dealer can help you choose the MXR equalizer that best suits your needs.

MXR Innovations, Inc., 247 N. Goodman Street, Rochester, New York 14607, (716) 442-5320

MXR Consumer Products Group
Luxman S7F0 Stereo Tone Control
Designed to provide precise tonal compensation using "conventional" tone controls rather than a graphic equalizer, uses direct-coupled (dc) tone control amplifier including a Lux-developed dual-adjustment at each crossover frequency; frequency re-filter included. Crosstalk 80 dB *-12 dB tonal ad-
time between 50-500 ms; optional rack-mount-ears available …………………… $339

HI-COM II Noise-Reduction System
Designed to improve dynamic range of high-quality cassette decks, compression/expander with two indepen-
dent frequency bands and 2:1 12 dB octave ratio for suppression of noise pumping, 20 dB reduction of noise plus 3-7 dB headroom improvement, built-in 400 Hz calibration tone; two-wide range peak level meters, defeatable subsonic and multiplex filters, removable 19-in rack mount adaptors …………………… $420

HI-COM III Noise-Reduction System
Combines features of dynamic-range-recovery sys-
tem with a correlation noise-reduction system, re-
vived for each of four bands, master equalization in/out, equalization in/out, bandwidth, and equalizer gain.

Six-band stereo graphic equalizer with center frequencies set at 31.5, 63, 125, 250, 500, 1000, 2000, 4000, 8000, and 16,000 Hz; high-pass positive-feedback 12 dB/octave filters. Three pushbutton selectors for backlight character; LCD display; five-position EQ in/out switch; 12-position EQ slider controls; frequency bands set at 31.5, 63, 100, 125, 160, 200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000, 10,000, 12,500, 16,000, and 20,000 Hz; ± 12 dB boost or cut; ± 24 dB/octave frequency range and Q range 0.29 to 3.2; THD 0.05% at 0 dBV; THD 0.005% at 0 dBV (60-7000 Hz 4:1) …………………… $479

572A Graphic Equalizer
Eight-band graphic quasi-parametric equalizer with balanced input buffer amplifier, eight equalization amps connected in series, and tunable low- and high-pass positive-feedback 12 dB/octave filters. Tuning ranges set at 20-60, 40-150, 110-310, 230-750, 480-1900, 1100-4500, 2800-9000, and 5900-21,000 Hz with ± 16 dB peaking equali-
zation ranges. Control over crossover frequency, tuning, and bandwidth for each band, x1 and x10 tun-
ing range, EQ in/out bypass switch, filter in/out for each filter, and gain; LED overload indicator. Input level 800-20,000 Hz; equalization in 1000 ohms with ± 0.01% from 20-20,000 Hz; max. output level 4+ dB; frequency response 20-20,000 Hz ±0.5 dB; x10 gain; noise 0.018 mV; S/N 105 dB; THD 0.01% at 0 dBV from 60-7000 Hz; frequency response 10-50,000 Hz ±0.25 dB; THD 0.0015% at 20-20,000 Hz; Q range 1.2 to 3.5; equalization range ±16 dB to infinity; tuning range 20-500 Hz, 68-1700 Hz, 240-5850 Hz, 400-20,000 Hz; tuned to 100 Hz per octave; 3.5" H x 19" W x 5" D …………………… $749

572A Graphic Equalizer
Eight-band graphic quasi-parametric equalizer with balanced input buffer amplifier, eight equalization amps connected in series, and tunable low- and high-pass positive-feedback 12 dB/octave filters. Tuning ranges set at 20-60, 40-150, 110-310, 230-750, 480-1900, 1100-4500, 2800-9000, and 5900-21,000 Hz with ± 16 dB peaking equali-
zation ranges. Control over crossover frequency, tuning, and bandwidth for each band, x1 and x10 tun-
ing range, EQ in/out bypass switch, filter in/out for each filter, and gain; LED overload indicator. Input level 800-20,000 Hz; equalization in 1000 ohms with ± 0.01% from 20-20,000 Hz; max. output level 4+ dB; frequency response 20-20,000 Hz ±0.5 dB; x10 gain; noise 0.018 mV; S/N 105 dB; THD 0.01% at 0 dBV from 60-7000 Hz; frequency response 10-50,000 Hz ±0.25 dB; THD 0.0015% at 20-20,000 Hz; Q range 1.2 to 3.5; equalization range ±16 dB to infinity; tuning range 20-500 Hz, 68-1700 Hz, 240-5850 Hz, 400-20,000 Hz; tuned to 100 Hz per octave; 3.5" H x 19" W x 5" D …………………… $749

Mexico
9300 Series Two Analog Delay System
Touchbutton operation recreates sonic and spatial signatures of various acoustical environments; 15 touchbuttons control individual delays. Input level control to 20 and 90 msc; five discrete delay paths available; reverb delay time adjustable from 200 msc to 4 sec; THD 0.1% (direct), 0.5% at 0 dB (delayed); output level 2.0 V rms; input sensitivity 1.0 V (direct), 5.0 V (delayed); input impedance 100k ohms; maximum output level 1 V (direct), 100 V (delayed); equalization range ± 20 dB (afterfilter); dual-range low-pass filter from 200-2000 and 2000-20,000 Hz; high-pass filter range from 20-200 and 200-2000 Hz; high-pass filter range from 20-200 and 200-2000 Hz; high-pass filter range from 20-200 and 200-2000 Hz; input level 8.0 V (direct), 4.0 V (delayed); output noise 0.005% at 20-20,000 Hz (A weighted) less than 100 µV (delayed), less than 80 µV (delayed); frequency response 5-20,000 Hz (±3 dB); THD and IM 0.02% at rated output; rated output 2.0 V rms; input sensitivity/impedance 1 V rms/50k ohms; S/N 100 dB at 2 V; gain 6+ dB (continuous); dynamic range 110 dB; 3.5" H x 19" W x 10" D …………………… $600

1100 Series Two Parametric Equalizer
Five-band stereo parametric equalizer with center frequencies set at 63, 250, 1000, 4000, and 16,000 Hz; ± 12 dB boost or cut; separate gain controls and overload indicators for each channel; tape monitor loop with status indicator; bypass switch. Frequency response 20-20,000 Hz; output level 2.0 V rms; THD and IM 0.002% at rated output; rated output 2.0 Vrms; input sensitivity/impedance 1 V rms/50k ohms; S/N 100 dB at 2 V; gain 6 dB; dynamic range 110 dB; 3.5" H x 19" W x 10" D …………………… $600
filter for reducing rumble and hum, total distortion less than 0.09%; input impedance 50,000 ohms; input level 250 mV rms, max. output voltage 8 V rms, better than 3 V rms into 2000 ohms; frequency response 20-20,000 Hz ±1 dB; 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; 3½" H x 19" W x 8½" D.

PIONEER

SG-9800 Audio Frequency Equalizer
Stereo graphic octave equalizer for tone control with 12 elements: 16, 32, 64, 125, 250, 500, 1000, 2000, 4000, 8000, 16,000, and 32,000 Hz; level control range ±10 dB; frequency response ±0.05% at 20 kHz; output impedance 600 ohms max.; THD 0.006% at 1 V from 20-20,000 Hz; max. output 7.5 V; 5½" H x 16½" W x 14" D. $350

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 ±10 dB; frequency response ±0.05% at 20 kHz; output impedance 20,000 ohms; output impedance 600 ohms; THD 0.04% at 1 V (20-20,000 Hz); max. output 6.5 V; 5½" H x 16½" W x 13½" D. $345

RG-2 Dynamic Range Expander
Dynamic processor provides improvements in dynamic range to enhance realism in reproduced music and in noise reduction to eliminate unwanted tape and record noise; automatic operation; max. output 6.5 V; THD 0.05% at 1 V; dynamic expansion 4, 7, 10, 13, 16 dB; impulse response attack time 0.3 msec; release time 120 msec; input impedance 50,000 ohms; output impedance 300 ohms; residual noise 0.1 µV; S/N 100 dB (1 kHz, dynamic expansion 16 dB); twin Fluorocan meters; 3½" H x 16½" W x 8½" D. $195

SR-303 Reverberation Amp
Bucket Brigade Device breaks analog signal in segments and passes each through a sequence of storage bits; reverb time 0.3 sec (eff. 1400 Hz) or 25-100 msec (eff. 2400 Hz); HD 0.05% at 1 kHz, depth control min., output 1 V. $195

PSB

InfraSonic Barrier
Designed to eliminate infrasonic frequencies below 20 Hz; 36-dB/octave rolloff. Frequency response 20-100,000 Hz ±0.25%; max. input 3 V; input impedance 10,000 ohms; output impedance 50 ohms; gain unity; S/N 100 dB (unweighted); channel balance 0.5 dB; THD 0.008%; 5.5 cm H x 19.5 cm W x 12.7 cm D. $478

QSC

X1.2 Electronic Crossover
Two-way crossover incorporates 60 W/ch amp; features balanced/unbalanced phone jack inputs; calibrated crossover frequency controls; calibrated high and low frequency and power amp gain controls; high/low phase switches; dual power supplies; dc protection. Frequency response 20-20,000 Hz ±0.5 dB; THD 0.01%; S/N 90 dB (A weighted); input/output levels +20 dB; input impedance 50k ohms balanced; 25k ohms unbalanced; output impedance 300 ohms, black anodized finish; 5½" H x 19" W x 5½" D. $478

REALISTIC

TR-803 Dolby System
Reduces hiss and extends dynamic range; switcha-
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<tr>
<th><strong>13 SIGNAL PROCESSORS</strong></th>
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<tr>
<td><strong>REFERENCE by QUADRAFLEX</strong></td>
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<tr>
<td>Ten-band stereo graphic equalizer with center frequencies at 32, 63, 125, 250, 500, 1000, 2000, 4000, 8000, and 16,000 Hz, ±12 dB boost or cut; has EQ/defect output and rec out switches; source/amp monitor switch; rated output 2 V rms; THD 0.05%; S/N 85 dB; 7&quot;H x 15&quot;W x 6&quot;D. ...... $200</td>
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### Series 20

#### D-23 Electronic Crossover Network
Multiamp electronic crossover network with pure complementary SEPP buffer amplifier and passive and active crossovers; high, low, two mid-low, two mid-high, and two crossover controls; four level controls with three active and three passive slope controls. Cut-off frequency: low and mid-low 63, 80, 100, 125, 160, 200, 250, 320, 400, 500, 600, 800, 1000, 1250, 1600, 2000, 2500, 3200, 4000, 5000, 6000, 8000, 10,000, 12,500, and 16,000 Hz; input impedance 50k ohms; record/playback output level/impedance range enhance/compression system; two high level inputs and five outputs (high impedance-high level mic, high-impedance mic, low-impedance mic, 600-ohm balanced line, and headphone); high-pass and low-pass (6 dB/octave) filters; separate bass and treble (boost and cut) controls; output stage gain: designed for balanced or unbalanced line input, balanced microphone output,  balanced/unbalanced line output level, and unbalanced aux. level output. $297

#### SHURE

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<thead>
<tr>
<th><strong>SR107 Audio Equalizer</strong></th>
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<tr>
<td>Ten-octave audio equalizer; rotary controls for each octave (15-db boost or cut) at 31, 63, 125, 250, 1000, 2000, 4000, 8000, and 16,000 Hz; 15-db master level control; LED overload indicator; 20-db adjustable equalizer bypass switch; designed for balanced or unbalanced line input, balanced microphone output, balanced/unbalanced line output level, and unbalanced aux. level output. $258</td>
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#### M63 Audio Master
Combination equalizer, noise-reducer, and dynamic range compressor; employs two high level inputs and five outputs (high impedance-high level mic, high-impedance mic, low-impedance mic, 600-ohm balanced line, and headphone); high-pass and low-pass (6 dB/octave) filters; separate bass and treble (boost and cut) controls; output stage gain: designed for balanced or unbalanced line input, balanced microphone output, balanced/unbalanced line output level, and unbalanced aux. level output. $297

#### SONTEC

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<tr>
<th><strong>HF-230 Stereo Parametric Equalizer</strong></th>
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<tr>
<td>Three-band discrete parametric equalizer with separately-tuned 10-800-1000/800-25,000 Hz ranges; infinitely variable slope from 4-1/4 dB/octave; infinitely variable amplitude ±12 dB in muri- ror image; switchable upper and lower sections; no transformers, capacitors, or ICs in signal path; usable dynamic range 110 dB, noise 84 dB below 1 V out; THD and IM dist. 0.002% from 30 to 24 dBV; slew rate 200 V/μs; black-anodized rack mount aluminum; 15&quot;H x 19&quot;W x 6&quot;D. ...... $990</td>
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**SAE**

#### 2800 Stereo Parametric Equalizer
Four-band parametric equalizer system with control over cut/boost plus bandwidth; separate controls for each channel; input level controls and peak indicators for each band; previously for equalized tape recordings; control functions are divided into four frequency bands (LO, LO-MID, HI-MID, HI); continuously variable frequency adjustment within each band covering 10-320 Hz, 600-1200 Hz, 2400-7600 Hz, 12000-15,000 Hz; each band has slider control that adjusts gain over ±16 dB range, detent at center (0-db) setting; bandwidth is a slider control calibrated in octaves from 0.5 to 2; each channel has adjustable level slider providing up to 70 dB of attenuation; max. output before clipping 9 V into 10,000 ohms; input impedance 100,000 ohms; output impedance 500 ohms; nominal output rating: 2.5 V; frequency response (controls at flat) 20-12,000 Hz ± 0.25 dB; clipping level 8.5 V at 1000 Hz; THD 0.01% at 2.5 V; 0.028% at 8.5 V; -0.9 dB gain; front panel 9"H x 19"W x 12"D. .... $250

#### 180 Parametric Equalizer
Two-band stereo parametric equalizer with adjustable bandwidth (0.3-3.6 octaves) and center frequency in each control group; features tape equalization facilities and level match controls; frequency response 20-20,000 Hz ± 0.25 dB; THD and IM distortion 0.02%; S/N 95 dB; 45°H x 17"W x 3"D. .... $290

#### 5000 Impulse Noise Reduction System
Impulse noise reduction system for reducing clicks and pops (impulse noise) on phonograph records; THD 0.01% at 1 V out, 20-20,000 Hz; S/N 100 dB at 0 dB; THD and IM distortion 0.02%; S/N 95 dB; frequency response 20-20,000 Hz ± 0.25 dB; insertion loss 1 dB, 75,000-ohm input impedance; 600-ohm output impedance; rack mountable; 3"H x 19"W x 3/4"D. .... $225

#### SANSUI

<table>
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<tr>
<th><strong>SE-7 Graphic Equalizer</strong></th>
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<tr>
<td>Ten-band graphic equalizer with center frequencies at 32, 63, 125, 250, 500, 1000, 2000, 4000, 8000, and 16,000 Hz, ±12 dB boost or cut; has EQ/defect output and rec out switches; source/amp monitor switch; rated output 2 V rms; THD 0.05%;  S/N 85 dB; 7&quot;H x 15&quot;W x 6&quot;D. ...... $314</td>
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<tr>
<th><strong>SE-5 Graphic Equalizer</strong></th>
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<tr>
<td>Eight-band graphic equalizer with center frequencies at 80, 160, 315, 630, 1250, 2500, 5000, 10,000 Hz, ±12 dB boost or cut; has EQ/defect output and rec out switches; frequency response 10-100,000 Hz +0/-0.75 dB; frequency response 20-30,000 Hz +0/-1 dB; THD 0.009%; S/N 80 dB; 7&quot;H x 19&quot;W x 13/4&quot;D. ...... $370</td>
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<tr>
<th><strong>RA-700 Reverberation Amplifier</strong></th>
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<tr>
<td>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 ± 0 dB (reverb time max.); S/N 65 dB at 300-mV output; reverb time 1.9-3.2 sec (at 1000 Hz); input/output jacks; tape record/playback A and B; load impedance 100,000 ohms; switchable upper and lower sections; no transformers, capacitors, or ICs in signal path; usable dynamic range 110 dB, noise 84 dB below 1 V out; THD and IM dist. 0.002% from 30 to 24 dBV; slew rate 200 V/μs; black-anodized rack mount aluminum; 15&quot;H x 19&quot;W x 6&quot;D. ...... $990</td>
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SONY

PCM-1 Digital Audio Processor

Analog to digital pulse-code modulation signal conversion system using binary system; also converts coded signals into video signals for record/playback through video tape recording unit. Features 30-LED peak program display, calibrated in 2 dB increments with peak/hold meter switch and clip-level indicators, separate mic and headphone amp for left and right channels, emphasis switch, 22 dB boost or cut (controls full), 15 dB boost or cut (controls flat), features pushbutton EQ defeat, low shelving, and separate monitor input and output controls; LED unity gain input-to-output balancing indicators, separate zero gain level controls, THD and IM dist. 0.01% at 2 V; S/N 114 dB at 10 V out, 100 dB at 2 V out, input impedance 47k ohms, output impedance 600 ohms balanced, line/out voltage 12 V, black anodized 30 dB.

TG3044-R Third-Octave Equalizer

Third-octave stereo equalizer with 15 center frequencies at 40, 50, 63, 80, 100, 125, 160, 200, 250, 315, 400, 500, 630, 800, and 1000 Hz on 1/2 octave and six center frequencies at 1600, 2500, 4000, 6300, 10,000, and 16,000 Hz on alternate 1/2 octaves, 22 dB boost or cut (controls full), 15 dB boost or cut (controls flat), THD and IM dist. 0.01% at 2 V; S/N 114 dB at 10 V out, 100 dB at 2 V out, input impedance 47k ohms, output impedance 600 ohms balanced, line/out voltage 12 V, black anodized analog.

Even the finest stereo cannot create the illusion of "being there" in the same acoustic space as the musicians. Now you can experience the impact of hearing sound in three dimensions with the ADS 10 Acoustic Dimension Synthesizer. The ADS 10 uses sophisticated digital time delay techniques to recreate the ambience of sound field which surrounds the listener in any real acoustic space. Stereo Review* on the ADS 10: "...a totally unobtrusive, natural ambience can be achieved—and once you've experienced it, it's very difficult to give up.

The Complete Buyer's Guide to Stereo/Hi-Fi Equipment* put it this way: "...if you have a good stereo system and ask yourself, 'Is there anything I could do for under $1200 that would do so much to improve the realism of music reproduction in my home as the ADS 10? the answer is certain to be 'no.' It's that good." For more information write ADS, Dept. SPB1, or call 1-800-824-7888 (California 1-800-852-7777) toll free and ask for Operator 483. Otherwise, take your favorite records to your ADS dealer and let him demonstrate how the ADS 10 can recreate the live musical experience in your home.

Audio Pulse Digital Time Delay is possibly the greatest advance in sound reproduction since stereo. A strong statement indeed, but we feel strongly about it. By means of time delay, the ambience of the live performance is returned to the music in a way not possible with ordinary stereo reproduction.

Stereo gave us left and right imaging—Audio Pulse gives us the realism of depth and spatial perception by digitally processing, delaying and recirculating program material through a secondary set of rear speakers. The apparent size and acoustic treatment of that area can be adjusted by simple front-panel functions.

Digital time delay must really be heard to be appreciated...but once you do, you won't want to listen without it.

Audio Pulse offers complete digital time delay systems. Model Two, the new Model 1000 and two sets of specially designed secondary speakers.
40-16,000 Hz, 0 to -15 dB cut on continuous control. Features variable 20-160 Hz high-pass filter with 12 dB/octave roll-off; filter Q; all negative feedback circuitry; filter, signal level meter, integrated circuits; transformer isolated 20,000-ohm input; two-buffered single-ended outputs; EQ in/out bypass switch. Frequency response 20-20,000 Hz; +0.1% from +18 dBV (phone); 20 kHz (aux); 85 dB micro; noise -125 dB; 227 ohm-aquitron aluminum front panel; 5/8" H x 19" W x 17" D $825

**DUBIE**

**CD-35 Sound Control System**

Sound control system integrates up to six recorders, two turntables, four signal processors, and amplifier/recorder through one-time hookup of patch cords; multiple operation for recording, dubbing, mixing, sound-on-sound, playback, fade, monitor on 12 different channels, fade from one turntable to another, and use of signal processors for sound enhancement. Front-panel controls include 12 patch devices for signal processors, two fade controls for amplifier/recorder, and one for two turntables, two dub switches, 12-position monitor switch and five solid-state four-position recorder controls plus auxilliary switch for sixth recorder; rear panel connections for patch cord devices from signal processors, turntables, recorders, and amplifier/recorder; microphone and line input; microphones and phonos in; switchable input level; +24 dBV into 20,000 ohms (magnetic phono), 25 dBV (aux.), 85 dB (mic); noise -125 dB at 20,000 Hz; gain variable from unity to +18 dBV; input impedance 200 ohms (w/aux), 20,000 ohms (source), 10,000 ohms (load); noise -92 dBV at 20,000 Hz; max. output level +24 dBm; input jacks for phono, line, tape, and microphone; channel separation (source) 70 dB at 1000 Hz, (tape) 60 dB at 1000 Hz; max. output level 5 V into 47k ohms; +24 dBV unbalanced or 12 V into 600 ohms. Frequency response 20-20,000 Hz -0.25 dB; gain dBV overload indicators, VU meter, and independent range controls. Frequency response 5-50,000 Hz (line and tape); frequency response 0-100,000 Hz on all functions; 4" H x 13"W x 5"D $400

**CD-10 Sound Control System**

Sound control system integrates up to six recorders, four input channels, each with pre-fader monitor send, one-tim-e patch cord hook-up; dubs, records, plays back, mixes sound-on-sound, monitors, and fades; six solid-state four-position recorder controls; eight-position monitor select switch; two fade controls; rear panel connections for recorders and signal processors; two dub switches, 12-position monitor switch and five solid-state four-position recorder controls plus auxilliary switch for sixth recorder; front-panel controls include 12 patch devices for signal processors, turntables, recorders, and amplifier/recorder; microphone and line input; microphones and phonos in; switchable input level; +24 dBV into 20,000 ohms (magnetic phono), 25 dBV (aux.), 85 dB (mic); noise -125 dB at 20,000 Hz; gain variable from unity to +18 dBV; input impedance 200 ohms (w/aux), 20,000 ohms (source), 10,000 ohms (load); noise -92 dBV at 20,000 Hz; max. output level +24 dBm; input jacks for phono, line, tape, and microphone; channel separation (source) 70 dB at 1000 Hz, (tape) 60 dB at 1000 Hz; max. output level 5 V into 47k ohms; +24 dBV unbalanced or 12 V into 600 ohms. Frequency response 20-20,000 Hz -0.25 dB; gain dBV overload indicators, VU meter, and independent range controls. Frequency response 5-50,000 Hz (line and tape); frequency response 0-100,000 Hz on all functions; 4" H x 13"W x 5"D $400

**MI-5000 Master Mixer**

Six-channel master mixer; each channel features 10 dB input level side controls with 20 dB master input level control, independent pan pots, LED overload indicators, four-position mic/att/phone/ line select switches, and echo switches with three-sec variable echo level control. Additianal features include mix out/tape in monitor select switch; two VU meters; output jacks for phone, line, tape, and microphone; recorder; input jacks for tape, and microphone; channel separation (source) 70 dB at 1000 Hz, (tape) 70 dB at 1000 Hz; max. output level 5 V into 47k ohms; 0.1% THD; max. output level 5 V into 47k ohms; 0.1% THD; $620

**SHURE**

**700 Pro Master Sound System**

Six balanced low-level transformer-coupled input channels, each with pre-fader monitor send, effects/verb send, high-and low-frequency equalization, pan pot, input attenuator, LED clipping indicator, and volume control; master controls, handles all transformer-coupled input channels through built-in 24-simplex power supply; two additional aux. level inputs for channels 7 and 8; feedback finder ten-band stereo equalizer with ISO center frequency test; has 635 level meter, 1000, 5000, 1000, 2000, 4000, 8000, and 16,000 Hz +10 dB boost or cut; LED status, peak-reading, power amp overload, and temperature warning indicators; panel-mounted break-resistant frequency response 40-20,000 Hz +2 dB; $990

**SANSUI**

**MA-7 Monitor Console**

Monitor console features dual-function peak-hold meters reading watts, reading meters, and switching to and from left-right full-range cue speakers; has adjustable input sensitivity buttons (-20 to +20 dB) with variable level control; monitor level control; built-in 400, 0-20,000 Hz, 0.05% THD, 0.05% IMD, 0.004% (SMPTE); noise -92 dBV at 20,000 Hz; max. output level +24 dBV; input jacks for phono, line, tape, and microphone; channel separation (source) 70 dB at 1000 Hz; (tape) 60 dB at 1000 Hz; max. output level 5 V into 47k ohms; 0.1% THD; 4" H x 16.5"W x 11"D $300

**AZ-7 Mixer/Recording Console**

Four-input stereo mixer with built-in reverb unit features monitor selector (source, mixing out, tape 1, 2, 3); front-panel jacks for connection of portable stereo tape deck; effects/verb send, mix out/tape in monitor select switch; two VU meters; input jacks for phone, line, tape, and microphone; channel separation (source) 70 dB at 1000 Hz, (tape) 70 dB at 1000 Hz; max. output level 5 V into 47k ohms; 0.1% THD; max. output level +24 dBV; 0.1% THD; max. output level +24 dBV; 0.1% THD; max. output level +24 dBV; 0.1% THD; 4" H x 16.5"W x 11"D $300

**ROTEL**

**RZ-8 Play Mixer**

Stereo mixer with built-in electronic rhythm maker and echo chamber; designed to produce endless series of rhythm backups for solo instrumentalist or provide background for the solo vocalist. Mixer: seven-input mix includes two turntable, two tape deck, and three microphone inputs with individual volume level control, 600/500,000, 200 ohms impedance level; two mic inputs and two line inputs; each channel has input level control, high-pass filter, and use of signal processors for sound enhancement. Front-panel controls include 12 patch devices for signal processors, two dub switches, 12-position monitor switch and five solid-state four-position recorder controls plus auxilliary switch for sixth recorder; rear panel connections for patch cord devices from signal processors, turntables, recorders, and amplifier/recorder; microphone and line input; microphones and phonos in; switchable input level; +24 dBV into 20,000 ohms (magnetic phono), 25 dBV (aux.), 85 dB (mic); noise -125 dB; 227 ohm-aquitron aluminum front panel; 5/8" H x 19" W x 17" D $825

**PIioneer**

**MA-62A 6-Channel Mixer**

Has input facilities for up to six microphones, each channel has alternative terminal for line or phone inputs; input jacks for tape, four with level selection switches, microphone attenuators for each channel; low-cut filters for tape input; portable design; stereo output terminals; pointer-index markers for each of six long throw faders (plus master volume fader), 5/8" H x 15"W x 10"D; $250

**SESO Gated Compressor/Mixer**

High-quality gated memory compressor with a self-contained portable three-input mixer and remote amplifier; frequency response 30-20,000 Hz +2 dB; gain below compression threshold; output terminated, (line) 600 ohms, (microphone) 150
SOUND WORKSHOP
1280 Recording Console
12-in/8-out recording console; 8 x 2 stereo control room monitor mix; 8 x 1 musician’s cue mix; independent 2-track mixdown buffer; each input channel has three-band equalization, 35 dB trim control, push-button track assign, pan control, send/return, solo/mute switches, straight-line fader, and pre- and post-fader patch points; Tri-Lite LED readout for all 10 output busses; 105-125-V ac, 50/60 Hz; 20 W, 51/2" H x 22" W x 18" D... $2900

1280B. Same as 1280 but with studio-quality balanced transformer mic-pres... $3280

TEAC
Model 2A Audio Mixer
Features six inputs (mike or line in any combination), four outputs; level controls for each channel; master output level control; cue output 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-button channel assignment; +48-V phantom power for high-quality condenser microphones... $250

STereo DIRECTORY & BUYING GUIDE
ACE AUDIO

4000 Subsonic Filter
Low-frequency filter with four rear-panel connectors providing 18 db/octave rolloff at 20 Hz or under, -3 dB; 1M ohm, 0.01% at 1V output; input impedance 47,000 ohms; output impedance 150 ohms; 8 V max. output; 10,000-ohm min. output load; hum and noise ≤ -86 dB; 2¾" H x 6¾" W x 4½" D. $89.50

ADCOM

Record Care System
Record cleaning system contains two weighted uni-modal and noise-attenuating pickup heads; output impedance 150 ohms; providing 18 dB/octave rolloff at 20 Hz or under, low-frequency filter with four rear-panel connectors 4000 Subsonic Filter. $198.00

Electronic Static Eliminator
Piezo-electric static-eliminating instrument with dual-eminion chambers and damped trigger. $19.95

Carbon Fiber Record Sweep
Anti-static brush has thousands of conductive fibers designed to remove dust from records or film. $11.95

Carbon Fiber Headshell
Low-resonance low-mass carbon fiber headshell with non-tarnishing gold plated terminal pins. $19.95

Carbon Felt Turntable Pad
Felt-like pad impregnated with electrically conductive carbon fibers to dissipate accumulated static electricity on records. $9.95

AUDIO-TECHNICA

AT6002 Autocleanica™
Double-action disc cleaning system combines soft carbon-conductive brush and plunger 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; replaces pad and brush kit available. AT602. Replacement Kit for AT6002. $2.95

AT610a Disc Whisk™
Consists of dropper, anti-static cleaning fluid (applied from back for streaker-free use), pad holder, cleaning edge, adhesive for mounting holder, fluid (AT608), and instructions.
AT608. Anti-static record-cleaning fluid. $2.50

AT6012 Sonic Broom™
Record-cleaning system with controlled-density fibers 6 microns in diameter; cleaning fluid may be applied to reservoir or directly to pad; includes holder with cleaning surface, AT608 fluid. $12.95

AT607 Stylus Cleaning Formula
Cleaning solution dissolves foreign material on stylus without harming known stylus adhesives; in bottle with stylus brush. $3.95

PDQII Record Cleaning System
Kit including AT6002 brush, AT610 cleaner, AT607 stylus cleaner, AT608 solution. $28.95

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. $26.95

AT617 Sonic Tonic
Fluid damping compound with applicator bottle; 4 oz; designed to remove dust from records or film. $19.95

AT618 Disc Stabilizer
Solid brass disc with rubber coating designed to damp out sound-coloring resonances; fits over turntable spindle. $19.95

AT6099 Headshell Wire Set
Universal Headshells
AT-N, Basic type. $6.95
AT-S, Similar to AT-N except with improved rigidity and lower mass. $8.50
AT-B, Professional quality; low mass; cast aluminum alloy. $12.00

AT-MS. Extra lightweight, low-resonance magnesium headshell with built-in damping; includes AT609 cartridge wires; built-in stylus overhang adjustment screw. $24.95

30-8710 Speaker Selector Switch
Controls up to five pairs of stereo speakers; contains two stereo headphone jacks; barrier-type terminal connectors; constant minimum load circuit with 50 W load resistors protects amplifier, mini. impedance 4 ohms. $49.50

1980 EDITION

R.B. ANNIS

K20/B5 Han-D-Kit
Kit's purpose to measure and eliminate magnetism in recorder components before recorded tapes are damaged; includes gauss-calibrated (0-5-0) pocket magnetometer that measures levels of magnetism with highest accuracy; magnetically soft and magnetically hard test sensor strips, 1½"-in clip-on extension probe, and dual-use demagnetizer with 350-oersted sine wave demagnetizing field strength 1½-in beyond tip of 2½-in long probe. $38.50
K25/55. Same as K20/B5 except includes larger jeweled magnetometer with ten times calibration level, 400-oersted sine wave demagnetizing field strength. $65.80

Company also sells individual components of kit separately as well as different gauss ranges of the 20 and 25 magnetometers.

AUDIO-KARE

Quetolene
Anti-static record preservative lubricant. $7.95

VITAL LINK™ Cable Series
AT62X: Super Conductivity Cable Set
Litiz wire construction with double shielding and gold-plated connectors; for low impedance and maximum rejection of r-f interference; set of two. $29.95

AT622 Universal Tonearm Cable
Low-resistance cable for manual turntables; 51-in braided copper shield; color-coded molded phono plugs; gold-plated connectors. $19.95

AT610a Cable Set
Low-capacitance cables for connecting turntable and amplifier; 4-ft shielded cable with molded pair phono plugs each end; gold-plated connectors and separate ground wire; only one set needed per turntable. $9.95

AT641 Cable Connectors
Two gold-plated female phono feed-through cable connectors; extends length of other Vital Link cables. $7.95

AT609 Headshell Wire Set
Replaces original headshell wiring; set of four color-coded connectors made of silver litz wire and gold-plated. $6.95

AUDIO TECHNOLOGY

510 Peak-Responding LED Display
Combines functions of peak power indicator and peak line level monitor; 16 LED/ch display peak value of complex waveforms within ±0.25 db; dynamic range of 45 db resolution; responds to peak power output from 0.003-400 W; rear panel switches set 0-db reference to 25, 50, or 100 W and match speaker impedances of 4, 8, or 16 ohms; line level inputs continuously variable from 50 mV-5 V with calibrator that balances channels and returns line level mode to 0 VU reference; frequency response 20-20,000 Hz; input impedance 10,000 ohms (line), 20,000 ohms (power); display attack time 750 µsec; display decay time 650 ms; 1½" H x 7½" W x 5½" D. $140.00
510B. Multi-color display with green LEDs covering -39 to -1 db range, yellow LED at 0 db, and red LEDs covering +1 to +6 dB range. $150.00

AUDIOTEK LABORATORIES
30-8714 Tape and Input Control Unit
Stereo switching panel contains input phone pin jacks for amp, two aux. and two tapes, output phone pin jacks for amp and two tape machines, and 5-pin DIN connector for signal processor input and output; permits dubbing in either direction while listening to another input source; equalizer can be switched in and out of circuit as desired; front-mounted controls include aux. 1 and 2, tape monitors 1 and 2, two tape dubs, and processor switch...

LP Cleaning Kit
Includes aerosol Record Basic for removing lubricants, Record Plus lubricant, cleaning tools and book on record care...

The company carries a complete line of tape accessories for use with open-reel, cassette, and 8-track equipment.

30-129. Tape Care Kit, Jr. contains head cleaner, cotton swabs, and cleaning cloth...

30-830. "Blitz-off" tape head cleaner, 3-oz aerosol can...

30-128. Same except in 6-oz aerosol can...

30-121. Recording head cleaner, 2-oz bottle...

30-124-2. Recording head lubricant, 2-oz bottle...

30-336. Tape playback cleaner contains cleaning and head lubricant, two 6-in brushes, 10 plastic pouches to protect tape reels, cassettes, or cartridges...

24AE Cassette Tape Splicer
1/4-in cassette tape splicer suitable for recording tape of any thickness; makes diagonal or butt splices...

115AE Tape Head Cleaner
Multi-angled tape head cleaner for use on all tape recorders; includes inspection mirror, cleaning brush, bottle of cleaning fluid, and replacement tips...

116AE Disc Care Kit
Record maintenance kit contains Bib groov-stat static reducer, record valet manual record cleaner, and stylus cleaner with inspection mirror...

117AE Stylus Balance
Precision-made stylus balance calibrated to be accurate within 1/4 g, from 1/4 to 5 grams...

101AE Groov-Kleen
Parallel tracking Groov-Kleen record cleaner removes dust while record is playing...

110AE Record Valet Cleaning Brush
Hand-held record cleaner with anti-static liquid supplied for reservoir...

B I C
FM10 Beam Box FM Antenna
Component-styled electronically directable FM antenna; passive electronic circuit directs sensitivity in four geographic quadrants with 8th-wavelength extruded aluminum elements; tunable front end; broad and narrow bandwidths; improves image rejection, f-r rejection; frequency range 88-108 mHz; gain 5 dB (narrowband); 12 dB

(assuming this is a continuation of the inventory list)

CROWN
RTA-2 Real-Time Audio Analyzer
Real-time spectrum analyzer in Y- and full-octave bands, switch selectable; consists of 32 single-pole-pair Y-oscillator bandpass filters centered on Y-octave intervals. Features 5-in scope; lighted graticule; built-in pink-noise generator; 800-20,000 Hz and 16-630 Hz fast/slow integration rate select controls; 5 or 10 dB/division select control; 0.70 dB input level control in 10-db steps, 40-db range vernier; internal balanced-input gain control. Frequency response 16-20,000 Hz, sensitivity at full-scale indication 15.2 mV, max. in (unbalanced), 0.76 mv-3 V, max. in (balanced); scans 32 channels in 16.6 msec; max. output 1.1 V rms min.; balanced output 600 ohms/50 ohms (male XLR front connector), unbalanced output 300/25 ohms (1/4-in phone jack front and rear panel connector); frequency response 15 Hz to 19 kHz, gain 14/3.5 dB.

CUSTOM CASE
DL-30 Cassette Case
Attach-style cassette carrying case holds 30 cassette tapes and comes in brown or black vinyl finish with aluminum valve and nickel plated hardware...

DL-24 8-Track Case
8-track carrying case holds 24 tapes and comes in black, chocolate, musket, burgundy, or camel vinyl finish with aluminum valve and nickel plated hardware...

#C-30 Cassette Case
Briefcase holds 30 cassettes in red flackened vinyl slots; comes in black alligator-grain vinyl leatherette...

#C-12 Similar to C-30 except holds 12 tapes...

#54 Tape Case
Carrying case holds 24 tapes or 48 unjacketed cassettes in individual styley slots; comes in black alligator-grain vinyl leatherette or blue denim.

DB SYSTEMS
DBP-6 Phono Equalization Kit
Designed to suit frequency response of moving-magnet cartridge to its capacitance load requirement; adds 100-400 pf on phono input of preamp or receiver; kit includes ten color-coded plugs with wired-in polystyrene capacitors for 100, 150, 200, 300, and 400 pf added capacitance, two 100-ohm loads for adjusting moving-coil cartridges, two spare plugs, two Y cable connectors, and capacitance chart...

DBP-11. Capacitance-loading switching box similar to DBP-6; features switch-selectable capacitance loading for two moving-magnet cartridges...

DB-7 Phase Inverter/Bandpass Filter
Increases power output of stereo power amplifier by four times through bridging into mono amplifier and effects a 20-20,000 Hz frequency response to less than 0.3 dB; features buffered inputs and outputs, switchable positive or negative phase for either or both channels, stereo bridging outputs, 18-dB/octave Butterworth and Bessel 18-dB/octave superselective filters; gain in inverted mode 0.1 dB of non-inverted gain; requires DB-2 power supply or DBP-1 auxiliary cable...

DB-2. Power supply for DB-7...

DBP-10 Phono Alignment Protractor
Mylar-laminated protractor measures lateral tracking error of mounted cartridge to ±1/2 of one degree; designed to optimize geometry and minimize distortion in tonearm/cartridge combination...

DECCA
Record Brush
Record brush with a million conductive carbon fiber bristles to clean records and remove static...

Zero Control. Similar to Record Brush except with conductive disc on handle that gives zero-resistance between handle and bristles to improve static drain...

Record Cleaner
Arm-type "dry" cleaner with 20,000 conductive carbon fiber bristles; ground wire to amplifier for static drain path...

Microbe
Three-way cleaning brush that mounts on cartridge; adds 1/2-g tracking force; fiber brushes function as stylus protector, stylus cleaner, and record cleaner/static drier...

DEVLIN
Speaker Stands
Model 10. Chrome tubular steel stands for average sized speakers; 14-in high x 12-in wide...

Model 20. Chrome stand supports speakers weighing up to 50-lb; 13-in high x 10.5-in wide...

Model 30. Black steel stand for speakers weighing up to 50-lb; 13-in high x 16-in wide...

Record Cleaning Products
Continuous Cleaner. Auto anti-static record cleaner...


BX7. Auto-record cleaning arm...

Rexon Cleaner. Auto-record cleaning pad...

DISCWASHER
DiscKeeper
Record rack has calculated compression bar to hold records flat and upright; bar pulls forward to "page through" albums; walnut and custom-formed anodized aluminum in dark natural wood and black matte; wall-mount hardware included...

D2 Record Cleaning System
System comprises a two-part kit containing special fluid and soft-pile fiber brush. Removes micro-dust,...
The Revolutionary Record Care Breakthrough sweeping the Country... because it really works!

Permostat™

from Stanton

eliminates record static permanently with only one application!

UNTREATED RECORD

BRAND X

PERMOSTAT

Permostat from Stanton is a new and uniquely formulated fluid, which permanently eliminates record static and accompanying noise with a single application... with no degradation in sound quality.

To demonstrate Permostat's anti-static qualities, Stanton constructed a dust chamber to perform accelerated dust pickup tests. Three records were suspended vertically within the chamber... the first untreated... the second treated with anti-static products currently available (piezo electric guns, fluids, cloths and conducting brushes)... and the third treated with Permostat.

Only the Permostat-treated record showed no visible evidence of dust and no residual charge. Each Permostat kit provides permanent protection for 25 records (both sides). Just spray it on, buff it in and eliminate static for the life of your records.*

You'll never play a dusty record!

Suggested retail:
Complete Kit:...$19.95
Refill:...$15.95

*Normal considered record life expectancy is 100 plays

For further information contact: Stanton Magnetics, Inc., Terminal Drive, Plainview, New York 11803

STANTON

THE CHOICE OF THE PROFESSIONALS™

The only record care product selected for the 1979 Summer Consumer Electronics Show Design and Engineering Exhibition.

CIRCLE NO. 72 ON READER SERVICE CARD
Accessories

fingerprints, and cigarette smoke. Also eliminates destructive biological growth. Leaves no residue. Complete kit ........................................... $15.00
Replacement fluid ........................................... $2.25
BE-1, Brushed designed to clean Discwasher Record Care pad; available free of charge with all Discwasher Systems and DiscKits; also sold separately ........................................... $0.69

Discorganizer
Milled walnut tray with dust cover which will house the record-cleaning system and provide space for reserve spindles, stylus guards, cartridges, and other phono accessories ........................................... $12.50

D'Stat II Mat
Very thin fiber turntable mat which polarizes record surface to reduce static during playback ........................................... $7.95

Hi-Fi Seer
Audio equipment illuminator has integral flashlight and mirror system; illuminates behind panels of panel, shell or rack-mounted equipment, and tone-arm and record playback areas; positive locking off/on switches; 1" H x 2½ W x 1" D ........................................... $7.00

V.R.P.
Record liner sleeves for protection against "stabilizer drift" and static; conventional size; 10 sleeves per package ........................................... $2.75

SC-1 Stylus Cleaner
Stylus cleaning brush of calculated density nylon; won't snag cantilevers; 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. $9.25

DiscTraker
Damping device; attaches to tonearm/head to reduce tonearm/cartridge and record-warps resonance; attaches to cartridge mounting screws ........................................... $29.00
Mounting kit (for tonearm heads without top-accessible mounting screws) ........................................... $0.75

DUBIE

CD-25 Speaker Control System
Moisture-resistant auto-transformer speaker control system controls four speakers individually with four separate nine-position sound controls ........................................... $189.95

Electronic Specialists

The Isolator
Three individually filtered 3-prong AC sockets with integral surge suppression for isolating sensitive pre-amps and tuners from the power amp; accommodates 1875 W total load, with each socket able to handle 1000 W load ........................... $49.95

SFK-33S Super Filter/Suppressor
Features dual balanced Pi-Super Filter and 2000 Amp Spike/Surge Suppressor designed to clean up "pops" and "hash" from hi-fi and electronic organ installations; connecting to 120 VAC line with standard 3-prong plug; three sockets can accommodate 1250 W load ........................................... $42.95

Equipment Protection
Line-cord transient suppressor to absorb repeated power surges; available in two 3-prong plug/socket ........................................... $13.75
Three-prong plug/socket ........................................... $16.75

Stereo Speaker Filter
Stereo speaker filter to help eliminate interference from entering through speaker leads ........................................... $11.95

Stereo Phono-Input Filter
Filter designed to plug directly into amplifier input jack to reduce phono-input interference ........................................... $10.50

Empire Scientific

"Dry System"
Complete record-care kit contains static eliminator, cleaning brush, stylus cleaning fluid and brush, and universal headshell, screwdriver and mounting hardware included ........................................... $79.95

Fidelitone

3056 Spin 'n Clean
Record-cleaning device removes dirt and static charge; includes dual Velvet brush system and 4-oz record wash solution; record is inserted between cleaning brush pads on roller grooves and spun ........................................... $15.98

3052 Record Care Kit
Contains "Fidelistat" disc jockey, stylus cleaner, and anti-static fluid ........................................... $16.98

3045 Record-Cleaning Arm
Cleaning arm attaches to turntable to clean record while it rotates; includes anti-static fluid ........................................... $6.98

Record Conditioner & Purifier
Record brush is designed to pick up small particles from record in conjunction with purification fluid; cleaning pad has unidirectional pile and is on a contoured cherry-wood handle with a purifier bottle storage compartment ........................................... $10.95
Purifier fluid refill; 4 oz ........................................... $4.99

Dust-Cover Wax
Designed to clean and polish record player dust covers; also for speaker enclosures and other stereo equipment ........................................... $4.99

Cassette Storage Chests
Solid walnut chest with flocked vacuum formed inserts; holds up to 12 cassettes ........................................... $12.95

Audio Cassette Trays
Solid walnut trays with flocked vacuum formed inserts ........................................... $21.95
8506. Holds up to 36 cassettes ........................................... $19.95
8508. Holds up to 24 cassettes ........................................... $17.95
8507. Holds up to 18 cassettes ........................................... $14.95
8506. Holds up to 12 cassettes ........................................... $12.95

Fulton Musical Instruments

Shielded Phono Leads
Black phono lead designed to complement any pre-amp accessory in or out—from preamp to power amp, preamp to tuner, and to all auxiliary inputs; 57-in ........................................... $29.50

Phono Head Shell Leads
Replacement headshell connects cartridge and headshell; available in color-coded set of four with gold-plated connectors ........................................... $6.95

Golderby by Hervic

Ex-Static Platter Pad
Carbon-fiber platter pad designed to short out static charges and isolate disc from turntable noise ........................................... $15.00

Ex-Static Record Brush
Carbon-fiber brush record; electrically conductive ........................................... $15.00

Hervic Antistat
Piezo-electric record brush produces ionized air to remove static from disc; requires no batteries ........................................... $14.00

Gusdorf

1490 The Tower
Top compartment consists of four ¾-in thick shelves which adjust in one-inch increments to ac-
moderate any component size; enclosed by two smoked tempered safety glass doors. Bottom com-
partment with slide out door contains removable record dividers holding up to 230 albums. Unit fea-
tures "U" configuration rear panels to allow for heat dispersion and connecting wire organization; pro-
tective rubber door stops; open/close push-plates; positive magnetic catches; locking device keeps
door closed; walnut tone finish protected by protective rubber door stops; open/close push-plates; pos-
tive magnetic catches; locking device keeps glass doors in place; walnut tone finish protected by
Rendura (resists scratches); hooded double-wheeled casters, matte black hardware and base
molding; 64"H x 23¾" W x 18¼" D. ........................................... $226.00

Stereo Directory & Buying Guide
LECTRO TECH

PPI-400 Peak Power Indicator
Designed to monitor peak audio power across loudspeaker terminals. Power range selectable in 3-dB increments from 6.25 to 800 W continuous for 4, 8, and 16-ohm loads; power level indicators are green, yellow, and red LEDs, calibrated in 8 steps from 0 to -30 dB; input impedance 20,000 ohms min.; frequency response 20-20,000 Hz; max. input power 1250 W when connected to 8-ohm speaker; peak-reading range 2 to 35 ohms ... $130.00

MAGNESONICS

Erase-Sure
Erasers can be applied to 35-cartridge records up to -65 dB from 0 reference; includes four "AA" batteries; 2" x 4" x 3" D. $24.50

RAMARNT

RM-3100 Stack Rack
Can accept up to four Marantz components; equipped with RHA-1 or RHA-2 rack handles and two blank filler panels; walnut side panels; 19" W (EIA standard). $279.95

RM-3700 Stack Rack
Three fixed shelves with full-length smoked-glass door, accessory shelf, and divided record compartment; walnut side panels; 39" H x 19" W x 16" D. $239.95

RM-3600 Stack Rack
Three shelves for Marantz components with full-length smoked-glass door and adjustable lower shelf; walnut grain vinyl veneer; 40" H x 17" W. ... $130.00

RM-3600. Similar to RM-3600 without glass door ... $80.00

Mckay Dymek

DAS 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 5-tube circuits and solid-state preamp; frequency range 540-1600 kHz medium-wave band; 11" x 13" W x 9" D; ferrite rod length 12"; head tilt range 53 degrees; rotational range 270 degrees. Kit ... $135.00

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 W x D. ... $135.00

Call toll-free (800) 854-7769, Calif. (800) 472-1783

Mitsubishi

DR-720 Audio Equipment Rack
Mobile five-shelf equipment rack with twin-glass double doors, the upper doors designed for easy access to most-used controls and the lower...
doors designed to protect records from dust and designed for less often used meter-unit controls; lockable front two casters; 669/" H x 222" W x 242" D... $380.00

DR-707. Similar to DR-720 except four shelves; doors designed to protect records from dust and decrease noise; 250,000Ohms... $280.00

DA-M10 Power-Level Meters
Measures instantaneous power peaks on dual-channel meters. Features logarithmic scales for continuous reading without switching ranges; response independent of frequency or waveshape. Meter section: peak level -50 to +3 dB; output 1 mW.
200 W (±1), 0.1 mW-20 W (±0.1); frequency response 20-20,000 Hz ±1 dB; input sensitivity 1 V; response time 10 msek; recovery time 0.6 sec (0 to -30 dB). Buffer amplifier section: frequency response 20-20,000 Hz ±0.2 dB; THD 0.01%; S/N 100 dB at 1 V; gain 0 dB (variable); input impedance 50,000 ohms; output impedance less than 600 ohms. Front panel A/B speaker selector... $170.00

MK-30 Speaker Stands
Designed for use with Mitsubishi Honeycomb Speaker Series MS-10, 20, and 30; finished in flat black... $55.00 pr.

MR. AUDIO

Record Cleaning Accessories
1004. Anti-static record cleaning spray; 2/14 oz can contains over 100 record applications... $2.56
1001. Record cleaning kit with anti-static cleaner, vel-epad applicator and pad brush... $1.96
1000. Silicone-treated record cleaning cloth... $1.73
1111. Record cleaning brush that attaches to tone arm... $0.40

Tape Cleaning Accessories
1002. Tape head spray cleaner; 3 oz can contains 5-in extension tube to reach recessed heads... $2.11
1010. 1-oz tape head cleaner lubricant with cotton swabs for application... $1.58

NAKAMICHI

T-100 Audio Analyzer
Measures and verifies performance of audio equipment; combines functions of an oscillator, a VTVM, a distortion analyzer, and a wow/flutter meter. Os- cillator has 21 discrete frequencies from 20 to 20,000 Hz plus wideband pink noise; measures distortion from 0.01% to 3% at 400 Hz; measures level with either peak or average ballistics; measures speed accuracy and wow/flutter (weighted or unweighted); measures noise inputs down to 10 µV. Features non-mechanical bar-graph display and log- ical-controlled FET switching; 9.5 lbs. Includes carry case; 3" H x 13" W x 9" D... $800.00

MX-100 Microphone Mixer
Provides three inputs (left, right, and blend) and two outputs; input 10,000 ohms for low to medium impedance microphones; sensitivity 0.1 mV; overload 1 V (+74 dB); THD less than 0.05% at 1000 Hz; requires PS-100 Power Supply; 21/4" H x 71/4" W x 4" D... $85.00

LA-100 Line Amplifier
Corrects mismatches in component impedance and sensitivity (0, +6, +12, and +18 dB gain at line level); 10,000 ohms at 0.2 mV; overload 1 V (+74 dB); THD less than 0.05% at 100 dB; requires PS-100 Power Supply; 21/4" H x 71/4" W x 4" D... $75.00

PS-100 Power Supply
+10 volts dc for MX-100, LA-100, and other Nakamichi Blackbox Series component operation; can power up to six components... $75.00

SF-100 Subsonic Filter
Filters out unwanted subsonic components; max. 50-dB attenuation at 10 Hz, no attenuating frequencies above 30 Hz; switchable 5-dB boost at 30 Hz and filter bypass; requires PS-100 Power Supply; 21/4" H x 71/4" W x 4" D... $75.00

DM-10 Head Demagnetizer
Sim-line, easy-to-use recorder head demagnetizer, specially designed for company's cassette decks... $20.00

NORTONICS

5600 Quadradsonic Record/Play Heads
Four-track, four-channel, laminated core heads with all-metal hyperbolic face construction.
5801. Special record-only head, low impedance, 50 mH, 500 µin gap; for use with vacuum-tube or transistor circuits; 12.9" H x 15.2" W x 19.2" D... $350.00

5802. Low impedance, 90 mH, 150 µin gap; for use with vacuum-tube or transistor circuits; no-mount type... $127.30

5803. Medium impedance, 370 mH, 100 µin gap; for use with vacuum-tube or transistor circuits; no-mount type... $127.30

Head Demagnetizers
QM202. Head demagnetizer... $19.20
QM203. 220-250 V version... $21.20
QM206. Car stereo version, 12V... $22.90
QM280A. Demagnetizer in 8-track cartridge with head cleaner... $19.60

Bulk Erasers
QM211. Bulk eraser, 110-120 Vac... $39.00
QM212. 220-250 V version... $46.00
QM230. Cassette bulk eraser... $29.00

Tape-Head Cleaners
QM102. Liquid, 2 oz bottle... $2.80
QM108. Same, 8 oz... $4.00
QM122. Headcleaner, 1.7 oz... $2.50
QM103. Spray cleaner, with 5-in extension nozzle, 3 oz net... $3.20
QM116. Same, 16 oz net... $5.40
QM104. Tape head cleaner; 2 oz bottle... $2.80
QM140. Cassette Head Cleaner; non-abrasive belt in cassette shell... $2.70
QM141. Cassette Life Extender. Same as QM140, but includes liquid cleaner for 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 -track cartridge in place; capstans, other tonearm components... $3.60
QM504. Maintenance brush... $3.10
QM505. Celullos foam swabs, package of 25... $8.00
QM508. Inspection mirror with light... $5.30

Editing Aids
QM333. Splicer for ¼-inch tape and cassette tapes; built-in blade and tape guides; easy to obtain blades... $14.95
QM311. Professional Splicing block with adhesive back; for ¼-inch tapes... $18.50
QM312. Same, for 8-track cassettes... $14.95
QM313. Same, for ¼-inch tapes... $18.00
QM521. Splicing tabs for ¼-inch tape; pkg. of 50... $3.40
QM522. Cashew立项ing tabs; pkg. of 50... $3.00
QM553. Splicing tabs for ¼-inch tape; pkg. of 200... $3.00
QM524. Metal-sensing tabs for ¼-inch tape; pkg. of 50; $3.70

Cassette Storage/Carrying Cases
Book-like cases for storing unboxed cassettes; cassette and hub locked in place when inserted.
QM408. For 8 cassettes... $7.00
QM412. For 12 cassettes... $7.80
QM416. For 16 cassettes... $9.50

NUCLEAR PRODUCTS

3C500 Staticmaster
Soft-hair retractable brush with extra-strength poly- tion elements; designed to neutralize static and remove dust from records... $16.95
Replacement cartridge... $10.95

ONKYO

CB-7U Custom Rack
Dual wood-grain cabinets, each with transparent particleboard; glass door for rack-mount. FM/AM receiver: 12.9" H x 15.2" W x 19.2" D; component shelves; 19.2" W x 14.8" D; component section height: upper shelf:-12", middle:-6.3", lower:-7.5"; overall dimensions: 30" H x 42.5" W x 16" D... $220.00

SY-9406 Audio Component Cabinet
Cabinet with four shelves (three removable for components, two-shelf record storage component; cabinet shelves 18.4-in W x 13.7-in D; heights vary from 6.1-in to 6.3-in with all shelves in place; record storage compartment can be moved for rack-mount) and record storage compartment: 16.1-in W x 17.5-in D x 37.5-in H... $200.00

OSAWA

Mark IV AC Speaker Stand
Ripper's speaker ten inches above floor to eliminate bass boomininess and tilts speaker slightly backward to improve high-frequency dispersion; holds most home speakers; includes swivel casters; black nylon finish... $49.95 pr.

Mark IV Speaker Stand
Black, universal wall bracket; 9 in. high; holds Mark IV except variable tilting to any angle for precise dispersion... $74.95 pr.

Universal Wall Bracket
Holds 9- to 14-in deep, 30-lb speakers; adjustable padded clamp holds speaker; swivels horizontally and vertically; black nylon finish... $39.95 pr.

DISK-SE22 Turntable Mat
Replacement turntable mat with high density (spec- ific gravity 2.2) to inhibit vibration pickup and add to turntable's flywheel effect for lessened wow and flutter; surface slightly concave to support warped discs; smooth texture for easy cleaning... $25.00

PHASE LINEAR

1200 Series Two Real Time Analyzer
Features 12-ocytane frequency bands and four-pole active filters from 16-315 kHz on LED matrix display with 20 rectangular LEDs/column and push- button mode for dot or bar-column viewing; display range 20- or 40-dB and/or simultaneous display of over 200 albums, 2 channels simultaneously in 100 Hz steps, fast (20 dB/sec) or slow (2 dB/sec) delay response switch; built-in pink noise generator synthesized by CMOS digital integrated circuits (frequency response 16-20,000 Hz ±1 dB, output 300 mVrms); sound level meter calibration control (52-100 dB) with two 0-dB reference levels of 70- or 80-dB

STEREO DIRECTORY & BUYING GUIDE

[Table of products with prices and descriptions]
SPL), source input with level control and mic/ source pushbutton selection (input sensitivity impedance 7 mV/47k ohms); includes omnidirectional electret condenser microphone with 20-ft cord and connector (frequency response 20-20,000 Hz ±2 dB, sensitivity —65 dB at 1000 Hz); 3½" H x 19" W x 8" D $800

**PICKERING**

**PST-2 Stylistus Timer**

Measures stylus wear time from 0-1000 hrs in 1000-hr increments; resettable for long-time use; can be reversed 180° to start over again; mounting time 1 min. $15.95

**RECONOT**

**AU-100 Home Audio Rack**

Designed to store turntable, amplifier, receiver, and records; has three shelves 19-in wide and 14-in deep, trimmed in chrome and with walnut finish; available in black finish; 32" H x 20½" W. $79.99

**V-100 Video Tape Cabinet**

Universal design to hold 18 Betamax or VHS video tapes; cabinet can be nested to allow for maximum storage in limited space; walnut finish; 11½" H x 7" W x 4" D. $41.99

**ROBINS**

**41-043 ROB-O-STAT Static Neutralizer**

Complete with static sensor; removes static charge from records, CDs, etc.; static sensor checks for presence of static charge on records and indicates proper functioning of neutralizer; requires no outside power source or batteries. $24.95

**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

**RK-5 Audio Rack**

Vinyl-covered particleboard audio rack mounts standard EIA-EIJ-designated components; glass doors and casters with lock; 33½" H x 22½" W x 19¼" D. $320

**RK-401, Metal rack.** $180

**ROYAL SOUND**

**Add N’ Stat**

Plastic storage modules for Beta and VHS video cassette tapes with dividers for slide-in and lock function on top and bottom; horizontal or vertical arrangement; free-standing on table or shelf or hang on wall; black, dark blue, orange, brown, white, or red; holds six tapes per unit, 12 units per master carton; Beta: 7.65" H x 7" W x 4" D; VHS: 7.65" H x 8" W x 4.03" F. $7.99

**RUSSOUND/FMP**

**QT-1 Quad Patching/Control Center**

Expands tape monitor loop of audio system to accept four- or two-channel noise-reduction systems, graphic equalizers, matrix decoders, and up to four stereo or quad tape recorders, with switching functions on front panel; includes set of 16 patch cords; walnut vinyl finish cabinet black front panel; 4½"H x 13¼" W x 5¼" D. $280.00

**QT-1 RM.** Metal case with black painted cabinet finish; rack-mountable; 5¼"H x 19¾" W x 5½" D. $99.95

**TMS-2 Tape Recorder Selector Switch**

Accommodates up to five tape recorders or other line level sources with complete monitoring and dubbing facilities; walnut vinyl finish cabinet; 4½" H x 7½" W x 4½" D. $79.95

**MP-2 Speaker Amp Control Center**

Accommodates four sets of stereo speakers with volume control and independent program selector for each pair; permits precise speaker level balancing for A-B testing; walnut vinyl cabinet; 4½" H x 7½" W x 4½" D. $99.95

**SANSUI**

**GX-5 Audio Rack**

Simulated walnut-grain finish audio rack mounts up to six audio units with EIA 19-in width; free-mount system accommodates units of any height; handles up to 220 lbs of equipment; includes removable record album stand and two front casters with stops; 38½" H x 21½" W x 15¼" D. $300.00

**Audio Rack Kits**

Audio racks have walnut-grain panels and four fixed positions; solid heavy weight provides vibration-free base for turntable; includes removable record album stand.

**GX-300.** Includes reson legs; 63.3 lbs; 9½" H x 22½" W x 18¼" D. $195.00

**GX-204.** Includes reson legs; 47.8 lbs; 7½" H x 19¼" W x 18¼" D. $150.00

**GX-100.** 30.9 lbs; 6½" H x 17½" W x 14½" D. $110.00

**Rank-Mount Accessory Drawers**

Hold headphones, microphones, tapes, styli, cartridge heads, tools, cables, etc.; protective foam insert can be cut to hold individual items; black matte finish.

**RX-150.** 5½" H x 19½" W x 11½" D. $50.00

**RX-100, 3½" H x 19½" W x 11½" D.** $40.00

**RX-50, 1¼" H x 19½" W x 11½" D.** $30.00

**FA7 FM/AM Antenna System**

System incorporates omnidirectional AM antenna, picking up signals within 360-degree horizontal circle and improving AM S/N 20 dB; gain —1.2 dB; two-element phased array antenna for FM reception and whip antenna for AM reception; 1.06 kg. $110.00

**PLUS ES5 Audio Program Timer**

Designed to prepareprogram audio system requiring ac power timing; features dual programmable channels; recording standby for unattended recording; playback standby within 24-hr period with wake-up alarm; stores up to nine programs which can be set to go off at intervals during 24-hr period; can be extended to days or weeks; program prompter activates receiver when specified broadcast is on; LED real time (AM/P, hr/min), Channel 1 on/off time, and Channel 9 on interval displays; 1¼" H x 17¼" W (13" with handles) x 10¼" D. $249.95

**AR-200 Audio Cabinet**

Walnut-grain-veneer cabinet includes three interior shelves adjustable on 1-in centers, removable record dividers (accommodates up to 200 albums), and two safety glass door enclosures; contains cartridge heads, tools, cables, etc.; protective foam insert can be cut to hold individual items; walnut finish. $200.00

**AR-100 Audio Rack**

Walnut-grain-veneer rack includes removable record album dividers; accommodates 19-in components according to EIA rack-mount standards; has twin-wheel cylin- drical casters; unassembled; includes assembly tool and caster socket lubricant; 40½" H x 21½" W x 17¼" D. $99.95

**SCOTCH**

**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. $2.99

**Pre-Cut Tabs**

SPT-7/32-36. 36 pre-cut 1.0 mil polyester splicing tabs. $1.19

SST-7/32-18. 18 pre-cut aluminized sensing tabs. $1.19

SK-732. 12.5 ft of 1.9 mil polyester splicing tape in dispenser kit. $1.99

**Head Cleaners**

C-2HC. Cassette head cleaner. $1.69

S-8TR-HC. 8-track head cleaner. $2.99

**C-Box Cassette Storage System**

Stackable/interlocking cassette storage/carrying boxes with pushbutton drawers; easy access and index label for quick identification. $1.19

Sleeve of three empty C-Box units. $2.49

C-Box wall bracket. $1.69

C-Box carry-nt handle. $1.69

Box of 10 empty "C-Box" units with handle and bracket. $9.99

25 drawer labels and insert cards. $1.99

**NEW LOW PIONEER PRICES**

**OPIONE R SX-780**

AM/FM STEREO RECEIVER

Continuous power output of 45 watts per channel, minimum at 8 ohms from 20 hertz to 20,000 hertz with no more than 0.1% total harmonic distortion.

SX-1800... $668
SX-1280... $502
SX-1080... $457
SX-980... $345
SX-880... $273
SX-680... $187

Get our Low Prices on hundreds of components listed in our new FREE catalog.

Distop Sound inc. 2316 RODE ISLAND AVENUE, N.W. Washington, D.C. 20018 (202) 832-1900

1980 EDITION

District Sound inc. 
Sound Reproduction
7 Industrial Road
Fairfield, N.J. 07006 (201) 227-6720
Ten-octave band equalizer analyzer from 32,16,000 Hz, adjusts sound system equalizer filters to desired equalization level with LED indicators; consists of M615 Analyzer, ES615 Analyzer Microphone, microphone cable, swivel adaptor, tilt bracket, test light/interconnection cable, and case: 108-132 Volts A.C., 50/60 Hz $612
M615. Analyzer only $500
ES615. Microphone only $153

SOUND GUARD

Total Record Care System
Includes Record Preservation Kit and Record Clean Kit $16.99

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, 2- and 6-oz fluid refill available $9.99

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 instructions. Kit includes 1 bottle of Stylus Cleaner with applicator, dry brush, bulb air blower, and 3 x 10 x Bausch and Lomb magnifier; components housed in storage unit $7.99

Record Cleaning Kit
Neoprene, lint-free work surface for record cleaning and preservation without interference from contaminants; high friction coefficient for holding records, fluid receptive area for ease cleaning, easily washable $9.99

Stylus Care Kit
Stylus maintenance system includes cleaning solution and all necessary tools: 1-oz bottle of Stylus Cleaner with applicator, dry brush, bulb air blower, and 3 x 10 x Bausch and Lomb magnifier; components housed in storage unit $19.95

Stylus Cleaning Kit
Includes Record Preservation Kit and Record Cleaner Kit $10.99

Record Buffer
Designed for wet cleaning and dry preening of discs; inverted mushroom handle $3.99

SHURE

M615AS Equalizer Analyzer

Ten-octave band equalizer analyzer from 32,16,000 Hz, adjusts sound system equalizer filters to desired equalization level with LED indicators; consists of M615 Analyzer, ES615 Analyzer Microphone, microphone cable, swivel adaptor, tilt bracket, test light/interconnection cable, and case: 108-132 Volts A.C., 50/60 Hz $612
M615. Analyzer only $500
ES615. Microphone only $153

Series 20

U-24 Program Source Selector
Program source pushbutton selection controls for three power amps, three phono, two aux., and four tape decks, mixing two sources for documentary work; both tape decks to another while monitoring and selectively recording additional different program source; both tape decks to another while monitoring and recording additional different program source; both tape decks to another while monitoring and recording additional different program source; all tape decks to another while monitoring and recording additional different program source. U-24 Program Source Selector $250

Record Care Work Pad
Neoprene, lint-free work surface for record cleaning and preservation without interference from contaminants; high friction coefficient for holding records, fluid receptive area for ease cleaning, easily washable $7.99

Record Cleaning Kit
Neoprene, lint-free work surface for record cleaning and preservation without interference from contaminants; high friction coefficient for holding records, fluid receptive area for ease cleaning, easily washable $9.99

Stylus Care Kit
Stylus maintenance system includes cleaning solution and all necessary tools: 1-oz bottle of Stylus Cleaner with applicator, dry brush, bulb air blower, and 3 x 10 x Bausch and Lomb magnifier; components housed in storage unit $19.95

Stylus Cleaning Kit
Includes Record Preservation Kit and Record Cleaner Kit $10.99

Record Buffer
Designed for wet cleaning and dry preening of discs; inverted mushroom handle $3.99

STANTON

Permoslant Record Care Kit
Designed to eliminate record static permanently with one application of anti-static formulated fluid; kit includes 3 oz bottle of fluid (treats up to 25 records; both sides), pump sprayer, buffing pad, and record identification tabs. Refill $19.95

Record Care Accessories
Staticcleaner, Carbon fiber disc sweep $39.90
Statibrush. Carbon fiber disc cleaner $16.90

SUPEREX

TBS-3 Graphic Tape Switching Console
Stereo tape switching console features color-coded tape duplication processes graphically illustrated on front-panel; three-deck capability; functions include duplicating recordings or broadcasting on three tape decks, mixing two sources for documentary effect, and transfer of program material from one tape deck to another while monitoring and recording additional different program source; both inputs and outputs include stereo, one amplifier, and three tape decks or auxiliary components; dubbing bank for use with any stereo amplifier or receiver with monitoring facilities; controls include three input and three output toggle switches and one output line selector toggle switch; rear-panel phone jacks; 2*1/2" X 6"W, X 4"D, D. $50

TEAC

E-1 Head Demagnetizer
Removes residual magnetism from heads and guides $25.00

E-2 Bulk Eraser
Handles 7- and 10"-in reels; built-in pilot light and circuit breaker guard $100.00

RMK Recorder Maintenance Kit
Kit includes 3-oz bottle of HC-1 head cleaner, 3-oz bottle of rubber cleaner, 3-oz bottle of stainless polish, cotton swabs, and cleaning cloth $9.00

TECHNICS

SH-9038 Microm Programmatic Timer
Functions weekly program with four-bit microprocessor, program content for day and time (hours, minutes), FM channel; two 200 W ac outlets; timer with individual second time counter capability, maximum indication 59 minutes; reset, start, hold capability: 1"W X 18"L X 11"D $600

SH-9020 Peak/Average Meter Unit
Shorts high-energy peaks of 100 µsec at 0-dB input with peak-hold function switch (switch on, -3 dB peak level drop-off after 25 µsec); attack time 330 µsec (average), 100 µsec (peak); recovery time 250 µsec (average, 0 to -180 µsec), 750 µsec (peak, 0 to -3 dB); input sensitivity/impedance 20 dBm (7.75 V/47,000 ohms) (source 1, 2), 100 W (8, 6, 4 ohms)/10,000 ohms (source 3). Features twin peak/average meters (+10 to -50 dB), and three input selectors: 3"W X 19"H X 14"D $360
**HEADPHONES**

**AKG**
- **K-340 Stereo Headphones**
  - Two-way stereo headphones incorporate electret-condenser, high-frequency transducers, dynamic mid/low-frequency transducers, crossovers, and ten passive diaphragms in circumaural earcups; frequency response 15-20,000 Hz; matches 4-400 ohm output impedance; includes 9.8-ft coiled cable and standard stereo phone plug; 14 oz. $189

**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 ±20% impedance over 16-20,000 Hz; sensitivity 13.5 db SPL at 1 kHz per channel; power requirements 1 mW (0.775 V) for 10 mW (94 dB SPL) per channel; 50 mW (5.5 V) for 72 mW (111 dB SPL) per channel; max. continuous power for 1% THD or less at 100 Hz 200 mW (11 V) for 143 mW (117 dB SPL) per channel; supplied with 3-m four-conductor cable and "Y"-in-phone plug; 10 oz. $85

**K-141 Monitor Headphones**
- Supra-aural, dynamic professional monitoring headphones; frequency response 20-20,000 Hz; matches 4-600 ohm output impedance; includes 9.8-ft four-conductor cable and standard three-conductor stereo phone plug; 9 oz. $69

**K-140S Stereo Headphones**
- Stereo headphones with dynamic sound transducers; frequency response 20-20,000 Hz; 600 ohms ±20% impedance over 20-20,000 Hz; sensitivity 15.5 db SPL (97.5 dB SPL); power requirements 0.75 mW (0.67 V) for 10 mW (94 dB SPL), 50 mW (5.5 V) for 80 mW (112 dB SPL); max. continuous power for 1% THD or less at 100 Hz 200 mW (11 V) for 119 mW (143 dB SPL) per system; supplied with 3-m four-conductor cable and "Y"-in-phone plug; 6 oz. $55

**K-40 Stereo Headphones**
- Ultra-lightweight supra-aural stereo headphones with dynamic moving-coil transducers; frequency response 50-15,000 Hz; matches 4-200 ohm output; 9.8-ft four-conductor cable and three-conductor stereo phone plug; 4 oz. $27

**AUDIO-TECHNICA**
- **ATH-7 Stereoheadphones**
  - Electret-condenser stereoheadphones; frequency response 20-22,000 Hz -2 db; sensitivity 98 dB SPL at 1 kHz (0 dB -0.002 mW/SPL); impedance 4-16 ohms; includes impedance-matching adapter with headphone/speaker switching and normal/high-level LED indicators; 8"-ft cord; adapter size 3"x5 H X 3/4" W X 7/8 D; headset weight (less cord) 7.4 oz. $150

- **ATH-6 Stereoheadphones**
  - Electret-condenser stereoheadphones; frequency response 40-22,000 Hz +3 db; sensitivity 98 dB SPL at 1 kHz; impedance 4-16 ohms; includes impedance-matching adapter with headphone/speaker switching; 8"-ft cord; adapter size 1"x 5 H X 3/4" D; headweight weight (less cord) 7.4 oz. $100

- **ATH-5 Stereoheadphones**
  - Moving-coil dynamic stereoheadphones; frequency response 20-20,000 Hz; sensitivity 96 dB SPL at 1 kHz; impedance 4-16 ohms; 11\"-ft cord; 7.25 oz. $80

- **ATH-3 Stereoheadphones**
  - Moving-coil dynamic stereoheadphones; frequency response 25-20,000 Hz; sensitivity 94 dB SPL at 1 kHz; impedance 4-16 ohms; 11\"-ft cord; 7.25 oz. $60

- **ATH-1 Stereoheadphones**
  - Planar moving-coil dynamic stereoheadphones; frequency response 30-20,000 Hz; sensitivity 93 dB SPL at 1 kHz; impedance 4-16 ohms; 8"-ft cord; 4.75 oz. $30

**AUDIOTEX**
- **Professional Stereo Headphones**
  - Frequency response 30-20,000 Hz; impedance 8-16 ohms; padded earpieces with adjustable padded headband; comes with 10-ft coiled cord, black vinyl carrying case. 30-5207 $41

- **Deluxe Stereo Headphones**
  - Frequency response 20-25,000 Hz; impedance 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 $36

- **Featherweight Stereo Headphones**
  - Frequency response 20-20,000 Hz; impedance 8 ohms; max. input 100 mW; adjustable foam ear cushions, color-coded and marked "right" and "left"; comes with 6-ft cord. 30-8300 $25

**BURVEN RESEARCH**
- **PMB 8 Orthodynamic Headphones**
  - Around-the-ear style with leatherette foam ear cushions; max. SPL 112 dB (1 kHz); 150-ohm impedance; max. input 1 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. $115

- **PMB 6 Orthodynamic Headphones**
  - Around-the-ear style with leatherette foam ear cushions; max. SPL 121 dB (1 kHz); 140-ohm impedance; max. input 0.1 W; sensitivity 0.2 mW for 100-ohm SPL (1 kHz); 0.3% THD at 100-dB SPL (1 kHz); frequency response 16-23,000 Hz; has 10-ft cord; 9 oz. $95

- **PMB 4 Dynamic Headphones**
  - Around-the-ear style with leatherette foam ear cushions; max. SPL 114 dB (1 kHz); 400-ohm impedance; 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. $85

- **PMB 40 Dynamic Headphones**
  - On-the-ear style with reticulated foam ear cushions; max. SPL 128 dB (1 kHz); 400-ohm impedance; 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; 7 oz. $70

- **PMB 20 Dynamic Headphones**
  - On-the-ear style with reticulated foam ear cushions; max. SPL 118 dB (1 kHz); 400-ohm impedance; 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. $50

**JVC**
- **HM-200E Headphone/Microwave**
  - Designed for binaural recording and monitoring; matched electret condenser mic with simulated reference $197
auricle in each earpiece; mikes powered by AA cells

ESP/10 Electrostatic Stereophones

Electrostatic design with energizer. Headset bandpass response 20-22,000 Hz; -2 dB; sensitivity for 100-dB SPL 1.9 V rms at 1 kHz in E/10 energizer; 2.0 V rms pink noise; THD at 1 kHz and 100 dB SPL 0.38%; radiating surface area of electrostatic element 25 cm². Semi-vented design; black with silver accents; includes 10-ft cord. 

PRO/4AAA Dynamic Stereophones

Professional-style two-way stereo headphones with separate woofer and tweeter in each earpiece; light-weight open-air design; frequency response 20-20,000 Hz; max. input 0.1 W; 4-150 ohm impedance.

Technician/VFR Stereophones

Stereophone with variable-frequency response controls; slide-tone controls at base of each earcup permit fine tuning of shape of response curve; frequency response 10-10,000 Hz; THD 0.3% at 1 kHz (100 dB SPL); sensitivity 0.7 V rms sine wave at 1000 Hz, 0.24 V rms pink noise impedance 220 ohms at 1 kHz; supplied with Pneumalite ear cushions for exclusion of sounds; wide vinyl headband with self-adjusting yoke; black and chrome; equipped with boom microphone mount for professional applications; 4-conductor coiled cord, 16 oz (less cord).

Tech/2 Stereophones

Dynamic stereo headphones with 2-in polymer driver elements; frequency response 10-22,000 Hz; nominal impedance 245 ohms at 1000 Hz; sensitivity for 100-dB SPL 0.7 V rms sine wave at 1000 Hz, 0.38 V rms pink noise; nominal impedance 245 ohms at 1000 Hz; features Pneumatic ear cushions for exclusion of outside sounds; wide vinyl headband with adjustable yoke; black and chrome; adjustable headband and clickstops for easy listening; includes 8-ft, 5-in coiled cord and Y-type cord with "J"-shaped plug, 8.8 oz.

HV/1A Stereophones

Features low-mass "Decilite" driver elements for 5-in polymer driver; frequency response 20-22,000 Hz; 10-ohm impedances; THD 0.3% at 1 kHz; level controls; Pneumalite ear cushions; padded simulated leather earcups; adjustable styled grains; shape of response adjustable; 8-ft straight cord; molded no-break connector; 8.5 oz.

K/145 Dynamic Stereophones

Features 5-in polymer driver; frequency response 20-22,000 Hz; impedance 87-ohms at 1 kHz; level controls; Pneumalite ear cushions; padded simulated leather earcups; adjustable styled grains; shape of response adjustable; 8-ft straight cord; molded no-break connector; 14.3 oz.

K/727 Dynamic Stereophones

Frequency response 10-16,000 Hz; THD 0.1% at 1 kHz (600 ohms); 10-ohm impedances; supplied with 10-ft coiled cord; 16.5 oz; black.

K/6A/LC Dynamic Stereophones

Frequency response 18-22,000 Hz; THD 1% at 1 kHz (100 dB SPL); 10-ohm impedances; supplied with 10-ft coiled cord; 14 oz.

K/6A. Same as K/6A/LC but without volume controls; impedance 100 ohms at 1000 Hz.

HF-100 Monitor Headphones

Dynamic frequency response 20-20,000 Hz; impedance 20% at 1 kHz; 90-dB SPL output (-3 dB) per watt at 1 kHz; channel balance within 3 dB at 1 kHz; vinyl-covered, foamed-padded earcups; adjustable headband; supplied with 8-ft straight cord with standard stereo plug; 14.3 oz.

PANASONIC

EAH-520 Headphones

Dual-cone headphone system; high efficiency, light-weight, separate bass and treble controls; adjustable head cushion; high-velocity design; 10-ft coiled cord; bronze and chrome finish.

EH-510. Similar to EAH-520 except straight line cord; black and chrome finish.

EAH-500. Similar to EAH-520 except straight line cord; gray and chrome finish.

STEREO DIRECTORY & BUYING GUIDE

155. Biphonic processor for HM-200E; processes binaural sources through stereo speaker...

198

K/15 Dynamic Stereophones

Features 5-in polymer driver; frequency response 20-22,000 Hz; impedance 87-ohms at 1 kHz; level controls; Pneumalite ear cushions; padded simulated leather earcups; adjustable styled grains; shape of response adjustable; 8-ft straight cord; molded no-break connector; 14.3 oz.

$100

8N-5. Biphonic processor for HM-200E; processes binaural sources through stereo speaker...

$280

PROK

ESP/10 Electrostatic Stereophones

Electrostatic design with energizer. Headset bandpass response 20-22,000 Hz; -2 dB; sensitivity for 100-dB SPL 0.25 V rms sine wave at 1 kHz, 0.1 V rms pink noise; THD 0.5% at 1 kHz for 100-dB SPL; weight (less cord) 12.6 oz.

K/145. Similar to K/145 except frequency response 10-18,000 Hz; 2.5-in dynamic elements; impedance 98 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 (les cord) 13.4 oz.

HV/1 Dynamic Stereophones

Has 2-in dia. driver and will operate from 3.2 to 600 ohm outputs; response 20-20,000 Hz; capacity 5 continuously with provision for 14-dB SPL transient peaks; 10 oz; 10-ft coiled cord...

$50

KO/727 Dynamic Stereophones

Frequency response 10-16,000 Hz; THD 0.1% at 1 kHz (600 ohms); 10-ohm impedances; supplied with 10-ft coiled cord; 14 oz; black.

$40

K/6A/LC Dynamic Stereophones

Frequency response 18-22,000 Hz; THD 1% at 1 kHz (100 dB SPL); 10-ohm impedances; supplied with 10-ft coiled cord; 14 oz.

$40

K/6A. Same as K/6A/LC but without volume controls; impedance 100 ohms at 1000 Hz.

$30

F-780 Stereo Headphones

Professional-style two-way stereo headphones with separate woofer and tweeter in each earpiece; light-weight open-air design; frequency response 20-20,000 Hz; max. input 0.1 W; 4-150 ohm impedance.

$45

F-700 Stereo Headphones

Lightweight headphones feature ultra-thin diaaphragms with rare-earth-magnet transducer; adjustable vinyl leatherette headband and foam-padded earcups; frequency response 18-22,000 Hz; max. input 100 mW; 4-150 ohm impedance; 6'-ft cord plug; 4.6 oz.

$35

SP-78 Stereo Headphones

Deluxe closed-acoustic stereo headphones, 2-way design with separate woofers and tweeters in each earpiece; padded headband and earcups; independent volume/balance control on each earpiece; 15-ft coiled cord; frequency response 18-24,000 Hz.

$30

SP-77 Stereo Headphones

Features separate slide-rule volume control on each earcup, pre-adjusted to prevent speaker blast; frequency response 20-18,000 Hz; 8-ohm impedance; 6'-ft coiled cord.

$15

NAKAMICHI

HF-100 Monitor Headphones

Dynamic frequency response 20-20,000 Hz; impedance 20% at 1 kHz; 90-dB SPL output (-3 dB) per watt at 1 kHz; channel balance within 3 dB at 1 kHz; vinyl-covered, foamed-padded earcups; adjustable headband; supplied with 8-ft straight cord with standard stereo plug; 14.3 oz.

$35

PANASONIC

EAH-520 Headphones

Dual-cone headphone system; high efficiency, light-weight, separate bass and treble controls; adjustable head cushion; high-velocity design; 10-ft coiled cord; bronze and chrome finish.

$55

EAH-510. Similar to EAH-520 except straight line cord; gray and chrome finish.

$35

This document contains detailed specifications and reviews for various stereo headsets and headphones, including their frequency response, impedance, and additional features such as driver elements, headband materials, and comfort aspects. The document also includes pricing information for each item, making it a valuable resource for consumers looking to purchase high-quality audio equipment.
MADE FOR EACH OTHER.

Earphones are made for ears. Yours. That's why the Beyer DT 440 has sound so natural and is so light and comfortable you don't even know it's there, even after many hours.

At 9.6 ounces, it is one of the lightest headphones available. And its weight is evenly distributed among the sponge-padded ear-cups and air-filled headband.

There's no great weight suspended from your head, and your ears never get squeezed.

Some people complain about the isolation of headphones that close them off from the world. So we built the DT 440 with a high velocity open design, to allow a natural mixture of recorded music and environmental sound.


For sound — and for comfort — nothing beats a Beyer. We'd like to make one for you.
### SE-205 Stereo Headphones
Dynamic type covering a frequency range of 20-20,000 Hz; core-type speaker in each earpiece; matching impedance 4-16 ohms; max. input power 500 mW each channel; comes with 8.2 ft cable; 16 oz; $75

### SE-SS-20 Headphones
Two-way thin film dynamic stereo headphones; has 50-μ-thick polyester diaphragms (2½-in wide); sensitivity 94 dB/mW; frequency response 20-20,000 Hz; separate volume and tone controls for each channel; adjustable stainless-steel headband; 12.2-ft coiled cord; 17.3 oz; $72

### SE-SS-60 Headphones
Stereo dynamic headphones have 50-μ-thick polyester diaphragms (2½-in wide); max. input power 500 mW; frequency response 20-20,000 Hz; 25-ohm impedance; separate volume controls for each channel; 6.6-ft cord; 15 oz; $54

### SE-SS-40 Headphones
Thin polyester 2½-in wide dynamic drivers; frequency response 20-20,000 Hz; 25-ohm impedance; max. input power 500 mW; 6.6-ft cord; 13 oz; $42

### SE-SS-30 Headphones
Thin polyester 2½-in wide dynamic drivers; frequency response 20-20,000 Hz; max. input power 500 mW; 8-ohm impedance; 11.5 oz; $30

### SENNHEISER

#### HD 224 Headphones
Dynamic stereo headphones; frequency response 16-20,000 Hz; SPL 94 dB at 1 mW; THD 1%; 200-ohm nominal impedance; double-walled circumaural foam earpads cover entire ear; includes steel-stranded detachable 3000-mm cable, 252 g; $136

#### HD 430 Headphones
“Open-ear” design dynamic headphones; frequency response 16-20,000 Hz; sensitivity 94 dB at 1 mW input; nominal SPL at 1000 Hz; HD 0.5%; impedance 600 ohms/ch; padded earpads and adjustable suspension strap; includes 10-ft cable; 7 oz; $119

#### HD 424 Headphones
“Open-ear” design dynamic headphones; frequency response 15-20,000 Hz; sensitivity 17.7 μbar/V; 1 mW (1.41 V) per channel for SPL of 102 dB; dist. 1% at 22 V, 1 kHz; 2000-ohm impedance per channel; removable head and ear cushions; 10-ft cable; 6 oz (without cable); $109

#### HD 420 Headphones
“Open-ear” design dynamic headphones; frequency response 18-20,000 Hz; sensitivity 94 dB at 1 mW input; nominal SPL at 1000 Hz; HD 1%; impedance 600 ohms/ch; adjustable suspension strap and cushioned earpads; includes 10-ft cable; 4 oz; $85

### SONY

#### HD 414 Headphones
“Open-ear” design dynamic headphones; frequency response 20-20,000 Hz; sensitivity 17.2 μbar/V; 1 mW (1.41 V) per channel for SPL of 102 dB; dist. 1% at 22 V, 1 kHz; 2000-ohm impedance per channel; 10-ft cable; 5 oz (without cable); $75

#### HD 400 Headphones
“Open-ear” design dynamic headphones; frequency response 20-18,000 Hz; sensitivity 1 mW for SPL of 88 dB; 600-ohm impedance per channel; 10-ft cable; 3 oz (without cable); $44

#### HD 44 Headphones
“Open-ear” design dynamic headphones; under-the-ear configuration; frequency response 52-10,000 Hz; 600-ohm impedance per channel; 10-ft cable; 1.2 oz (without cable); $40

### SIGNET DIVISION, A.T.U.S., INC.

#### TK33 Stereophones
Dipolar electret condenser stereophones with power adapter. Stereophones feature high-compliance film moving diafragm 45 mm diameter and 2 microns thick; suede-finish inner headband construction and pivot/hole porous vinyl ear pads. Passive impedance matching transformer adapter features stereoheadphone/speaker operation and hi/lo stereo-impedance matching transformer adapter features stereoheadphone/speaker operation and hi/lo stereo-impedance matching transformer adapter features stereoheadphone/speaker operation and hi/lo stereo-impedance matching transformer adapter features stereoheadphone/speaker operation and hi/lo stereo-impedance matching transformer adapter features stereoheadphone/speaker operation and hi/lo stereo-impedance matching transformer adapter features stereoheadphone/speaker operation and hi/lo stereo-impedance matching transformer adapter features stereoheadphone/speaker operation and hi/lo stereo-impedance matching transformer adapter features stereoheadphone/speaker operation and hi/lo stereo-impedance matching transformer adapter features stereoheadphone/speaker operation and hi/lo stereo-impedance matching transformer adapter features stereoheadphone/speaker operation and hi/lo 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plifiers rated for 4-600 ohm load impedances; frequency range 20-20,000 Hz $80

**SUPEREX**

**PEP-81 Electrostatic System**
Consists of PEP-81 headphones and CC-81 control console; headphone frequency response 15-18,000 Hz ±2 dB, 10-22,000 Hz ±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 headphones; requires 5 W per channel min drive; console size 11" x 31/2" x 6/3".
$150

**PEP-79E Electrostatic System**
Consists of PEP-74 headphones and CC-79E control console; headphone frequency response 15-18,000 Hz ±2 dB, 10-22,000 Hz ±5 dB, dist. 0.2%; impedance-matched to CC-79E 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 headphones; requires 5 W per channel min drive; console size 11" x 31/2" x 6/3".

**SM-700 Headphones**
Dynamic headphones with 2%-in Mylar diaphragm; 35-ohm impedance; frequency response 10-20,000 Hz ±3 dB, sensitivity 10 mW (0.6 V) for 110 dB at 400 Hz, 0.25% dist. at 400 Hz, 110-dB SPL; padded, fully adjustable steel and aluminum headband with foam-filled vinyl cushions; supplied with 15-ft cable, clothing clip, and molded stereo plug; 10 oz (less cable).
$70

**PRO B VI Stereophones**
Each earcup features dynamic wofker, ceramic tweeter, and L/C crossover; impedance 4-16 ohms; frequency response 15-22,000 Hz -3 dB; sensitivity 10 mW (0.6 V) for 100 -dB SPL at 400 Hz; padded, fully adjustable, vinyl-covered and padded spring steel headband with vinyl covered urethane foam; snap-on cushions; 15 -ft (extended) retractable cable with clothing clip, and molded stereo plug.
$70

**Classic CL-1 Headphones**
Lightweight, isolating-type headphones; frequency response 10-20,000 Hz; 35-ohm impedance; 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; 15-2 ft (extended) retractable cable with clothing clip and molded stereo plug; 10 oz (less cable).
$60

**YAMAHA**
YH-1000 Stereo Headphones
Orthodynamic-design headphones with 12.7- micro-30 m/g polymer film diaphragm between cerium cobalt disc magnets; frequency response 20-20,000 Hz; output 103 dB/mW SPL, 3 W rated input; max. input 10 W, HD -50 dB at 90-dB SPL, 30 dB at 120-dB SPL; impedance 100 ohms, urethane foam-padded earcups, leather finish head strap, universal ball-joint tilt adjustment, and lockable height-adjusting sliders; includes 7.9-ft cord with stereo plug; 19 oz. with cord.
$220

**WHARFEDALE**
CYCLE NO. 6 ON READER SERVICE CARD

**WE SELL HEADPHONES THAT PUT THE MOST EXPENSIVE SPEAKER SYSTEMS TO SHAME.**

When you listen to Sony headphones, you'll share an intimacy with the music you've probably never experienced before; you'll hear subtleties you've missed with most speakers. Admittedly, this may sound rather extraordinary. But then, so do our headphones.

**SONY**
We've never put our name on anything that wasn't the best.

**1980 EDITION**
Infinity makes a small
collection to the
state of the art.

InfiniTesimal™

Here's everything you'd expect
from Infinity. (Except the size,
11 x 6¼ inches.)

Here's the unparalleled clarity,
warmth and smoothness of our
larger speakers; inner details you
never heard before from favorite
recordings; and imaging so accu-
rate you could actually place
where people are coughing in
the audience.

The dual-voice-coil advantage
in an advanced 5-inch woofer.

Our exclusive Infinity/Watkins
Woofer uses dual-voice-coils to
smooth out and extend bass
response. And it lets your ampli-
fier develop more power at low
frequencies than any other mini
speaker. All this—and our highly-
acclaimed EMIT™ Electromag-
etic Induction Tweeter, too!

The end of paper cones
and their distortion

Because paper and exotic plas-
tic cones create vibrations of their
own, adding unacceptable colora-
tions to the music, InfiniTesimal
introduces a superior new cone
material: polypropylene.

It adds essentially no sound of
its own, being almost perfectly
acoustically inert. Its low mass
and ideal damping characteristics
result in dramatically improved
musicality.

InfiniTesimal. In total—a small,
magnificent 2-way system with

unusual musical warmth, focus
and transient attack. At about
$175 each, a mini-speaker of
uncompromising quality and accu-
rate for your home or vehicle.

True Infinity sound. From a
definitely finite space.

Manufactured by Infinity under license from Watkins
Engineering, Inc.

Suggested retail price, optional with dealers. Slightly
higher east of the Mississippi.

We get you back to what it's all about. Music.

A toll-free call to (800) 423-5244—or from
California, (800) 382-3372—will get you
the nearest Infinity dealer's name and
address.

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Canoga Park, CA 91304, (213) 883-6800.
PRO Series

PRO RH0040 Tweeter Speaker System
Wide dispersion high frequency horn tweeter; frequency response 400-10,000 Hz; 100° horizontal dispersion; 40° vertical dispersion; max. input 100 W continuous program; 8-ohm nominal impedance; 1/4-in phone jack; 1/4-in plywood cabinet with textured vinyl covering; 41" H x 19" W x 32" D. $900

PRO W212 Speaker System
System has dual 12-in accordion-edged double-folded horn woofers with 1 1/4-in voice coils; frequency response 40-5000 Hz; max. input 200 W continuous program; 4-ohm nominal impedance; dual 1-in phone jacks; 1/4-in plywood cabinet with textured vinyl covering; 28" H x 48" W x 20" D. $640

PRO BH15 Speaker System
Horn-loaded bass-reflex combination speaker system with 15-in accordion-edged woofer with 3-in voice coil; frequency response 45-5000 Hz; max. input 300 W continuous program; 8-ohm nominal impedance; 1 1/4-in phone jack; 1/4-in plywood cabinet with textured vinyl covering; 36 3/4" H x 30" W x 24" D. $510

PRO M707 Speaker System
Designed as building block for midrange and high-end tweeter; 8 x 18-in rigid-wall horn with 60 W compression driver and four 3-in piezo electric tweeters; frequency response 1200-25,000 Hz; crossover at 7000 Hz; max. input 60 W continuous program; 8-ohm nominal impedance; push terminal; 1 1/4-in phone jack; 30" H x 11 1/2" W x 11 1/2" D. $450

PRO MS212 Speaker System
Floor monitor two-way speaker system with dual 12-in accordion-edged woofer and 4 x 10-in compression horn with 60 W driver; frequency response 70-14,000 Hz; crossover at 1500 Hz; 4-ohm nominal impedance; input range 30-200 W continuous program; 1/4-in phone jack; 1/4-in plywood cabinet with textured vinyl covering; 36 1/2" H x 16" W x 16" D. $370

PRO SC410 Speaker System
Portable vocal column for use by combos or soft rock groups; two-way system has four 10-in accordion-edged woofers and three 3-in piezo electric tweeters; frequency response 60-25,000 Hz; crossover at 5000 Hz; input range 20-150 W continuous program; 8-ohm nominal impedance; 1/4-in phone jack and push terminals; cabinet with 1/4-in vinyl covering; 48" H x 13" W x 11" D. $320

PRO MS12 Speaker System
Foot monitor two-way speaker system with 12-in accordion-edged woofer and 3-in piezo electric tweeter; frequency response 100-20,000 Hz; crossover at 5000 Hz; input range 25-100 W continuous program; 8-ohm nominal impedance; 1/4-in phone jack; 3/4-in plywood cabinet with textured vinyl covering; 23" H x 16" W x 16" D. $210

PRO Studios

STUDIO Series

Studio 300 Speaker System
Three-way speaker system with 15-in woofer, dual 5 1/4-in cone midrange with 4-oz magnet, and 3-in piezo electric tweeter; frequency response 20-25,000 Hz; crossovers at 1000 and 5000 Hz; input range 10-60 W continuous program; 8-ohm nominal impedance; front mounted midrange and tweeter controls; push terminals; oak-grained vinyl cabinet; 31" H x 18" W x 11 1/2" D. $295

Studio 400. Similar to Studio 300 except with dual 10-in woofers and 5 1/4-in cone midrange; frequency response 25-25,000 Hz; input range 10-75 W continuous program; 39" H x 14 1/4" W x 11 1/4" D. $239

Studio 300. Similar to Studio 400 except 12-in woofer; input range 10-50 W continuous program; 27 1/2" H x 16 1/4" W x 11 1/4" D. $199

Studio 200. Similar to Studio 300 except with 10-in woofer; frequency response 27-25,000 Hz; input range 10-40 W continuous program; 24" H x 14 1/4" W x 11 1/4" D. $159

Studio 100 Speaker System
Two-way speaker system with 8-in woofer, 6 1/2-in magnet, 1-in voice coil, and 3-in piezo electric tweeter; frequency response 35-25,000 Hz; crossover at 4000 Hz; input range 5-30 W continuous program; push terminals; 8-ohm impedance; oak vinyl cabinet; 22 1/4" H x 12 1/4" W x 9 D. $129

PRO W215 Bass Speaker System
Bass system has dual 15-in accordion-edged woofers with 3-in voice coil; frequency response 40-5000 Hz; max. input 600 W continuous program; 4-ohm nominal impedance; dual 1/4-in phone jacks; 1/4-in plywood cabinet with textured vinyl covering; 35" H x 60" W x 24" D. $875

PRO AR9 Speaker System
Four-way floor-standing speaker system features...
16 SPEAKER SYSTEMS

five drivers consisting of two 12-in parallel and connected acoustic-suspension woofers handling from 200-200 Hz, 8-in acoustic-suspension low midrange driver from 200-1200 Hz, 1½-in dome upper midrange to 1200-7000 Hz, and 3½-in dome tweeter; crossover frequencies at 200, 1200, and 7000 Hz; 4-ohm nominal impedance; sensitivity 86 dB SPL/W/m; 80 W continuous max. input; 100 W continuous max. input; 8-ohm impedance; 3.5 dB at 62 Hz, two position switch for tweeter level control; walnut-grain vinyl veneer finish; 16½ x H x 9¼ W x 6½ D. $110

AR18 Speaker System
Two-way speaker system with 8-in acoustic suspension woofer and 1½-in ring radiator tweeter; crossover at 2000 Hz; 8-ohm nominal impedance; sensitivity 1 W for 86 dB (on axis at 1 m), max. input 100 W with 8-ohm impedance; frequency response 20-200 Hz; 8-in acoustic suspension, low midrange, and high range level control; walnut veneer finish with black contrast and dark grille; 43¾ x H x 14½ W x 15¼ D. $750

AR90 Speaker System
Four-way floor-standing acoustic-suspension speaker system with two 10-in side-firing woofers, 8-in high temperature lower midrange, 1½-in high temperature hemispherical dome upper midrange, and 3½-in high temperature hemispherical-dome dome tweeter; crossovers at 200, 1200, and 7000 Hz; recommended input range 50-300 W (with average power); sensitivity 87 dB SPL/W/m; 4-ohm nominal impedance; three 3-position switches for lower and upper midrange and high range levels; walnut veneer finish with black contrast and dark grille; 43¾ x H x 14½ W x 15¼ D. $550

AR91 Speaker System
Three-way floor-standing acoustic-suspension speaker system with 12-in woofer, 1½-in liquid-cooled dome midrange with semi-horn, and 3½-in liquid-cooled dome tweeter, crossovers at 700 and 7500 Hz, handles 200 W (with average power), sensitivity 87 dB SPL/W/m; 4-ohm nominal impedance; two 3-position switches for midrange and high-range levels; walnut veneer finish with high density particle board cabinet; 31½ x H x 14 W x 11¼ D. $400

AR92. Similar to AR91 except with 10-in woofer; 31½ x H x 14 W x 11¼ D. $300

AR14 Speaker System
Two-way speaker system with 10-in acoustic-suspension woofer and 1-in dome tweeter; crossover at 1300 Hz; 8-in nominal impedance; sensitivity 2 W for 86 dB SPL (on axis at 1 m), max. input 100 W with 8-ohm impedance; frequency response from 20-200 Hz; 2-in dome midrange; crossover at 62 Hz; woofer contour control; oiled walnut veneer finish; 25 x H x 13½ W x 10½ D. $180

AR25 Speaker System
Two-way floor-standing acoustic-suspension speaker system with 8-in woofers and 1½-in pressure tweeter; crossover at 2000 Hz; handles 100 W (with average power); sensitivity 86 dB SPL/W/m; 8-ohm nominal impedance; two-position switch for high-range contour control; walnut-grain vinyl veneer finish; 21½ x H x 11½ W x 7¾ D. $110

ACOUSTIC PHASE

ARCO II Speaker System
Three-way floor-standing speaker system with 15-in woofer with 54 oz ceramic magnet, two 2 x 6-in piezo-electric horn midrange drivers, and four piezo electric super tweeters; frequency response 20-30,000 Hz ±3 dB; crossovers at 900 and 3000 Hz; input range 20-200 W; 4-ohm impedance; 29" H x 18 W x 15¾ D. $450

Phase III + Speaker System
Three-way speaker system with 12-in woofers, 5-in midrange, and 1-in Mylar dome tweeter; frequency response 32-20,000 Hz ±3 dB; crossovers at 900 and 5000 Hz; input range 10-100 W continuous; impedance 4-8 ohms; tweeter level control; walnut veneer finish; 24½ x H x 14½ W x 12½ D. $360

Phase II Speaker System
Three-way bookshelf speaker system with 10-in woofer, 5-in midrange, and 1-in Mylar dome tweeter; frequency response 35-20,000 Hz ±3 dB; crossover at 1500 Hz, range 5-50 W continuous, nominal impedance 4-8 ohms; tweeter level control; walnut veneer finish; 24½ x H x 14½ W x 13¾ D. $230

Phase Monitor Speaker System
Two-way floor-standing speaker system with 12-in woofer and 1-in Mylar dome tweeter; frequency response 35-20,000 Hz ±4 dB, crossover at 1500 Hz, range 100 W continuous; frequency response 20-200 Hz; 2-in dome midrange, and 3½-in dome tweeter; frequency response 35-30,000 Hz ±3 dB; maximum input 100-300 W continuous; 8-ohm impedance, 120 W built-in servo amplifier; 18½ x H x 12 W x 8 D. $679

Adagio 10 Speaker System
Three-way acoustic pressure feedback speaker system with 11-in woofer, 2-in dome midrange and 3½-in dome tweeter; frequency response 35-20,000 Hz ±3 dB; crossovers at 400 and 4000 Hz; maximum input 80 W continuous; 8-ohm impedance; 120 W built-in servo amplifier; 18½ x H x 12 W x 8 D. $599

Allegro Speaker System
Three-way floor-standing 3a-patented acoustic compression speaker system with 12-in woofers, 6½-in cone midrange, and two compression chamber horn tweeters; response 50-20,000 Hz ±3 dB; crossovers at 800 and 6000 Hz; sensitivity 94 dB SPL/W/m; 37½ x H x 12 W x 13 D. $539

Prelude Speaker System
Three-way acoustic pressure feedback speaker system with 11-in woofer, 4-in cone midrange and 3½-in dome tweeter; frequency response 35-20,000 Hz ±3 dB; crossover at 1500 Hz, range 100 W continuous; internal acoustic low-pass filter plus infinite transmission line; 31½ x H x 12 W x 12 D. $499

Apogee Monitor Speaker System
Three-way Peripheral Laminar Docompression speaker system with 11-in woofer, 1¼-in dome midrange, and ¾-in dome tweeter; frequency response 45-50,000 Hz ±3 dB, crossovers at 750 and 6000 Hz; maximum input 10-70 W; 8-ohm impedance; laminated back wave through flat tunnel; time aligned; 29½ H x 13½ W x 13 D. $449

Allegretto Speaker System
Three-way bass reflex speaker system with 10-in woofer, 4-in x 8-in horn midrange, and horn tweeter; frequency response 50-18,000 Hz ±3 dB; crossovers at 2000 and 10,000 Hz; maximum input 60 W continuous; 8-ohm impedance, 25½ x H x 12 W x 10 D. $375

Auditor 3 Speaker System
Three-way 3a-patented Peripheral Laminar Decompression speaker system with 10-in woofer, 4-in cone midrange, and ¾-in hemispherical dome ferrofluid tweeter; frequency response 50-30,000 Hz ±3 dB, sensitivity 92 dB SPL/W/m; room control adjustment; 18½ x H x 12 W x 8 D. $299

Apogee Speaker System
Two-way bass-reflex speaker system with 10-in

STEREO DIRECTORY & BUYING GUIDE
The Sound of Koss is no longer something you have to keep to yourself.

You no longer have to limit your listening to stereophones to enjoy the incredible Sound of Koss. Because now you can get the optimum loudspeaker system, and the Sound of Koss, in any Koss CM series system you choose.

KOSS CM 1010

Here's the ultimate 2-bandpass system. The Koss CM 1010 has a unique passive radiator to enhance the lower two octaves of bass. As well as a special 8-inch woofer to increase the midrange frequency response up to 3500Hz.

And with the CM 1010’s 1-inch dome tweeter, you get the highest energy output, and lowest distortion, of any tweeter on the market.

KOSS CM 1020

No three bandpass loudspeaker system currently available offers the benefits of the Koss CM 1020. Its dual ports improve cabinet tuning and structural stability. And its 10-inch woofer provides a 3db gain in efficiency, as well as flat response over the lower bandpass. In addition, the CM 1020 uses a 4½-inch midrange driver to capture all the energy and presence of this critical bandpass. And the CM 1020's unique 1-inch dome tweeter produces the highest energy output and lowest distortion of any tweeter currently available. Indeed, the Koss CM 1020 is the 3-bandpass loudspeaker system you really have to hear to believe.

KOSS CM 1030

The Koss CM 1030 represents the ultimate in 4-bandpass loudspeaker systems. It includes a 10-inch woofer, mass aligned dual port system, a parallel midrange system with two 4½-inch drivers, and both a tweeter and a 1-inch treble tweeter that feature a unique acoustic transformer. Each has been carefully and specifically designed to produce the optimum spectral characteristics of their respective bandpass.

Uniting the CM 1030 into a total system that represents the ultimate in loudspeaker technology, is a unique, quasi second-order crossover network. In all, the CM 1030 is so amazing, no other 4-bandpass system even comes close in bass, midrange or high bandpass performance.

KOSS CM 530

Setting entirely new standards for bookshelf speakers is the Koss CM 530. Whether you place them horizontally or vertically, they deliver perfect mirror imaging, an incredible degree of dispersion, and the breathtaking Sound of Koss.

KOSS PRO 4/TRIPLE A

Write us, c/o Virginia Lamm for a free copy of our full-color loudspeaker catalog. And when you visit your audio dealer to hear the incredible Sound of Koss loudspeakers, take an extra moment for a private listening experience with the world famous Koss Pro/4 Triple A. Once you’ve heard the Sound of Koss for yourself, you’ll know why hearing is believing.

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CIRCLE NO. 90 ON READER SERVICE CARD
Two-way Aiphase Speaker System; frequency response 50-30,000 Hz -3 dB; sensitivity 95 dB SPL/W/m; 30° H x 11° W x 12" D. $249

Alphase Speaker System
Two-way Peripheral Laminar De-compression speaker system with B-in woofer and 3¼" dome tweeter; frequency response 55-30,000 Hz -3 dB; crossover at 5000 Hz; max input 40 W continuous; 8-ohm impedance; laminated back wave through vaporated tunnel; time aligned; 20" H x 10" W x 12" D. $179

ACUSTA CRAFT

CVM-4 Speaker System
Four-way modular system contains two CVS-3 satellite with 10-in woofer, 6-in midrange, super tweeter, and two CV-12 computer-vented dual woofers; frequency response 42-15,000 Hz ± 3 dB; crossovers at 100, 400, 4000 Hz; sensitivity 91 dB SPL/W/m; recommended input 20-250 W; maximum 1000 W continuous; 8 ohms; crossover at 3500 Hz; max input 300 W; 8 ohms; sensitivity 91 dB SPL/W/m; 8 ohms nominal impedance; acoustic doublet speaker system. | $160

CVM-2 Speaker System
Four-speaker system contains two CVS-2 satellite with 8-in woofer, 6-in midrange, 1-in textile dome tweeter, and one CV-20 computer-vented dual woofer; frequency response 100-15,000 Hz -3 dB; crossovers at 100, 400, 4000 Hz; sensitivity 91 dB SPL/W/m; recommended input 20-250 W; maximum 500 W continuous; 8 ohms; crossover at 3500 Hz; max input 300 W; 8 ohms; sensitive 91 dB SPL/W/m; 8 ohms nominal impedance; high performance speaker. | $354

CVM-1 Speaker System
Three-way bookshelf speaker system with CVS-1 satellite that has 6-in long-throw woofer/midrange and 1-in textile-dome tweeter combined with CW-10 bass module; frequency response 50-20,000 Hz ± 4 dB; crossovers at 100 and 2500 Hz; recommended input range 20-125 W; maximum 500 W continuous; 8 ohms; sensitivity 91 dB SPL/W/m; available in kit form; CW-10: 3½" H x 12" W x 5½" D; CV-10: 21½" H x 21" W x 21" D. | $579

CVM-2 (WK) Kit. | $665

CVM-3 Speaker System
Similar to CVM-4 except with one CW-10 computer-vented bass module; available in kit form | $845

CVM-4 (WK) Kit. | $779

CVM-5 Speaker System
Two-way floor-standing speaker system with 10-in Perfect Piston™ woofer; long throw voice coil, heavy magnet, 3-in cone dome tweeter, and Passive Reflex™, frequency response 35-20,000 Hz; sensitivity 99 dB SPL/W/m; 8-ohm nominal impedance; crossover at 1500 Hz; efficiency 92 dB SPL/W/m; 8 ohms; sensitivity 99 dB SPL/W/m; 8 ohms nominal impedance; dual 8-in woofers and Piezo electric tweeter; frequency response 50-30,000 Hz ±3 dB; sensitivity 91 dB SPL/W/m; 8-ohm impedance; vinyl clad or walnut veneer finish; available in kit form; 23" H X 13" W x 11" D. | $199

ACUTEX

4.2 Speaker System
Two-way floor-standing speaker system with 10-in Perfect Piston™ woofer, long throw voice coil, heavy magnet, 3-in cone dome tweeter, and Passive Reflex™, frequency response 35-20,000 Hz; sensitivity 99 dB SPL/W/m; 8-ohm nominal impedance; crossover at 1500 Hz; efficiency 92 dB SPL/W/m; 8 ohms; sensitivity 99 dB SPL/W/m; 8 ohms nominal impedance; dual 8-in woofers and Piezo electric tweeter; frequency response 50-30,000 Hz ±3 dB; sensitivity 91 dB SPL/W/m; 8-ohm impedance; vinyl clad or walnut veneer finish; available in kit form; 23" H X 13" W x 11" D. | $199

CVA-15 Speaker System
Similar to CVA-12 except floor-standing speaker system with frequency response 42-15,000 Hz ±3 dB; sensitivity 91 dB SPL/W/m; 8 ohms nominal impedance; walnut finish with removable black grille; 21½" H X 12½" W x 10½" D. $215

CVA-15 (WK) Kit. | $185

91 -dB SPL/W/m; input range 10-100 W; 8-ohm impedance, wal-

CVA-18 Speaker System
Three-way bookshelf speaker system with 10-in woofer with acoustically transparent knit fabric mounted on removable frame; solid-walnut molding, 12" H x 8" W x 5½″ D. $299

CVA-19 Speaker System
Three-way floor-standing speaker system with 12-in woofer, two 6-in midrange drivers, and super tweeter; frequency response 42-15,000 Hz ± 4 dB; crossovers at 400 and 4000 Hz; recommended input range 20-200 W; maximum 1000 W continuous; 8 ohms; sensitivity 96 dB SPL/W/m; 4-ohm impedance; walnut veneer finish; available in kit form; 44" H x 12½" W x 12½" D. $599

CVA-19 (WK) Kit. | $499

CVA-18 Speaker System
Two-way floor-standing speaker system with 12-in woofer with acoustically transparent knit fabric mounted on removable frame; solid-walnut molding, 12" H x 8" W x 5½″ D. $299

CVA-19 (WK) Kit. | $499

CVA-12 Speaker System
Two-way bookshelf speaker system with 10-in woofer with acoustically transparent knit fabric mounted on removable frame; solid-walnut molding, 12" H x 8" W x 5½″ D. $299

L710 (II) Speaker System
Three-way acoustic suspension speaker system with two 7-in high-compliance woofers, 2-in soft-dome midrange, and 3½-in soft-dome tweeter; frequency response 40-23,000 Hz ± 3 dB; crossovers at 550 and 4000 Hz (12 dB/octave); efficiency 93 dB SPL/W/m; input range 15-150 W continuous; 6-ohm nominal impedance; selected natural walnut finish with removable black grille; 23½" H X 14½" W x 11½" D. $370

L630 Speaker System
Three-way floor-standing acoustic suspension speaker system with 1-in long-throw woofers and 1-in soft-dome tweeter; frequency response 33-20,000 Hz ± 3 dB; crossovers at 650 and 4000 Hz; efficiency 91 dB SPL/W/m; recommended input range 20-200 W; 8-ohm nominal impedance; walnut veneer finish with removable black grille; 21½" H x 14½", W x 11½" D. $285

L620 Speaker System
Two-way acoustic suspension speaker system with 8-in high-compliance long-throw woofer; frequency response 35-20,000 Hz ± 3 dB; crossover at 1500 Hz (12 dB/octave); efficiency 91 dB SPL/W/m; input range from 150-150 W; 8-ohm nominal impedance; walnut veneer finish with removable black grille; 21½" H X 12½" W x 10½" D. $150

300 Miniature Speaker System
Two-way miniature acoustic suspension speaker system with 5½-in high-compliance ultra-long excursion woofer and 1-in soft-dome tweeter; frequency response 68-20,000 Hz ± 3 dB; crossover at 2500 Hz (12 dB/octave); efficiency 90 dB SPL/W/m; input range 30 W continuous, min. input 5 W continuous; 4-ohm impedance, brushed satin finish; aluminum enclosure (black or silver anodized) with aluminum grille; 8½" H X 5½" W x 5½" D. $300C. Same as 300; includes quick-disconnect swivel bracket and all hardware for car installation surface mounting; 8½" H X 5½" W x 5½" D. $150

200 Miniature Speaker System
Two-way miniature acoustic suspension speaker system with 4-in high-compliance ultra-long excursion woofers, 1-in soft-dome tweeter; frequency response 85-20,000 Hz ± 3 dB; crossover at 2500 Hz (12 dB/octave); efficiency 90 dB SPL/W/m; input range 30 W continuous, min. input 5 W continuous, 4-ohm impedance, brushed satin finish; aluminum enclosure (black or silver anodized) with aluminum grille; 6½" H X 4½" W X 4½" D. $113

200C. Same as 200 except includes swivel bracket and all accessories for car installation surface mounting; 6½" H X 4½" W x 4½" D. $118

L420 Speaker System
Two-way acoustic suspension speaker system with 7-in high-compliance woofer and 1-in soft-dome tweeter, frequency response 40-20,000 Hz ± 3 dB; crossover at 1500 Hz (12 dB/octave); efficiency 91 dB SPL/W/m; input range 750-7500 W continuous; 8-ohm nominal impedance; walnut veneer finish with removable black grille; 20" H x 11½" W x 8½" D. $115

ADVANCE SPEAKER KORP
A-11 Speaker System
Two-way speaker system with 8-in long-throw woofers, 10-in low-frequency cone radiators.
Introducing the Avid Model 110 Minimum Diffraction Loudspeaker.


Utilizing the innovative design techniques which have made our revolutionary line of loudspeakers so popular, Avid introduces a compact Minimum Diffraction Loudspeaker for less than $150.

Its performance characteristics are so superior for the price, that the Model 110 establishes a reference standard that challenges comparison.

Overall system response (48 Hz to 20 kHz ±3 dB) is truly exceptional for a speaker in this price range, and few loudspeakers in its class offer 88 dB efficiency along with 100-watt power handling capability.

Avid builds its own drivers to meet the specific design objectives of each system, and the Model 110 is no exception.

Power handling of the 1-inch soft dome tweeter is achieved with a design incorporating magnetic fluids and a high-temperature voice coil. Avid’s proprietary cone treatment techniques enable the 8-inch woofer to roll off mechanically, eliminating the need for an electronic crossover.

The Model 110 is a totally integrated design yielding a level of performance usually found only in the most expensive loudspeaker systems.

Audition the Model 110 and other Avid Minimum Diffraction Loudspeakers at your Avid dealer.
V-II Speaker System

Two-way speaker system with 8-in long-throw woofer and 1-in soft dome tweeter; frequency response 30-20,000 Hz ±4 dB; crossover at 2000 Hz; sensitivity 90 dB/W/m; input range 15-100 W continuous; impedance 6-8 ohms; tweeter level control; oiled walnut or walnut vinyl cabinet with knit grille; 26"x14"x14" W x 10" D D. $189

ADVENT

Powered Advent Loudspeaker

Two-way acoustic-suspension, baffled powered speaker system; input sensitivity adjustable up to 0.3 V; input impedance 100,000 ohms; continuously variable equalization controls below 100 Hz (±6 dB at 30 Hz) and above 3000 Hz (±4 dB at 10,000 Hz); switchable subsonic filters; crossover frequency 1500 Hz; walnut veneer finish with walnut front molding and brown grille cloth; requires 120-V ac, 450 W max.; 28"x14"x14" W x 11½" D. $499

New Advent Loudspeaker

Sealed enclosure, two-way bookshelf system with 12-in woofer and 2-in impregnated-paper-cone tweeter; frequency response 20-15,000 Hz ±3 dB; crossover at 1500 Hz; tweeter control; 8-ohm impedance; min. input 15 W continuous; wall (hardware included); walnut-veneer high-density slope; 52 Hz resonance; 8-ohm impedance; min. input 15 W; crossover 12 dB/octave; sensitivity 92 dB/W/m; max. input 30 W; 8-ohm impedance; walnut finish with removable cloth grille; 25½"H x 14½" W x 11½" D. $179

Advent/1 Speaker System

Sealed acoustic-suspension two-way bookshelf system; frequency response 20-15,000 Hz ±5 dB; 8-ohm impedance; min. input 15 W continuous; vocal-cone woofers, air-core choke, and nonpolarized computer-grade capacitors; features three-position control switch for selection of system acoustic power response (flat to 12 dB/octave); crossover at 1200 Hz; 8-ohm; 1%-octave response up to 800 Hz; crossover 12 dB/octave; sensitivity 92 dB/W/m; max. input 30 W; 8-ohm impedance; 19"H x 11½" W x 6½" D. $120

Walnut enclosure. $135

Advent/4 Speaker System

Two-way acoustic-suspension bookshelf speaker system; sold only in matched pairs due to symmetry; offset placement of tweeters left and right of respective woofers; frequency response 40-10,000 Hz; min. input 15 W/8Ω; 8-ohm impedance; oiled walnut grain cabinet; 18½"H x 11" W x 8½" D. $189 pr.
Now a speaker system so advanced you don’t need a “listening position.” BIC introduces SoundSpan. The first loudspeaker design capable of those ideals that conventional approaches could never achieve. A design that creates a single-point sound source that is absolutely phase coherent, with totally uniform polar response at all frequencies, and perfect 360° dispersion. That’s Total Power Radiation. And the result almost defies description. Walls, floor and ceiling are replaced with musical presence. Sound doesn’t come “from” the speakers. It’s just there, live and real — unaffected by speaker placement or listening position. For complete details simply write BIC AVNET, Dept. S, Westbury, New York 11590. The new SoundSpan Speaker Systems.
Santana II Speaker System
Two-way floor-standing vented enclosure with 12-in bass driver and 5-in cone midrange; crossover at 2500 Hz; 8-ohm impedance; frequency response 40-20,000 Hz; max. power 45 W; operational power range 15 to 200 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; 25¾" H x 19¾" W x 16½" D $300

Model 7 II Bookshelf Speaker
Three-way system with 12-in bass driver, 6½-in cone midrange, and 4-in cone tweeter; crossovers at 850 H and 8000 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; 25½" H x 16½" W x 14½" D $259

AS-1 Speaker System
Two-way speaker system with 8-in woofer and 3-in cone tweeter; frequency response 40-20,000 Hz ±3 dB; max. input 150 W; min. input 15 W; sensitivity 88 dB SPL/W/m; input range 5-45 W; 8-ohm impedance; walnut veneer cabinet with detachable brown grille; 22" H x 13½" W x 8½" D $190 pr.

A-400XL Speaker System
Four-way floor-standing speaker system with 8-in woofer, 2-in subwoofers, two 2½-in midranges, and two 1½-in tweeters; 180° horizontal dispersion and 90° vertical dispersion; frequency response 28-20,000 Hz; input range 10-200 W; crossovers at 150, 2000, 10,000 Hz; sensitivity 90 dB SPL/W/m; 8-ohm nominal impedance; walnut veneer finish with removable black fabric grille; 41½" H x 17¼" W x 10¼" D $360

A-200XL Speaker System
Four-way floor-standing speaker system with 13-in high-compliance woofer, 4½-in midrange (in separate subchamber), two 2½-in tweeters, and 1¾-in high-dispersion tweeter; frequency response 40-20,000 Hz ±3 dB; input range 10-100 W; dispersion 120° horizontal and 90° vertical; frequency response 10-175 W; dispersion 120° horizontal and 90° vertical; crossovers at 4000 and 8000 Hz; sensitivity 90.5 dB SPL/W/m; 8-ohm impedance; midrange and tweeter level controls; walnut-grain vinyl finish with black grille cloth; 24½" H x 12½" W x 11¼" D $207 pr.

Model 3 II Speaker System
Two-way speaker system with 10-in woofer and 4¼-in frame cone tweeter; frequency response 50-20,000 Hz; crossover at 1500 Hz; recommended input range 10-100 W; sensitivity 90.5 dB SPL/W/m; 8-ohm nominal impedance; vented enclosure; hand-rubbed oiled black knit fabric grille mounted on removable frame; 24½" H x 12½" W x 11¼" D $200

Model 1 II Bookshelf Speaker
Two-way speaker system with 8-in bass driver and 4-in cone tweeter; crossover at 3000 Hz; response 45-20,000 Hz; crossover at 1500 Hz; recommended input range 10-100 W; sensitivity 91.5 dB SPL/W/m; 8-ohm nominal impedance; vented enclosure; hand-rubbed oiled-walnut finish with acoustically transparent black knit fabric grille mounted on removable frame; 25½" H x 14½" W x 12½" D $170

Model One II Bookshelf Speaker
Two-way speaker system with 8-in bass driver and 4-in 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; black transparent black knit fabric grille mounted on removable frame; 21½" H x 11¼" W x 10¾" D $99

Model 3 II
Similar to Model One but with 10-in bass driver; 1500-Hz crossover; max. power 35 W; operational power range 10 to 100 W; black grille; 24½" H x 12¼" W x 11¼" D $115

Model 5 II
Similar to Model 3 except 12-in bass driver and two 4½-in cone tweeters; response 45-20,000 Hz; max. power 45 W; power range 12 to 150 W; hand-rubbed oiled-oak-walnut veneer cabinet; 25½" H x 14½" W x 12¼" D $189

AS-4 Speaker System
PhaseMatrix M4 SPEAKER SYSTEM
Four-way speaker system with 12-in woofers, 5½-in cone midrange, and 3½-in cone tweeter; crossover at 3000 Hz; response 35-20,000 Hz ±5 dB; crossovers at 700 and 1500 Hz; sensitivity 97 dB SPL/W/m; input range 5-45 W; 8-ohm impedance; oiled walnut veneer cabinet with detachable brown grille cloth; 22½" H x 13½" W x 8½" D $400 pr.

AS-3 Speaker System
Three-way infinite baffle speaker system with 10-in woofer, 4½-in cone midrange, and 3½-in cone tweeter; frequency response 35-20,000 Hz ±5 dB; crossovers at 1000 and 5000 Hz; sensitivity 97 dB SPL/W/m; input range 5-45 W; 8-ohm impedance; oiled walnut veneer cabinet with detachable brown grille cloth; 22½" H x 13¼" W x 8½" D $230 pr.

AS-2 Speaker System
Three-way speaker system with 8-in woofer, 4½-in cone midrange, and 3½-in cone tweeter; frequency response 40-20,000 Hz ±3 dB; input range 10-100 W; sensitivity 88 dB SPL/W/m; input range 5-45 W; 8-ohm impedance; walnut veneer cabinet with detachable brown grille cloth; 22½" H x 13½" W x 8½" D $220 pr.

PhaseMatrix M2 Speaker System
Two-way speaker system with 5-in polymer cone woofer and 1-in tweeter; frequency response 46-20,000 Hz ±4 dB; max. input 50 W; min. input 15 W; sensitivity 89 dB SPL/W/m; frequency response 32-20,000 Hz; 4-ohm nominal impedance; walnut veneer, lacquer finish with removable black grille; 9¼" H x 6½" W x 7½" D $149

BassMatrix B1 Subwoofer
Subwoofer incorporates 12-in polymer cone woofer with 2½-in aluminum/copper voice coil assembly; frequency response 22-1200 Hz; recommended input range 120-200 W; sensitivity 89 dB SPL/W/m; 4-ohm impedance; walnut veneer finish with black fabric grille; design consists of a compact bookshelf speaker system; 27¼" H x 15¼" W x 11¼" D $279

PhaseMatrix M6 Speaker System
Three-way floor-standing speaker system with 12-in woofers mounted in a bore port; response 35-20,000 Hz ±3 dB; max. input 200 W; min. input 20 W; sensitivity 89 dB SPL/W/m; frequency response 20-20,000 Hz; 8-ohm impedance; walnut vinyl cabinet with black fabric grille; 41½" H x 17¼" W x 10¼" D $399

PhaseMatrix M6 Speaker System
PhaseMatrix M4 Speaker System
Two-way speaker system with 5-in polymer cone woofer and 1-in tweeter; frequency response 40-20,000 Hz ±4 dB; crossover at 2000 Hz; recommended input range 10-75 W; sensitivity 88 dB SPL/W/m; frequency response 32-20,000 Hz; input range 5-45 W; 8-ohm impedance; walnut finish with removable black fabric grille; 21½" H x 12¼" W x 10¾" D $139

AUDIO ANALYST

PHASEMATRIX M4V Speaker System
Two-way floor-standing speaker system with 8-in polymer cone woofer and 1-in tweeter; frequency response 40-20,000 Hz ±4 dB; crossover at 2000 Hz; recommended input range 10-75 W; sensitivity 88 dB SPL/W/m; frequency response 32-20,000 Hz; 8-ohm impedance; walnut finish with removable black fabric grille; 21½" H x 12¼" W x 10¾" D $139

AUDIO LAB

AL-50 Speaker System
Three-way acoustic-suspension speaker system with 12-in woofer, 7-in cone midrange, and 1-in phenolic dome tweeter; frequency response 40-20,000 Hz; crossovers at 300 and 7000 Hz; input range 1Q-140 W continuous power; 8-ohm nominal impedance; three-position tweeter level controls; mahogany finnish with black acoustic front panel; 26.8" H x 17.3" W x 12.6" D $359

AL-40 Speaker System
Three-way passive radiator speaker system with 10-in woofer, 1-in passive radiator subwoofer, 5½-in cone midrange, and 1-in phenolic dome tweeter; frequency response 40-20,000 Hz; crossovers at 800 and 8000 Hz; input range 10-90 W continuous power; 8-ohm nominal impedance; three-position tweeter level control; mahogany veneer finish with black light panel; 25.2" H x 16½" W x 11.2" D $259

AL-30 Speaker System
Two-way passive radiator bookshelf speaker system with 8-in cone woofer, 8-in passive radiator, and 1-in phenolic dome tweeter; frequency response 40-20,000 Hz; crossovers at 800 and 8000 Hz; input range 10-90 W continuous power; 8-ohm nominal impedance; three-position tweeter level control; mahogany veneer finish with black light panel; 22.7" H x 14" W x 9.8" D $159

AL-20 Speaker System
Two-way acoustic suspension bookshelf speaker system with 8-in cone woofer and 1-in phenolic dome tweeter; frequency response 40-20,000 Hz; crossover at 4000 Hz; input range 10-60 W continuous power; 8-ohm nominal impedance; three-position tweeter level control; mahogany veneer finish with snap-on black acoustic front panel; 21.3" H x 11.6" W x 9.1" D $129

Stereophonic Systems

Stereo DIRECTORY & BUYING GUIDE
A4-14 Blamplified Speaker System
Three-way biamplified bass-reflex bookshelf speaker system with two 5-in woofers, 5-in/4-in cone midrange, and 1-in soft dome tweeter; frequency response 20,000 Hz; crossovers at 300 Hz; dist. 0.5% at 86 dB SPL/1米; features four-position speaker placement bass compensation switch, treble control, computer-optimized passive and active crossover filters, sensitivity control (100 mV-50 V range), left/right signal pushbutton, bass-blend button, auto/on pushbutton, and power on/off signal-actuated in automatic mode; walnut or black ash finish; 20'3/4” H x 12" W x 10'/4” D. $1600 pr.

B2-50 Amplified Subwoofer
Connects speaker coil to amplifier electronically; bass-reflex port design with two 6-in/6-in cone drivers with 1/4-in throw-in push-pull arrangement; frequency response 20-200 Hz ± 1.5 dB; dist. 3% at 20 Hz and 1% above 50 Hz; 100 dB SPL/25 ft space/m; sensitivity adjustable 0-100% (96 dB SPL at 50 mV); 150 W power; built-in amplifier, DIN connectors for left and right speaker channels; separate volume and crossover controls; power on/off signal-actuated in automatic mode; walnut or black ash finish; 21" H x 18'/4” W x 4'/4” D.... $795

Satellite/1 Tweeter Module
Designed for use with high-quality 4-ohm speaker systems; incorporates 1-in textile soft dome tweeter; frequency response 40,000 Hz ± 3 dB; input 100 W continuous; continuously variable attenuator level control; system impedance 4 ohms; high-density, non-resonant smoked plexiglass cabinet; 10'/4” H x 8'/4” W x 6”. $90

94-1400 Speaker System
Three-way acoustic suspension speaker system with 12-in woofers; 12-oz ferrite magnet, 1-in aluminium foam multi-rib voice coil, 4-in/4-in hardback midrange, and 1-in phenolic ring tweeter; frequency response 35-20,000 Hz; crossovers at 2500 Hz and 5000 Hz; recommended min. input 8 W; handles 45 W continuous power, 8 ohm impedance; walnut vinyl finish with dark brown grille; 24” H x 17'/4” W x 17'/4”. $62

Model 330 Speaker System
Three-way acoustic suspension floor-standing speaker system with 12-in forward-aligned woofer, 4-in/4-in cone midrange, and 1-in fabric dome tweeter; crossovers at 500 and 6000 Hz; 8-ohm nominal impedance; frequency response 35-20,000 Hz ±3 dB; input range 15-250 Wich continuous (program); two front-mounted midrange and high-frequency balance switch controls; walnut veneer cabinet with dark brown grille, 30'/4” H x 17'/4” W x 10'/4”. $400

Model 102a Speaker System
Three-way bookshelf speaker system with 10-in woofer, 4-in/4-in midrange, and 1-in fabric dome tweeter; crossovers at 475 and 4000 Hz; 8-ohm nominal impedance; frequency response 40-20,000 Hz ±3 dB; input range 15-150 W continuous (program); front-mounted three-position high frequency level control; walnut veneer finish with dark brown grille; 25' H x 15’ W x 10’ D... $225

Model 230 Speaker System
Three-way bookshelf speaker system with 10-in woofer; crossovers at 300 and 5000 Hz; recommended min. input 8 W; handles 100 W continuous power; 8-ohm nominal impedance; walnut vinyl finish with dark brown grille, 21'/4” H x 18'/4” W x 17'/4”. $795

Audiotechnical by Superex
94-1400 Speaker System
Three-way acoustic suspension speaker system with 12-in woofers; 12-oz ferrite magnet, 1-in aluminium foam multi-rib voice coil, 4-in/4-in hardback midrange, and 1-in phenolic ring tweeter; frequency response 35-20,000 Hz; crossovers at 2500 Hz and 5000 Hz; recommended min. input 8 W; handles 45 W continuous power, 8 ohm impedance; walnut vinyl finish with dark brown grille; 24” H x 17'/4” W x 17'/4”. $62

Model 330 Speaker System
Three-way acoustic suspension floor-standing speaker system with 12-in forward-aligned woofer, 4-in/4-in cone midrange, and 1-in fabric dome tweeter; crossovers at 500 and 6000 Hz; 8-ohm nominal impedance; frequency response 35-20,000 Hz ±3 dB; input range 15-250 Wich continuous (program); two front-mounted midrange and high-frequency balance switch controls; walnut veneer cabinet with dark brown grille, 30'/4” H x 17'/4” W x 10'/4”. $400

Model 102a Speaker System
Three-way bookshelf speaker system with 10-in woofer, 4-in/4-in midrange, and 1-in fabric dome tweeter; crossovers at 475 and 4000 Hz; 8-ohm nominal impedance; frequency response 40-20,000 Hz ±3 dB; input range 15-150 W continuous (program); front-mounted three-position high frequency level control; walnut veneer finish with dark brown grille; 25' H x 15’ W x 10’ D... $225

The New ADS L810-II
"radical improvements wouldn’t have been possible..."
**Beovox Phase-Link M-100-2 System**
Four-way bass-reflex floor-standing monitor speaker system with 10-in woofer, 4-in Phase-Link filler driver, 2-in dome midrange, and 1-in dome tweeter; frequency response 50-20,000 Hz ± 2 dB; crossovers at 1000 and 5000 Hz, 8-ohm nominal impedance; power input range 30-500 W/ch; discontinuity ±0.5% at 1 kHz, ±1% at 10 kHz.

**SM-260 Speaker System**
Geostatic four-way speaker system with 12-in woofer, 4-in midrange, and compression midrange; crossover frequencies at 1000, 4000, and 10,000 Hz; sensitivity 91 dB SPL/W, 92 dB SPL/4 ft, 96 dB SPL/6 ft; 8-ohm nominal impedance; maximum input power 150 W, continuous; recommended amplifier power 300 W, maximum input power 1000 W.

**BETA SOUND**

**065 Speaker System**
Three-way floor-standing speaker system with 12-in moderate compliance woofer, 10-in Beta horn and compression midrange, and compression driven horn tweeter; 140° bass dispersion, 80° mid dispersion, 50° high dispersion; frequency response 38-18,500 ± 3 dB, crossovers at 600 and 5500 Hz; recommended input range 15-150 W/ch, sensitivity 90 db SPL/4 ft, 8-ohm nominal impedance, ±2 dB midrange control; hand crafted tuned port bass reflex optional riser cabinet with walnut veneer finish and acoustic foam grille, 25.5" H x 17" W x 14" D.

**Beveridge Cylindrical Sound System 25W-2**
Incorporates direct-coupled amplifier, full-range electrostatic transistor with two specially matched dynamic subwoofers, lens, and 12-ft vertical line source enclosure aperture, optimized electrostatic speakers for 100-200,000 Hz range; dynamic subwoofers for 20-100 Hz; supplied with Beveridge Control Module with spectrum control knob, bass environmental control, and lateral stereo control; frequency response 20-20,000 Hz ± 3 dB; crossover frequency at 100 Hz; subwoofer power supplied by separate enclosed solid-state amplifiers; oiled walnut finish with black foam grille, 78" H x 24" W x 15" D.

**Sound Span TPR 600 Speaker System**
Three-way floor-standing speaker system with total power output comprised of completely-aligned integrated 12-in horn-loaded woofer and matched horn-loaded compression midrange, and compression driven horn tweeter; sensitivity 93 dB/W/m; max. input 130 W continuous music power; impedance 8-ohms; walnut veneer cabinet with transparent black finish, 32" H x 15" W x 15" D.

**Blackmax Systems**

**B5O Speaker System**
Four-way bass-reflex floor-standing speaker system with 10-in woofer, 10-in sub-bass radiator, 5-in

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**Model 80a Speaker System**
Two-way air-suspension bookshelf speaker system with 8-in woofer and 1½-in cone tweeter; crossover at 3000 Hz (12 dB/octave); 8-ohm nominal impedance; frequency response 55-17,000 Hz ±3.5 dB, input range 8-60 W continuous (program), walnut vinyl cabinet with dark brown grille cloth; 13½" H x 12" W x 8½" D.

**D280w Sound Module Speaker System**
Four-way speaker system featuring four separate polymer diaphragms 3400 in³ total radiating surface to disperse sound 360° x 360° degrees; frequency response 30-20,000 Hz; 12 W efficiency for 96 db SPL, 8-ohm nominal impedance; power input range 30-250 W/ch; frequency response 1000, 4000, and 10,000 Hz, 40°/s H x 26° W x 3½" D.

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**Junior System 3**
Full-range electrostatic transducer; 6-ft vertical line source enclosure aperture; crossover frequency 250 Hz; 8-ohm impedance; frequency response from 20-20,000 Hz ± 3.5 dB; 50 W min. input; sensitivity 86 dB SPL at 1-W input from 100-1000 Hz; oiled walnut finish with black foam grille, 72" H x 17" D.
midrange in "DiMaxTM" coupling chamber and 1-in soft dome tweeter; crossovers at 65, 1250, and 4500 Hz; 8-ohm nominal impedance; frequency response 40-20,000 Hz ±3 dB; efficiency 89 dB/W/m; input range 10-20 W; low-diffraction column design; walnut top and black cloth wrap-around grille; optional base; 50 H x 12" W x 12" D... $330

B40 Speaker System
Three-way bass-reflex floor-standing speaker system with 10-in woofer, 5-in midrange in "DiMaxTM" coupling chamber, and 1-in soft dome tweeter; crossovers at 1250 and 4500 Hz; 8-ohm nominal impedance; frequency response 50-20,000 Hz ±3 dB; efficiency 88 dB/W/m; input range 10-150 W; walnut top and black cloth wrap-around grille; optional base; 38 H x 12" W x 12" D... $250

B30 Speaker System
Two-way bass-reflex floor-standing speaker system with 10-in woofer and 1-in soft dome tweeter; crossover at 2800 Hz; 8-ohm nominal impedance; frequency response 50-20,000 Hz ±4 dB; efficiency 89 dB/W/m; input range 10-100 W; walnut top and black cloth wrap-around grille; optional base; 26 H x 12" W x 12" D... $170

BML
Tracer 2001 Sound Odyssey
Four-way floor-standing column speaker system with 8 1/4-in woofer, two staggered-response Bextrene ABRs, and two bimorph rear-sealed VHF drivers; frequency response 24,220,000 Hz ±6 dB/4 dB; textured black acryllic with oiled-walnut finish and base (white lacquer case and rosewood racks and base optionally priced)... $879

Tracer 1501 Sound Rack
Bifurcated transmission line speaker system has two 1 1/4-in inverted-apex direct radiators, 4 1/4-in bextrene ABR, 5-in bextrene midrange; frequency response 29-22,000 Hz; input range 30-200 W/120 Hz; continuously adjustable mid-bass and high-frequency contour slider with center detent provides +3/-5 dB adjustment over band of 80-260 Hz; "Below contour slider with center detent provides +3/-5 dB adjustment over band of 80-260 Hz; "Below

Tracer 1000 Sound Window
Three-way sealed column speaker system featuring DualPhase coupling with 7-in bextrene ABR, 7 1/4-in lightweight woofer, and lead-zincate, lead-titanate bimorph VHF driver; input range from 20-200 W continuous; black acrylic with oiled-walnut sides and base with ebony grille... $499

Tracer 1001 Sound Window
Two-way floor-standing planar column speaker system with 8-in ABR and lead-zincate, lead-titanate bimorph VHF driver; dual phase coupling of main drivers; frequency response 30-20,000 Hz ±3 dB; max. input 200 W continuous; min. input 25 W continuous; finished in black acrylic with natural oiled walnut sideand base with ebony grille... $349

Tracer 701 Sound Ends
Vented transmission line loading speaker system with 4 1/4-in free piston bextrene ABR, 1 1/4-in chemically-damped direct radiating VHF driver; frequency response 30-40,000 Hz; input range 20-200 W/4 dB; oiled walnut finish with ebony grille; 18 1/4 H x 19" W x 5 1/4 D... $249

Model Eleven Speaker System
Speaker system has 7 1/4-in biaxial ABR with rubber surround, 10-in passive radiator, and 2-in edge-damped direct radiator; frequency response 28-22,000 Hz; input range 20-200 W/4 dB; textured black acryllic with oiled-walnut finish and base; 33 H x 20" W x 5 1/4 D... $349

Model Seven Speaker System
Speaker system has 4 1/4-in free piston bextrene ABR, 1 1/4-in chemically-damped direct radiating VHF driver; frequency response 30-40,000 Hz; input range 20-100 W/4 dB; black acryllic finish (oak finish additional); 15" H x 8 1/2" W x 8 1/2 D... $130

BOSE
901 Series IV Speaker System
Direct/reflexing floor-standing speaker system with Active Equalizer. Eight rear-facing and one front-facing matched full-range speakers; min. input 10 W; 8-ohm impedance; cabinet utilizes injection molded core with particle board external panels and walnut veneer finish. Active Equalizer: continuously adjustable high-frequency contour slider with center detent provides shelving with range of +3/-5 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 contour slider with center detent provides +3/-5 dB adjustment over band of 80-260 Hz;

501 Speaker System
Direct/reflexing speaker system with 10-in woofer and two 3 1/2-in tweeters; crossover at 1500 Hz; min. input 15 W/120 Hz continuous, max. input 100 W/120 Hz continuous, 4-ohm impedance; walnut-grain vinyl finish cabinet; sold only in stereo pairs; 24 1/4 H X 14 1/4 W X 14 1/4 D... $213/unit

301 Speaker System
Direct/reflexing bookshelf speaker system with 8-in woofer and 3-in tweeter; woofer transition frequency 3000 Hz, tweeter transition frequency 1200 Hz; min. input 10 W/120 Hz continuous, max. input 60 W/120 Hz continuous, 8-ohm impedance; particle board cabinet with walnut-grain vinyl veneer finish; sold only in stereo pairs; 10 1/2 H X 17W X 9 1/2 D... $121/unit

Interaudio 1 Speaker System
Two-way bookshelf speaker system with 6-in high-compliance long-exursion woofers and 2-in wide-dispersion cone tweeter; input range 10-60 Hz; 8-ohm impedance; sold only in stereo pairs; 14" H X 9 1/4 W X 7 D... $84/unit

BOZAK
CS-310B Concert Grand Contemporary
Incorporates four B-199B woofers, two B-209B midrange speakers, and eight tweeters in vertical column for uniform dispersion; frequency response 28-20,000 Hz; 8-ohm impedance; max. input 150 W; min. input 60 W; matte walnut enclosure; 52" H X 36" W X 19 D... $1260 CS-410CL Same as CS-310B with Classic cabinet; $1350 CS-410M. Same as CS-310B except Moorish styling; $1375

Symphony No. 1 CS-4000A Modern
Infinite-baffle, three-way floor-standing system incorporating two 12-in woofers, 6 1/4-in midrange, and eight 2-in tweeters in vertical column; frequency response 35-20,000 Hz; at crossovers at 400 and 2500 Hz at 6 dB/octave; 8-ohm impedance; max. input 150 W program; walnut enclosure; 44" H X 26 1/4 W X 15 1/2 D... $750 CS-4000 CL Same as CS-4000A with Classic styling; $860 CS-4000M. Same as CS-4000A with Moorish styling; $890 CS-4000SA Same as CS-4000A except low-boy enclosure; 27 1/2 H X 36" W X 20 1/2 D $750
Concerto VII CS-501A Speaker System
Three-way floor-standing system with 12-in high-compliance bass driver, 6½-in midrange, and three tweeters mounted in arc array for improved dispersion; frequency response 40-20,000 Hz; crossover at 800 and 2500 Hz at 6 dB/octave; 8-ohm impedance; max. input 60 W program; 30° H x 20½” W x 16” D ........................................................................ $450

LS-400 Speaker System
Three-way floor-standing speaker system with 12-in woofer, 6-in midrange, and two tweeters; frequency response 40-20,000 Hz; 8-ohm impedance; power input range 20-80 W; phase corrected crossovers 6 dB/octave at 800 and 2500 Hz; three-position brightness switch; walnut veneer cabinet with slide-out grille; 25” H x 18” W x 13” D ........................................................................ $300

LS-300 Speaker System
Three-way phase-coherent speaker system with woofer in self-contained enclosure, midrange, and aluminum-sectioned tweeter; frequency response 32-18,000 Hz ± 3 dB; crossovers at 350 and 3500 Hz; input 150 W, 200 W above 100 Hz; impedance 4 ohms min.; walnut finish; 26½” H x 17” W x 12¾” D ........................................................................ $260
Teak finish ........................................................................ $270
Ebony finish ........................................................................ $280

Celestovox DS-1207 Speaker System
Floor-standing two-way speaker system; utilizes room sound-reflecting surfaces; high frequency roll-off control; 8-ohm impedance; max. input 70 W program; walnut veneer styling; 30” H x 15½” W x 15” D ........................................................................ $215

LS-2500 Speaker System
Three-way bookshelf speaker system with 12-in woofer, 4-in midrange, and 2-in tweeter; frequency range 45-20,000 Hz; 8-ohm nominal impedance; power input range 20-80 W; phase-corrected crossovers 6 dB/octave at 800 and 2500 Hz; walnut-grain vinyl finish with removable grille; 23” H x 15” W x 12” D ........................................................................ $195

B-1002 Bard Outdoor Speaker
Two-way all-weather speaker system with B-800 wide-range driver and coaxially mounted B-2002 tweeter; 8-ohm impedance; uses jack and plug connector ........................................................................ $159

SM-1004 Speaker System
Three-way floor-standing speaker system with 9½-in cone woofer, 2-in dome midrange, and 0.75-in dome tweeter; crossovers at 500 and 3000 Hz, 12 db/octave; 8-ohm impedance, frequency response 25-25,000 Hz, 80 W continuous, max. 140 W; walnut veneer with black aluminum grille; 18.9” H x 10.53” W x 9” D ........................................................................ $758 pr.

SM-1003 Speaker System
Three-way floor-standing speaker system with 8.3-in cone woofer, 2-in dome midrange, and 0.75-in dome tweeter; crossovers at 500 and 4000 Hz, 12 db/octave; 8-ohm impedance; frequency response 28-25,000 Hz; 8-ohm impedance; walnut veneer with black aluminum grille; 15.9” H x 9.25” W x 8.26” D ........................................................................ $678 pr.

SM-1002 Speaker System
Three-way floor-standing speaker system with 6.9-in cone woofer, 2-in dome midrange, and 0.75-in dome tweeter; crossovers at 500 and 4000 Hz, 12 db/octave; 8-ohm impedance; frequency response 35-25,000 Hz; input range 10-50 W; black matte finish; 10” H x 6½” W x 6½” D ........................................................................ $429 pr.

LW-1 Subwoofer
Stereo subwoofer with built-in passive two-way crossover that permits level matching between satellites and subwoofer; uses two 10-in drivers in acoustic suspension format; frequency response 18-200 Hz; 8-ohm impedance; handles 100 W continuous power, max. power 140 W; 12½” H x 27½” W x 27¼” D ........................................................................ $700 ea.
Oak or rosewood finish ........................................................................ $750 ea.

BURHOO ACOUSTICS

The Burhoo Silver
Four-way speaker system with 10-in woofer and three 1½-in and one 1½-in inverted dome tweeters; tuned port enclosure; crossover frequencies at 1000, 2000, and 5000 Hz; sound pressure level 91 dB, 31½” H x 22½” W ........................................................................ $500

Intra-Red Subwoofer
Dual 10-in subwoofer with 10-in passive radiator and passive crossover; frequency response 25-100 Hz; walnut veneer finish; 30” H x 18½” W x 14” D ........................................................................ $425

The Royal Blue
Four-way speaker system with 10-in woofer, 1-in bi-radial tweeter, 1-in bi-radial upward-firing recessed tweeter, and 2-in converted midrange; frequency response 30-25,000 Hz; crossovers at 1000 and 2000 Hz; input range 10-100 W/ch; sensitivity 94 dB SPL/W/m; 8-ohm impedance; walnut veneer finish; 30½” H x 18” W x 11½” D ........................................................................ $400

The Burhoo Blue
Three-way speaker system with 10-in woofer, 1½-in midrange, and 1½-in bi-radial tweeter; tuned port enclosure; crossovers at 900 and 1800 Hz; three-position tweeter level control; walnut veneer cabinet; 24½” H x 14½” W x 10½” D ........................................................................ $275

The Burhoo Light Blue
Two-way speaker system with 10-in woofer and 1½-in inverted dome tweeter; tuned port enclosure; crossover frequencies at 1500 Hz; sound pressure level 98 dB; 24½” H x 14½” W x 10½” D ........................................................................ $190

The Burhoo White
Two-way speaker system with 10-in woofer and 1½-in bi-radial tweeter; tuned port enclosure; crossover at 1500 Hz; walnut veneer cabinet; 22” H x 13½” W x 10” D ........................................................................ $180

The Burhoo Green
Two-way speaker system with 8-in woofer and 1.5-in "Felted-Dome" tweeter; tuned port enclosure; midrange control switch; crossover at 1 kHz; 11” H x 12½” W x 10” D ........................................................................ $140

The Super Crimson
Two-way speaker system with 4-in woofer and 1-in inverted dome tweeter; frequency response 52-16,000 Hz; crossover at 2500 Hz; input range 8-40 W; sensitivity 89 dB SPL/W/m; 8-ohm impedance; push terminals; walnut vinyl cabinet; 12½” H x 8½” W x 7½” D ........................................................................ $99

B & W by ANGLO AMERICAN

801 Speaker System
Three-way vertical line speaker system with 270-mm thermo-plastic cone long-throw woofer, 100-mm aromatic polyamid-fiber dome midrange, and 26-mm multi-filament polyester-wove dome tweeter; frequency response 45-20,000 Hz ± 2 dB; dispersion 60° ± 3 dB horizontal, 10° ± 1 dB vertical; min. input 50 W; black nylon finished; presents 85 dB SPL/W/m at 300 Hz; midrange and tweeter level control; teak or walnut finish ........................................................................ $1250

DM6 Speaker System
Three-way floor-standing linear phase speaker system with 224-mm cone woofer, 131-mm cone midrange, and 19-mm voice coil with dome-formed polyester-wove tweeter; frequency response 50-20,000 Hz ± 3 dB; crossover at 500 and 5000 Hz; input range 25-350 W continuous; 8-ohm nominal impedance; sensitivity 95 dB SPL/7-6 W/m; contour controls for high and mid frequencies; walnut, teak, or black ash finish; black nylon finished; cast alloy speaker stands 7-in high; 36½” H x 16½” W x 15” D ........................................................................ $695
Rosewood or satin white finish ........................................................................ $825

DM2/II Speaker System
Three-way speaker system with 200-mm bextrene cone woofer, 100-mm isolated bextrene cone midrange, and 25-mm multi-filament polyester dome tweeter; frequency response 50-18,000 Hz ± 3 dB; dispersion 40° ± 2 dB horizontal, 10° ± 1 dB vertical; input range 25-100 W continuous; walnut, teak, or black ash finish; 18½” H x 13” W x 13” D ........................................................................ $425
Rosewood or satin white finish ........................................................................ $480

DM4 Speaker System
Three-way speaker system with 164-mm cone woofer, 34-mm midrange, and 19-mm voice coil; frequency response 80-20,000 Hz ± 5 dB; crossover at 2000 and 14,000 Hz; input range 10-30 W continuous; sensitivity 95 dB SPL/4-8 W/m; 8-ohm nominal impedance; walnut, teak, or black ash finish; 21½” H x 14½” W x 14½” D ........................................................................ $315

DM5 Speaker System
Two-way speaker system with 140-mm cone woofer, 100-mm high frequency voice coil; frequency response 100-20,000 Hz ± 5 dB; crossover at 4500 Hz; input range 10-25 W continuous; sensitivity 95 dB SPL/6-8 W/m; 8-ohm nominal impedance; walnut, teak, or black ash finish; 18½” H x 10” W x 9½” D ........................................................................ $169
Rosewood or satin white finish ........................................................................ $195

CANNON

1232T Speaker System
Three-way tower speaker system with 12-in cone woofer, 12-in passive radiator, 5-in cone midrange, and 2 x 5-in piezo electric tweeter; frequency response 20-30,000 Hz; crossover at 1000 and 5000 Hz; input range 18-175 W continuous; sensitivity 92.0 dB SPL/W/m; 5-ohm nominal impedance; midrange and tweeter level controls; 3½” H x 14¼” W x 14½” D ........................................................................ $499
1232. Similar to 1232T except frequency response 23-30,000 Hz; input range 15-150 W continuous; 25½” H x 14½” W x 14” D ........................................................................ $399
1032. Similar to 1232 except 10-in speaker system; frequency response 25-25,000 Hz; input range 12.120 W continuous; sensitivity 90.5 dB SPL/W/m $299

1022 Speaker System
Two-way speaker system with 10-in cone woofer, 2-in cone tweeter with 5-ohm, and 2%-tuned port low frequency support system; frequency response 30-20,000 Hz; input range 10-90 W continuous; sensitivity 90.5 dB SPL/W/m; 5-ohm nominal impedance; tweeter level control; $199

1032. Similar to 1232 except 10-in speaker system with 10 -in woofer system continuous; sensitivity 90.5 dB SPL/2.9 W pink noise at 1 m; input range 20-120 W; 8-ohm impedance; available in oiled American walnut or elm finish; 41/4" H x 15/8" W x 11 1/4" D $450

CLESTION

Diton 662 Speaker System
Three-way floor-standing speaker system with 12 -in quasi-Butterfly fiber cone woofer with 1.9-in glass fiber voice coil and barium ferrite magnet, 12.9-in quasi-Butterworth fiber cone woofer with 0.98-in voice coil, and hot pressed polyethylene terephthalate polymer tweeter with 0.75-in polyamide impregnated voice coil; frequency response 38-20,000 Hz +3 dB; crossovers at 700 and 4500 Hz; sensitivity 90 dB SPL/2.9 W pink noise at 1 m; input range 20-120 W; 8-ohm impedance; available in black metal, or matte white with silver metallic removable grille; 13 3/4" H x 21 6/10" W x 11 1/4" D $199

Diton 551 Speaker System
Three-way floor-standing speaker system with 11.4-in quasi-Butterfly fiber cone woofer with 0.98-in voice coil and barium ferrite magnet, P.V.C. impregnated cellulose fiber woven soft dome midrange, and hot pressed polyethylene polymer tweeter with 0.75-in polyamide impregnated voice coil; midrange and treble level controls; frequency response 38-20,000 Hz; crossovers at 600 and 4500 Hz; input range 20-140 W; sensitivity 90 dB SPL/3.25 W pink noise at 1 m; 8-ohm impedance; available in oiled American walnut, elm, or black ash finish; 28 1/4" H x 15 1/4" W x 13 D $500

Gamma 800 Speaker System
Three-way speaker system with 8-in woofer, 1.18-in dome midrange, and 1/4-in hemispherical dome tweeter; frequency response 38-20,000 Hz -±4 dB; crossovers at 800 and 2200 Hz; 8 ohm impedance; nominal impedance; frequency response 38-20,000 Hz -±4 dB; crossover at 600 and 4500 Hz; min. input 20 W; max. input 150 W; 8 ohm impedance; response 28-20,000 Hz -±4 dB; crossovers at 500 and 4000 Hz; sensitivity 102 dB/W/m; max. input 150 W continuous. $499

Diton 442 Speaker System
Three-way floor-standing speaker system with 12-in plasticized fiber cone woofer with 1.8-in high temperature polyamide voice coil and barium ferrite magnet, 5.1-in plasticized paper cone midrange with 0.98-in voice coil, and hot pressed polyethylene terephthalate polymer tweeter with 0.75-in polyamide impregnated voice coil; frequency response 45-20,000 Hz +3 dB; crossovers at 600 and 4500 Hz; sensitivity 90 dB SPL/2.9 W pink noise at 1 m; input range 20-120 W; 8-ohm impedance; oiled American walnut, elm, or black ash finish; 30 "H x 15 1/2" W x 11 1/4" D $420

Diton 33 Speaker System
Three-way speaker system with 12-in woofer, 5-in cone midrange, and 1-in dome tweeter; frequency response 50-20,000 Hz +4 dB; crossovers at 500 and 5000 Hz; min. input 10 W; max. input 80 W; 8-ohm impedance; walnut or teak cabinet; 24" H x 14" W x 11" D $320

ULS Speaker System
Two-way speaker system with 6-in woofer, 6-in passive radiator, and 1-in dome tweeter; frequency response 70-20,000 Hz +4 dB; crossover at 2500 Hz; 8-ohm impedance; max. input 20 W; maximum input 60 W; 8-ohm impedance; walnut or teak cabinet; 12" H x 16" W x 9 D $235

Diton 15X Speaker System
Two-way speaker system with 8-in woofer, 8-in passive radiator, and 1-in dome tweeter; frequency response 60-20,000 Hz +4 dB; crossover at 2500 Hz; min. input 10 W; max. input 60 W; 8-ohm impedance; walnut or teak cabinet; 21" H x 10" W x 9 D $200

CERWIN-VEGA

316R Speaker System
Three-way floor-standing speaker system with 15-in woofer, 6-in cone-sealed midrange, 1-in voice coil horn accent tweeter, and 1-in rear-reflecting accent tweeter; frequency response 30-17,000 Hz ±4 dB; crossovers at 500 Hz and 3500 Hz; sensitivity 103 dB/W/m; max. input 150 W continuous; 8-ohm impedance; midrange, tweeter, and rear tweeter controls $499

12TR Speaker System
Three-way floor-standing tower speaker system with 12-in floor-facing woofer, 6 1/4-in cone-sealed midrange, 1-in SuperDihrm tweeter, and rear-reflecting 1-in voice-coil horn accent tweeter; frequency response 28-20,000 Hz ±4 dB; crossovers at 250 and 4000 Hz; sensitivity 102 dB/W/m; max. input 125 W continuous $125

BRAUN L200

Plenty. If the name is Braun. Worldwide, the name Braun is synonymous with museum quality design and flawless performance. Therefore, it's hardly surprising that when Braun created the first high performance miniaturized speaker system, it immediately attracted an army of admirers and a host of imitators.

In fact, hardly a week goes by without another "look alike" trying to stake a claim in the market. However, in spite of or, perhaps, because of the sincerity of these flatterers, Braun has gone on to become the standard of reference for miniature loudspeakers. And for a very simple reason... they sound better. Nor is this surprising, for Braun literally created, what amounts to, a new speaker technology. And that cannot be imitated. So, while all the others frantically scramble to catch up, Braun maintains its pre-eminence in the field.

It is this leadership based on superior design, performance and technology that tells you better than anything else, what's in a name. For specifications and the name of your nearest dealer write: Adcom, 11A Jules Lane, New Brunswick, N.J. 08901. Exclusive distributor in the U.S.A. for authentic Braun Audio Products
S-1 Loud Speaker
Three-way bookeeper with 12-in. woofer, 6-in. sealed midrange, and 1-in. horn tweeter; frequency response 28-20,000 Hz; sensitivity 94 dB/W/m; input range 25-60 W continuous; 8-ohm impedance; features Bass Turbocharger and Thermo Vapour Suspension; midrange and tweeter level controls. $313

A-123 Speaker System
Three-way bookshelf speaker system with 12-in. bass, 6-in. sealed-cone midrange, and 1-in. voice coil horn tweeter; frequency response 30-17,000 Hz; crossover at 7000 and 3500 Hz; sensitivity 100 dB/W/m; max. input 100 W continuous; 8-ohm impedance; midrange and tweeter level controls. $330

15-SW Subwoofer
Incorporates 15-in. bass driver; frequency response 30-250 Hz; max. input 300 W continuous; sensitivity 100 dB/W/m; 4-ohm impedance. $600

HED Series

UT-12R Tower Speaker System
Three-way direct-reflecting tower speaker system with 12-in. cast aluminum frame woofer, 20-in. cone midrange drivers (one is rear-reflecting), and 1-in. voice coil horn tweeter; frequency response 32-17,000 Hz; crossover at 7000 and 4000 Hz; sensitivity 98 dB/W/m; input range 5-80 W continuous; 8-ohm impedance; midrange and tweeter level controls. $390

U-351 Speaker System
Three-way floor-standing speaker system with 15-in. cast aluminum frame woofer, 6-in. cone midrange, and 1-in. voice coil horn tweeter; frequency response 32-17,000 Hz; sensitivity 100 dB/W/m, 4-ohm impedance; $375

PM-110 Monitor Speaker
Two-way bass-reflex bookshelf speaker system with 6.5-in. bass/midrange driver and polypoly-acrylonitrile cone and long-throw voice coil and 1-in. soft dome tweeter; frequency response 65-20,000 Hz; 3 dB; crossover at 2500 Hz; sensitivity 86 dB SPL/W/m; input range 10-60 W; 4-ohm impedance;peak, walnut, or black finish; $295

PM-110 Monitor Speaker
Two-way bass-reflex bookshelf speaker system with 6.5-in. bass/midrange driver and polypoly-acrylonitrile cone and long-throw voice coil and 1-in. soft dome tweeter; frequency response 65-20,000 Hz; 3 dB; crossover at 2500 Hz; sensitivity 86 dB SPL/W/m; input range 10-60 W; 4-ohm impedance; peak, walnut, or black finish; $295

2016 STEREO DIRECTORY & BUYING GUIDE
CONCEPT

CEM Speaker System
Two-way passive-radiator floor-standing speaker system with 12-in cast basket woofer and Heil tweeter; frequency response 25-23,000 Hz ±3 dB; crossover at 1300 Hz, sensitivity 91 dB SPL/W/m; nominal impedance 8-ohm; min. input 25 W; 6-ohm impedance; midrange and tweeter level controls; oiled walnut finish cabinet with brown cloth grille; 45" H x 18" W x 15½" D. ..... $595

CUSTOM CRAFT

MK XV Speaker System
Three-way floor-standing omnidirectional speaker system with 12-in woofer, 5-in midrange, and two 1½-in dome tweeters; walnut veneer finish; 32½" H x 17½" W x 12½" D. ..... $359
Rosewood veneer finish ..... $429

MK VIII Speaker System
Three-way speaker system with 8-in woofer, 5-in self-contained midrange, and 1-in acoustic-suspension dome tweeter; frequency response 57-20,000 Hz ±3 dB; crossover at 1500 and 4000 Hz; recommended input range 25-150 W; sensitivity 94 dB SPL/W/m; 4-ohm impedance; walnut veneer finish; 14½" H x 10" W x 6½" D. ..... $199

MK XII Subwoofer
12-in acoustic-suspension subwoofer with high-temperature metal voice coil; frequency response 30-150 Hz ±3 dB; sensitivity 92 dB SPL/W/m, recommended input range 25-150 W continuous power; 8-ohm impedance; walnut veneer finish with walnut trim; designed for use with MKI, MKII, MKVI and MKVIII speakers; power selector switch; 24½" H x 16½" W x 16½" D. ..... $445

DALESFORD EXPORT by SONIKIT

DALESFORD System 312 Speakers
Three-way acoustically-suspended speaker system with 12-in bextrene woofer, 6½-in bextrene midrange, and 1-in auad soft dome tweeter; frequency response 35-29,000 Hz ±3 dB; crossovers at 250 and 3500 Hz; input range 25-100 W; 8-ohm impedance; birch cabinet; 36½" H x 15½" W x 15½" D. Kit. ..... $300

DALESFORD System 310. Similar to System 312 except 10-in woofer and 5-in midrange; frequency response 35-20,000 Hz ±3 dB; 36½" H x 15½" W x 13½" D. Kit. ..... $185

DALESFORD System 208 Speakers
Two-way acoustically-suspended speaker system with 8-in bextrene woofer and 1-in auxud soft dome tweeter; frequency response 55-20,000 Hz ±3 dB; crossover at 3000 Hz; input range 15-50 W; 8-ohm impedance; birch veneer finish; 19½" H x 12" W x 9½" D. Kit. ..... $125

DALESFORD BSC 3 Mini Speakers
Two-way acoustically-suspended speaker system with 5-in bextrene woofer and 1-in auxud dome tweeter; frequency response 50-20,000 Hz ±3 dB; crossover at 3500 Hz; input range 25-50 W; 8-ohm impedance; birch cabinet; 13½" H x 8¾" W x 8¾" D. Kit. ..... $115

DCM

Time Window Speaker System
Two-way floor-standing speaker system with cylindrical back and triangular prism front; incorporates two 6½-in Philips woofers and two Philips dome tweeters symmetrically placed on two angled faces of prism; frequency response 25-18,000 Hz; input range 10-200 W; continuous; 8-ohm nominal; dispersion 180 degrees horizontal, 60 degrees vertical; 36½" H x 14½" W x 11½" D. ..... $660 pr.

DECCA

London Ribbon Speaker
Horn-coupled ribbon tweeter; uses optional crossover network with low-pass slopes 12 dB/octave and high-pass slopes initially 12 kHz/octave with final slope at 45 kHz/octave; crossover frequency 1000 Hz; insertion loss less than 1 dB in passband; impedance 8 ohms; power-handling capacity 30 watts max.; dist. less than 1½% at 2500 Hz with 30 W input; 12½" H x 9½" W. ..... $200
Crossover network CO/1000/B. ..... $40

London Super Tweeter
Ribbon tweeter in enclosure without horn; impedance 8 ohms; crossover 7000 Hz; grey color. ..... $200

DESIGN ACOUSTICS

D-12A Speaker System
Three-way dodecaedron floor-standing/ceiling-hung speaker system with two 8-in woofers, 1½-in cone midrange, and dome tweeter; power response 50-15,000 Hz ±3.5 dB; crossover at 1500 Hz; 8-ohm impedance; input range 20-50 W; sensitivity 88 dB SPL/W/m; tweeter level control; oiled walnut finish with black grille cloth; 38½" H x 16¼" W x 11¼" D. ..... $240

D-8 Speaker System
Three-way acoustically-suspended floor-standing speaker system with two 10-in woofers, 5-in damped cone midrange, dome tweeter, three cone tweeters and piezoelectric tweeter; power response 17,000 W; sensitivity 95 dB SPL/W/m; handling capacity 300 W from 40-10,000 Hz; 8-ohm impedance; input range 15-150 W/ch; sensitivity 94.5-dB SPL/W/m; three-position switch for woofer, midrange, and tweeter level control; oiled walnut finish with black/green grille cloth; 44½" H x 16½" W x 12½" D. ..... $590

D-6 Speaker System
Three-way vented acoustically-suspended floor-standing speaker system with 10-in woofer, 5-in damped cone midrange, and five 2½-in cone tweeters; power response 30-15,000 Hz ±2 dB; crossovers at 600 and 2000 Hz; 8-ohm impedance; input range 20-100 W/ch; sensitivity 92 dB SPL/W/m; woofer and tweeter level controls; oiled walnut finish with black/blue/coccolith grill cloth; 24½" H x 15¾" W x 13½" D. ..... $390

D-4A Speaker System
Three-way acoustically-suspended floor-standing speaker system with two 8-in woofers, 5-in damped cone midrange, and one 1½-in dome and two 1½-in cone tweeters; power response 35-18,000 Hz ±3 dB; crossovers at 700 and 2000 Hz; 4-ohm impedance; input range 20-125 W/ch; sensitivity 92 dB SPL/W/m; woofer and tweeter level controls; oiled walnut finish with black grille cloth; 38½" H x 16¼" W x 11¼" D. ..... $345

D-3 Speaker System
Three-way tuned-port bookshelf speaker system with 10-in woofer, 5-in cone midrange, and 1-in dome tweeter; crossovers at 500 and 2500 Hz; power response 40-20,000 Hz ±3.5 dB; input range 30-100 W; sensitivity 96 dB SPL/W/m; walnut finish with brown cloth grille; 25½" H x 12½" W x 11¼" D. ..... $220

D-2 Speaker System
Two-way vented acoustic-suspension floor-standing speaker system with 10-in woofer and 1-in dome tweeter; power response 40-20,000 Hz ±3.5 dB; input range 1500 Hz; 8-ohm impedance; input range 20-50 W/ch; sensitivity 88 dB SPL/W/m; tweeter level control; oiled walnut finish with black grille cloth; 34½" H x 12½" W x 12½" D. ..... $220

D-1A Speaker System
Two-way vented acoustic-suspension bookshelf speaker system with 8-in woofer and 1-in dome cone tweeter; power response 50-15,000 Hz ±3.5 dB; crossover at 1500 Hz; 6-ohm impedance; input range 15-30 W; sensitivity 87.5 dB SPL/W/m; aluminum finish with black grille cloth; 20½" H x 11½" W x 8" D. ..... $125
D-1W. Same as D-1A but with walnut finish; 21½" H x 12½" W x 8" D. ..... $135

ELECTRO-VOICE

Sentury V Monitor Speaker System
Two-way ported floor-standing monitor speaker system with high-efficiency 10-in woofer and ST350A passive radial horn tweeter; frequency response 45-18,000 Hz ±3 dB; crossover at 2000 Hz; 4-ohm impedance; sensitivity 96 dB SPL/W/m; long-term average power-handling capacity 30 W from 40-10,000 Hz, short-term 300 W from 40-10,000 Hz; impedance 6 ohms nominal, 4 ohms min.; 28½" H x 20" W x 8" D. ..... $325
SEL. Two-channel active equalizer for Sentury V; frequency response becomes 32-18,000 Hz; has high-frequency slope control and equalizer; THD 0.01% at 1 Vrms in; IM dist. 0.005% at 1.5 V rms in; max. input signal 7 V rms sine wave; noise output ~80 dB below 200 mV; 2" H x 8" W x 9" D. ..... $96

Interface: D Series II Speaker System
Three-way vented floor-standing speaker system with 12-in downward-firing woofer, 6½-in vented midrange, and radial horn tweeter; includes active equalizer that extends bass response and eliminates distortion. ..... $2170

1980 EDITION
subsonic noise, has high-frequency control (installs into tape monitor circuit of amp or receiver or be-
tween preamp and power amp); frequency response 23-20,000 Hz, 28-18,000 Hz ± .5 dB; crossovers 40 Hz (acoustic), 350 and 3000 Hz (electrical); sensitivity 97 dB SPL/W/m, min. input 1.5 W (for 90-dB SPL); max. input 500 W (for 115-dB SPL); 8-ohm nominal impedance; built-in tweeter protector; woofer environmental control (floor or on floor, next to wall); walnut veneer cabinet; 32" H x 211/2" W x 151/2" D. $1750 pr.

Interface: C Series II Speaker System
Three-way vented floor-standing speaker system with 10-in woofer, 61/4-in vented midrange, and 11/2-in super dome tweeter with acoustic lens; supplied with active equalizer; frequency response 25-20,000 Hz, 30-18,000 Hz ± .5 dB; crossovers 42 Hz (acoustic), 400 and 2500 (electrical); sensitivity 93 dB SPL/W/m, min. input 2.8 W (for 90-dB SPL); max. input 350 W (for 110-dB SPL); 6-ohm nominal impedance; built-in tweeter protector; walnut veneer cabinet; 311/2" H x 20" W x 12" D. $909 pr.

Interface: B Series III
Two-way vented speaker system with 12-in low-frequency radiator; 8-in midrange/woofer, and 11/2-in super dome tweeter with acoustic lens; supplied with active equalizer; frequency response 26-20,000 Hz, 30-18,000 Hz ± .5 dB; crossovers 42 Hz (acoustic), 1500 Hz (electrical); sensitivity 92 dB SPL/W/m, min. input 3.6 W (for 90-dB SPL); max. input 250 W (for 107-dB SPL); 8-ohm nominal impedance; built-in tweeter protector; walnut veneer cabinet; 291/2" H x 16" W x 11" D. $733 pr.

Interface: A Series III
Two-way vented bookshelf speaker system with 12-in low-frequency radiator, 8-in midrange/woofer, and 11/2-in super dome tweeter with acoustic lens; supplied with active equalizer; frequency response 29-20,000 Hz, 35-18,000 Hz ± .5 dB; crossovers 45 Hz (acoustic), 1500 Hz (electrical); sensitivity 92 dB SPL/W/m, min. input 3.6 W (for 90-dB SPL); max. input 250 W (for 107-dB SPL); 8-ohm nominal impedance; tweeter-protection circuit is optional; walnut veneer cabinet; 241/2" H x 151/2" W x 9" D. $546 pr.

Interface: 3 Series II Speaker System
Two-way speaker system with 12-in low-frequency radiator, 8-in midrange/woofer, and 11/2-in super dome tweeter with acoustic lens; frequency response 34-20,000 Hz, 40-18,000 Hz ± 4 dB; crossover at 1500 Hz; sensitivity 92 dB SPL/W/m, min. input 3.6 W (for 90-dB SPL); max. input 250 W (for 107-dB SPL); 8-ohm nominal impedance; simulated walnut-grained vinyl finish; 25" H x 141/4" W x 131/2" D. $200

Interface: 2 Series II Speaker System
Two-way speaker system with 10-in low-frequency radiator, 8-in midrange/woofer, and 11/2-in super dome tweeter with acoustic lens; frequency response 19-20,000 Hz, 17-18,000 Hz ± 4 dB; crossover at 1500 Hz; sensitivity 92 dB SPL/W/m, min. input 3.6 W (for 90-dB SPL); max. input 250 W (for 107-dB SPL); 8-ohm nominal impedance; simulated walnut-grained vinyl finish; 25" H x 141/4" W x 131/2" D. $160

Interface: 1 Series II Speaker System
Two-way speaker system with 8-in midrange/woofer and 11/2-in super dome tweeter with acoustic lens; frequency response 47-20,000 Hz, 56-18,000 Hz ± 4 dB; min. input 3.6 W (for 90-dB SPL); max. input 250 W (for 107-dB SPL); 8-ohm nominal impedance; simulated walnut-grained vinyl finish; 211/2" H x 111/4" W x 9"/4" D. $117

EMI

Model 5 Speaker Kit
Three-way speaker system with 10-in woofer with 20-oz ceramic magnet in B-4 Theile alnico reflex enclosure, 5-in midrange with 10-oz ceramic magnet with molded high density curvilinear cone, and 2 x 5-in piece electric tweeter; frequency response 28-26,000 Hz ± 2 dB; crossovers at 600 and 5000 Hz; max. power 200 W continuous; sensitivity 88 dB SPL/W/m; 351/2" H x 171/4" W x 141/2" D. Kit does not include cabinets.

Model 2. Similar to Model 5 except with 8-in woofer; frequency response 36-26,000 Hz ± 2 dB; crossovers at 900 and 6000 Hz; max. power 150 W continuous; sensitivity 87 dB SPL/W/m; 24" H x 14" W x 12" D. Kit does not include cabinets. $75

500 Speaker System
Three-way floor-standing speaker system with 10-in "Focused Field" woofers reinforced with two 12-in passive radiators, 4-in sealed-back midrange with aluminum voice coil and ferrofluid damping, and 1-in air-spring tweeter; frequency response 36-20,000 Hz ± 2 dB; input range 15-125 W continuous; 4-ohm impedance; oiled walnut and ebony vinyl finish with acoustically transparent black cloth grille $400

200C Speaker System
Two-way floor-standing speaker system with 8-in woofers, 12-in passive radiator, and 1-in air-spring tweeter; 8-in woofer, 12-in passive radiator, and 1-in air-spring tweeter; frequency response 45-20,000 Hz; input range 15-125 W continuous; 4-ohm impedance; oiled walnut and ebony vinyl finish with acoustically transparent black cloth grille; 321/2" H x 17" W x 11" D. $275

120C Speaker System
Two-way speaker system with 10-in long-traverse woofer and 1-in air-spring tweeter; crossover at 1800 Hz; 8-ohm nominal impedance; frequency response 38-20,000 Hz; input range 25-80 W continuous; front panel high frequency control; wood-grain vinyl cabinet with bronze trim and black acoustically transparent grille; 25" H x 15" W x 11" D. $159

100 Speaker System
Two-way speaker system with 8-in long-traverse woofer and 1-in air-spring tweeter; crossover at 1800 Hz; 8-ohm nominal impedance; frequency response 48-20,000 Hz; input range 12-80 W; oiled walnut finish with black cloth grille; 21" H x 11" W x 9" D. $125

Wood-grained vinyl cabinet. $115

EPICURE

1000 Speaker System
Omnidirectional floor-standing tower speaker system with four 8-in woofers and four 1-in air-spring tweeters; frequency response 20-20,000 Hz ± 3 dB; 8-ohm impedance; max. input 250 W continuous; min. input 60 W continuous; transducers matched to within 1 dB efficiency; 75" H x 18" W x 18" D. $1000

3.0 Trilogy Home Speaker System
Three-way floor-standing speaker system with 10-in woofer, 6-in midrange, and 1-in air-spring tweeter; frequency response 35-20,000 Hz ± 3 dB; crossover at 1800 Hz; 8-ohm impedance; input range 70 W continuous; min. input 25 W continuous; three-position tweeter level control; transducers matched to within 1 dB efficiency; 38" H x 14" W x 14" D. $450

400 + Speaker System
Omnidirectional floor-standing tower speaker system with four 6-in woofers and four 1-in air-spring tweeters; frequency response 27-19,000 Hz ± 3 dB; crossover at 1800 Hz; 8-ohm impedance; input range 100-200 W continuous; tweeter level control; hand-rubbed walnut veneer finish with dark brown grille cloth; 29" H x 181/4" W x 12" D. $275

14 Speaker System
Two-way speaker system with 6-in controlled-excitation woofer and 1-in air-spring tweeter; frequency response 38-20,000 Hz ± 3 dB; 8-ohm impedance; max. input 15 W continuous; nearly hemispherical dispersion; three-position, front-panel high-frequency control; 24" H x 131/2" W x 9" D. $199

11 Speaker System
Two-way bookshelf speaker system with 6-in controlled-excitation woofer and 1-in air-spring tweeter; frequency response 38-20,000 Hz ± 3 dB; 8-ohm impedance; max. input 15 W continuous; nearly hemispherical dispersion; vinyl finish cabinet; 22" H x 12" W x 9" D. $125

5 Speaker System
Two-way bookshelf speaker system with 6-in controlled-excitation woofer and 1-in air-spring tweeter; frequency response 30-20,000 Hz ± 3 dB; crossover at 1800 Hz (12 dB/octave); 8-ohm impedance; max. input 70 W continuous; nearly hemispherical dispersion; vinyl finish cabinet; 18" H x 11" W x 7" D. $90

ESS

Transar/std Speaker System
Two-way open-baffle speaker system with 32-in H x 6-in Heil dispersion off-axis, at 15,000 Hz; 6-in Heil woofer and Heil air-motion transformer tweeter; Heil woofers consists of a total of twenty small bubble cones on five Lexan-sheet cones linked by four carbon-fiber rods; bi-amp comes with electronic crossover and current source amplifier; crossover at 1000 Hz; 4-ohm impedance; frequency response 30-20,000 Hz ± 3 dB; efficiency 94 dB SPL/W/m, min. input for Heil midrange/tweeter 5 W; continuous, frequency level controls; mirror, walnut, rosewood, or ebony finish with brown, sand, or coffee grille; 51" H x 40" W x 10" D. $440

amt Monitor Speaker System
Two-way speaker system with 12-in Bxtrene
woffer, 12-in passive radiator, and 21.5 in Hx15.63 Wx15.88 D;
sensitivity 90 -dB SPL/W/m; presence/brilliance;
clean music power; 5 -ohm nominal impedance;
Hz --3 dB; crossover at 1000 Hz; max. input 100 W
clean power; 6 -ohm nominal impedance; 120° horizontal,
40° vertical dispersion; sensitivity 94-dB SPL/W/3 ft;
ok finish with dark brown grille; 22" H x 12" W
x 10 1/4" D ... $650

amt 1b Speaker System
Two-way speaker system with 12-in Bextrene woffier, 12-in passive radiator, and 21.5 in Hx15.63 Wx15.88 D;
Hei air motion transformer; frequency response 35-23,000
Hz ± 3 dB; crossover at 1000 Hz; max input 375 W
clean music power; 5 -ohm nominal impedance;
120° horizontal dispersion, 30° vertical dispersion;
sensitivity 90 dB SPL/W/m; midrange presence and
brilliance controls; oiled walnut finish with blackbrown
grille; 35.25" H x 16.25" W x 16.25 D ... $507

amt 1b Bookshelf Speaker System
Two-way bookshelf speaker system with 12-in Bextrene woffier, 12-in passive radiator, and 21.5 in Hx15.63 Wx15.88 D;
Hei air motion transformer; frequency response 40-23,000 Hz ± 3 dB; crossover at 1000 Hz; max input 375 W
clean music power; 6 -ohm nominal impedance;
120° horizontal dispersion, 30° vertical dispersion;
sensitivity 90 dB SPL/W/m; presence/brilliance
control; oiled walnut finish with blackbrown
grille; 24" H x 14" W x 14 D ... $456

Tempest Classic Speaker System
Two-way bookshelf speaker system with 10-in resin-imregnated cone woffier, 10-in resin-impregnated cone passive radiator, 20.25 in Hx15.63 Wx15.88 D;
Hei air-motion transformer midrange/tweeter; 120° horizontal dispersion, 40° vertical dispersion; frequency response 38-24,000 Hz; crossover at 1500 Hz;
input 250 W clean power; sensitivity 90 dB SPL/W/m; 5 -ohm nominal impedance; top mounted midrange and brilliance controls, genuine walnut veneer finish with dark brown grille; 33.75" H x
15.5" W x 15.5" D ... $410

Tempest Bookshelf-2
Two-way bookshelf speaker system with 8-in resin-imregnated cone woffier, 12-in fiberglass passive radiator, and 10.4 in Hx15.63 Wx15.88 D;
Hei air-motion transformer midrange/tweeter; frequency response 50-23,000 Hz ± 3 dB; crossover at 1200 Hz;
input 100 W clean power; sensitivity 93 dB SPL/W/m; 6 -ohm impedance; rear mounted brilliance control; genuine walnut veneer finish with dark brown grille;
24" H x 14" W x 13 D ... $310

Tempest Series Model LS-8
Two-way bookshelf speaker system with 8-in woffier, 10-in passive radiator, and 10.4 in Hx15.63 Wx15.88 D;
Hei air motion transformer; frequency response 50-20,000 Hz ± 3 dB; crossover at 2400 Hz; max. input 100 W
clean power; 6 -ohm nominal impedance; 120° horizontal,
40° vertical dispersion; sensitivity 93-dB SPL/W/3 ft;
walnut-grain vinyl finish with dark brown grille;
35" H x 12 1/4" W x 12 1/4" D ... $370

PS 4A Speaker System
Two-way bookshelf speaker system with 10-in woffier, 10-in passive radiator, and 10.4 in Hx15.63 Wx15.88 D;
Hei air motion transformer; frequency response 35-24,000 Hz ± 3 dB; crossover at 2000 Hz; max. input 100 W
clean power; 6 -ohm nominal impedance; 120° horizontal,
40° vertical dispersion; sensitivity 93-dB SPL/W/3 ft;
walnut-grain vinyl finish with dark brown grille;
24" H x 14" W x 14 D ... $270

PS 8A Speaker System
Two-way bookshelf speaker system with 8-in woffier, 10-in passive radiator, and 10.4 in Hx15.63 Wx15.88 D;
Hei air motion transformer; frequency response 35-24,000 Hz ± 3 dB; crossover at 2400 Hz; max. input 100 W
clean power; 6 -ohm nominal impedance; 120° horizontal,
40° vertical dispersion; sensitivity 93-dB SPL/W/3 ft;
walnut-grain vinyl finish with dark brown grille;
22" H x 12 1/4" W x 10 1/4" D ... $205

PS 9A Speaker System
Two-way bookshelf speaker system with 8-in woffier, 10.4 in Hx15.63 Wx15.88 D;
Hei air-motion transformer; frequency response 55-20,000 Hz ± 3 dB; crossover at 2400 Hz; max. input 75 W
clean power; 6 -ohm nominal impedance; 120° horizontal,
40° vertical dispersion; sensitivity 92-dB SPL/W/3 ft; walnut-grain vinyl finish with dark brown grille;
19 3/4" H x 11 3/4" W x 9 3/4" D ... $175

ESS Model 10
Two-way floor-standing speaker system with 10-in resin-imregnated carbon fiber cone woffier, 1/3-in copper voice coil, and 1-in Mylar dome tweeter with 1-in voice coil;
21/2-in vented Power BassTM; frequency response 35-24,000 Hz; crossover at 2500 Hz;
input range 15-80 W; sensitivity 90 dB SPL/W/m;
6 -ohm nominal impedance; alagash birch-grain vinyl finish with deep brown grille; 22" H x 12 1/2" W x 13 D ... $140

ES Translanto
320 Speaker System
Bi-polar-radiating electrostatic speaker system incor-
porates two 10-in plastic membranes sur-
rounding one fixed plate; radiating surface 666 sq
in; frequency response 30-22,000 Hz; LC high-pass
filter crossover network; min. input 35 W cont;
continuous, 8 -ohm impedance; 43" H x 8" W x 4 1/2" D
(top) ... $499

310 Speaker System
Bi-polar-radiating electrostatic speaker system incor-
porates 12-in plastic membrane surrounding one
fixed plate; radiating surface area 416 sq in; frequency
response 40-22,000 Hz; LC high-pass filter
crossover network; min. input 35 W cont;
continuous, 8 -ohm impedance; 38" H x 8" W x 4 1/2" D
(top) ... $349

300 Speaker System
Bi-polar-radiating electrostatic speaker system incor-
porates 12-in plastic membrane; radiating surface
area 126 sq in; frequency response 50-22,000
Hz; min. input 35 W cont; 8 -ohm impedance;
4 1/4" H x 8" W x 4 1/4" D (top) ... $349

CIRCLE NO. 15 ON READER SERVICE CARD
**200 Speaker System**
Bi-polarizing electrostatic floor-standing speaker system incorporates 8-in plastic membrane; radiating surface area 1.26 sq ft; frequency response 20-70,000 Hz; min. input 25-W continuous; 8-ohm impedance; 21'/4" x 8" x 4'/4" D at top and 6'/4" D (bottom)...

$139

**FABER AUDIO**

**TAS Speaker System**
Three-way air-suspension floor-standing speaker system with 12-in woofer, 13-in horn midrange, and 3'/4-in dome tweeter; frequency response 20-30,000 Hz; crossovers at 2500 and 5000 Hz; recommended input range 20-150 W; 8-ohm nominal impedance; walnut wood veneer finish; system includes subwoofer...

$550 pr.

**System II Speakers**
Three-way air-suspension speaker system with 10-in woofer, 5-in cone midrange, and 1'/4-in cone tweeter; frequency response 25-20,000 Hz; crossovers at 500 and 2500 Hz; recommended input range 5-30 W; 8-ohm nominal impedance; walnut grain vinyl cabinet; 24" H x 13" W x 13" D...

$189

**FISHER**

**ST460 Speaker System**
Three-way bass-reflex floor-standing speaker system incorporates 15-in woofer with 40-oz magnet, two 5-in midranges, and 3-in horn tweeter; frequency response 40-20,000 Hz; crossovers at 1000 and 5000 Hz; max. SPL 112 dB; input range 25-130 W; 8-ohm impedance; midrange and tweeter level controls; walnut-grain vinyl cabinet with removable transparent cloth grille; 29'/4" H x 18'/8" W x 14'/4" D...

$390

Same as ST460 except with walnut veneer cabinet...

$410

**ST450 Speaker System**
Three-way ported bass-reflex floor-standing speaker system with 12-in woofer, two 5-in cone midranges, and 3-in fluted dome tweeter; frequency response 45-20,000 Hz; crossovers at 1000 and 5000 Hz; max. SPL 110 dB; input range 20-100 W; 8-ohm impedance; midrange and tweeter level controls; walnut-grain vinyl cabinet with removable transparent cloth grille; 27'/4" H x 17" W x 13'/4" D...

$330

Same as ST450 except with walnut veneer cabinet...

$350

**XP95B Speaker System**
Three-way bass-reflex floor-standing speaker system with 15-in woofer, two 5-in midranges, and 3-in horn tweeter; frequency response 40-20,000 Hz; crossovers at 1000 and 5000 Hz; max. SPL 106 dB; input range 25-75 W; 8-ohm impedance; midrange and tweeter level controls; walnut-grain vinyl cabinet with removable grille; 28" H x 17!/4" W x 12'/4" D...

$280

**ST440 Speaker System**
Three-way ported bass-reflex floor-standing speaker system with 12-in woofer, 5-in cone midrange, and 3-in flared dome tweeter; frequency response 45-18,000 Hz; crossovers at 1000 and 5000 Hz; max. SPL 107 dB; input range 12-75 W; 8-ohm impedance; bass module control; walnut-grain vinyl cabinet with removable transparent cloth grille; 25'/4" H x 16" W x 12'/4" D...

$260

Same as ST440 except with walnut veneer cabinet...

$280

**ST430 Speaker System**
Three-way floor-standing speaker system with 10-in woofer, 8-in passive bass radiator, 5-in cone midrange, and 3-in wide-dispersion tweeter; frequency response 55-17,000 Hz; crossovers at 200, 1000, and 4000 Hz; max. SPL 104 dB; input range 6.5-55 W; 8-ohm impedance; walnut-grain vinyl cabinet with removable transparent cloth grille; 21'/4" H x 13'/4" W x 9'/4" D...

$150

**MS145 Speaker System**
Three-way floor-standing speaker system with 8-in woofer, 8-in passive bass radiator, 3-in midrange, and 2-in wide-dispersion tweeter; frequency response 70-16,000 Hz; SPL 104 dB; input range 5-35 W; 8-ohm impedance; walnut-grain vinyl veneer cabinet with front grille; 23'/4" H x 14'/4" W x 11" D...

$140

**MS135A Speaker System**
Three-way floor-standing speaker system with 8-in woofer, 8-in passive bass radiator, 3-in midrange, and 2-in wide-dispersion tweeter; frequency response 55-17,000 Hz; crossovers at 200, 1000, and 4000 Hz; max. SPL 104 dB; input range 6.5-55 W; 8-ohm impedance; walnut-grain vinyl cabinet with front grille; 24'/4" H x 14'/4" W x 11" D...

$125

**FRAZIER**

**Seven System**
Three-way speaker system with 12-in woofer, two 15-in midranges stacked for columnar effect and two piezoelectric super horn tweeters stacked for columnar effect; crossovers at 400 and 2000 Hz; max. input 150 W continuous; 8-ohm impedance; efficiency 99-dB SPL/W/m; handles 60 W continuous; front-panel brilliance and presence controls; natural oak finish with black knit grille; 48" H x 24" W x 18" D...

$1074

**Mark V System**
Three-way speaker system with 12-in woofer, two 4-in full-range sealed midranges stacked for columnar effect and two piezoelectric super horn tweeters for columnar effect; crossovers at 400 and 2000 Hz; max. input 100 W continuous; 4-ohm impedance; efficiency 99-dB SPL/W/m; handles 60 W continuous; front-panel brilliance and presence controls; walnut veneer on fiberboard with acoustically transparent, removable black knit grille; 25'/4" H x 14" W x 16" D...

$515

**Concerto System**
Three-way speaker system with 10-in woofer, two 8-in midranges in separate sealed enclosure, and two piezoelectric super horn tweeters; crossovers at 500 and 2000 Hz; 8-ohm impedance; efficiency 96-dB SPL/W/m; handles 50 continuous; front-panel variable midrange and high-frequency compensator; walnut veneer on fiberboard with acoustically transparent, removable black knit grille; 25'/4" H x 14" W x 12" D...

$385

**Mark IV-4 System**
Three-way speaker system with 10-in woofer and high-frequency compression horn tweeter; crossovers at 2000 Hz; max. input 30 W continuous; 8-ohm impedance; brilliance control on front panel; walnut veneer on fiberboard with acoustically transparent, removable black knit grille; 21'/4" H x 16" W x 15" D...

$315

**The Frankmann 8/4 Speaker System**
Four-way two-enclosure floor-standing linear phase speaker system with 12-in woofer, 6-in midrange, 4-in horn tweeter, and cone tweeter; one attenuator as part of design mediates response, recording, and listening room variations; separate woofer and midrange enclosures geometrically matched for linear phasing with midrange and tweeter mounted in pivoting 5-35 W; 8-ohm impedance; efficiency 90-dB SPL/W/m; handles 50 continuous; walnut, or Birch cabinet in early American, Walnut, or Mediterranean finish with black grill cloth; 42" H x 16" W x 17" D...

$650 pr.

**The Frankmann Reference Std. Monitor**
Four-way speaker system with four 12-in woofers, each in left and right channels of one enclosure, and four 6-in midranges, each pair isolated in two sealed enclosures, and two dc piezoelectric super horn tweeters; crossovers at 400 and 4000 Hz; max. input 100 W continuous; 4-ohm impedance; efficiency 103-dB SPL/W/m; steeped high-frequency and midrange controls; one horn tweeter on fiberboard with black foam grille; 55" H x 30" W x 18" D...

$1440

**Mark III System**
Three-way speaker system with 10-in woofer, two 8-in midranges, and two stacked piezoelectric horn tweeters; crossovers at 500 and 2000 Hz; 8-ohm impedance; efficiency 99-dB SPL/W/m; handles 50 continuous; front-panel brilliance and presence controls; oiled walnut veneer on fiberboard with acoustically transparent, removable black knit grille; 25'/4" H x 16" W x 16" D...

$700

**FRANKMANN RESEARCH**

**ST441 Speaker System**
Three-way floor-standing speaker system with 10-in woofer, 8-in passive bass radiator, 5-in cone midrange, and 3-in wide-dispersion tweeter; frequency response 55-17,000 Hz; crossovers at 200, 1000, and 4000 Hz; max. SPL 104 dB; input range 6.5-55 W; 8-ohm impedance; walnut-grain vinyl cabinet with removable transparent cloth grille; 21'/4" H x 13'/4" W x 9'/4" D...

$150

**Satellite A**
Four 6-in treble drivers, one horn tweeter, and one cone tweeter; with matching stands; 59" H x 9'/4" W x 6'/4" D...

$495 pr.

**Satellite B**
Two 6-in treble drivers, one horn tweeter, and one cone tweeter; with matching stand; 43'/4" H x 9'/4" W x 6'/4" D...

$395 pr.

**The Frankmann RSM**
Concerto System...

**Concerto System**
Three-way speaker system with 10-in woofer, two 8-in midranges in separate sealed enclosure, and two piezoelectric super horn tweeters; crossovers at 500 and 2000 Hz; 8-ohm impedance; efficiency 96-dB SPL/W/m; handles 50 continuous; front-panel variable midrange and high-frequency compensator; oiled walnut veneer on fiberboard with acoustically transparent, removable black knit grille; 25'/4" H x 14" W x 12" D...

$385
Fried Super Subwoofer
12-in bextrene woofer; frequency response 15-200 Hz; crossover at 75 Hz; sensitivity 92 dB SPL/Wm; 8-ohm impedance; birch veneer finish; available in kit form; 36\(\frac{1}{2}\) H x 30\(\frac{3}{4}\) W x 15\(\frac{1}{2}\) D. ... $1550
Kit. $550

Fried Super Monitor System
Three-way speaker system contains Super subwoofer and "C" satellite speakers; available in kit form; ... $2000
Kit. $800

Fried "T" Subwoofer
10-in bextrene woofer with b-amp facilities; frequency response 20-200 Hz; sensitivity 87 dB SPL/Wm; crossover at 100 Hz; birch veneer finish; available in kit form; 44\(\frac{1}{2}\) H x 21\(\frac{3}{4}\) W x 12\(\frac{1}{2}\) D. ... $180
Kit. $360

Fried B/2 Satellite Mini Monitor
Two-way speaker system with 5-in bextrene woofer/midrange and 1-in soft dome tweeter; freqency response 50-20,000 Hz ± 3 dB; crossover at 350 Hz; sensitivity 80 dB SPL/Wm; 8-ohm impedance; birch veneer finish; available in kit form; 13\(\frac{3}{4}\) H x 10\(\frac{1}{2}\) W x 9\(\frac{1}{2}\) D. ... $450
Kit. $275

Fried H/2 Monitor System
Three-way speaker system contains "T" subwoofer and "C" satellite speakers; available in kit form; ... $950
Kit. $550

Fried "D" Subwoofer
Subwoofer has 10-in bextrene woofer; frequency response 30-200 Hz ± 2 dB; sensitivity 87 dB SPL/Wm; birch veneer finish; available in kit form; 31\(\frac{1}{2}\) H x 18\(\frac{1}{2}\) W x 14\(\frac{1}{2}\) D. ... $389

Fulton Musical Industries
Premiere Speaker System
Seven-way floor-standing speaker system with 12-in subwoofer, 12-in midwoofer, 10-in midwoofer, 8-in midrange speakers, frequency response 15-80,000 Hz; crossover at 39, 122, 245, 2400, 8000, and 26,000 Hz; input range 35-400 W; 8-ohm impedance; walnut veneer finish; 60\(\frac{1}{2}\) H x 25\(\frac{1}{2}\) W x 22\(\frac{1}{2}\) D. ... $1495 pr.

Nuance Speaker System
Four-way floor-standing speaker system with 10-in woofer, 5-in midrange, mid-tweeter, and super tweeter; frequency response 38-42,000 Hz; crosses over 760, 6500, and 15,000 Hz; min. input 35 W, 8-ohm impedance; midrange and tweeter level controls; walnut veneer finish; 34\(\frac{1}{2}\) H x 14\(\frac{1}{4}\) W x 13\(\frac{1}{2}\) D. ... $495

FM1 100 Speaker System
Two-way speaker system with 10-in woofer and four 2\(\frac{1}{2}\)-in tweeters; crossover at 1200 Hz; 8-ohm impedance; frequency response 40-22,000 Hz; efficiency 105-50 dB SPL; input range 60-400 W; American walnut veneer, 22\(\frac{1}{2}\) H x 14\(\frac{1}{4}\) W x 9\(\frac{3}{4}\) D. ... $249

FM1 80 Speaker System
Two-way speaker system with 8-in woofer and two 2\(\frac{1}{2}\)-in tweeters, crossover at 1600 Hz; 8-ohm impedance; frequency response 50-22,000 Hz; efficiency 96-50 dB SPL; input range 40-500 W; American walnut, 17\(\frac{1}{2}\) H x 9\(\frac{1}{4}\) W x 8\(\frac{3}{8}\) D. ... $199

FUNDAMENTAL RESEARCH
The Punch Disco Subwoofer
Vented floor-standing subwoofer designed for disco use; incorporates four 12-in woofers; input range 75-300 W; provides power in 35-50 Hz range; choice of 4-8-ohm impedance; must be bi-amped; choice of cabinet finishes; 60\(\frac{1}{2}\) H x 24\(\frac{1}{2}\) W x 18\(\frac{1}{2}\) D. ... $750

Large Infrasonix Woofer
Air-suspension floor-standing subwoofer with two 10-inch air-suspension loaded woofers; frequency range 60-14,000 Hz; input range 60-400 W max. unclipped; simulated wood finish (other finishes available); 38.25 H x 15\(\frac{1}{2}\) W x 16\(\frac{1}{2}\) D. ... $450

Small Infrasonix Woofer
Air-suspension subwoofer with 10-in air-suspension loaded woofer; frequency range 400-3200 Hz; impedance 50 ohms; input range 60-400 W max. unclipped; simulated wood finish (other finishes available); 28\(\frac{1}{4}\) H x 13\(\frac{1}{2}\) W x 13\(\frac{1}{2}\) D. ... $299

Genesis 3+ Speaker System
Three-way acoustic-suspension floor-standing speaker system with 10-in passive radiator, 8-in woofer, 4-in ferrofluid-suspension cone midrange, and 1-in ferrofluid-suspension inverted woofers; frequency response 30-20,000 Hz; handles 100 W; 8-ohm impedance; frequency direct-radiating driver; LED overload indicator; choice of Lerenix, zebrwood, olive-ash, roosewood, or American walnut hardwood veneers; ... $133
Oak finish. ... $147

Genesis V6 Speaker System
Two-way ported speaker system with 6\(\frac{1}{4}\)-in woofer and 1-in ferrofluid-suspension inverted dome tweeter; frequency response 50-20,000 Hz ± 4 dB; crossover at 1800 Hz; 8-ohm nominal impedance; efficiency 88 dB W/m; input range 15-80 W; continuous; walnut finish with brown knit grille; 18\(\frac{1}{4}\) H x 10\(\frac{1}{2}\) W x 7\(\frac{1}{2}\) D. ... $105

GRUCCI
G/36 Speaker System
Four-way acoustical-reflecting horn-loaded speaker system with 12-in woofer, adjustable 5-in midrange, and 1-in direct-radiating tweeter; frequency response 20-20,000 Hz; handles 100 W; 8-ohm impedance; features LED VU meter with digital readout; three-station pushbutton frequency crossover control for midrange and high-frequency transducers; choice of Lerenix, zebrwood, olive-ash, roosewood, or American walnut hardwood veneers; 36\(\frac{1}{2}\) H x 17\(\frac{1}{4}\) W x 18\(\frac{1}{2}\) D. ... $1095

G/28 Speaker System
Four-way acoustical-reflecting horn-loaded speaker system with 10-in woofer, adjustable 5-in midrange, and 1-in direct-radiating tweeter; frequency response 50-20,000 Hz; handles 100 W; 8-ohm impedance; features LED VU meter with digital readout; three-station pushbutton high frequency crossover control; LED overload indicator; choice of Lerenix, zebrwood, olive-ash, roosewood, or American walnut hardwood veneers; 28\(\frac{1}{2}\) H x 13\(\frac{1}{4}\) W x 14\(\frac{1}{4}\) D. ... $650

G/21 Speaker System
Three-way acoustical-reflecting horn-loaded speaker system with 8-in woofer, 6-in direct-radiating midrange, and 1-in direct-radiating tweeter; frequency response 30-20,000 Hz; handles 60 W; 8-ohm impedance; features LED VU meter with digital readout and three-station pushbutton high- and mid-frequency crossover controls; choice of Lerenix, zebrwood, olive-ash, roosewood, or American walnut hardwood veneers; 20\(\frac{3}{4}\) H x 11\(\frac{1}{4}\) W x 12\(\frac{3}{4}\) D. ... $480

G/15 Speaker System
Three-way acoustical-reflecting horn-loaded speaker system with 6-in woofer, 5-in direct-radiating midrange, and 1-in direct-radiating tweeter; frequency response 30-20,000 Hz; handles 60 W; 8-ohm impedance; features three-station pushbutton frequency crossover control for midrange and tweeter; LED overload indicator; choice of Lerenix, zebrwood, olive-ash, rowood, or American walnut hardwood veneers; 15\(\frac{1}{4}\) H x 8\(\frac{1}{2}\) W x 9\(\frac{3}{4}\) D. ... $300

G10 Speaker System
Two-way acoustical-reflecting horn-loaded transducer speaker system with 4-in woofer and 1\(\frac{1}{2}\)-in tweeter; frequency response 30-20,000 Hz; handles 30 W; 8-ohm impedance; LED overload indicator; 10\(\frac{1}{2}\) H x 5\(\frac{1}{2}\) W x 7\(\frac{1}{2}\) D. ... $140

Hartley Products
The Reference
Four-way floor-standing speaker system with 24-in super woofer, 10-in midrange, 7-in tweeter, and 1-in super tweeter; crossovers at 250, 3000, and 7000 Hz; impedance 5-8 ohms; frequency response 25-75,000 Hz; input range 25-150 W/4 ohms; cabinet finish: American walnut wood cabinet with removable double-put wire grille; 50\(\frac{1}{4}\) H x 36\(\frac{1}{2}\) W x 24\(\frac{3}{4}\) D. ... $1725

The Concertmaster
Four-way floor-standing speaker system with 18-in
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<th>SPEAKER SYSTEMS</th>
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<tr>
<td>Hitachi HS-430 Speaker System</td>
<td>Three-way bass-reflex floor-standing speaker system with 30-cm single-sheet aluminum gathered-edge cone woofer, 6.5-cm single-sheet aluminum gathered-edge cone midrange, and 2.5-cm titanium dome tweeter; frequency response 35-20,000 Hz; input range 50-18,000 Hz; impedance 8 ohms; sensitivity 90 dB SPL/W/m; max. input 75 W; tweeter level controls; wood cabinet with removable grille; 21(\frac{\text{h}}{\text{w}}) x 14(\frac{\text{h}}{\text{w}}) x 8(\frac{\text{h}}{\text{w}}) D</td>
<td>$400</td>
</tr>
<tr>
<td>Hitachi HS-330 Speaker System</td>
<td>Three-way sealed acoustic-suspension speaker system with 10-in gathered-edge metal cone woofer, 2.5-in gathered-edge metal cone midrange, and 1(\frac{1}{2})-in metal cone tweeter; frequency response 40-18,000 Hz; input range 900 and 4000 Hz; sensitivity 90 dB SPL/W/m; max. input 100 W; 8-ohm impedance; midrange and tweeter level controls; walnut finish cabinet; 26(\frac{\text{h}}{\text{w}}) x 14(\frac{\text{h}}{\text{w}}) x 14(\frac{\text{h}}{\text{w}}) D</td>
<td>$400</td>
</tr>
<tr>
<td>Hitachi HS-371 Speaker System</td>
<td>Three-way sealed acoustic-suspension speaker system with 12-in cone woofer, 6-in cone midrange, and 1-in titanium dome tweeter; frequency response 45-20,000 Hz; crossover at 1500 Hz</td>
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nut veneer cabinet with black cloth grille; 39\% H x 14\% W x 12\% D………………...$384

3000B
Three-way speaker system with 12-in woofer, 4\% in cone midrange, and 2\% in tweeter; crossover at 500 and 5000 Hz; 8-ohm impedance; frequency response 30-20,000 Hz ± 4.5 dB; input range 10-125 W continuous; 24\% Hz x 14\% W x 12\% D……………………………………$235

"Q" Series Speakers
Qa
Two-way speaker system with 25-cm woofer and electromagnetic-induction tweeter; crossover at 2500 Hz; 4-ohm impedance; frequency response 42-20,000 Hz ± 3 dB; input range 15-150 W continuous; 60-degree left/right horizontal dispersion at 20,000 Hz – 2 dB; tweeter level control; birch cabinet with removable brown-cloth grille; 25\% H x 14\% W x 12\% D………………………..$175

INNOTECH
D-24 Speaker System
Three-way constant width asymmetric transmission line speaker system with two 5-in Bextreme woofers, 1\% in Mylar dome midrange, and 1\% in Mylar super dome tweeter; frequency response 30-21,000 Hz ± 3 dB; crossovers at 500 and 5000 Hz; sensitivity 96 dB SPL/W/m; input range 15-200 W continuous; 4-ohm impedance; mid-range and tweeter level controls; four-position LED power indicators and fuse protection; oiled walnut finish; 39\% H x 23\% W x 22\% D……………….$427

INTER-E-GOSYS
SE 200 Speaker System
Three-way vented speaker system with 12-in woofer, 5-in cone midrange in isolation chamber, and 1\% in Mylar dome tweeter; frequency response 30-21,000 Hz ± 3 dB; crossovers at 500 and 5000 Hz; sensitivity 96 dB SPL/W/m; input range 15-200 W continuous; 4-ohm impedance; mid-range and tweeter level controls; four-position LED power indicator and fuse protection; oiled walnut veneer; 30\% H x 18\% W x 13\% D……………...$385

SE 100 Speaker System
Three-way bass-reflex speaker system with 10-in woofer, 5-in cone midrange in isolation chamber, and 1\% in Mylar dome tweeter; frequency response 36-21,000 Hz ± 3 dB; sensitivity 97 dB SPL/W/m; crossover at 5000 Hz; input range 12-150 W continuous; 4-ohm impedance; mid-range and tweeter level controls; four-position LED power indicator and fuse protection; oiled walnut veneer; 24\% H x 14\% W x 11\% D……………….$325

E12 Speaker System
Three-way bass-reflex speaker system with 12-in woofer, 5-in cone midrange, and 1\% in Mylar dome tweeter; frequency response 36-21,000 Hz ± 3 dB; crossovers at 700 and 5000 Hz; sensitivity 97 dB SPL/W/m; input range 10-100 W continuous; 4-ohm impedance; tweeter level control; 26\% H x 15\% W x 11\% D………………...$300

E8 Speaker System
Three-way bass-reflex speaker system with 8-in woofer, 4\% in cone midrange, and 1\% in Mylar dome tweeter; frequency response 40-21,000 Hz ± 3 dB; crossovers at 1500 and 9000 Hz; sensitivity 95 dB SPL/W/m; input range 10-50 W continuous; 4-ohm impedance; midrange and tweeter level controls; oiled walnut veneer cabinet; 23\% H x 13\% W x 10\% D………………...$250

JANIS AUDIO
W-1 Subwoofer
15-in subwoofer with slot loaded enclosure; frequency response 30-100 Hz ± 1 dB; 1\% HD; 17.5\% H x 22\% W x 22\% D．……$240

Paragon Speaker System
Radial-reflection, dual three-way floor-standing speaker system with two 15-in compression horn woofers, two midrange compression drivers, and two UHF ring radiators; crossovers at 500 and 7000 Hz; max. input 150 W/ch continuous, min. input 10 W/ch continuous; 8-ohm impedance; dual mid-range and UHF level controls; special dispersion surface to recreate stereo image; oiled walnut finish; 35\% H x 103\% W x 24\% D……………….$480

JBL
L300 Speaker System
Three-way, ducted port, floor-standing speaker system with 15-in woofer, midrange compression driver with horn/lens assembly, and 077 ultra-high frequency ring radiator; crossovers at 800 and 8500 Hz (12 and 18 db/octave); max. input 150 W continuous, min. input 10 W/ch continuous; 8-ohm impedance; oiled walnut finish with smoked glass top and fabric grille (blue, black, brown, beige); 31\% H x 23\% W x 22\% D……………..$1250

L212 Speaker System
Four-way floor-standing speaker system consisting of three elements: two three-way speaker arrays with 8-in woofer, 5-in midrange, and 1-in hemispherical tweeter; self-powered 12-in ultrabass; crossovers at 800 and 4000 Hz; max. input 150 W/ch continuous, min. input 10 W/ch continuous; 8-ohm impedance; midrange and tweeter level controls behind grille; oiled walnut finish with semi-transparent black fabric grille; 23\% H x 14\% W x 11\% D……………….$410

L220 Speaker System
Three-way floor-standing home disco system has 14-in woofer, 15-in passive radiator, 5-in midrange, and 076 Ring Radiator tweeter; input range 10-400 W/ch continuous sine wave power; enclosures are compressed wood with American black walnut veneer finish and black grilles; 48\% H x 20\% W x 15\% D…………………$895

L65 Speaker System
Three-way, ducted port, floor-standing speaker system with 12-in woofer, 5-in midrange, and 3\% in high-frequency horn tweeter; crossovers at 1000 and 6500 Hz; max. input 150 W/ch continuous, min. input 10 W/ch continuous; 8-ohm impedance; midrange and tweeter level controls behind grille; oiled walnut finish with black grille; 41\% H x 17\% W x 13\% D……………….$625

L150 Speaker System
Three-way floor-standing speaker system with 12-in woofer with heavy ferrite magnet, 3-in hand-wound copper voice coil, 12-in passive radiator, 5-in stiff cone midrange housed in isolated sub-woofer with "x" voice coil, and 1-in dome tweeter; input range 10-300 W/ch continuous sine wave power; midrange and high-frequency controls; enclosure panels of compressed wood with American black walnut veneer finish and brown, rust or camel grille; 41\% H x 17\% W x 13\% D…………………$595

L100 Speaker System
Three-way, ducted port, bookshelf speaker system with 10-in woofer, 5-in midrange, and 1-in hemispherical tweeter; crossovers at 1000 and 6000 Hz (12 db/octave); max. input 200 W/ch continuous, min. input 10 W/ch continuous; 8-ohm impedance; midrange and tweeter level controls behind grille; oiled walnut finish with acoustically transparent APP grille; 14\% H x 23\% W x 13\% D……………….$510

L1166 Speaker System
Three-way, ducted port bookshelf speaker system with 10-in woofer, 5-in midrange, and 1-in hemispherical tweeter; crossovers at 1000 and 4000 Hz; max. input 150 W/ch continuous, min. input 10 W/ch continuous, 8-ohm impedance; midrange and tweeter level controls behind grille; oiled walnut finish with semi-transparent black fabric grille; 23\% H x 14\% W x 11\% D……………….$410

L50 Speaker System
Three-way ducted-port bookshelf speaker system with 8-in woofer, 5-in midrange, and 1-in hemispherical tweeter; self-powered 12-in ultrabass; crossovers at 800 and 3000 Hz; 8-ohm nominal impedance; sensitivity 97 dB SPL/W/m; input range 10-60 W/ch continuous; midrange and tweeter controls; oiled walnut finish with blue, brown, or rust grille; 24\% H x 14\% W x 12\% D……………….$325

L40 Speaker System
Two-way, ducted port, bookshelf speaker system with 10-in woofer and 1-in hemispherical tweeter; crossover at 1800 Hz; max. input 60 W/ch continuous; min. input 10 W/ch continuous; 8-ohm impedance; midrange and tweeter level controls behind grille; oiled walnut finish with stretch fabric grille (brown, rust, or tan); 23\% H x 15\% W x 11\% D………………….$250

Ladance Series Speakers
Radiance Series models enclosed in walnut-grained vinyl finish with three-dimensional brown grilles and metal Mylar baffles underneath; input range 10-200 W/ch continuous sine wave power; crossovers underneath; 21\% H x 13\% W x 11\% D……………….$140

Model 502. Two-way speakers with 8-in woofer and 3-in tweeter; 21\% H x 13\% W x 11\% D……………...$180

Model 902. Three-way speaker system with 10-in woofer, 5-in midrange, and 3-in tweeter; 27\% H x 17\% W x 12\% D………………...$220

Model 19 Speaker System
Two-way ducted-port bookshelf speaker system with 8-in woofer and 1.4-in direct radiating tweeter; crossover at 2500 Hz; 8-ohm nominal impedance; efficiency 87 dB SPL/W/m; input range 10-60 W/
Robin Zander listened to us.

He's the lead singer with Cheap Trick.

Here's what he said about the Jensen System B.

"The sound covers the entire room perfectly. No matter where you are it just fills it all up."

The System B is a vented 4-way, 5 driver loudspeaker system with high efficiency. And low distortion. And wide dispersion.

We’ve used advanced engineering technology to solve critical engineering problems that have plagued speaker designers for years.

To improve dispersion over the complete frequency range, we symmetrically positioned all four front-firing drivers along the vertical axis of the baffle surface.

What’s more, the System B has two specially designed, but different high frequency drivers.

One on the front and one on the rear.

Robin, a professional musician, sums it up.

"The sound covers the whole area." This is illustrated in the polar response diagram.

Of course, the system includes a new Impedance Compensated Crossover Network as well as a precision low frequency radiator and upper and lower midrange drivers.

We can’t describe everything in this amazing speaker system in detail.

That’s why you should go to your audio dealer for a demonstration.

After all, what's most important is how the speaker sounds to you.

You’re the ultimate test.

But one more comment from Robin.

"I listen to music everyday. So when I hear a speaker that sounds good, I get excited about it. This is good and I’m excited!"

Listen to our speaker in person.
Robin Zander did.

Listen with the professionals.

With the System B positioned 12" from a wall, the reflected sound from the rear driver provides an increased sense of depth as well as uniform dispersion throughout the entire listening area.

The result is music that sounds virtually the same whether you’re directly in front of the speaker or off to the side.

Listen to JENSEN speakers.
LS-5b Speaker System
Three-way four-element acoustic-suspension floor-standing speaker system with 15-in polyurethane foam cone woofer, two 3½-in direct-radiating midranges with Tuned Isolation Chambers™, and 1-in Mylar dome tweeter; frequency response 25-25,000 Hz; efficiency 95 dB/W/m; max. input 90 W continuous; min. input 10 W continuous; 8-ohm nominal impedance; tweeter and midrange level controls; wood-grained walnut veneer finish; $370

LS-4b Speaker System
Three-way four-element acoustic-suspension floor-standing speaker system with 12-in polyurethane foam cone woofer, two 3½-in direct-radiating midranges with Tuned Isolation Chambers™, and 1-in Mylar dome tweeter; frequency response 25-22,000 Hz; efficiency 93 dB/W/m; max. input 75 W continuous; min. input 10 W continuous; 8-ohm nominal impedance; tweeter and midrange level controls; wood-grained vinyl finish; $280

LS-3b Speaker System
Two-way two-element acoustic-suspension floor-standing speaker system with 10-in polyurethane foam cone woofer and 2½-in direct-radiating cone tweeter; frequency response 35-20,000 Hz; efficiency 92 dB/W/m; max. input 60 W continuous; min. input 10 W continuous; 8-ohm nominal impedance; tweeter level control; wood-grained vinyl finish; $220

Model 20 Speaker System
Two-way foam-suspension floor-standing speaker system with 8-in cone woofer and 2½-in direct radiating tweeter; crossover at 4000 Hz; 8-ohm nominal impedance; usable frequency response 35,000 Hz; 160-degree dispersion; input range 10-80 W continuous; simulated wood veneer finish; $65

Model 104 n6 Speaker System
Three-way closed-box speaker system with two 200-mm woofers in vertical line and tweeter; frequency response 40-25,000 Hz; sensitivity 8.8 dB SPL/W/m; input range 10-100 W; 8-ohm impedance; designed to be placed at min. 23 cm from floor; satin black plinth cabinet with black grille cloth; $950

Model 304 Speaker System
Two-way closed-box speaker system with 110-mm woofer and 1¾-in dome tweeter; frequency response 20-20,000 Hz; sensitivity 87 dB W/m; max. input 200 W; program; min. input 15 W; 8-ohm nominal impedance; sensitivity 12.5 W for 96 dB at 400 Hz and 1 m; walnut or teak finish with black foam grille; also available in kit form; $950

Corell Speaker System
Two-way closed-box speaker system with crossover at 3500 Hz; frequency response 90-30,000 Hz ± 2 dB, sensitivity 81 dB SPL/W/m; input range 10-200 W; 8-ohm impedance; sensitivity 19 W for 96 dB at 400 Hz and 1 m; walnut or teak finish with mocha brown grille cloth; $250

KEF

Model 105 Speaker System
Three-way two-enclosure floor-standing speaker system with 1-2-in woofer, 5-in midrange, and 2-in Mylar dome tweeter; crossover at 2000 Hz; sensitivity 90 dB SPL/W/m; input range 40-2000 W; program; sensitivity 38-22,000 Hz ≥ 2 dB; switchable peak filter; walnut or teak finish; available in kit form; $475

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 impedance; sensitivity 12.5 W for 96 dB at 400 Hz and 1 m; walnut or teak finish with brown grille cloth; also available in kit form; $365

Model 101 Speaker System
Two-way closed-box speaker system with 110-mm woofer and 1¾-in dome tweeter; frequency response 20-20,000 Hz; sensitivity 87 dB W/m; max. input 200 W; program; min. input 15 W; 8-ohm nominal impedance; sensitivity 12.5 W for 96 dB at 400 Hz and 1 m; walnut or teak finish with black foam grille; also available in kit form; $295

SK-1000 II Speaker System
Three-way bass-reflex speaker system with 12-in woofer, 5-in midrange, and 1-in dome tweeter: frequency response 30-20,000 Hz; crossover at 1000 and 8000 Hz; 8-ohm nominal impedance; max. input 150 W music; crossover at 75 W; sensitivity 93-dB SPL/W/m; midrange and high-frequency level controls; walnut veneer cabinet or silver grille cloth; $280

SK-700 II Speaker System
Three-way bass-reflex speaker system with 10-in woofer, 5-in cone midrange, and 1-in dome tweeter: crossover at 1000 and 10,000 Hz; 8-ohm impedance; frequency response 35-20,000 Hz; sensitivity 92 dB/W/m; handles 120 W peak power, 60 W continuous; minimum controls for mid-high range; walnut or silver finish; $229

S-M5 Micro Speaker System
Two-way hermetically-sealed speaker system with 5½-in cone woofer and 1-in dome tweeter; frequency response 25000 Hz; sensitivity 88 dB/W/m; power handling 80 W peak; 8-ohm impedance; sensitivity 9½ W (2½ W) ≥ 5 db max.

SK-500 II Speaker System
Two-way bass-reflex speaker system with 10-in woofer and 2½-in cone tweeter; crossover at 2000 Hz; 8-ohm impedance; frequency response 40-40,000 Hz; efficiency 91 dB/W/m; handles 70 W peak power, 35 W continuous; crossover network and phase-locked drivers employed by Phase Moire Propagation method; walnut or silver finish; 19½" H x 12½" W x 11½" D...

$210 pr.

KEF

Model 105 Speaker System
Three-way two-enclosure floor-standing speaker system with 1-2-in woofer, 5-in midrange, and 2-in Mylar dome tweeter; crossover at 2000 Hz; sensitivity 90 dB SPL/W/m; input range 40-2000 W; program; sensitivity 38-22,000 Hz ≥ 2 dB; switchable peak filter; walnut or teak finish; available in kit form; $475

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 impedance; sensitivity 12.5 W for 96 dB at 400 Hz and 1 m; walnut or teak finish with brown grille cloth; also available in kit form; $365

Model 104 n6 Speaker System
Three-way closed-box speaker system with two 200-mm woofers in vertical line and tweeter; frequency response 40-25,000 Hz; sensitivity 8.8 dB SPL/W/m; input range 10-100 W; 8-ohm impedance; designed to be placed at min. 23 cm from floor; satin black plinth cabinet with black grille cloth; $950

Model 304 Speaker System
Two-way closed-box speaker system with 110-mm woofer and 1¾-in dome tweeter; frequency response 20-20,000 Hz; sensitivity 87 dB W/m; max. input 200 W; program; min. input 15 W; 8-ohm nominal impedance; sensitivity 12.5 W for 96 dB at 400 Hz and 1 m; walnut or teak finish with black foam grille; also available in kit form; $245

Corell Speaker System
Two-way closed-box speaker system with crossover at 3500 Hz; frequency response 90-30,000 Hz ± 2 dB, sensitivity 81 dB SPL/W/m; input range 10-200 W; 8-ohm impedance; sensitivity 19 W for 96 dB at 400 Hz and 1 m; walnut or teak finish with mocha brown grille cloth; $185

STEREO DIRECTORY & BUYING GUIDE

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LS-1600 Speaker System
Three-way floor-standing bass-reflex speaker system with 12-in cone woofer, 4-in cone midrange, and 1%-in cone tweeter; features linear-response mid- and high-frequency level controls; frequency response 32-20,000 Hz; crossovers at 900 and 5000 Hz; sensitivity 92 dB SPL/W/m; max. input 120 W; 8-ohm impedance; 27 1/4" H x 15 1/4" W x 12 1/4" D $550

LS-1200 Speaker System
Three-way floor-standing bass-reflex speaker system with 10-in cone woofer, 4-in cone midrange, and 1%-in cone tweeter; features mid- and high-frequency level controls; frequency response 35-20,000 Hz; crossovers at 1000 and 6000 Hz; sensitivity 92 dB SPL/W/m; max. input 120 W; 8-ohm impedance; simulated wood grain finish; 25 1/4" H x 13 3/4" W x 12 1/4" D $365

408B Speaker System
Three-way powered speaker system with 12-in cone woofer, 4%-in cone midrange, and 1%-in cone tweeter; mid- and high-frequency level controls; frequency response 40-20,000 Hz; crossovers at 2000 and 5000 Hz; sensitivity 92 dB/W/m; input range 20-160 W; 8-ohm impedance; walnut veneer finish; 29" H x 16 1/4" W x 14 3/4" D $310

407B Speaker System
Three-way powered speaker system with 10-in cone woofer and 1%-in cone tweeter; frequency response 50-20,000 Hz; crossover at 2500 Hz; sensitivity 93 dB/W/m; input range 10-190 W; 8-ohm impedance; walnut grain finish vine; 23 3/4" H x 13 3/4" W x 12 3/4" D $245

405B Speaker System
Two-way powered speaker system with 10-in cone woofer and 1%-in cone tweeter; frequency response 60-20,000 Hz; crossover at 2500Hz; sensitivity 92 dB/W/m; input range 10-80 W; 8-ohm impedance; walnut grain finish vine; 17 3/4" H x 11" W x 10" D $285 pr.

403B Speaker System
Two-way powered bookshelf speaker system with 8-in cone woofer and 1%-in cone tweeter; frequency response 80-20,000 Hz; crossover at 2500 Hz; sensitivity 92 dB/W/m; input range 10-80 W; 8-ohm impedance; walnut grain finish vine; 17 3/4" H x 11 1/4" W x 10" D $175

KLH 1 Speaker System
Three-way computer-controlled vented speaker system with 2 in diecast frame dynamic polypropylene cone woofers, 4%-in polypropylene cone midrange, and 1%-in butyl-tiled synthetic soft-dome tweeter. Crossovers at 750 and 3000 Hz; frequency response 32-20,000 Hz; sensitivity 90 dB SPL/W/m at 1 W; 8-ohm impedance; 40-250 W/ch continuous; sensitivity 86 dB SPL/W/m; 4-ohm nominal impedance, comes with Analog Bass Computer for extended bass response in conjunction with high-flux motor system; computer has position, power indicator, tape, and input controls; speaker designed for vertical use; stand included; genuine walnut veneer finish with black removable grille; 30" H x 10.25" W x 11" D $1100 pr.

KLH 2. Similar to KLH 1 except bookshelf speakers that can be placed horizontally or vertically; frequency response 40-20,000 Hz; input range 40-200 W/ch continuous; 20" H x 8.25" W x 8.5" D $560 pr.

KLH 3. Similar to KLH 2 except two-way speakers with crossover at 2750 Hz and sensitivity 84 dB SPL/W/m; 12.5" H x 8.5" W x 6" D. $450 pr.

KLH 4. Similar to KLH 3 without the Analog Bass Computer; frequency response 63-20,000 Hz; input range 20-60 W/ch continuous $290 pr.

319B Speaker System
Three-way tuned phase-inverted speaker system with 12-in woofer, 5%-in cone midrange; and tweeter; frequency response 40-20,000 Hz; crossover at 900 and 3300 Hz; 8-ohm nominal impedance; frequency response 52-22,000 Hz; 95-dB efficiency; input range 10-100 W/ch continuous; rear-mounted variable tweeter and midrange level controls; walnut vinyl cabinet with black pellet black baffle and removable black knitted grille; 24 3/4" H x 14 1/4" W x 11 3/4" D $239

337 Speaker System
Three-way acoustic suspension speaker system with 10-in woofer; 5%-in cone midrange; and 2%-in cone tweeter; crossovers at 900 and 3000 Hz; 8-ohm nominal impedance; frequency response 51-18,000 Hz; efficiency 92.5 dB; input range 20-100 W/ch continuous; rear-mounted variable tweeter and midrange level controls; walnut finish with black matte baffle and removable black knitted grille; 24 3/4" H x 14 1/4" W x 11 3/4" D $209

La Scala Speaker System
Three-way speaker system with folded-type horn woofer with 15-in driver and straight-axis horns for high frequencies; frequency response 43-17,000 Hz ± 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 impedance; priced according to finish; birch, walnut, or maple plywood-lacquer; 35 1/2" H x 23 1/4" W x 24 1/2" D $1178 from $618

Heresy Speaker System
Three-way speaker system with direct-radiating ducted-port woofer with 15-in driver and straight-axis horns for high frequencies; frequency response 50-17,000 Hz ± 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 impedance; priced according to finish; rosewood lacquer, oil on teak, oak lacquer, or cherry lacquer; 35 1/2" H x 25 3/4" W x 15 1/4" D $459 from $959

KLIPSCH
Belle Klipsch Speaker System
Three-way speaker system with folded-type horn woofer with 15-in driver and straight-axis horns for high frequencies; frequency response 45-17,000 Hz ± 5 dB; crossovers at 400 and 6000 Hz; max. input 105 W program; 48-dB SPL at 4 ft with 1 W; 8-ohm nominal impedance; priced according to finish; rosewood lacquer, oil on teak, cherry lacquer, oak lacquer, or cherry lacquer; 21 3/4" H x 15 1/2" W x 13 1/4" D. $285 pr.

CM/1030 Speaker System
Four-way, four-bandpass, dual-port, floor-standing system with 12-in woofer and 2 in diecast frame dynamic polypropylene cone woofers, 4%-in polypropylene cone midrange, and 1%-in butyl-tiled synthetic soft-dome tweeter. Crossovers at 750 and 3000 Hz; frequency response 50-17,000 Hz ± 5 dB; crossovers at 400 and 6000 Hz; max. input 105 W program; 96-dB SPL at 4 ft with 1 W; 8-ohm nominal impedance; priced according to finish; rosewood lacquer, oil on teak, cherry lacquer, oak lacquer, or cherry lacquer; 21 3/4" H x 15 1/2" W x 13 1/4" D. $285 pr.

KOSS
K-1000 Speaker System
Two-way passive crossover, 8-in midrange, and tweeter; crossovers at 800 Hz and 4000 Hz; sensitivity 91 dB SPL/W/m; max. input 105 W program; 96-dB SPL at 4 ft with 1 W; 8-ohm nominal impedance; priced according to finish; cherry lacquer, oil on teak, oak lacquer, or walnut lacquer; 23 3/4" H x 13 1/2" W x 13 1/2" D. $449

K-1001 Speaker System
Two-way passive crossover, 8-in midrange, and tweeter; crossovers at 800 Hz and 4000 Hz; sensitivity 91 dB SPL/W/m; max. input 105 W program; 96-dB SPL at 4 ft with 1 W; 8-ohm nominal impedance; priced according to finish; cherry lacquer, oil on teak, oak lacquer, or walnut lacquer; 23 3/4" H x 13 1/2" W x 13 1/2" D. $449

K-1002 Speaker System
Two-way passive crossover, 8-in midrange, and tweeter; crossovers at 800 Hz and 4000 Hz; sensitivity 91 dB SPL/W/m; max. input 105 W program; 96-dB SPL at 4 ft with 1 W; 8-ohm nominal impedance; priced according to finish; cherry lacquer, oil on teak, oak lacquer, or walnut lacquer; 23 3/4" H x 13 1/2" W x 13 1/2" D. $449
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**CM/1010 Speaker System**
Two-way, two-bandpass, vented box, floor-standing speaker system with 8-in. woofer, 10-in. passive radiator, and 1-in. dome tweeter; crossover at 350 Hz; 2-way, 12" × 12" × 12" 15-100 W; midrange and tweeter controls; 33" H × 15½" W × 13½" D... $450

**CM/530 Speaker System**
Two-way, two-bandpass bookshelf speaker system with 8-in. woofer, 8-in. passive radiator, and 1-in. dome tweeter; crossover at 3000 Hz; bandpass response 3 dB down point (a) at 36 Hz (low frequency), 3 dB down point at 17 Hz (high frequency), 6 dB down points from 32-18,500 Hz (overall); 6-in. nominal impedance; efficiency 90-dB SPL/W/m; input range 15-100 W; tweeter spectrum-shaped control ±3 dB; 28" H × 15½" W × 11½" D... $350

**Trapezoid**
Four-way floor standing speaker system with 12-in. woofer, 6½-in. bextrene cone midrange, 1½-in. dome tweeter, and 1-in. dome super tweeter; crossovers at 90, 2000, and 7500 Hz; 8-in. nominal impedance; frequency response 16-30,000 Hz ±2 dB; min. input 50 W; sensitivity 90 dB SPL/W/m; midrange, tweeter, and super tweeter controls; electronic or passive crossover in bass; walnut finish with black grille; 60" H × 18½" W × 12½" D... $2495

**LAFAYETTE**

**Criterion 2003A Speaker System**
Three-way speaker system with 15-in. woofer, 16½- × 4½-in. horn midrange, and two phenolic ring tweeters; crossovers at 2000 and 4000 Hz; 8-in. nominal impedance; frequency response 20-20,000 Hz; recommended input range 20-120 W/CH continuous power; tweeter and compensation/equalization controls; walnut vinyl finish with cabinet brown/white grille; 25½" H × 17½" W × 11½" D... $200

**Criterion 2002A Speaker System**
Three-way speaker system with 12-in. woofer, 2-in. × 6-in. exponential horn midrange, and wide-dispersion phenolic ring tweeter; crossovers at 2000 and 4000 Hz; 8-in. nominal impedance; frequency response 20-20,000 Hz; max. input 90 W program; tweeter and compensation/equalization controls; walnut vinyl finish with cabinet brown/white grille; 26" H × 15½" W × 12½" D... $150

**Criterion 2001A Speaker System**
Three-way speaker system with 10-in. woofer, 2-in. × 6-in. exponential horn midrange, and wide-dispersion phenolic ring tweeter; crossovers at 2000 and 4000 Hz; 8-in. nominal impedance; frequency response 32-20,000 Hz; max. input 70 W program; tweeter and compensation/equalization controls; walnut vinyl finish with cabinet brown/white grille; 25½" H × 13½" W × 12½" D... $120

**LAFAYETTE 1009 Speaker System**
Three-way speaker system with 12-in. foam-edged woofer, midrange, and tweeter; frequency response 40-18,000 Hz; 8-ohm impedance; max. input 60 W/mC; midrange and tweeter controls; birch vinyl finish with removable brown foam grille; 24" H × 14½" W × 10¾" D... $100

**Criterion DS-1 Mini Speaker System**
Two-way miniature high performance speaker system with 6½-in. heavy-magnet butyl woofer and soft-dome tweeter; response 55-20,000 Hz; impedance 8 ohms; max. input 70 W/mC; walnut veneer finish; 11½" H × 7½" W × 7¼" D... $160 pr.

**LAFAYETTE 1007 Speaker System**
Three-way speaker system with 10-in. foam-edged woofer, midrange, and tweeter; frequency response 45-17,000 Hz; 8-ohm impedance; max. input 50 W/mC; walnut veneer finish; removable brown foam grille; 22½" H × 12½" W × 10½" D... $60

**LAFAYETTE Pip-Squeak Speaker System**
Two-way miniature speaker system with long-throw woofer and 1-in. soft-dome tweeter; frequency response 80-20,000 Hz; max. input power 40 W/mC; impedance 8 ohms; diecast aluminum case; 7½" H × 4½" W × 4½" D... $100 pr.

**LANCER**

**Lancer SC-9T Three-Way System**
Dynamic acoustic-suspension system with 10-in. woofer, 5-in. midrange, and two 1-in. dome tweeters; frequency response 20-20,000 Hz; crossovers at 500 and 4500 Hz; min. input 10 W, max. input 100 W; impedance 8 ohms; midrange and high-frequency controls; multi-radiational tower design; oiled-walnut veneer cabinet; removable black double-knit grille; 38½" H × 12½" W × 12½" D... $250

**SC-7A.** Similar to SC-9T except 12-in. woofer, 5-in. midrange, one 1-in. dome tweeter; frequency response 20-20,000 Hz ±5 dB; removable brown knitted grille; 25½" H × 15½" W × 11¾" D... $270

**Lancer SC-4A Three-Way System**
Dynamic acoustic-suspension system with 12-in. woofer, 5-in. midrange, and 2½-in. tweeter; frequency response 20-20,000 Hz; crossovers at 750 and 6000 Hz; min. input 10 W; max. input 50 W; impedance 8 ohms; midrange and high-frequency controls; oiled-oak veneer cabinet; removable brown double-knit grille; 23½" H × 15½" W × 12½" D... $230

**SC-10A.** Similar to SC-4A except 2½-in. tweeter; crossover at 2500 Hz; frequency response 20-20,000 Hz; walnut finish; 20½" H × 12½" W × 10½" D... $150

**Lancer 9355-2 Two-Way System**
Dynamic bass-reflex design with 12-in. woofer and 2½-in. tweeter; frequency response 30-20,000 Hz; crossover at 3000 Hz; impedance 8 ohms; max. input 5 W; max. input 35 W; oiled-walnut veneer cabinet with brown/white grille; 25½" H × 14½" W × 11½" D... $120

**LENTEK**

**S4 Speaker System**
Two-way bookshelf moving-coil speaker system with 200-mm styrene-cone woofer/midrange and 25-mm hemispherical dome tweeter; crossover at 2500 Hz (18 dB/octave); 8-ohm impedance; frequency response 60-18,000 Hz ±3 dB; sensitivity 78-dB SPL/2.83 V/m; input range 25-100 W/Oh sine wave; walnut or teak finish with brown grille; 19½" H × 9½" W × 10½" D... $580

**LINN by AUDIOPHILE SYSTEMS**

**DMS Isobarik Speaker System**
Three-way isobarik-loading speaker system with two 12 × 9-in. woofers, two 5-in. midrange drivers, and two 1-in. dome tweeters; frequency response...
<table>
<thead>
<tr>
<th>Speaker System</th>
<th>Description</th>
<th>Dimensions</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>310X Speaker System</td>
<td>Three-way floor-standing acoustic-suspension speaker system with 10-in woofer, 5-in convex mid-range, and 2-in polyaxial tweeter; crossover at 900 and 5000 Hz; frequency response 36-18,000 Hz; recommended input range 15-50 W; sensitivity 90 dB SPL/W/m; 8-ohm impedance; high/mid frequency balance control; 21 3/4&quot; H x 12 1/2&quot; W x 7&quot; D</td>
<td>$139</td>
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**MATRECS**

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<th>Speaker System</th>
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<tbody>
<tr>
<td>MA-130 Speaker System</td>
<td>Three-way acoustic-suspension speaker system with 12-in woofer, 25-oz ceramic magnet, 1 3/4-in aluminum voice coil, and 1-in dome tweeter; frequency response 35-22,000 Hz; crossovers at 1000 and 5000 Hz; input range 8-75 W continuous; 8-ohm nominal impedance; pushbutton connection terminals and midrange/tweeter level control; walnut vinyl finish with brown knit grille; 24&quot; H x 15&quot; W x 9 3/4&quot; D</td>
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<tr>
<th>Speaker System</th>
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<tr>
<td>MA-124 Speaker System</td>
<td>Three-way acoustic-suspension speaker system with 12-in woofer, 12-oz ceramic magnet, 1 1/2-in aluminum voice coil, and 1-in phenolic ring tweeter; frequency response 35-22,000 Hz; crossovers at 2500 and 5000 Hz; input range 8-45 W continuous; 8-ohm nominal impedance; pushbutton connection terminals; walnut vinyl finish with brown knit grille; 24&quot; H x 15&quot; W x 9 3/4&quot; D</td>
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<tr>
<td>MA-211 Speaker System</td>
<td>Three-way acoustic-suspension speaker system with 10-in passive radiator, 10-in dual-drive woofer, 10-oz ceramic magnet, 1-in aluminum voice coil, 4 3/4-in midrange, and 1 1/4-in phenolic ring tweeter; frequency response 40-22,000 Hz; crossovers at 2500 and 5000 Hz; input range 8-50 W; 8-ohm nominal impedance; pushbutton connection terminals and tweeter and midrange level controls; walnut vinyl finish with brown knit grille; 32&quot; H x 14 1/2&quot; W x 10 1/2&quot; D</td>
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<tr>
<td>MA-105 Speaker System</td>
<td>Three-way acoustic-suspension speaker system with 10-in woofer, 25-oz ceramic magnet, 1 1/2-in aluminum voice coil, 4 3/4-in midrange, and 1-in dome tweeter; frequency response 35-20,000 Hz; crossovers at 2500 and 5000 Hz; input range 5-50 W continuous power; 8-ohm nominal impedance; pushbutton connection terminals and tweeter level control; walnut vinyl finish with brown knit grille; 22&quot; H x 13 1/4&quot; W x 9 3/4&quot; D</td>
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<tr>
<th>Speaker System</th>
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<th>Dimensions</th>
<th>Price</th>
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<tbody>
<tr>
<td>MS-80 Subwoofer/S-35 Satellites</td>
<td>Subwoofer contains 10-in active bass driver with 10-in Mesa Bass Reciprocator driver; frequency response 30-115 Hz; handles 80 W/ch; level control to balance satellite speaker volume with subwoofer. S-35 Mesa miniature speakers designed as satellite speakers for MS-80; 5-in woofer and 4 1/2-in soft dome tweeter; frequency response 115-17,000 Hz; handles 40 W/ch; walnut vinyl cabinet and black grille; 9 1/4&quot; H x 6 1/4&quot; W x 5 1/4&quot; D; MS-80: 18&quot; H x 16&quot; W x 16&quot; D</td>
<td>$378</td>
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**MESA**

<table>
<thead>
<tr>
<th>Speaker System</th>
<th>Description</th>
<th>Dimensions</th>
<th>Price</th>
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</thead>
<tbody>
<tr>
<td>MESA 125 Speaker System</td>
<td>Four-way speaker system with 12-in bass reciprocator, 12-in woofer, 5-in midrange in mini-enclosure, and 3-in Prisman dome tweeter; frequency response 30-22,000 Hz; crossovers at 65, 900, and 6000 Hz; input range 15-125 W; continuous; 8-ohm impedance; built-in circuit breaker with automatic reset; base reciprocator vented cabinet finished with walnut vinyl finish; 27&quot; H x 16&quot; W x 13&quot; D</td>
<td>$279</td>
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**MATRECS**

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<tbody>
<tr>
<td>MA-130 Speaker System</td>
<td>Three-way acoustic-suspension speaker system with 12-in woofer, 25-oz ceramic magnet, 1 3/4-in aluminum voice coil, and 1-in dome tweeter; frequency response 35-22,000 Hz; crossovers at 1000 and 5000 Hz; input range 8-75 W continuous; 8-ohm nominal impedance; pushbutton connection terminals and midrange/tweeter level control; walnut vinyl finish with brown knit grille; 24&quot; H x 15&quot; W x 9 3/4&quot; D</td>
<td>$180</td>
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</table>

You ordinarily see Martin speakers advertised one at a time. But there are 16 superb, sweet-sounding Martin speaker models, manufactured in one or more of our four production facilities in the USA, France, Spain or Norway — ranging in price from $99 to $750. We make only one kind of product... fine loudspeakers. They are meticulously crafted one by one for a discerning audience which demands the Sound of Perfection.
We’re Mesa Electronics.

Who?

Mesa Electronics, and you’re going to be hearing a lot from us.

If you’ve ever heard our speakers, we’d need no introduction. If you’ve never heard them, you should. But switch on our line of Bass Reciprocator speakers. Ordinary speakers (no matter what they cost) are going to sound different in different rooms, simply because the environment they are in affects their sound. But with the Mesa

Vicom control, you get consistently good sound anywhere, because it allows you to position your sound eleven different ways according to environmental conditions, or for different kinds of music. (That’s up to eleven different ways more than the competition.)

No small achievements: Our Mini-Mesa Series.

But Mesa doesn’t just make big speakers. We also make terrific little speakers. In fact, so terrific, with your eyes closed you wouldn’t know they were small. There’s a full line, from our super compact Mini-Mesa 15 (less than 4 inches wide and 6 inches high) perfect for your car, van, boat or plane, to the Mini-Mesa 30, an unobtrusive bookshelf speaker at less than 5” wide and 8” high, to our Mini-Mesa 50.
3-way system complete with horn tweeter, yet only 6 1/2” wide. We’ve already made a name for ourselves in the miniature speaker field, and small wonder.

Listening pleasure. Two sizes—5 1/4” round flush mount or 6” x 9” rear ledge mounts—work with any full range car speakers, adding the low notes and instruments the full range speakers aren’t capable of handling alone. Wait until you hear what you’ve been missing.

Look! In the home! Under the lamp! It’s an end table! No, it’s a Subwoofer!

Mesa not only makes a subwoofer for your home stereo system, and makes it look like a beautiful piece of furniture to boot, it makes it unique. The Mesa MS-80 Subwoofer is the only subwoofer you can buy with a dual level control that lets you balance satellite speaker volume. The MS-80 adds a new dimension to the sound of any stereo speaker system, and looks good while it’s doing it. And since bass signals are omnidirectional, you can place it anywhere in the room—even as an end table.

If Mesa speakers sound so good, why do we stand behind them?

A lot of speakers have 90-day warranties. Some have one year warranties. A few have more. But only Mesa offers 5-year limited warranties on all our products. We don’t do it to make you think something might go wrong with them. We do it because we know nothing will.

Don’t do anything until you hear from us.

We’d like to hear from you. Write us today and we’ll send you more information on our products and a list of Mesa dealers in your area. Once you get to one of them, you’ll get the idea a lot faster than we can explain it.
**Mesa 85 Speaker System**

Four-way speaker system with 12-in bass recirculator, 10-in woofer, 5-in midrange in mini-enclosure, and 3-in Prismandome tweeter; frequency response 36-22,000 Hz; crossovers at 65, 90, 1800, and 6000 Hz; input range 15-85 W continuous; 8-ohm impedance; 11-position VICON control with ±5-dB range; built-in circuit breaker with automatic reset; bass reflex port; vented cabinet with walnut vinyl finish; tweeter adjustments; walnut finish with black grille; $229...

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**Mesa 65 Speaker System**

Three-way speaker system with 10-in bass recirculator, 10-in woofer, and 3-in Prismandome tweeter; frequency response 40-22,000 Hz; crossovers at 80 and 2500 Hz; input range 15-65 W continuous; 8-ohm impedance; 11-position VICON control with ±5-dB range; built-in circuit breaker with automatic reset; vented cabinet with walnut vinyl finish; 25'/2" H x 14'/2" W x 11'/4" D...

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**Mesa 800 Speaker System**

Three-way speaker system with 10-in woofer; frequency response 35-20,000 Hz; handles 60 W/ch; directivity factors between tweeter and midrange frequency 24'/2" H x 14'/2" W x 10'/2" D...

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**Mesa 45 Speaker System**

Three-way speaker system with 8-in bass recirculator, 8-in woofer, and 3-in Prismandome tweeter; frequency response 45-22,000 Hz; crossovers at 85 and 3000 Hz; input range 15-45 W/ch; 8-ohm impedance; 11-position VICON control with ±5-dB range; built-in circuit breaker with automatic reset; vented cabinet with walnut vinyl finish; 21'/2" H x 11'/2" W x 9'/2" D...

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**Mesa 500 Speaker System**

Two-way speaker system with 8-in woofer; frequency response 40-20,000 Hz; handles 40 W/ch; three-position tweeter control; 21'/2" H x 12'/2" W x 9" D...

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**Mini-Mesa 50 Speaker System**

Three-way bookshelf speaker system with 4-in foam-suspension woofer, female magnet, 1.25-in aluminum honeycomb bobbin voice coil, 3-in midrange, and 25 x 12-mm horn tweeter; handles 100 W/ch at 8000 Hz; 4- or 8-ohm impedance; frequency response 20-20,000 Hz; input range 15-60 W continuous, 80 W max; walnut vinyl cabinet with black grille cloth; 9'/2" H x 6'/2" W x 4'/2" D...

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**Mini-Mesa 30 Speaker System**

Two-way bookshelf speaker system with 4-in foam-suspension woofer and hard-dome tweeter; can be used in mobile situations; crossover at 3500 Hz; 4- or 8-ohm impedance; frequency response 50-25,000 Hz; input range 10-30 W continuous, 50 W max; high-frequency and resin and asbes- tobin cabinet with black aluminum grille; 7'/2" H x 4'/4" W x 4'/4" D...

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**M & K Satellite-1 Speaker System**

Two-way acoustic-suspension speaker system with two 5-in woofers and 1-in tweeter; frequency range 50-22,000 Hz; crossover at 1785 Hz; input range 7.5-20.0 W; 4-ohm impedance; midrange and tweeter adjustments; walnut finish with black grille; 21'/4" H x 7'/8" W x 6'/2" D...

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**The Volkswagen Subwoofer**

Servo-feedback 60 W internal amp subwoofer with 12-in woofer and bass crossover frequency adjustment; range 26-300 Hz; input range 30-150 W; walnut finish; 16'/2" H x 18'/2" W x 18'/2" D...$235

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**Satellite-Volkswagen System**

Combines two Satellite-1 speakers and Volkswagen subwoofer...

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**Micro-Acoustics**

**FRM-1ax Speaker System**

Two-way acoustic-suspension speaker system with 10-in woofer and four 1'/4-in drivers and super tweeter mounted in triaxial array; high-pass 180 degrees; low-pass 180 degrees, horizontal and vertical at 10,000 Hz; frequency response 32-18,000 Hz ±4 dB; crossover at 1700 Hz; input range 18-70 W continuous; 8-ohm impedance; separate tweeter level and dispersion controls; walnut vinyl cabinet with brown, black, blue, sandalwood, or orange cloth grille; 25'/4" H x 15'/4" W x 12'/4" D...

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**FRM-2ax Speaker System**

Two-way acoustic-suspension speaker system with 10-in woofer and two 1'/4-in tweeters with super tweeter mounted in triaxial array; dispersion 160 degrees; frequency response 40-16,000 Hz ±4 dB; crossover at 1750 Hz; input range 10-60 W continuous; 8-ohm impedance; tweeter level control; walnut vinyl cabinet with brown acoustical foam grille; 25'/4" H x 15'/4" W x 12'/4" D...

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**FRM-3ax Speaker System**

Two-way speaker system with 8-in woofer and 1'/4-in tweeter planted on vari-axis dispersion assembly; dispersion 140 degrees; frequency response 45-15,000 Hz ±4 dB; crossover at 2500 Hz; input range 7-50 W continuous; 8-ohm impedance; mechanical vari-axis control; built-in circuit breaker; matched pair; walnut finish; walnut cabinet and detachable grille; 12'/2" H x 22" W x 9'/4" D...

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**MS-1 Speaker System**

One-way miniature microstatic system with four 1'/4-in tweeters; frequency response 3500-18,000 Hz ±3 dB; dispersion 180 degrees horizontal, 140 degrees vertical; has range selector and level control; 16-ohm impedance; max. input range 15-60 W continuous; for use with low- and medium-efficiency systems to augment treble; walnut cabinet; 3'/4" H x 9'/4" W x 5'/4" D...

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**MS-40 Speaker System**

Three-way air-suspension floor-standing speaker system with 12-in glass-fiber-reinforced plastic honeycomb-cone woofer, 4-in cone midrange, and 1'/1-in hybrid dome tweeter; frequency response 25-20,000 Hz; crossovers at 600 and 5000 Hz; sensitivity 87 dB SPL/W/m; max. input 150 W; 6-ohm impedance; four-step midrange and tweeter level controls; walnut finish; includes matching brackets and 30-ft speaker cable; 6" H x 3'/2" W x 33'/4" D...

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**Festival Series**

Two-way speaker system with 140-mm woofer/midrange and 25-mm wide-dispersion synthetic dome tweeter; frequency response 65-20,000 Hz ±3 dB; crossover at 3500 Hz; 8-ohm impedance; sensitivity 6.7 V rms (5.6 W) for 96 dB at 1 m; continuous program rating 20 V rms (50 W); recommended amp power 10-90 W; peak or walnut veneer finish with deep brown woven fabric grille; 21'/H x 13'/2" W x 9" D...

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**Mordaunt-Short Signifier Speaker System**

Three-way acoustic-suspension floor-standing speaker system with 300-mm woofer, 150-mm midrange, and 25-mm wide-dispersion synthetic dome tweeter; crossovers at 500 and 4000 Hz; frequency response 38-20,000 Hz ±2 dB; sensitivity 96 dB SPL/W/m; input range 25-250 W; THD less than 1.0%; includes matching stands; 31'/4" H x 15'/4" W x 12'/4"...

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**Pageant Series**

Two-way speaker system with 140-mm woofer/midrange and 25-mm wide-dispersion synthetic dome tweeter; frequency response 75-20,000 Hz ±3 dB; crossover at 3500 Hz; 8-ohm impedance; sensitivity 6.7 V rms (5.6 W) for 96 dB at 1 m; continuous program rating 19 V rms (45 W); recommended amp power 10-90 W; peak or walnut veneer finish with deep brown woven fabric grille; 17'/2" H x 11" W x 7'/2" D...

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**Carnival Series**

Two-way speaker system with 140-mm woofer/midrange and 68-mm paper cone tweeter; frequency response 85-17,000 Hz ±3 dB; crossover at 3500 Hz; 8-ohm impedance; sensitivity 6.9 V rms (6 W) for 96 dB at 1 m; continuous program rating 18 V rms (40 W); recommended amp power 10-80 W; peak or walnut finish with deep brown woven fabric grille; 15'/2" H x 9'/4" W x 5'/4" D...

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**Ohm Acoustics**

**Model F Speaker System**

Floor-standing speaker system with 12-inch diameter Walnut radiator and 15-inch woofer with 33.6-oz Alnico V-7, 10/-1" magnet; frequency response 37-19,000 Hz ±4 dB; input range 75-250 W; 4.3-ohm min. impedance; oiled walnut cabinet; 236
Model I Speaker System
Four-way dual-vented floor-standing speaker system with 12-in subwoofer with 72-oz ferrite magnet, 8-in woofer with 32-oz magnet, 1.5-in soft dome tweeter, and two 1-in soft dome supertweeters; frequency response 32-20,000 Hz; -4 dB; crossovers at 1700 Hz; tweeter; frequency response 32-20,000 Hz; -1 dB; crossovers at 100, 2000, and 10,000 Hz; input range 10-100 W continuous; nominal impedance 4 ohms; walnut veneer cabinet on 1-1/2-in flakeboard stock; 33-1/2" H x 14-1/2" W x 7-1/2" D at bottom, tapers to 13-1/2" W x 13-1/2" D at top.............. $675

Model H Speaker System
Three-way floor-standing vented speaker system with 8-in woofer, 2-in midrange, and 1-in dome tweeter; frequency response 32-20,000 Hz; ±4 dB; crossovers at 1700 and 5000 Hz; input range 10-100 W; 8-ohm impedance; three-position tweeter level control; SPL 91 dB/W/m; max. input 100 W; 8-ohm impedance; rosewood-grain vinyl finish; 26-1/2" H x 15" W x 10-1/4" D.............. $360

Model N Speaker System
Dual-vented subwoofer incorporates two 8-in woofers with 32-oz magnets; frequency response 32-140 Hz; input range 80-100 W; 8-ohm impedance; three-position tweeter level control; frequency response 65-19,000 Hz; ±4 dB; crossovers at 700 and 4500 Hz; SPL 93 dB/W/m; max. input 80 W; 8-ohm impedance; 20" H x 12" W x 10-3/4" D.............. $340

Model C Speaker System
Three-way speaker system with 10-in woofer, 2-in tweeter, and 1-1/4-in super dome tweeter; frequency response 32-20,000 Hz; ±4 dB; crossovers at 1700 and 5000 Hz; input range 10-100 W; 8-ohm impedance; three-position tweeter level control switch; oiled walnut finish on 1-1/4-in stock with black Formica back; 25" H x 14" W x 9-1/2" D.............. $275

Model L Speaker System
Three-way speaker system with 8-in woofer, 2-in low tweeter, and 2-in high cone tweeter; frequency response 42-20,000 Hz; ±4 dB; crossovers at 1700 Hz; and 5000 Hz; input range 8-100 W continuous; 8/4-ohm nominal impedance; three-position tweeter level control; midrange and tweeter level controls; frequency response 35-20,000 Hz; crossover at 700 Hz; midrange and tweeter level controls; frequency response 35-20,000 Hz; crossover at 1200 and 5000 Hz; input 200 W peak program; matched stereo pairs; includes two 4-in feet; African rosewood veneer finish;.............. $500

M-240 Speaker System
Three-way acoustic-suspension floor-standing speaker system with 15-in high-compliance woofer, 4-in carbon-fiber cone midrange, and 1-in titanium-foil dome tweeter; midrange and tweeter level controls; frequency response 35-20,000 Hz; crossover at 700 and 4500 Hz; SPL 93 dB/W/m; max. input 100 W; 8-ohm impedance; rosewood-grain vinyl finish; 27" H x 16-1/2" W x 13" D.............. $260

M-160 Speaker System
Two-way acoustic-suspension floor-standing speaker system with 12-in paper cone woofer and 2-1/2-in duralumion dome tweeter; tweeter level control; frequency response 35-20,000 Hz; crossover at 2000 Hz; SPL 91 dB/W/m; input 80 W; 8-ohm impedance; 22-1/2" H x 13-1/2" W x 12-1/2" D.............. $175

Model F-5000 Speaker System
Three-way air-suspension floor-standing speaker system with 12.2-in polyurethane/paper-laminated plane woofer, 4-in polyurethane/paper-laminated plane midrange, and 1.95-in direct-drive membrane samarium cobalt tweeter in phase-aligned array; midrange and tweeter level controls; frequency response 28-20,000 Hz; crossovers at 1200 and 5000 Hz; input 200 W peak program; matched stereo pairs; includes two 4-in feet; African rosewood veneer finish;.............. $340
Two-way passive-radiator speaker system incorporates 4 ½-in midrange drivers and two 2-in tweeters; frequency response 100-20,000 Hz ±2 dB; crossover at 5000 Hz; sensitivity 90 dB SPL/2W; input range 40-200 W; 6-ohm impedance; three-position high-frequency level control; bi-ampling not required; 42" H x 12"W x 4"D; $400 pr.

Three-way bass-reflex floor-standing speaker system 25-100 W continuous; 27" H x 15"W x 11½" D; 8-ohm impedance; max. input 60 W; walnut vinyl finish with removable black grille; 27" H x 14½"W x 11½"D; $130

Two-way tuned-port speaker system with 10-in woofer, 2-in dome tweeter; frequency response 47-20,000 Hz; crossover at 4500 Hz; 8-ohm impedance; max. input 45 W; walnut vinyl finish with removable black grille; 24" H x 13½" W x 11½" D; $100

Two-way tuned-port speaker system with 8-in woofer and 2¾-in cone tweeter; frequency response 48-17,500 Hz; crossover at 4500 Hz; 8-ohm impedance; max. input 20 W; walnut vinyl finish with removable black grille; 21½" H x 13" W x 11½" D; $75

Four-way bass-reflex floor-standing speaker system with 15½-in woofer, 4-in cone midrange, 1¼-in 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 impedance; sensitivity 92.5 dB/Wm; nominal input 125 W; min. input 10 W; grain finish; 38½"H x 17¼"W x 17⅛"D; $550

Four-way bass-reflex bookshelf speaker system with 10-in woofer, 4-in cone midrange, 1½-in 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 impedance; sensitivity 92.5 dB/Wm; max. input 200 W; 26½"H x 15¾"W x 15⅛"D; $350

Three-way bass-reflex bookshelf speaker system with 10-in woofer, 1½-in cone tweeter, and high polymer molecular film super tweeter; frequency response 25-20,000 Hz; 8-ohm impedance; sensitivity 91 dB/Wm; max. input 100 W; 22½" H x 12½"W x 12½"D; $180

Three-way ducted port, bookshelf speaker system with 10-in cone woofer, 5-in midrange, 4-inch midrange, multi-cellular horn tweeter, and two ½-in dome super tweeters; frequency response 25-22,000 Hz; 8-ohm impedance; sensitivity 97.5 dB/Wm; max. input 80 W; 24½" H x 13¾"W x 12½"D; $260

Three-way three-way floor-standing speaker system with 15-in woofer, 4-in midrange, and 1½-in cone tweeter; frequency response 25-20,000 Hz; 8-ohm impedance; sensitivity 91 dB/Wm; max. input 100 W; 22½" H x 12½"W x 12½"D; $725

Three-way floor-standing speaker system with 14-in woofer, 5-in midrange, 3½-in cone tweeter; frequency response 28-25,000 Hz; 8-ohm impedance; sensitivity 97.5 dB/Wm; max. input 200 W; 27½" H x 13½"W x 10½"D; $145

Three-way four-way bass-reflex floor-standing speaker system with 12-in woofer, 4-in midrange, and 1½-in cone tweeter; frequency response 25-20,000 Hz; 8-ohm impedance; sensitivity 92.5 dB/Wm; max. input 100 W; 24½" H x 13½"W x 11½"D; $145
POLK AUDIO

**R.T. A. 12 Monitor Speaker System**

Three-way real-time array-floor-standing speaker system
- Four-way, 6-1/2" dynamic cone woofer
- 6-1/2" midrange dynamically coupled to a 3/4" dome tweeter
- Frequency response 35-20,000 Hz ±3 dB; crossovers 600 and 4000 Hz; sensitivity 88 dB SPL/W/m; max. input range 15-200 W; 8-ohm impedance; walnut veneer finish with black grille; 26" H x 12" W x 10" D... $1295
- Includes subwoofers at 600 and 4000 Hz; min. input 15 W; 8-ohm; walnut finish with removable grille; 31 1/2" H x 19" W x 12" D... $700

**Loud Subwoofer**

Terminal-line subwoofer with 8-in. woofers; frequency response 28.90 Hz - 3 dB; min. input 75 W; walnut finish with foam grille; 34" H x 11 1/2" W x 10" D... $229

**Live Performance Two Speaker System**

Two-way floor-standing free-flow transmission-line speaker system with mirror-image phase-aligned 8-in. woofer and 1-in. dome tweeter; frequency response 28-90 Hz; crossovers 4000 and 7000 Hz; sensitivity 93 dB W/m; input range 15-200 W; 6-ohm impedance; walnut "tri-ple" enclosure; 32" H x 12" W x 13" D... $420

**Live Performance Three Subwoofer**

Incorporates 8-in. low-mass woofer; frequency response 34-100 Hz ±3 dB; includes acoustical low-pass crossover filter; input range 15-200 W; 8-ohm impedance; walnut tri-ple enclosure; 38" H x 12" W x 13" D... $1195

**Beta Ila Speaker System**

Two-way, 6-in. woofers and 1-in. dome tweeter; frequency response 55-22,000 Hz ±3 dB; crossovers at 3000 and 6000 Hz; sensitivity 91 dB W/m; min. input 30 W/ch; 6-ohm impedance; max. input 150 W; walnut finish with Treble pad controls; oilied finish with removable grille; 34" H x 17" W x 12" D... $260

** bets I Speaker System**

Two-way 8-in. passive radiator floor-standing speaker system with 8-in. long-throw woofer and 1-in. dome tweeter; crossover at 2000 Hz; frequency response 42-20,000 Hz ±3 dB; sensitivity 93 dB SPL/W/m; max. input range 15-200 W; 8-ohm nominal impedance; walnut veneer finish with black cloth grille; 29 1/2" H x 13 1/2" W x 12 3/4" D... $295

**Optimus T-200 Speaker System**

Three-way floor-standing speaker system with two 10-in. woofers, 6-1/2" in-midrange, and 1-in. dome tweeter; frequency response 20-20,000 Hz; 8-ohm impedance; max. input 75 W; max. input 200 W; walnut finish with foam grille; 34" H x 11 1/2" W x 10" D... $795

**Optimus T-100 Tower**

Two-way floor-standing speaker system with 8-in. woofer, 6-1/2" in-midrange, and 2-in. dome tweeter; frequency response 25-20,000 Hz ±3 dB; crossovers at 800 and 8000 Hz; 8-ohm impedance; max. input 75 W peak program; treble control adjustment; walnut tri-ply enclosure; 35" H x 13" W x 12" D... $180

**Mach One Speaker System**

Sealed three-way speaker system with 15-in. woofer, multi-cell midrange horn, and high-compliance passive radiator; frequency response 25-20,000 Hz; crossovers at 800 and 8000 Hz; 8-ohm impedance; max. input 75 W peak program; treble adjustment control; walnut tri-ply enclosure; 35" H x 13" W x 12" D... $180

**Optimus-10 Speaker System**

Sealed acoustic-suspension speaker system with 8-in. woofer, 10-in. cone, and 3-in. dome tweeter; frequency response 42-20,000 Hz ±3 dB; max. input 75 W singlepeak program; 8-ohm impedance; brilliance control; piano jack and screw terminal connections; walnut veneer with removable grille; 25" H x 15 1/2" W x 10 1/4" D... $140

**Optimus-25 Speaker System**

Sealed three-way acoustic-suspension floor-standing speaker system with 12-in. woofer, 4-in. midrange, and 2-in. dome tweeter; frequency response 45-20,000 Hz; 8-ohm impedance; max. input 75 W; midrange and treble switches in hi-normal/low/midrange and treble modes; walnut finish with removable grille; includes piano jacks and screw terminals; 25" H x 14" W x 11 1/2" D... $140

**Optimus-23 Speaker System**

Two-way acoustic-suspension speaker system with 10-in. ported bass woofer and 3-in. tweeter; frequency response 20-20,000 Hz ±4.5 dB; crossover at 1200 Hz; input range 7-20 W; 8-ohm impedance... $100

**REFERENCE by QUADRAFLEX**

**312L Speaker System**

Three-way linear-phase acoustic-suspension floor-standing speaker system with 12-in. woofer, 6-in. midrange, and 1-in. soft cone tweeter; frequency response 32-22,500 Hz ±4 dB; crossovers at 600 and 4000 Hz; min. input 10 W; 8-ohm impedance; black and teal vinyl finish; includes piano jacks and screw terminals; 31 1/2" H x 18" W x 13" D... $270

**310L Speaker System**

Three-way linear-phase acoustic-suspension...
speaker system with 10-in woofer, 6½-in cone midrange, and 1-in Mylar dome tweeter; frequency response 36-20,000 Hz ±2 dB; sensitivity 95-50 dB SPL/W/m; min. input 25 W; midrange, and tweeter level controls; oil-dipped walnut grille cloth; 37½" H x 15½" W x 11½" D ............................................ $180

150, 1500, and 9000 Hz; 6-ohm impedance; frequency response 36-20,000 Hz ±2 dB; efficiency 90-50 dB SPL/W/m; min. input 25 W; midrange, and tweeter level controls; oil-dipped walnut grille cloth; 37½" H x 15½" W x 11½" D ............................................ $180

ESR-15 Speaker System
Electrostatic speaker system; frequency response 1250-20,000 Hz; incorporates 15 HF-50 electrostatic radiators; crossover frequency 1250 Hz; 8-ohm nominal impedance; recommended power 15-60 W/ch continuous; has continuously variable tweeter level control, resettable circuit breaker protection, surge voltage protection, and five-way binding post connectors; Corinthian column design with walnut veneer finish and black doubleknit grille; 42" H x 14½" W x 12½" D ............................................ $400

300D Speaker System
Three-way acoustic-suspension speaker system with two 10-in cone woofers, 4½-in soft dome midrange, and one soft dome tweeter; frequency response 35-22,000 Hz; drives 35-30,000 Hz; drives electrostatic element, woofer system requires 75-150 W power amp. Woofer system and electrostatic array housed in one cabinet plus one electrostatic cabinet; volume and tweeter control; hand-rubbed walnut veneer finish with black fabric grille; 49½" H x 16¼" W x 16½" D ............................................ $1,485

600 D Speaker System
Three-way acoustic-suspension speaker system with two 12-in woofers, 1½-in cone midrange, and two 1½-in soft dome tweeters; frequency response 32-20,000 Hz; crossovers at 950 and 10,000 Hz; 4-ohm nominal impedance; recommended amp power 25-120 W continuous; has continuously variable midrange and tweeter level controls, resettable circuit breaker protection, and five-way binding post connectors; Corinthian column design with Peolian wood grille and black doubleknit grille; 48½" H x 16½" W x 16½" D ............................................ $600

8000 Speaker System
Four-way acoustic-suspension phased speaker system with 8-in and 10-in woofers, 1½-in soft dome midrange, and 1-in soft dome tweeter; crossovers at 30-25,000 Hz; crossovers at 2000 Hz; sensitivity 91 dB SPL/W/m; max. input 220 W; sensitivity 95 dB SPL/W/m; max. input 200 W; 8-ohm impedance; may be bi-ampled via separate terminals; solid walnut corner insets and walnut veneer finish with removable grille; four casters; 35½" H x 18½" W x 15½" D ............................................ $950

SP-L700 Speaker System
Two-way floor-standing speaker system with two 10-in cone woofers (with staggered frequency responses) and multiport rear-driven horn tweeter with rotating acoustic lens (covers 120° area) and multi-port acoustic equalizer; frequency response 30-20,000 Hz; crossover at 2000 Hz; max. input 300 W; sensitivity 95 dB SPL/W/m; 8-ohm impedance; may be bi-ampled via separate terminals; solid walnut corner insets and walnut veneer finish with removable grille; four casters; 35½" H x 18½" W x 15½" D ............................................ $680

SP-X9700 Speaker System
Four-way bass-reflex floor-standing speaker system with two 15-in cones (with staggered frequency responses) and two 2½-in cone tweeters, and three 2½-in cone superwoofers; max. input 280 W; sensitivity 100 dB SPL/W/m; 8-ohm impedance; tweeter level control; simulated walnut grain finish with wood grille ............................................ $390

SP-X8700 Speaker System
Four-way bass-reflex floor-standing speaker system with two 15-in cones (with staggered frequency responses) and two 2½-in cone tweeters, and three 2½-in cone superwoofers; max. input 280 W; sensitivity 100 dB SPL/W/m; 8-ohm impedance; tweeter level control; simulated walnut grain finish with wood grille ............................................ $235

J33 Mini Speaker System
Two-way air-suspension mini bookshelf speaker system with 8½-in cone midrange, and 5 x 2½-in oval piezoelectric tweeter; frequency response 35-22,000 Hz; crossovers at 800 and 2500 Hz; max. input 85 W; 8-ohm impedance; matched stereo pair; deep piano-black finish; 16½" H x 9½" W x 7½" D ............................................ $450 pr.

SPA-3100 Speaker System
Three-way acoustic-suspension bookshelf speaker system with 12-in cone woofer, 5½-in cone midrange, and 5 x 2½-in oval piezoelectric tweeter; frequency response 40-22,000 Hz; crossovers at 800 and 2500 Hz; max. input 45 W; 8-ohm impedance; matched stereo pair; deep piano-black finish; walnut-grain vinyl finish; 24½" H x 15½" W x 12½" D ............................................ $200

SPA-2100 Speaker System
Three-way acoustic-suspension bookshelf speaker system with 10-in cone woofers, 5½-in cone midrange, and 5 x 2½-in oval piezoelectric tweeter; frequency response 40-22,000 Hz; crossovers at 800 and 2500 Hz; max. input 45 W; 8-ohm impedance; mid- and high-level controls; circuit breaker; walnut-grain vinyl finish; 22½" H x 13½" W x 11½" D ............................................ $150

J11 Mini Speaker System
Two-way paperback-book-sized speaker system with 5½-in cone cone midrange, and 1½-in soft-dome tweeter; frequency response 45-20,000 Hz; crossover at 2500 Hz; max. input 60 W; sensitivity 85 dB SPL/W/m; 5-ohm impedance; silver-finished aluminum enclosure with precision-
punched metal grille; matched stereo pairs; 11/4" x 13/4" x 11/4" D. $100

SPA-1100 Speaker System
Two-way acoustic-suspension bookshelf speaker system with 10-in cone woofer and 2 1/2-in deep piezoelectric tweeter; frequency response 45-22,000 Hz; crossover at 2500 Hz; max. input 30 W; circuit breaker; walnut-grain vinyl finish; 22/3" x 13/4" x 11/4" D. $290 pr.

H.H. SCOTT
Pro-100B Speaker System
Three-way bi-directional air-suspension floor-standing monitor speaker system with 15-in woofer, two 4/3-in midrange drivers, and two 2-in dome tweeters; crossovers at 700 and 3500 Hz; 4-ohm controlled impedance; frequency response 36-20,000 Hz; efficiency 94-dB SPL/W/m; input range 20-200 W; midrange and tweeter level controls; hand-rubbed lacquer coating and hardwood veneer finish; 45/4" H x 13/4" W x 141/4" D. $550

197B Speaker System
Three-way air-suspension floor-standing speaker system with 15-in woofer, 4/3-in midrange, and 1-1/2-in dome tweeter; crossovers at 750 and 3000 Hz; controlled impedance 6-8 ohms; frequency response 38-20,000 Hz; efficiency 95-dB SPL/W/m; input range 15-150 W; 3-position tweeter and midrange level controls; walnut vinyl with removable grille; 29/3" H x 19" W x 141/4" D. $100

188T Speaker System
Three-way air-suspension floor-standing speaker system with 10-in woofer, 4/3-in midrange, and 1-in dome tweeter; crossovers at 900 and 3500 Hz; controlled impedance 6-8 ohms; frequency response 38-20,000 Hz; efficiency 95.4-dB SPL/W/m; input range 10-60 W; sensitivity 89 dB SPL/W/m; 8-ohm impedance; crossover at 275 and 2500 Hz; min. input 80 W/ch; crossover at 700 and 3000 Hz; input range 10-60 W; 22/2" H x 13" W x 111/4" D. $120

SEAHANIN ACOUSTICS
Obelisk Speaker System
Two-way folded double-prism 48-in hybrid transmission line speaker system with 8-in asymmetrical placement; two-way speaker with 28-oz ceramic magnet, 10-in rear-end mass-loaded membrane, viscous-damped passive radiator, and four 1-in Mylar dome tweeters; frequency response 35,000 Hz ±3 dB; crossover at 2000 Hz; 6-ohm nominal impedance; 150 W average music program; Brazilian rosewood-veneer cabinet; 26/3" H x 14" W x 12" D. $450

SPEAKER SYSTEMS
The Tower 1 Speaker System
Two-way floor-standing speaker system with two 8-in woofers and 3-in wide-band tweeter; has Tri-Bass Accelerator to increase efficiency and low-end response; frequency response 30-20,000 Hz; crossover at 5000 Hz; 8-ohm impedance; simulated wood grain vinyl finish; 31/2" x 11" W x 11" D. $190 pr.

SSU-1270 Speaker System
Three-way bass-reflex floor-standing speaker system with 10-in cone woofer, 3-way bookshelf speaker system; frequency response 35-25000 Hz, (6 dB/octave); input range 75-125 W continuous program; sensitivity 91 dB SPL/W/m; 254/3" H x 15" W x 101/4" D. $120 pr.

SSU-3000 Speaker System
Three-way bass-reflex floor-standing speaker system with 10-in cone woofer, 3-way bookshelf speaker system; frequency response 65-20,000 Hz +4/-3 dB; crossover at 1500 Hz; continuous program sensitivity 90 dB SPL/W/m; input range 100 W; 8-ohm nominal impedance; diecast magnesium driver frame; walnut-finish cabinet; 345/8" H x 61/4" W x 81/4" D. $600 pr.

SSU-3000 Kit
Three-way acoustic-suspension bookshelf speaker system with 10-in cone woofer and 1-in dome tweeter; frequency response 65-20,000 Hz +4/-3 dB; crossover at 1500 Hz; sensitivity 90 dB SPL/W/m; input range 100 W; 8-ohm nominal impedance; diecast magnesium driver frame; walnut-finish cabinet; 345/8" H x 61/4" W x 81/4" D. $600 pr.

SSU-2070 Speaker System
Three-way acoustical-suspension bass-reflex speaker system with 10-in woofers symmetrically placed in shallow cone woofers, two 6-in midrange units, two 4-in plastic-doped paper cone tweeters and horn-loaded super tweeter; frequency response 40-20,000 Hz ±3 dB; crossover at 1000, 3000, and 8000 Hz; input range 10-200 W; sensitivity 100 dB SPL/W/m; 8-ohm impedance; frequency response 30,200,000 Hz; input range 20-150 W; midrange and tweeter level controls; hand-rubbed lacquer coating and hardwood veneer cabinet; 345/8" H x 13" W x 141/4" D. $120 pr.

SSU-4000 System
Three-way bass-reflex floor-standing speaker system with 10-in cone woofer, 4-way rectangular passive radiator tweeter, and 2¾-in tweeter; sensitivity 92 dB/W/m; min. input 20 W/ch; midrange and tweeter level controls; walnut vinyl cabinet with detachable cloth grille; 25/8" H x 141/4" W x 141/4" D. $200 pr.

SHARP
SSU-2070 Kit
Three-way acoustic-suspension bookshelf speaker system with 10-in woofers symmetrically placed in shallow cone woofers, two 6-in midrange units, two 4-in plastic-doped paper cone tweeters and horn-loaded super tweeter; frequency response 40-20,000 Hz; crossover at 2000 and 7000 Hz; input range 20-70 W; 8-ohm impedance; removable grille allowing vertical or horizontal speaker placement; 25/8" H x 141/4" W x 101/4" D. $200 pr.

SHARP
SSU-2070 Kit
Three-way acoustic-suspension bookshelf speaker system with 10-in woofers symmetrically placed in shallow cone woofers, two 6-in midrange units, two 4-in plastic-doped paper cone tweeters and horn-loaded super tweeter; frequency response 40-20,000 Hz; crossover at 2000 and 7000 Hz; input range 20-70 W; 8-ohm impedance; removable grille allowing vertical or horizontal speaker placement; 25/8" H x 141/4" W x 101/4" D. $200 pr.

SOUND RESEARCH
Type A Speaker System
Three-way floor-standing speaker system with 10-in fused medium, and 1-in fused and ferrofluid-induced tweeter; frequency response 35-18,000 Hz ±1.5 dB (on axis and up to 25° off axis); crossover at 2000 Hz; 8-ohm impedance, hand-rubbed walnut veneer cabinet; 461/2" H x 23.75" W x 13 1/2" D. $1100 pr.

K412 Speaker System
Three-way bass-reflex rear-vented speaker system with 12-in woofers with 1¾-in aluminum voice coil, 4¾-in closed-back midrange with 1½-in aluminum voice coil, and two dual 7¾-in soft-membrane dome tweeters; 2 in phased array; dispersion 120° horizontal, 155° vertical; frequency response 30-21,000 Hz; crossovers at 1200 and 6000 Hz; input range 80-135 W continuous program; sensitivity 95 dB SPL/W/m; 27" H x 15" W x 101/4" D. $169 pr.
VINYL KIT
Three-position woofer damping switch; midrange efficiency 91 dB SPL/W/m; input range 25-350 W; crossovers at 750 and 4000 Hz; 8-ohm impedance; midrange and tweeter level controls; oiled-walnut finish with brown grille cloth; 27/2" H x 15/2" W x 15/2" D .................................................. $360
Vinyl kit ................................................................. $256

S4 Speaker System
Three-way acoustic-suspension speaker system with 10-in woofer, 6-in cone midrange, and 1-in dome tweeter; crossovers at 600 and 4000 Hz; 4-ohm impedance; crossover at 2000 Hz; efficiency 91 dB SPL/W/m; input range 10-50 W; 4-ohm impedance; midrange and tweeter level controls; oiled-walnut finish with brown grille cloth; 27/2" H x 15/2" W x 15/2" D .................................................. $310
Vinyl kit ...................................................................... $109
S3. Same as S4 except 1-in dome tweeter .................... $265
Vinyl kit ...................................................................... $160

S2.5 Speaker System
Three-way acoustic-suspension speaker system with 10-in woofer, 6-in cone midrange, and 1-in dome tweeter; crossovers at 600 and 4000 Hz; 4-ohm impedance; crossover at 2000 Hz; efficiency 92 dB SPL/W/m; input range 10-100 W; 8-ohm impedance; tweeter level control; oiled-walnut finish with brown grille cloth; 26/2" H x 15/2" W x 10/2" D .................................................. $215
Vinyl kit ...................................................................... $139

S2 Speaker System
Two-way acoustic-suspension speaker system with 10-in woofer and 1-in recessed dome tweeter; 4-ohm impedance; crossover at 2000 Hz; efficiency 92 dB SPL/W/m; input range 10-75 W; tweeter level control; oiled-walnut finish with brown grille cloth; 26/2" H x 11/2" W x 8/2" D .................................................. $115
Vinyl kit ...................................................................... $67

PSW1 Subwoofer
Acoustic-suspension subwoofer with two 10-in woofers; crossover at 150 Hz; input range 15-150 W; sensitivity 88 dB SPL/W/m; designed for use with Spinal Tap speaker systems; 18" H x 29/2" W x 15/2" D .................................................. $400
Vinyl kit ...................................................................... $250

SYNERGISTICS

S-92 Speaker System
Sealed three-way floor-standing speaker system with two 10-in woofers in computer-designed bass chamber, 4-ohm impedance; crossover at 1000 and 6000 Hz; frequency response 24-20,000 Hz; efficiency 92 dB SPL/W/m; input range 30-500 W; tweeter level control; oiled-walnut finish with brown grille cloth; 36/2" H x 36/2" W x 13/2" D .................................................. $200

S-73 Speaker System
Three-way speaker system with 12-in passive radiator, 8-in high-compliance woofer, and four 2/3-in extended range tweeters; frequency response 40-18,000 Hz ± 4 dB; crossovers at 45 and 2500 Hz; input range 6-60 W continuous; 8-ohm nominal impedance; walnut veneer finish; 30" H x 15/2" W x 15/2" D .................................................. $325

S-51C Speaker System
Four-way speaker system with 12-in passive radiator, 8-in high-compliance woofer, 2/3-in extended range tweeter, and piezo electric super tweeter; frequency response 35-24,000 Hz ± 4 dB; crossovers at 45, 2500, and 12,500 Hz; input range 6-80 W continuous; 8-ohm nominal impedance; walnut veneer finish; 25/2" H x 14/2" W x 11/2" D .................................................. $325

S-46 Speaker System
Three-way speaker system with 12-in passive radiator, 8-in high-compliance woofer, and 2/3-in extended range tweeter; frequency response 35-18,000 Hz ± 4 dB; crossovers at 45 and 2500 Hz; input range 6-60 W continuous; 8-ohm nominal impedance; walnut veneer finish; 25/2" H x 14/2" W x 11/2" D .................................................. $250

TANNONY

Buckingham Speaker System
Three-way ducted floor-standing speaker system with two 12-in bass drivers and integrated phase-coherent 8-in midrange/tweeter incorporating 8-in high-output tweeter; tweeter unit that consists of pressure unit, phase compensating throat, exponential horn assembly, and acoustic lens; frequency response 40-20,000 Hz ± 3 dB; crossover at 45 and 2500 Hz; 8-ohm impedance; input range 10-250 W; treble rolloff and treble energy controls; oiled walnut cabinet; 46" H x 24" W x 18" D .................................................. $2250
Oiled rosewood cabinet ............................................. $2500

Windsor Speaker System
Three-way ducted port speaker system with integrated phase-coherent design and separate 12-in bass driver; frequency response 40-20,000 Hz ± 3 dB; crossovers at 350 and 3500 Hz; 8-ohm impedance; input range 10-150 W; treble rolloff and treble energy controls; oiled walnut cabinet; 33" H x 23" W x 16" D .................................................. $1250
Oiled rosewood cabinet ............................................. $1450

Arden Speaker System
Two-way phase coherent bass-reflex integrated speaker system with 15-in direct-radiating Girda-coustic-cone woofer integrated with high-frequency compression tweeter mounted on common axis; frequency response 45-20,000 Hz ± 3 dB; crossover at 1000 Hz; 8-ohm impedance; input range 10-150 W; treble rolloff and treble energy controls; 36" H x 21" W x 14/2" D .................................................. $777

Berkeley Speaker System
Two-way phase-coherent ducted port integrated speaker system with 12-in direct-radiating woofer and high frequency compression tweeter mounted on common axis; frequency response 20-100,000 Hz ± 3 dB; crossover at 1000 Hz; 8-ohm impedance; input range 10-150 W; treble rolloff and treble control; 33" H x 21" W x 12/2" D .................................................. $655

T225 Monitor Speaker System
Two-way passive radiator glass-topped floor-standing speaker system with 10-in woofer and high-frequency compression tweeter mounted on common axis; frequency response 45-20,000 Hz ± 3 dB; crossover at 1000 Hz; 8-ohm impedance; input range 10-150 W; treble rolloff and treble energy control; 28" H x 15" W x 12" D .................................................. $495

STEREO DIRECTORY & BUYING GUIDE
ACCURACY.
JBL LAYS IT ON THE LINE.

Why do so many stars and studios use JBLs? And more discos* than any other speaker? Accuracy is the answer. The music as performed. That's the sound the pros insist on. No wonder 7 of the 10 top albums in 1978 were recorded, mixed or mastered on JBLs.**

And that's the sound we demand in every speaker in our line. JBL speakers are designed to match the music as played. Clear and lifelike.

We can state this with some pride since we create our speakers from the ground up. Concept, design, individual components—all are created at our plant and tested against stringent engineering specifications. Rigorous quality control is applied every step of the way.

We could go into more technical detail but we want to keep our message short and sweet. The reason so many stars, studios and professional installations prefer our speakers is JBL accuracy. Their living depends on how good they sound. So if you question your own ears, trust theirs.


FIRST WITH THE PROS.

**Recording Institute of America Survey.
TECHNICS

**SB-X50 Speaker System**
Linear phase three-way vented bookshelf speaker system with 10-in woofers and high-frequency compression tweeter on common axis; frequency response 45-20,000 Hz ±3 dB; crossover at 3000 Hz; 8-ohm impedance; input range 10-150 W; treble rolloff and treble energy controls; phase coherent integrated design; 26" H x 15" W x 11" D...

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**SB-L300 Speaker System**
Three-way linear-phase vented bookshelf speaker system with 12-in woofers, 4-in cone midrange, and tapered-flare radial horn tweeter; 130 W music power, 90 W continuous; 8-ohm impedance; tweeter and midrange controls; resettatable thermal protectors; simulated wood-grain finish with removable brown cloth grille...

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**SB-X30 Speaker System**
Linear phase three-way vented bookshelf speaker system with 8-in woofer, 3½-in cone midrange, and 1-in soft dome tweeter; crossovers at 1200 and 3000 Hz; 6-ohm impedance; frequency response 44-20,000 Hz; efficiency 93 dB/W/m; input range 40-90 W continuous (DI); includes thermal-relay speaker protection device and tweeter and midrange attenuators; 21½" H x 11" W x 10" D...

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**SB-L200 Speaker System**
Three-way linear-phase tube-vented bookshelf speaker system with 10-in cone woofer, 4-in cone midrange, and tapered-flare radial horn tweeter; 100 W music power, 65 W continuous; 8-ohm impedance; tweeter level control; resettatable thermal protectors; simulated wood-grain finish with removable brown cloth grille...

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**SB-X10 Speaker System**
Linear phase two-way vented bookshelf speaker system with 8-in cone woofer and 1-in soft dome tweeter; frequency response 25-20,000 Hz ±2 dB; crossover at 2000 Hz; 8-ohm impedance; input range 5-25 W; treble rolloff and treble energy controls; 18" H x 10½" W x 9½" D...

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**SB-X15 Speaker System**
Three-way coherent-source speaker system with 10-in woofer, 5½-in midrange, and 1-in soft dome tweeter; frequency response 27-20,000 Hz ±2 dB; crossovers at 500 and 4000 Hz; sensitivity 92 dB/W/m; input range 20-250 W; 8-ohm impedance; walnut, rosewood, teak, or oak cabinet finishes; 38" H x 12" W x 12" D...

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**Model 04 Speaker System**
Two-way coherent-source floor-standing system with 8-in bass radiator, 6½-in woofer-midrange, and 1-in soft dome tweeter; frequency response 37-20,000 Hz ±2 dB; crossover at 4000 Hz; sensitivity 89 dB/W/m; input range 20-105 W; 8-ohm impedance; walnut, rosewood, teak, or oak cabinet finishes; 36" H x 10" W x 10" D...

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**Model 02 Speaker System**
Two-way ported bookshelf speaker system with 6½-in woofers and 1-in soft dome tweeter; frequency response 45-20,000 Hz ±3 dB; crossover at 2500 Hz; sensitivity 92 dB/W/m; input range 10-100 W; walnut, rosewood, teak, or oak cabinet finishes with double knit black polyester grille; 19½" H x 11½" W x 9½" D...

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**Hi-Fi Speaker System**
Three-way co-axial speaker system with 12-in woofers, 4-in cone midrange, and 1-in soft dome tweeter; frequency response 25-22,000 Hz; sensitivity 92 dB/W/m; input range 12-75 W; 8-ohm impedance; walnut, rosewood, teak, or oak cabinet finishes; 38" H x 12½" W x 12½" D.

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**TRINITY AUDIO**

**Cathedral System Speakers**
Speaker system has two main panels with an array of 12 drivers and two separate 12-in woofers in internally braced isothermal infinite baffles; frequency response 20-20,000 Hz; crossovers at 1000 and 2600 Hz; input power range 50-250 W; 8-ohm nominal impedance; panels are finished in oak, natural or stained with black or white cloth grilles; oak or walnut finish with cloth or foam grilles; panels: 72½" H x 21½" W x 5½" D; woofers: 29½" H x 15½" W x 14" D...

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** Trinity Speaker System**
Three-way floor-standing acoustical suspension speaker system with 12-in butyl rubber suspension woofer with 8.7-b magnet assembly and high temperature copper voice coil, 5-in resin roll suspension midrange with 1.8-b magnet assembly, 1-in soft dome tweeter with 1.5-b magnet assembly; frequency response 40-20,000 Hz ±3 dB; crossovers at 600 and 5000 Hz; input power range 35-250 W; 8-ohm nominal impedance; walnut or rosewood finish with charcoal foam grille; panels: 72½" H x 21½" W x 5½" D; woofers: 29½" H x 15½" W x 14" D...

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**Model Two Speaker System**
Two-way floor-standing speaker system with two 8-in butyl rubber woofers with 3.5-b magnet assemblies and 1½-in voice coils; 1-in impregnated polypropylene dome tweeter frequency response 40-20,000 Hz ±3 dB; crossover at 4500 Hz; 8-ohm impedance; walnut, rosewood, or walnut grain finish with charcoal foam grille; 25½" H x 15½" W x 11½" D; tweeter: 6½" H x 10½" W x 4" D...

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**Monitor Speaker System**
Two-way speaker system with two 5½-in butyl rubber woofers with 1.6-b magnet assemblies, 1-in long throw voice coils, and 1-in short horn loaded 130-2000 Hz; 8-ohm impedance; input power range 35-250 W; 8-ohm impedance; rosewood or walnut finish with charcoal foam grille; treble controls; 13½" H x 14½" W x 7½" D...

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TRUSONIC

**Monitor Seven Speaker System**
Three-way floor-standing speaker system with two 12-in cast-frame linear-exursion woofers with Alnico magnets, 6-in cast-frame midrange housed in own sub-enclosure, and four direct-radiating solid-state high frequency drivers; frequency response 25-22,000 Hz ±4 dB; crossover at 500 and 4000 Hz; sensitivity 94 dB/W/m; oak veneer cabinet with removable double-knit brown grille; 44" H x 24" W x 17" D...

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**ULTRILINEAR**

**TM116 Speaker System**
Three-way air-suspension system consists of bass module and satellites; has 10-in foam-edge woofer, 10-in foam-edge passive radiator and sub-suspension midrange, and 1-in ultra-wide dispersion soft dome tweeter; frequency response 29-23,000 Hz; crossovers at 300 and 2500 Hz; input range 10-75 W continuous; 8-ohm nominal impedance; walnut finish.

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**265 Speaker System**
Four-way tuned-port floor-standing speaker system with 15-in foam-suspension woofer and dual-aperature tuned bass port, 6-in midrange in separate sealed enclosure, 1-in soft dome tweeter, and 1-in soft dome super tweeter; crossovers at 700, 4000, and 8000 Hz; 8-ohm nominal impedance; frequency response 25-22,500 Hz; input range 12-90 W continuous; front-mounted midrange and tweeter level controls; walnut-grain finish with black or brown knurl grille; 31½" H (including base) x 18" W x 16½" D...

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**255 W. Walnut hardwood finish...**

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**228 Speaker System**
Three-way air-suspension speaker system with 15-in foam-suspension woofer located in separate sealed enclosure, and 1-in soft dome tweeter; crossovers at 700 and 4500 Hz; 8-ohm impedance; frequency response 27-19,000 Hz; input range 8-75 W continuous; 4-ohm nominal impedance; walnut-grained finish; 34½" H x 14½" W x 12" D...

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**228 W. Walnut hardwood veneer...**

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**DW-10 Speaker System**
Three-way speaker system with two 10-in high-compliance woofers, 6-in foam-suspension midrange, and two ½-in wide dispersion tweeters; frequency response 29-19,000 Hz; crossovers at 600 and 3500 Hz; input range 8-75 W continuous; 4-ohm nominal impedance; walnut-grained finish; 34½" H x 14½" W x 12" D...

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**HPS 112 Speaker System**
Three-way speaker system with 12-in high-compliance woofers and 2-in four-layer voice coil; frequency response 28-20,000 Hz; crossovers at 1000 and 3800 Hz; input range 7-100 W continuous; 8-ohm nominal impedance; walnut-grained finish; 24½" H x 14½" W x 12½" D...

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**188 Speaker System**
Three-way air-suspension speaker system with 12-in foam-edge woofer, 5-in self-enclosed midrange, and 1-in soft dome tweeter; crossovers at 750 and 4000 Hz; 8-ohm nominal impedance; frequency response 29-21,000 Hz; input range 10-60 W continuous; front-mount tweeter level control; walnut grain finish with black knurl; 31½" H (including base) x 18½" W x 16½" D...

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**STEREOSCOPE & BUYING GUIDE**

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**STEREO DIRECTORY & BUYING GUIDE**

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By now, most audiophiles understand the importance of phase accuracy. During a live performance all the notes—or frequencies—produced by the musicians have specific phase (time) relationships to each other. And the many overtones—harmonics—within each note also have specific orders in time and strength. If these subtle musical phase relationships are confused or lost, so is true fidelity.

Loudspeakers, because they operate simultaneously in the separate worlds of electronics, mechanics and acoustics, have the worst problem with phase accuracy. And the most difficult to correct. In the attempt to correct for phase aberrations, speaker manufacturers have produced an odd assortment of peculiarly shaped enclosures and driver configurations. But these half-measures create as many problems as they solve.

Only Onkyo provides a total solution to the phase problem. The Onkyo Model F-5000 Phase Aligned Array™ is a three-way system whose individual drivers are inherently phase accurate because of their radically different—and technologically superior—construction.

The three planar (flat-diaphragm) drivers in the Model F-5000 were developed through laser interferometry and computer analysis of the phase-randomizing break-up modes in conventional driver cones. Onkyo's solutions for the F-5000 are embodied in the diaphragms of the 12" bass and 4" mid-range drivers. They consist of essentially flat annularly ribbed polyurethane/felted paper patented laminations that are inert, stiff, and yet have exceptionally low mass.

The critical high-frequency reproducer (DDM — Direct Drive Membrane™) in the F-5000 employs an extremely thin and light polyamide membrane. The result is electrostatic-like clarity, definition and center imagery, without the typical electrostatic drive problems.

The computer-developed crossover network, designed for the required phase characteristics, employs only air-core inductors and Mylar® capacitors. Onkyo's efforts and quality construction have resulted in smooth, wide frequency response, flat amplitude and precise linearity. Thus, the sound waves that come out of the system are almost mirror images of the sound waves that go into them.

The overall effect is one of clarity and transparency delivered from a unit that looks as good as it sounds.
128 Speaker System
Three-way air-suspension speaker system with 10-in woofer, 4½-in self-enclosed sealed midrange, and 2½-in tweeter; crossovers at 1500 and 4000 Hz; 8-ohm nominal impedance; frequency response 30-19,000 Hz; input range 2500 Hz; crossover at 5-40 W continuous; 8-ohm nominal impedance; walnut grain finish with black/brown acoustic foam or black/brown knit grille; 24½" H x 14½" W x 12" D……… $200

77C Speaker System
Three-way air-suspension speaker system with 10-in foam-edge woofer, 5-in self-enclosed sealed midrange, and 2½-in tweeter; crossovers at 1800 and 4000 Hz; 8-ohm nominal impedance; frequency response 32-18,000 Hz; input range 8-50 W continuous; front-mounted midrange level control; walnut grain finish with black transparent, brown knit or black/brown knit grille; 23½" H x 11½" W x 9½" D……… $180

DW-8 Speaker System
Three-way speaker system with two 8-in high-compliance woofers, 4½-in midrange, and 2½-in tweeter; frequency response 33-18,000 Hz; crossovers at 800 and 3000 Hz; 4-ohm nominal impedance; input range 8-50 W continuous; walnut grain finish; 30" H x 11½" W x 9½" D……… $179

100C Speaker System
Three-way bass-reflex speaker system with 12-in woofer, 4½-in sealed midrange, and 2½-in tweeter; crossovers at 1500 and 4000 Hz; 8-ohm nominal impedance; frequency response 32-18,000 Hz; input range 5-40 W continuous; walnut grain finish with black/brown knit or acoustic foam grille; 24½" H x 14½" W x 12" D……… $175

93 Speaker System
Three-way speaker system with 10-in high-compliance woofer, 4½-in midrange, and 2½-in tweeter; frequency response 34-18,000 Hz; crossovers at 2000 and 4500 Hz; input range 5-40 W continuous; 8-ohm nominal impedance; walnut-grained finish; 23½" H x 11½" W x 9½" D……… $150

66A Speaker System
Three-way speaker system with 8-in foam-edge woofer, 4½-in sealed midrange, and 2½-in tweeter; crossovers at 2000 and 4500 Hz; 8-ohm nominal impedance; frequency response 38-18,000 Hz; input range 5-40 W continuous; walnut grain finish with black/brown knit or acoustic foam grille; 23½" H x 11½" W x 9½" D……… $140

Impact Model 8 Speaker System
Three-way floor-standing balanced ducted-port speaker system with 12-in woofer, 7-in midrange, 2½-in horn tweeter; frequency response 30-23,000 Hz; crossovers at 300 and 7000 Hz; input range 10-150 W continuous power; sensitivity 105 dB SPL/W/m; 8-ohm nominal impedance; ±3 dB tweeter and midrange level controls; oak veneer finish with chocolate-brown double-knit polyester stretched over removable wood frame; 26½" H x 17" W x 13½" D……… $399

Impact Model 6 Speaker System
Three-way floor-standing balanced-ducted-port speaker system with 10-in woofer/midrange and 2½-in tweeter; frequency response 45-22,000 Hz; crossovers at 900 and 3000 Hz; input range 5-70 W continuous power; sensitivity 98 dB SPL/W/m; 8-ohm nominal impedance; ±3 dB tweeter and midrange level controls; oak veneer finish with chocolate-brown double-knit polyester; 21½" H x 11½" W x 9½" D……… $199

MIA Speaker System
Three-way air-suspension speaker system with 7-in woofer, 5½-in midrange, and 2½-in tweeter; frequency response 33-20,000 Hz; crossover at 160 Hz; input range 50-300 W; 8-ohm nominal impedance; 8-ohm sensitivity 104 dB SPL/W/m; oak veneer finish; frequency response 45-18,000 Hz ±4/-8 dB; crossovers at 900 and 4500 Hz; 8-ohm nominal impedance; ±3 dB tweeter and midrange level controls; oak veneer finish with chocolate-brown double-knit polyester over removable wood frames; 25½" H x 16½" W x 11½" D……… $299

VISONIK
Impact Model 4 Speaker System
Two-way balanced-ducted-port speaker system with 10-in woofer/midrange and 2½-in tonsil horn tweeter; frequency response 45-18,000 Hz; input range 2500 Hz; crossover at 5-70 W continuous power; sensitivity 97 dB SPL/W/m; 8-ohm nominal impedance; ±3 dB tweeter level control; oak veneer finish with chocolate-brown double-knit polyester over removable wood frame; 22½" H x 14½" W x 9½" D……… $200

Impact Model 2 Speaker System
Two-way balanced-ducted-port speaker system with 8-in woofer/midrange and 2½-in tonsil horn tweeter; frequency response 60-20,000 Hz; crossover at 3500 Hz; input range 5-50 W continuous power; sensitivity 99 dB SPL/W/m; oak veneer finish with chocolate-brown double-knit polyester; 21½" H x 11½" W x 9½" D……… $149

Euro 7 Speaker System
Floor-standing speaker system with two 7-in woofers, 1½-in midrange, and 1-in soft dome tweeter; crossovers at 550 and 4000 Hz; 4-ohm impedance; power response 45-18,000 Hz ±2 dB; input range 20-70 W; walnut finish with brown knit grille; designed for use with D-502 or D-602 speakers; 23½" H x 17½" W x 13½" D……… $400

9000 Speaker System
Three-way bookshelf speaker system with 7-in woofer, 1½-in midrange, and ½-inch tweeter; frequency response 35-25,000 Hz ±4/-8 dB; crossovers at 900 and 4500 Hz; 8-ohm nominal impedance; ±3 dB tweeter and midrange level controls; oak veneer finish with chocolate-brown double-knit polyester; 22½" H x 16½" W x 11½" D……… $399

In the final movement of Mahler’s “Symphony of a Thousand” Faustus ascends to Heaven amid the singing of angelic choirs.

Listen to the angels sing on AUDIO LAB CONSORT speakers by Unitronex.

For detailed product information and the location of the AUDIO LAB CONSORT dealer nearest you write: UNITRONEX CORPORATION, 1171 Landmeier Road, Elk Grove Village, IL 60007

Unitronex: State-of-the-art speakers you won’t have to sell your soul to afford.

SYMPOPHY

for the Angels

In the final movement of Mahler’s “Symphony of a Thousand” Faustus ascends to Heaven amid the singing of angelic choirs.

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Sympathy for the Devil

In their rock and roll classic about the Prince of Darkness, the Stones set an electric trap for the demon and capture him.

Listen to the devil get his due on IMPACT speakers by Unitronex. You'll be amazed at how easily diabolical power can be controlled.

For detailed product information and the location of the IMPACT dealer nearest you write: UNITRONEX CORPORATION, 1171 Landmeier Road, Elk Grove Village, IL 60007

Unitronex: State-of-the-art speakers you won't have to sell your soul to afford.
6-ohm impedance; frequency response 40-20,000 Hz ±3 dB; sensitivity 88 dB SPL/W/m; max. input 40 W continuous, 80 W peak; walnut veneer cabinet; 23" H x 13'/W x 11'/D. $265.

**L-300 Speaker System**

Three-way laser-beam holography computer-optimized speaker system with 10-in woofers, 4-in midrange, and isofrequency; frequency response 38-25,000 Hz ±3 dB; sensitivity 88 dB SPL/W/m; peak program-handling 90 W; 6-ohm impedance; hand-finished walnut veneer matched-pair cabinets. $275.

L-200. Similar to L-300 except uses 6.7-in woofers; frequency response 45-25,000 Hz ±3 dB; sensitivity 86.5 dB SPL/W/m; peak program-handling 50 W. $250.

**XP80 "Glenvale" Speaker System**

Three-way computer/holograph acoustic-suspension speaker system with 10-in woofers, 4-in midrange, and 0.75-in dome tweeter; frequency response 50-20,000 Hz; 6-ohm impedance; efficiency 86-88 dB SPL/W/m; input range 10-50 W; hand-rubbed walnut or teak finish; 22'/, H x 12'/, W x 10'/, D. $210 pr.

**WINDSORS LABS**

**6000V Speaker System**

Four-way vented floor-standing speaker system with 15-in low-frequency radiator, 8-in midrange/woofer, 2'/, in tweeter, and 2'/, in super tweeter; crossover at 58, 1500, and 8000 Hz; 8-ohm nominal impedance; frequency response 35-20,000 Hz; input range 10-200 W; 30° H x 19'/, W x 10'/, D. $275.

**5000V Speaker System**

Three-way vented floor-standing speaker system with 12-in low frequency radiator, 8-in midrange/woofer, and 2'/, in tweeter; crossovers at 67 and 1500 Hz; 8-ohm impedance; frequency response 40-20,000 Hz; input range 10-20 W; 29" H x 18'/, W x 10'/, D. $210.

**4000S Speaker System**

Three-way acoustic-suspension speaker system with 12-in woofier, 4-in midrange, and 2'/, in tweeter; crossovers at 700 and 3000 Hz; 8-ohm impedance; frequency response 45-20,000 Hz; input range 10-200 W; 26'/, H x 15'/, W x 11'/, D. $150.

**3000S Speaker System**

Two-way acoustic-suspension bookshelf speaker system with 10-in woofier and 2'/, in tweeter; cross-over at 2500 Hz; 8-ohm impedance; frequency response 50-20,000 Hz; input range 10-150 W; 24'/, H x 14'/, W x 8'/, D. $105.

**YAMAHA**

**NS-1000 Speaker System**

Three-way speaker system with 11.8-in woofer, 3.46-in mid-range, and 1.18-in tweeter; drivers are vapor-deposition beryllium-dome type; frequency response 40-20,000Hz; crossovers at 500 and 6000 Hz; 8-ohm impedance; max. input 100 W; 90 dB SPL/W/m; midrange and tweeter level controls; ebonize enclosure with polyurethane finish; sold in mirror-image pairs only; 28 H x 15'/, W x 14'/, D. $760 pr.

NS-1000 M. Same as NS-1000 but with semi-gloss black finish and detachable black grille; 26'/, H x 14'/, W x 12'/, D. $560.

**NS-890 Speaker System**

Four-way sealed floor-standing speaker system with 12-in cone woofer, 4'/, in cone mid-bass driver, 2'/, in beryllium dome mid-high driver, and 1'/, in beryllium dome tweeter; frequency response 40-20,000 Hz; crossover at 600, 2000, and 6000 Hz; sensitivity 92 dB SPL/W/m; input range 40-80 W; 8-ohm impedance; continuously variable mid- and tweeter level controls; oak finish cabinet with removable black fabric grille; 19'/, H x 14'/, W x 12'/, D. $530.

**NS-890II Speaker System**

Three-way speaker system with 12-in woofier, 3-in mid-range, and 1'/, in tweeter; frequency response 35-20,000 Hz; max. input 80 W; 8-ohm impedance; max. input 80 W; midrange and tweeter level controls; may be multiamped via separate driver terminals; walnut finish; 24'/, H x 13'/, W x 11'/, D. $350.

**NS-590 Speaker System**

Three-way sealed speaker system with 12-in cone woofer and 1'/, in midrange/1'/, in tweeter; frequency response 40-20,000 Hz; crossovers at 700 and 6000 Hz; sensitivity 91 dB SPL/W/m; input range 35-70 W; 8-ohm impedance; continuously variable midrange and tweeter level controls; polished oak finish cabinet with black cloth grille; 26'/, H x 14'/, W x 12'/, D. $320.

**MC4000 Allegro Speaker System**

Three-way tuned-port floor-standing speaker system with 12-in cone woofer with 2-in phenolic voice coil, 5-in cone midrange in own sub-enclosure, and 3.5-in horn tweeter with phasing plug; frequency response 35-20,000 Hz; crossovers at 600 and 2000 Hz; sensitivity 91.5 dB/W/m; max. input 100 W and 100 W, respectively; 4-ohm impedance; mid-range and treble level controls; walnut veneer cabinet; 28" H x 17" W x 13.18" D. $255.

**MC3000 Allegro Speaker System**

Two-way tuner-port speaker system with 10-in cone woofier and 3.5-in horn tweeter; frequency response 40-20,000 Hz; crossovers at 2000 Hz; sensitivity 92 dB SPL/W/m; max. input 60 W continuous, 8-ohm nominal impedance; treble level control; 24.75" H x 15.62" W x 10.68" D. $310 pr.
See and Hear AAL at the following Authorized Dealers:

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- Eufaula: Heritage Sound
- Montgomery: Southern Sounds
- Sheffield: Powell Electronics

Arkansas
- Crossett: Music Mart Corp
- El Dorado: Music Mart Corp
- Magnolia: Music Mart Corp
- Russellville: Powell Electronics

Arizona
- Phoenix: Hasslers Home Enter Ctr

California
- Santa Barbara: Creative Stereo
- Santa Clara: Lafayette Radio
- San Diego: Audio Engineering Service
- Santa Monica: studio city
- Norwalk: Jeanne Emmons Stereo
- Whittier: Hi Fi Haven

Colorado
- Colorado Springs: Crystals
- D.C.
- Washington: Hi Fi Haven
- Bury Music
- Douglas Stereo
- Royces TV

Florida
- Coral Gables: Brand Electronics
- Ft. Lauderdale: Good Stereo
- Fort Lauderdale: Brand Electronics
- Indian Shores: Brand Electronics

Galaxy Disco in Chicago

Illinois
- Antioch: Sound Advice
- Berwyn: Alan Radio (KBTV)
- Carbondale: KEMP Radio
- Canton: Century Electronics
- Champaign: Champaign Appliance
- Chicago: Chicago Audio
- Decatur: Applebee Stereo Inc.
- Elgin: Applebee Stereo Inc.
- Egan: Applebee Stereo Inc.
- Elmhurst: Sound Advice
- Evergreen Park: Sound Advice
- Gurnee: Sound Advice
- Hinsdale: Sound Advice
- Homewood: Sound Advice
- Joliet: Sound Advice
- Kankakee: Sound Advice
- Lombard: Sound Advice
- Normal: Sound Advice
- Peoria: Sound Advice
- Rockford: Sound Advice
- Schaumburg: Sound Advice
- Vincennes: Sound Advice
- Willowbrook: Sound Advice
- Waukegan: Sound Advice

Indiana
- Anderson: Anderson Electronics, Inc
- Angola: Applebee Stereo Inc.
- Evansville: Applebee Stereo Inc.
- Fort Wayne: Applebee Stereo Inc.
- Gary: Applebee Stereo Inc.
- Hammond: Applebee Stereo Inc.
- Lafayette: Applebee Stereo Inc.
- Laporte: Applebee Stereo Inc.
- Muncie: Applebee Stereo Inc.

Kansas
- Hutchinson: Mayfield Music
- Kansas City: Sound Advice

Kentucky
- Louisville: Hi Fi Buys
- Paducah: Sound Advice

Louisiana
- Baker: Sound Advice
- Lafayette: Sound Advice

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- Westbrook: The Sound Cellar
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- Baltimore: Metro Broker Ltd
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Michigan
- Battle Creek: Music Center
- Grand Haven: Sound Advice
- Traverse City: Sound Advice

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- Fergus Falls: Leyquall Sound Idea

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New York
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From disco studios to studio apartments, American Acoustics Labs delivers incredible sound.

Everybody talks about speaker sound quality. But the proof is in hearing what professionals, whose living depends on a sound delivery system, use all night long, all week long at full power.

AAL makes 5 complete lines of speakers for home and professional use. They're all made in our factory by people who take great pride in their craftsmanship. Every speaker passes numerous quality control checks and receives a full five year limited warranty.

Now we suggest you give AAL speakers the ultimate test: HOW THEY SOUND TO YOU. Let an authorized AAL dealer give you a comparison test. Whether you have a disco studio or a studio apartment or anything in between, AAL DELIVERS.

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Feedback Causes:

DISCWASHER®

Hi-Technology Turntable Isolation System

- Works in combination with existing feet for dramatic reduction of feedback.
- Isolates better than original or "replacement" feet.

Home environments can "upset" a turntable by feeding back both speaker and footfall vibrations. Acoustic isolation of a turntable involves the complex variables of turntable weight, room/floor conditions and audio system placement. The Discwasher DiscFoot has been specifically designed to successfully isolate most turntables in the home environment.

The "Material" Solution
The major components of the Discwasher DiscFoot System are new, "totally engineered" chemical complexes that behave radically different than other plastic, rubber or spring systems. These proprietary compounds are durable and precise in behavior, although difficult and expensive to synthesize. Laboratory and real-world tests justify the use of these unusual materials in the DiscFoot System.

The Telling Test
The oscilloscope photo shows the output of two identical audio systems on the same shelf with their styli contacting the platters. The shelf is being struck by a rubber mallet. The top trace shows a turntable with absorptive "replacement" feet. The lower trace shows a DiscFoot System operating in conjunction with the existing turntable feet. Note the dramatic (tenfold) improvement in shock and feedback isolation.

The DiscFoot System contains four isolation feet, four platform caps, four furniture-protecting sheets and four special damping pads (to adapt DiscFoot units to certain turntables.) Additional single DiscFoot units are available for turntables weighing over 22 lbs. The system costs $22.

Discwasher DiscFoot can be found at audio dealers interested in preserving your music.

discwasher, inc.
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