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Cover components: at left, Sota Star Sapphire turntable (see product listing on page 124) with Sumiko Premier MMT tonearm (page 131) and Talisman B cartridge (page 135); NEC SW-300 subwoofer (page 166). At right, JBL Pro III mini-monitor speakers (page 156); NAD 6300 cassette deck (page 111): Pioneer CLD 1010 CD/CDV/LV player (page 100); AR X-10 receiver (page 43); a/d/s B3 storage module (page 198).

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Shopping for a stereo system ----or just one component-can be fun. Preparing thoroughly makes all the difference.

by William Burton

GOOD stereo system can create the illusion that musicians are performing live in your living room or that your armchair is the best seat in the concert hall. If you read about stereo components, for comparing features and performance, and take your time when you go shopping, you can have a system that brings the pleasures of high-fidelity music into your home.

The first thing you should do when you start searching for a system-or even a single component—is to set a budget. (The prices given in this guide are the manufacturers' suggested retail prices. Stores are free to set prices as they wish, and they may cut as much as one-half off the suggested list price.) If you want to buy an entire system, you need to allocate your total budget among the various individual components you want. Starting with fewer components means you can afford better ones. A simple system might consist of a source component (compact disc player, cassette deck, or turntable), a receiver, and speakers. You can add other components later. For a \$1,000 system, you might budget \$250 for a program source, \$250 for a receiver, and \$500 for speakers.

Dollars are not the only numbers associated with buying stereo components: You will also see many specifications that measure their performance. Specs can be useful because they help you compare components. The "Audio Glossary" starting on page 221 explains many common audio specs, technical terms, features, and functions.

#### Buying a System

If you are choosing components for an entire system, you should first decide which types of components you want. These decisions can be made in three steps: selecting your speakers, choosing a type of amplifier, and deciding on source components.

If you take these decisions one at a time, you can put together a good system within your budget. When you divide your money between speakers, amplification, and sources, you may have to choose between an elaborate system with many inexpensive components and a more basic system with a few high-quality ones.

While source components produce the musical signal, and amplifiers and receivers process and strengthen it, the last link in the chain is the most important—the speakers. Speakers



turn the electrical signal coming from the receiver or amplifier into sound. Whether you are selecting speakers for your first system or upgrading the speakers you have, don't make this decision lightly. Speakers affect the sound you hear more than any other component.

You need an amplifier of some kind because speakers require more electrical power than source components such as tuners, turntables, tape decks, or compact disc players can provide. The necessary amplification may be done by a receiver, a power amplifier, or an integrated amplifier. The differences between these components are explained below.

In choosing source components, consider the types of programs you will want to hear. To listen to radio broadcasts, you need a tuner or a receiver. To play compact discs, you need a CD player. To play cassettes and to record music or spoken-word programs from other sources, you need a cassette deck. To play LP's and 45-rpm singles, you need a turntable.

#### Upgrading Hints

If you are upgrading your system, you may already have a good idea which component is the weakest link in it. If something breaks and you decide it's not worth fixing, your decision is made for you. If you want to upgrade your system by adding a new source component (such as a CD player), you again have your answer. Unfortunately, it is not always so easy to upgrade a system.

Perhaps you only have a vague feeling that your system is just not as good as it could be. If so, try to define what is missing—this will help you focus on which components need upgrading. If you want more bass, larger speakers or a subwoofer could be the answer. Upgrading your speakers can easily lead to upgrading your amplification, however, since large speakers that move a lot of air may demand more power.

Because speakers are so important in defining the sound of any system, changing to a new pair is most likely to make a big difference in how things sound. Besides seeking better sound, you may decide to upgrade other components if you want features they lack or if one of them is far below the quality of the others in your system.

If poor radio reception is the problem, you can upgrade your tuner or receiver—although the greatest improvement will probably come from a better antenna. Another common upgrade is replacing a receiver with a complete set of separates or making the intermediate step to an integrated amplifier with separate tuner. Because separates specialize in one function—tuning, controlling, or powering—they usually outperform all-inone receivers.

Upgrading can be an endless process, but the path towards sonic perfection is endlessly rewarding. Take your time, read about the components you're interested in, and talk to trustworthy experts. Then each upgrade will improve your system without depleting your budget for such

Upgrading can be an endless process, but the path toward sonic perfection is endlessly rewarding. Take your time, read about the components you're interested in, and talk to trustworthy experts. other things as recordings and concert tickets.

#### Receivers

A receiver handles three main jobs: it tunes in radio stations, switches and processes all source signals, and makes these signals powerful enough to drive the speakers. You can think of a receiver as a tuner, preamplifier, and power amplifier in one box.

In fact, you can read about tuners, power amplifiers, and preamplifiers and get a good idea of the choices to make when buying a receiver. Because receivers are all-in-one package deals, you may have to make some compromises. The most powerful receiver may not have the best tuning section, for example, or the receiver with the most input jacks may have the least flexible signal processing. And receivers that excel in one or more of these areas tend to be more expensive than basic and ordinary receivers. So what do you do?

First, look back at your budget. Ignore the receivers out of your price range. Forget about the ones without enough power for your speakers. Avoid the ones that might damage your speakers with too much power. From the remaining models, you can make your final choice on the basis of tuning, switching, or processing features and overall performance.

#### Power Amplifiers

Most power amplifiers have only one control, a button to turn it on and off. Although most amplifiers today use only transistors, some still use vacuum tubes instead. The sound of tube amps is sometimes described as "warm," "natural," or "musical." Tube amps may also, however, produce more distortion and less power for the money than solid-state (transistor) amps. You should listen to both types to decide if you prefer one or the other. But remember that while each amplifier sounds different from every other one, most casual listeners cannot hear those differences.

Measuring the power produced by a power amplifier is not simple. The specification for power may look like this: "100 W/ch [watts per channel] into 8 ohms." The impedance, measured in ohms, is important because different speaker impedances draw different amounts of power from an amplifier. Other specs tell you how much power the unit can produce for brief periods, which is important because music contains many short, loud sounds such as drum beats.

# FIRST CAME THE SPEAKER

Since the invention of the Compact Disc, speaker companies have been talking about how their speakers are "digital reacy". This seems odd when except for the addition of "digital ready" stickers, many name brand speakers are pretty much what they were in the days of analogue.

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"FIRST CAME THE CD THEN CAME THE SPEAKER" SPL MONITORS.

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#### Preamplifiers

Preamplifiers switch and process the signals from source components and pass them on to a power amplifier. If you have a lot of signal sources, make sure the preamp you select has enough inputs for them. If you want a lot of control over the sound, look for signal-processing circuits in the preamp or jacks that allow easy connection of separate signal processors such as equalizers or dynamic-range expanders.

Some audiophiles hear significant differences between preamps, while others hear little difference and cite specifications that imply few of the differences could be audible. Ideally, a preamp would handle music signals without adding noise or distortion, and most do add very little noise or distortion. If you want to choose a preamp by ear, compare models by playing the same recording on the same turntable, CD player, or tape deck and listening through the same pair of headphones. Then you can be sure that any differences you hear are in the preamps, not in other components.

Besides their switching and processing functions, preamps actually do perform some amplification: their phono sections take the weak signal from a turntable and make it stronger while also changing its frequency balance according to standards set by the Recording Industry Association of America.

#### Integrated Amplifiers

An integrated amplifier combines the functions of a preamplifier and a power amplifier. The control section switches and processes the signal, and the power section makes the signal strong enough to drive speakers. Think of an integrated amplifier as a receiver without a tuner section. It is a good choice both for those who don't listen to the radio and for those who want a separate high-quality tuner.

#### Tuners

A tuner is a source component that takes a signal from an antenna, tunes in a broadcast frequency from a radio station, and sends that signal to a preamplifier or an integrated amplifier. Some tuners use analog displays (a long scale with a moving pointer and numbers indicating the frequencies), but most today have digital displays (numbers indicating the frequency just of the station being received). Since antennas receive all signals at the same time, the tuner must select the one you want to hear from the rest. If you have tried to listen to a weak or noisy station, you know how frustrating that can be. Some tuners have special circuits to improve the reception of weak signals, but an inexpensive tuner with a good antenna may produce a better signal than a fancy tuner with a poor antenna.

On an analog tuner, signal-strength displays can help you adjust the tuning for the best possible reception (digital-synthesis tuners "lock in" a selected frequency and cannot be adjusted further by the user). A row of lights (stronger signals light more lights), a moving pointer, or a light that goes on when the station is centered or is being received in stereo all indicate signal strength. Some displays are more helpful than others, but more displays are better than none at all.

For extra convenience, many tuners have a certain number of presets that store the frequencies of specific stations. You can store a classical station, say, in Preset 1, a rock station in Preset 2, and a news station in Preset 3, continuing until you run out of presets. Once the frequency is memorized, pushing the preset button tunes in the stored station automatically.

#### Compact Disc Players

CD players differ in price, features, circuit design, and sound. Sonic differences can be subtle, as CD players sound about as different from one another as preamplifiers do. Good circuit design, however, can mean the difference between corrected errors and rude noises. While ordinary CD players have much the same features-skip, scan, programming, even remote control-some are extraordinary, with features that set them apart from the rest. Price differences are rather huge-one player may cost \$79.95 retail while others cost well over \$1,000.

As with any other type of component, first determine which CD players are available in your price range. Then you can consider such special features as multidisc capability (a CD "changer"), the ability also to play video LaserDiscs, unique sound processing, or exceptional programming ability.

Better error-correction circuits make some players perform better than others. There are times when some of the data on the disc is not picked up by the player because of scratches or dirt. When the data loss is serious, cheap players can make noises, skip, or even stick in one place. Players with sophisticated error-correction circuits will play through these rough stretches without skipping a beat.

#### Cassette Decks

Although both eight-track cartridge players and digital audio tape (DAT) recorders also use tape in "cassettes," the term usually refers to the four-track analog Compact Cassette format developed by Philips. Cassette decks can record from other sources as well as play prerecorded tapes or ones you have recorded yourself. Because they often have many controls that must be used correctly to make a good recording, clear labeling and ease of operation are important. Confusing features are useless.

Most decks have one transport, holding one cassette at a time, but some—called "double" or "dubbing" decks—have two transports. And autoreverse decks play or record both sides of a tape without your having to turn it over. Autoreverse single- and double-transport decks may have a repeat feature for replaying tapes indefinitely.

Cassette decks use a variety of systems designed to reduce tape noise. Dolby B is the most common noisereduction system, Dolby C less common but more effective, and the semiprofessional dbx system can be very effective.

Better tape decks tend to have more heads and more motors. With a two-head deck, you cannot record and play a tape at the same time. A three-head deck allows you to listen to the tape while you are recording it so you can compensate for any problems with the recording without having to start over again.

Decks with more than one motor, such as separate motors for the capstan that pulls the tape and for the hubs that turn the reels, can optimize each motor for its specific function, usually resulting in improved performance and reliability.

#### Open-Reel Decks

Much of the advice regarding cassette decks applies to open-reel machines as well. Open-reel tapes have several important advantages over cassettes: better sound, longer playing times, and easier editing. There are many types of open-reel decks, differing in the way they divide the tape

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into tracks and in their speed options (in inches per second, or ips). "Quarter-track" machines record two channels, left and right, on each side of the tape, much like cassettes; you turn the tape over to record or play the other side. "Half-track" recorders divide the tape into only two parts, for the left and right channels, and record and play in only one direction. "Four-track" machines also work in only one direction, but, like quartertrack machines, have two pairs of stereo tracks.

Faster speeds allow better sound quality but use more tape. Slower speeds reduce the recorded sound quality but increase recording time and conserve tape. To get both highquality sound and long playing times, look for decks that handle large reels of tape (10-inch diameter).

#### Turntables

Also called phonographs or record players, turntables spin vinyl discs so that the record grooves make the stylus in the cartridge vibrate, generating a signal that replicates the original recording. Many turntables come with tonearms to hold a cartridge, and some even include the cartridge. A turntable doesn't have to be ultrasophisticated to spin a record and hold a cartridge. What is difficult is to spin a record at exactly the right speed and hold a cartridge at exactly the correct angle so the recorded information in the grooves is transmitted accurately, with no added noise or distortion.

If a turntable comes with a tonearm, the tonearm will be designed to accept one of a few different types of cartridges. The standard half-inch cartridge is most common, but they can be difficult to mount. "P-mount" cartridges are easy to install—they just plug into the end of the tonearm—but they have been criticized for insufficient rigidity (a wobbling cartridge adds spurious motion to the stylus).

Turntables differ in their degree of automation and in their drive systems. An automatic turntable will start play at the touch of a button and return the tonearm to its rest when the record finishes. A semiautomatic must be started manually, but it picks up the arm at the end and returns it to its rest. And a manual turntable makes you do all the work, but it uses fewer moving parts for increased reliability. Some turntables connect the motor to the platter with a belt (to lessen vibration), and others drive the spindle directly with the motor shaft (for precise speed control).

#### Cartridges

Cartridges hold the stylus ("needle") that is vibrated by the record's groove. The cartridge turns these vibrations into an electrical signal. Most cartridges are either standard half-inch types or P-mounts, and they must be used in compatible tonearms. Cartridges also differ in the way they turn motion into electrical signals. The moving-magnet design is most common, the moving-coil less common, and there are still other methods. The stylus itself may be-in increasing order of price and performance-spherical, elliptical, or a linear-contact type.

More important to the sound of your system, however, is the performance of the cartridge, which is described by specifications such as frequency response and channel separation. Figures for output voltage and tracking force tell you how compatible a cartridge is with various phonopreamplifier sections and tonearms. If your receiver or preamplifier doesn't have an input for a low-output cartridge, you can't use such a cartridge without buying a head amplifier, or pre-preamplifier, to match the cartridge to your phono input.

#### Tonearms

Tonearms are usually divided into two types: pivoted and linear (or radial) tracking. Despite some theoretical advantages of linear tracking, the performance of a tonearm depends more on how well the design is executed than on what type it is.

Some tonearms are "dynamically balanced," which means that the downward force they exert to hold the stylus in the groove is generated by some means other than gravity. "Statically balanced" arms depend on gravity to produce tracking force. Light weight and rigidity are desirable tonearm traits.

Because moderately priced and budget turntables usually include tonearms, separate arms are "highend" components. You don't need to worry about separate tonearms unless you buy a high-end turntable. Matching a tonearm to a turntable and cartridge should not be undertaken lightly by beginners.

#### Speakers

Most speakers are wooden boxes with a couple of drivers in the front. A typical speaker has a woofer (a low-frequency driver) and a tweeter (a high-frequency driver). A threeway speaker adds a separate midrange driver for the middle frequencies instead of assigning part of these to the woofer and part to the tweeter. Some speakers have drivers on every side, some are large flat panels with only one driver, and others are too esoteric to describe simply. Regardless of looks, their primary purpose is to transform an electrical audio signal into sound waves as accurately as possible.

How do you find the best speaker for you? First, rule out all models beyond your budget. If you know which receiver or amplifier you will use, check the suggested power range of the remaining speakers and cross out those that are not compatible. Check frequency-response specs to compare speakers' accuracy, looking especially for an extended bass response (down toward 20 Hz) and a small range of variation ( $\pm$  3 dB or less) between the lower and upper extremes, which indicates a smooth and well-balanced response.

When you have reduced the number of speakers to a manageable few, it's time to start shopping. Even though speakers sound different in showrooms than in living rooms, you should listen carefully to a variety of speakers before you buy.

Bring a recording that you know very well. Since people hear the human voice so often, singing and speaking voices are good for testing speakers. If a speaker sounds unnatural on voices, it will be unnatural on everything. Experts recommend using acoustic music such as folk songs, piano trios, or violin music—but if you only listen to heavy-metal or electronic music, bring your fave-rave screamer to make sure the speakers make it sound the way you want it to sound.

#### Headphones

Some headphones are small and light so they can be used with pocket radios or cassette players and portable CD players. Others are large and heavy, providing more isolation from external noises, and are normally used at home. Outdoor headphones usually have 1/8-inch mini plugs, while home headphones use the larger 1/4-inch phone plugs.

After deciding on the type of headphones you want, you can begin to compare price and performance to find the best-sounding phones possible within your budget. Head-



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New York, New York, The Listening Room, Ron Mintz – Owner. "As one of the First dealers in the U.S. to realize the quality of the E-22, we continue to be arrazed by the imaging and spaciousness of this speaker of such compact size & price."

Hicksville, Long Island, New York, Designatron, John Thomas – Manager. "Never before have we experienced a speaker system which exhibits the level of realism that the Energy 22 provides. The excitement generated by Energy speakers is only exceeded by the pleasure of owning them. The Energy 22 sets a reference standard by which all other speakers must be judged."

Washington, D.C., Audio Associates, Mike Zazanis – Owner. "The ENERGY 22 is a very musical speaker at a very inexpensive price that easily could cost a lot more money."

Chicago, Illinois, Pro Musica. Ken Christianson, John Schwarz – Co-owners. "The Energy 22 Reference Connoisseur & Pro Monitors simply outperform the competition. Musically satisfying to the most demanding listeners. Miami, Florida, Audio By Caruso, Don Caruso – Owner. "The REFERENCE CONNOISSEURS are among the most neutral. uncolored, speakers we have found!!! They provide very relaxing listening."

El Paso, Texas, Sound Room, Mark Pearson – Owner. "Energy 22 promonitor is the most three dimensional speaker ever."

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Energy Loudspeakers, 135 Torbay Road, Markham, Ontario L3R 1G7 - (416) 475-0050 • TLX 06-986689 phones—especially the more expensive ones—are usually easy to audition. Bring your favorite CD, LP, or cassette to your dealer and plug the headphones into the jack of the receiver or amplifier being used. Listen for solid lows, undistorted highs, realistic voices, clear peaks, and whatever other qualities you deem important.

Headphone specifications can tell you something about the performance of particular models. The frequency-response spec tells you the lowest and the highest sounds they can produce within a certain range. Lower lows, higher highs, and tighter tolerances are better, so 20-20,000 Hz  $\pm 2$  dB is better than 50-15,000 Hz  $\pm 4$  dB. Sensitivity specs tell you how much sound the phones will produce with a thousandth of a watt input. More sensitive headphones play louder with the same input.

#### Signal Processors

These are components such as equalizers, surround-sound processors, and PCM processors whose primary function is to make desired changes in the audio signal provided by the source component. Most allow the user to fine-tune the processing, adjusting sliders on an equalizer, for example, or setting the rear-channel volume in a surround-sound system.

Signal processors can solve problems and expand your system beyond its present capabilities. Equalizers compensate for frequency-response variations in source material, other components, and the listening room. Surround-sound units expand the sound stage—when used with extra amplification and speakers—to put you in the middle of the action. Other types of signal processors perform various functions to enhance the experience of listening to music, usually increasing your involvement with the system and the resulting sound.

#### Accessories

Cleaning and maintenance products are perhaps the most important accessories. Dirt can ruin recordings on disc and tape as well as damage delicate mechanical components. Tape recorders are especially vulnerable to dirt build-up and other problems of use and wear. Every system needs speaker cables, interconnects, and other wiring. The sound of most systems can be improved by better antennas, more precisely aligned cartridges, room acoustical treatments, etc. And most people need storage accessories for software or hardware. Many systems require accessories such as signal switchers, turntable isolation devices, or pre-preamplifiers (head amps) for low-output cartridges. And you can use a spectrum analyzer to evaluate the effects of equalization, acoustic treatments, and other accessories.

#### Pocket Stereo

Battery-powered portable music systems can receive radio broadcasts or play cassettes or CD's, producing signals for headphones. Most can also be powered with an adaptor that plugs into an AC power outlet, and the headphone output jacks can be

U ignal processors perform various functions to enhance the experience of listening to music, usually increasing your involvement with your system and improving its sound. used to connect the machines to a home stereo system or powered speakers.

Many pocket units have both a tuner section and a cassette section. To save space, the tuner section is sometimes built into a cassetteshaped pack that snaps into the player. Some portables can record cassettes as well as play them, taking signals from microphones, a built-in tuner section, or line-level inputs from other components.

Features that increase the performance—and price—of pocket tuner/ tape players include autoreverse, antiroll mechanisms, automatic frequency control (for more accurate tuning), Dolby B noise reduction, an EQ switch for metal and chrome tape, tone controls (including built-in equalizers), and so on. Only you can decide if all these features are worth the cost, but for superior sound I recommend Dolby NR and EQ switching at the very least.

Using a pocket unit a lot can take a lot of batteries. Rechargeable batteries are more expensive than regular alkalines, but they will save you money in the long run. Some machines cannot use rechargeable batteries, however, so check that when you're comparing models.

#### Blank Tape

Tape comes in different formats, but the tape inside the different shells is usually made of plastic strips with tiny particles of a metallic oxide or pure metal stuck on them. Because of the distortions inherent in the tape medium, a "bias" signal is used during recording, and equalization (EQ) is used during both recording and playback. Bias is a very high-frequency signal-usually between 150,000 to 180,000 Hz, much higher than human beings can hear-that is added to the signal being recorded. Tape EQ (or pre-emphasis) boosts low and high frequencies during recording and lowers them during playback.

Cassette tape comes in four different types. Type I is ferric oxide and uses normal bias and 120-microsecond (120- $\mu$ s) EQ. Type II, whether chromium dioxide (CrO<sub>2</sub>) or a chrome-equivalent formulation, is called high-bias because it requires more bias current than Type I; it uses 70- $\mu$ s EQ. Type III, ferrichrome, also requires 70- $\mu$ s EQ. Type IV is pure metal-particle tape, which can provide the best sound on cassette; it requires even more bias than Type II but uses the same EQ.



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## SETTING UP YOUR STEREO

Careful planning, before and after making your purchase, results in home-entertainment excellence.

by Ian G. Masters

ANY of us grew up with the sort of one-piece stereo system called-not always fondly-a "coffin." These "conentertainment centers usually sole" owed more to the art of furniture making than to good electronic design, but they had one major advantage over today's sophisticated audio systems: they came already assembled. Once the bruisers from the local appliance store had deposited the console in your living room, all you had to do was turn it on.

Things are a bit more complicated now. To take advantage of the capabilities of even a modest system, you will have to plan carefully and pay attention both to physical placement and to the interconnection of the components.

#### Plan Ahead

Even before you decide what equipment you want to buy, you should do a careful survey of the room it will go in, as its physical configuration can determine how well specific components will perform. For instance, the size of the room may affect your decision on the sort of loudspeaker to buy-a small room may dictate small speakers, and a large room with high ceilings may require large ones.

What you want the system to do should also influence your plans. A receiver, a cassette deck, and a pair of speakers may be sufficient for you now, but as you add functions in the future, space demands will become that much greater. As you can see, planning your setup before you head out to buy the equipment is very important.

When you are making your purchases, bear in mind what you will eventually have to do to make the system work. All systems require different types of wires, for instance, so before you leave the store make sure you have the right kinds and enough of each. Most components are supplied with the appropriate patch cords, but a few may not be. Rather than get all the boxes home and then find you have to run out and buy more wires before you can even begin, it's a good idea to make sure you have what you need from the start.

The one thing you will definitely have to buy is speaker wire. Determining the length you'll need is fairly straightforward as long as you know in advance roughly where your amplifier and speakers will be. The cables should be of equal length. As for the type of speaker wire you should buy, the main determining factor is its thickness. Most specialty speaker cables sold by audio or audio/video dealers are heavy enough to be appropriate for the longest of runs, but avoid the light, clearplastic-coated wires often labeled "speaker wire" in department stores or discount outlets. When buying conventional wire, however, there is a wide choice of thicknesses. Ordinary 18- or 16-gauge lamp cord ("zip cord") is probably adequate for short runs (15 feet or less); otherwise, you should use at least 12-gauge cable.

#### The First Steps

Once you have brought home your system and everything else you need, there will be a strong temptation to rip all the boxes open immediately, pull out the components, and plug them together in some fashion just to see how they work. While this is a natural enough impulse, it's one that should be controlled.

Before you remove any component from its box, it's essential to look at the first few pages of the instruction book supplied with it for any specific directions about unpacking. When you have removed a component, put all the packing material back in the carton and save it. If you ever have to send equipment in for service, or if you move to a new house or apartment, you will need the cartons for safe shipping.

When all the pieces are unpacked, look at the back of each one and write down the serial number. You could do this at any time, of course, but it's usually easier before the equipment is on the shelf with a tangle of wires behind it. You will need the numbers to fill out the warranty cards. Note all the serial numbers on a separate sheet and keep it in a safe place.

After they have been unpacked, some components require a small amount of assembly or adjustment before they can be used. Most CD players, and some cassette decks, have transit screws to keep their moving parts from rattling around during shipment, and these must be loosened or removed. The instruction booklet will describe this process in detail; if it does say to remove anything, keep the part either with the booklet or in the empty carton for future repacking.

PAMELA SHERI





One piece of equipment that often needs considerable assembly is the turntable. You may have to install the platter, the dust cover, the tonearm counterweight, or the headshell. While this is a good time to put everything together, the final stage—balancing and adjusting the tonearm and cartridge should probably be done later, when the turntable is in its final position.

If you planned your system before purchasing it, you will have a fairly clear idea where everything will go. Now is the time to try your arrangement out. A rough positioning of the components will show you what works physically. You may find, for instance, that the receiver looks peculiar sitting on top of the cassette deck because it's an inch wider. It is much easier to rearrange things now, before they are connected together.

Also keep in mind things that will make your system easier to operate when it is set up. If you intend to make a lot of recordings, for instance, place the cassette deck where the level indicators will be easily visible. And if any of your components have infrared remote controls, make sure there is a clear line of sight to your usual listening position.

#### Power to the System

Before you begin to deal with any connections, you will have to decide how to get AC power to each of the components. With most systems, it is usually desirable to have everything operate from a single power switch, usually on the receiver or amplifier. Most of these have one or more AC outlets on the back panel that are operated by the unit's power switch (these are labeled "switched") and, usually, another outlet that simply passes power through to the connected component ("unswitched"). Other components sometimes have back-panel outlets too, either switched or unswitched.

Unless you have a very simple system, you will probably not be able to connect everything directly to the amplifier or receiver, but you may be able to string the components together "in series," with one component plugged into the next and so on. Alternatively, you can use one or more three-way AC adaptors plugged into the switched output of the receiver or amplifier to power as many components as necessary.

There are several things to consider with either arrangement, however. First, make sure that the total maximum power consumption of all the components does not exceed the controlling component's ability to handle them. Check all the instruction manuals and add up the power-consumption figures to make sure that they can be handled safely. If they can't, you will have to power at least some of your equipment separately. One solution may be to buy a "power strip," a box with five or six AC outlets and a master power switch.

#### Power Cords and Cables

Whatever arrangement you decide on, one thing you should avoid is a tangle of power cords behind the system. Not only do these take up space and have a tendency to tie themselves in knots, but there is a risk that they will cause an audible hum. The power cords attached to most hi-fi equipment come coiled up and held either by a plastic retainer or a twist tie of some sort. Undo just enough to reach the appropriate power outlet and secure the rest with the supplied retainer. It's also a good idea to identify each plug somehow in case it has to be disconnected and reconnected later.

In fact, all the cables that connect your system should be identified. Patch cords look pretty much alike, and once the whole system is wired up and the components are in their final positions, it's often hard to tell what leads where. You may want to change things in the future, and the labels will save you a lot of trouble. You might even consider labeling the cables *before* you assemble your system. Doing so will allow-or force-you to think things through logically before you start plugging things in, and when the time comes to connect your components, it will simply be a matter of inserting each plug into the appropriate jack.

To do this, you should place each component close to its final position, but without obscuring the connections on the rear panel. First attach the speaker cables to the amplifier or receiver's output terminals, being sure to observe any polarity markings and checking to make sure there are no "whiskers" of wire protruding that might brush up against the chassis or the other terminal and cause a short. Then attach the other ends of the speaker cables to the terminals on the speakers. Make sure that the left and right cables are connected to the left and right speakers, respectively, and that the wires are connected to the positive and negative terminals in a consistent fashion at each end of the signal chain.



## HiFi in the extreme.

For over thirty years Teac has been famous for building precision tape recording equipment. But, we're not willing to rest on our reels. So now Teac offers its most comprehensive line ever. From audio and hi-fi video recording equipment, to compact disc players, to graphic equalizers, speakers, and a complete line of audio and video accessories. One thing, however, will never change at Teac—our obsession with creating the most advanced, featured-filled, superbly executed audio and video equipment we can make. So, no matter what Teac you decide to buy, you can be assured of acquiring a piece that has been built to unheard of standards. CIRCLE NO. 66 ON READER SERVICE CARD

### TEAC

## Thebestau



A lot of TV manufacturers are trying to sell you audio equipment whose most outstanding feature is its resemblance to their TVs. At Akai, we take audiofor-video a lot more seriously.

Akai's origins are in high fidelity and we never forget it. When we build audio/video equipment, we produce components that do an audiophile proud.

Consider our AA-V405 Receiver. Instead of a paltry 35 or 40 watts per channel, the AA-V405 produces 100 watts per channel (continuous, 0.05% THD, 20 Hz – 20 kHz into 8 ohms). To add life even to mono signals, we've designed a special Surround Sound stereo circuit. To correct the faults of so many video sound tracks, we've built in a seven-band graphic equalizer. And a full function remote control lets you operate the entire system from your listening/viewing position.

The Akai AA-V405 has all the connections you'll need to integrate your video system perfectly. Three TV antenna inputs plus a cable converter output handle your RF needs.

No modern video component should come without remote control.



Three direct-line video inputs and three video outputs accommodate a pair of VCRs, a video disc player, and video monitor. If you're impressed, you're not alone. The judges of the CES Design & Engineering competition have already cited the AA-V405.

To round out your Akai Audio/Video system you can choose from a variety of components built to stand on their own, not as an adjunct to someone's market-



ing program. Akai Digital Oversampling CD Players, Twin-Field Super GX Head Cassette Decks, and P-Mount Turntables consistently earn praise from reviewers throughout the world. They are the

tangible results of Akai's master plan to develop audio and video components of such high caliber that audio and video truly become one.





Feed a mono signal into your speakers with the balance centered—they are in phase if the sound comes from a distinct midpoint. Next, if you don't have an all-in-one receiver, the central audio components—the integrated amplifier, or the preamplifier and power amplifier, and the tuner—should be connected using the appropriate cords. Make sure the power switches are off while you make the connections. At this point, when you have the nucleus of your system assembled, you should perform a few simple tests to make sure it is connected properly.

#### System Checks

Recheck that all your connections are solid, and then connect the AC power, if you have not already done so. Before you turn the power on, check the receiver, the integrated amplifier, or the preamplifier to make sure that the volume control is set at a low position. Then check that the tape-monitor switches are off, the tone controls are in the "flat" position, the balance control is in the center, and any speaker-selection switches are activated correctly for your setup.

Turn on the power and check to see that all the appropriate lights are illuminated. If you have a receiver or tuner, select FM as a signal source, tune in a station, and turn the volume up very gradually. (If you don't have a tuner, use an LP or a tape.) Observe if there is sound being produced and if it is coming out of both speakers. If there is a problem, shut the system down immediately and recheck your connections and settings.

If you have been careful in the earlier stages, however, there should be no problem in getting sound out of the speakers at this point. Now it is time to make sure that your system is producing the *correct* sounds. First, turn the balance control on the receiver, integrated amplifier, or preamplifier all the way to the left and then to the right, and note whether sound is being produced only by the corresponding speaker in each case.

Another important check, of speaker phasing, should now be performed. Place the speakers a few feet apart and feed a mono signal to them with the balance control centered. If the speakers are in phase, the sound will appear to come from a very distinct point midway between them. To exaggerate the effect, put your head directly between the speakers—the sound should seem to originate right between your ears (rather like the effect you sometimes get with headphones). If you are in any doubt, reverse the polarity on one speaker only and repeat the test; the improvement, or deterioration, should be obvious immediately.

If you spend much of your time listening to FM, it's worth taking the time to make sure that you are receiving a high-quality signal. This process can be simple or difficult, but you will never really know how well you can pick up radio broadcasts until you actually hook up an antenna and see what the tuner does.

The simplest kind of antenna is the T-shaped wire "dipole" provided with most receivers and tuners. For many applications—particularly in cities, where you are close to the broadcasting antennas—a dipole is enough, but it has to be postioned carefully. Simply hook it to the 300-ohm antenna terminals on the rear panel of your receiver or tuner and move it about till it works best. It's not a good idea to secure it to the wall just yet, however, as you may find a better position after living with it for a while.

If the dipole turns out to be clearly inadequate, an indoor tunable antenna may be the answer. The next step up is a rooftop antenna, though this may be impossible if you live in an apartment building. If you do, and if the service is offered, you may have to subscribe to your cable-TV company's FM feed.

#### Tape Connections

With the basic setup in working order, it is time to start connecting your other components, such as a cassette deck, a CD player, and so on.

Before you actually make any of these connections, you may have to make some decisions, especially if you wish to attach more than one recording device. All but the most modest receivers and preamplifiers provide two or more tape-monitor circuits, and these are usually interconnected in some way. so this is the time to decide which recorder should be attached to which circuit. If you are planning to use your system occasionally for dubbing tapes, the choice may be critical, as many preamplifiers and receivers allow copying from Deck A to Deck B but not the other way around.

Setting up your tape equipment is normally straightforward. It can become more complicated, however, if you also have an equalizer or a surround-sound processor. These signalprocessing devices are often designed to be inserted in the signal path between the preamplifier and the power amplifier. With separate components, this is



### SPEAKERS BUILT UPON THE BELIEF THAT MUSIC IS MEANT TO BE PLAYED, NOT PLAYED WITH.

When we built the first Advent<sup>®</sup> in 1968, we believed music should sound exactly the way the artist had intended. Nothing added. Nothing taken away.

Just music.

Since then, trends in speaker design have come and gone. But the Advent philosophy has remained the same. You'll know why when you listen to our current line of loudspeakers. They've been designed with the latest technology, yet preserve the clean, accurate sound Advent is known for.

All our speakers feature high efficiency long throw woofers, ferrofluidfilled tweeters and are compact disc ready. The Advent Maestro takes this performance even further with a mica-



filled polypropylene dome midrange, 750 watts of power handling capability and a sound diffraction baffle. (Designed to enhance stereo imaging

and broaden the musical soundstage.) Wherever you put an Advent, you know it will look great. Our famous solid hardwood tops and bases go perfectly with any decor and there's an Advent for virtually any size room.

If you want to hear music with a little something extra, listen to any loudspeaker. If you want to hear the truth, listen to an Advent.





Place your speakers in similar acoustic environments—moving them even slightly can make a big difference in how good they sound. easy to accomplish, and some receivers and integrated amplifiers allow you to interrupt the signal between the preamp and power-amp sections. With others, however, a signal processor will have to be placed in one of the tape-monitor loops. For this reason, most of these components have their own built-in tape-monitor circuits to replace the ones they occupy.

#### Playback-Only Sources

The remaining components, such as compact disc players, should be much simpler to hook up because they are single-ended—in other words, they simply supply a signal to be reproduced. The only difficulty you are likely to face with this sort of component is if you have more of them than your preamplifier or receiver can accommodate. About the only way you can prevent this is by choosing equipment with the right number of inputs in the first place, though you may be able to use one of the tape-monitor inputs for a source component.

One very common playback-only source is, of course, the turntable, and you should tackle it next. The majority of turntables are supplied with a tonearm that is already mounted in the chassis, but in some of the more elaborate systems the tonearms are separate components. If possible, have your dealer mount the arm before you take the system home. But if you find you have to do it yourself, or if you want to, follow the instructions exactly—any shortcuts in positioning or securing the tonearm may seriously compromise its performance.

It's more probable that you will have to mount just the phono cartridge yourself—although if you can get the dealer to do it, you can avoid one of the more awkward and frustrating tasks in audio. Be very careful to check the positioning of the cartridge in the headshell. Also make sure that the electrical connections are both secure and correct-most tonearm and cartridge manufacturers color-code their connections, but some do not. You may have to do some careful reading in the instruction manuals to determine just what should be connected to what. If your cartridge and arm are modular, or "P-mount," types, things will be much simpler: just plug in the cartridge and forget about it.

After you have seen to the turntable/ arm/cartridge combination, you should move the turntable to its approximate final location and make the electrical connections. Incidentally, a separate ground wire is included because the signal from a phono cartridge is extremely low and, therefore, is more inclined to pick up hum than other parts of the system. It's a matter of insurance and is often not needed.

#### The Last Steps

When all your components are hooked up, it's time to put them into their final locations. As you move each component into position, pay some attention to the cables joining them together. Make sure that the cables are as far away as possible from power cords, and keep runs of wire as short as possible. Keeping the tangle behind your system to a minimum makes sense both electrically and aesthetically.

Once the electronics are in place and functioning, it's time to place your speakers. The sound they produce is as much a product of their acoustic environment as of their technological sophistication, and great care should be taken so they can perform optimally. But in the real world, there are only so many places in a room that you can put speakers, particularly large ones.

Make sure your speakers are in acoustic environments that are as similar as possible. All surfaces—especially those close to a speaker-reflect its sound, and this can have a profound influence on the overall impression it makes. It is important that the two channels sound as much alike as possible, and this is extremely hard to achieve if the room acts on them differently. Avoid putting one speaker in a corner and the other along a wall or next to a doorway, for example, and be prepared to move them around a bit. Very slight adjustments of position can result in dramatic improvements in the sound—but make these judgments from the spot where you'll do most of your listening and not standing next to the speakers.

The final step is to sit down and read all the instruction manuals cover to cover. If there is a function that you were unaware of or that is unclear from the manual's description, try it out. Play with each component until you really have the "feel" of your system and can put it through all its paces.

An audio system can be complex, and it may be some time before you figure out how to make it do everything you want it to. But you can give yourself a head start: a well-planned and carefully assembled system should be an exciting source of entertainment right from the beginning.

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## ELITE HI-FI COMPONENTS



#### PIONEER ELITE SERIES — A NEW CLASS OF AUDIO AND VIDEO COMPONENTS







#### **REFERENCE AMPLIFIERS**

SR

#### C-90

#### **Reference Control Amplifier**

We've given the C-90 a twin-mono amp construction which features separate power supplies and chassis layouts for the left and right channels. This elaborate construction shuts out mutual interference between channels, thus dramatically reducing intermodulation distortion. There's also an independent power supply that uses an exclusive transformer for video circuits, displays, relays, microcomputers and electronic switches.

We've also isolated the circuits in the C-90 from the external world because we know that a preamplifier is as susceptible to external disturbances and vibration as any other component. Preamps handle very delicate signals measured in microvolts and millivolts. When subjected to vibration, parts vibrate in sympathy, resulting in a type of distortion called "microphonics." Though subtle, this effect *is* discernable, especially with the tremendously wide dynamic range possible with digital programs. So we constructed feet from polycarbonate (for optimum shock absorbing response), anchored circuit boards to the chassis with rubber dampers, used flexible copper screws to cushion shocks, and employed a massive solid-aluminum volume control knob.

In order to retain higher purity and integrity, we shortened signal paths as much as possible through the use of relays, electronic switches and other means of electronic control wherever applicable. This has resulted in a drastic reduction of signal loss and deterioration (noise, distortion, crosstalk, etc.).

To boost the delicate signals from moving-coil cartridges, Pioneer's exclusive "hybrid" booster combines a quality transformer and an optimum-gain phono equalizer. With one-half the normal number of turns of coil, the transformer's thicker wire reduces DC resistance and stray wire capacitance for better high-frequency response. The reduced gain in the transformer is compensated for by an equalizer specially designed for low-noise performance. All this ensures that our "hybrid" booster provides a flat response from lows to highs and well-damped sound, making your "analog" records sound better than ever.

Pioneer's policy of using only quality parts is expressed throughout the amplifier, from circuit boards to wiring, from capacitors to semiconductors. Copper plating is used for the chassis and screws, for instance, to reduce subtle magnetic distortion.

In addition to high-quality sound, the C-90 also provides tremendous convenience: it connects, switches and controls six video components — two play-only units (LD players, TV tuners, etc.), three record/playback VCRs, and one processor unit. Besides, it provides two monitor outputs, and a 5-pin RF converter output that accepts an optional RF modulator (JA-RF5) for connecting a conventional TV. Using the sharpness, detail and noise reduction controls, you can even enhance the video as you watch or dub.

And for added convenience, the C-90 comes with a remote control that lets you control volume and input selection, as well as handle other Pioneer audio/video equipment with the "SR" mark. Adding a touch of class to the amplifier is an aluminum front panel finished with a lacquer-like shine.

#### M-90 Reference Power Amplifier

#### NON SWITCHING AMP"

The demand for a reliable and high-output power amplifier has never been greater now with the wide dynamic range made possible by the Compact Disc. The M-90 Reterence Power Amplifier was designed especially for this digital age.

Speaker systems can have rated impedances of, say, 6 or 8 ohms, but when they play music with wide dynamic variations, the actual impedance can go much lower, especially at low frequencies. With dynamic digital sound, an amplifier must be equipped with a power supply that performs reliably even under the heaviest load. And that's why we've created the M-90: its power supply features two outsize transformers, large electrolytic capacitors (for a total capacitance of  $48,000\mu$ F) and four bridged rectifier circuits with fast-recovery diodes. And in the power amplifier, 16 high-power transistors (8 per channel) are used in an elaborate "four-in-parallel" configuration.

What this means is that the M-90 is ready to deliver a **continuous** average power output of 200 watts\*per channel, min., at 8 ohms from 20Hz to 20,000Hz with no more than 0.003% total harmonic distortion. What's even more amazing is its dynamic power: 300 watts at 8 ohms, 550 watts at 4 ohms and 800 watts at 2 ohms (with EIA dynamic test signal).

We also have made signal paths as short as possible to ensure signal integrity. The volume control for CD input is located on the front panel, of course, but actual level adjustment is performed by a potentiometer located behind the input terminals and linked by a long shaft.

In addition to the input for a control amp, the M-90 has an input, with volume control, for direct connection of a Compact Disc player to allow you to enjoy purer-than-ever digital sound. Another line-level direct input is also provided that permits you to add other digital equipment in the future. The M-90 also has an output to allow you to return the signals to the preamp for equalization or recording on a tape deck.

We used our exclusive Non-Switching Circuit Type II for the power output stage, thus ending switching distortion. And we have elaborated on this design to reduce distortion further across a wide power output range. Thermal distortion is also drastically reduced by stabilizing the idling current supplied to power transistors from the moment power is turned on. Moreover, we've reduced non-linear distortion of power transistors to 1/30 that of our class-B amps.

To ensure quality sound, we used quality parts, such as goldplated in/output jacks, OFC (Oxygen-Free Copper) wiring, and  $70\mu$ mthick copper-plated circuit boards. To reduce magnetic distortion, the entire chassis is copper-plated, and so are screws used throughout.

Sophisticated craftsmanship is evident from the exterior: the power amp's aluminum panel front glows with a traditional lacquer-like luster. The front panel also contains large fluorescent power output indicators.

\*Measured pursuant to the Federal Trade Commission's Trade Regulation Rule on Power Output Claims for Amplifiers.



#### **REFERENCE DIGITAL AMPLIFIER AND TUNER**

#### A-91D

NON SWITCHING AMP"

#### Reference Digital Non-Switching Integrated Amplifier

Here's an amazing amplifier that's ready for digital reproduction: the A-91D. It even comes with a digital circuit for Compact Discs.

With the A-91D, program signals go through the shortest direct path from circuit to circuit, to minimize chances of noise pickup and to maintain musical purity. We've made this possible by having actual switching and control occur near circuits or input terminals. A "LINE DIRECT" switch lets you further trim the signal route; it runs the input selector direct to the power amp, bypassing all intervening circuits (except volume control) physically as well as electrically. It lets you enjoy unusually clear and clean reproduction from *any* program source.

Subtle vibrations can cause subtle sound degradation by microscopically moving parts and devices. So we've shut them out using a non-resonating frame chassis, insulators and a heat sink, all with a honeycomb construction. They also add to the rigidity of the entire chassis. Using separate circuit blocks contributes to clarity by keeping interference to a minimum.

Our new Non-Switching Circuit Type III features excellent lowimpedance driving capability combined with low distortion. Our exclusive power-amp design offers more advantages. One, it puts an end to switching distortion to add clarity to the sound you hear. Two, it fully stabilizes idling current, so that distortion due to thermal fluctuation is reduced to zero. Three, distortion created by power transistors is reduced to 1/50th the original value. Four, load variations are suppressed, and dynamic response is improved when large currents are drawn at low impedances, thanks to separation of the voltage- and current-amplifying stages.

The A-91D is designed to drive low impedances of 6 or even 4 ohms with low distortion over a wide frequency range. Backing it up are two high-capacity power transformers. They are contained in finned die-cast iron cases, filled with a damping agent, which dissipate heat to prevent the increased resistance and impedance that high temperatures can cause. They are also solid and non-resonating, and magnetically shielded to prevent magnetic radiation from affecting delicate signals.

In the A-91D, we've extended the digital advantages by including independent digital conversion circuitry. There are two glitch-free D/A (Digital-to-Analog) converters (one for each channel), a digital filter which uses four times the normal sampling frequency (176.4kHz), and an analog low-pass filter built from quality discrete parts. Use the A-91D with a CD player with digital output such as the Pioneer PD-M90X, and you'll get digital sound in its purest form. There are six digital inputs and three digital outputs, of which two inputs and one output have optical interfaces to permit electrical isolation. An Optical Transfer Distortion Canceller is added to eliminate jitter for accurate optical transmission.

The A-91D delivers a continuous average power output of 120 watts\* per channel, min., at 8 ohms, from 20Hz to 20,000Hz with no more than 0.003% total harmonic distortion.

\*Measured pursuant to the Federal Trade Commission's Trade Regulation Rule on Power Output Claims for Amplifiers.

#### F-91 Reference Digital Synthesizer Tuner

We've pushed the level of FM sound quality to record highs with the addition of two Pioneer exclusives to the F-91.

The first is the ARTS (Active Real-Time Tracing System) included in the IF section of the tuner. With some tuners, especially expensive ones, you have the choice of using a narrow or wide IF bandwidth. The first lets you avoid interference, but you have to settle for an increase in distortion. The second provides lower distortion and better sound, but interference may get in the way. Pioneer ARTS — it's simply the best of both worlds: its IF filter *actively* follows the desired signal while rejecting interference. Now you can enjoy both the low distortion of a wide bandpass *and* the high selectivity of a narrow bandpass. Sensitivity is improved, too.

The second Pioneer feature is the Digital Direct Decoder Type III. It takes the output from the AFTS IF circuitry and converts it into digital form before directly turning it into stereo analog signals. Thanks to digital operation, our DDD Type III is less prone to signal degradation. Moreover, in the Type III, we've simplified the circuitry using a new PLL detector, which has reduced noise even further.

Improvements extend to other circuits of the tuner as well. The front end, for instance, features an ID MOS FET to improve reception. Indeed, the front end is as highly sensitive and selective as an elaborate 4-ganged tuning capacitor.

The F-91, like our amps and CD players, is designed based on our anti-vibration concept to damp harmful resonance and vibration for improved sound. We've turned circuits into modules and filled them with epoxy resin. And we've added honeycomb ribs to the chassis and used large insulators to shut out external vibration.

Then, of course, there are a wealth of features designed to improve convenience. You can preset up to 24 FM and AM stations in any combination. Up to three different stations can be programmed so that, when controlled by an optional timer, they are tuned in sequence — a convenient way to make unattended recording.

More features for convenience are an auto tuning mode, selectable muting level, recording level calibrator, and a fluorescent display.

#### Pioneer ARTS (Active Real-Time Tracing System)

A conventional wideband filter permits low-distortion reception but suffers when undesirable signals interfere (Photo 1). An alternate narrowband filter may cut interference, but can add distortion because of the limited bandwidth (Photo 2). Photo 3 shows the response of the F-91 with ARTS. As you can see, it delivers a low-distortion signal even when there's interference. The Pioneer ARTS simply combines the low-distortion performance of a wide bandwidth and the high selectivity of a narrow bandwidth.




## **REFERENCE MULTI-PLAY COMPACT DISC PLAYER**

## PD-M90X

#### Six-disc multi-play convenience

Class and convenience happily coexist in the PD-M90X, which combines classical elegance with computer-age features.

Our top-of-the-line multi-play CD player, the PD-M90X lets you enjoy beautiful, dynamic digital sound for hours and hours, uninterrupted. It accepts up to six CDs mounted inside a special magazine and plays the discs just the way you want them played. You can play each song on all six discs one by one, or jump to the song or disc you want instantly, using DISC NUMBER and TRACK NUMBER buttons provided both on the remote control and on the unit itself. For added convenience, you can also select up to 32 tracks from the six discs and program them for playback in any order! A single-disc loader is also standard for single-play convenience.

#### Remote control with "one-touch" program loading

The PD-M90X comes provided with a full-function "SR" remote control. It offers three extra conveniences: a numeric keypad, a multi-function LCD (Liquid Crystal Display) panel and the MPSS\* (Magazine Program Selection System). The keypad gives you instant access to any track, a feature you'll also find useful when programming tracks. The LCD panel serves as a guide to programming, letting you preset tracks and the order away from the player while referring to labels of the discs.

The Magazine Program Selection System permits you to store up to 80 programmed "steps" (songs and pauses) from eight six-disc magazines. Using MPSS, you are saved from reprogramming tracks each time you mount a magazine: all you have to do is press the memory button for that specific magazine and the "transfer" button. The programmed songs are then automatically "loaded" from the remote into the player. Now loading programmed tracks has become as simple as touching a button.





## 4-way repeat, random play, fluorescent panel and other conveniences

The PD-M90X offers four-way repeat, including a single track, a single disc, all six discs and programmed tracks. The random play feature lets you leave track selection up to the player — touch the RANDOM PLAY button, and a built-in microcomputer randomly selects the songs for you from among the six loaded discs, without repeating tracks!\*\* Or, press this key in the programmed play mode, and the computer randomly selects songs from among those programmed. Programmable pauses, 2-speed manual search, track search, and timer start function with options of normal and random play — these are other conveniences of our multi-play CD player.

A multi-function 7-digit fluorescent display is provided to show you the operating status of the player. It shows the elapsed time and remaining time of a track in play, as well as the remaining time of an entire disc. In addition, the display shows the accumulated total time each time you program a track. A graphic indicator shows which disc is being played at any moment.

#### Anti-vibration concept

When it comes to hi-tech features for better digital sound, the PD-M90X has plenty. To damp vibration and resonance, which can cause muddy sound, we use a copper-plated honeycomb chassis; a Disc Stabilizer to firmly clamp the rotating disc; and large aluminum-ringed insulators made of vibration-absorbing polycarbonate.

#### **Oversampling digital filter**

An oversampling digital filter using twice the normal sampling frequency — 88.2kHz — ensures low noise and minimal phase distortion for extra clarity and razor-sharp sound definition.

#### Digital level control

A digital level control lets you attenuate the playback level from the remote. Since it adjusts the signal while still in digital form, our digital volume control adds a minimum of noise and distortion.

#### Digital output

There is a digital output for connection to an outboard DAC (Digital-to-Analog Converter) unit or an amplifier featuring a built-in DAC like the Pioneer A-91D, so that you'll enjoy better yet, purer yet digital sound.

- \* MPSS is a trademark of Pioneer Electronic Corporation.
- \*\*Some tracks may repeat when a disc contains more than 100 tracks.

Note: The PD-M90X comes with both a 6-disc magazine and a single-disc loader. Additional magazines (JD-M100) are available as options.



## **REFERENCE QUARTZ-PLL DIRECT-DRIVE TURNTABLE**

## **PL-90**

Think of it as the most advanced form in turntable technology. The PL-90 is designed to let you enjoy the maximum dynamic range and low distortion that today's best analog recordings can deliver.

To get the best performance out of today's sophisticated phono cartridges, we've fashioned its straight tone arm out of light yet rigid aluminaceramics. Then we've fitted on it a Pioneer DRA (Dynamic Resonance Absorber), a combination of a viscous damper and weight, to eliminate resonance.

To ensure that your records are played with extremely low noise and wow and flutter, we use a coreless direct-drive DC-servo motor controlled



by a precise quartz-PLL servo system to provide cog-free and ripple-free smooth torque generation. The motor is fitted with a Stable Hanging Rotor to improve stability. The platter is large (14-3/16 inches across), heavy (7 lbs. 4 oz.) and has a high moment of inertia (655 kilograms per square centimeter), to smooth out rotation.

The important tone arm and motor are fully insulated from external influences through a Double Insulation System that shuts out vibration in both horizontal and vertical planes. The cabinet is made of high-density material to suppress resonance.

Ease of use is enhanced with the addition of automatic arm lift-up at the end of record play.

ADVERTISEMENT



## DIGITAL STANDARD SPEAKER SYSTEMS

## DSS-E10/DSS-E6

ACC.

Here's a pair of speaker systems specifically designed to serve as standards for accurate digital reproduction. A number of Pioneer exclusive designs has contributed to the making of our reference speaker systems.

One is the LDMC (Linear-Drive Magnetic Circuit) in the woofer. It creates a uniform magnetic field over a wide range within the voice coil gap. As a result, the voice coil is driven by the same uniform force, whether it is being pushed far outward to create very loud sounds, or is hardly moving to produce the faintest notes. The LDMC makes the sound you hear refreshingly transparent, powerful and exceptionally lifelike.

Our woofers also feature the EBD (Electronic Bass Drive). This design uses two voice coils wound on the bobbin, one on top of the other. Driven by two frequency-divided voice coils, the woofer pro-

duces double the amount of usable bass sound, extending the lowfrequency response substantially.

Our DRS (Dynamic Response Suspension) improves the linearity of the damper and surround of the woofer, so that the driver responds accurately to a wide range of inputs from the loudest to softest sounds. This adds to a wider dynamic range.

The diaphragm of the woofer is made of Pioneer's PG or Polymer Graphite\* that's light and firm. It combines low distortion, smooth response and low coloration. The midranges are made of hard boron to improve sensitivity and assure natural response. Tweeters are lightweight and responsive beryllium ribbons combining better transient response and low distortion.

\*Polymer Graphite is a trademark of Ploneer Electronic Corporation.



## **REFERENCE LD PLAYER**

## LD-S1

#### The best in picture and sound

Here's the finest LD player available to consumers anywhere in the world. Designed and engineered specifically for the videophile with an ear for excellent sound. Take a look at some of the LD-S1's standout specifications: 420-line horizontal resolution, 48dB video signal-to-noise ratio, 105dB audio signal-to-noise ratio and 97dB audio dynamic range.

#### Full-floating drive system

Subjected to vibration, the pickup of an LD player can cause jitter, patchy colors and streaks in solid colors. And vibrating PC boards can muddy the sound. So we've isolated the motor disc drive from the rest of the chassis, to reduce the amount of vibration passed from the motor to other parts of the player. The result is a drastic reduction of jitter and streaks. Specifically: Our new Dynamic Pressure Bearing has lessened the load applied to the metal bearing. As the shaft starts to rotate, liquid silicone collects under the shaft, cushioning it and supporting it to prevent direct contact with the bearing. Transmission of motor vibration is lessened and friction reduced for smoother motor rotation.

Our magnetic disc clamper uses a powerful magnet to hold the disc. The moment a disc is in place, the clamper arm is removed from the clamper, thus ending the transmission of the motor vibration to other parts of the player.

#### Accu-Focus System

The tracking beams reflected from the disc are added by the quadrant photodetector inside the pickup assembly. But there is a slight phase difference between the outputs from leading and trailing beams. In the LD-S1, however, the outputs from the leading beam are delayed so that they can be added to those from the trailing beam in time. This reduces distortion and improves frequency response, especially the highs, of the RF output. Both audio and video benefit.

#### 4X oversampling digital filter and twin D/A converters

We've incorporated a digital filter using a sampling frequency 4 times higher than that used in conventional filters. Working with an analog low-pass filter, it reduces phase delay as well as distortion. To eliminate phase difference between channels, we use two independent glitchfree D/A (Digital-to-Analog) converters. LDs with digital sound have never sounded better.

#### **Digital memory**

Eight-bit digital memory brings you versatile and clean special effects — the LD-S1 is the first player ever to be equipped with this innovative feature. You can freeze and store a picture in memory for viewing anytime. You can enjoy still and multi-speed play even from CLV (Extended-Play) discs, not to mention CAV (Standard-Play) discs. You'll also enjoy "strobe motion" and still with sound, two exciting new additions. Pictures are exceptionally stable and free of noise. Scanned pictures are also free of noise bars.

#### Elaborate power supply and quality parts

The LD-S1's power supply is elaborate, using two transformers, one for servo and digital circuits, and another for audio and video circuits. And to shut out interference between audio and video circuits, each has a separate power supply (independent coil windings on the transformer) and is laid out so that it is separated from the other. Quality parts are used for improved sound and picture, including a 1mm-thick OFC (Oxygen-Free Copper) ground bus plate, gold-plated terminals, copper-plated chassis, and OFC AC power cable.

#### Superb operating conveniences

The LD-S1 is equipped with a number of features to make operations superbly easy. Any part of a disc can be accessed in one-half the normal time of conventional players. A large fluorescent panel serves as your guide to operation. A new addition is the "Last Memory" feature: press the "LAST MEMORY" button before shutting off the power, and at the next viewing play resumes with a scene a few seconds back from where you left off. The front panel has all the controls you need for operation. And the remote control is ergonomically designed for ease of use.

Available functions include Still/Step, Dual-Speed Scan, Frame/ Time Search, Chapter Search, 9-Step Multi-Speed Play, 4-Mode Repeat, Chapter-Skip Search and Chapter Program. Other features include onscreen display, picture tone control, two video outputs, I/O port for computer interface, gold-platec headphone output, and an SR terminal.



## **SPECIFICATIONS**

#### C-90

AUDIO SECTION Rated Output Input Sensitivity/Impedance PHONO (MM): PHONO (MC) CD, TUNER, AUX, TAPE. Output Level/Impedance PRF OUT TAPE REC Total Harmonic Distortion: Intermodulation Distortion: (50Hz; 7.000Hz = 4:1, 8 ohms) Frequency Response PHONO (RIAA Equalization): CD, TUNER, AUX, TAPE Tone Control RASS TREBLE Muting. Signal-to-Noise Ratio (IHF, A-network) PHONO: CD, TUNER, AUX, TAPE. VIDEO SECTION Input Sensitivity/Impedance VDP, VCR, TV Tuner, Adaptor: Output Level/Impedance Monitor, Adaptor, REC Monitor: Frequency Range: MISCELLANEOUS Power Requirements. Power Consumption. Dimensions (W  $\times$  H  $\times$  D): (without package) Weight (without package):

8V (20 - 20,000Hz, 10k ohms, T.H.D. 0.001%)

2.5mV/50k ohms 0.25mV/40 ohms or 0.125mV/3 ohms 150mV/50k ohms

1V/600 ohms 150mV/1k ohms 0.002% (20 — 20.000Hz, 10k ohms, output 1V) 0.002% (output 1V)

20 — 20,000Hz ±0.2dB 20 — 20,000Hz 0dB, - 1dB

± 9dB (100Hz) ± 9dB (10kHz) - 20dB

96dB (MM), 86dB (MC) 109dB

1Vp-p/75 ohms

1Vp-p/75 ohms 10Hz — 10MHz 0dB, - 3dB

120V 60Hz 40W 18 × 4-15/16 × 15-15/16 inches 457 × 125 × 405 mm 21 lbs. 6 oz./9.7kg

#### M-90

POWER AMPLIFIER SECTION Continuous average power output of 200 watts\* per channel, min., at 8 ohms, from 20Hz to 20,000Hz with no more than 0.003% total harmonic distortion.

Total Harmonic Distortion: Intermodulation Distorition: (50Hz: 7,000Hz = 4:1, 8 ohms) Inpul Sensitivity/Impedance CONTROL AMP: CD DIRECT, LINE DIRECT: Output

SPEAKERS: HEADPHONES. Frequency Response (CD): Signal-to-Noise Ratio. MISCELLANEOUS

Power Requirements. Power Consumption:

Dimensions (W × H × D). (without package) Weight (without package): 0.003% (20 — 20,000Hz, 8 ohms, continuous rated power output) 0.002% (continuous rated power output)

1V/50k ohms (fixed) 1V/50k ohms (variable)

A, B, A + B, OFF Low impedance 20 — 20,000Hz 0dB, -0 1cB 125dB (IHF, A-network)

120V 60Hz 430W (UL) 18 × 6-1/16 × 16-15/16 inches 457 × 154 × 430 mm 49 lbs. 13 oz./22.6kg

#### A-91D

#### AMPLIFIER SECTION Continuous average power output of 120 watts\* per channel, min., at 8 ohms from 20Hz to 20,000Hz with no more than 0.003% total harmonic distortion

Total Harmonic Distortion:

Input Sensitivity/Impedance PHONO (MM), PHONO (MC) CD, TUNER, AUX, TAPE PHONO Overload Level (1kHz) MM/MC. Output Level/Impedance TAPE REC SPEAKERS. **HEADPHONES** Frequency Response PHONO (RIAA Equalization) MM MC CD, TUNER, AUX, TAPE. Tone Control BASS. TREBLE: Filter (Subsonic): Loudness Contour (Volume at - 40dB position) Signal-to-Noise Ratio (IHF, short-circuited A-network) PHONO (MM/MC): CD, TUNER, AUX, TAPE: MISCELLANEOUS Power Requirements Power Consumption: Dimensions (W  $\times$  H  $\times$  D): (without package) Weight (without package).

F-91

**FM TUNER SECTION** Usable Sensitivity (mono). 50dB Quieting Sensitivity Mono. Stereo: Signal-to-Noise Ratio Mono/Stereo (IHF) Distortion (at 80dBf) 100Hz (mono/stereo). 1kHz (mono/stereo): 6kHz (mono/sterec): Frequency Response Capture Ratio: Alternate Channel Selectivity Spurious Response Ratio: Image Response Ratio. IF Response Ratio. AM Suppression Ratio. Subcarrier Product Ratio. Muting Threshold. Stereo Separation 1kHz: 20 — 10,000Hz: Antenna Input AM TUNER SECTION

Sensitivity IHF, Loop Antenna. Selectivity. Signal-to-Noise Ratio. Image Response Ratio. IF Response Ratio.

#### Antenna. AUDIO SECTION

Output (Level/Impedance) FM (100% Mod, Fixed) AM (30% Mod, Fixed):

MISCELANEOUS MISCELLANEOUS Power Requirements: Power Consumption. Dimensions (W × H × D): (without package) Weight (without package). 0.003% (20 - 20,000Hz, 8 ohms, continuous rated power output)

2.5mV/50k ohms 0.25mV/40 ohms 150mV/50k ohms

200mV/20mV (T.H.D. 0.008%)

150mV/0.8k ohms A, B, A+B, OFF Low impedance

20 — 20,000Hz ±0.2dB 20 — 20,000Hz ±0.3dB 1 — 150,000Hz 0dB, - 3dB

± 8dB (100Hz) ± 8dB (10kHz) 17Hz (- 12dB/oct ) + 5dB (100Hz), + 3dB (10kHz)

work) 95dB/83dB 109dB

120V 60Hz 670W (UL) 18 × 6-13/16 × 18-11/16 inches 457 × 173 × 475 mm 65 lbs. 15 oz /29 9kg

9 8dBf (0.85µV, 75 ohms)

12.8dBf (1.2µV, 75 ohms) 34.8dBf (15µV, 75 ohms)

95dB/87dB

0.015%/0.02% 0.009%/0.02% 0.02%/0.07% 20 — 15,000Hz +0.2dB, -0.8dB 0.8dB 85dB (400kHz) 80dB 70dB 100dB 70dB 60dB 25 2dBI (5µV, 75 ohms)

65dB 55dB 75 ohms unbalanced

150µV/m 18dB 50dB 40dB 60dB Loop antenna

650mV/900 ohms 150mV/900 ohms

120V 60Hz 25W 18 × 3-5/16 × 12-7/16 inches 457 × 84 × 316 mm 11 lbs. 7 oz /5.2kg

Measured pursuant to the Federal Trade Commission's Trade Regulation Rule on Power Output Claims for Amplifiers.

#### PD-M90X

System Frequency Response: Signal-to-Noise Ratio (EIAJ): Dynamic Range (EIAJ): Channel Separation (EIAJ): Wow and Flutter (EIAJ): Distortion(EIAJ): Output Voltage (EIAJ): Power Requirements; Power Consumption: Dimensions (W × H × D): (without package) Weight (without package):

Compact disc digital audio system - 20,000Hz ± 0.5dB 100dB 96dB 93dB Unmeasurable (±0.001%, weighted peak) 0.0035% 2V ±0.5V 120V 60Hz 23W 18 × 4-1/8 × 12-3/8 inches 457 x 104 x 315 mm 15 lbs./6.8kg

#### PL-90

MOTOR AND TURNTABLE Drive System: Motor

Turntable Platter: Inertial Mass: Speed Wow and Flutter (WRMS): Signal-to-Noise Ratio: TONE ARM Type:

Effective Arm Length: Overhang: Lisable Cartridge Weight: MISCELLANEOUS Power Requirements: Power Consumption: Dimensions (W × H × D): (without package) Weight (without package):

\*Measured directly from FG output.

#### DSS-E10

Enclosure Unit Layout: Speakers Woofer Midrange Tweeter Impedance: Frequency Range Sensitivity: Maximum Music Power Rated Power: Crossover Frequencies

Dimensions (W × H × D): (without package) Weight (without package)

#### DSS-E6

Enclosure: Unit Layout: Speakers Wooter Midrange Tweeter Impedance. Frequency Range Sensitivity Maximum Music Power: **Rated Power** Crossover Frequencies:

Dimensions (W × H × D): (without package) Weight (without package)

Direct Drive Coreless, Quartz-PLL DC-servo motor with Stable Hanging Rotor<sup>TM</sup> 14-3/16 inches (36cm) 655kg/cm<sup>2</sup> 33-1/3 and 45 rpm 0.018% (0.008%\*) 85dB (DIN B)

Statically balanced, alumina-ceramics straight tone arm with DRA 11-1/8 inches (282mm) 9/16 inch (13.5mm) 2.4q - 12q

#### 120V 60Hz 1.4W 23-7/16 x 8-7/16 x 17-1/16 inches 596 x 215 x 434 mm 38 lbs. 2 oz./17.3kg

### LD-S1

TYPE: OUTPUTS VHF Output (NTSC) Channel Terminal Video Output Output Level Output Terminals: Audio Output Channels

Output Level

#### Output Terminals: DIGITAL AUDIO CHARACTERISTICS Frequency Response Signal-to-Noise Ratio: Dynamic Range: Channel Separation: Total Harmonic Distortion: ANALOG AUDIO CHARACTERISTICS Frequency Response:

Signal-to-Noise Ratio: Dynamic Range: MISCELLANEOUS Power Requirements: Power Consumption: Dimensions (W × H × D) (without backage) Weight (without backage):

#### LaserDisc

LaserDisc is a trademark of Pioneer Electronic Corporation.



The LaserVision mark certifies compatibility with other laser optical video products bearing the mark

LaserVision videodisc system

Channel 3 or 4 (switchable)

4 - 20.000Hz (+0.5dB)

18 × 5-3/8 × 18-7/16 inches 457 × 136 × 468 mm

36 lbs. 15 oz./16.8kg

switchable)

RCA jacks

105dB 97dB

100dB

0.0035%

20 - 20,000Hz

70dB (CX on)

70dB (CX on)

120V 60Hz

55W

F-type jack (75 ohms, unbalanced)

1Vp-p (75 ohms, sync, negative)

RCA jack (75 ohms, unbalanced)

Discrete 2 channels (1/L, 2/R, 1/L+2/R,

Digital sound: 200mV rms (1kHz, - 20dB)

Analog sound: 200mV rms (1kHz, 40%)

## SR.

This mark indicates the compatibility for the Pioneer system remote control.

Note. Specifications and design subject to modification without notice.

#### Bass-reflex bookshelf type Symmetrical 12-inch (30cm) PG<sup>™</sup> cone type 4-3/4-inch (12cm) boron cone type Beryllium ribbon type 6 ohms 30 — 50,000Hz 91dB/W (1m) 240W 80W 650Hz (Low/Mid)

4,000Hz (Mid/High) 15-3/8 × 26-3/4 × 13-7/8 inches 390 x 680 x 353 mm 57 lbs. 5 oz /26kg

#### Bass-reflex bookshelf type Symmetrical

8-inch (20cm) PG<sup>™</sup> cone type 2-1/2-inch (6.6cm) boron cone type Beryllium ribbon type 6 ohms 40 — 50,000Hz 90dB/W (1m) 120W 40W 1,000Hz (Low/Mid) 5,000Hz (Mid/High) 10-5/8 × 18-1/2 × 9-9/16 inches 270 × 470 × 243 mm 23 lbs. 2 oz./10.5kg

## DIONEER

**PIONEER ELECTRONICS (USA) INC.** P.O. Box 1540, Long Beach, California 90801

#### **PIONEER ELECTRONICS OF CANADA, INC.**

PIONEER ELECTRONICS OF CANADA, INC. TORONTO HEAD OFFICE 505 Cochrane Drive, Markham, Ontario L3R 6B8 Phone: (416) 479-4411 VANCOUVER OFFICE 13911 Bridgeport Road, Richmond, British Columbia V6V 1J6 Phone: (604) 278-1014 MONTREAL OFFICE 6412 Trans Canada Highway, St. Laurent, Quebec H4T 1X4 Phone: (514) 735-2651

## R E C E I V E R S



#### ACOUSTIC RESEARCH

#### AR X-10 AM/FM Stereo Receiver

Receiver with infrared remote to control power, volume, tuning, input selection, and AR CD player functions. Features audio and video dubbing; close-tolerance metal-film resistors and film capacitors for RIAA; concealed bass, midrange, treble, balance, tone-defeat, loudness, filter, tape, FM/AM, memory, and speaker-switching controls; 8 AM/8 FM station presets; gold-plated phono in-



puts. Inputs for MM phono; MC phono; tape; AUX; CD player; video sound source; VCR 1; VCR 2. Amp section: 100 contiuous average W/ch from 20-20,000 -Hz into 8 ohms with less than 0.03% THD, 130 W into 4 ohms; dynamic headroom 2 dB; 200-ms dynamic power 150 W; 40-ampere current capability. FM section 50-dB quieting sens stereo 25  $\mu$ V (33.2 dBf); FM s/N (at 65 dBf) 75 dB stereo, 80 dB mono; THD stereo 0.3%; capture ratio 1.0 dB; AM rejection 60 dB; alt-ch sel 75 dB. 17" w x 4.33" h x 14.5" d ...... \$800

#### AR X-06 AM/FM-Stereo Receiver

#### AR X-04 AM/FM-Stereo Receiver

AM/FM receiver with concealed ergonomic controls. Features 8 AM/8 FM station presets; mute button; headphone jack; inputs for MM phono; tape; AUX; CD player; video sound source. Amp section: 40 continuous average W/ch from 20-20,000 Hz into 8 ohms with less than 0.03% THD, 50 W into 4 ohms; dynamic headroom 1.4 dB; 200-ms dynamic power 60 W. FM section 50-dB quieting sens stereo 40  $\mu$ V (37.2 dBf); FM S/N (at 65 dBf) 74 DB stereo, 78 dB mono; THD stereo 0.3%. 17" w x 3.25" h x 13" d ...... \$400

#### a/d/s/

#### **R4 Remote-Controllable 70-W/ch Receiver** Alphanumeric display on front panel indicating input source or received radio station. Digitalsynthesized tuner with 30 memory presets for AM or FM stations; optional wireless remote control (which also controls other a/d/s/ compo-

nents); digital volume and tone controls; RS-232 port allows control through personal computer; capable of multi-room remote control Amp section: 70 W/ch into 8/4 ohms; dynamic headroom 2 dB. Tuner section: IHF sens 26 dBf stereo; signal strength for 50-dB quieting 35 dBf stereo. 17.5" w x 2.8" h x 14.8" d; 23 lb ......\$1,100

#### RC1 Unified Remote Control

#### AKAI

#### AA-V405-B 100-W/ch A/V Receiver

With wireless remote control; surround-sound decoding; 7-band EQ; 16 AM/FM presets; video and RF inputs/outputs; comprehensive LCD. Inputs for MM phono; tape; aux; CD player; video sound source; VCR 1; VCR 2; VDP; RF. Amp section: 100 W/ch into 8 ohms. FM section: 50 dB quieting sens stereo 37.2 dBf; max S/N with 65 dBf A-wtd stereo 65 dB; capture ratio 1.5 dB. 17" w x 4" h x 13.5" d; 16.2 lb ......... \$589

#### AA-V305-B 80-W/ch A/V Receiver

#### AA-V205-B 60-W/ch A/V Receiver

Wireless remote control; surround-sound decoding; 5-band EQ; 16 AM/FM presets; video and RF inputs/outputs; comprehensive LCD. Inputs for MM phono; tape; aux; CD player; video sound source; VCR 1; VCR 2; VDP; RF. Amp section: 60 W/ch into 8 ohms. FM section: 50-dB quieting sens stereo 37.2 dBf; capture ratio 1.5 dB. 17.3" w x 4" h x 13.5" d; 16.2 lb..... \$399

#### **BANG & OLUFSEN**

#### Beomaster 5500 50-W/ch AM/FM Receiver

#### Beomaster 3300 25-W/ch AM/FM Receiver

Works with other Beosystem 3300 components for multi-room remote control; sensi-touch capacitance controls; volume controlled from wireless remote; 4 FM, 1 AM presets; auto power with source selection; bass (max +9, -14 dB at 40 Hz), treble (max +9, -14 dB at 12,500 Hz), balance controls; loudness switch; programmable volume level; auto compression to prevent overload; mounts on wall with accessory brackets;



headphone jack; drives 2 pairs of speakers. 25 W/ ch into 8 ohms; 50-dB quieting sens 43 dBf stereo. 24.5" w x 2.75" h x 10" d; 15.4 lb ..... \$799

#### CARVER

#### 200-W/ch AM/FM Receiver 2000

#### 150-W/ch AVR100 Audio/Video Receiver

#### 150-W/ch AM/FM Receiver 150

#### 90-W/ch Receiver 900

With Magnetic Field Amp and special FM NR. Inputs for MM phono, tape, AUX, extra AUX, CD player, video sound source. Amp section: 90 W/ch into 8 ohms; dynamic headroom 0.2 dB. FM section: alternate-ch sel 58 dB; adjacent-ch sel 40

## RECEIVERS

#### DENON

#### DRA-95VR Receiver

Features remote control; 85 W/ch; nonnegative feedback; pure current supply; simulcast; simulated stereo; audio external processing loop; remote



#### **DRA-75VR Receiver**

Features remote control; 65 W/ch; nonswitiching Class A amp; simulcast; audio external processing loop; 16-station random preset tuning; variable loudness; MC input; 2 A/V in and 1 A/V out plus monitor out; electronic input switching\$500

#### **DRA-55V Receiver**

#### **DRA-35V Receiver**

#### **DRA-25 AM/FM Receiver**

Stereo receiver features straight amplification design; CD direct switch; variable loudness EQ; liquid heat-cooled sink; high-linearity phono stage; l6-station random preset memory; microprocessor assisted tuning system; FL display; auto-scan; up/down manual tuning; last-channel-tuned memory. 30 W/ch min rms into 8 ohms from 20-20,000 Hz with no more than 0.05% THD; FM 50 dB quieting sens 23 µV (stereo); capture ratio 1.5 dB; AM suppression 50 dB ......\$280

#### FISHER

#### **RS-620 AM/FM Receiver**

100 W/ch receiver with infrared wireless remote control. Features quartz-PLL digital tuning; 24 station presets; 5-band graphic equalizer; A/B



#### **RS-610 AM/FM Receiver**

#### HARMAN KARDON

#### HK 795i 70-W/ch AM/FM Receiver

#### HK495i 45-W/ch AM/FM Receiver

#### HK395i 30-W/ch AM/FM Receiver

AM/FM-stereo receiver with digital synthesized quartz-locked tuner. Features reactive load and high instantaneous current capability, low negative feedback. Inputs for MM phono, 2 tape monitors, CD player. Amp section: 30 W/ch into 8 ohms. FM section: alt-ch sel 65 dB; 50-dB quieting sens mono 1.65  $\mu$ V (15.6 dBf), max S/N, Awtd, stereo 75 dB; sep 50 dB at 1,000 Hz; capture ratio 1.2 dB. AM section: sens 15  $\mu$ V .... \$325

#### HK385i 30-W/ch AM/FM Receiver

AM/FM-stereo receiver with reactive load and high instantaneous current capability. Features ultrawide bandwidth; low negative feedback; discrete circuitry. Inputs for MM phono, tape, CD player. Amp section: 30 W/ch into 8 ohms. FM section: alt-ch sel 60 dB; 50-dB quieting sens mono 1.9  $\mu$ V (16.8 dBf), max S/N, A-wtd, stereo 74 dB; sep 45 dB at 1,000 Hz; capture ratio 1.5 dB. AM section: sens 15  $\mu$ V ...... \$275

#### **HITACHI**

#### HTA50AVSW 50-W/ch AM/FM Receiver

Quartz digital-synthesized tuner section; 20 AM/ FM presets; unified infrared remote control; surround-sound control system; audio inputs for phono, CD, tape; video inputs for TV, VCR, videodisc player; electronic volume and balance controls; 5-band graphic equalizer; rosewood end caps. 50 W/ch into 8 ohms from 20-20,000 Hz with no more than 0.05% THD ........ \$500

#### JVC

#### RX950VBK Audio/Video Receiver

#### **RX9VBK Audio/Video Receiver**

Receiver with unified wireless remote control to operate receiver plus selected JVC Compu-Link components. Features Dynamic Super A, Gm Driver; computer-controlled digital-synthesis

#### RX750BK Audio/Video Receiver

Receiver with unified wireless remote control to operate receiver plus selected JVC Compu-Link components. Features Dynamic Super A, Gm Driver; computer-controlled digital-synthesis tuning; 16 AM/16 FM station presets; auto memory; preset scan; dB signal-strength indicator; variable stop level; auto QSC; electronic 7-band equalizer with 5 user-programmmable and 5 preset EQ curves; spectrum analyzer display; high-gain phono EQ for MM/MC carridges; sleep timer; three video inputs. 100 W/ch into 8 ohms from 20-20,000 Hz with <a href="https://doi.org">otherwide</a>

#### **RX8VBK Audio/Video Receiver**

#### **RX550VBK Audio/Video Receiver**

Receiver with unified wireless remote control to operate receiver plus selected JVC Compu-Link components. Features Dynamic Super A, Gm Driver; computer-controlled digital-synthesis tuning; 16 AM/16 FM station presets; auto memory; preset scan; electronic 7-band equalizer with 5 user-programmable and 5 preset EQ curves; sleep timer; three video inputs; sound selector; acoustic expander; optional CATV antenna control unit. 60 W/ch into 8 ohms from 20-20,000 Hz with no more than 0.007% THD ......\$475

#### RX450VBK Audio/Video Receiver

#### RX350VBK Audio/Video Receiver

Receiver with unified wireless remote control to operate receiver plus selected JVC Compu-Link components. Features Dynamic Super A, Gm Driver; digital-synthesis tuning; 16 AM/16 FM station presets; auto memory; preset scan; 5-band graphic equalizer; sleep timer; acoustic expander; optional CATV antenna control unit. Power output: 45 W/ch into 8 ohms from 40-20,000 Hz with no more than 0.08% THD .........\$315

#### RX250VBK Audio/Video Receiver

Receiver with unified wireless remote control to operate receiver plus selected JVC Compu-Link components. Features Dynamic Super A, Gm Driver; digital-synthesis tuning; 16 AM/16 FM station presets; auto memory; preset scan; bass and treble controls; sleep timer; acoustic expander; optional CATV antenna control unit. Power

## BEYOND CONVENTIONAL SYSTEM CONTROL



Today's audio/video home entertainment systems typically incorporate a variety of audio and video components, all operating with their own separate remote controls.

Introducing.... The ONKYO TX-84—the first receiver ever offered with a "Universal" Programmable Remote Control that car operate any wireless remote controlled components from any manufacturer. For total control of the TX-84 and everything else in your audio/video system, ONKYO introduces the "Unifier"—Universal Programmable Remote Control. With the RC-AV1, the functions of many brands of infrared remotes can be memorized into one master unit, eliminating inter brand remote incompatability forever. The RC-AV1 can be easily programmed to operate over 100 functions, with function keys conveniently grouped in three modes—audio, video, and auxiliary. The RC-AV1 "Universal" Remote Control is available for sale separately or included as an option with the TX-84.

Designed for the audio/video enthusiast, the ONKYO TX-84 offers outstanding sonic performance in addition to full A/V capability. The TX-84 delivers 60 watts of FTC rated power per channel into 8 ohms with no more than .04% THD. Features such as low impedance drive capability, discrete output stages, Automatic Precision Reception, and Dynamic Bass Expander make the TX-84 the equal of any comparable audio-only receiver. Its seven inputs (5 audio, 2 video) offer total system versatility, while the Sereo Image Expander Artistry In Sound

and Simulated Stereo can optimize any video or audio soundtrack. Together, the TX-84 and RC-AV1M can form the heart of your audio/video system. Audition them today at your ONKYO dealer!



# Consolidate Yc

How the world's most powerful receiver can provide the benefits of audiophile separates in a single, remote control component. Never before has so much clean power, pure sound and unique technology been available at the touch of a remote control button.

#### The Carver Receiver 2000, at your

**service.** In a single, exquisitely-styled component, we've engineered three of the most significant contributions ever made to audio technology.

A 200 watt RMS per channel Magnetic Field Power Amplifier.

A Sonic Hologram Generator for a three-dimensional sound experience.

An Asymmetrical Charge-Coupled FM Stereo Detector in the tuner section for the cleanest, most noisefree reception possible ... plus AM STEREO.

Plus a low-noise high definition preamplifier and surround sound processor so you can create a true home theater experience.

## Everything necessary for music

**enjoyment.** Settle back in your chair and pick up the compact Receiver 2000 wireless remote control.

Touch the POWER button. Two hundred watts RMS per channel spring to lffe. More than any other receiver offered today. The kind of power needed to deliver Compact Discs' incredible dynamic range with the impact and clarity it deserves.

But you're in the mood for a record. Touch one of the four source buttons to select PHONO. As the record comes to life, you realize that it would be a superb candidate for Sonic Holography. Another touch of the



# **Ir Power Base**.

remote control and you're suddenly in the midst of the performers, a part of the musical experience.

Suddenly, the phone rings. You reduce the volume easily without leaving your chair and take the call. Later on, you select a favorite FM station from the twelve presets while you catch up on your reading. The sound is hiss-free, even when the station is far away. A great oldie comes on and you use the Receiver 2000's remote to turn it up and rattle the windows for a moment the way you always wished you could when that song first came out.

In the evening, it's movie time. The Receiver 2000 becomes your gateway to high impact surround sound that rivals any Dolby-equipped theater. Starships cruise through your living room. Aliens prowl behind the couch. Laser battles erupt over your coffee table.

All controlled from the comfort of your chair.

*A wealth of useful features.* From the silky feel of the large, easy-to-use knobs, to the switched and unswitched power sockets on the Receiver 2000's back, you'll find that no detail has been overlooked. Even if it didn't have three of Bob Carver's major innovations tucked inside it, the Receiver 2000 would be one of the finest receivers you could own.

It has inputs for phono, Compact Disc player and even video sound sources. It allows 2-1 and 1-2 dubbing through dual tape deck inputs and outputs, and selection of two sets of speakers or a combination.

Precision, defeatable tone controls are provided for bass, treble *and* midrange, as well as a preset "loudness" equalization curve for acoustic compensation during low level listening.

The bright digital readout and signal strength LEDs are only a hint of the high quality quartz synthesized FM section and AM stereo circuitry within. Choose from six FM and six AM station presets, tune manually or use the Receiver 2000's automatic station search feature. **Ample Power for Digital.** Even before Compact Disc players, clipping distortion caused by lack of amplifier power has been the critical listener's enemy. Speakers create music by generating magnetic fields inside their voice coils. A drum beat sounds on a record; energy flows to your speakers; the speakers push the air. In the case of low bass notes, this means having enough power to resonate the entire cubic volume of your listening room thirty times per second!

The sad fact is, few receivers have the technical capabilities to provide the amount of power needed to complete instantaneous music transient waveforms.

Before Bob Carver invented the Magnetic Field Power Amplifier, the only way to get enough power to completely eliminate clipping distortion was to give up owning a receiver and buy a traditional power amplifier and put up with its bulk, heat and expense. The Carver Receiver 2000 uses a better way. An affordable method of delivering the power speakers need without thermal waste, bulk and distortion. Our Magnetic Field Power Amplifier design is elegant, effective and fully described in the 32-page brochure we'll be glad to send you.

**The finest receiver FM section.** The Carver FM Stereo Receiver 2000 employs Asymmetrical Charge-Coupled Detector technology which makes FM sound as good as other stereo sound sources. Free of background hiss, click and pops, picket fencing and other multipath interference annoyances which disturb FM enjoyment.

Or, in the words of Audio Magazine's Len Feldman, "The significance of it's design can only be fully appreciated by tuning the weakest, most unacceptable stereo signal you can find, then pushing those two magic buttons. Separation is still there; only the background noise has been diminished, and with it, much of the sibilance and hissy edginess so characteristic of multipath interference."

#### True realism with Sonic Holography.

In a live setting, sound approaches from all sides, not just head on the way it does from stereo speakers. Sonic Holography uncovers critical timing and phase information that exists in your and CD's records, but has been inaudible with normal stereo components. Through the Carver 2000, this information emerges in three-dimensional space around you, pinpointing the precise location of instruments and vocals.

You don't need a trained ear to notice the difference. Suddenly the listening field extends wider, higher and deeper than your speakers, literally immersing you in the performance.

**The best of everything in one compact component.** There has never been a more complete method of enjoying music than the Carver Receiver 2000. Occupying just over two square feet of shelf space, it gives you the power, the tuning ability and the miracle of Sonic Holography that can bring any music or video source to vibrant life. Audition it at your Carver dealer. And then shift the balance of power to your stereo system soon.

Power: 200 watts RMS per channel into 8 ohms. 20-20kHz with no more than 0.15% THD.



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POWERFUL

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MUSICAL

P.O. Box 1237, Lynnwood, WA 98046

ACCURATE

## R E C E I V E R S

output: 35 W/ch into 8 ohms from 40-20,000 Hz with no more than 0.08% THD ...... \$260

#### RX150BK AM/FM Receiver

#### **KENWOOD**

#### KR-V126R Audio/Video Receiver

A/V receiver with unified full remote control and built-in surround-sound decoder. Features highcapacity VIR power amplifier; three video connections and dubbing with audio injection; Dolby Surround and theater/stadium effects; 20-station name preset system (SNPS) for FM/AM/CATV; music-select system presets stations into 5 categories; preset scan with music calendar; 7-band electronic graphic equalizer with 10 presets and presence control; 7-band spectrum analyzer; video through-dubbing (VCR 2 to 1, 3 to 1); auto memory entry for FM; 10-key direct frequency input (main/remote); equalizer recording switch: MM/ MC cartridge selector; speaker A/B selector; 5 W/ch rear speaker amplifier. 125 W/ch min rms, both channels driven at 8 ohms from 20-20,000 Hz with no more than 0.008% THD; s/N phono MM/MC 82/63 dB, CD, AUX, tape 100 dB, video 90 dB; FM 50 dB quieting sens 14.2 dBf (mono), 37.2 dBf (stereo); FM S/N 74 dB (stereo) at 65 dBf; FM sep 50 dB at 1,000 Hz; sel 55 dB at 400 Hz; capture ratio 1.0 dB. 16.56" w x 5.25" h x 14.5" d; 22.9 lb ..... \$650

#### KR-V106R Audio/Video Receiver

#### KR-V86R Audio/Video Receiver

#### **KR-V76R Audio Video Receiver**

#### KR-A56R AM/FM Receiver

Receiver with full-function infrared remote control. Features auto function selector system; quartz-PL1. tuning; 20-station FM/AM presets;

#### KR-A46 AM/FM Receiver

#### **KYOCERA**

#### R-861 Tuner/Amplifier

Features 100 W/ch (continuous rms, both channels driven into 8 ohms, from 20 Hz, with no more than 0.02% THD); 3-band parametric EQ for exacting tonal adjustment; switchable MM/MC phono preamp; preamp out/main amp in jacks; subsonic filter; quartz-frequency synthesis tuning with high-speed 2,500 Hz comparator for low noise; switchable IF bandwidth; defeatable bass/ treble controls; Dolby FM de-emphasis switch; 7 AM and 7 FM preset stations; high-blend feature. FM s/N 76 dB stereo, 82 dB mono; slew rate 50 V/ $\mu$ sec; rise time 1.0  $\mu$ sec; s/N (IHF-A) phono MC 74 dB, phono MM 85 dB, high-level inputs 100 dB ......\$1,200

#### R-661 Tuner/Amplifier

#### **R-461** Tuner/Amplifier

#### LUXMAN

#### R-117 160-W/Ch AM/FM Receiver

Receiver with full-function system remote control including video and video sound switching. Features low-impedance drive capability; CD straight mode; FET differential phono input; 5



gang varacters, dual gate MOSFET's; pre-out/ main-in. Power output 160 W/ch from 20-20,000 Hz with <0.03% THD; IMD <0.03% (35 W/8 ohms); s/N 88 dB (MM), 70 dB (MC), 98 dB (CD, tape, A/V); FM sens (stereo) 36 dBf; FM s/N (stereo) 75 dB; FM THD (stereo) <0.1% ....\$1,200 R-115. Similar to above with 75 W/ch ....\$750 R-113. Similar to above with 35 W/ch; THD <0.08%. No remote control .....\$400

#### MARANTZ

#### TA 170AV Remote-Control Receiver

#### **TA 135AV Remote-Control Receiver**

#### **TA 100 Remote Control Receiver**

#### TA 60 Remote-Control Receiver

#### SR-560 Stereo Receiver

Features 16 preset digital tuning; 7 band EQ; inputs for MM phono, tape, CD, 2 video; VCR to VCR dubbing. 45 W/ch; 0.3% THD; 11.2 dBf sens IHF. 3.63" h x 16.5" w x 10" d; 11.9 lb ... \$250

#### SR-360 Stereo Receiver

Features 5-band equalizer; 16 preset tuning; inputs for MM phono, tape, CD. 25 W/ch; 0.3% THD. 3.63" h x 16.5" w x 10" d; 9.7 lb ... \$200

You get out of our new Sherwood S-2770R CP digital remote-control receiver what you put into it. Like your TV audio. Your VCR audio and video. Your compact disc player. Your turntable. Your tape deck. Your everything. All in stereo. At 74 watts per channel.

The S-2770R CP even has the ability to synthesize stereo from monaural sources, such as normal broadcast and cable TV. Add an extra pair of speakers in the back of your entertainment room and turn it into a theater.

The S-2770R CP can decode rear channel information present in most stereo sound and video programs. Video tapes of movies you buy or rent are made from films originally shown in theaters, where rear



channel sound is all part of the experience. The S-2770R CP

lets you recreate that surround-sound experience right in your own home.

You also get full video dubbing capability through permanent rear panel connections, or through conveniently located jacks on the front for those occasions you need a second VCR. There's more:

The wireless remote to control all of your components from across the room. A quartz digital AM/FM tuner with 16 presets. A digitally controlled seven-band graphic equalizer/spectrum analyzer with five different EQ memory settings. Auto/manual scan tuning. Loudness and sub-bass EQ. -20dB mute function. An LED signal-strength indicator.

> All so you can put everything you've got (or intend to get) into it, except a lot of money. Just ask any of the dealers listed below.

They'll prove to you that Sherwood stops at nothing to give you better, more enjoyable,

live-performance sound — whatever you're

herwood listening to — at a surprisingly affordable price. LIVE PERFORMANCE SOUND™

Southern California - Leos Stereo. (213) 537-7070, Maryland -- Luskins, (301) 799-9000, New England, Georgia -- Lechmere, Chicago area - Musicraft, (312) 991-7220, Ohio - Sun T.V., (614) 445-8401, New York Metro, Eastern Pa., Connecticut - Crazy Eddie, (201) 248-1410



## R E C E I V E R S

#### **McINTOSH**

#### MAC 4200 Receiver

Stereo AM/FM receiver with 100 W/ch into 4 ohms, 75 W/ch into 8 ohms. 54 lb ..... \$2,890

#### NAD

#### 7175 PE AM/FM Receiver

#### D250 PE AM/FM Receiver

Features power-envelope circuitry; inputs for MM phono, MC phono, aux, CD player, video sound source. 50 continuous average W/ch from 20-20,000 Hz into 8 ohms with less than 0.03% THD. 16.5" w x 4.25" h x 15" d; 20 lb, 6 oz5598

#### 7130 Digital AM/FM Receiver

AM/FM receiver with inputs for MM phono; MC phono; aux, tape. Amp section: 30 continuous average W/ch from 20-20,000 Hz with no more than 0.03% THD into 8 ohms; dynamic headroom +3 dB; IHF IMD 0.03%. FM section: alt-ch sel 70 dB; 50-dB quieting sens mono 2.8  $\mu$ V (14.2 dBf), stereo 28  $\mu$ V (34.2 dBf); max S/N, A-wtd, mono 82 dB, stereo 75 dB; THD mono 0.09%, stereo 0.09%; sep 50 dB at 1,000 Hz; capture ratio 1.5 dB. AM section: sens 300  $\mu$ V. 42 cm w x 10.8 h x 38 d; 17 lb, 9 oz ...... \$378

#### 7125 AM/FM-Stereo Receiver

Digitally tuned receiver with Dyn Sep circuit. Features presets for 5 stations; center-tune indicator; loudness compensation and bass EQ switches; mono button. Amp section: continuous average power output 25 W at 8 ohms min rms power per channel 20-20,000 Hz both chs driven with no more than rated distortion 20-20,000 Hz THD <0.05%; THD <0.05% 20-20,000 Hz from 250 mW to rated output; TIM <0.02% with 15,000 Hz sine wave +3.18 Hz square wave at rated output. Tuner section: IHF usable sens 1.9  $\mu$ V (10.8 dBf); 50-dB quieting mono 3.0  $\mu$ V (14.8 dBf); 50dB quieting stereo 30  $\mu$ V (34.8 dBf); S/N 65 dB A-wtd, mono/stereo 80/75 dB; FR 30-15,000 Hz; 3.25" h x 16.5" w x 11.25" d ....... \$298

#### NAKAMICHI

#### SR-4A AM/FM Stereo Receiver

Stereo receiver with Stasis power amp, multi-regulated power supply, extensive video switching. Inputs for MM phono, MC phono, tape, CD player, video sound source; VCR/laser disc. 60 contin-



uous average W/ch from 20-20,000 Hz with no more than 0.1% THD into 8 ohms; dynamic headroom 1.3 dB; 200-ms dynamic power 80 W. FM 50-dB quieting sens stereo 37.5 dBf; s/N 74 dBA at 65 dBf; THD stereo 0.07%; capture ratio 1.5 dB; AM rejection 60 dB; alt-ch sel 60 dB. 16.94" w x 3.94" h x 19.56" d; 22 lb, 4 oz ..... \$895

#### SR-3A AM/FM Stereo Receiver

Stereo receiver with Stasis power amp, multi-regulated power supply, defeatable subsonic filter. Inputs for MM phono, MC phono, tape, CD player, video sound source; 2 video sources. 45 continuous average W/ch from 20-20,000 Hz with 

#### SR-2A AM/FM Stereo Receiver

#### NEC

#### AVR-1000 Audio/Video Receiver

AM/FM receiver with built-in Dolby and matrix surround-sound processors. Features unified remote control with LCD readout that can operate other NEC audio and video components; four built-in power amps (one for each front and rear ch); quartz-PLL digital-synthesis tuning; 16 AM/



FM station presets; preset scan; FM mute; selectable wide/narrow IF bandwidth; 3 volume level/ channel balance presets; computer-controlled volume and input selection; audio mute; a master volume control; front/rear volume control; frontleft, front-right, rear-left, and rear-right volume controls; rear and front bass/treble controls. Inputs for phono, CD player, tape deck, AUX, TV, and vCR. Tuner section: FM usable sens 10.8 dBf (0.95  $\mu$ V); FM s/N 74 dB stereo. Amp section: 100 W/ch into 8 ohms from 20-20,000 Hz with 0.02% THD (front), 50 W/ch into 8 ohms (rear). 16.94" w x 5.5" h x 16.94" d; 35 lb ..... \$869

#### AVR-700 Audio/Video Receiver

#### NIKKO

#### AVR-65 Audio/Video Receiver

#### NR-1050R Audio/Video Receiver

#### R-25 AM/FM Receiver

Features 2 tape monitor inputs; phono input; CD input; subsonic filter. 25 W/ch rms with 0.05%



THD; FM usuable sens. 15 dBf (1.5  $\mu$ V); s/N 120 dB ..... \$200

#### ONKYO

#### TX-SV7 Audio/Video Receiver

Audio/video AM/FM receiver with Onkyo's RV-AV7M universal remote control to operate receiver plus a variety of other audio and video componetns. Features built-in MTS decoder for stereo broadcasts; built-in surround-sound processor with Dolby, matix, and hall surround sound; simulated stereo; 12 AM/FM station presets; FM mute; inputs for 4 speakers; bass, treble, and balance controls. Inputs for CD player, phono; VDP, VCR, tape I, and tape 2. 100 W/ch, 75 W/ch (front) and 25 W/ch (rear) in surround mode .......\$1,000

#### Integra TX-108 AM/FM Receiver

Computer-controlled AM/FM receiver with fullfunction wireless remote control that can also operate selected Onkyo turntables, tape decks, and CD players. Automatic precision reception system controls stereo/mono, local/DX, high-blend on/off, and NR on/off functions. 100 continuous average W/ch from 20-20,000 Hz into 8 ohms with <0.02% THD. FM section: 50-dB quieting



#### Integra TX-88 AM/FM Receiver

Computer-controlled AM/FM receiver with fullfunction wireless remote control that also operates selected Onkyo turntables, tape decks, and CD players. Automatic precision reception system controls stereo/mono, local/DX, high-blend on/off, and NR on/off functions. Features realphase power supply; dynamic bass expander; simulated stereo; preset memory scan; motorized volume control; FM/video simulcast capability. Inputs for MM phono; tape; tape 2; CD player; video sound source; VCR; VDP. Amp section: 80 continuous average W/ch from 20-20,000 Hz into 8 ohms with <0.025% THD. FM section: 50-dB quieting sens 40 µV (37.2 dBf) stereo; capture ratio 1.5 dB; alt-ch sel 70 dB. 17.75" w x 5.88" h x 18.12" d; 26 lb ..... \$680

#### TX-RV47 AM/FM Receiver

## DIMENSION REDEFINED.



Cerwin-Vega's new Select Edition Series.

Sonic reallsm that creates a new dimension.

These stunning speakers give you high-tech outside, and *inside*—where it counts most. We've combined exacting engineering standards with superior inno-

vation to deliver defined, dimensional performance. All six models offer expertly matched componentry for clear linear response and electrifying depth.

Advances in consumer electronics demand progressive loudspeakers. With its unsurpassed efficiency (as high as 102dB 1W @ 1M) and power handling (up to 405 watts continuous), the SE Series delivers incomparable dynamic range (exceeding 92dB). Even at extraordinary output levels, reproduction remains remarkably defined and distortion free.

Finally, speakers that do justice to everything you've got—from compact discs to 8mm digital video playback.

For those who know a great thing when they hear it. And see it.

Cerwin-Vega's SE Series.

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## R E C E I V E R S

#### TX-84 AM/FM Receiver

Remote-controlled AM/FM receiver with a computer-controlled automatic precision reception system to control the stereo/mono, local/Dx, high-blend on/off, and NR on/off functions. Features dynamic bass expander; stereo image expander; simulated stereo; audio/video dubbing; selective tone control; discrete output stage. Inputs for VCR 1/VDP, VCR 2, tape 1, tape 2, MM phono, and CD player. Amp section: 60 W/ch min rms into 8 ohms from 20-20,000 Hz with no more than 0.04% THD; FR 20-30,000 Hz ± 1 dB. FM section: usable sens 17.2 dBf ( $4\mu$ V) stereo; capture ratio 1.5 dB. 17.12" w x 4.38" h x 13.5" d; 18.8 lb . S450 XX-84(M). Same as TX-84 except includes RC-AV1M universal remote control ....... \$530

#### TX-82 AM/FM Receiver

#### TX-80 AM/FM Receiver

Remote-controlled AM/FM receiver with a computer-controlled automatic precision reception system to control the stereo/mono and local/Dx functions. Features electronic feather-touch input selectors; direct tone controls; 16 AM/FM station presets. Amp section: 33 W/ch min rms into 8 ohms from 20-20,000 Hz with no more than 0.3% THD; FR 20-30,000 Hz ± 1 dB..... \$230

#### PARASOUND

#### DR65 65-W/ch AM/FM Receiver

#### DR40 40-W/ch AM/FM Receiver

Quartz-synthesizer tuning; variable loudness; infrasonic filter; discrete output transistors; 5 presets; detented controls; relay protection with 2color LED's; 5-LED signal-strength meter; separate preamp output jacks. Inputs for MM phono, tape, CD, video sound source. Amp section: 40 W/ch into 8 ohms. 17.25" x 3.25" x 11" ... \$325

#### DR25 25-W/ch AM/FM Receiver

Digital frequency readout. Inputs for MM phono, tape, CD, video sound source. Amp section: 25-

watts-per-channel 20-20,000 Hz into 8 ohms; dynamic headroom 2 dB. 17.5" w x 3.25" h x 11" d; 16 lb ...... \$240

#### PIONEER

#### VSX-5000(BK) Audio/Video Receiver

Features unified remote control to operate all Pioneer "SR" components; nonswitching-amp (Type-II); low-imp drive capability; 3 video inputs with stereo audio; 2-way video dubbing and simultaneous recording; video enhancer with split screen; built-in 4-mode surround-sound processor



with Dolby; video noise filter; dynamic expander; quartz-PL1. digital-synthesis tuner with 20 random presets; 2 RF inputs (standard FM and cable FM); direct-access tuning; 3-position tone controls; separate audio and video switching; audio tape dubbing; front-panel LCD readout; selectable FM display (frequency or call letters). 100 continuous average W/ch into 8 ohms from 20-20,000 Hz with no more than 0.005% THD in stereo mode, 70 W/ch with 0.007% THD in surround mode. 4.88" h x 16.56" w x 15.12" d ..... \$570

#### VSX-4000(BK) Audio/Video Receiver

#### VSX-3000 Audio/Video Receiver

Features unified remote control to operate Pioneer "SR" components; 3 video inputs with 2way dubbing and simultaneous recording; built-in



5-band graphic EQ; video signal selector for separate audio/video switching; quartz-PLL synthesis tuning with 20 random station presets; auto and manual station search; built-in surround-sound

**PRICES LISTED** are manufacturers' suggested retail prices (also referred to as *list* prices); actual selling prices are set by individual dealers. All prices are subject to change without notice.

#### VSX-2000 Audio/Video Receiver

#### SX-1600 AM/FM Receiver

#### SX-1100 AM/FM Receiver

#### Accessories

#### **JA-RF5 RF Modulator**

#### PROTON

#### D940 AM/FM Receiver

Receiver with Dynamic Power on Demand (DPD) circuitry and Schotz NR. Features high dynamic power capabilities (rating 8/4/2 ohms to 160/ 280/380 W/ch); 4-gang FM front end; 2-gang AM front end; selectable phono section for MM and MC phono; speaker EQ; separate low-noise MC amp; active volume control; infrasonic filter. Inputs for MM, MC phono; phono 2; tape; AUX; extra AUX; CD; video sound source. Amp section: 40 continuous average W/ch from 20-20,000 Hz with less than 0.02% THD into 8 ohms; dynamic headroom 6 dB; IHF IMD 0.008%; FR 20-20,000 Hz ± 0.2 dB. FM section: alt-ch sel 55 dB; adj-ch sel 90 dB; 50-dB quieting sens 33.2 dBf stereo; s/ N 70 dB stereo; THD stereo 0.2%; sep 45 dB at 1,000 Hz; capture ratio 1.5 dB. 16.5" w x 4" h x 10.12" d; 20 lb ..... \$449

#### AV-300 AM/FM Receiver

Digitally synthesized stereo receiver. Features Schotz PLL detector. Inputs for MM phono, tape, AUX, video sound source. Remote control optional. 30 continuous average W/ch from 20-20,000 Hz with <0.02% THD into 8 ohms; includes Dynamic Power on Demand which boosts dynamic

# Once again, AR reshapes the future of high fidelity.

No longer do you need to live with components that look more at home in a power station than in your home. No longer need you sacrifice sound quality for some semblance of sound design.

LOUT

AR, the company that revolutionized loudspeakers with the Acoust c Suspension design, now changes the face of stereo components forever. By combining worldclass industrial and electronic design, AR has produced the first audio components as pleasing to the eye as they are to the ear. AR's unified remot touch of elegance. No one seriou equipment withou longer necessary to

The front fascias are gracefully angled, so controls fall readily to hand. Behind a hinged panel, infrequently-used controls are ready when you need them, out of sight when you don't.

AR has reexamined the factors that

really matter to sound quality. That's why AR amplifiers produce high current output for outstanding dynamic headroom. Fourtimes oversampling gives the AR Compact Disc player absolute phase linearity. And AR's unified remote control adds a final touch of elegance.

· 102.70

No one serious about stereo would buy equipment without listening. Now it's no longer necessary to buy without looking.



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## R E C E I V E R S

power to 120 W (8 ohms) with 6 dB dynamic headroom; IHF IMD 0.015%; FR 17-35,000 Hz ± 1 dB. FM section; 50-dB quieting sens, stereo, 2.8



#### RCA

#### MSR250 Audio/Video Receiver

Dimensia A/V receiver with unified remote control and on-screen status indication when used with Dimensia monitor. Features 5-band graphic equalizer; automatic input selection; remote control volume, mute, direct access and station scan, and power; SystemLink cabling; simultaneous recording and playback; auto status indication; auto switching; electronic volume control; output protection; preset turn-on volume; fluorescent display; muting; quartz-PLL synthesis tuning; auto stereo/mono switching; preset channel scanning; signal processing loop; 4 AC convenience outlets. Amp section: 50 W/ch in 8 ohms both channels driven from 20-20,000 Hz with no more than 0.08% THD; S/N 85 dB; EQ center frequencies at 63, 250, 1,000, 4,000, and 16,000 Hz; EQ range ± 10 dB. Tuner section: FM sens 12.2 dBf; s/N 73 dB; sel 60 dB; sep 40 dB at 1,000 Hz; capture ratio 1.5 dB; FM FR 30-15,000. 14.63" w x 4.13" h x 13.38" d ..... \$429

#### REALISTIC

#### STA-2700 Remote-Controlled Receiver

Quartz tuning; 6 AM and 6 FM presets; search tuning; digital frequency display; 5-part LED signal-strength meter; 2-part dual output power meters; 2-way tape dubbing and 2-deck monitoring; loudness control; MPX blend; FM muting; high filter; infrasonic filter; function LED's; overload and overheating protection. Remote requires 2 AA batteries. 100 W/ch into 8 ohms ..... \$500

#### STA-2280 60-W/ch AM/FM Receiver

AM/FM-stereo receiver with 6 AM and 6 FM presets and IMX stereo expander to extend sound stage and improve imaging precision. Drives 2 pairs of speakers; headphone jack; 2 AC outlets. Inputs for MM phono; tape; tape 2; aux; CD player. Amp section: 60 W/ch into 8 ohms, 98 W into 4 ohms. FM section: 50-dB quieting sens stereo 40  $\mu$ V (32 dBf); max stereo S/N 70 dB with 65 dBf (1,000  $\mu$ V) A-wtd; capture ratio 1 dB; AM rej 50 dB; alt-ch sel 70 dB .......... \$400

#### STA-116 30-W/ch AM/FM Receiver

6 AM/6 FM presets; 300-/75-ohm FM and AM antennas; quartz digital tuning; feather-touch manual or auto tuning; 5-LED signal-strength

#### STA-125 22-W/ch AM/FM Receiver

#### STA-460 22-W/ch AM/FM Receiver

PLL tuning; loudness button; FM muting; drives 2 pairs of speakers; stereo/mono switch; bass, treble, volume, balance controls; overheating and overload protection. Inputs for MM phono; tape; aux; CD player. Amp section: 22 W/ch into 8 ohms. FM section: capture ratio 3 dB; alt-ch sel 50 dB .......\$180

#### STA-19 5-W/ch Personal Receiver

Inputs for FM, AM, phono, tape. Features Auto-Magic fine tuning; jack for mini headphones; jack for mini cassette players; special EQ switch; loudness control. Walnut vinyl over metal case. 5 W/ ch into 8 ohms; S/N 70 dB phono, 72 aux; IHF sens 22.3 dBf; sep at 1,000 Hz 35 dB .... \$120

#### **REVOX**

#### B285 AM/FM Receiver

AM/FM stereo receiver with two microprocessors for control of input sensitivities, output levels, and operating functions. Features alphanumeric multi-mode LCD display; 29 AM or FM presets; level and reception mode (mono/stereo, blend) separately programmable for each preset station; programmable volume limit; -20 dB button; subsonic filter; loudness contour; programmable output levels for A and B speaker pairs; comprehensive speaker protection circuits; serial data bus for external control devices; wireless infrared remote control (transmitter optional). Inputs for phono, tape, CD player, tape 2. Amp section: 70 continuous average W/ch 20-20,000 Hz with no more than 0.03% THD into 8 ohms; dynamic headroom 2.5 dB; FR 20-20,000 Hz ± 0.3 dB. FM section: alternate-ch sel 96 dB; adjacentch sel 16 dB; 50-dB quieting sens, mono 1.6 µV (15.2 dBf), stereo 19 µV (36.8 dBf); max s/N, Awtd, mono 84 dB, stereo 80 dB; THD mono 0.15%, stereo 0.3%; sep 43 dB at 1,000 Hz; capture ratio 2 dB. AM section: FR 120-3,000 Hz ± 6 dB; sens 36µV. 17.75" w x 6" h x 13.06" d; 33 lb ..... \$2,500

#### ROTEL

#### RX 875 AM/FM Receiver

#### RX850 AM/FM Receiver

Stereo receiver with quartz-synthesizer tuning and 8 AM/8 FM station presets. Inputs for phono, tape, CD player, video sound source. Amp section: 30 continuous average W/ch 20-20,000 Hz into 8 ohms with no more than 0.05% THD; IHF IMD 0.05%; FR (phono) 20-15,000 Hz  $\pm$  0.3 dB; FR (tape, CD, video) 10-45,000 Hz  $\pm$  0.3, -3 dB. FM section: alternate-ch sel 60 dB; 50-dB quieting sens, mono 4  $\mu$ V (17.2 dBf), stereo 60  $\mu$ V (40.7 dBf); s/N mono 82 dB, stereo 77 dB; THD, mono 0.15%, stereo 0.4%; sep 43 dB at 1,000 Hz; capture ratio 1.5 dB. AM section: sens 250  $\mu$ V/m. 17" w x 3.88" h x 15" d; 15.1 lb ...... \$329

#### **RX830 AM/FM Receiver**

#### SAE

#### **R-102 Stereo Receiver**

AM/FM stereo receiver utilizes an on-board computer to eliminate dependency between front-panel layout and audio circuits. 50 W/ch at 0.025%



#### SANSUI

#### S-X1200 AM/FM Stereo Receiver

AM/FM receiver with random presetting of 16 FM and AM stations. Features channel call and preset scan; connections for two VCR's with bidirectional dubbing; sound attacker to add sonic impact to video image; LED power meters; processor terminals; hi-blend; variable loundness; Amp section: 120 continuous average W/ch 20-20,000 Hz with no more than 0.015% THD into 8 ohms; FR 10-70,000 Hz +1, -3 dB. FM section: 50-dB quieting sens,(Mono) 10.8 dBf; 17.31" w x 5.34" h x 17.12" d; black finish; 30 lb......\$1,000 X900. Similar to S-X1200 except 80 W/ch into 8 ohms from 20-20,000 Hz with no more than 0.02% THD.......\$750

#### S-XV1000 Audio/Video Receiver

#### S-X700 AM/FM-Stereo Receiver

Features quartz-PL1. tuning; 16 station presets; connections for 2 pairs of speakers; variable loudness control; high-blend switch. Inputs for MM phono; tape; CD player; video sound source. Amp section: 43 continuous average W/ch from 20-20,000 Hz into 8 ohms with no less than 0.08% THD. FM section: 50-dB quieting sens, stereo 50 dBf; max s/N with 65 dBf, stereo 70 dB. 16.94" w x 4.5" h x 14.25" d; 18 lb ..... \$325 S-X500. Similar to S-X700 except no high-blend switch. 30 W/ch with <0.2% THD ..... \$295

Still don't see it? That's the whole idea behind Koss' revolutionary infrared stereophone system. The Koss Kordless" Stereophone. Now, you can enjoy all the benefits of stereophone listening with no strings attached. And while the cord may be missing, the great Sound of Koss isn't. The Kordless system is so advanced it provides a full 20-20KHz =requency response at less than 1% distortion. Plus enough signal to fill a large room. Yet it's as easy to use as conventional stereophones. Just plug the Kordless transmitter into virtually any receiver or amplifier and turn it

## CAN YOU FIND THE STEREOPHONE CORD IN THIS PICTURE?

on. Roam around the room listening to a record. Dance to a CD. Enjoy stereo or monc TV broadcasts and videos in bed. Dr whatever else moves you. Sound impressive? You bet it does. And the best way to appreciate this major advance in technology is to visit your nearest Koss Kordless<sup>™</sup> Stereophone dealer. One listen, and you'll never sit still for ordinary headphcnes again. Koss Stereochones, 4129 N. Port Washington Rd., Milwaukee, WI 53212. Koss Limited, 4112 S. Service Rd., Burlington, Ontario L7L4X5. Koss-Europe: CH-6E55, Stabio-Switzerland.





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Koss Corporatio

986

## RECEIVERS

#### SCOTT

#### STA1510 Integrated Amp With Tuner

Separate integrated amp and tuner sold together; wireless remote control; 7-band graphic equalizer; LED power meters; digital station readout; goldplated input jacks. Inputs for MM phono, tape, CD/DAT, video sound source. Amp section: 150 W/ch into 8 ohms. FM section 50 dB quieting sens stereo 10  $\mu$ V (25 dBf); max S/N 65 dB\$550 STA1010. As above except 110 W/ch .... \$450

#### **RS50 Remote-Controlled Receiver**

Includes 7-band graphic equalizer; electronic volume control; power meter. Inputs for MM phono,



tape, CD/DAT, video sound source. Amp section: 50 W/ch into 8 ohms. FM section: usable sens 5  $\mu$ V (19.2 dBf).......\$250

#### **RS30 AM/FM Stereo Receiver**

#### SHARP

#### SA-X50AV Audio/Video Receiver

#### SA-X35 AM/FM Receiver

#### SHERWOOD

#### S-277ORCP AM/FM Receiver

#### S-275OCP AM/FM Receiver

AM/FM-stereo receiver with 5-band graphic EQ. Features 16 station presets; surround sound; MOSFET input stage; synthetic stereo mode for mono source material; auto-scan tuning; quartz-PLL digital-synthesized tuning. Inputs for tape, aux; CD player; video sound source. Amp section: 55 continuous average W/ch from 20-20,000 

#### S-2730CP AM/FM Receiver

AM/FM-stereo receiver with quart-PLL digitalsynthesized tuning. Features 16 station presets; auto scan; surround sound; MOSFET input stage. Inputs for tape; aux; CD player; video sound source. Amp section: 35 continuous average W/ ch from 20-20,000 Hz with less than 0.2% THD into 8 ohms. FM section: 50-dB quieting sens stereo 50  $\mu$ V (39.2 dBf); THD stereo 0.5%; capture ratio 2 dB; AM rejection 50 dB; alt-ch sel 65. 17.36" w x 4.62" h x 9.25" d; 13.5 lb .... \$200

#### SONY

#### STR-AV950 Audio/Video Receiver

Remote-controlled AM/FM receiver with inputs for MC/MM phono, tape 1 & 2, CD player, TV tuner, 2 video sources (1 front panel). Features ASP programmable bass and treble acoustic memory; surround sound; CATV antenna; frequencysynthesis microprocessor-controlled tuning; 10 AM/FM presets; direct-access tuning; balance and muting controls; headphone jack; A-B speaker switching; direct comparator circuit; station spectrum display; current-mirror amp driver stage; legato linear output stage; DC-servo design. Amp section: 115 continuous W/ch into 8 ohms from 20-20,000 Hz with no more than 0.006% THD; FR 5-90,000 Hz +0, -1 dB. Tuner section: 50-dB quieting sens 38.3 dBf (45  $\mu$ V) stereo; S/N 76 dB stereo; alt-ch sel 65 dB narrow, 30 dB wide. 17" w x 5.12" h x 13.62" d; 21 lb ..... \$750

#### STR-AV850 Audio/Video Receiver

Remote-controlled AM/FM receiver with inputs for мм phono, tape 1 & 2, CD player, TV tuner, 2 video sources (1 front panel). Features ASP programmable bass and treble acoustic memory; surround sound; CATV antenna; frequency-synthesis microprocessor-controlled tuning; 10 AM/FM presets; direct-access tuning; balance and muting controls; headphone jack; A-B speaker switching; direct comparator circuit; station spectrum display; current-mirror amp driver stage; legato linear output stage. Amp section: 80 continuous W/ ch into 8 ohms from 20-20,000 Hz with no more than 0.006% THD; FR 5-90,000 Hz +0. -1 dB. Tuner section: 50-dB quieting sens 38.3 dBf (45  $\mu$ V) stereo; s/N 76 dB stereo; alt-ch sel 65 dB narrow, 30 dB wide. 17" w x 5.12" h x 13.62" d; 18 lb ..... \$600

#### STR-AV650 Audio/Video Receiver

Remote-controlled AM/FM receiver with inputs for MM phono, tape 1 & 2, CD player, TV tuner, 2 video sources (1 front panel). Features ASP programmable bass and treble acoustic memory; surround sound; CATV antenna; frequency-synthesis; 10 AM/FM presets; direct-access tuning; balance and muting controls; headphone jack; A-B speaker switching; direct comparator circuit; currentmirror amp driver stage. Amp section: 65 continuous W/ch into 8 ohms from 20-20,000 Hz with no more than 0.008% THD; FR 5-90,000 Hz +0, -1 dB. Tuner section: 50-dB quieting sens 38.3 dBf (45  $\mu$ V) stereo; s/N 74 dB stereo; alt-ch sel 60 dB narrow. 17" x 5.12" x 11.25"; 16 lb ... \$500

#### STR-AV550 Audio/Video Receiver

Remote-controlled AM/FM receiver with inputs for MM phono, tape 1 & 2, CD player, 2 video sources (1 front panel). Features ASP programmable bass and treble acoustic memory; surround sound; frequency-synthesis; 10 AM/FM presets; direct-access tuning; balance and muting controls; headphone jack; A-B speaker switching; direct comparator circuit; current-mirror amp driver stage. Amp section: 55 continuous W/ch into 8 ohms from 20-20,000 Hz with no more than 0.03% THD; FR 10-70,000 Hz +0, -1 dB. Tuner section: 50-dB quieting sens 38.3 dBf (45  $\mu$ V) stereo; S/N 74 dB stereo; alt-ch sel 60 dB narrow. 17" w x 5.12" h x 11.25" d; 15 lb....... \$370

#### STR-AV450 AM/FM Receiver

Remote-controlled AM/FM receiver with inputs for MM phono, tape deck, CD player, 1 video source. Features ASP programmable bass and treble acoustic memroy; quartz frequency-synthesis tuning; 10 AM/FM presets; direct-access tuning; auto sweep tuning; preset scan; balance and muting controls; headphone jack; A-B speaker switching; direct comparator circuitry; separate power supplies. Amp section: 35 continuous W/ ch into 8 ohms from 20-20,000 Hz with no more than 0.8% THD; FR 10-70,000 Hz +0, -1 dB. Tuner section: 50-dB quieting sens 38.3 dBf (45  $\mu$ V) stereo; s/N 70 dB stereo; alt-ch sel 60 dB narrow. 17" w x 4.25" h x 11.38" d; 11 lb. \$300

#### STR-AV250 AM/FM Receiver

#### TANDBERG

#### TPR 3080 Programmable Receiver

Remote-controlablle AM/FM receiver with zerofeedback design. Features high current; digital tuner with 26 presets; seperate program and re-



cord source selectors. Inputs for MM and MC phono, CD, DAT, video, and tape. 80 W/ch. Rosewood side panels. Remote control optional; 17.13" w x 5.25" h x 13.75" d; 27 lb ....\$1,795

#### **TECHNICS**

#### SA-R510 AM/FM Receiver

Features 56-key wireless remote control that operates receiver and other Technics components; 7-band graphic equalizer/analyzer (max 12 dB boost or cut); memory for 4 EQ curves; frontpanel video input jacks; drives 2 pairs of speakers; quartz digital tuning section; 24 station presets called with keypad; 2-color fluorescent display; loudness; 9-part power meters. Inputs for 2 VCR's, CD player, turntable, tape deck. 100 W/ ch; FM sens 11.2 dBf; FM sel 65 dB; 50-dB quieting sens stereo 40.2 dBf ..... \$750 SA-R410. Similar to above except 40-key remote . SA-R310. Similar to above except 55 W/ch; 5band equalizer/analyzer ..... \$400 SA-R210. Similar to above except 40 W/ch 3band equalizer; 30-key remote ..... \$300

#### SA-290 AM/FM-Stereo Receiver

Features quartz-synthesizer digital tuning, softtouch controls, slim design. Black finish. Inputs

# How a 77year-old became the first name in digital audio.

Denon's been involved in every phase of music reproduction since the days of windup record players. So after seven decades of breakthroughs in studio recording, disc pressing, home high fidelity and professional equipment, we were uniquely prepared to take the next step. A tape



EVERY DENON COMPONENT REFLECTS LESSON LEARNED IN THE RECORDING STUDIO.

recorder so fundamentally different, it would obsolete every previously accepted notion of how good recorded sound could be.

In 1972, Denon researchers achieved their goal. The world's first digital recorder worthy of commercial record



CREDENTIALS? production, the legendary Denon DN-023R. We quickly put our digital innovation to use, producing digital processors, digital editors, digital mixers, and the world's first digitallyrecorded LPs.

Today, Compact Disc players, regardless of brand, reflect the influence of the original Denon DN-023R. But this heritage runs strongest in CD players from Denon. Because

## "One of the most finely enginěered pieces of audio gear on the blanet". Ken Pohlmann,

Digital Audio, on the DCD-3300

the same engineers who design Denon pro machines design

But Denon occupies an unusual sition in the distriat audio world and or (Nippon Columbia in Busines) beaki are one of the few companies bring distrially are of the few companies bring distrially are of the few companies bring distrially are of the few companies bring distrially messered industries distriation being distriation (control of the being distriation (control of the being distriation (control of the being distribution (con

as "a winner on every count," "the player I recommend most highly," "superlatives have to be used," and "in several respects, the best I've ever heard."

Reactions which simply demonstrate one point. It's a lot



THE NEW DCD-1500II ITS SUPER LINEAR CONVERTER COMES STRAIGHT OUT OF DENON STUDIO RECORDERS.

Denon home audio. And the same ears that guide Denon recording sessions evaluate the sound of Denon playback components.

Perhaps that's why each succeeding generation of Denon CD players is eagerly anticipated by the world's audio critics. And why they've variously hailed our CD players \*A look into the interior of this player reveals that Denonengineerswere nottakinganyshortcuts whatsoe`ver.

Germany's Hi-Fi Vision, on the DCD-1500

easier to make audio sound like music when you really know what music sounds like.



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## Stereo Review

P.O. Box 55627 Boulder, CO 80322-5627

## R E C E I V E R S

for MM phono; tape; CD player. Amp section: 50 continuous average W/ch from 20-20,000 Hz with <0.3% THD; dynamic headroom 1.2 dB. FM section: 50-dB quieting sens stereo 56  $\mu$ V (40.2 dBf); max S/N with 65 dBf (1,000  $\mu$ V) A-wtd stereo 71 dB; THD stereo 0.3%; capture ratio 1 dB; AM rejection 50 dB; alt-ch sel 65 dB. 16.94" wx 3.89" h x 9.56" d; 11.7 lb ... \$245 SA-2029. As above in silver ..... \$225

#### SA-180 AM/FM Receiver

#### SA-130 AM/FM-Stereo Receiver

#### **VECTOR RESEARCH**

#### VRX-9200R Audio/Video Receiver

#### VRX-8200R Audio/Video Receiver

110-W/ch A/V receiver with full-function remote control. Features motorized rotary volume control; built-in matrix surround; pre-out/mainin jacks; video signal routing; A/V processing loop; video monitor output; dedictated CD input, quartz-synthesis tuning; 20 station presets; preset scan; mono/stereo switch; A/B RF antenna inputs; FM autoscan; 2 tape monitors with dubbing in either direction; MC head amp; high and subsonic filters; parallel speaker switching .... \$600

#### VRX-7200R Audio/Video Receiver

#### VRX-4200 Audio/Video Receiver

65-W/ch A/V receiver with built-in matrix surround. Features pre-out/main-in jacks; video signal routing; video monitor output; dedictated CD input; quartz-synthesis tuning; 16 station presets; mono/stereo switch; A/B RF antenna inputs; FM autoscan; 2 tape monitors with dubbing; MC head amp; loudness; parallel speaker switching . \$350

For explanations of abbreviations, specifications, and technical terms, consult the glossary on page 221.

#### VRX-3500 Receiver

Features discrete output amp section; synthesized tuner. Inputs for MM phono; tape; aux; CD; video sound source. 40 continuous average W/ch from 20-20,000 Hz with less than 0.08% THD into 4 ohms; dynamic headroom 2.5 dB; 1HF IMD 0.08%; 20 lbs. 17" w x 3" h x 12" d \$250

#### VR-2300 Receiver

25-W/ch receiver features A/B speaker switching; analog flywheel tuning; loudness contour; headphone jack; tape monitor. Inputs for CD and MM phono......\$150

#### YAMAHA

#### **RX-1100U Audio/Video Receiver**

AM/FM reciever with RS integrated system remote control. Features digtal tuner; absolute linear amplification; high dynamic power; low-impedance drive capability; 16-station random ac-



#### **RX-900U Audio/Video Receiver**

#### **RX-700U Audio/Video Receiver**

#### **RX-500U AM/FM Receiver**

AM/FM reciever with wireless remote control. Features digtal tuner; high dynamic power; lowimpedance drive capability; continuously variable loudness control; switching for two pairs of speakers. 50 W/ch min rms into 8 ohms from 20-20.000 Hz with less than 0.015% THD. Black finish; 15 lb......\$379

#### RX-300U AM/FM Receiver

Features digtal tuner; high dynamic power; lowimpedance drive capability; 16-station random access preset tuning; 10-segment signal-strength meter; tape monitor selector; dynamic bass extension control; continuously variable loudness control. 37 W/ch min rms into 8 ohms from 20-20,000 Hz with less than 0.015% THD. Black finish; 15 lb......\$269

The affordable new hybrid from Audio Research... the one worth waiting for!



The SP9 Hybrid Stereo Preamplifier represents a further evolution of the innovative electronic design first embodied in the widely acclaimed Audio Research SP11 Stereo Preamplifier. The SP9 is not a "stripped-down" version of the SP11, but rather represents an adaptation of some of the SP11's patented hybrid technology to a simpler, more economical single-chassis format.

Using just two 6DJ8 vacuum tubes (one in the phono section and one in the high-level stage) in intermediary gain stages, the SP9 expresses the musicality and natural "rightness" vacuum-tube preamplifiers have been noted for, yet it does so with the quickness and dynamic vigor of the best solid-state designs.

## SP9 STEREO PREAMPLIFIER



HIGH DEFINITION® MUSIC REPRODUCTION EQUIPMENT

CIRCLE NO. 61 ON READER SERVICE CARD

# SP9



## **Operational Features**

Automatic muting circuit for warmup, powerline voltage drop or interruption; plus manual (switchable) muting of main preamplifier outputs.

Full tape functions: two inputs, two outputs, plus two-position tape monitor switching.

Gold-plated input/output jacks selected for sonic purity. These connect "ground" before "hot," disconnect "hot" before "ground" for protection of other components.

Shielded, toroidal power transformer for minimal mechanical noise and "hum."

Phono section impedance internally adjustable for precise matching to moving-coil or moving-magnet phono cartridges.

Tube complement: two 6DJ8 vacuum tubes (one in phono stage, one in line stage).

Low noise (78dB below 1V RMS input phono, more than 100dB below 1V RMS input high-level) plus substantial overall gain (66dB) makes the SP9 usable with a wide range of popular moving-coil phono cartridges.

### **SP9 Specifications**

FREQUENCY RESPONSE: High level section:

± 5dB, 5Hz to 50kHz/ − 3dB points below 1Hz and above 200kHz Phono: ± .3dB of RIAA, 30Hz to 40kHz DISTORTION: Less than .01% at 2V RMS output. (typically less than .005% in midband)

GAIN: Phono input to tape output: 46dB High level inputs to tape output: 0dB Phono input to main output: 66dB High level inputs to main output: 20dB INPUT IMPEDANCE: 50K ohms Line Inputs, 47K Phono (Phono provisions for any value below 47K ohms or added input capacitance for matching certain magnetic cartridges )

OUTPUT IMPEDANCE: 500 ohms main output, 850 ohms recorder output Recommended load 60K ohms and 100pF (20K ohms minimum and 1000pF maximum)

MAXIMUM INPUTS: Phono, 200mV at 1kHz (1000mV RMS, 10kHZ). High level inputs essentially overload-proof. RATED OUTPUTS: 2V RMS 5Hz to 50kHz, all outputs; 60K ohm load (main

50kHz, all outputs; 50k onm load (main output capability is 50V RMS output at ½% THD at 1kHz into a 100K ohm load with 5V RMS high level input) POWER SUPPLIES:

Electronically-regulated low and high voltage supplies and electronic decoupling Shielded toroid transformer. Line regulation better than .01% NOISE:

High Level:

- 70uV RMS maximum residual unweighted wideband noise at main output with gain control minimum (98dB below 5V RMS output)
- (2) More than 100dB below 1V RMS input (less than 7uV equivalent input noise)

Phono: 0 12uV equivalent input noise, IHF weighted, shorted input (78dB below 1mV input)

TUBE COMPLEMENT: 2 · 6DJ8/ECC88 dual triodes (Hybrid FET/Tube audio circuit, solid-state power supply) POWER REQUIREMENTS: 100-135VAC 60Hz (200-270VAC 50/60Hz) 50 Watts DIMENSIONS: 19" (48 cm) W x 5½" (13.4 cm) H (standard rack panel) x 10¼" (26cm) D. Handles extend 1½" (4 1) cm forward of front panel. Rear chassis fittings extend ½" (2.3 cm) WEIGHT: 13 lbs. (5.9 kg) Net; 22 lbs (10 kg) Shipping

## STEREO PREAMPLIFIER

Because its two vacuum tubes are used so conservatively, the SP9 will undoubtedly prove to be one of the most reliable and lowmaintenance Audio Research preamps ever up to 10,000 hours of service life are possible before replacement of these tubes might be necessary. And, replacement tubes are not required to be select, low-noise (and expensive) types. Audio Research brand vacuum tubes obtained from your authorized dealer will provide the best performance and reliability.

Although the SP9 contains an on-board power supply (as opposed to the SP11's isolated supply), it is a highly advanced, tightly regulated design employing a shielded toroidal power transformer to minimize any potential problems of mechanical noise or hum. Location of this transformer in relation to special low-hum input circuitry has been optimized within the SP9 chassis layout to virtually eliminate transformer-related noise. (Note that while outboard power supplies have become a popular design trend among high-end audio manufacturers, simply isolating the power supply from the main chassis has little benefit if the basic design of the supply itself is second-rate. In such cases, outboard isolation may be little more than a cosmetic cure for more serious deficiencies.)

While the SP9 is designed to provide superb playback from phono records, its high-level circuits have also been optimized for other popular input sources, including compact discs. In this respect, the SP9 is virtually overloadproof, insuring maximum enjoyment of today's most dynamic program material. And, with two tape monitor loops, the SP9 offers the tapedubbing flexibility so many listeners want but seldom find in an audiophile-grade preamplifier.

Of course, all controls and switches used in the SP9 have been carefully specified and selected to insure minimal sonic degradation — as have the other active and passive components used in the construction of the SP9. While the SP9 is more affordable than some other Audio Research preamplifiers, its more modest price was not achieved at the sacrifice of component quality. Careful, elegant design, structural simplicity and efficient manufacturing techniques have all contributed to a standard of physical integrity and musical accuracy never before achieved in this price class.

To audition the SP9 Stereo Preamplifier, visit your authorized Audio Research dealer. Black front panel available at additional cost. Call or write for literature on the complete line of Audio Research products.





#### ACCUPHASE BY MADRIGAL

#### P-600 Stereo Power Amplifier

#### M-100 Monophonic Power Amplifier

#### P-500 Stereo Power Amplifier

#### P-300V 180-W/ch Power Amplifier

With power meters. 180 W/ch into 8 ohms; bridgeable for 500 W into 8 ohms, 300 W into 2 ohms;  $17.5^{\circ}$  w x 6.4" h x 14.7" D; 50.6 lb\$4,000

#### ACOUSTAT

#### Trans-Nova Twin-200 Power Amplifier

#### ACOUSTIC RESEARCH

#### **AR P-10 Power Amplifier**

Power amp with massive transient (1HF dynamic) power capibility of 1,200 W/ch in 2 ohms, 800



W into 4 ohms, and 400 into 8 ohms. 150 continuous average W/ch from 20-20,000 Hz into 8 ohms with no more than 0.3% THD, 200 W into 4

ohms; 200-ms dynamic power 300 W; dynamic headroom 4.3 dB; s/N 95 dB; slew rate 30 V/ $\mu$ s; 1MD 0.03%. 17" w x 4.33" h x 14.5" d ... \$800

#### ADA (AUDIO DESIGN ASSOC.)

#### PBA-500 Subwoofer Amplifier

Continuously variable level, frequency and bandwidth controls. 20-segment LED output meter; toroidal power transformer; fan cooled; front-panel switch and fuse; 800 W bridged mono from 20200 Hz with no more than 0.05% THD into 8 ohms; 1,200 W into 4 ohms; slew rate  $10 \text{ v/}\mu\text{sec}$ ; IMD 0.08%;  $19^{\circ}$  w x 7.5" h x 12.5" d; 49 lb\$4,295

#### **PF-300 Power Amplifier**

#### PT-200 Power Amplifier

#### **PF-300 Power Amplifier**

#### PBA-150 Subwoofer Amplifier

#### **PF-200** Power Amplifier

#### **PT-50** Power Amplifier

Compact power amp capable of handling 2-ohm loads. Features 10-segment LED output meters; rear-panel power fuse; front-panel gain controls; toroidal power transformer; fan cooled; standard EIA rack-mountable. 25 continuous average W/ ch from 20-20,000 Hz with no more than 0.02% rHD into 8 ohms; 40 W into 4 ohms; s/N 104 dB; IMD 0.04%. 8 lb; 19" w x 1.75" h x 11.5" d\$895

#### ADCOM

#### GFA-555 Power Amplifier

High-current amp able to drive 1-ohm loads with
no current limiting and low feedback. Bridgeable
for mono operation. 200 W/ch into 8 ohms; 350
W/ch into 4 ohms with <0.09% THD and
<0.05% IMD; constant damping factor >100 20-
20,000 Hz \$700
GFA-555W. As above with white front panel\$775
GFA-555S. With silver front panel \$775
RM-7. Optional rack-mount adaptors for GFA-
555 \$20/pr
RM-7W. As RM-7 in white \$25/pr
RM-7S. As RM-7 in silver \$25/pr
ter i et i

#### **GFA-545** Power Amplifier

High-current amp able to drive low-imp, including 1-thm loads. Features low-negative-feedback design; constant damping factor; toroidal transformer; no current limiting except for fuses; instantaneous distortion alert with distortion products higher than 1% at speaker outputs; directcoupled design. 100 continuous average W/ch from 20-20,000 Hz into 8 ohms with no more than 0.09% THD, 150 W/ch into 4 ohms; IMD 0.008%. 17" w x 5.5" h x 12.5" d; 25 lbs . \$480 GFA-545W. As above with white front panel\$550 GFA-545S. With silver front panel ..... \$550 RM-5. Optional rack-mount adaptors for GFA-545 .....\$20/pr RM-5W. As RM-5 in white ..... \$25/pr RM-5S, As RM-5 in silver ..... \$25/pr

#### **GFA-535** Power Amplifier

High-current amp able to drive low-imp loads. Features low-negative-feedback design; constant damping factor; hookup for 2 sets of speakers; instantaneous distortion alert with distortion products higher than 1% at speaker outputs; directcoupled design; separate power transformers for each ch. 60 continuous average W/ch from 20-20,000 Hz into 8 ohms with no more than 0.09% THD, 100 W/ch into 4 ohms; IMD 0.008%. 17" w x 3.25" h x 12.5" d ..... \$300 GFA-535W. As above with white front panel\$375 GFA-535S. With silver front panel ...... \$375 RM-3. Optional rack-mount adaptors for GFA-535 .....\$20/pr RM-3W. As RM-5 in white ..... \$25/pr RM-3S. As RM-5 in silver ..... \$25/pr

#### a/d/s/

High-Current 150-W/ch Power Amp Designed for wide bandwidth and high current; all discrete transistors; polypropylene capacitors; metal-film resistors; 10 bipolar output devices per ch; open-loop bandwidth of <100 MHz to avoid rate Emiting and stability with complex speaker

loads; toroidal transformers for low noise and high current; drives 2 pairs of speakers; power and speakers switched from a/d/s/ CC4 control center or R4 receiver; bridgeable; clipping LED's. 150 W/ch into 4 or 8 ohms; 250 W into 1 ch. 17.5" w x 2.8" h x 14.8" d; 27 lb ...... \$999

#### APT

**A1** Power Amplifier

#### **AUDIO DYNAMICS**

#### **B200** Configurable Power Amplifier

Configurable 2-/3-/4-channel power amplifier with individual left/rear, left/front, right/rear, and right/front volume controls and speaker on/ off switches. Features oversized power display with front/rear display switches; direct input. Power output into 2 channels: 260 W/ch into 8 ohms, 300 W/ch into 4 ohms. Power output into 4 channels: 90 W/ch into 8 ohms, 120 W/ch into 4 ohms; FR 20-20,000 Hz ± 0.25 dB ..... \$999

#### **AUDIO RESEARCH**

D79C 75-W/ch Vacuum-Tube Power Amplifier High-Definition stereo power amp with patented cross-coupled circuit. 75 continuous average W/ ch from 20-20,000 Hz with no more than 1% THD into 8 ohms; FR 20-20,000 Hz  $\pm$  1 dB; S/N 90 dB; slew rate 10 V/µsec; IMD 0.5%; 19" w x 10.5" h x 17.5" d; 120-lb shipping weight \$6,000

#### M300 Mono 300-W Power Amplifier

D115 100-W/ch Vacuum-Tube Power Amplifier High-Definition<sup>®</sup> power amp with controlled turn-on, warm-up for maximum power-tube life. Features patented cross-coupled circuit; frontpanel fusing for line and screen. 100 continuous average W/ch from 20-20,000 Hz with no more than 1% THD into 8 ohms FR 20-20,000 Hz  $\pm 1$ dB; S/N 90 dB; slew rate 15 V/µsec; IMD 0.1%; input imp sens 1.1 V for rated output; input imp 75 kohms nominal; noise <90 dB below rated power, broadband-unweighted. 19" w x 7" h x 16.5" d; 80-lb shipping weight .......\$2,995 

#### D70 60-W/ch Vacuum-Tube Power Amplifier

High-Definition<sup>®</sup> vacuum-tube power amp with continuous turn-on, warm-up for maximum power-tube life. Features patented cross-coupled circuit; front panel fusing for line and screen. 60 continuous average W/ch from 20-20,000 Hz with no more than 1% THD into 8 ohms; FR 20-20,000 Hz  $\pm 1$  dB; S/N 90 dB; slew rate 12 V/  $\mu$ sec; IMD 0.1%; input sens 0.95 V for rated output; input imp 75 kohms nominal; noise 90 dB below rated power, broadband-unweighted; 19" w x 7" h x 14.5" d; 63-lb shipping weight \$1,995

#### D120 120-W/ch Solid-State Power Amplifier

#### Wood Cabinets

For Audio Research components. OC-4. Light oak. \$125 WC-4. Walnut. \$125

#### **B & K COMPONENTS**

#### EX-442 Dual-Mono Power Amplifier

#### ST-202 PLUS Power Amplifier

#### ST-202 150-Watt Power Amplifier

#### ST-140 Class A Power Amplifier

Power amp with Class A design up to output

#### **B & W LOUDSPEAKERS**

#### MPA810 Mono Power Amplifier

Mono power amp with MOSFET circuitry. Bridgemode configuration cancels harmonic distortions, loads the supply symmetrically, eliminates heavy speaker return currents in ground circuit. Passive heatsinks progressively assisted by DC fan as temp rises. Features 30-segment output-voltage display



#### BEDINI

#### 100/100-1 MEG Power Amplifier

100/100 MK II 100-W/ch Power Amplifier Class A output operation. 100 W/ch continuous into 8 ohms, 200 W into 4 ohms. THD 0.1%; IMD 0.1%; FR 1-150,000 Hz; high-level sens 500 mV; 38 lb ......\$2,000

#### **BELLES RESEARCH**

#### Belles 400 Stereo Power Amplifier

Solid-state power amplifier with dual complementary circuitry and dual-mono power supply. Features van den Hul cable wiring; Tiffany connectors; high-quality capacitors and resistors; torodial power transformer. 200 continuous W/ch from 20-20,000 Hz with no more than 0.05% THD into 8 ohms; dynamic headroom 1.4 dB; slew rate 200 V/µs; 50 lb; 17" w x 6" h x 16" d ......\$1,495

#### Belles 250 Stereo Power Amplifier

Solid-state power amp with dual complementary circuitry. Features van den Hul silver mono-crystal wiring; Tiffany connectors; high-quality caSAUL MARANTZ, JOHN CURL AND LINEAGE Three decades of leadership in American audio electronics



Perhaps no man can be better said to represent the philosophy of excellence in audio than Saul Marantz. Many audiophiles and journalists consider him the father of high performance audio. The electronic components he created during the 1950's and 60's are considered classics – respected and in demand in the U.S., Europe and Japan.

In the 1970's, when Saul Marantz was introducing the first Phased Array loudspeaker, a young electronics designer named John Curl was gaining international recognition for his innovative solid state electronics. These designs were also destined to become classics.

Today, Saul Marantz and John Curl have joined together in a new endeavor—one whose name, Lineage, reflects not only a distinguished history, but also a future of continued leadership in the American audio industry.

To create new classics for the 1980's and 90's, Lineage has brought together a multi-generational group of

talented audio professionals. Their design brief is startlingly simple: To develop quality products of lasting value.

The CP 100 Control Preamplifier, shown above, is the first of these new classics. The CP 100 employs an innovative all-F.E.T. circuit topology and precision parts to assure true audiophile sound quality. It also offers a full complement of features, ease of operation and an integrity of construction that will provide years of musical pleasure.

Lineage components are made available through a network of experienced audio/video specialists. They are knowledgeable professionals who offer quality products, proper demonstration facilities and a commitment to after-sale service and support.

The first Lineage products will be available in late 1987. We hope that you'll take the opportunity to audition Lineage, the new audio company with three decades of experience.

leage

LINEAGE CORPORATION 1556 Third Avenue, New York, NY 10128 LINEAGE IS A REGISTERED TRADEMARK OF LINEAGE CORPORATION PHASED ARRAY IS A REGISTERED TRADEMARK OF DATHCUIST INC. CIRCLE NO. 67 ON READER SERVICE CARD

pacitors and resistors; torodial power transformer. 125 continuous W/ch from 20-20,000 Hz with <0.05% THD and IMD into 8 ohms; dynamic headroom 1.8 dB; slew rate 200 V/µs; damping factor >175; 351 lb; 17" w x 6" h x 10" d . \$995

#### BERNING

#### EA-2100 Tube Power Amplifier

All-triode stereo vacuum-tube power amp with low coloration. Features high-frequency powerconversion system for fully regulated power supply; low power consumption; 10- to 20-year tube life. 100 continuous average W/ch from 20-20,000 Hz with no more than 2% total distortion into 8 ohms; FR 7-70,000 Hz ± 1.5 dB; s/N 100 dB; dynamic headroom 2 dB; slew rate 15 V/ µsec; input imp 100,000 ohms; output imp 4, 8,

16 ohms; negative feedback 8 dB; sens 1 V for 170 EA-230. As above except 30 W/ch, conventional power supply. 30 lb, 8" d ..... \$895

#### **BOULDER AMPLIFIERS**

#### Boulder 500 150-W/ch Power Amp

28 metal 250-W transistors for total of 7,000 W; convection cooling; LED meter at -40, -20, -6 dB; clip LED indicators for + and - voltage or current; gold-plated connectors (3-pin input D3F, RCA phono, 5-way output); conductive-plastic level controls; recessed panel controls; toroidal power transformer; shielded power cord; removeable rack-mount ears; screw-on feet; complete protection circuitry with visual indicators for

The new PMF5550 500 watt\* power amplifier



# **Peter Perreaux** adds incredible power to his legendary musical accuracy.

The new PMF5550 with its huge power reserve meets the demands of the most sophisticated recordings you have or may encounter, regardless of speaker efficiency. Yet its ability to delineate the most delicate nuances is without peer.

Whether you judge a power amplifier by such basic objective measures as phase response, distortion, band width, rise time and the like, or simply trust your ears to make the judgement, the Perreaux PMF5550 cannot be overlooked.

Featuring significant, evolutionary advances in internal signal management, the PMF5550 Power Amplifier extends Peter Perreaux's tradition of uncompromising excellence.

Make an appointment for your own personal exploration of this powerful new world at your Perreaux dealer, or write for details today.

\*500 watts RMS per channel, continuous into 8 ohms, both channels driven, from 20Hz to 20kHz, at no more than 0.03% THD from 0.25 watts to rated output.



Perreaux audiophile products are distributed in the U.S. exclusively by Signet

4701 Hudson Drive, Stow, OH 44224

rate full V p-p closed loop 35 V/ $\mu$ s stereo; peak current for 10 ms >50 amperes; sep 95 dB at <1k Hz. 17.25" x 7" x 15.5" 51 lb . International version for 100/120/220/240 V AC, 50/60 Hz .....\$3,040 Boulder 160 60-W/ch Power Amplifier Totally discrete audio path with wide phase margain for stability; DC coupled with servo for min-

imal offset; 2 sequential stages; computermatched components to 0.01%; conductive-plastic output level controls calibrated in dB; electronic speaker disconnect at power up/down; switch-selectable differential or unbalanced inputs; signal indicators for each ch at -20 dB; clip indicators for + and - voltage or current; shortcircuit protection; gold-plated 3-pin RCA phono input connectors and 5-way binding-post output connectors; front-panel circuit breaker/power switch; convection cooling by large heatsink fins. 60 W/ch into 8 ohms, 80 W/ch into 4 ohms, 160 W mono into 8 ohms; peak power for 10 ms 60 W stereo into 8 ohms, 105 W stereo into 4 ohms, 210 W mono into 8 ohms; ido w are full V p-p closed loop 16 V/ $\mu$ ms stereo; phase shift at 20,000 Hz 7°; sep 95 dB at 1,000 Hz, 70 dB at 10,000 Hz. 19" w x 3.5" h x 15.5 d; 40.5 lb ......\$1,190

short circuit, DC input offset, and thermal abuse;

rear-panel switch-selectable input modes and

multiple connectors. Optional plug-in Jensen in-

put transformers. 150 W/ch into 8 ohms, 250 W/

ch into 4 ohms, 500 mono into 8 ohms; peak power for 10 ms 150 W stereo into 8 ohms, 300 W stereo into 4 ohms, 600 W mono into 8 ohms; slew

.\$2,875

#### Boulder 100 34-W/ch Power Amplifier

2 sequential stages that yield 0.0015% THD for up to 2,000 Hz. Features totally discrete audio path with wide phase margain for stability; DC coupled with servo for minimal offset; conductive-plastic output level controls calibrated in dB; electronic speaker disconnect at power up/down; linear temp-tracking current-limit circuit for max power; switch-selectable differential or unbalanced inputs; signal indicators for each ch; clip indicators for + and - voltage or current; DC input offset cutout circuit; 3-pin, RCA phono, and phone input connectors; 5-way binding-post output connectors; toroidal power transformer; cooling by heatsink fins. 34 W/ch into 8 ohms \$750

#### Speaker Cables

For use with Boulder power amps only.
CS06. 6 ft, stacking banana both ends, coaxi-
al \$74/pr
CS12. 12 ft, stacking banana both ends, coaxi-
al \$106/pr
CS25. 25 ft, stacking banana both ends, coaxi-
al \$176/pr
CS50. 50 ft, stacking banana both ends, coaxi-
al \$308/pr
NS01. Terminator pair for use at speaker \$39

#### BRYSTON

#### 6B 500-W/ch Power Amplifier

Mono power amp with high voltage and current. Max 120+ amperes instantaneously into 1 ohm; 100 W into 4 ohms with average current of 22 amperes; 1,000 W into 1 ohm with 3.5 amperes average; ground lift switch. 500 continuous W/ch from 20-20,000 Hz with <0.005% THD into 8 ohms; S/N 105 dB; slew rate >60 V/µsec; IMD 0.005%; 55 lb; 19" w x 5.75" h x 12" d. \$1,700

#### 4B 200-W/ch Power Amplifier

Fully complementary class-AB power amp with bridging switch, 1,500-sq-in. heat-sink area; regulated power supplies to all voltage gain stages; ch sep back to line cord; red LED clipping indicator. Output power 200 W/ch, 800 W bridged into 8 ohms, 20-20,000 Hz at 0.01% THD; IMD 0.01%, 10 mW-200 W; noise -100 dB; slew rate

#### 4-Way Switch Box

No active components; designed for high-current applications. For Bryston equipment only\$195.00

#### CAMBRIDGE AUDIO

#### **A75 Power Amplifier**

#### CARVER

#### M-1.5t 400-W/ch Power Amplifier

Magnetic Field stereo power amp with LED dual peak-responding power displays, infrasonic and ultrasonic filters. 400 W/ch into 8 ohms; dynamic headroom/ch 600 W at 4 and 8 ohms; 16 lb\$899

#### M-500t 250-W/ch Power Amplifier

#### M1.0t 200-W/ch Power Amplifier

#### M400t 200-W/ch Power Amplifier

#### M200t 120-W/ch Power Amplifier

Magnetic Field power amp produces 120 W/ch into 8 ohms. Dark pewter finish; LED's indicate power and use of speaker-protection circuitry. 17.3" w x 9" d x 2.55" h; 10.25 lb ...... \$399

#### Z-1 Wide-Band Z Coupler

Imp-matching device enables Carver Magnetic Field power amp to be used with receiver or integrated amp. Receiver or integrated amp outputs drive power amp through Z-1 coupler, which presents an optimum noninductive load ...... \$49

#### CELLO

#### 7000-00 Performance Amplifier Set

2 mono amps (left and right) and 2 mono supplies (left and right) for stereo; power output section has 40 output devices per ch .......\$12,500

Mas	te	r Su	P	pl	у												
120	٧	AC															. \$2.250

#### **CONRAD-JOHNSON**

#### Premier One Vacuum-Tube Power Amp

W......\$2,950 MV50. Similar to Premier Five except stereo, 50 W/ch into 8 ohms; S/N 94 dB; 40 lb ....\$1,485

#### COUNTERPOINT

#### SA-4 130-W/ch Power Amplifier

Power amp with 130 continuous average W/ch from 20-20,000 Hz with no more than 0.2% THD into 8 ohms; S/N 92 dB; dynamic headroom 2 dB; IMD 0.65%; 19° w x 6.7" h x 19" d; 60 lb\$5,225

#### SA 20/20 600-W/ch Power Amplifier

#### SA 20 Hybrid Power Amplifier

#### SA-12 Hybrid Power Amplifier

Hybrid power amp with tube front end and MOSFET output stage. Features no overall loop feedback; warm-up and shut-off automatic speaker muting. 85 continuous average W/ch from 20-20,000 Hz with no more than 1% THD into 8 ohms; FR 5-100,000 Hz  $\pm$  0.2 dB; s/N 92 dB; dynamic headroom 2 dB; channel-to-ch sep >85 dB from 100-10,000 Hz; 19" x 4.5" x 12.5"... \$995

#### **DB SYSTEMS**

#### DB-6A 40-W/ch Power Amplifier

Stereo power amp able to drive 1-ohm loads. Features 12-dB/octave infrasonic filter; peak-clipping LED's; electronic clamp. Output power 40 W/ch continuous into 8 ohms from 20-20,000 Hz at 0.003% THD; THD 0.0008% at 1,000 Hz; IMD <0.002%; FR 20-40,000 Hz +0/-1 dB; input sens/imp 1 V/50 kilohms; s/N 112 dB at 1 V Awtd; slew rate 15 V/µs; damping factor >400, 20-1,000 Hz. 4.9" h x 16" w x 12.8" d ..... \$750 DB-6A-M. Similar to DB-6A except brdged mono amp at 140 W continuous with 0.008% THD; slew rate 30V/µsec ..... \$755 Mono conversion of DB-6A to DB-6A-M. \$39 DB-6A-M(2). Similar to DB-6A-M except pair of mono amplifiers ...... \$1,450

#### dbx

#### **BX1** Configurable Power Amplifier

Configurable 2-/3-/4-channel power amplifier with 3 sets of fuses and complementary circuitry throughout. Features high-quality film capacitors; 8 x 250-W high-speed bipolar devices/ch; 2 x 3,200 vA toroidal transformers with 2 taps each; separate rectifiers for each ch;  $\pm$  55-V power-supply rails. Contains no fans or limiting circuitry. Quietly shuts down under thermal stress. Power output into 2 channels: 400 W/ch into 8 ohms, 650 W/ch into 4 ohms, 800 W/ch into 2 ohms, 1.400 W/ch into 1 ohm. Power output into 4 channels: 100 W/ch into 8 ohms, 200 W/ch into 4 ohms, 325 W/ch into 2 ohms, 400 W/ch in 1 ohm; slew rate 200 V/ $\mu$ S ..........\$2,500

#### **DENNESEN ELECTROSTATICS**

#### Antares II 75-W/ch Power Amplifier

MOSFET power amp. 75 continuous average W/ch from 20-20,000 Hz with no >0.1% THD into 8 ohms; FR 10-100,000 Hz  $\pm$  0.1 dB; s/N 90 dB; dynamic headroom 3 dB; slew rate 30 V/µs; IMD 0.1%. 19" w x 5.25" h x 8" d; 30 lb ..... \$595 Orion. Same as above except 150 W mono\$1,500

#### DENON

#### POA-3000Z 250-W/ch Power Amplifier

Features dual super non-NFB circuitry: 4 largecapacity high-speed power transitstors; floating load circuitry; self diagnostic display; CD direct input terminals. 250 continuous average W/ch from 20-20,000 Hz with no more than 0.008%



#### POA-6600 250-W Mono Power Amplifier

#### POA-2200 200-W/ch Power Amplifier

#### **DISCRETE TECHNOLOGY**

#### Distech LSII 100 W/ch Power Amplifier

#### DNM BY MUSIC HALL

#### Gem 30-W/ch Power Amplifier

Star-Earth technology; MOSFET's; nonmetal case; Filmcap capacitors; 30 W/ch .....\$1,600

#### ELECTROCOMPANIET BY MUSIC AND SOUND IMPORTS

#### Ampliwire Power Amps

#### FORTÉ AUDIO

#### Model 1 40-W/ch Power Amplifier

Dual-channel, noninverting, complementarysymmetry amplifier operates in the pure class A mode throughout all stages. Features direct-coupled input stage; custom-wound toroidal transformer; military-grade glass-epoxy circuit boards;



#### FOSGATE

#### M-60 Mono Amplifier

#### HAFLER

#### **XL-600 MOSFET Power Amplifier**

Excelinear near-zero-phase shift circuit with J-FET double differential push-pull cascoded 'tubelike' input and current-mirroring 2nd stage. 16 MOSFET outputs; direct coupled; stable into all loads; high capacitance (72,000 mfd); Excelinear speaker tweaking adjustment; gold inputs; mono bridging switch; variable speed DC fan cooling. 305 W/ch into 8 ohms at <0.05% THD, 2020,000 Hz; <0.04% IMD from 1-305 W; 450 W/ ch into 4 ohms; 900 W mono into 8 ohms; input sens 2.4 volts for 305 W at 8 ohms; FR 10-50,000 Hz  $\pm$  0.1 dB; s/N >100 dB at 305 W; 7" h x 19" w x 13" d; 50 lb; Tentative price assembled \$995

#### **DH-500 Power Amplifier**

Stereo power amp designed to deliver >255 W/ch with <0.025% distortion into 8 ohms; >400 W into 4 ohms (can be bridged, using optional bridging kit, to deliver >800 W into 8 ohms). Employs MOSFETs on compact enclosed multispeed fancooled heat sink. Fuses and relay protect speakers against turn-on thumps or DC shifts; self-protective capability of the MOSFETs eliminates need for amp protection. Factory assembled ... \$850 Kit...........\$725

#### XL-280 MOSFET Power Amplifier

#### DH 220 Power Amplifier

#### DH 120 Power Amplifier

#### HARMAN KARDON

Citation Twenty-Two 200-W/ch Power Amp Selectable high-current and high-voltage output; dual-voltage design; dual power transformers; gold-plated input jacks and speaker terminals; 8



130-W power transistors per ch; clipping indicators; LED power meters; anodized brushed aluminum blue/black finish with rubber trim. 200

PRICES LISTED are manufacturers' suggested retail prices (also referred to as *list* prices); actual selling prices are set by individual dealers. All prices are subject to change without notice.

#### HEYBROOK BY D'ASCANIO AUDIO

#### **P-2 Power Amplifier**

Hand-assembled power amp with toroidial transformer capable of 30-amp output. Features circuits designed with close-tolerance, high-quality compnents. Thick aluminum chasis acts a heatsink over entire surface, equalizing temp within the case and maintaining a stable relationship between internal components. 80 continuous average W/ch from 20-20,000 Hz into 8 ohms with no more than 0.05% THD, 120 W into 4 ohms; s/ N 60 dB; IMD 0.05%; instantaneous peak current  $\pm$  30 A. 17" w x 4" h x 12" d; 18 lb .....\$1,198

#### HITACHI

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#### JADIS by MADRIGAL

#### JA-200 160-W/ch Tube Power Amp

Pure Class A power amp with power capability and dynamic behavior to drive difficult loads with low distortion. 4 chassis (2 amps, 2 power supplies). 160 W/ch into 4 and 8 ohms .\$12,750

#### JA-80 60-W/ch Tube Power Amp

Pure Class A; core of output transformer acts like solid core for high efficiency; 2 chassis. 60 W/ch into 4 and 8 ohms. 154 lb......\$8,300

#### JA-30 30-W/ch Class-A Power Amp

Dual-mono (2 chassis); each transformer hand built for symmetry in resistance and self-inductance of coils; transformer encapsulated for optimal self-damping and thermal stability. 30 W/ch into 4 and 8 ohms. 97 lb......\$4,300

#### JVC

#### ML10 Power Amplifier

Power-cascode Super-A power amplifier. 160 continuous average W/ch from 20-20,000 Hz with no more than 0.002% THD into 8 ohms; FR DC-300,000 Hz +0, -3 dB; s/N 120 dB; IMD 0.002%; damping factor 200 (1,000 Hz 8 ohms). 18.12" w x 8" h x 16.44" d; 61.6 lb .....\$2,100

#### **KENWOOD**

#### **Basic M2A Stereo Power Amplifier**

#### **Basic M1D Stereo Power Amplifier**

Features Voltage Interface Gate with Dynamic Linear Drive (VIG-DLD) amplifier; low-impedance drive capability; dynamic power (EIA) 210 W/ch into 2 ohms; FL peak power meters; full



#### KM-206 Stereo Power Amplifier

#### KM-106 Stereo Power Amplifier

#### **KINERGETICS**

#### KBA-75 Gold Series 75-W/ch Power Amp

9-kVA power supply; dual-coil toroidal transformer; auto servo-controlled DC offset adjustment; constant current sources for Class A operation; high-power output transistors with wide linear region; no phase inversion; hysteresis-distortion cancelling circuit. 75 W/ch into 8 ohms, 150 into 4; headroom 3 db; input imp 50,000 ohms; slew rate 65 V/ $\mu$ sec; voltage gain 30 (absolute); power bandwidth 1-300,000 Hz; small-signal bandwidth 1-1,000,000 Hz; 45 lb; 19" w x 6" h x 16" d ......\$1,295

#### **KYOCERA**

#### B-910 150-W/ch Power Amplifier

Class AB power amp with triple push-pull highfrequency power stages; ceramic base/chassis; DC configuration; large-cutless-core power transformer; large honeycomb heatsinks; direct and subsonic inputs. 150 continuous average W/ch 20-20,000 Hz with no >0.02% THD into 8 ohms; FR DC-200,000 Hz  $\pm$  3 dB at 1 W; S/N 120 dB; damping factor 150 (50 Hz); 200 W/ch into 4 ohms with 0.03% THD; power bandwidth 10-50,000 Hz; input sens 1.5 V (30 kilohm); 17" w x 8.25" h x 15.75" d; 59.5 lb......\$2,000

#### LAZARUS ELECTRONICS

#### H-1 Hybrid Power Amplifier

Pure (not sliding scale) Class A tube MOSFET hybrid power amp may be operated as a fully differential mono amp or as a stereo amp. May be configured (by dealer) as either Class A or Class A/ B. 50 continuous average W/ch from 20-20,000 Hz into 8 ohms with no more than 0.2 THD, 100 W into 4 ohms; 200 ms dynamic power 600 W; dynamic headroom 3 dB, 8 ohms resistive; S/N 80 dB; IMD 0.2%; peak current 75 amperes. 19" w x 3.5" h x 16.5" d 35 lb .....\$1,599

#### LINEAGE

**PA-200 Stereo Power Amplifer** Features all-discrete audio circuitry; full-complementary direct-coupled Filed-Effect transistor design; complementary differential inputs; Class A operaton in gain/driver stages; MOSFET output stages with Class AB1 operation; DC servo to eliminate all capacitors from audio stages; goldplated input and output connectors; protection circuitry acting entirely outside of signal path; front-panel overload indicators. High-current ultra-stable design optimised for low distortin under rapidly changing speaker loads. Nominal rated power 100 W/ch into 8 ohms; 1-100,00 Hz bandwidth with no slew rate limiting. Matte silver with removable teak pedestal base. 17" w x 12" d x 6.36" h (with base), 5.25" h (without 

#### LINN PRODUCTS BY AUDIOPHILE SYSTEMS

#### LK2 Stereo Power Amplifier

75 continuous average W/ch from 20-20,000 Hz; companion to LK1 preamp. 12.75" w x 3" h x 10.5" d; 19 lb ..... \$855

#### LUXMAN

#### M-05 Power Amplifier

Duo-Beta/S Class A power amp. 105 continuous average W/ch from 20-20,000 Hz with no more



than 0.025% THD into 8 ohms; FR 10-100,000 Hz ± 0.5 dB; s/N 120 dB; 18.12" w x 8.25" h x 17.25" d; 88.4 lb .....\$3,300

#### M-02 Power Amplifier

#### MARK LEVINSON BY MADRIGAL

#### No. 20 100-W/ch Mono Reference Amp

Class-A highly biased mono amp with fully regulated power to all audio stages; internal spike and surge suppression; RF filtering of raw AC from outlet to reduce noise; separated + and - supply rails each with their own toroidal power transformer, full-wave bridge rectification, and filter capacitors to prevent cross modulation between rails; electronic regulation to refine power used by signal-carrying circuits; 3 high-current devices drive output stage; electronic protection to against abuse; all gain stages controlled at clipping; balanced inputs with Camac connectors; Neutrik-XLR connector; internal switching to adjust for operation at 90 to 240 V AC. 100 W/ch into 8 ohms, 200 W into 4 ohms. 17.5" w x 8.25" h x 22" d; 90 lb. Faceplate also available in 19" width ... .....\$10.200/pr

#### ML-3 200-W/ch Power Amplifier

Dual-mono power amp in single chassis utilizing only discrete circuitry; 2 independent power supplies, each of 1.2 KVA toroidal power transformer, 30-ampere bridge rectifier and 2 36,000  $\mu$ F filter capacitors, for 240 joules of stored energy for each ch; 4 1,700- $\mu$ F capacitors filter voltage gain stages; Class-A AB2 operation in output stage; protection system; gold-plated self-locking speaker connectors; Camac input connectors; selectable damping factor; hand-brushed black anodized front plate. 200 W/ch into 8 ohms, 400 W/ch into 4 ohms. 20 200-W, 15-ampere power transistors per ch produce, when pulsed, 52 V peak, at peak currents up to 52 amperes (2,704 W peak) per ch. 10.88" h x 19" w x 24.5" d; 116 lbS6.750

#### No. 23 Dual-Mono 100-W/ch Power Amp

2 separate mono amps in single chassis; AC mains filtering; film capacitors; surge limiting; 2 power supplies for each L and R ch; oxygen-free copper bars supply output stage with +84-V DC rails; triple bypassing; output supply capacitance of 146,000  $\mu$ farads and 2 1.2-KVA transformers produce 240 joules of stored energy; full-wave bridge rectifier; independent tracking for + and – rails; only bipolor devices in gain stages; inverting input for full balanced connection; 50-kohm imp through audio bandwidth; output stage operates in class AB; controlled clipping; external line and internal fuses; thermal sensors. 100 W/ch into 8



ohms, 200 into 4, 350 into 2; gain 26 dB; damping factor >7 $\infty$  (50 Hz ref to 8 ohms); 83 lb; 17.5" w x 8.5" h x 15" d (18" d with handles) ... \$4,400

#### ML-9 100-W/ch Stereo Power Amp

All discrete circuitry; Class-A operation in all voltage gain and driver stages; Class AB2 operation in output stage. Power supply of 1.2 KVA toroidal power transformer, 30-ampere bridge rectifier and 2 36,000  $\mu$ F filter capacitors, storing 230 joules of energy. 2 520  $\mu$ F capacitors decouple and filter in voltage gain stages. Features gold-plated binding posts for output connections; Camac input connectors and selectable damping factor; hand-brushed black anodized front plate. 100 W/ch into 8 ohms, 200 W/ch into 4 ohms. 8 200-W, 15-ampere power transistors with massive power supply develop 58 V peak when pulsed, at peak currents up to 29 amperes (1,682 W peak) per ch. 8.75" h x 19" w x 13.36" d; 56 lb \$3,500

#### ML-11 Stereo Power Amplifier

#### McINTOSH

#### MC-2500 Stereo Power Amplifier

500 W/ch power amplifier with Power Guard circuit. Features patented McIntosh Sentry Monitoring circuit which constantly monitors the signal to the output transistors to protect them from damage; left and right channel gain control; speaker on/off switch; peak-reading, peak-locking power meters; meter range selector; headphone jack. Power output: 500 W/ch both channels driven from 20-20,000 Hz with less than 0.02% THD; IM <0.02% if instantaneous peak power output is less than 1,000 W/ch both channels driven; FR 20-20,000 Hz +0 -0.25 dB, 10-100,000 Hz +0.25 -1 dB; damping factor >30; input impedance 50,000 ohms; input sensitivity switchable, 0.75 or 2.5 V (level control provided for higher input voltages). Power Guard: THD not to exceed 2% with up to 20 dB overdrive at 1 kHz. Power Requirements: 120 V 50/60 Hz 0.7 to 22 amps, 15 amps UL/CSA. Standard 19" rack mounting; 129 lb.....\$3.495

#### MC-2250 Power Amplifier

250 W/ch stereo power amplifier. 94 lb . . \$2,495

#### MC-7270 Stereo Power Amplifier

270 W/ch power amplifier with Power Guard circuit. Features McIntosh autotransformer; left and right channel gain control; peak-reading, peaklocking power meters; meter selector. Power output: 270 W/ch both channels driven from 20-20,000 Hz with less than 0.02% THD; IM <0.02% if instantaneous peak power output is less than 600 W/ch both channels driven; FR 20-20,000 Hz +0 -0.25 dB, 10-100,000 Hz +0 -2 dB; damping factor >30; input impedance 20,000 ohms; input sensitivity switchable, 0.75 or 2.5 V (level control provided for higher input voltages). Power Guard: THD not to exceed 2% with up to 20 dB overdrive at 1 kHz. Power Requirements: 120 V 50/60 Hz, 13 amps. 16.2" w x 7.13" h x 14.5" d; 82 lb ..... \$2,295

#### MC-2002 Stereo Power Amplifier

#### MC-502 Stereo Power Amplifier

Compact power amp features 75 W/ch into 4 ohms, 50 W/ch into 8 ohms ......\$1,200

#### MC-752 Stereo Power Amplifier

75 W/ch power amplifier with Power Guard circuit. Features McIntosh Sentry Monitor circuit; DC failure protection; power line surge protection; Power output: 75 W/ch into 8 ohms both channels driven from 20-20,000 Hz with less than 0.01% THD; IM <0.005% at any power level below rated power both channels driven; FR 20-20,000 Hz  $\pm$  0.25 dB; damping factor >40; input impedance 22,000 ohms; input sensitivity 1.4 V; IHF dynamic headroom 1.4 dB at 8 ohms. Power requirements: 120 V 50/60 Hz. 21 lb ..... \$895

#### MELOS AUDIO

#### TM-90 ST Power Amplifier

Stereo power amp with toroidal power transformer, regulated power supplies using tubes and tran-

#### MOTIF BY CONRAD JOHNSON

#### Motif MS100 100-W/ch Power Amp

#### NAD

#### 2200 (The Power Tracker™) Power Amplifier

Stereo/mono power amp. Features high voltage, high current design; bridgeable; new soft clipping circuit; audible clipping indicator on front panel. 100 continuous average W/ch from 20-20,000 Hz with no more than 0.03% THD into 8 ohms; FR 3-80,000 Hz +0, -3 dB; S/N >91 dynamic headroom +6 dB; slew rate >35 V/µsec; IMD <0.03%; 16.5" w x 4.8" h x 14.5" d; 27.6 lb\$548

#### **2155 Power Amplifier**

Stereo/mono power amplifier with Soft Clipping circuitry. Features speaker-matching imp switch, bridging capability for mono operation. 40 amp current capability; 55 continuous average W/ch 20-20,000 Hz with >0.02% THD; dynamic headroom 3 dB; slew rate 20 V/µsec ........\$348

#### NAKAMICHI

#### **PA-7** Power Amplifier

#### NEC

#### M-50 Monaural Power Amplifier

Single-channel power amp with 3 switch-selected inputs. Features variable-frequency low- and high-cut filters; vibration-free construction; large



FL power meter; separate circuit construction; industrial-grade twin-crossbar relays with goldplated contacts; sculptured brass terminals; heavy-duty speaker terminals. Rated power output 50 W into 8 ohms from 20-20,000 Hz with 0.004% THD, 100 W into 4 ohms with 0.006% THD; dynamic power 240 W into 2 ohms, direct input; FR 5-300,000 Hz; s/N >115 dB (direct input). 8.26" w x 4.72" h x 14.87" d; 18 lb. \$375

#### NIKKO AUDIO

#### Alpha 650 Power Amplifier

#### Alpha 480 Power Amplifier

Features protection circuits with front-panel LED; 2 pairs of speaker outputs. 230 W/ch from 20-20,000 Hzinto 8 ohms with no more than 0.006% THAD; FR DC-100,000 Hz; S/N 120 dB. ... \$900

#### Alpha 450 Power Amplifier

#### Alpha 230 Power Amplifier

#### Alpha 130 Power Amplifier

#### NOVA

#### **DMA-300** Power Amplifier

#### **ONKYO**

#### Grand Integra M-510 Power Amplifier

#### Grand Integra M-508 Power Amplifier

Dual-mono power amp with real-phase power supply. Features 4 x 2 high-current storage ca-



pacitor block; calibrated high-speed power meters: A + B speaker systems; low-imp drive capability; variable and direct inputs. 200 continuous average W/ch into 8 ohms from 20-20,000 Hz with no more than 0.003% THD; 200-ms dynamic power 265 W into 8 ohms; s/N 122 dB; 1MD 0.002%; dynamic power 460 W into 4 ohms, 685

w	into	2 c	hms.	18.25"	w x	7.25"	h x	16.75" d; 55
lЬ								\$1.150

#### Integra M-504 Power Amplifier

#### PARASOUND

#### D/AS-1000 130-W/ch Power Amplifier

#### HCA-800 80-W/ch Power Amp

#### PERREAUX BY SIGNET

#### PMF5550 500-W/ch Power Amplifier

#### PMF3150 Dual-Channel Power Amplifier

Features 300 W/ch into 8 ohms from 20-20,000 Hz with no more than 0.03% THD; MOSFET circuitry; THD/IMD 0.03%; max current output 10 A continuous per/ch; bandwidth 0.5 dB from 10



#### **PMF2350** Power Amplifier

Features 200 W/ch into 8 ohms from 20-20,000 Hz with no more than 0.01% THD; Class-A operation to 20 W/ch; channel sep 20-20,000 Hz 70 dB; damping factor 1,000 at 200 Hz, over 400 from 10 to 1,000 Hz; input sens 1.5 volts rms for rated output at 1,000 Hz. 19" w x 16.25" h x 5.75" d; 34 lb .......\$1,895

#### PMF1050 100-W/ch Power Amplifier

#### PIONEER

#### M-90(BK) Power Amplifier

#### PROTON

#### D1200 Power Amplifier

#### **D-1150 Power Amplifier**

#### QUAD

#### Model 606 Power Amplifier

#### Model 306 Power Amplifier

Power amp with feed-forward error correction (current dumping) combines clarity of Class A operation with efficiency of Class B. Designed to play dynamic program into speakers. Is not rated for continouous power. Protection circuitry uses a sensor on AC-input side of power supply to integrate current over time. No fuses or relays locat-



ed in signal path. Detailed static and dynamic power curves available upon request from manufacturer. 12.75" w x 2.75" h x 8.25" d; 11 lb\$595

#### **QUICKSILVER AUDIO**

#### Mono Power Amplifier

Hand-wired, tube-type amp using no transisitors or circuit boards. 60 continuous average W/ch 

#### RCA

#### MPA120 Power Amplifier

Dimensia power amplifier with automatic poweron and on-screen volume graphics indication when used with Dimensia monitor. Features fluorescent output display with peak hold; LED power and overload indicators; quick-connect speaker terminals; display on/off switch; headphone jack; A/B speaker switching; AC convenience outlet. Power output: 120 W/ch into 8 ohms from 20, 20,000 Hz with no more than 0.015% THD; s/N 88 dB. 14.63" w x 4.75" h x 13.75" d ..., \$399

#### **MPA100** Power Amplifier

Dimensia power amplifier with automatic poweron and on-screen volume graphics indication when used with Dimensia monitor. Features quick-connect speaker terminals; headphone jack; A/B speaker switching; AC convenience outlet. Power output: 100 W/ch into 8 ohms from 20. 20,000 Hz with no mor than 0.015% THD; s/N 88 dB. 14.63" w x 4.75" h x 13.75" d ...... \$299

#### REVOX

#### **B242 Power Amplifier**

High-output power amp capable of driving loads from 2 to 8 ohms at rated levels. Features dual independent power supplies; DC voltage control; electronic short-circuit protection; temperature sensor to activate fan cooling; auto on/off switching responds to signal from preamp; 4/8-ohm speaker output switch; LED bar-graph output meter; heavy-duty output connectors. 200 continu-



#### **ROBERTSON AUDIO**

#### Sixty Ten Power Amplifier

Power amp with independent power supplies for each channel. 200 continuous average W/ch from 20-20,000 Hz with no more than 0.1% THD into 8 ohms; FR 0.5-250,000 Hz ±3 dB; s/N 90 dB; slew rate 256 V/µsec; IMD 0.0023%; 65 lb\$2,700

#### Forty Ten Power Amplifier

Power amp with independent power suplied for each channel. 60 continuous average W/ch from 20-20,000 Hz with no more than 0.1% THD into 8 ohms; FR 0.5-330,000 Hz ±3 dB; s/N 90 dB; slew rate 159 V/µsec; IMD 0.05%; 23 lb ... \$995

#### ROTEL

#### **RB890 Stereo Power Amplifier**

Power amp with 160 continuous average W/ch
from 20-20,000 Hz into 8 ohms with no more
than 0.03% THD; Bridgeable to 480 watts/8
ohms; high-current close-tolerance compo-
nents \$699

RB870BX Stereo Power Amplifier 100-watt power amp bridgeable with RA870 (in-
## POWER AMPLIFIERS

tegrated amp) for 300 watts into 8 ohms; THD/ IMD 0.03% 20-20kHz; high current ..... \$499

## **RB850** Stero Power Amplifier

50 W/ch bridgeable to 150 W into 8 ohms; THD 0.03%; IMD 0.05%. High current ...... \$299

## **ROWLAND RESEARCH**

### Model 7 Monaural Power Amp

Solid-state mono power amp with FET front-end circuitry and bipolar outputs. Features directcoupled zero-negative-feedback circuitry to eliminate all capacitors and inductors from signal path; seperate power supplies for front-end circuitry; torodidal power supplies with 132,000-microfarad capacitance for over 500 joules of energy; remote AC power switching; internal voltage switching (100V-240v AC). Optional balanced input with XLR connector. Adjustable input imp for optimum input cable termination. Class A operation to over 50 watts. 350 W continuous power ourput into 8 ohms, 1,100 W into 2 ohms, stable below 1 ohm. 150 amps peak output current, 50 amps continuous. Damping factor >300, 20 Hz-20,000Hz; 135 lb ea; 19" w x 8.75" h x 24" d .....\$8,800/pr

#### Model 5 Stereo Power Amplifier

Solid-state power amp with FET front-end circuitry and bipolar outputs. Features direct-coupled zero-negative-feedback circuitry; seperate power supplies; torodial power transformer with 164,000-microfarad total capacitance; remote AC power switching; internal universal voltage switch; optional balanced inputs with XLR connector; adjustable input imp; Class A operation to over 35 watts. 150 W/ch continuous power output into 8 ohms, 475 W into 2 ohms, stable below 1 ohm; damping factor >175, 20-20,000 Hz; 75 amps peak output current; 30 amps continuous. 103 lb; 19" w x 8.75" h x 24" D ......\$4,600

#### Model 3 Mono Power Amplifier

Solid-state power amp with bipolar outputs with FET inputs. Features direct- coupled zero-negative-feedback circuitry; seperate power supplies for front-end; toroidal power transformer stable to 1 ohm; remote power switching; balanced or unbalanced inputs standard; adjustable input imp. 100 W into 8 ohms, 220 into 4 ohms, 330 into 2 ohms; peak output current over 55 amps. 15.2" w x 5.25" h x 14" d; 44lb .... \$3,950/pr

#### SAE

## **X10A Power Amplifier**

#### **A502** Power Amplifier

#### A202 Power Amplifier

Power amp with 100 W/ch and balanced, discrete outputs. Features dual-speaker switching; peak and average level LED power display. Rack mountable. 100 continuous average W/ch from 20-20,000 Hz with no more than 0.025% THD into 8 ohms; FR 20-20,000 Hz ± 0 dB; s/N 110 dB; dynamic headroom 1.2 dB; IMD 0.025%; 19" w x 3.5" h x 14" d; 31 lb ...... \$449

### SANSUI

#### B-2301 Power Amplifier

Vintage series DC power amp with X-balanced technology. Features fluorescent peak power display with switchable peak/hold functions; balanced ch-connector inputs. 300 continuous average W/ch from 20-20,000 Hz with no more than 0.003% THD into 8 ohms; FR 0-300,000 Hz +0, -3 dB; slew rate 300 V/µsec; 18.66° w x 4.94° h x 19.69° d; 81 lb ......\$2,600

#### **B-2102** Power Amplifier

## SONOGRAPHE BY CONRAD-JOHNSON

## SA120 120-W/ch Power Amp

Features MOSFET output stage; 120 W/ch into 8 ohms; S/N 100 dB; 18" w x 5.25" H x 12" D\$895

## SOUNDCRAFTSMEN

#### Pro Power Eight Power Amplifier

MOSFET stereo power amp. Features phase-control-regulation power supply; 600 W/ch continuous rms into 4 ohms, 750 W/ch into 2 ohms; over 1,000 W/ch short term continuous power into 2 ohms; 375 continuous average W/ch from 20-20,000 Hz with no more than 0.05% THD into 8 ohms; FR 20-20,000 Hz  $\pm$  0.1 dB; s/N -105 dB; slew rate 50 V/µs; IMD 0.05%; rack mount. 19" w x 5.25" h x 17" d; 60 lb ......\$1,399

#### A5002 Power Amplifier

Power amp with Class H Vari-Proportional circuitry and autobuffer for continuous operation into 2 ohms. Features auto crowbar-protection circuit for output protection without current limiting; 20 LED/ch 0-1,000 W  $\pm$  3 dB (4 ohms) meters; front-panel switching for 2 pairs of speakers; true clipping indicators; input level controls. Output power 250 w/ch into 8 ohms, 375 w into 4 ohms continuous rms, 20-20,000 Hz at <0.09% THD; s/N >105 dB; slew rate >50 V/µs; TIM <0.02%; dynamic headroom <2 dB .......\$899 A5001. Same as A5002 except no LED meters and no input level controls .......\$749

#### **Pro-Power Four Power Amplifier**

### Pro Reference Two Power Amplifier

#### PCR800 Power Amplifier

#### **SUMO**

## The NINE PLUS Power Amplifier

Class A power amp without any active bias circuits or thermal tracking networks. Features balanced-bridge configuration; push-pull quadrature feedback circuits; Discrete-Darlington output stage; direct-coupled circuitry from input to output. Power output 65 W/ch into 8 ohms from 20-20,000 Hz with <0.1% THD; IM distortion 0.05% from 0.25 W to rated output; hum and noise 100 dB (wide band) below rated power; input sens for rated output 1.0 V rms; FR 20-20,000 Hz  $\pm$  0.25 dB; 14" w x 8.5" h x 7" d; 35 lb ...... \$1099

#### **Andromeda Power Amplifier**

### The NINE Power Amplifier

Class A power amp with auto-biasing technology obviating thermal tracking, conventional bias, and protection circuitry. Power output 60 W/ch continuous average into 8 ohms; THD 0.25%; IM 0.05%; slew rate 15 V/ $\mu$ sec; sens 1.0 V for rated output; 19" w x 8.75" h x 7" d; 35 lb..... \$799

## **Polaris Power Amplifier**

Class AB power amp that does not invert phase. Power output 100 W/ch continuous average into 8 ohms; THD 0.05%; tM 0.05%; sens 1.27 V for rated output; dynamic headroom 1.5 dB; 25 lbs. With custom front panel and handles ..... \$649

## **TANDBERG**

## TPA 3016A Power Amplifier

Stereo power amp with high-current (100 amp/ ch) output design. Features seperate power supply and toroidal transformer for each ch; zero feedback with 16 power MOSHET's in the output stage; 120,000-microfarad storage capacity; stable to 1 ohm; electronically controlled auto fan. 220 W/ch with no more than 0.05% THD; slew rate 200 V/ $\mu$ s; s/N 100 dB; 17.13" w x 8.69" h x 13.75" d; 62 lb......\$3,595

#### TPA-3026A Power Amplifier

The listings are based on data provided by the manufacturers. For more product information, contact an authorized dealer or the manufacturer directly. Manufacturers' addresses and phone numbers are listed in the directory beginning on page 226.

## POWER AMPLIFIERS

TPA 3036. Similar to above except 100 W/ch;



current ouput 30 amp/ch; THD 0.08% ... \$1,099

## TECHNICS

## SE-A3MK2 300-W/ch Power Amplifier

Features computer-drive linear-feedback Class-A circuitry; concentrated power block; extra-large transformers and capacitors for stable power supply; 4-stage Darlington output circuitry; auto-load imp detector; computer-protection circuitry; large, fast peak-power meters; extra 2-Hz low-cut input terminals; main/remote/main and remote/ off pushbutton speaker selectors; thick aluminum cabinet. Output power 300 W/ch into 8 ohms; FR dc-200,000 Hz  $\pm$  3 dB; input sens/imp 55 FR dc-200,000 Hz  $\pm$  3 dB; input sens/imp 55 nd/-16 ohms main and remote; damping factor 200 8 ohms, 100 4 ohms; 16.94" w x 8.19" h x 19.97" d; 86 lb\$2,325

#### SE-A100 170-W/ch Power Amplifier

Features 1 voltage and 1 current amplifier per ch (voltage amps isolated from load by Class AA bridge circuit which drives current amp to avoid influence of complex, fluctuating speaker imps on voltage/current phase relationship, preventing counter electro-motive force); massive power supply; 3 transformers (L-ch current amp, R-ch current amp, L/R voltage amps) using LC-OFC windings; 91,200-µfarad filtering; magnetic isolation; vibration damping. 170 W/ch into 8 ohms, 240 W into 4; dynamic headroom 0.7 dB. 17" w x 8.25" h x 18.75" d; 70 lbs ......\$1,600

### SE-A5MK2 150-W/ch Power Amplifier

## THRESHOLD

## Model SA/1 Class A Stasis Power Amplifier

Single-ch, noninverting complimentary-symmetry power amp with N-ch JFETs in front-end signal path and proprietary Stasis output stage. This is a binary topology in which a pure Class A voltage amp connected directly to the loudspeaker load determines signal integrity while operating in conjunction with a high-amperage currect mirror also operated in pure Class A and connected directly to the load. No global feedback is used. Output stage bias accuracy is maintained through Threshold's proprietary opto-isolated optical bias technology. Front-end gain stages biased for Class-A operation at all signal levels and are subject to primary and secondary levels of cascode shielding. Output stage employs 40 ultra-widebandwidth power transistors each rated at 200 V, 20 amperes. No fusing is imposed between output and load. Input and output connectors have goldplated contact surfaces. Circuit boards are military grade glass-epoxy and all internal connections are hand soldered. Operation is allowed into any load as permitted by power-supply fuses and thermal-protection circuitry. Large illuminated front-panel peak power meter covers -30 to +3 dB. Power supply 1,000 w toroidal transformer, 120,000  $\mu$ F capacitance. Rated power 160 W rms into 8 ohms of resistive or reactive imp 20-20,000 Hz at no more than 0.05% THD; idling bias 320 W; bandwidth at -3 dB points, 7 Hz and 100,000 Hz; slew rate 50V/ $\mu$ sec; IMD 0.1%; input imp 75,000 ohms; output imp 0.03 ohms; output cur-



rent capability 40 amperes continuous, 150 amperes peak; 19" w x 9.5" h x 17.5" d; 79 lb\$3,950 Model SA/2 Class A Stasis Power Amp. Similar to SA/1 except no output power meter. 100 continuous W/ch from 20-20,000 Hz with no more than 0.05% THD into 8 ohms; idling bias 240 watts; FR 7-100,000 Hz at -3 dB points; s/N -100 dB un-wtd, referenced to rated output; slew rate 50 V/µsec; IMD 0.1%; 19" w x 9.5" h x 13.12" d; 56 lb ..... \$2,650 Model SA/3 Class A Stasis Power Amp. Similar to SA/2 except dual ch, lower power configuration. 50 W/ch rms both channels driven from 20-20,000 Hz with no more than 0.05% THD into 8 ohms; idling bias 240 watts; frequency bandwidth 7 Hz and 100,000 Hz at -3 dB points; s/N -100 dB unwtd referenced to rated output; slew rate 50 V/µs; IMD 0.1%; 19" w x 9.5" h x 13" d; 56

## lb ......\$2,650 Model S/500 Class A/AB Stasis Power Amp

Dual-ch, noninverting complementary-symmetry power amp employing the same signal-path and optical topology as SA-series amps except current bootstrap section of Stasis ouput stage is operated under high bias as Class A/AB. No global feedback employed. Front-end gain stages and voltage amp section of Stasis output stage are biased for Class A operation at all signal levels. Front-end signal trnasistors are subject to primary and secondary levels of cascode shielding. Modular construction. 250 W/ch rms from 20-20,000 Hz with no more than 0.1% THD into 8 ohms; idling bias 240 watts; frequency bandwidth at -3 dB points 7 Hz and 100,000 Hz; s/N -100 dB unwtd referenced to rated output; slew rate 50 V/µs; IMD 0.1%; 12 continuous, 100 peak amperes capability/ch. 19" w x 9.5" h x 17.5" d; 78.5 lb . \$3,500 Model S/300 Class A/AB Stasis Power Amp. As model S/500 except rated power 150 W/ch rms into 8 ohms, both chs driven 20-20,000 Hz at 0.1% THD; output transistor complement fourteen 200-V, 20-ampere devices/ch; power supply 700-W toroidal transformer, 60,000 µF capacitance; output current capability 10 amperes/ch continuous, 80 amperes/ch peak; 19" w x 9.5" h x 13" d; 56 lb. .....\$2.550 Model S/200 Class A/AB Stasis Power Amp. As model S/300 above except rated power 100 W/ch rms into 8 ohms, both chs driven 20-20,000 Hz at 0.1% THD; idling bias 160 watts output transistor complement eight 200-V, 20-ampere devices/ch; power supply 400-W toroidal transformer, 30,000 µF capacitance; max output current 8 amperes/ ch continuous, 50 amperes/ch peak; 19" w x 9.5" h x 17.5" d; 44 lb .....\$1,700

#### VECTOR RESEARCH

#### VA-1450 Power Amplifier

Features high-current, 8-output transistors, dual transformers; used in bridging mode with VA-1400 to convert to 200 W/ch. 100 continuous av-

erage W/ch 20-20,000 Hz <0.08% THD into 4 ohms; dynamic headroom 2.5 dB; IHF IMD 0.08%; FR 10-40,000 Hz ± 1 dB; 21 lbs. 17" w x 3" h x 12" d...... \$349

## WINGATE AUDIO

#### 2000A Class A Power Amp

100% MOSFET's; zero negative feedback; dualmono construction; MOSFET regulated power; toroidal power transformer; ultra-wide bandwidth. 100 continuous average W/ch from 20-20,000 Hz with no more than 0.5% THD into 8 ohms; FR 0.06-250,000 Hz +0, -3 dB; S/N <100 dB; dynamic headroom 1.6 dB; slew rate 100 V/ µsec; IMD 0.5%; gain 30 dB; input imp 20,000 ohms; 19" w x 8.12" h w 22" d; 95 lbs ..\$3,700 2000M. 200-W mono block, same performance as 2000A except power output 200 W, damping factor >60; current drive capability 128 amperes peak to peak, continuous current drive 46 amperes ................\$8,000/pr

## YAMAHA

## **MX-10000** Power Amplifier

Limited Centennial Edition power amplifier. Features dual-amp class-A operation; hyperbolic converting nonswitching circuitry; power MOSFET's; high-precision analog dB scale peak level meter. 250 W/ch min rms into 8 ohms from 20-20,000 Hz with less than 0.0005% THD. Tita-



nium grey with high luster walnut end panels; 120 lb ......\$7,000

#### M-85B Power Amplifier

## M-65B Power Amplifier

## M-45B Power Amplifier

Features auto class A; zero distortion rule; high dynamic power; low-impedance drive capability; wide range LED power level meters with on/off switch. 125 W/ch min rms into 8 ohms from 20-20,000 Hz with less than 0.003% THD. Black; 31 b......\$449 RMA-M80. Rack mount adaptor for M-45B \$18

## M-35B Power Amplifier

#### ACCUPHASE BY MADRIGAL

## C280I. Class A Preamplifier

All-stage Class A push-pull arrangement and DC servo-controlled direct-coupled unit amps and signal paths. Built-in head amp for MC cartridges; separate power transformers for each ch (+26 dB or +32 dB); MC input-imp selector switch; separate R and L input-level control; 2stage selectable loudness compensation. Phono input 2 mV, phono (head amp on): 0.1 mV/ 0.5mV selectable; line/tuner input 126 mV; rated output 2 V; line/tuner S/N 110 dB; phono S/N 85 dB; phono S/N (head amp on) 72 dB .\$7,625

#### C270 Class A Preamplifier

#### **C200V** Preamplifier

## ACOUSTIC RESEARCH

## AR C-06 8-Input Preamplifier

Features infrared remote control of inputs and volume via T-04 tuner cable link; switchable MM input capacitance; gold-plated phono inputs; separate headphone amp. Inputs for MM phono; MC phono; tape ; tape 2; AUX; CD player; tuner; video. FR 13-50,000 Hz  $\pm 3$  dB; s/N 90 dB; THD



## ADCOM

#### GFP-555 Preamplifier

Features 2-sided copper-plated circuit board for low noise and hum; switchable phono-input capacitance; switchable gain on phono input; tape dubbing; separate headphone amp; 2 sets of outputs (AC coupled, DC coupled); signal-processor loop; 5 pairs of high-level inputs. Can record



from one input while listening to another input. Inputs for MM phono; MC phono; tape; tape 2; CD player; tuner; video. FR DC-400,000 Hz  $\pm 0.5$ dB; THD 0.005%; MM phono sens 0.4 mV for 0.5-V output at 1,000 Hz; sens for line-level inputs 40 mV. 17" w x 3.25" h x 12.75" d ......... \$500 GFP-555W. As above with white front panel\$575 GFP-555S. With silver front panel ...... \$575

#### **GTP-500** Preamplifier/Tuner

#### Accessories

RM-3. Optional	rack-mount	adaptors	for GFP-
555 and GTP-50	0		\$20/pr
RM-3W, RM-3 i	n white		\$25/pr
RM-3S. RM-3 ir	ı silver		\$25/pr
XR-500. Optiona	l remote sen	sor for G1	[P-500\$90]

## APT

## **HP** Preamplifer

Multiple control stereo preamp. Features Tape 1 to 2 or Tape 2 to 1 dubbing, absolute output mute image control, variable phono imp, 18 dB infrasonic filter. Inputs for MM phono, MC phono, tape, tape 2, aux, phono 1, phono 2, CD player, tuner, external processor. FR 20-20,000 Hz  $\pm$  0.5 dB; max output 7 V RMS (+17 dBV) max undistorted; THD 0.006% at 2.0 V rms (+6.0 dBV); IMD 0.006% IHF; MM phono sens 1.25 mV for 0.5-V output at 1,000 Hz; MM phono input overload level 100+ mV rms for 0.5 V rms output; 16.9" w x 3.1" h x 8.2" d; 10 lb ...... \$680

## P205 Preamplifier

Phono-only preamp with single-ended input, balanced output (100 to 600 ohm load). Features switchable cartridge termination 50-450 µF (in 50 pF increments); 33 µ, 47, 100, 1,000 kohms; Defeatable 18-dB infrasonic filter (for evaluation purposes); L + R output level (with switchable filter type). Switchable 8-Hz pop/scratch filter. Phono noise less than 76.8 dB re 5 mV input at 1,000 Hz, weighted with cartridge connected (-78 theoretical limit), RFI immune. Tamperproof controls; 4-year warranty. FR 30-18,000 Hz ± 0.2 dB; max output +26 dBV max undistorted; THD 0.06%; IMD 0.06% IHF; MM phono sens 1.25 mV for 0.5-V output at 1,000 Hz; MM phono input overload level 125 mV; 19" w x 3.46" h x 

#### P2 Preamplifier

## AUDIO DESIGN ASSOCIATES

#### **CPC-8** Central Controller Mainframe

#### **DSP-8** Preamplifier

Used in conjunction with ASU-10 and SC-88. Allows remote control selection of any of 8 sources with digital readout in each room. Features 3 tape loops; 1 external processor loop; separate phono stage texternal). Inputs include MM phono; tape; tape 2 aux; CD player; tuner; video; CD 2. FR 5-50,000 Hz  $\pm$  3 dB; s/N 110 dB; THD 0.007%; sens 50 mV. 8 lb; 19" w x 3.5" h x 12" d ....\$1,300

### AUDIO DYNAMICS

#### C200 Preamplfier

### AUDIO RESEARCH

## SP-11 Stereo Hybrid Preamp

#### SP-10 Vacuum-Tube Stereo Preamp

High-Definition® stereo preamp with additional gain for use directly with MC cartridges. Inputs for MM and MC phono, tape, aux, phono 2, tuner, aux 2. Features auto muting for repeat settings, etc; power switch for 1,600-W capacity power receptacles; selectable front-panel imp matching for optimizing MC and MM cartridge performance; gain selection for matching cartridges; bypass switch defeats most functions for optimum performance. FR (high level, ± 0.25 dB) 5-30,000 Hz; magnetic phono, ± 0.25 dB of RIaa, 30-40,000 Hz; max output 6 V; THD 0.01% and IMD 0.002% at 2 V rms out; MM sens 0.125 mV of 0.5 V output at 1,000 Hz; MM overload level 300 mV; line-level input sens 25 mV; input imp 50k ohms (all high level); magnetic phono, 10, 30, 100, 10k, 47k ohms (selectable). Two units 19" w x 5.25" h x 10.25" d; 49 lb shipping weight\$3,700

#### SP9 Hybrid Stereo Preamp

On-board power supply; auto mute circuit for warmup, voltage drop; switchable muting; 2 tape inputs, 2 tape outputs; 2-position tape-monitor switching; gold-plated input/output jacks connect ground before hot, disconnect hot before ground; shielded toroidal power transformer; internally adjustable phono-section imp; 2 6DJ8 vacuum tubes (1 in phono stage, 1 in line stage); compatible with many MC cartridges; black front panel extra. FR (high level,  $\pm$  0.5 dB) 5-50,000 Hz; magnetic phono,  $\pm$  0.3 dB of RIAA, 30-40,000 Hz; max output 2 V rms; distortion

For explanations of abbreviations, specifications, and technical terms, consult the glossary on page 221.

<0.01% at 2 V rms out; input imp 50k ohms; phono 47k ohms (changeable). 19" w x 5.25" h x 10.25" d; 13 lbs net, 22-lb shipping weight\$1,695

#### SP-8 Vacuum-Tube Stereo Preamp

High Definition preamp with 1.5-minute warmup timer. Inputs for MM phono, tape, AUX, tuner, AUX 2. Features auto muting; continuous protection against line-voltage dropouts; high-accuracy, close-tracking segmented gain control; front-panel receptable switch for 2 relay-controlled outlets with 1,600-W capacity; isolated ground construction that floats all inputs and outputs; rejection filters for minimizing or eliminating CB, TVI, RF interference. FR 5-30,000 Hz ± 0.25 dB high-level, to 40 kHz phono; max output 60 V; THD and IMD <0.01%/0.002% at 2 V rms; MM sens 0.5 mV for 0.5 V output at 1,000 Hz; line-level sens 25 mV; gain phono/ high-level to main output 26/60 dB; input/output imp 50k/1k ohms; phono overload 900 mV; output level 2 V rms; noise 250 µV rms max highlevel, 5 µV phono; power consumption 60 W; 19" w x 10.25" D x 5.25" H; 22 lb .....\$1,995

#### MCP33 Vacuum-Tube Preamp

#### SP-7 Solid-State Stereo Preamp

#### Wood Cabinets

For Audio Research	components.
OC-4. Light oak	\$125
WC-4. Walnut	\$125

## **B&K COMPONENTS**

#### Pro-10MC Preamplifier

Preamp with built-in MC stage. Inputs for MM phono, MC phono, tape, AUX, CD player, tuner. FR 1-100,000 Hz  $\pm 3$  dB; max output 6 V; THD 0.01%; IMD 0.01% IHF; MM phono sens 0.5 mV for 0.5-V output at 1,000 Hz; MM phono input overload level 100 mV, sens for line-level inputs 0.450 mV. 19" w x 3.5" h x 10" d; 12 lb .. \$595

#### **Pro-10 Preamplifier**

Preamp with separate power supply and goldplated connectors for positive contact and reliability. Inputs for MM phono, tape, AUX, CD 

#### **Pro-5** Preamplifier

## **B&W LOUDSPEAKERS**

#### **CU810** Preamplifier

Features highly linear MC stage; unbalanced and balanced outputs. Overload margin uses 4 ultralow-noise multiple transistors in parallel with DC servo feedback loop. Inputs for MM phono; MC



phono; tape; tape 2; aux; CD player; tuner. s/N 108 dB; THD 0.005%; MM phono sens 5.14 mV for 0.5-V ouput at 1,000 Hz. 18.5" w x 3.75" h x 7.25" d; 8.8 ib .....\$2,150

## BEDINI

#### 66SPA Preamplifier

## **BELLES RESEARCH**

#### **XL** Preamplifier

Solid-state preamp with MM and MC capability. Features van den Hul silver mono-crystal wiring; Tiffany connectors; Wonder caps; subsonic filter; regulated remote power supply (48 VA); external phono loading capability; 6 stereo inputs including 1 monitor, 2 stereo tape outputs; phono RIAA FR 20-20,000 Hz  $\pm$  0.1 dB; s/N 80 dB; THD and IMD 0.05%; 15 lb; 17" w x 3" h x 12" d .\$1,249

#### XLM Preamplifier

Solid-state preamp with user flexibility of functions. Features van den Hul wiring; defeatable subsonic filter and tone controls; switching flexibility for recording and listening at same time; remote power supply to reduce hum and noise. Inputs for MM phono; tape 1; tape 2; CD player; tuner. FR 20-20,000 Hz  $\pm$  .25 dB; s/N 85 dB; THD 0.05%; MM phono sens 1.33 mV for 0.5 volt out-

PRICES LISTED are manufacturers' suggested retail prices (also referred to as *list* prices); actual selling prices are set by individual dealers. All prices are subject to change without notice. put at 1,000 Hz; MM phono input overload level 180 mV at 1 kHz; sens for line-level inputs 1.2 mV; 11 lb; 17" w x 2" h x 10" d..... \$495

### BERNING

#### TF-12 Preamplifier

#### **TF-10 AH Preamplifier**

TF-10 A. As above except no MC input .\$1,845

## **BOULDER AMPLIFIERS**

#### Modular Preamp System

Each module has gold-plated connectors, uses common power supply and measures 4.2" w x 3.5" h x 14.25" d.

MS11. Phono preamp module does RIAA EQ and gain; 2 990 amps/ch; gain adjust; inputs for high-level MC and MM; max gain 46 dB; optional input for low-level MC's has 20-dB gain; RCA inputs standard, 3-pin optional; unbalanced RCA outputs; solid-state balanced output for pro Bessel 3-pole low-cut filter at 10, 20, or 30 Hz ..... \$101 3-pin connectors for unbalanced feed to balanced input (in addition to RCA connections) .... \$35 Solid-state balanced output; inverting BA990's, 3pin connectors ..... \$292 Field-Installed Options: Solid-state MC input, bridging, with 20-dB gain ..... \$253 Transformer MC input; with Jensen MC trans-phono, CD, tuner, tape 1 and 2, aux; dubs between decks ..... .....\$409 MS31. Output-controller module sets volume and balance, switches stereo/mono, normal/reverse image, and mute (-20 dB); unbalanced output; RCA connectors; optional 3-pin connec-buffered inputs, Penny & Giles volume control, individual-ch polarity switches. Optional balanced input ..... \$977 Factory-Installed Options: 3-pin connectors for unbalanced out in addition to RCA connectors ......\$35 Solid-state balanced output adds inverting BA990's, 3-pin connectors ..... \$292 MS01. Power supply module for up to 4 of above modules; bidirectional tracking voltages; toroidal power transformers; oversize heatsinks; current limiting; LED indicates power or unregulated voltage...... \$469

CP02. Short power cable (1 needed for each module) . . . . . . . . . . . . . . . . . . . . . . . . . . . \$21 CP06. Long power cable (1 needed for remoting phono preamp)......\$26 MF1. Mainframe houses 1 of above modules\$155 MF2. Mainframe houses 2 of above modules. Half rack size ..... \$163 MF4. Mainframe houses 4 of above modules. Full rack size with removable rack-mount ears . \$211 MS00. Blank module panel for covering unused slots CA06. 6-ft pair interconnects for connecting pho-for connecting modules in frame ...... \$39 Price varies with options: complete system with MS11, MS21, MS31, MS01, MF04, CP02, and CA01.....\$2,744

## BRYSTON

## **12B** Preamplifier

Control amp can play 1 source while taping or remoting another. Features stereo/mono/mute switch; 14-V headroom. Inputs for MM phono, MC phono, tape, tape 2, CD player, tuner; video. S/N -84 dB; THD 0.005%; 19" W x 1.75" H x 11" D ......\$1,500 11B. Second MM input instead of MC input .....\$1,100

#### .5B Preamplifier

Basic preamp with inputs for MM phono, tape, CD player, tuner. FR 20-20,000 Hz  $\pm$  0.1 dB; max output 14 V; THD 0.005%; IMD 0.005% IHF; 19" w x 1.75" h x 9" d; 9 lb ...... \$600

#### 4-Way Switch Box

No active components; designed for high-current applications. For Bryston equipment only\$195.00

## **CAMBRIDGE AUDIO**

## C75 Preamplifier

Inputs for MM/MC phono (switchable), tape, tape 2. Features dubbing capabilities; straight-line design; solid-wood end panels. FR flat within 0.1 db 20-80,000 Hz; THD 0.005% 20-20,000 Hz; max output 12 V; MM input 2.6 mV at 47 kilohms; MC input 0.3 mV at 47 kilohms; S/N MM 82 dB, line 96 dB. 17.5" w x 2.5" h x 11" d; 12 lb.... \$599

## **CANTON**

#### EC-P1 Preamplifier

## CARVER

#### 4000-t Sonic Holography Preamplifier

## C-1 Sonic Holography Preamplifier

Features Sonic Hologram Generator; separate L

#### C-2 MM/MC Preamplifier

Switchable input for MM or MC cartridges; infrasonic filter (18 dB/octave below 20 Hz); bass and treble controls; tone control bypass; 2 tape inputs; provision for 2-way dubbing; AUX input; external processor loop; mode switch; rear-panel jack for high-level gain; dark pewter front . \$399

## **CELLO**

#### Audio Suite

Open-architecture mainframe accepts up to 10 slide-in vertical modules for phono, tape, CD, video, and tuner inputs; houses pro modules including mic preamp/mixers, tape head recording and mastering amplification, upcoming digital-to-analog convertors, monitor amps for headphones or speakers. Can control multi-room and multi-media systems.

Mainframe chassis	,500
P101. MC phono input module \$3.	,000
P100. MM phono input module\$1.	700
P100. High-gain MM phono input module\$1.	700
P200. Tape input module\$1,	,000
P200. CD input module\$1,	000
P200. Tuner input module\$1,	000
P200. Aux input module\$1,	
P200. Video input module\$1,	
B301. Output module\$1,	
B100. MM phono input module\$1,	000
B201. Camac line input module \$	700
B200. RCA line input module \$	600
P301. Output module\$2,	700
<b>P300.</b> Output module\$2,	
•	

#### Accessories

Blank bay assembly		•	•		•				•		•	.\$35.00
Blank front plates											•	.\$21.50
Blank rear plates		•						•	•			.\$13.50

#### **Etude Control Unit**

4 in																						
tape																						
trol			•	•		•	•		•		•	 		•	-	•			\$	1,(	00	0

## Master Supply

## **CONRAD-JOHNSON**

#### PV5 Vacuum-Tube Preamp

#### **PV7 Vacuum-Tube Preamp**

## CONVERGENT AUDIO TECHNOLOGY

### **SL-1** Preamplifier

Preamplifier with all-vacuum-tube design. Features 12 separate regulators, with 1 for each stage; adjustable loading; external power supply; switched metal film resistors for volume and balance controls. Inputs for MM phono; MC phono; tape; aux; CD player; tuner; video. FR 0.1-1 MHz  $\pm$  3 dB; s/N 90 dB; THD 0.0005%; MM phono sens 0.125 mV for 0.5 V output at 1,000 Hz; MM phono input overload level 250 mV at 1,000 Hz; sens for line-level inputs 25 mV; 28 lb; 19" w x \$.24" h x 12.5" d ......\$3,750

## COUNTERPOINT

#### SA-11 Line-Level Control Amplifier

Full-featured line-level control center includes industrial-grade stepper motors to control 2 massive custom-built 41-position attenuators. Features full vacuum-tube power supply and audio circuitry; wireless hand-held remote control; Isolinear design for max isolation and extreme linearity. Inputs for tape; tape 2; aux; CD player; tuner; video. 19" w x 6.7" h x 19" d; 70 lb\$3,995

### SA-9 Phono Equalizer/Preamplifier

#### SA-5.1 Preamplifier

Preamp with inputs for MM phono, MC phono, tape, tape 2, AUX, CD player, tuner. FR 0.5-88,000 Hz  $\pm$  0.1 dB; max output 70 V; THD 0.08%; IMD 0.08% IHF; MM phono sens 0.5 mV for 0.5-V output at 1,000 Hz; MM phono input overload level 700 mV; 19" w x 2.03" h x 17.03" d; 24 lb ......\$1,795

#### SA-3.1 Preamplifier

#### SA-2 Preamplifier

## SA-7.1 Preamplifier

#### SA-6 Preamplifier

Preamp with inputs for MC phono. Max output 30 V; THD 0.06%; IMD 0.07% IHF; 19" w x 2.03"

h x 7.75" d; 10 lb ..... \$450

## DB SYSTEMS

## DBR-15B & 2A Preamplifier

Rack-mount precision preamp and tone control with power supply. Combines DB-1B, DB-5 in a 19" rack unit. Auxiliary cable included ... \$935 With oak cabinet ..... \$1085

#### DB-1A & 2A Preamplifier

Stereo preamp with separate DB-2A regulated power supply. THD ± 0.0008%, 20-20,000 Hz; IMD ± 0.001%; FR phono 10-40,000 Hz ± 0.07 dB, high-level 2-50,000 Hz +0, -1 dB; s/N A-wtd 89 dB phono, 90 dB line; filters: low-cut flat, 20 Hz, 36 Hz at 6 dB/octave phono only, high-cut flat. 5 kHz, 10,000 Hz at 6 dB/octave; output imp 1 kilohm; max output voltage 6 V into 10 kilohms/3,000 pF; input sens for 1 V output: phono 2 mV into 50,000 ohms/100 pF, high-level 120 mV into 50 kilohms; 8.5" x 7" x 3.2" ..... \$495 DB-1B & 2A. DB-1A with low-noise high-level stage (-94 dB ref 1 V), reduced crosstalk, tight tracking volume control, all gold-plated jacks and solid oak cabinet with hand-rubbed tung-oil finish. 12" w x 3.6" h x 7" d ...... \$650 DBR-1A. Same as DB-1A except mounted on 19" rack. Includes DB-2 A power supply . \$535 DB-1A-HL & DB-2A. Preamplifier similar to DB-1A with 5 high-level inputs and no phono section. FR 1-250,000 Hz ± 3 dB; s/N 92 dB; THD 0.0006%; sens for line-level inputs 120 mV \$375 DB-1B-HL & DB-2A. Preamplifier similar to DB-1A-HL with lower noise (-94 dB ref 1 V); reduced crosstalk; tight tracking volume control; loudness compensation switch; gold-plated jacks; and solid oak cabinet with hand-rubbed tung-oil finish ..... \$530

## dbx

#### **CX1** Preamplifier

Audio/video preamplifier with a 2-channel switchable all-digital delay for ambience recovery. The built-in Dolby Pro Logic surround system has a 5-ch calibration signal and input-level adjustments for precise setup. Inputs for MM and MC phono, tuner, CD player, VCR, AUX, and 3 tape decks or 2 tape decks and 1 VCR (with vid-eo). Outputs for front L&R and side/rear stereo or Dolby Surround with center ch, 3 stereo-totape jacks, and a video-signal monitor. Features stereo audio external-processor loop; audio/video dubbing; independent recording and listening selectors; switchable tone controls (conventional bass/treble curves or low-bass only/spectral tilt); switchable infrasonic and high filter for all sources; precision-tracking 5-ch volume control; ch-mode controls for L/R stereo, RL reverse, L or R only, L+R mono, and L-R positions; headphone jack; anti-resonance chassis and aluminum feet ......\$1,500

## DENNESEN ELECTROSTATIC

#### **JC-80** Preamplifier

Dual mono, all FET, DC-coupled, fully complementary, push-pull, A preamp. No interstage coupling caps; feedback input stage; virtually

The listings are based on data provided by the manufacturers. For more product information, contact an authorized dealer or the manufacturer directly. Manufacturers' addresses and phone numbers are listed in the directory beginning on page 226. 

## Sirius Preamplifier

### DENON

#### **PRA-2000Z** Preamplifier

Inputs for 2 MC phonos, 1 MM phono, tape, tape 2, AUX, tuner, CD. Equalizer amplifier: input sens/imp phono-1 MC 0.1 mV/40 ohms, phono-2 MC 0.12 mV/100 ohms, phono-3 MM 2.5 mV/47 (1,000 Hz), phono-1 MC 20 mV (1,000 Hz), phono-2 MC 24 mV (1,000 Hz), phono-3 MM 500 mV (1,000 Hz); THD phono-1 <br/> <0.001% 1,000 Hz 20 V output, phono 2,3 <0.0015% 20-20,000 Hz 3 V; s/N A-wtd phono-1 <br/> K8 0 dB at 0.25 mV input, phono-2 MC 75 dB at 0.25 mV input, phono-3 MM 90 dB ar 2.5 mV in-



#### **DAP-5500 Digital Preamplifier**

#### PRA 1100 Preamplifier

#### **DNM BY MUSIC HALL**

## Series 3 Preamplifier

Full Star-Earth return system; DNM Filmcap electrolytic capacitors; nonconducting acrylic case; Twin 3 power supply ......\$3,000 With more complex (Six-3 type) power supply ......\$4,000

#### ELECTROCOMPANIET BY MUSIC AND SOUND IMPORTS

Electrocompaniet preamps feature FR 5-100,000 Hz ± 0.5 dB; max output 15 V; MM phono s/N 84 dB; high-level sens 100 mV; no tone controls; balance and volume only; MM input imp 47 kilohms; external power supplies.

#### **EC-1** Preamplifier

## FORTÉ AUDIO

#### Model 2 Class A Preamplifier

Dual-channel, noninverting, hybrid IC/discrete, straight-line preamplifier. Features MM/MC phono inputs; 4 high-level inputs; tape monitor; full record and signal-monitor routing ability; selectable-gain cartridge section; internally selectable cartridge loading; all gain stages biased for pure class A operation at all signal levels; external power supply; gold-plated signal connectors. FR DC-100,000 Hz ± 3 dB; THD <0.01% at 2 V rms



#### HAFLER

#### **DH-110 Discrete Preamplifier**

Preamplifier operates all discrete devices (no integrated circuits in signal path) in full symmetry format. Controls: volume, balance, bass, treble, input selector, phono selector, monitor selector, mono/stereo, high-pass filter; external processor loop, tone control engage. Features rack-mounting capability; single active circuit board; step-action volume control; integral muting circuit; 2 pairs of audio outputs; low-imp power supply; full power bandwidth to 200,000 Hz; 2 phono, tuner, AUX, 2 tape deck, EPL inputs; 2 tape (buffered), 2 line, EPL outputs; headphone jack. THD <0.0006% at 1,000 Hz, 3 V RMS; phono input FR 20-20,000 Hz +0-0.25 dB; s/N weighted 87 dB; rated output 3 V rms, 4-210,000 Hz; THD <0.001% 20-20,000 Hz; 17" wide x 3" high x 8.5" deep; 10 lb. Assembled ..... \$450

DH-100 Pre	amplifier
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## HARMAN KARDON

## Citation Twenty-One Preamplifier

## HEYBROOK BY D'ASCANIO AUDIO

#### C-2 Preamplifier

Hand-assembled preamplifier with versatile input selections and black finish. Features special circuitry for CD input to prevent overloading; aluminum chassis; rear-panel power switch. Inputs for MM and MC phono, tape, AUX, CD player, tuner, and video. FR 10-50,000 Hz ± 3 dB; MM phono sens 85 mV for 0.5-V output at 1,000 Hz; line-level sens 160 mV. 17" x 3" x 13" .... \$798

## HITACHI

### HPT120AVSW AM/FM Preamp/Tuner

### JADIS BY MADRIGAL

### JP-80 2-Part Tube Preamplifier

#### JVC

#### PL10 Precision Control Preamplifier

Features Gm processor; ultra-high-sensitivity head amp. Inputs for MM phono, MC phono, tape, tape 2, AUX, phono 2, tuner. THD 0.002%; MM phono sens 2.5 mV for 0.15 V output (rec out) at 1,000 Hz; MM phono input overload level 300 mV; sens for line-level inputs 150 mV. 18.12" w x 5.69" h x 16.56" d; 26.4 lbs ..........\$1,650

#### **KENWOOD**

#### **Basic C2 Preamplifier**

#### **Basic C1 Preamplifier**

Features CD/AUX input; MM/MC cartridge selector; advanced single NFB loop phono equalizer amplifier; 2 tape inputs with dubbing and monitoring; subsonic filter; continuously variable loudness control; Kenwood NF-CR tone controls; LED input indicators; power-on muting relay. FR 1-250,000 Hz -0.3 dB; THD 0.005% phono, 0.004% line; input sens/imp MM 2.5/47 kilohms, line 150 mV/47 kilohms; s/N 108 dB; MM 87 dB; 17.31" w x 3.06" h x 12.88" d; 9.3 lb ..... \$240

#### KC-206 Audio/Video Preamplifier

## **KINERGETICS**

### KPA-1 Preamplifier

Designed to eliminate hysteresis distortion; MC

0000000 WHOLESALER 1160 HAMBURG TPK., WAYNE, N.J. 07470 FOR MORE INFO CALL: (201) 696-6531; (201) 444-6300 CALL TOLL-FREE 800-247-4654 WE WILL MATCH OR BEAT ANY LEGITIMATE PRICE IV S HOURS: Monday-Friday 10 am-8 pm; Saturday 10 am-5 pm TOSHIBA CX3077 30" T.V. & PIONEER S02600 TV NOW IN STOCK TOSHIBA CZ2696 NEW LOWER PRICE AUDIO HI-FI RECEIVERS \$229 \$325 4 HEAD VHS JVC RX550 IN STOCK JVC RX9 TOSHIBA M4220/30 TOSHIBA M4330 JVC DOLBY SURROUND SUA30 SONY STRAV950 SONY STRAV850 CALL \$399 \$459 \$279 S199 IN STOCK FISHER FVH920 FISHER FVH920 FISHER FVH950 HITACHI VT1370A DIGITAL TOTE VISION CALL IN STOCK GSOCOH A/C-D/C PORTABLE SONY STATY ACCESSORIES, BATTERIES & TAPE AUDIO RACK SYSTEMS SONY 8MM HOME DECKS NUMARK VAM2000 DIG A/V MIXER CHARGEN JVC GX4R FISHER 6760 \$825 \$689 \$399 EVS700U EVABOU CALL JVC CGVBDU JVC JXW9 PANASCNIC T120VHS SEPC. EFFECTS FISHER 6760 CALL \$3.25 IN STOCK SANYO COMPACT SYSTEM GXT747A \$150 BOGEN TRIPOOS BILORA TRIPODS DIGITAL HI-FI VHS CALL LDW PRICE BEST PRICE NEW PRICE OROP CALL LOW PRICE S449 NEW RCA CMR300 & VM50002 Hr. Battery \$50 \$59 JVC HR0 570U TOSHIBA M5900 JVC 2 Hr. Camcorder Battery SONY Cameorder Battery JVC CGP50 CHAR/GEN OLYMPUS VX801 Battery \$28 \$99 \$35 CANON VRHF720 CANON VRHF720 CANON VRHF710 MINOLTA MV60S SANYO VHR1900 PANASONIC PV4780 TDK L750HD PRO TDK T120 HD PRO CANON \$5,99 NEW VME-2 8MM CAMCORDERS ORDER NOW TOSHIBA DX900 CD PLAYERS CANDN VME2 MINOLTA CR8000S PENTAX PVC800A OLYMPUS VX802 CHINON C8-80 KYOCERRA KD1100U NEW LOW PRICE JVC XLM440 JVC XLM700 PIONEER PDM50 PIONEER PDM70 SONY CDP510 SONY CDP510 SONY CDP510 SONY CDP910 MAGNAVOX CD8650 NEW LOW PHICE IN STOCK NEW LOW PRICE NEW CALL IN STOCK CALL FOR RECT PRIOR \$215 \$215 \$379 LOW PRICE CALL SPECIAL AUDIO CASSETTE DECKS SONY TCWR750 SONY TCWR950 IN STOCK SONY CCDV3 SONY CCDV110 OLYMPUS VX801 IN STOCK SPEAKERS-CALL FOR TOP BRANDS PRICE CALL RES' AR POWERED PARTNERS \$199 SPECIAL SONY BETA HI-FI VHS PORTABLE DECKS PHONES SLHF350 SLHF650 SLHF750 SLHF1000 \$360 \$499 \$699 CALL \$439 TOTE VISION GS3000H \$229 BELL FF1700 SONY ITA600 \$179 VHS-C CAMCORDERS SONY SPP100 SONY SPP300 \$139 SLHFT7 S999 CALL GE 9712 HITACHI VMC 50A JVC GRC7U JVC GRC9U MINOLTA CR3000A ZENITH VM 6150 SONY BETA MOVIE BOOD PRICE HRDER NOW **BMC-1000K** \$899 PIONEER LASER VISION NEW S888 **ZENITH VM 6200** IN STOCK 1 D838 & CL D1010 MINOLTA CR 3300S NEW NEW PRODUCTS VHS CAMCORDERS IN STOCK GE 9806 IN STOCK MINOLTA CR1200 NEW LOWER PRICE PANASONIC PV320 S1145 PANASONIC AG160 LOW PRICE CORE MULTI REMOTE CONTROLLER CANON VRHF800 (P-N-P DIGITAL HI-FI) TOSHIBA DX900 (PCM DIGITAL AUDIO OSP) LOW PRICE JVC HRD7000 SUPER VHS \$1700 OLYMPUS VX802 8MM MINOLTA V1400S COMPONENT VHS CAMERAS MINOLTA CR3300 VHS-C CAMCORDER SONY CCDV5 8MM HANDYCAM CANNON VC50A 7 LUX HITACHI VKC15 7 LUX \$975 \$299 NEC DX5000 DIGITAL FISHER SVC801 8MM CAMCORDER MINOLTA CR3300 PANASONIC PV350 1 LUX SUPER VHS CAMCORDER . SVHS = SUPER VHS We Accent AmEx, Visa, MasterCard, and Discover, C.O.D. welcome. We ship within 24 hours, All prices quoted include manufacturer's standard accessories & U.S. Warrenty All units are factory sealed. Shipping & handling extra. Not responsible for typographical errors. 3 & H Nen-Refundable. Circle No. 74 on Reader Service Card. OL YMPUS VX601 15. C.O.D.

## **KLYNE AUDIO ARTS**

#### **SK-5A Preamplifier**

## **KYOCERA**

#### C-910 Preamplifier

### LAZARUS

#### **Cascade Basic Preamplifier**

## LINEAGE

## CP 100 Control Preamplifier

Class-A preamp with all-discrete audio circuitry. Features full-complementary dsirect-coupled wide-bandwidth design using all Field-Effect transistors; DC servo to eliminate all capacitors in signal path except as required for phono EQ; complementary differential inputs; 2-stage phono EQ; electronic input switching; front-panel phono gain for both MM and MC phonos; rear-panel control with continuously variable resistive cartridge loading; tone controls for low bass and upper treble; tone in, mute, stereo/mono, and ploarity invert switches; gold-plated connectors. Inputs for phono; tuner; CD player; video sound source; aux; 2 tape monitors for 2-way dubbing. Rated output 3 V RMS; max output 15 V. Includes separate power supply to provide 3 switched AC convenience outlets. Matte silver with removable teak pedestal base. Dimensions: 17" w x 12" d x 6.36" h (with base), 17" w x 12" d x 5.25" h (without base) ......\$1,995

## LINN PRODUCTS BY AUDIOPHILE SYSTEMS

### LK1 Remote-Controlled Preamp

## LOGAN LABS BY SYMDEX

#### **PA-10B** Preamplifier

For explanations of abbreviations, specifications, and technical terms, consult the glossary on page 221.

#### PA-101 Preamplifier

Hybrid FET and electron tube preamp with enough gain for even lowest output MC cartridges. Features separate transformer; adjustable imp loading with custom select setting; muting function for no system crash due to power loss; slow turn-on circuitry to prevent thermal shock to tubes. Inputs for MC phono, 2 line level. FR l-1,000,000 Hz  $\pm 3$  dB; max output 160 V; THD <0.2%; IMD <0.2% sens for line-level inputs 300 mV; 19" w x 1.75" h x 7" d; separate transformer .......\$2,395

## LUXMAN

#### C-05 Preamplifier

Duo-Beta/S Class A preamp. Inputs for MM phono, MC phono, tape, tape 2, AUX, phono 2, CD



player, tuner. FR 2-100,000 Hz  $\pm$  0.5 dB; max output 18 V; THD 0.005%; 18.12" w x 5.25" h x 17.44" d; 24.3 lb ......\$2,200

#### C-02 Preamplifier

#### F-105 Surround Sound System Remote

#### MARK LEVINSON BY MADRIGAL

#### ML-6B Modular Preamps

Mono preamps in 2 separate chassis (with separate power supplies) with only essential control functions and connection. L-series open-frame plug-in modules; all audio circuitry completely discrete and operates in Class-A; each chassis has 1 L1 line amp and 1 phono amp module for any cartridge; L1 provides up to 26 dB gain with 0.003% THD typical and 0.002% IMD; S/N 100 dB (unwtd below 2 V reference); gain of L2 phono module 38 or 44 dB; L3 gain 67 dB; L3A gain 55 dB. Phono module THD ± 0.008%, IMD 0.005%. PLS-154 power supply maintains load regulation of 0.05% with wideband noise output 18 µV. Camac connectors for all input and output connections; gold-plated cartridge-loading sockets on main circuit board and internal switches to select 10, 20, or 26 dB of line gain. Hand-brushed black anodized finish. ML-6B: 2.25" H × 19" W × 8" D. PLS-154: 4.36" h x 4" w x 10.62" d. 12 lb. With L2 ..... \$7,050/pr With L3 or L3A ...... \$7,780/pr

#### **ML-7A Preamplifier**

Inputs for 5 line sources, monitors 2 tape decks, with choice of 3 plug-in phono sections for virtually any cartridge. All audio circuitry completely discrete and operates in Class-A mode. Fitted with 2 L1 line amps. PLS-154 power supply maintains load regulation of 0.05% with wideband noise output of 18  $\mu$ V; external 5-pin selflocking connector parallels. Camac phono inputs for cartridge loading; 10 or 20 dB of line gain. L1 provides up to 26 dB of gain, with 0.003% THD and 0.002% IMD typical, typical S/N of 100 dB unwtd below 2 V ref. Hand-brushed black anodized finish. ML-7: 2.25" h x 19" w x 10.12" d; PLS-154: 4.36" h x 4" w x 10.62" d; 14 lb. With no phono section ..... ..\$4.450 With L2 phono module. Gain 38 or 44 dB\$5,400 With L3 or L3A. L3 gain 67 dB; L3A gain 55 dB ..... .....\$6.050

#### **ML-10A Stereo Preamplifier**

Simplified version of L-series circuitry in single circuit board configuration. All audio circuitry completely discrete and operates in Class A. Inputs for 2 line sources, monitors tape deck, phono section for virtually any cartridge. Camac connectors. Line section provides up to 22 dB of gain with typical distortion of 0.004% THD and 0.004% IMD and typical S/N of 95 dB unwtd below 2 V reference. Phono section offers selectable gain of 42, 53 or 63 dB. Six internal switches and gold-plated loading sockets allow infinite cartridge-loading capability. Typical distortion for phono circuit are 0.014% THD and 0.005% IMD and S/N typically -72 dB. Internal power supply with high-speed push-pull regulator; biased for Class A; load regulation of 0.05%; wide-band noise output 23 V; 7 or 17 dB line gain. Hand-brushed black anodized finish. 2.25" h x 19" w x 10.12" d; 8 lbs.....\$3,325

#### ML-12A Stereo Preamplifier

For use with ML-11 power amp, or with other power amp if used with PLS-124 power supply (see below). Inputs for MM phono, MC phono, tape, AUX, tuner. Phono section accepts any cartridge, gain 42, 53, or 63 dB and gold-plated sockets for precise cartridge loading. Line-level section gain 4, 9, 13, or 17 dB to match amps, speakers, sources. Gold-plated Camac connectors for inputs and outputs and separate level controls for each section. Hand-engraved black anodized front panel. Phono S/N <75 dB unwtd at 63 dB gain; THD 0.006% and IMD 0.004% SMPTE at 6 V output; S/N <92 dB below 1 V ref; 19" w x 9.75" d x 2.25" h.....\$1,600 PLS-124. Optional power supply with separate rectification and filtering for each ch. Ripple 40 mV before regulation in ML-12A. 7.25' 2.25" h x 8.62" d ..... \$455

## McINTOSH

#### C-31V A/V Control Center

Audio/video control center with wireless IR remote control. Features McIntosh Electronic Precision Ladder Attenuator; 5-band equalizer; adjustable loudness contour; 9 source inputs; switching of 2 VCR's with two-way dubbing; remote-control expandable allowing remote control in two additional listening areas ......\$1,895 C-34V. A/V control center. 38 lb .....\$2,195

#### C-30 Stereo Preamplifier

Preamp with inputs for CD, tuner, phono, videodisc, TV, VCR, and Aux. Features two tape monitors with switchable dubbing; two external processor loops; current sensing power outlet activates preamp when component connected to it is turned on; 6 switched, one unswitched outlet; 5band equalizer; output signal mode selector; variable loudness compensation control; headphone jacks with independent level control. FR 20-20,000 Hz +0 -0.5 dB; max output 10 V; THD 0.007% max from 20-20,000 Hz at 2.5 V rated output; s/N phono 90 dB below 10 mV input; s/N high level 100 dB below rated output; Sensitivity:

phono 2 mV, high level 200 mV, for 2.5 V rated output. Max input signal: phono 100 mV, high level 10 V. Power requirements 120 V, 50/60 Hz, 25 watts. 16" w x 5.44" h x 13" d; 18 lb .\$1,649

C-504. Compact stereo preamp .....\$1,090

## **MELOS AUDIO**

## **GK-1+1** Preamplifier

Vacuum tube preamp with remote power supply and stepped attenuators. 3 selectable MC and MM phono section; each amplification stage powered by one of nine regulated power supplies; passive RIAA EQ; auto muting circuit protection. FR 2-300,000 Hz  $\pm 1$  dB; THD 0.07%, 20-20,000 Hz; s/N 65-85 dB (phono/sensitivity dependent); 19" w x 3.5" h x 13.25" d; 15 lb (preamp); 17.13" w x 3.63" h x 6" d; 10 lb (power supply) ... \$1,295

#### **MERIDIAN BY MADRIGAL**

#### 201 Control Unit

## **MOTIF BY CONRAD JOHNSON**

#### MC7 Dual-Mono Preamplifier

Dual-mono all-FET preamp with remote power supply. Features precision-matched field-effect transistors for channel-to-channel balance; exclusive use of polystyrene capacitors throughout audio circuits and power supply regulators. Inputs for MM phono, MC phono, tape, tuner. FR 5-100,000 Hz  $\pm 0.5$  dB; max output 10 V; THD 0.1%; IMD 0.1% IHF; MM phono sens 0.35 mV for 0.5-V output at 1,000 Hz; MM phono input voverload level 150 mV, sens for line-level inputs 50 mV; 19" w x 3.5" h x 12" d; 15 lbs...\$3,500

#### MC8 Stereo Preamplifier

Similar to MC7 except stereo with internal power supply. Inputs for MM phono; MC phono; tape; tape 2; CD player; tuner. FR 5-100,000 Hz  $\pm 3$ dB; THD 0.1%; MM phono sens 0.35 mV for 0.5-V output at 1,000 Hz; sens for line-level inputs 50 mV; MM phono input overload level 150 mV at 1,000 Hz. 19" w x 3.5" h x 12" d; 15 lbs .\$2,250

## NAD

## 1300 Monitor Series Preamplifier

#### 1240 7-Input Preamplifier

#### NAKAMICHI

#### CA-7A Control Amplifier

Preamp with full-system wireless remote control of Nakamichi series 7 or 5 components. Features total isolation of digital and analog sections; isolated ground technology; acoustical fine-tuning system; motor-driven volume control; inputs for MM and MC phono, 2 tape, 2 AUX, tuner, CD; 2 outputs; multi-room remote control with RS-7 remote sensor. Input sens/imp MC (switchable) 40-80-160  $\mu$ V/100 ohms, MM 2.5 mV/50 kilohms, line 150 mV/12.5 kilohms; s/N >94 dB; THD



<0,002%; FR 1-100,000 Hz ± 3 dB. 17.12" w x 3.25" h x 12.19" d; 15 lb, 4 oz ......\$2,395

#### **CA-5 Control Amplifier**

Control amp with min controls. Features 2 power outputs (2 amps); 2 tape inputs; hand-selected components. Inputs for MM phono, MC phono, tape, tape, tape, 2, AUX, CD player, tuner. FR 1.5-100,000 Hz +0, -3 dB; max output 16 V; THD <0.002%; MM phono sens 0.6 mV for 0.5-V output at 1,000 Hz; MM phono input overload level 170 mV, sens for line-level inputs 50 mV; 17.12" w x 2.5" h x 11.36" d; 8 lbs, 3 oz ...... \$750

## NIKKO AUDIO

#### **Beta 5011 Preamplifier**

#### NOVA

#### CPA-100A Preamplifier

## ONKYO

## Grand Integra P-308 Preamplifier

#### **Integra P-304 Preamplifier**

Dual-mono preamp with electrically separate left and right circuitry. Features direct tone controls with passive equalization; dual record output selectors; adjustable phono gain and load imp. Inputs for MM phono; MC phono; tape; tape 2; tape 3; AUX, AUX 2; tuner; CD player. FR 0.8-170,000 Hz ± 3 dB; phono s/N 85 dB; THD 0.005%. 17.75" w x 4" h x 15.88" d; 16 lb ...... \$480

## PARASOUND

#### PR200 Preamplifier

## PERREAUX

#### SM3 Preamplifier

#### SX1 Dual Channel Preamplifier

Class-A operation; FET tone control section. FR 20-50,000 Hz  $\pm$  0.025%; input sens MC 250  $\mu$ V rms, MM 2.5 mV, AUX/CD 285 mV rms; THD/



IMD PHONO INPUTS 0.005%, all other inputs 0.009%. 17" w x 2.25" h x 13.5" d; 12 lb . \$795

#### PIONEER

#### C-90(BK) Audio/Video Preamplifier

Features wireless remote control: motorized rotary volume control; 5 audio inputs; 5 video inputs (3 input/outputs, 2 input only); 3 different power supplies; copper-plated chassis; 2 video outputs; recording selector/tape-dubbing switch; subsonic and high/low filters; loudness, muting, and tone controls; video enhancer (detail, sharpness, and noise cancel). 8.88" h x 21.69" w x 18.88" d\$900 JA-RF5. RF modulator converts composite (baseband) video to RF so that video from an A/V system can be viewed on a TV without a video input. Features selectable output frequency; video/ TV switch for VHF antenna loop-through; 5-pin DIN connector and F-type for video in/TV out. For use with Pioneer C-90 audio/video preamplifier ..... \$50

## PROTON

#### 1100 Preamplifier

Stereo preamp with separate MC phono input. Features built-in headphone amp; bass EQ switch; listen/record selector; high-level pre-out 18 V. THD 0.003% (20-20,000 Hz, 2 V output); IMD 0.003% (2 V output); FR 20-20,000  $\pm$  2 dB; highlevel input resistance 30 kilohms; line-level input sens 150  $\mu$ V, 2.5  $\mu$ V MM phono, 0.2  $\mu$ V high-level el MC, 0.1  $\mu$ V low-level MC; s/N A-wtd 105 dB line level, 94 dB MM phono, 79 dB MC phono; bass control at 100 Hz  $\pm$  10 dB; treble control at 10,000 Hz  $\pm$  10 dB; bass EQ at 75 Hz +3 dB; infrasonic filter at 20 Hz -3 dB, slope -12 dB/oct; phono input capacitance selectable between 100,

#### **1000 Stereo Preamplifier**

#### QUAD

#### Quad 44 Control Unit

Preamp/control system with lift/step bass control to boost low-frequency output of small speakers, attenuate bass output when operating as filter to give 5-dB drop at 2 frequencies;  $\pm$  2-dB tilt control that shifts tonal balance; variable filter slope control at 5,000, 7,000, 10,000 Hz; all tone controls have defeat positions; balance/mono switch; radio, aux, disc, tape 1, tape 2 input selectors with optional mic or MC phono inputs available. Input sens/imp 1 mV at 35 mV in/47 kilohms phono, 100 mV at 5 V in/39 kilohms tape, 1 M ohm radio and aux; FR  $\pm$  0.5 dB 30-20,000 Hz phono RIAA, 30-20,000 Hz -0, +1 dB; highlevel distortion 0.02%; residual noise -104 dB Awtd; 321 mm w x 207 d x 103 h ....... \$995

#### Quad 34 Control Unit

#### RCA

## MPT200 Audio/Video Preamp Tuner

Dimensia A/V control center with unified remote control and on-screen status indication when used with Dimensia monitor lets you select inputs from up to 13 Dimensia components and 5 nonsystem components. Features automatic input selection; remote control volume, mute, direct access and station scan, and off/on; SystemLink cabling; simultaneous recording and playback; auto status indication; auto switching; quartz-PLL synthesis tuning; 20-station random tuning memory; preset channel scanning; FM search tuning; electronic volume control; signal-processing loop; preset turn-on volume; fluorescent display; muting; bass, treble, and balance controls; 4 AC convenience outlets. Tuner section: FM sens 12.2 dBf; s/N 73 dB (mono); image rejection 45 dB; sel 60 dB; sep 40 dB at 1,000 Hz; capture ratio 1.5 dB; FM FR 30-15,000 Hz. 14.63" wide x 4.13" high x 13.38" deep ..... \$349

## REVOX

#### **B285** Preamp/Tuner

AM/FM stereo preamp/tuner with two microprocessors for control of input sensitivities, output levels, and operating functions. Features alphanumeric multi-mode LCD display; 29 AM or FM presets; level and reception mode (mono/stereo, blend) separately programmable for each preset station; programmable volume limit; -20 dB button; subsonic filter; loudness contour; programmable output levels for A and B speaker pairs; comprehensive speaker-protection circuits; serial data bus for external control devices; wireless infrared remote control (transmitter optional). Inputs for phono, tape, CD player, tape 2. FM section: alternate-ch sel 96 dB; adjacent-ch sel 16 dB; 50-dB quieting sens, mono 1.6 µV (15.2 dBf), stereo 19 µV (36.8 dBf); max s/N, A-wtd, mono 84 dB, stereo 80 dB; THD mono 0.15%, stereo 0.3%; sep 43 dB at 1,000 Hz; capture ratio 2 dB. AM section: FR 120-3,000 Hz  $\pm$  6 dB; sens 36 $\mu$ V. 17.75" w x 6" h x 13.06" d; 33 lb ..... \$2,360

#### **B251** Preamplifier

#### **ROBERTSON AUDIO**

#### Twenty Twenty MC Preamplifier

#### ROTEL

#### RC870BX Stereo Preamplifier

#### **ROWLAND RESEARCH**

## **Coherence One Preamplifier**

Solid-state FET preamp with companion regulated power supply. Accepts all MM and MC cartridges directly. Direct-coupled design from input to output. Split-passive RIAA EQ minimizes phono EQ errors. No negative feedback; proprietary design optimizes low-level signal recognition. Provides inputs for 1 phono and 3 high-level inputs. Tape

PRICES LISTED are manufacturers' suggested retail prices (also referred to as *list* prices); actual selling prices are set by individual dealers. All prices are subject to change without notice. rec outputs selectable from any input. Features phase reversal and full muting from front panel; separate R/L ch balance controls; master volume; balanced outputs standard; outputs mute upon power-up or error. 19" w x 1.75" h x 13" d; 37 lb ......\$3,950

#### SAE

## **X1P X-Series Preamplifier**

#### P102 Preamplifier

Computer direct-line preamp with 3 digital tone memories, electronic volume and balance controls. Features sequential audio muting to provide cross-fade between input sources; alphanumeric displays of all functions. Inputs for MM phono, MC phono, tape, tape 2, AUX, phono 2, CD player, tuner, external processor. FR 20-20,000 Hz  $\pm$  0.5 dB; max output 7.5 V; THD 0.025%; IMD 0.025% IHF; MM phono sens 160 mV for 0.5-V output at 1,000 Hz; MM phono input overload level 240 mV, 19" w x 3.5" h x 14" d; 17 lb\$399

#### SANSUI

#### C-2301 Preamplifier

Vintage series preamp with balanced and unbalanced 75-ohm imp outputs. Inputs for MM phono, MC phono, tape, tape 2, phono, CD player, tuner. FR 5-300,000 Hz 20.2 dB; MM phono sens 2 mV for 0.5-V output at 1,000 Hz; sens for line-level inputs 150 mV/47,000 .....\$2,400

#### C-2102 Stereo Control Center

## SONOGRAPHE BY CONRAD-JOHNSON

## SC1 FET Preamp

## SOUNDCRAFTSMEN

## DX 4200 Preamplifier/Equalizer



-Back In The High Life.

344622. Anita Baker-

Rooture, (Elektra)

319996-399998

Motown's 25 #1 Hits

291278. The Doobie

Brothers-Best of the

246868. Jim Croce-

Photographs And

334391. Whitney

348318. The Police-

philip

Every Breath You Take —The Singles (A&M)

doncepieces

355529

glass

Houston, (Arista)

Hits. (Saja)

(Columbia)

Doobies. (Warner Bros.)

345777. Peter Gabriel-

Memories-His Greatest

314443. Neil Diamond's 12 Greatest Hits, Vol. 2.

From 25 Years. (Motown)

(Island)

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349324. South Pocific. 339044. Mozart: Sym-K. Te Kanawa, J. Carreras, etc. (Digital-CBS) (Digital-CBS Masterworks) 346643, Andreas Vollenweider-Down To The 339226. Gershwin: Moan. (CBS) Rhapsody In Blue; more. Thomas, Los Angeles Phil. (Digital—CBS Mosterworks) 346478. Madonna-True Blue. (Sire) 316604. Tchaikovsky: 1812 343319. Janet Jockson-Overture; Marche Slave; Beethaven: Wellington's Control (A&M) 349571. Boston-Third Victory-Maazel cond. [Digital-CBS Masterworks] Stoge (MCA) 290916. The Best Of Earth, Wind & Fire, 287003. Eagles Greatest Hits 1971-1975 (Asylum) Vol. 1 (Columbia/Arc) 347492. Glenn Miller 343715. Vivaldi: Four Orchestra—In The Digital Seasons-Maazel cond, (Digital-CBS Masterworks) Mood. (Digital-GRP) 293597 Led Zeppelin-319541. Elton John-Houses Of The Holy. Greatest Hits (MCA) (Atlantic) 342105. Bangles— Different Light. (Columbia) 350736. Rolling Stones Rewind. (Rolling Stones 356279. Gloria Estefan Records) And Miami Sound Machine 138586. Bob Dylan's Let It Loose. (Epic) Greatest Hits (Columbia)



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351692

346312. Billy Joel-The Bridge. (Digital-Columbia) 336222. Dire Straits-Brothers In Arms. (Warner Bros.) 341073. Steely Dan— A Decade of Steely Dan. (MCA) 349373. Beethaven: Symphony No. 9 (Choral) Bernstein, NY. Phil. Digitally Remastered-CBS Masterworks 314997-394999. Stevie Wonder's Original Musiquarium 1. (Tamla) 348110. Buddy Holly-From The Original Master Tapes. (Digitally Remastered – MCA) 352245. David Sanborn-A Change Of Heart. (Warner Bros.) 351122. Europe-The Final Countdown. (Epic)

354449

346544. Kenny G-Duotones. (Arista) 344721, Lionel Richie-Dancing On the Ceiling. (Motown) 355156. Vladimir Horowitz Plays Favarite Chopin Diaitally Remastered— CBS Masterworks 354985. Billie Holiday-From The Original Decca Mosters. (Digitally Remostered—MCA) 353037 Miles Davis-Sketches of Spain. (Digitally Remastered— Cl. Jazz Masterpieces) 349613. Original Soundtrack-Round Midnight. (Columbia) 355115-395111. Prince -Sign 'O' The Times. (Paisley Park) 357186. Hooters-One Way Home. (Columbia) 356873. The Outfield-Bangin'. (Columbia) 354100. Crowded House. (Capital)



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equalizer but with 2 external signal-processor loops; 3.5" w x 19" h x 11" d ...... \$439

## Pro Control Four-Control Center/Preamplifier

#### **DX3000 Preamplifier**

## SUMO

#### ATHENA Preamplifier

## TANDBERG

#### TCA 3018 Control Preamplifier

## TCA 3038A Control Preamplifier

Fully remote controlled unit similar to above.



Servo controlled volume (when used with remote); tone controls; tone defeat; loudness; MM and MC; DAT, CD, video, and tape inputs. Remote optional. Rosewood panels; 17.13" w x 3.25" h x 13.75" d; 11 lb ...... \$995

## **TECHNICS**

## SU-A200 Class AA Preamplifier

#### SU-A4MK2 Stereo DC Preamplifier

#### SU-A6MK2 Stereo DC Preamplifier

#### THRESHOLD

#### Model FET ten/hl Control Preamplifier

Dual-ch, high-level noninverting field-effect transistor preamp dedicated specifically to line-level signal applications. Accepts 5 high-level sources (such as compact disc players) and 2 tape decks with full flexibility in record/monitor signal routing. External power supply in separate chassis. Input J-FETs operated in parallel, doubling trans-



Threshold FET ten/hl control preamplifier (top) and FET ten/pc (bottom).

conductance and lowering noise and distortion. Secondary gain stages use cascoded MOSFETs to supress voltage fluctuations, allowing low distor-

PRICES LISTED are manufacturers' suggested retail prices (also referred to as *list* prices); actual selling prices are set by individual dealers. All prices are subject to change without notice. tion even when driving loads less than 500 ohms. Circuit boards are military-grade glass-epoxy with gold-over-nickel-over-copper-plated paths. Precision metal film and wirewound resistors are used throughout. Bandwidth response 1.5 Hz and 125,000 Hz at -3 dB points; distortion 0.01% at 3 V rms from 20-20,000 Hz into 1,000-ohm load; crosstalk no greater than -75 dB at 20,000 Hz with 1,000-ohm source; noise no greater than -110 dBA referenced to 1 V input; input imp 25,000 ohms, nominal; output imp 100 ohms. Controls for program source selector; record signal routing; monitor signal selection; mode; balance; audio level. 1.75" high x 19" wide x 6.5"

#### Model FET ten/pc Cartridge Preamplifier

Dual-ch noninverting field-effect transistor preamp dedicated specifically to phono-cartridge gain applications. Accepts inputs from high- and low-level MC, MM or other velocity-output characteristic phono cartridge and provides RIAA equalized output suitable for preamp high-level inputs. Single gain-variable high-performance stage provides signal increase required by different cartridge types. Combination of active lowfrequency and active and passive high-frequency equalization make up RIAA equalization. Up to 16 different cartridge-loading characteristics may be user selected with internal DIP switch assemblies. External power supply in separate chassis. Circuit boards are military-grade glass-epoxy with gold-over-nickel-over-copper-plated paths. Gold-plated connectors with Teflon insulation. Precision metal film and wirewound resistors are used throughout. Crosstalk no greater than -70 dB at 20,000 Hz with 1,000-ohm source; output imp 420 ohms. 1.75" high x 19" wide x 6.5" ....\$1,100

#### Model FET nine Preamplifier

Dual-ch noninverting field-effect transistor preamp. Accepts inputs from high- and low-level MC, MM or other velocity-output characteristic phono cartridge, 3 high-level sources, and 2 tape decks with full flexibility in record/monitor signal routing. Cartridge section uses single gainvariable preamplification stage for MC and MM cartridges. Cartridge loading selected by internal DIP switch assemblies. Signal-path topologies and power-regulation circuits derived from FET ten research. External power supply in separate chassis. Circuit boards are military-grade glass-epoxy with gold-over-nickel-over-copper-plated paths. Gold-plated connectors with Teflon insulation. Precision metal film and wirewound resistors are used throughout. FR 1.5 Hz and 125,000 Hz at -3 dB down points; distortion 0.01% at 3 V rms from 20-20,000 Hz into 10,000-ohm load; highlevel input imp 25,000 ohms, nominal; output imp 100 ohms. Controls for program source selector; record signal routing; monitor signal selection; ch balance; audio level. 1.75" h x 19" w x 6.5" d .....\$1,600

## WINGATE AUDIO

## YAMAHA

## **CX-10000 Digital Preamplifier**

Limited Centennial Edition digital control amplifier with built-in digital sound field processor and D/A convertor. Features hi-bit quadruple oversampling (18-bit quantization at sampling frequency of 176.4 kHz); hi-bit precision D/A con-



version; digital-direct connection; digital input/ output port; digital parametric equalizer; 16 memory programs combining digital sound field ambience information and/or digital parametric equalizer; wireless remote control. Titanium grey 

#### HX-10000 Phono Head Amplifier

#### C-85B Preamplifier

Features Zero Distortion Rule (ZDR); DC-servo; current noise suppression; extended roll-off equalizer; continuously variable loudness control; record output selector; 2-band parametric equalizer (adjustable center frequencies, bandwidth, amplitude); inverting preamp output; gold-plated input terminals and headphone jack. Black; 16 lb \$799 RMA-C80. Rack mount adaptor for C-85B pre

#### C-65B Preamplifier

#### C-45B Preamplifier

## INTEGRATED AMPLIFIERS

## ACCUPHASE BY MADRIGAL

## E-303X 150-W/ch Integrated Amp

### E-302 120-W/ch Integrated Amp

3-position loudness compensation and power meters. Inputs for MM phono; MC phono; tape; tape 2; phono 2; CD player; 3 line inputs. S/N 120 dB; MM phono sens 0.22 mV for 0.5 V output at 1,000 Hz; sens for line-level inputs 7.1 mV; 120 W/ch into 8 ohms; 180 W/ch into 4 ohms; 35.6 lb; 17.5" w x 5.75" h x 14.6" d.... \$2,575

## E-205 80-W/ch Integrated Amp

## **ACOUSTIC RESEARCH**

#### **AR A-06 Integrated Amplifier**

Features infrared remote control of input functions and volume via cable link to AR T-04 tuner. Pre and power amps can be split. Inputs for MM phono; MC phono; tape; tape 2; AUX; CD player; tuner; video. 60 continuous average W/ch from 20-20,000 Hz with no more than 0.03% THD into 8 ohms; 90 watts into 4 ohms; 200-ms dynamic power 90 watts; dynamic headroom 2 dB; slew rate 40 V/ms; FR 13-50,000 Hz  $\pm$  3 dB; THD 0.03%; s/N 90 dB; IMD 0.03%; 40-ampere current capability. 17" w x 3.31" h x 13" d ... \$440

## **AR A-04 Integrated Amplifier**

Features infrared remote control of basic functions via cable link to AR T-04 tuner; gold-plated phono inputs. Inputs for MM phono; MC phono; 

### a/d/s/

#### Atelier A2 80-W/ch Amplifier

#### AKAI

#### AM-A402-B 100-W/ch Integrated Amp

DC-servo circuitry for increased dynamic range; electronic circuit protection for system and speakers; 5-band EQ; processing loop; output level meter; loudness circuit. Inputs for CD player; tuner; MM phono; tape; tape 2; aux. 100 W/ch into 8 ohms; EQ center frequencies at 63, 250, 1,000, 4,000, 16,000 Hz with 10-dB maximum boost/cut. 17.3" wide x 3.9" high x 9.8" deep; 3300

#### AM-A202-B 50-W/ch Integrated Amp

## AUDIO DESIGN ASSOCIATES

## MRA-808 Multiroom Amp. Mainframe

Contains 8 integrated amplifier modules. Each module features digitally controlled volume, bass and treble. 40 W/ch continuous from 20-20,000 Hz into 8 ohms with no more than 0.03% THD; 60 W/ch into 4 ohms; slew rate 10 v/ $\mu$ sec; intermodulation distortion 0.02%; 50 lb; 19" w x 12.5" h x 14.5" d......\$9,927

## **DCA-40 Digital Control Amplifier**

Integrated amp with inputs for MM phono, tape, tape 2, aux, CD player, tuner. Features electronic digital volume control; separate phono preamp. 40 continuous average W/ch from 20-20,000 Hz with no more than 0.06% THD into 8 ohms; 50 W into 4 ohms; FR 20-20,000 Hz  $\pm$  3 dB; THD 0.06%. 6 lb; 19" w x 3.5" h x 12" d..... \$950

#### CAMBRIDGE AUDIO

#### P35 Integrated Amplifier

#### **CREEK AUDIO BY MUSIC HALL**

#### 4040 35-W/ch Integrated Amplifier

## DENON

#### PMA-900V Integrated Amplifier

Features 120 W/ch; pure-curent power; highspeed dual non-NFB amp; A/V switching; front-



panel video input; MM/MC input; processor loop; muting switch. Side panels standard ...... \$700

## PMA-700V Integrated Amplifier

## AVC-50011 A/V Integrated Amplifier

## **PMA-500V Integrated Amplifier**

## PMA-300V Integrated Amplifier

		inputs; MM &
MC inputs .	 	\$250

#### PMA-250 Integrated Amplifier

## **DUAL BY ORTOFON**

### PA5060 Integrated Amplifier

60 watt/ch integrated amplifier with high current output capability and MC phono input. Black\$380

#### PA5030 Integrated Amplifier

30 watt/ch integrated amplifier with high current output capability and MC phono input. Black\$280

## HARMAN KARDON

PM665 Vxi 150-W/ch Integrated Amplifier Inputs for A/V, aux, tuner, CD player, phono (MM or MC); VCR/tape monitor switches 2



decks and source; drives 2 pairs of speakers; selectable turnover frequencies (bass 200 or 400 Hz, treble 2,000 or 6,000); tone defeat; mono switch; capacitance trim (normal, +100, 200, 300 pF); phase-correct loudness; high and low filters; 2way tape dubbing; lit mute button (20 dB down); preamp out and main in jacks; active/passive phono section; 2 power transformers; 8 150-W power transistors. 150 W/ch into 8 ohms; dynam-PM655 Vxi. Similar to above except 90 W/ch; current capability ±45 amps for 260 W on current capability ± 30 amps; external processor loop instead of preamp out/main in jacks . \$425 PM640 Vxi. Similar to above except 45 W/ch; current capability ± 18 amps; neg feedback 20 dB; no low or high filter ..... \$325

For explanations of abbreviations, specifications, and technical terms, consult the glossary on page 221.

#### PM635 30-W/ch Integrated Amplifier

Inputs for MM phono; tape; CD player; tuner. All discrete circuity. 30 W/ch into 8 ohms; 200ms dynamic power 75 W; slew rate 120 V/ms; instantaneous current capability ± 15 amps; negative feedback 25 dB; S/N 85 dB ........\$215

## HITACHI

## HA-007SW 65-W/ch Integrated Amp

## JVC

### AX110BK Integrated Amplifier

Integrated amp with separate CD ground and CD input with differential input for low digital noise. Features Dynamic Super-A, Gm driver; Gm selector and Gm volume control for low noise; 2amp construction; 8 inputs for CD 1, CD 2, DAT, phono, AUX, tuner, tape 1, tape 2; high gain phono EQ for MC/MM cartridges; connections for 2 pairs of speakers. 120 continuous average W/ch from 20-20,000 Hz with no more than \$720

### **AX90VBK Remote-Controlled Integrated Amp**

Integrated amp with unified wireless remote control to operate amp plus selected JVC Compu-Link Components. Features dynamic Super-A power amp; Gm selector and driver; electronic 7band S.E.A. graphic EQ with 10 preset memories; 2-way volume adjustment; 3 video inputs with sound selector and acoustic expander; high-gain phono EQ; 2-amp construction; low-imp directpower supply; 1.CD serves as EQ setting indicator and real-time spectrum analyzer. Inputs for MM phono; MC phono; tape 1; tape 2; aux; CD player; tuner; video 1; video 2; vCR. 120 continuous average W/ch from 20-20,000 Hz with no more than 0.007% THD into 8 ohms; FR 5-100,000 Hz ± 3 dB; THD 0.003%; s/N 100 dB; IMD 0.007%. 17.19" w x 5" h x 15.75" d; 22 lbs ...... \$600

#### AX70VBK Integrated Amplifier

Integrated amp with equalized recording and dubbing from tape 1 to tape 2. Features dynamic Super-A power amp; Gm selector and driver; computer-controlled 7-band S.E.A. graphic EQ with 10 preset memories; high-gain phono EQ 2amp construction; low-imp direct-power supply; LCD serves as EQ setting indicator and real-time spectrum analyzer. Inputs for MM phono; MC phono; tape 1; tape 2; aux; CD player; tuner. 70 continuous average W/ch from 20-20,000 Hz with no more than 0.007% THD into 8 ohms; FR 5-100,000 Hz ± 3 dB; THD 0.002%; S/N 100 dB; IMD 0.007%. 17.19" w x 4.62" h x 13.81" d; 17.2

## **KYOCERA**

### A-910 150-W/ch Integrated Amplifier

Ceramic base/chassis; cutless-core power transformer; DC configuration with DC servo control; fine-ceramic linear modularized phono stages. Inputs for MM phono, MC phono, tape, tape 2, AUX, phono 2, CD player, tuner, video. FR 10-100,000 Hz  $\pm$  1.5 dB; max output 0.25 V at rated sens; S/N 96 dB; MM phono sens 2.2 mV for 0.5 V output at 1,000 Hz; sens for line-level inputs 250 mV; 150 continuous average W/ch from 20-20,000 Hz with no >0.02% THD into 8 ohms; dynamic headroom 1.2 dB; slew rate 90 V/µs; 200 W/ch into 4 ohms with 0.05% THD; damping factor 150 (1 kHz); S/N 78 dB. 17" w x 5.75" h x 16.5" d

#### A-710 100-W/ch Integrated Amplifier

## KENWOOD

#### KA-3300D Integrated Amplifier

Basic series digital integrated amplifier with dual built-in 16-bit D/A converters. Features optical interface with DP-3300 CD player; VIG-DLD (Voltage Interface Gate with Dynamic Linear Drive) power amplifier; 4x oversampling digital filters; 7-pole Butterworth FDNR analog low-pass filters; 3 sampling frequencies (48/44.1/32 kHz); coaxial digital input; 3 tape inputs; dual rec-out selector; 2-way dubbing; digital-direct and linestraight switches; dual MM/MC phono equalizer amplifiers; Kenwood NF-CR tone controls with selectable turnover; high-rigidity chassis; audio insulator feet; Sigma Drive Type B; variable loudness; subsonic filter; mono/stereo switch; volume control with dB settings; gold-plated input jacks. 150 W/ch min rms into 8 ohms from 20-20,000 Hz with no more than 0.004% THD; S/N 110 dB (line), 87 dB (MM phono) .....\$1,199

### **KA-880D Integrated Amplifier**

#### KA-770D Integrated Amplifier

Basic series integrated amplifier with DLD power amplifier. Features low-impedance drive capability; independent CD input; CD-direct and linestraight switches; 3 tape inputs; dual rec-out selector; 2-way dubbing with monitor switch; MM/ MC cartridge selector with NFB loop equalizer amplifier; Kenwood NF-CR bass and treble controls; -30 dB muting; loudness switch; subsonic filter; mono/stereo switch; 2 speaker systems operation. 80 W/ch min rms into 8 ohms from 20-20,000 Hz with no more than 0.008% THD; s/N 108 dB (line), 86 dB (MM phono). 17.31" w x 5.69" h x 13.5" d; 20.24 lb

.....\$360

#### KA-76 Integrated Amplifier

Features 7-band graphic equalizer; dual-range LED power meters; CD/AUX input; 2 tape inputs with 2-way tape dubbing and monitor; equalizer recording switch; loudness switch; muting; A/B speaker selector; headphone jack. 100 W/ch min rms into 8 ohms from 20-20,000 Hz with no more than 0.05% THD; s/N 100 dB (line level). 16.56" w x 4.31" h x 10.88" d; 14.7 lb ...... \$300

## LUXMAN

LV-109 Digital-Direct Integrated Amplifier Integrated amplifier with built-in D/A converter.

Features digital interaction with Luxman D-109 CD player; 2 digital-direct inputs; line straight switch; front panel video input jack; signal-processor switch; rec-out dubbing selectors; sampling frequency indicator; tape/video monitor selector; mono/stereo switch; -30 dB attenuator switch; bass/treble controls. 150 W/ch; THD/IMD <0.09%; FR 5-200,000 Hz -3 dB; s/N (line straight) CD/line, tape >110 dB; 17.25" w x 6.56" h x 18.13" d; 44 lb ......\$1,500

#### LE-109 Phono Preamp

#### LV-105U Integrated Amplifier

Features BRID (hybrid) and STAR circuitry; Duo-Beta; voltage-driven amplification; tape and video dubbing; front-panel inputs (A/V 2, audiovideo); rec-out selector; video amp and switching capability. Inputs for MM phono; MC phono; tape; tape 2; A/V; A/V 2; CD player; tuner. 80 continuous average W/ch from 20-20,000 Hz into 8



#### **LV-103 Integrated Amplifier**

#### LV-102 Integrated Amplifier

#### **LV-101 Integrated Amplifier**

Features STAR circuitry; Duo-Beta; voltage-

#### LV-100 Integrated Amplifier

Features STAR circuitry; Duo-Beta; voltagedriven amplification; CD straight; tape dubbing; subsonic filter; stereo headphone jack. Inputs for MM phono; tape; tape 2; aux; CD player; tuner. 35 continuous average W/ch from 20-20,000 Hz into 8 ohms with no more than 0.05% THD; 200ms dynamic power 80 W at 4 ohms; FR 10-80,000 Hz  $\pm$  3 dB high-level inputs, 20-20,000 Hz phono RIAA; THD <0.05%; s/N >96 dB; IMD 0.015%. 17.25" w x 5.31" h x 10.94" d; 13.2 lb.... \$300

#### MARANTZ

### PM-94G Integrated Amplifier

#### **PM-94G Integrated Amplifier**

#### PM-74D Integrated Amplifier

100 W/ch integrated amp features Quarter-A design for Class-A operation at normal listening levels; AVSS (automatic voltage supply shift) for increased dynamic headroom; CD/phono direct switch; tone defeat switch; ceramic damped capacitors; copper-plated chassis; separate monitor/ dubbing selectors for 2 tape decks; switches for mono mode, subsonic filter, muting, speakers on/ off. 100 W/ch into 8 ohms from 20-20,000 Hz with no more than 0.03% THD. Black .... \$880

#### McINTOSH

## MA-6200 Integrated Amplifier

Features 100 W/ch into 4 ohms, 75 W/ch into 8 ohms. 42 lb......\$1,795

#### MISSION ELECTRONICS

#### Cyrus II 60-W/ch Integrated Amp

Integrated amp with optional external power supply to double power output. Inputs for MM phono; MC phono; tape; AUX; CD player. 60 continuous average W/ch from 20-20,000 Hz with no

#### Cyrus I 30-W/ch Integrated Amp

Inputs for MM phono; MC phono; tape; AUX; CD player. 30 continuous average W/ch from 20-20,000 Hz with no >0.004% THD into 8 ohms; 42 amperes peak-to-peak swings; S/N 83 dB; MM phono sens 0.4 mV for 1-W output; sens for line-level inputs 60 mV for 1-W output; dynamic headroom 1.4 dB; slew rate 150 V/ $\mu$ sec (input filter bypassed); 9 lb; 8.5" w x 3" h x 13.5" d \$399

#### NAD

#### 3300 Monitor Series Integrated Amp

#### NEC

#### A-1300E Integrated Amplifier

#### A-910 Integrated Amplifier

#### AV-350 Integrated Amplifier

#### A-610 Integrated Amplifier

Features unified remote control that can operate other NEC audio and video components; inputs for MM/MC phono, tuner, CD player, tape deck, AUX, TV and VCR sound sources; independent record and input selectors for listening to one source while recording another; mute switch; bass and treble controls. 60 W/ch into 8 ohms from

20-20,000 Hz with 0.006% THD, 80 W/ch into 4 ohms; dynamic headroom 2 dB; FR 10-40,000 Hz ± 1 dB. 16.97" w x 5.12" h x 13.38" d.... \$469

#### **AV-250 Integrated Amplifier**

#### NIKKO AUDIO

#### **IA-120 Integrated Amplifier**

Integrated amp with inputs for CD, tuner, phono, AUX, tape 1 & 2, video 1 & 2, signal processor, and CD direct. Each input is duplicated for an output selector. Features auto record-output routing system; 20-dB muting; stereo/mono switches; subsonic filter; loudness, bass, and treble controls; speaker selector for 2 pairs of speakers; and headphone output. Optionally rack mountable. 120 W/ch into 8 ohms from 20-20,000 Hz with no more than 0.008% THD \$490

#### NA-2000 Integrated Amplifier

#### ONIX AUDIO BY MUSIC HALL

## OA21 50-W/ch Integrated Amp

Inputs for MM or MC phono, tape, CD player, tuner; 300 VA toroidal input transformer; 20,000  $\mu$ farad capacitors; MM or MC board. 50 W/ch into 8 ohms; slew rate 150 V/ $\mu$ sec; FR 15-40,000  $\pm$  3 dB; 15" w x 3" h x 9" d; 11 lb ...... \$675

#### **ONKYO**

#### A-8190 Integrated Amplifier

#### A-8170 Integrated Amplifier

#### A-8150 Integrated Amplifier

## PARASOUND

CA250 50-W/ch Integrated Amp Electronic volume control; detented variable

## CA220 20-W/ch Integrated Amp

## PIONEER

#### A-88X(BK) Integrated Amplifier

Features nonswitching (Type-II) circuit; 3-transformer multi-power supply; MC phono input; linestraight selector (tone control bypass); subsonic filter; 2 tape monitors; 2-way tape dubbing; headphone output; connections for 2 pairs of speakers; black finish with rosewood-finished vinyl-covered side panels. 120 continuous average W/ch into 8 ohms from 20-20,000 Hz with no more than 0.003% THD, 5.94" h x 17.94" w x 16.8" d \$770

#### **SA-900D Integrated Amplifier**

#### A-V1200(BK) Integrated Amplifier

## A-77X(BK) Integrated Amplifier

Features nonswitching (Type-II) circuit; 3-transformer multi-power supply; MC phono input; linestraight selector (tone control bypass); subsonic filter; 2 tape monitors; 2-way tape dubbing; headphone output; connections for 2 pairs of speakers; black finish with roeswood-finished vinyl-covered side panels. 100 continuous average W/ch into 8 ohms from 20-20,000 Hz with no more than 0.003% THD. 5.94" h x 17.94" w x 16.8" d \$550

#### A-X909V(BK) Integrated Amplifier

#### VSA-30(BK) Integrated Amplifier

Features built-in switchable surround-sound processor; remote control; 2 video inouts; 1 video output; 5 audio inputs plus tape-monitor loop; simulated stereo. 30 W/ch into 8 ohms from 30-20,000 Hz with 0.4% THD (front ch), 10 W/ch into 8 ohms from 70-7,000 Hz with 3% THD (rear ch), 16.56" w x 3.88" h x 11.25" d ...... \$300

## PROTON

#### D540 Integrated Amplifier

## High-current, high-dynamic power amplifier with

Dynamic Power On Demand (DPD). Features phono section with MC and MM phono selections; active volume control; anti-clipping circuit. 40 continuous W/ch from 20-20,000 Hz; FR 20-20,000 Hz  $\pm$  0.2 dB; s/N 85 dB (unweighted), 105 dB (A-wtd); dynamic headroom 6 dB; dynamic power rating: IHF 20 ms at 8 ohms is 160 W, 4 ohms 280 W, 2 ohms 380 W; 100 ms duration 8 ohms is 150 W, 4 ohms 220 W, 2 ohms 230 W; 200 ms 8 ohms is 150 W, 4 ohms 190 W, 2 ohms 200 W. 16.5" w x 3.5" h x 12.5" d; 19.14 lb \$299

#### **AM-300 Integrated Amplifier**

30 W/ch integrated amp with DPD for 6 dB of headroom and a dynamic power rating at 8/4/2 ohms of 120/200/220 W. Features low imp drive capability; remote control; low-noise MC amp; selectable MC/MM input. THD 0.01%; damping fac-



tor 90 dB; line input sens 150 mV; line input imp 47K ohms/220pF; phono input sens MM/MC 2.5/ 0.25 mV; phono input imp MM/MC 47K ohm/100 ohm; crosstalk at 1,000 Hz is 75 dB; s/N 100 dB for tape and video ......\$249

## REALISTIC

#### SA-150 Stereo Mini Amplifier

Inputs for tuner, tape deck, turntable. Mono/stereo button; tone control; headphone jack; walnutgrain vinyl. 9" x 2.5" x 6" ...... \$60

#### SA-10 Stereo Micro Amplifier

Inputs for ceramic phono, tuner, tape deck. Stereo/mono button; tone control; L/R volume control. 7.9" x 3.25" x 5.5" ..... \$30

## REVOX

#### **B251 Integrated Amplifier**

Microprocessor-controlled integrated amp with switched power supply; liquid cooling by heat pipe; input sensitivities programmable into nontrol; rise time of 2  $\mu$ sec with 4-ohm load; cable capacitance selector (150/300/450 pF). Inputs for MM phono; MC phono; tuner; tape; tape 2; AUX; phono 2; CD player; external equalizer. 120 continuous average W/ch 20-20,000 Hz with no



## ROTEL

RA870BX Integrated Amplifier Integrated amp with 100 W/ch from 20-20,000 Hz bridgeable to 300 W. MC input; CD direct in-

## **RA840BX2 Integrated Amplifier**

#### SAE

#### A1102 Integrated Amplifier

60 W/ch integrated amp with on board computer to eliminate dependency between front-panel control switches and audio circuits. Max THD from 20 Hz-20,000 Hz 0.025% at full rated power both ch driven. All controls are grouped together by function with alphanumeric and digital LED dis-



## SANSUI

#### **AU-X901 Integrated Amplifier**

Vintage series stereo integrated amp with Alpha X-balanced technology. Features direct-balanced input for Sansui CD players; independent record selector with OFF position; power amp direct connection; high-gain phono EQ for MM and MC cartridges with FET input; bass and treble controls; selectable bass turnover; gold-plated input/output terminals; A-B speaker switching; subsonic filter; loudness contour; ext processor loop. Inputs for phono; tuner; tape; tape 2; tape 3; tape/ DAT; CD player; tuner. 130 continuous average W/ch from 10-20,000 Hz with no more than 0.003% THD into 8 ohms, s/N 120 dB; MM phono sens 2.5 mV/47k ohms. Slew rate  $\pm 200V/\mu$ sec; 17.63" w x 6.31" h x 17.38" d;44.1 lb; black finish .....\$1,000 AU-X701. Similar to AU-X901 except 100 W/ch into 8 ohms with no more than 0.003% THD\$700 AU-X501. Similar to AU-X701 except 80 w/ch with no more than 0.005 THD ..... \$500 AU-X301 Integrated Amplifier

Vintage series integrated amplifier with Alpha Xbalanced technology. Features high-gain phono EQ for MM and MC cartridges; independent record



#### **AU-G99X Integrated Amplifier**

Stereo integrated amp with X-balanced technology. Features FL peak power level indicators with meter range switch; MC cartridge preamp; bass, treble, and midrange tone controls; tone-defeat switch; bi-directional tape dubbing with REC selector; low/high filters; muting switch; loudness switch; headphone jack; connections for 2 pairs of speakers. 160 W/ch into 8 ohms from 20-20,000 Hz with no more than 0.003% THD; s/N 110 dB (line), 88/70 dB (MM/MC phono) ......\$1,000

## SONY

### **TA-F700ES Integrated Amplifier**

Features nonmagnetic G-chassis construction; spontaneous twin-drive power supply; super legato linear circuitry; source direct switch to route input signal directly to volume control; passive tone-control circuitry with switch-selectable bass and treble turnover frequencies; defeatable subsonic filter; inputs for 3 tape decks with dubbing



## **TA-F500ES Integrated Amplifier**

Features nonmagnetic G-chassis construction; spontaneous twin-drive power supply; super legato linear circuitry; source direct switch to route input signal directly to volume control; passive tone-control circuitry; defeatable subsonic filter; inputs for 3 tape decks (2 video); MM/MC phono, CD player, tuner, and AUX signal; independent record output selector for taping one signal while listening to another; A-B, A+B speaker switching. 80 continuous W/ch into 8 ohms with 0.006% THD. 100 W/ch into 4 ohms with 0.01 THD. 17" w x 5.75" h x 14.75" d; 29 lb... \$500

## TANDBERG

#### **TIA 3012A Integrated Amplifier**

Features high-current MOSFET output, passive calibrated tone controls utilizing metal-film resistors (1% tolerance), no electrolytic or ceramic capacitors from phono input to speaker output. Thermic servo loop to detect DC offset on the output. Minimized Miller Effect; minimal negative feedback and no current or voltage limiting on output stages. 100 W/ch rms into 8 ohms <0.02% THD. Rosewood side panels optional. May be combined with Tandberg tuner and a pair of rosewood side panels to create a receiver\$1,495

## TECHNICS

## SU-V10X 120-W/ch Integrated Amplifier

## SU-V60 90-W/ch Integrated Amplifier

Voltage-control amp and current-drive amp for each ch. Class AA bridge connected to separate current-drive amp isolates voltage-control amp

## **VECTOR RESEARCH**

## VA-1400 100-Watt Integrated Amplifier

## **УАМАНА**

#### AX-900U Integrated Amplifier

#### AX-700U Integrated Amplifier

#### AVC-50 Audio Video Integrated Amplifier

Master A/V integrated amplifier with built-in surround sound decoder. Features 10 audio and 4 video inputs and outputs; RS integrated system remote control; built-in video enhancer with continuously variable sharpness, detail, and level control; 5 surround modes including Dolby Surround; bass extension control; continuously variable delay time control. 45 W/ch (front), 45 W/ ch (rear) min rms into 8 ohms from 20,20,000 Hz with less than 0.05% THD. Black; 18 lb... \$499

## AVC-30U Audio Video Integrated Amplifier

#### AX-500U Integrated Amplifier

Features absolute linear amplification; high dynamic power; low-impedance drive capability; CD direct position; continuously variable loudness control; record-out selector; accessory output loop; MM/MC phono selector; 2 tape inputs; banana-plug compatible speaker terminals. 85 W/ch min rms into 8 ohms from 20-20,000 Hz with less than 0.01% THD. Black; 18 lb ... \$349

## AX-500U Integrated Amplifier

## TUNERS



## ACCUPHASE BY MADRIGAL

### T-106 AM/FM Stereo Tuner

Quartz-locked synthesis; 14-station random memory; pulse tuning; double-tuned front end; FM stereo demodulator; AM synchronous detector; signal-strength meter; peak-modulation meter; MPX filter; sel switch, muting switch. FM section: 50-dB quieting sens mono 17 dBf, stereo 17 dBf; S/N 83 dB stereo, 79 dB mono (at 80 dBf A-wtd); FR 10-60,000 Hz +0, 0.5 dB; capture ratio 1.5 dB; sep 50 dB at 1,000 Hz; AM sup 80 dB at 65 dBf. AM section: sens 20  $\mu$ V/m at 20 dB S/N; 17.5" w x 5.06" h x 14.56" d ......\$1,850

#### T-107 Synthesizer FM Tuner

## ACOUSTIC RESEARCH

## AR T-04 AM/FM Tuner

## ADCOM

## GTP-500 Tuner/Preamplifier

Preamplifier with built-in tuner can be used with Adcom or other power amps. Wireless remote control included. Remote sensors available for remote control from different rooms. Tuner section features quartz-referenced digitally synthesized tuning; auto up and down scan; 8 AM/FM presets; 5-LED signal-strength display; high-blend circuit; 2 sets of outputs (AC coupled, DC coupled). Preamp section features inputs for MM phono; tape; tape 2; CD player; tuner. s/N phono A-wtd 85 dB; IMD preamp 0.0015%; sens tuner 36.5 dBf stereo; THD tuner 0.09% stereo at 1,000 Hz; s/N tuner 75 dB stereo; sep tuner 52 dB at 1,000 Hz. 17" w x 3.25" h x 12.75" d ..... \$550 GTP-500W. As above with white front panel\$625 GTP-500S. With silver front panel ...... \$625

#### GFT-555 AM/FM-Stereo Tuner

Features quartz-referenced digitally synthesized tuning; auto up/down scan; instant-recall preset tuning; fluorescent digital-frequency display; 8-

AM/FM presets; 5-LED signal-strength display; switchable high-blend circuit; mono/mute switch; tuning accuracy of 0.00025%. THD stereo 0.07% at 1,000 Hz; 50-dB quieting sens stereo 35.5 dBf; s/N 78 dB stereo; FR 30-15,000 Hz  $\pm$  3 dB; capture ratio 1.5 dB; sep 53 dB at 1,000 Hz; AM supression 70 dB. 17" x 3.25" x 12.5" ... \$300 GFT-555W. As above with white front panel\$375 GFT-555.S.With silver front panel ..... \$375

#### Accessories

RM-3. Optional rack-mount adaptors	for GTP-
500 and GFT-555	\$20/pr
RM-3W. RM-3 in white	\$25/pr
RM-3S. RM-3 in silver	\$25/pr
XR-500. Remote sensor for GTP-500.	\$90

## a/d/s/

## CC4 Digital Tuner/Preamp

With microprocessor operating system for remote-control operation, digital volume and tone controls, and alphanumeric display. Remote IR receiver capability for multi-room remote control; RS-232 port for control by personal computer;



digital-synthesized tuning with 30 AM or FM stations; optional remote control. Preamp section: max output >7 V rms into 10,000 ohms/1,000 pF; volume and balance control range 80 dB in 1-dB steps; bass and treble control range  $\pm$  10 dB in 2-dB steps; low bass 0 to +6 dB in 1-dB steps. FM section; sens <13 dBf mono; 50-dB quieting sens <40 dBf stereo; capture ratio <1.5 dB; sel >65 dB; spurious rejection >100 dB; stereo S/N >70 dB; sep at 1,000 Hz >47 dB. AM section; sens for 6 dB S/N <10  $\mu$ V; IF rejection >50 dB; S/N 44 dB. 17.5" w x 2.8" h x 14.8" d; 18 lb .... \$999

## RC1 Unified Remote Control

Infrared wireless remote controls CC4, R4 receiver, CD3 CD player, and other a/d/s/ components.......\$100

#### Atelier T2 Digital Tuner

AM/FM synthesized tuner with 16 station presets and auto FM search tuning. Features flywheel manual tuning; fine-tuning control; switchable muting; high-blend control; LED frequency display; center tuning plus signal-strength displays; AC outlets. FM usable sens mono 1.0  $\mu$ V (11.0 dBf) stereo 5.5  $\mu$ V (26.1 dBf); stereo 50-dB quieting sens 15  $\mu$ V (34.8 dBf); S/N mono >70 dB, stereo >65 dB; FR 10-14,500 Hz, +0, -1 dB; ch sep >38 dB at 10,000 Hz; capture ratio <1.8 dB; AM quieting sens <5  $\mu$ V for 6 dB S/N; image rejection >55 dB; S/N (with 1,000-Hz 5-mV signal) >44 dB; 17.5" x 2.8" x 14.8"...... \$539

## AKAI

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## AUDIO DESIGN ASSOCIATES

### FM-600 Tuner

Analog FM tuner with 6 presets and digital frequency readout. Features AFC tuning; muting; stereo blend noise filter; stereo/mono mode all front panel switchable; signal strength/multipath LED meter; 15-pole IF filter; rear panel left and right output level controls; standard EIA rackmountable. FM section: FM usable sens stereo 1.9 mV; 50-dB quieting sens stereo 2.7 mV; THD 0.15% at 1,000 Hz; s/N 65 dB; FR 15-15,000 Hz  $\pm$  3 dB; capture ratio 1.9 dB; sep 47 dB at 1,000 Hz; adjacent-ch rejection 90 dB 12 lb; 19" w x 5.25" h x 13" d

#### AUDIO DYNAMICS

#### T200 AM/FM Tuner

## CARVER

## TX-11a FM/AM Stereo Tuner

#### TX-2 AM/FM Stereo Tuner

AM/FM tuner with Asymmetrical Charge Coupled FM Detector. FM section: FM usable sens mono 1.8  $\mu$ V, stereo 4.5  $\mu$ V; 50-dB quieting sens stereo 5  $\mu$ V; capture ratio 1.5; sep 43 dB at 1,000 Hz; AM sup 60 dB; alt-ch rej 58 dB; adj-ch rej 28 dB. AM section: sens 250  $\mu$ V with built-in antenna, 20  $\mu$ V with external antenna ........ \$399

## **CREEK AUDIO BY MUSIC HALL**

3140 FM Tuner Auto mute; AFC ...... \$350

#### dbx

#### TX1 AM/FM Tuner

## DENON

TU-800 AM/FM Tuner Features Dynamic-Twin-Drive PLL circuits; 3step IF bandwidth selection; 30-station random 

#### TU-600 AM/FM Tuner

Features dynamic PLL detection with auto bandwidth selection; 20 AM/IM presets with stored



bandwidth instruction from each station; low-imp outputs; auto or manual scan. Side panels standard.......\$350

#### TU-450 AM/FM Tuner

#### **DUAL BY ORTOFON**

CT5040 AM/FM Tuner

#### HAFLER

#### DH-330 Tuner

Quartz-controlled tuner provides exact station selection with a digitally synthesized tuning system. Features multipath distortion and noise-sensing circuit; 5-station memory; autosearch; digital read out; nonvolatile memory; 3 dual-gate MOSFET's; 5 tuned front end circuits; triple-tuned RF stage volume control and separate output on front panel for taping or headphones; kit is comprised of 4 fully assembled, tested, and aligned circuit boards which plug together. Usable sens 11.3 dBf; 50-dB quieting sens mono 15.3 dBf, stereo 36.5 dBf; dist. at 1,000 Hz, 100% modulation mono 0.1%, stereo 0.18%; capture ratio 1.5 dB; alternate ch sel 60 dB; sep 45 db at 1,000 Hz; 35 dB at 10,000 Hz; s/N, mono, 72 dB, stereo, 68 dB. Kit ..... \$385 Assembled ..... \$460

#### HARMAN KARDON

#### Citation Twenty-Three AM/FM Tuner

16 presets; infrared remote control; mono and mute buttons; LCD readout; Active-Tracking High-Selectivity (Hi Q) Circuit; digital-synthesized quartz-locked tuning; analog fine tuning;



flywheel-stabilized tuning knob; seek and manual tuning; anodized brushed aluminum blue/black finish with molded rubber trim; heavy-gauge metal chassis. FM specs: 50-dB quieting sens stereo 15.2 dBf (normal), 19.1 (Hi Q); S/N stereo 75 dB (normal and Hi Q); capture ratio 0.75 dB (normal), 1.75 (Hi Q); alt-ch sel 75 dB ...... \$595

## T U N E R S

### TU920 Active-Tracking AM/FM Tuner

## HITACHI

## HPT120AVSW AM/FM Tuner/Preamp

#### FT-007SW Quartz Digital AM/FM Tuner

16 AM or FM presets; FCCS designed to eliminate intermodulation and interference; auto quieting control function; signal-locked indicator for FM; 2-pole birdy filters; AM loop antenna; digital display to help position FM antenna; rosewood end caps \$350

#### JVC

#### FX1100BK AM/FM Tuner

## FX50BK AM/FM Tuner

Computer-controlled digital-synthesis tuner with remote control capability when used with JVC Compu-Link components. Features 16 AM/16 FM presets; auto memory; dB signal-strength indicator; preset scan; variable stop level; built-in CATV module for music source from CATV...... \$270

#### FX33BK AM/FM Tuner

Computer-controlled digital synthesis tuner with remote control capability when used with JVC Compu-Link components. Features 16 AM/16 FM presets; auto memory; preset scan; digital readout on 1CD panel; optional CATV control unit . \$125

#### KENWOOD

#### KT-3300D FM Tuner

Basic series FM tuner with Pentacle Power Supply design. Features Direct Linear Reception Circuit (DLRC); Direct Linear Loop FM Detector; IF distortion correcting circuit; direct pure MPX decoder; direct/distance RF selector; wide/narrow IF band selector; rec calibration with modulation meter; auto/manual quieting control; 16-station preset memory with display; digital-rotary tuning system; dynamic tuning process display; auto/ manual tuning; 3-station preprogramming with tuning lock; output level control; A/B antenna selector; copper transformer shield and heat sink. FM 50 dB quieting sens 38.8 dBf (24 µV) stereo; s/N 76 dB at 65 dBf, 86 dB at 85 dBf (stereo); capture ratio 1.0 dB (wide), 2.5 dB (narrow); FR 20-15,000 Hz ± 0.5 dB. 17.31" w x 3.5" h x 12.88" d; 11.9 lb ..... \$525

## Basic KT-880D Tuner

Basic series FM tuner with Pentacle Power Supply design. Features Direct Linear Reception Circuit; 

#### KT-76 AM/FM Tuner Timer

Quartz-synthesis digital tuner with built-in 2-program audio-system timer. Features Station Name Preset System (SNPS) for 12 stations; 20-station



#### KT-56 AM/FM Tuner

Quartz-synthesis digital tuner features 16-station random preset memory; preset scan; auto/manual tuning; FL frequency and status display; power stard-by for timer; remote-controlled through KC 206. FM 50 dB quieting sens 39 dBf (49  $\mu$ V) stereo; s/N 73 dB at 65 dBf (stereo); capture ratio 1.2 dB; alt ch sel 50 dB; FR 30-15,000 Hz +0.5, -2.0 dB. 16.56" x 2.94" x 10.5"; 6.2 lb ... \$140

## **KINERGETICS**

## KBT-1 AM/FM-Stereo Tuner

Designed to correct for hysteresis errors in electronics of broadcast station (adjustable correction); circuit designed to compensate for components used in broadcast station's electronics; remote power supply; digital-synthesis tuning; 5 AM, 5 FM presets; scan tuning; selectable IF bandwidth; inputs for 300- and 75-ohm antennas; finished in black or silver anodized brushed aluminum. FM specs: 50-dB quieting sens 36.0 dBf stereo; THD stereo 0.05% (wide), 0.10% (narrow) at 1,000 Hz, 100% modulation, signal level 65 dBf; S/N mono 75 dB, stereo 70 dB; sep 40 dB (wide), 45 dB (narrow); capture ratio 1.5 dB; alt ch sel 70 dB (narrow), 50 dB (wide); image rej 75 dB; pilot and subcarrier rej 60 dB. AM specs: sens to 6 dB S/N 6.3 µV; image rej 50 dB; IF rej 50 dB; FR 4,000 -6 dB ..... \$695

## **KYOCERA**

#### T-910 Digital AM/FM Tuner

Digital PLL quartz-synthesized stereo tuner. Features Dynamic Noise Reduction; 16 station presets; nonferrous ceramic base/chassis; 2 FM antennas; computer-programmed narrow/wideband IF selection. FM section: FM usable sens  $1.7 \,\mu V$ (9.8 dBf); 50-dB quieting sens mono  $3.0 \,\mu V$  (14.8 dBf); THD 0.07%, mono 0.06% (at 1,000 Hz);

The listings are based on data provided by the manufacturers. For more product information, contact an authorized dealer or the manufacturer directly. Manufacturers' addresses and phone numbers are listed in the directory beginning on page 226.

## T U N E R S

## LUXMAN

T-02 Digital Synthesized Tuner

P1.1. frequency-synthesized AM/FM stereo tuner. FM section: usable sens stereo 1.8  $\mu$ V (10.3 dBf);



THD stereo 0.06%, mono 0.05%; s/N 81 77 dB stereo, 81 dB mono; FR 20-15,000 Hz b0.5 dB; sep 55 dB; 17.81" x 3.44" x 13.56"; 10.6 lb ... \$500

#### T-102 AM/FM-Stereo Tuner

#### T-100 AM/FM-Stereo Tuner

AM/FM tuner with digital-synthesized tuning and system remote-control capability. Features 16 station random presets; auto seek; cable ready. FM section: usable sens stereo  $0.95 \ \mu\text{V}$  (10.8 dBf); 50dB quieting sens stereo  $34.5 \ \mu\text{V}$  (42 dBf); THD stereo 0.15% at 1,000 Hz; s/N stereo 70 dB at 65 dBf; FR 20-15,000 Hz  $\pm$  0.5 dB; capture ratio 1.5 dB; sep 50 dB at 1,000 Hz; AM suppression 60 dB; ch rejection 65 dB. AM section: FR 120-2,200 Hz  $\pm$  3 dB. 5 lb; 17.25" x 2.25" x 8.62" ...... \$250

#### MARANTZ

#### ST 54 AM/FM-Stereo Tuner

Quartz-locked digital frequency synthesis tuner. Features 24-station preset memory (16 FM/8 AM plus bandwidth setting for each preset); retains memory for 2 weeks without AC or battery; switchable wide/narrow bandwidth.......\$780

#### **McINTOSH**

#### MR-7082 AM/FM Tuner

AM/FM tuner with Signal Locked Loop tuning system. Features electronic memory for 7 FM and 7 AM stations; digital frequency readout; DMOS-FET RF amplifier; double-balanced mixer; PLL MPX decoder; audio output suppression circuits for 19 kHz and 38 kHz carrier; LED tuning meter; electronically regulated power supply; internal audio processor; memory search; wideband AM; remote control interface. FM section: sensitivity mono 13 dBf (1.3 V) for 30 dB of quieting; signal strength for 50 dB of quieting, 18/36 dBf mono/stereo; capture ratio 1.5 dB; IM 0.08% from 20-15,000 Hz with 100% modulation or less; alt channel selectivity 55 dB; separation 50 dB at 1 kHz; AM suppression 60 dB; image rejection 90 dB. AM section: sensitivity 35 V; S/N 55 dB IHF, 65 dB at 100% modulation; THD 0.2% at 30% modulation; selectivity 40 dB IHF; IF response 90 dB. Power requirement 120 V 50/60 Hz 10 watts. 16" W x 5.44" H x 13" D ......\$1,499 MR-510. Compact digital FM tuner ....\$1,699

MERIDIAN BY MADRIGAL

### 204 FM Stereo Tuner-Timer

## **MISSION ELECTRONICS**

#### Cyrus Digital AM/FM Tuner

## NAD

#### 4300 FMX Tuner

#### 4130 AM/FM-Stereo Tuner

Digitally synthesized AM/FM-stereo tuner with dynamic-blend circuit. Features FM usable sens 1.8  $\mu$ V mono; 50-dB quieting sens mono 14.2 dBf, stereo 34.2 dBf; S/N mono/stereo 82/75 dB; FR 30-15,000 Hz ± 0.5 dB; THD mono/stereo 0.9%/0.9% at 1,000 Hz; capture ratio <1.5 dB; alt-ch rejection 70 dB; sep 50 dB...... \$228

#### NAKAMICHI

### ST-7 AM/FM Stereo Tuner

Tuner with Schotz noise reduction. Features signal/multipath meter; 16 station presets; output level controls (R + L independent). FM IHF sensemono 1.7  $\mu$ V (10 dBf), stereo 3.9  $\mu$ V (17 dBf); FM usable sens mono 1.7  $\mu$ V (10 dBf), stereo 3.9  $\mu$ V (17 dBf); 50-dB quieting sens mono 2.7  $\mu$ V (14 dBf), stereo 14  $\mu$ V (28 dBf); THD stereo 0.08%, mono 0.06% at 1,000 Hz; s/N 76 dB stereo, 80 dB mono; FR 20-15,000 Hz ± 1 dB; capture ratio 1.9 dB; sep 55 dB at 1,000 Hz; AM suppression better than 60 dB; alt-ch rejection >60 dB. 17.12" w x 2.5" h x 11.37" d; 10 lb, 6 oz ...... \$725

#### NEC

## T-710 Digital AM/FM Tuner

Computer-controlled quartz-PLL digital-synthesis tuner with 16 AM/FM station presets. Features auto scan; preset scan; selectable (wide, narrow) IF bandwidth; FL frequency readout; low-noise dual-gate MOSFET front end; multiplex stereo decoder with a pilot canceller and active filter; static-resistant low-imp AM loop antenna; ladder IF filter. Remote controllable when used with NED 

#### T-601E Digital AM/FM Tuner

Digital quartz-PLL tuner with 16 AM/FM station presets. Features auto seek; IC-PLL multiplex FM decoder; LED signal-strength meter. Fully remote controllable when used with NEC's A-1300E integrated amp. FM usable sens 13.2 dBf (2.5  $\mu$ V); alt-ch sel 60 dB. 16.9" x 2.4" x 10.5" ..... \$193

## NIKKO AUDIO

## Gamma 80 AM/FM Tuner

#### Gamma 60 AM/FM Tuner

Features 10 AM/10 FM station presets; variable high blend; auto and manual seek; memory scan; muting control. 19" rack mount ......... \$360

#### Gamma 30 AM/FM Tuner

Quartz frequency-synthesis tuner with variable muting; high blend; auto scan; manual search; 7 AM/7 FM station presets. 19" rack mount . \$340

### NT-950 AM/FM Tuner

### **ONIX AUDIO BY MUSIC HALL**

#### BWO1 FM Tuner

Designed for high sens, excellent capture ratio and AM sup ...... \$775

## ONKYO

#### T-9090 MKII FM Tuner

Remote-controlled ultra-high-sensitivity FM tuner with computer-controlled APR to automatically or manually adjust for stereo/mono, local/Dx, high-blend, wide/narrow/super-narrow bandwidth, and A/B antenna switching. Features multi-function digital display; digital readout of signal strenght in dBf; 20 station presets; preset scan; auto memorization; timer programming; motorized output level control. Cable ready \$700

#### T-4087 AM/FM Tuner

Tuner with automatic precision reception system to control 4 modes (stereo-muting on/mono-muting off, auto high-blend on/off, local/DX, and IF bandwidth wide/narrow). Features 4 separate power supplies for RF amp, IF amp, demodulator,



#### T-4150 AM/FM Tuner

Computer-controlled quartz-synthesized AM/FM tuner with 3-mode APR, 20 station presets, highblend override, and multi-PLL. FM usable sens

## TUNERS

#### T-4130 AM/FM Tuner

## PARASOUND

#### ST220 AM/FM Tuner

#### PERREAUX

## TU3 PLL FM Tuner

5-section tuned-Varicap RF section; microprocessor-controlled digital tuning; linear phase filters in IF stage; switchable de-emphasis. s/N stereo 68



#### **TU1 PLL FM Tuner**

## PIONEER

#### F-99X(BK) Digital AM/FM Tuner

TX-V1160(BK) Digital AM/FM/TV Tuner Quartz-PLL digital synthesis AM/FM/TV tuner

## F-77(BK) Digital AM/FM Tuner

Digital Direct Decoder (DDD) AM/FM tuner with quartz-PLL synthesis tuning. Features 16 random presets; LED tuning indicator; auto station search; AM-stereo adaptor jack; black finish.  $2.38^{\circ}$  h x 16.56° w x 12.5° d ....... \$270

## F-X707(BK) AM/FM Tuner

## TX-V70 AM/FM Tuner

#### PROTON

#### 440 Digital Tuner

Schotz AM/FM tuner with Schotz Noise Reduction. Features digital station readout; 12 station presets; memory backup holds station settings for 2 weeks when unplugged; adjustable rear panel output level. FM section: FM usable sens mono 1.8  $\mu$ V (10.3 dBf); 50-dB quieting sens mono (15.3 dBf), stereo (33.2 dBf); THD stereo 0.2%, mono 0.05% at 1,000 Hz; s/N 70 dB stereo, 75 dB



## T U N E R S

#### AT-300 AM/FM Stereo Tuner

AM/FM-stereo tuner with Schotz noise reduction and remote control option; 20 station presets;



## QUAD

#### FM4 FM Tuner

FM-stereo tuner designed to be used with Quad 44 preamp. Features no controls except 8 pushbuttons to store/recall station presets, tuning knob, power switch; bar-graph meter to indicate signal strength, center-channel tuning; dedicated microprocessor that recalls desired station from memory, tunes it, automatically sets muting, automatic frequency control levels. Stations stored in memory remain there for up to 5 years, even with power disconnected. Available in anthracite grey. Mono/stereo 50-dB quieting sens 2.7/25 µV; mono/stereo S/N ratio 76/70 dB at 1 kHz, 1 mV A-wtd; mono/stereo distortion 0.05%/0.10% stereo; capture ratio 2.5 dB; sel 53 dB; image/i-f rejection 80/100 dB; FR 20-15,000 Hz +0/-1 dB; crosstalk 40 dB at 1 kHz; pilot-tone suppression 60 dB; deemphasis switchable 50/75 µsec; power consumption 6 V ..... \$595

## RCA

### MPT200 Audio/Video Preamp Tuner

Dimensia A/V control center with unified remote control and on-screen status indication when used with Dimensia monitor lets you select inputs from up to 13 Dimensia components and 5 nonsystem components. Features automatic input selection; remote control volume, mute, direct access and station scan, and off/on; SystemLink cabling; simultaneous recording and playback; auto status indication; auto switching; quartz-PLI synthesis tuning; 20-station random tuning memory; preset channel scanning; FM search tuning; electronic volume control; signal processing loop; preset turn-on volume; fluorescent display; muting; bass, treble, and balance controls; 4 AC convenience outlets. Tuner section: FM sens 12.2 dBf; s/N 73 dB (mono); image rejection 45 dB; sel 60 dB; FM FR 30-15,000 Hz; capture ratio 1.5 dB. 14.63" w x 4.13" h x 13.38" d . . . . . . . . \$349

## REALISTIC

TM-150 AM/FM-Stereo Mini Tuner PLL tuning; stereo/mono switch; FM stereo LED; illuminated tuning dial; built-in AM and

The listings are based on data provided by the manufacturers. For more product information, contact an authorized dealer or the manufacturer directly. Manufacturers' addresses and phone numbers are listed in the directory beginning on page 226. FM antennas; terminals for external FM antenna 9" x 2.5" x 6" ..... \$60

## REVOX

#### B285 Tuner/Preamp

AM/FM stereo tuner/preamp with two microprocessors for control of input sensitivities, output levels, and operating functions. Features alphanumeric multi-mode LCD display; 29 AM or FM presets; level and reception mode (mono/stereo, blend) separately programmable for each preset station; programmable volume limit; -20 dB button; subsonic filter; loudness contour; programmable output levels for A and B speaker pairs; comprehensive speaker protection circuits; serial data bus for external control devices; wireless infrared remote control (transmitter optional). Inputs for phono, tape, CD player, tape 2. FM section: alternate-ch sel 96 dB; adjacent-ch sel 16 dB; 50-dB quieting sens, mono 1.6 µV (15.2 dBf), stereo 19 µV (36.8 dBf); max s/N, A-wtd, mono 84 dB, stereo 80 dB; THD mono 0.15%, stereo 0.3%: sep 43 dB at 1,000 Hz; capture ratio 2 dB. AM section: FR 120-3,000 Hz  $\pm$  6 dB; sens 36 $\mu$ V. 17.75" w x 6" h x 13.06" d; 33 lb .......\$2,300

#### B261 Tuner

Microcomputer-controlled tuner with programming feature covering ID and frequency of 20 stations, including preferred mode of reception for each station. Features 20 station selector buttons; infrared remote control; two separate muting threshold buttons; high blend button; auto station scanning; LCD display indicates stations and frequency alphanumerically; sens 0.5  $\mu$ V on 75 ohms for 26-dB s/N with 40-Hz deviation; usable sens mono 2  $\mu$ V, stereo 20  $\mu$ V on 75 ohms for a s/N ratio of 46 dB with 40,000 Hz deviation; capture ratio 0.8 dB for a S/N ratio of 30 dB; sel 80 dB tuned-in signal 100 µV on 75 ohms. FR 30-15,000 Hz ± 1 dB; harmonic distortion 0.07% at 1,000 Hz and 40,000 Hz deviation mono and stereo L-R mV input on 75 ohms; s/N 75 dB, 30 Hz 15,000 Hz linear referred to deviation of 75,000 Hz with an input of 1 mV on 75 ohms; stereo sep 100 Hz 10,000 Hz, 40 dB 1,000 Hz, 43 dB referred to deviation of 40,000 Hz and an input of 1 mV on 75 ohms; 17.75" w x 6" h x 13.06" d; 

#### ROTEL

#### RT850 AM/FM Tuner

Quartz-synthesizer tuner with microprocessor circuitry. Features 6 AM/6 FM presets, manual and autoscan tuning. FM section: usable sens mono 2  $\mu$ V (11.2 dBf), 50-dB quieting sens mono 3  $\mu$ V (14.6 dBf), stereo 40  $\mu$ V (37.2 dBf); THD



stereo 0.2%, mono 0.08% at 1,000 Hz; S/N 73 dB stereo, 75 dB mono; FR 30-15,000 Hz +0, -2 dB; capture ratio 1.0 dB; sep 48 dB at 1,000 Hz; AM suppression 58 dB; AM section: sens 300  $\mu$ V/m; S/N 50 dB; 17" w x 2.56" h x 11.5" d; 8.5 lb\$279

#### RT830 AM/FM Analog Tuner

AM/FM stereo tuner with LED indicators for signal strength; muting switch. FM section: usable sens mono 2  $\mu$ V (11.2 dBf), 50-dB quieting sens mono 3.5  $\mu$ V (16 dBf), stereo 50  $\mu$ V (39.4 dBf); THD stereo 0.6%, mono 0.3% at 1,000 Hz; s/N 65 dB stereo, 70 dB mono; FR 35-13,000 Hz ± 1.5 dB; capture ratio 2 dB; sep 38 dB at 1,000 Hz; AM suppression 62 dB; AM section: sens 300  $\mu$ V/m; s/N 45 dB; 17" w x 2.56" h x 12.56" d; 6.8 lb\$179

## SAE

#### T101 AM/FM Stereo Tuner

Computer direct-line digital tuner. Features 16 station presets (8 AM/8 FM); auto and manual tuning; signal-strength, multipath, and level indicators; IF narrow; high blend; memory scan. FM



#### T102 AM/FM Stereo Tuner

Computer direct-line digital tuner with 16 station presets; auto and manual tuning: IF narrow; high blend. FM section: IHF sens stereo 4.1  $\mu$ V; 50-dB quieting sens 34  $\mu$ V; FHD stereo 0.08% at 1,000 Hz; s/N 70 dB stereo; FR 30-18,000 Hz +1, -2 dB; capture ratio 1.2 dB; sep 55 dB at 1,000 Hz; alt-ch rejection -100 dB narrow; adj-ch rejection -15 dB narrow. 19" w x 3.5" h x 12.5" d . \$349

### SANSUI

#### TU-X701 AM/FM Tuner

#### TU-X301 AM/FM Tuner

Vintage series tuner features digital-synthesis tuning; 6 AM/6 FM station presets; FM noise canceller circuit. 50 dB quieting sens 36 dBf (stereo), 16



dBf (mono); s/N 72 dB (stereo), 78 dB (mono); capture ratio 1 dB. 17.69" w x 1.81" h x 8.94" d; 5.3 lb......\$290

#### TU-D33X Quartz Tuner

Digital synthesizer frequency front end; 6 presets
for FM and 6 for AM; last station memory; stereo
lock indicators. Selectivity 35dB; s/N 50dB; FM
quieting sens 50dB. 16.94" w x 1.81" h x 8.94" d;
5.1 lb

#### SONY

#### ST-S700ES AM/FM Tuner

Features quartz frequency-synthesis tuning; SST super sound tracking front end that continuously shifts the center of the bandpass filter in response to the frequency modulations; WOIS wave optimized IF-system to automatically select optimum filter characterics; WODD wave optimized direct PLT detector with low distortion and noise; WODSD wave optimized digital stereo decoder; direct comparator circuitry; 10 AM/FM station presets; multi-process memory to remember various station settings for each preset; memory scan; calibration tone presets for off-air taping. S/N 91 dB

### UNERS T



#### stereo; FR 15-15,000 Hz +0.2, -0.5 dB; sel 65 dB. 17" w x 3.38" h x 13.62" d; 9 lb ..... \$400

#### ST-S500ES AM/FM Tuner

Features quartz frequency-synthesis tuning; WODD wave optimized direct PLL detector with low distortion and noise; wopsp wave optimized digital stereo decoder; direct comparator circuitry; 10 AM/I-M station presets; multi-process memory to remember various station settings for each preset; calibration tone presets for off-air taping. s/N 84 dB stereo; FR 15-15,000 Hz +0.2, -0.5 dB; sel 55 dB narrow, 90 wide. 17" w x 3.38" h x 13.62" d; 9 lb ..... \$300

## SOUNDCRAFTSMEN

## T6200 AM/FM Stereo Digital Tuner

Digital quartz-PLL tuner with 16 station presets, 5-digit station readout, auto scan tuning, and active high-blend filter. 19" rack-mount front panel. 

## TANDBERG

#### **TPT 3001A Programmable FM Tuner**

Features computer-type logic servo tuning system; 8-ganged varactor tuning diodes in front end, dual-gate MOSFET's in R-F and mixer stages; 8-station memory preset with touch-button recall and LED program readout: wide/normal/narrow II bandwidth selector; autorange signal-strength with 1,000-meter-range LED, center tuning/preset frequency meters. Audio circuitry includes selected all-metal film resistors, polypropylene capacitors, and min negative feedback; mono, ANC, servo, mute switches with LED's, 3-circuit muting; output level control; s/N 90 dB; narrow sel 125 dB. Rosewood side panels optional ...\$1,995

## **TPT 3031A Programmable FM Tuner**

Remote controlled tuner with 4 ganged diodes; dual gate MOSFET's in RF stage; 16 station preset; manual/auto tuning; zero-negative-feedback au-



dio section. Remote control and rosewood side panels optional. 17.13" w x 3.25" h x 13.75" d; 11 

## TECHNICS

ST-G7 AM/FM-Stereo Tuner

Features 16 presets; triple-quartz control (frontend i-f and MPX) for 120 dB i-f strip, guartz-controlled double-PLI. DC-peak sample-and-hold MPX digital linear detector using 1-shot multivi-brator and mirror-loaded current stablizer for wide dynamic range; auto i-f bandwidth; in/out computer interface. THD stereo 0.03%, mono 0.02%; S/N stereo 94 dB; capture ratio 1.0 dB; sens 20 µV; 9 lbs ..... \$500

## ST-G6T AM/FM-Stereo Tuner

Features quartz synthesis, FM section: IHF sens mono 1.2 µV (12.8 dBf); THD stereo 0.03%, mono 0.02%; S/N 73 dB stereo, 80 dB mono. AM section: sens 20 µV with built-in antenna, 5.1 \$315

#### ST-G50 AM/FM-Stereo Tuner

Features 39 AM/FM presets; twin-quartz tuning; linear-switching MPX circuit for wide stereo sep and FR; DC construction. FM section: 50-dB quieting sens stereo 44 µV (38.1 dBf); THD stereo 0.03% at 1,000 Hz; S/N 73 dB stereo; capture ratio 1 dB. 4.8 lbs ..... \$240

## ST-G40 AM/FM-Stereo Tuner

Features 16-station random-access preset memory and large LCD readout. FM section: 50-dB quieting sens stereo 44 µV (38.1 dBf); THD stereo 0.18% at 1,000 Hz; S/N 73 dB stereo: canture ratio 1 dB; separation 50 dB at 1,000 Hz, 4.8 lb ..... \$185

#### **VECTOR RESEARCH**

#### VU-1500 Tuner

Ouartz PLI-synthesized tuner. FM section: alt-ch sel 60 dB. 50-dB quieting sens mono 3 µV (10 dBf); 50-dB quieting sens stereo 40 µV (37 dBf); max s/N A-wtd, mono 75 dB, stereo 73 dB; THD mono 0.08%; stereo 0.2%. 8.5 lb; 17" w x 3" h x 12.5" d . ..... \$200

## **YAMAHA**

#### T-85B AM/FM Digital Tuner

Features RS integrated system remote compatibility; CSI tuning; digital fine tuning; low-distortion high-separation pure-stereo MPX demodulator; 20-station random-access preset; 6-way status sta-



tion memory; 4-position IF mode selector (superwide, wide, narrow, super-narrow); dynamic auto blend; signal-quality meter; switchable FM RF mode; zero 1M mixer front end. 50 dB quieting sens (mono) 1.6 µV (15.3 dBf); s/N stereo 87 dB; sep 68 dB. 17.12" w x 3.62" h x 14" d.... \$469 RMA-T80, Rack mount adaptor for T-85B. \$18

## TX-900U AM/FM Digital Tuner

Features RS integrated system remote compatibility; digital fine tuning; 3-position auto/manual tF mode selector; 20-station random access preset tuning; 4-way station memory; high blend; integrated multi-function LCD display. Black; 9 

#### TX-500U AM/FM Digital Tuner

Features RS integrated system remote compatibility; direct PLU IF count synthesizer tuning; 2-position II mode selector; 20-station random access preset tuning; 4-way station memory; high blend; integrated multi-function ( CD display ..... \$269

## TX-400U AM/FM Digital Tuner

Features RS integrated system remote compatibility; direct PUI synthesizer tuning; 16-station random access preset tuning; integrated multi-fundtion I CD display; auto-search tuning; manual up/ down tuning. Black; 7 lb ..... \$219

For explanations of abbreviations, specifications, and technical terms, consult the glossary on page 221.

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Denon DRA 95VR \$519	In Stock
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Kyocera R661 \$589 NAD 7220PE \$249	Magnavox CDB650 \$399
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	Pioneer PDM70 CALL
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Sony Strav 450\$219	Yamaha CD1000 \$439
Sony Strav 950 \$497	Yamaha CD700 \$359
Yamaha RX 300 \$242	
Yamaha RX 700 \$439	
Yamaha R-9 CALL	CARGETTE DECKR
Tamana n-3	CASSETTE DECKS

CARTRIDGES Harman Kardon TD302   AR EB101 \$309   B&O RX-2 \$189   Denon DP23F \$197   NAD 6155 \$34   Dual CS5000 \$100   Thorens TD316 \$209   Thorens TD320 \$344   Yamaha PF1000 \$389		Denon DRM07 \$169 Denon DRM20 \$297
AR EB101 \$309 Harmon Kardon CD491   B&O RX-2 \$189 In Stoci   Denon DP23F \$197 NAD 6155 \$344   Dual CS505 II In Nakamichi CR7A \$129 Nakamichi BX 300 \$677   Dual CS5000 Stock Nakamichi BX 300 \$677 Nakamichi BX 125 In Stoci   Thorens TD316 \$209 Nakamichi BX 300 \$674   Yamaha PF1000 \$389 Tanberg TCD 3014 \$142		Denon DRM30HX CALL Harman Kardon TD302
Ortofon X3MC CALL Yamaha K720 \$375	B&O RX-2 \$189   Denon DP23F \$197   Dual CS505 II In   Dual CS5000 Stock   Thorens TD316 \$209   Thorens TD320 CALL   Yamaha PF1000 \$389   B&O MC3 \$149   Ortofon X3MC CALL	Harmon Kardon CD491

SEPARATE	SPEAKERS
COMPONENTS   Adcom GFA 535 \$249   Adcom GFA 555 CALL   Carver M500T \$498   Carver M1.0T \$399   Carver M1.0T \$399   Carver M1.0T \$329   Denon PMA 500 \$229   Denon PMA 500 \$259   Denon POA 2200 \$449   NAD 2200 \$449   NAD 2600 CALL   Proton D1200 \$489   Yamaha C85 \$579	ADS L1090
Yamaha T1020 \$279 Yamaha DSP1 CALL	CAR STEREO
Tamana DSPTCALL	Alpine 7902 \$685 Alpine 7263 \$257 Blaupunkt Denver \$229 Clarion 8825 \$289
VIDEOS & T.V.'S	Carver TX-9 \$639
Mitsubishi 422 \$798   NEC DX 5000 In Stock   NEC 965U \$689   Pioneer LD838 \$439   Pioneer VH900 \$829   NEC 2660 \$639   Proton 619A \$589   Proton 625 CALL   Sony 2781R \$799   HK VMP500 In Stock	Carver 240
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CIRCLE NO. 88 ON READER SERVICE CARD



## ACCUPHASE BY MADRIGAL

#### DP-80/DC-81 Two-Part CD Player

DP-80 transport plays discs and DC-81 digital processor converts digital signals to analog; optical fiber cable. DP-80 features 1 master clock; linear motor laser pickup; <1-sec selection time; ceramic-resin mounting floated from chassis; play, search, pause, skip back, fast forward, fast reverse, repeat disc or phrase; cues by track number; displays current track number. DC-81 features D/A converter with discrete elements; wideband optical-fiber inputs; 16-bit digital signal and deglitch signal for each ch input to D/A converter through 17 optoisolators; 121-stage doubleoversampling digital filter per ch; 9-pole GIC Butterworth active filters; directly coupled 0-dB gain buffer amp as output stage; de-emphasis circuit consisting of passive elements and buffer amp; independent power transformer for each digital and analog circuit; fixed- and variable-level audio output; XLR-type balanced output; connects to other CD players with 75-ohm coaxialcable terminal.... .....\$8.000

#### **DP-70 Remote-Controlled CD Player**

Play, track search, pause on front panel; number keypad, stop, repeat (all, l, phrase), index search, display (track and index or time), scan, and output-level controls behind panel; fixed and variable RCA outputs; XLR balanced output; 75-ohm coaxial cable output; optional wide-band optical-fiber output; digital output pins; track selection in <l sec with linear motor; 4-times oversampling (176.4 kHz) digital filters; discrete digital-to-analog converter; 5-pole GIC Butterworth low-pass filters; isolating optocouplers; independent power supply for digital and analog circuits; 4 optocouplers input digital data, latch clock signal, deglitch signal to D/A converter; directly coupled 0-dB-gain buffer amp as output stage with



push-pull DC servo direct coupling; metal shielding; passive elements and buffer amp in de-emphasis circuit; ceramic composite resin floating mounting; legs lathed from pure brass bar; hairline-finish golden panel and natural persimmon sideboard; infrared remote needs 2 AA batteries. Pass-band ripple of digital filters ± 0.00005 dB with attenuation of <100 dB; 46.4 lb ....\$5,000

## **ACOUSTIC RESEARCH**

#### CD-04 Compact Disc Player

Drawer-loading CD player with proven 14-bit quadruple oversampling DAC system. Features programming of 99 tracks in any order, 99 tracks in sequential order; skip forward; skip back; fast forward; fast reverse; time/track selection; repeat

## ADC

#### 16/2R Compact Disc Player

Slide-drawer-loading CD player with full-function remote control and advanced error-processing circuitry for precise tracking and stability. Features programming of 16 tracks in any order; skip forward; skip back; fast forward; fast reverse; cancel; repeat track, disc, or program; 7-pole (7th-order) analog filtering; 3-beam laser. Cues by track number. Samples at 44.1 kHz. Displays current track number, elapsed time of current track; remaining time on disc; program in memory. 17" w x 3.12" h x 11.75" d; 10 lb ...... \$250

#### a/d/s/

#### Atelier CD3 CD Player

Programs 30 tracks in any order; sound audible during fast forward and fast reverse; skip forward; skip back; fast forward; fast reverse; cancel; repeat track, disc, phrase, program; headphone jack with adjustable level; digital filtering (resampling frequency 88.2 kHz); 3-beam laser. Displays current track number, elapsed time of current track, remaining time on disc, program in memory. Cues by track number, index number. Max line output 2 V; headphone output 2 V; 20 lb; 17.5" w x 2.75" h x 14.8" d ......\$1,399

#### **Atelier CD4 Compact Disc Player**

Cast laser and transport assembly shock mounted with rubber isolators, aluminum and steel chassis/housing, and multiple power supplies to isolate digital and analog stages for minimum interaction and noise generation. Servo-laser intensity system switches focus intensity depending on quality of disc to maximize performance. Brickwall digital filter works in conjunction with advanced multiple-pole low-pass filter. Error correction uses variable-size window; 16-bit D/A converters; fast-focus 3-beam laser; programming of 16 tracks in random order; repeat disc, track, phrase, or program; random access by time within a track; access by index point; audible fast search. Displays elapsed time from track start, remaining time to disc end, track/program selection number, index, program in memory ... \$999

#### **RC1 Unified Remote Control**

Infrared wireless remote control for CD3, CD4, and other Atelier components ...... \$100

## AIWA

## **XC-001 Compact Disc Player**

## DX-1500 Compact Disc Player

## AKAI

### CD-A70-B Easy-Programming CD Player

Programs virtually unlimited number of tracks with AND, TO and WITHOUT keys (to play tracks 1, 5, 10, 11, 12, 13, 14, 16, 17, 18, press 1 AND 5 AND 10 TO 18 WITHOUT 15); skip forward; skip back; fast forward; fast reverse; cancel; repeat track, disc, phrase, program; 32function remote control; 3-beam laser; 90-dB per octave digital filter; 7th-order active analog filter; single D/A converter; sound audible during fast scan. Cues by track and index number. Oversamples at 88.2 kHz. Displays current track number, elapsed time of current track, elapsed time on disc, program in memory. Anti-resonant construction including high-polymer cabinet, insulated floating suspension, and support feet for accurate tracking; gold-plated RCA jacks; subcode terminal; stabilized servo control system; independent left/right monaural amps. 17.3" w x 3.1" h x 10.2" d; 8.6 lb ..... \$399

#### CD-A305-B Remote-Controlled CD Player

Programs 36 tracks; headphone jack; multi-function display; 2-times oversampling digital filter .....\$329

### **BANG & OLUFSEN**

Beogram 5500 Programmable CD Player Integrates with Beosystem 5500; programs 20 tracks; adds time of programmed tracks; displays time remaining on disc; skip forward and back; 3 speed forward and reverse; direct access by track number; intro scan; 16-bit quadruple oversam-



Beogram 3300 Remote-Controlled CD Player Communicates with other Beosystem 3300 com-

## Beogram CDX Top-Loading CD Player

### **CAMBRIDGE AUDIO**

#### **CD1** Compact Disc Player

## CARVER

#### DTL-50 Remote-Controlled CD Player

With 3-beam laser and Digital Time Lens. Programs 9 tracks in any order, 99 in sequential order; skip forward; skip back; fast forward; fast reverse; cancel; repeat track, disc, phrase, and program; 12-function remote control; 88.2 kHz oversampling; dual D/A convertors. Cues by track and index number. Displays current track number, elapsed time of current track, elapsed time on disc, remaining time on disc, program in memory. Sound audible during fast forward and reverse \$559

#### dbx

## DX5 Sound-Processing CD Player

Remote-controlled CD player with 3 processing circuits (compression, Digital Audio Impact Recovery [DAIR], and increased/decreased ambi-



ence), each independently bypassable. The compression control is for background listening, making car cassettes, and easier taping of CD's; DAIR adds impact to musical transients; ambience adds or subtracts left-right information in midrange and treble frequencies. Features programming of 16 tracks in any order; repeat track, disc, program, or A-B phrase; skip forward; skip back; audible fast forward and reverse; error LED to show disc correction; headphone jack with adjustable level; dual 16-bit D/A converters; advanced error processing; 2-band compressor; impact circuit. Displays track number, total tracks, elapsed time of track, disc time, and program stored in memory. Cues by track or index number. Oversamples at 176.4 kHz. 17.12" w x 11.88" d x 3.5" h \$699

## **DX3 Compact Disc Player**

## DENON

#### DCD-3300 Compact Disc Player

Features double super-linear converter; quadruple oversampling digital filter; CALP filter; LC-OFC analog filter; twin power transformers; optical isolator; 5 independent power supplies; separated digital and analog circuits; BMC pickup chassis;



digital-output terminal; optical digital output terminal; headphone jack; 20-track random programming; 10-key direct selection; index search; time search; repeat function; auto space; timer play; remote control; emphasis display; 8-digit Ft display......\$1,700

## DCD-1700 Compact Disc Player

#### DCD-150011 Compact Disc Player

Features double super-linear converter; quadruple oversampling digital filter; LC-OFC analog filter; optical isolator; 4-independent power supplies; BMC pickup chassis; digital-output terminal; optical digital output terminal; headphone jack; 20-track random programming; 10-key direct selection; index search; A-B repeat; repeat function; auto space; auto edit; timer play; remote control; emphasis display; 8-digit FL display ...... \$675

#### **DCD-900 Compact Disc Player**

Features super-linear converter; double oversampling digital filter; LC-OFC analog filter; 4-independent power supplies; headphone jack; 20-track random programming; 10-key direct selection; A-B repeat, repeat function; auto space; timer play; remote control; emphasis display.......\$480

#### DCD-800 Compact Disc Player

### DCD-600 Compact Disc Player

## **EMERSON**

## CD170R Remote-Controlled CD Player

Programs up to 15 tracks in any order; skip forward; skip back; 2-speed fast forward and reverse; index search; repeats disc, program, phrase; displays total tracks, total playing time, current track number, elapsed time; 3-beam laser; play and pause indicators. 17.1" w x 2.8" h x 4" d\$350 CD160. Similar to CD170R except lacks remote control \$300

## FISHER

## **DAC-205B Compact Disc Changer**

5-disc CD changer with 30-button wireless remote control. Features 32-track programming; 5 individually controlled horizontal-loading trays;



10-second intro-scan; random playback; directaccess track search; skip forward/back; forward/ reverse scan; 4-way repeat; multi-function display .......\$500

#### AD-923RB Compact Disc Player

#### AD-815B Compact Disc Player

## AD-924B Compact Disc Player

## **GOLDSTAR**

#### PCD-N1 CD Boombox

CD section: skip forward and back; programs in any order; repeats track or program; displays track number and elapsed time of track; synchronized dubbing to cassette; FR 20-20,000 Hz; THD 0.07%; s/N 90 dB; dynamic range 85 dB; sep 80 dB; ch bal  $\pm 0.5$  dB. Cassette section: soft-touch controls; auto stop; auto rec level; bias/EQ for normal, high-bias, metal tape; Dolby B NR; w&F  $\pm 0.35\%$ ; FR 63-14,000; s/N 52 dB no NR, 60 dB with Dolby B; 3 heads. Tuner section: FM stereo ard mono (87.5-108 MHz), MW (515-1630 kHz),

LW (140-290 kHz), SW (5.8-18.5 MHz); AFC;. Amplifier section: 5-band graphic equalizer; slide controls for balance and volume; power output 7.5 W/ch rms. Detachable speakers; 4.75" woofers, 2" tweeters. RCA inputs and outputs; mini jack for headphones; mini jack for external speakers. 27.75" w x 9.5" h x 12.9" d ........ \$400

#### GCD-613 Programmable CD Player

Programs 9 tracks in any order; repeat disc and program; forward and reverse scan; displays total time, elapsed time, track number; digital and active filter. FR 5-20,000 Hz  $\pm$  1.5 dB; dynamic range >90 dB; s/N > 90 dB at 1,000 Hz; output 2 V rms; THD 0.03%. 13.6" x 3.6" x 11" ... \$250

### HARMAN KARDON

#### HD300 Remote-Controlled CD Player

### HD100 Programmable CD Player

#### HITACHI

## DA005 Remote-Controlled CD Player

#### DAC-60 Remote-Controlled 6-CD Changer

Following models all have 3-beam laser, self-program search, index search, and random play.

#### **DA-009 Remote-Controlled CD Player**

#### **DA-405 Remote-Controlled CD Player**

#### **DA-400 Programmable CD Player**

## JVC

XLV1100BK Compact Disc Player Drawer-loading CD player with wireless remote control with numeric keypad for direct track access, programming, and volume control. Features 15-track random programming; 3-beam laser pickup; separate chassis for analog, digital, and servo circuits; Y-servo system with high-balance and high-trackability servos; V-sensor to prevent mistracking caused by vibration; independent suspension system; digital filter; quadruple oversampling; Gm deglitcher; 2-speed search; index search; intro-scan; index play; index skip; track skip; headphone jack with adjustable level; 2 outputs (one fixed, one variable); JVC Compu-Link remote system compatible .........\$1,000

## XL-M700BK Disc Changer

## XL-M500BK Multi-Disc Compact Disc Player

"6 + 1" CD changer with six-disc magazine plus conventional disc drawer. Features 32-track random programming; random play; intro scan; programming and transport control via wireless remote control; 3-beam pickup; Y-servo system; independent suspension system; digital filter; JVC Compu-Link system remote compatible ... \$550

#### XLV550BK Compact Disc Player

#### XLV450BK Compact Disc Player

#### XLV250BK Compact Disc Player

## **KENWOOD**

#### DP-3300D Compact Disc Player Basic series CD player with full-function wireless remote control. Features optical interface with

KA-3300D amplifier; coaxial digital ouptut; pure digital output switch; twin high-speed ladder network 16-bit D/A converters with FET input; quadruple oversampling digital filters; 7-pole Butterworth FDNR analog low-pass filter; high-rigidity and multi-insulation; independent power supplies; Optimum Servo Control Type III; 3-beam laser; rapid direct-play system; 4 play modes; 6-mode real time display; 20-track random program memory; A-B section repeat; music skip; index search key; audible manual search; auto spacing; repeat; music calendar display; auto open switch; auto loading; headphone jack with level control; phase inverter switch. THD 0.001%, dynamic range 97 dB, separation 115 dB, s/N 105 dB (all 

## DP-990D Compact Disc Player

Basic series CD player with full-function wireless remote control. Features high-rigidity mechanism; multi-insulation system; 16-bit integrator D/A converter with constant-current drive; double oversampling digital filter; discrete 7-pole Butterworth low-pass filters; independent power supplies and optimum ground pattern; Optimum Servo Control Type III; 3-beam laser; rapid direct-play system; 4 play modes; dual time display; 20-track random program memory; A-B section repeat; music skip; track search; audible manual search; auto spacing; repeat; auto loading; headphone jack with level control. THD 0.002%, dynamic range 96 dB, sep 98 dB, s/N 98 dB (all at 1,000 Hz). 17.31" w x 3.69" h x 12.31" d; 11 lb ..... \$460

#### **DP-860 Compact Disc Player**

#### **DP-560 Compact Disc Player**

## KINERGETICS

#### KCD-30 Gold Series Remote CD Player

Volume and balance controls on front panel to drive power amp directly; dynamic processing circuits; corrected-slope filter; hysteresis-distortion cancelling circuit; no capacitors in signal path; servo loop to eliminate DC offset; 3-speed search; dual D/A converters; 1-beam laser; 4times oversampling; spring-isolated transport; program memory for 226 discs; indexing; 19" rack mount. Output level 4 V; 14 lb; 19" w x 3.75" h x 12.6" d......\$1,495

#### KCD-20AR Gold Series CD Player



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The Stereo Review Sweepstakes is open to all our readers. No purchase is necessary—and you can win a magnificent audio/video system featuring top-of-the-line components from five of the world's foremost manufacturers:

 AKAI VS-M930U-B Quick-Start VCR. Full digital special effects, VHS Hi-Fi Stereo, 167 channel cableready tuner, on-screen programming.

• AKAI CT-A267-B Stereo Monitor/Receiver. Ultra-high performance 26" full-square picture tube, automatic picture latitude circuitry, direct access remote control with channel memory.

• DENON PMA-900V Integrated A/V Amplifier. Non-NFB amplification with distortion servo for peak dynamic performance. Wide range super equalizer 20Hz-100 kHz  $\pm$  0.3 dB (MC).

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• DENON DL-304 Moving Coil Cartridge. Flat frequency response guaranteed by light mass vibration system and new damper for wide range of temperature change.

• KEF 104/2 Speakers. World-wide award winners for technical innovation and acoustic performance. Conjugate load matching, twin coupled cavity bass loading, twin chassis-less midrange units.

• KYOCERA DA-710 CX Compact Disc Player. 16-bit digital filtering, anti-resonant chassis construction, dual D/A converters, optical coupling.

 NAKAMICHI CR-7A Tape Deck. Discrete 3-head cassette deck, direct drive, asymmetrical, dualcapstan transport. Wireless remote control. Frequency response: 18 Hz—21 kHz.

Total retail value of this exceptional home system: over \$7,740!

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## **KYOCERA**

## DA-910 Remote-Controlled CD Player

#### DA-710 CX Remote-Controlled CD Player

#### **DA-510CX Remote-Controlled CD Player**

Quadruple oversampling digital filters; 2 discrete D/A converters; headphone jack with adjustable volume; gold-plated RCA jacks; 39-function remote control; programs 20 tracks; optical isolation between digital and analog sections; digital output; walnut veneer side panels ....... \$650

#### DA-610CX Remote-Controlled CD Player

#### **DA-410CX Remote-Controlled CD Player**

## DA-310CX Remote-Controlled CD Player

#### **Remote-Control Accessories**

RC-101 Control Center. Wireless remote control center for selection/function control of Kyocera remote control products. Features single-cable interconnect to units; 2 external remote sensor inputs; manual override ..... \$320 RS-103 Sensor. Features single-cable connection to Kyocera RC-101 control center and external remote-control sensor. Allows multi-room remote control of Kyocera remote-capable CD players, receivers, cassette decks .... ..... \$90 RT-102 Transmitter. Handheld wireless remote transmitter with 12 receiver, 6 tape deck, and 5 CD player functions. Auto system power on/off. Controls functions on Kyocera's remote models directly or through sensors ...... \$60

### LUXMAN

## D-03 Compact Disc Player

#### **D-109 Remote-Control CD Player**

Features full-function remote control; serial remote jacks for connections to other Luxman products; digital output sends digital signal to Luxman LV-109 integrated amp; 1-4 time display functions; programs up to 20 tracks; index scan;



A-scan plays first 10 sec of music; A/B switch to mark beginning and end of selected track(s) for repeat; memory check. FR 5-20,000 Hz (-0.5 dB); TH 0.003% (1 kHz); s/N, dynamic range 100 dB; 17.25" x 4" x 15.25"; 27.5 lb ... \$1,500

#### **D-113 Programmable CD Player**

#### D-102 Programmable CD Player

#### **D-90 Remote Control CD Player**

## MAGNAVOX

#### CDV474 CD-V/LaserVision CD Player

Remote-controlled combination player for CD-Audio, CD-Video, and LaserVision discs. Auto ID of disc type; programming. Video features in-



clude fast motion; slow motion; reverse play; freeze frame; random access ...... \$749-\$799

#### CD8850 CD/Cassette/Radio Boombox

#### CDB650 FTS CD Player

## CD8880 CD/Cassette/Radio Boombox

### CDB473 FTS CD Player

Favorite Track Selection (FTS) memorizes programs from various discs (up to 785 tracks); touch-close drawer; 24-function remote control with 10-digit keypad and volume control...\$379

## **CDB472 Remote-Controlled CD Player**

## CDB560 Remote-Controlled CD Player

#### **CDB471 Programmable CD Player**

Programs 20 tracks in any order; 3-speed search (music audible at 2 slower speeds); quadruple oversampling digital filter; dual 16-bit D/A converter; skip forward and back; time or track display......\$280

## CDB460 Programmable CD Player

## MARANTZ

CD-94 FTS CD Player Features dual 16-bit converters, quadruple over-

sampling, digital outputs with optically coupled link to optional CDA-94 separate to/A converter; Favorite Track Selection memorizes over 200 disc programs; shuffle play; random track programming; intro scan; three independent power supplies for digital, analog, and mechanical sections; wireless remote with full programming capabilities. Black rosewood side panels ......\$1,700 CD-94G. As above with rose-gold finish and rosewood side-panels .....\$1,800

## CD-75DX Compact Disc Player

#### CD-50 Compact Disc Player

#### **CD-40 Compact Disc Player**

Features 16 track programming: 16-bit double oversampling; forward/reverse search/skip; repeat play; track/index display. THD 0.07%; s/N 90 dB; 3" h x 16.5" w x 10.88" d; 7.7 lb .. \$300

## **McINTOSH**

## MCD 7005 Compact Disc Player

Features wireless remote control with volume control; direct-access track, index, and time selection; volume control through McIntosh Precision Ladder Attenuator; same error correction system as MCD 7000 with additional 8-bit error correction; full 16-bit D/A converters with 4-times oversampling. 32 lb......\$1,599

#### MCD 7000 Compact Disc Player

CD player with linear-torque, vibration-free, controllable-speed motor with digital PLL motor control to keep speed at correct value and permanently keep correct phase relationship. Motor is mounted to a precision platform. Features double digital filtering; remote control; music scan; skip forward and back; repeat track; 3-speed music search with search protection; pause; programming of up to 20 tracks in any order; cancel; headphone jack with adjustable level; damaged disc/mute error-correction indicator; positivelock synchronization. Displays number of current track, elapsed playing time of track. FR 2-20,000 Hz ± 0.3 dB; s/N 96 dB; dynamic range 96 dB. 16-bit equivalent through oversampling with digital filter and 14-bit D/A conversion. 22 lb \$1,399

## **MELOS AUDIO**

#### CD-T Vacuum Tube CD Player

#### **MERIDIAN BY MADRIGAL**

## 207 Professional 2-Part CD Player

Drawer-loading CD player with additional inputs and switching for tuner and tape; I chassis for transport, I for processing; remote volume control; can operate as a preamp; programs 99 tracks in any order; skip forward; skip back; fast forward; fast reverse; repeat track, disc, or program;

## MICRO SEIKI BY ANALOG EXCELLENCE

#### C2-M2 Remote-Controlled CD Player

## **MISSION ELECTRONICS**

## PCM 4000 Programmable CD Player

#### MITSUBISHI

#### **DP-409R Compact Disc Player**

Auto-changer with remote control 3 beam laser; repeat track and disc skip track and 30 segment programmable; 16-function remote ...... \$550 DM-5. 5-CD magazine for DP-409R ..... \$13

#### DP-209R Compact Disc Player

Features 3-beam laser; 36-selection programmable; skip function; repeat play; 10-function remote control; adjustable headphone level ...... \$300

#### **DP-109** Compact Disc Player

Features 3-beam laser; 36-selection programmable; skip function; repeat play ...... \$240

#### NAD

## 5300 Monitor Series CD Player

Wireless remote control; dynamic range control; ambience circuit; quadruple oversampling; separate D/A converters; error display; 3-beam laser; skip and scan forward and back; displays track number, elapsed and remaining time; repeats disc; programming \$898

#### 5240 Remote-Controlled CD Player

Wireless remote control; dynamic range control; 3-beam laser; skip and scan forward and back; displays track number, elapsed and remaining time; repeats disc; programming of up to 16 tracks \$\$448

#### 5220 Programmable CD Player

## NAKAMICHI

#### **OMS-7AII Compact Disc Player**

Drawer-loading CD player. Features 3-beam laser; digital filtering (resampling frequency 176.4 kHz); dual 16-bit, glitch-free D/A converters; programming of 24 tracks in random order; display of current track number, elapsed time of current track, remaining time on disc, program stored in memory; sound audible during fast forward and fast reverse; skip forward; skip back; fast forward; fast reverse; cancel; repeat disc, program; cue by track number, index number; 7-function remote control; headphone jack with adjustable level. Max line output 2 V; headphone output 35 mW; THD at 1,000 Hz 0.0025%; s/N >104 dB; sep >100 dB; FR 5-20,000 Hz ± 0.5 dB; 16 lb, 5 oz; 17.12" w x 3.94" h x 12.12" d ......\$1,850 OMS-5AII. Similar to OMS-7AII without remote and programming functions ......\$1,495

## OMS-4A Compact Disc Player

#### **OMS-3A Compact Disc Player**

#### **OMS-2A Compact Disc Player**

## NEC

CD-810 Remote-Controlled CD Player Drawer-loading CD player with wireless remote

## PRICES LISTED

are manufacturers' suggested retail prices (also referred to as *list* prices); actual selling prices are set by individual dealers. All prices are subject to change without notice.

### **CD-610 Remote-Controlled CD Player**

Drawer-loading CD player with wireless remote control. Features programming of 24 tracks in any order; 3-way repeat; disc-eject programming; skip forward; skip back; audible fast forward and reverse; index search; timer play; variable intro scan; auto space; auto/manual editing for recording; direct program access via front-panel or remote keypad; headphone jack with adjustable level; variable output; high-linearity D/A converter; isolated optical mechanism; 3-beam laser; separate analog and digital power supplies. Fluorescent display indicates elapsed time of disc and track, remaining time of disc and track, elapsed time of program, and remaining time of program. 16.94" w x 3.34" h x 12.59" d; 11.7 lb.... \$459

#### **CD-510 Compact Disc Player**

## CD-410 Compact Disc Player

Drawer-loading CD player with wireless remote control. Features programming of 15 tracks in any order; 3-way repeat; skip forward; skip back; fast forward and reverse; index search; intro scan; headphone jack with adjustable level; 3-beam laser; digital filter. Fluorescent display indicates elapsed time of disc and playing time of track. 16.94" w x 2.75" h x 11.41" d; 9.9 lb ..... \$299

#### NIKKO AUDIO

#### NCD-600 Compact Disc Player

#### NCD-600 Compact Disc Changer

### CD-500 Compact Disc Player

#### CD-300 Compact Disc Player

Features remote control; 3-beam laser; 18-track random programming; index programming; pause mode. Optionally rack mountable... \$350

## **ONKYO**

DX-C600 Compact Disc Changer Remote-controlled magazine-loading 6-disc CD changer with opto-coupling system to electrically 

#### DX-530 Compact Disc Player

Remote-controlled CD player with opto-coupling system to electrically separate the analog and digital sections. Features programming of 20 tracks in any order; shuffle play; repeat track, disc, program, A-B phrase, and shuffle play; direct access to tracks; auto-speed music search; index search; skip forward; skip back; 2-speed fast forward and reverse; timer function; headphone jack; motorized volume control; output CMN filter; digital filtering; vibration damping; 3-beam laser; digital output terminal; printed circuit boards with specially designed insulation packet to absorb electro-magnectic flux. Display indicates track number, index number, program in memory, remaining time of track/disc/program, elapsed time of 

## DX-330 Compact Disc Player

#### **DX-230 Compact Disc Player**

#### **DX-130 Compact Disc Player**

## PANASONIC

#### SL-NP10 Portable CD Player

#### RX-CD100 CD/Cassette/Radio Boombox

Remote-controlled 3-piece boombox with CD player, double cassette deck, AM/FM radio. CD features: 18-track programming; skip; search; repeat; 1.CD display. Tape features: autoreverse play and record on Transport 1, play on 2; endless play; high-speed copying; music sensor; feathertouch controls; soft eject; Dolby NR; bias/EQ for normal or chrome/metal tape; auto stop. Other features: passive-radiator 2-way speakers; bass, 

#### RX-FD80 CD/Cassette/Radio Boombox

Portable boombox with built-in CD player, cassette recorder, AM/FM tuner, amplification, 2way speakers. CD features: 18-track programming; skip; search; repeat; LCD display. Cassette features: autoreverse; Dolby NR; cue and review; pause; soft eject. Other features: 5-band graphic equalizer; ambience stereo; in and out jacks; mic jack; handle. Needs 10 D batteries or AC power (cord included). 11 lb, 4 oz; 6.3" h x 23.2" w x 6.8" d

#### SL-P3700 Remote-Controlled CD Player

Programs 20 tracks; preset editing to compute total time of program; number keypad on remote and front panel; repeats track, disc, program; volume control on remote; average access time 1 sec; display shows total tracks and playing time, elapsed or remaining time for track or disc, program; digital double-oversampling filter ... \$280 SL-P3500. Similar to above except lacks remote control......\$230

#### **PHILCO**

#### 

### PIONEER

#### CLD-1010 LD/CD/CDV Player

LD/CD/CDV player can play 4 different types of discs: 8" and 12" laserdiscs compact discs, and compact disc videos. Features Pioneer "SR" unified remote; 10-track/-chapter programmable CD and LD playback; program edit; full-automatic front-loading system; repeat side, track, memory, program, or segment; LaserVision time search accurate to 1 second; forward and reverse chapter skip and track search; on-screen function displays; 400-line video resolution; 88.2 kHz oversampling. 16.56" w x 16.19" d x 4.75" h ... \$800

## PD-9010X(BK) Compact Disc Player

#### PD-7050 Compact Disc Player

## PD-6050 Compact Disc Player

Remote-controlled CD player can program up to 24 tracks in any order. Features remote and

## PD-X707(BK) Compact Disc Player

Features programming of up to 27 tracks in any order; repeat track, disc, or program; skip forward and back; 2-speed audible fast forward and reverse; subcode output; disc stabilizer; linear servo system. 3.38" h x 14.19" w x 12.44" d . \$325

#### PD-4050 Compact Disc Player

Remote-controlled CD player can program up to 16 tracks in any order. Features repeat track, disc, or program; skip forward; skip back; 2-speed fast forward and reverse; digital filter; anti-resonance designed with honeycomb chassis and floating laser pickup assembly; disc stabilizer with magnetic clamper; headphone jack with adjustable level. Displays track number ..... \$200

#### Multiplay CD Changers

## PD-M90X Compact Disc Changer

CD player with 6-disc magazine and single-play tray. Features remote programming of 80 tracks into 8 separate memories for instant recall by remote control; LCD function display on remote; programming of 32 tracks in any order from a 6disc magazine; random play; repeat track, disc, magazine, or program; skip forward; skip back; 2-



speed audible fast forward and reverse; front-panel and remote direct-access disc and track number pads; direct digital output; digital level control; digital filter; gold-plated output jacks; anti-resonance honeycomb chassis; large insulators; linear servo control system; side panels finished in genuine rosewood \$800

### PD-M70 Compact Disc Changer

CD player with 6-disc magazine and single-play tray. Features remote programming of 80 tracks into 8 separate memories for instant recall by remote control; 1CD function display on remote; programming of 32 tracks in any order from a 6disc magazine; random play; repeat track, disc, magazine, or program; skip forward; skip back; 2speed audible fast forward and reverse; front-panel and remote direct-access disc and track number pads; digital level control direct connection to power amp; gold-plated output jacks; linear servo system; digital filtering; anti-resonant construction; honeycomb chassis; large insulators. Displays elapsed, total, and programmed time \$600

### PD-M60 Compact Disc Changer

CD player with 6-disc magazine and single-play tray. Features wireless remote control; programming of 32 tracks in any order; random play; repeat track, disc, magazine, or program; skip forward; skip back; 2-speed audible fast forward and reverse; front-panel and remote direct-access key pads; linear servo system; honeycomb chassis; anti-resonant construction; digital filter. Displays elapsed, total, and programmed time ..... \$500

#### PD-M50 Compact Disc Changer

Remote-controlled CD player with 6-disc maga-

#### PD-M40 Compact Disc Changer

## JD-M100 6-Disc Magazine

#### PROTON

## 830R Compact Disc Player

## QUASAR

## CD8966 Portable Compact Disc Player

#### **CD8956 Compact Disc Player**

#### CD8936 Portable Compact Disc Player

Top-loading portable CD player with direct access and switchable high-cut filter for HP output. Features skip forward; skip back; fast forward; fast reverse; headphone jack; repeat disc and track; one-beam laser; single D/A converter; audible fast scans. Cues by track number. Displays current track number, elapsed time of current track, remaining time on disc. Headphone output 15 mW. 4.97" x 1.25" x 4.97"; 13.8 oz .... \$240

#### **CD8946 Compact Disc Player**

#### RCA

## MCD245 Dimensia Compact Disc Player

Compact disc player with Dimensia remote-control operation and on-screen status indication when used with Dimensia monitor. Features 15track random programming; forward/reverse search for track, index, or scan; repeat; auto switching; system record protection logic; SystemLink cabling; powered disc loading drawer; directory display panel; independent suspension system; manual function controls; 3-beam laser pick-up. FR 5-20,000 Hz  $\pm$  1.0 dB; s/N >95 dB; THD 0.005% (at 1,000 Hz); sep 90 dB (at 1,000 Hz); sampling FR 44.1 kHz. 14.63" w x 3" h x 10.63" d

## REALISTIC

#### CD-3100 Portable CD Player

#### **CD-1500 Remote-Controlled CD Player**

Skips forward and back; 2-speed search forward and reverse; programs 24 tracks; index search; repeat tracks; switchable; floating disc tray; auto space: 3-spot laser; wireless remote needs 2 AA batteries \$\$260

#### **CD-2300** Programmable CD Player

Programs 15 tracks; 3-spot laser; floating disc tray; 4-digit fluorescent display; repeats track, program, disc; scan forward and reverse ... \$220

## REVOX

#### B226 16-Bit CD Player

Drawer-loading CD player with Revox systemremote compatibility. Features 16-bit, quadruple oversampling; dual D/A converters; fixed and variable outputs; 2 digital outputs; 19-step programming by track, times, or special functions; direct track/index access from 1-99; audible for-



ward/reverse search; locate function; headphone jack with adjustable level. LCD panel indicates track number, elapsed/remaining time, track remaining time, program, and pause countdown. FR 20-20,000 Hz  $\pm$  0.1 dB; s/N >100 dB; ch sep >90 dB. 17.7" w x 4.3" h x 13" d; 18.7 lb...\$1,295

#### ROTEL

## RCD820BX Compact Disc Player

#### **RCD850 Compact Disc Player**

Drawer-loading CD player with programming of 9 tracks in random or sequential order. Features skip forward; skip back; fast forward; fast reverse; cancel; repeat track; repeat disc; 3-beam laser; high-slope digital filtering; 3rd-order analog filtering; single D/A convertor. Oversamples at 44.1

## SANSUI

#### **CD-X901 Vintage Series CD Player**

Vintage series CD player with music scan for playing back first 10 seconds of every track. Random access programming for up to 20 tracks, calendar-style track programming chart. AMPS (automatic music program search). All/single track repeat; A/B repeat; index search; 4-second auto spacing; elapsed/total time indicators; timer switch; remote control. s/N 110 dB; FR 5-20,000. 17.63" w x 3.88" h x 15.94" d; 23.1 lb ... \$1,300

#### CD-X701 Programmable CD Player

Features 3-beam laser; oversampling digital filter. 28-key remote control; AMPS; repeat 1 track, point A to point B, and all tracks; random programming for up to 20 tracks; headphone output w/volume control. s/N 105 dB; FR 5-20,000. 17.56" w 3.75" h x 16.13" d; 20.3 lb ..... \$725

#### CD-V550R Auto-Space CD Player

#### SANYO

#### CPM1000 10-Disc CD Changer

#### MCD40 CD Boombox

## **CP12** Portable CD Player

Ultra-thin portable CD player with new drive



mechanism and LSI for compactness. Features 16track programming; 3-beam laser; vibration-resistant design; 86-dB dynamic range; selection skip; selection search; repeat track or disc; phone mute switch; rechargeable battery for 4.5 hours of play. 4.94" w x .75" h x 5" d; 13 oz ...... \$280

#### CP850 Remote-Controlled CD Player

#### **CP710 Programmable CD Player**

#### CP10 Portable CD Player

## SCOTT

#### **DA990 Remote-Controlled CD Player**

3-beam laser; digital filtering (oversamples at 88.2 kHz); full-function wireless remote; programs 20 tracks in any order; 16-bit D/A convertor; switch-



#### **DA963 Remote-Controlled CD Player**

#### SEARS ROEBUCK

#### 97551 Programmable CD Player

#### 97521 Programmable CD Player

## SHARP

SA-CD800 CD/Receiver Compact disc multiplay AM/FM stereo receiver.

## DX-C6000 6-Disc CD Changer

#### WQ-CD30 Portable CD Player

#### DX-R750 Remote-Controlled CD Player

#### DX-650 Programmable CD Player

Compact disc player with 3-beam laser; 20-selection random-access programming; APSS; cue/review; repeat; front-loading disc table..... \$200

## SHERWOOD

## CDP-300R Remote-Controlled CD Player

Drawer-loading CD player remote compatible with Sherwood remote-controlled receivers. Features programming of 20 tracks in any order; skip forward; skip back; fast forward; fast reverse; one-beam laser; quadruple oversampling digital filtering; 1st-order linear-phase analog filtering; sound audible during fast scan. Displays current track number, elapsed time of current track, elapsed time on disc. 17.36" w x 3.25" h x 9.75" \$300

#### CDP-250R Oversampling CD Player

Features Sherwood Digi-Link remote compatibility; 3-beam laser pick-up; double oversampling



digital filter; 16-selection random programming; motorized front loading disc tray; 3-mode repeat; random-play select; auto space; auto timer play; LCD multi-function display......\$260

## SHURE

#### D6000 Remote-Controlled CD Player Drawer-loading CD player with remote control

including remote volume. Programs 15 tracks in any order. Features skip forward; skip back; fast forward; fast reverse; cancel; repeat track; repeat disc; repeat phrase; repeat program; cue by track; cue by time; 19-function remote; headphone jack; adjustable headphone; 3-beam laser; oversamples at 88.2 kHz; independent L/R digital filters 80 dB attenuation; five-pole active above 30,000 Hz analog filtering; dual D/A converter; display of current track number; display of elapsed time of current track; display of program in memory; sound audible during fast scan. Headphone output 5 V; 11 lb; 16.9" w x 2.9" h x 12.9" d. \$599

#### SV40 Remote-Controlled CD Player

## SONOGRAPHE BY CONRAD-JOHNSON

## SD-1 Programmable CD Player

## SONY

CDP-705ESD Remote-Controlled CD Player Remote-controlled CD player with 20-key directaccess pad on both the remote and front-panel controls. Features programming of 20 tracks in any order; AMS auto music sensor; shuffle play; repeat track, disc, program, shuffle play, or userselected phrase; track and index search; fast forward and reverse; G-chassis construction for vi-



#### CDP-605ESD Remote-Controlled CD Player

Remote-controlled CD player with 20-key directaccess pad on both the remote and front-panel controls. Features programming of 20 tracks in any order; AMS auto music sensor; shuffle play; repeat track, disc, program, shuffle play, or userselected phrase; track and index search; fast forward and reverse; dual-chassis construction; unilinear dual 16-bit D/A converters; digital filter with quadruple (176.4) oversampling; converter deglitcher circuit; error prediction logic; linear motor-tracking mechanism; multiple power supply; direct digital output ......\$1,000

#### CDP-505ESD Remote-Controlled CD Player

#### CDP-C10 10-Disc CD Changer

## D-2001 CD System with Amp and Speakers

#### **CDP-910 Remote-Controlled CD Player**

#### **CDP-C5F Magazineless CD Changer**

### CDP-710 Remote-Controlled CD Player

Remote-controlled CD player with a 20-key direct-access pad on both the remote and front-panel controls. Features programming of 20 tracks in any order; shuffle play; repeat track, disc, program, or shuffle play; index and track search; fast forward and reverse; auto space: timer play; 20selection music calendar; headphone jack with adjustable level; error prediction logic .... \$420

#### CDP-510 Remote-Controlled CD Player

#### CDP-310 Remote-Controlled CD Player

## CDP-110 Programmable CD Player

Features programming of 16 tracks in any order; shuffle play; repeat track, disc, program, or shuffle play; track search; fast forward and reverse; auto space; timer play; headphone jack; unilinear D/A converter; digital filter with double (88.2 kHz) oversampling; envelope error detection system. ICD indicates elapsed time of track, remaining time of disc and program, track number, index number, program next track number, and program. 17" x 4" x 13.25" \$\$260 CDP-21. Similar to CDP-110......\$\$270

#### Portable Compact Disc Players

## **CFD-D77 Portable CD Boombox**

#### **CFD-66 Portable CD Boombox**

Portable CD system with built-in AM/FM radio, autoreverse cassette deck; and speakers. Features programming of 16 tracks in any order; shuffle play; 3 repeat modes; AMS auto music sensor; skip forward; skip back; fast forward and reverse; input jack with volume control; headphone jacks; stereo inputs and outputs .......\$400

#### CFD-444 Portable CD Boombox

## D-10 Portable CD Player

#### **D-3 Portable CD Player**

#### **D-160 Portable CD Player**

Features AMS auto music sensor; skip forward;

#### Portable CD Accessories

RM-DM1K. Remote Commander and receiver \$49.95 CPM-100P. Car mounting plate \$49.95

## **SYLVANIA**

## CD1473 FTS CD Player

#### CD1471 Programmable CD Player

## CD1465 FTS CD Player

## **TANDBERG**

#### **TCP 3015A Compact Disc Player**

Features 16-bit quadruple oversampling; zero negative feedback; No capacitors between the two D/A converters and the line output; digital filter and phase-linear Bessel audio filter; full programmability; separate headphone output volume con-



trol. Rosewood side panels and remote control optional. 17.13" w x 13.5" h x 13.75" d; 12.5 lb ......\$1,895

## TEAC

#### ZD-3000 Remote-Controlled CD Player

## ZD-1000 Remote-Controlled CD Player

Number keypad on front panel and remote; headphone jack with level control; subcode output; sound audible in fast forward and reverse; Zero Distortion circuit; oversampling digital filter (at 88.2 kHz); 7th-order analog filter; 2 D/A converters; timer compatible; repeats disc, program, track, phrase; vibration-damping high-density base; 3-beam laser; linear pickup motor; displays elapsed or remaining time of current track, remaining time on disc; programs 16 tracks in any order; extra-heavy isolating feet; auto space. FR 0-20,000 Hz  $\pm$  0.3 dB; s/N >96 dB (at 1,000 Hz); dynamic range >95 dB (at 1,000 Hz); harmonic distortion 0.0025% (at 1,000 Hz); W&F unmeasureable; sep 95 dB (at 1,000 Hz); output 2 V rms; 17.5" w x 3.8" h x 11.7" d; 13.3 lb . . \$749

#### **ZD-880 Remote-Controlled CD Player**

## AD-4 CD Player and Cassette Deck

Wireless remote control; random program dubbing of 16 tracks; auto space; Dolby B and Dolby C NR; 1 erase, 1 record/play head; autoreverse; synchro start auto dubbing; CD repeat. CD player section: s/N 94 dB; THD 0.02%; sep 90 dB. Cassette deck section: W&F 0.05%; FR to 16,000 Hz.

#### AD-7 CD Player and Cassette Deck

#### PD-600M 6-Disc CD Changer

### PD-450 Remote-Controlled CD Player

## TECHNICS

#### SL-P1200 Disco/Audiophile CD Player

Top-loading CD player for discos or production cues to any point within track. Rocker control for momentary advance or retard. Features quartzlocked pitch control ( $\pm 8\%$ ); 2-speed cueing; rear-panel remote jack for mixer; infrared remote control; auto cue to first note of desired track; FI. display; twin high-speed D/A converter; double oversampling (88.2 kHz) digital filter; 9th-order low-pass analog filter; 1-beam laser; high-speed Linear Motor Access locates track start in <1 sec; subcode output; skip forward; skip back; fast forward; fast reverse; sound audible during fast scan; repeat track, disc, program; programming of 20 tracks in any order; headphone jack with adjustable level. Cues by track number, index number, time. Displays current track number, elapsed time of current track, elapsed time on disc, remaining time on disc, remaining time in track, program in memory. 17" w x 7" h x 15" d; 22 lb .......\$1,295

#### SL-P1000 Remote-Controlled CD Player

#### SL-P720 Remote-Controlled CD Player

## SL-P600C 6-Disc CD Changer

Plays 6 discs in magazine; wireless remote; 32track random programming; 10-key number pad on unit and remote; headphone jack with volume control; high-speed access with 2-purpose search/



skip buttons; display of number of tracks, programmed tracks, current track, elapsed time; random and repeat play; digital filter ...... \$500

#### SL-XP5 Portable CD Player

Top-loading portable CD player with FF1 singlebeam laser. Features programming of 18 tracks in any order; skip forward; skip back; fast forward; fast reverse; cancel; repeat track, disc, program; headphone jack with adjustable level; digital filtering; single D/A converter; sound audible during fast scan. Oversamples at 88.2 kHz. Displays current track number, elapsed time of current track, elapsed time on disc, remaining time on disc, program in memory. With carrying case and power supply. 4.97" w x 0.91" h x 4.97" d \$325

#### SL-P120 Quick-Access CD Player

I-sec average access to any track; 20-track random programming; headphone jack with volume control; 2-speed audible search in forward and reverse; skip forward and back; repeat of track, disc, program; 2-color FL display of elapsed or re-

maining time for track, disc, program; preset editing; double oversampling (88.2 kHz) .....\$249 SL-P220. Similar to above except has infrared wireless remote control with number keypad and volume control; program recall ......\$299 SL-P320. Similar to above except adds number keypad on unit ......\$349 SL-P420. Similar to above except adds Class AAA circuits to isolate voltage control circuits from current load fluctuations to reduce distortion in sample-and-hold circuit ......\$400

## **TOSHIBA**

#### XR-9037 Remote Control CD Player

Remote control w/volume control; digital peak search; 20-program random memory; double oversampling and digital filter ...........\$450

### XR-9457 Portable/Home CD Player

#### XR-9437 Portable CD Player

Compact CD player with AM/FM stereo. 9 FM/5 AM presets; 3-beam laser pick-up; 16-program



random memory with repeat; quick-program select; uses 4 AA batteries or NiCads ...... \$430

#### XR-9127 Auto-Repeat CD Player

Double oversampling and digital filter; automatic repeat capability; 10-key remote with volume control \$330

## VECTOR RESEARCH

#### VCD-900 Compact Disc Player

Drawer-loading CD player with full-function remote control (10-key direct-track access, remote volume control). Features programming of 15 tracks in random and sequential order; skip forward; skip back; fast forward; fast reverse; cancel; repeat track, disc, phrase, and program; 3-beam laser; digital and analog filtering; single D/A converter; sound audible during fast scans. Cues by track number. Oversamples at 88.2 kHz. Displays current track number, elapsed time of current track, elapsed time on disc; program in memory. 17" w x 3.5" h x 12.5" d; 11 lb ........\$450

#### VCD-770 Compact Disc Player

Drawer-loading CD player with 12-key remote control and quadruple oversampling. Features programming of 15 tracks in random and sequential order; skip forward; skip back; fast forward; fast reverse; cancel; repeat track, disc, phrase, and program; 3-beam laser; digital filtering; single D/ A converter; sound audible during fast scans. Cues by track number. Oversamples at 176.4 kHz. Displays current track number, elapsed time of current track, elapsed time on disc; re-

For explanations of abbreviations, specifications, and technical terms, consult the glossary on page 221. maining time on disc; program in memory. 17" w x 3.5" h x 8 25" d; 11 lb..... \$350

### YAMAHA

CDX-10000 Compact Disc Player Limited centennial edition compact disc player with wireless remote control. Features Hi-bit quadruple oversampling digital filter, Hi-bit D/A

convertor; 20-bit digital volume control; high-



pling; output level control; digital-out terminals; heavy-duty chassis; 24-track direct access; random play; front-panel headphone jack; gold-plated connection terminals. Titanium grey with high luster walnut end panels ......\$3,000

## CDX-5000 Compact Disc Player

#### CDX-1100U Compact Disc Player

#### **CD-2000M Compact Disc Player**

#### **CD-200CB** Compact Disc Player

#### **CD-1000B Compact Disc Player**

Features Yamaha LSI technology; 3-beam laser; double-resolution digital filter; vibration damping

### CDX-900U Compact Disc Player

Features Hi-bit quadruple oversampling digital filter; twin high-speed D/A convertors; dualtransformer shunt-regulated power supplies; discrete circuit configuration; 42-key wireless remote control; floating suspension design; 24-track direct-access random programming; random play; index search; front-panel headphone jack with level control; RS integrated system remote control compatibility. Black; 17 lb ...... \$649

#### CDX-700U Compact Disc Player

## CDX-500U Compact Disc Player

## CDX-400U Compact Disc Player

Features 3-beam laser pickup; double resolution digital filter; 88.2 kHz double oversampling; vibration-damping construction; 6-digit fluorescent display panel; 16-selection random programming; 3-way music search; repeat disc, track, and programmed sequence; auto space insert; index search; timer playback capability; headphone jack with level control. FR 5-20,000 Hz  $\pm 0.5\%/-1.0$  dB s/N 100 dB; THD 0.004%; dynamic range 96 dB 17.13" x 4.19" x 13.75"; 9.3 lb ...... \$299

#### CDX-305U Compact Disc Player

## **CDX-5U Compact Disc Player**

## CASSETTE DECKS



## a/d/s/

C4 3-Head Dolby B/C/HX Pro Cassette Deck Microprocessor operating system for digital recording-level and balance controls; full status displays; remote controlled through a/d/s/ R4 receiver or CC4 tuner/preamp; auto bias/EQ for all tape types; memorizes adjustable bias and level settings for each tape type; displays elapsed or remaining time; quartz-controlled-PLL capstan motor drive in die-cast metal chassis; timer record and play; auto repeat; music search; mic/ line mixing; adjustable headphone output; LED rec-level meters; rec-level range 80 dB in 1-dB steps. Speed deviation <0.5%; W&F <0.04% wtd rms; FR with all tape types 20-20,000 Hz  $\pm 2$  dB; S/N >74 dBA with Dolby C and metal tape (optional outboard NR system extends S/N to >93 dBA). 17.5" w x 2.75" h x 14.8" d ..... \$1,400

#### **RC1** Unified Remote Control

Infrared wireless remote controls CC4, R4 receiver, and other a/d/s/ components...... \$100

### Atelier C3 2-Speed Cassette Deck

Records and plays at 1.88 ips (standard speed) and 3.75 ips (double speed). Remote controlled through a/d/s/ R4 receiver or CC4 tuner/ preamp. Quartz-PLL direct-drive-capstan multiple-pole outer-rotor motor; repeat; mic/line mixing; 3 heads; 2 motors; Dolby B; Dolby C; music search; memory stop/play; LED meters; head-



phone jack. W&F standard speed 0.04% wrms, high speed 0.035%; FR (with all tape types) standard speed 20-20,000 Hz  $\pm 2$  dB, high speed 25-22,000 Hz  $\pm 2$  dB; S/N (A-wtd, all tape types) standard speed: >58 dBA no NR, >66 dBA Dolby B, >74 dBA Dolby C, high speed: >60 dBA no NR, >68 dBA Dolby B, >76 dBA Dolby C. 17.5" w x 2.75" h x 14.8" d; 19.6 lb ... \$969

### AIWA

AD-WX909 Autoreverse Double Cassette Deck Features 3 heads with micro-grain-surfaced capstan; auto tape/source monitor selector; ADMS



(auto demagnetizing system); Dolby HX Pro (deck 2); Dolby B & C (both decks); gold-plated CD inputs and LINE/CD front panel selector; high-speed dubbing; feather-touch IC logic controls; independant digital tape counters; bias fine adjustment for CrO2/normal-bias tape (± 20%); music sensor (both decks); continuous playback. 

#### AD-A70 Autoreverse Cassette Deck

#### AD-F77OUB Dolby B & C Cassette Deck

#### AD-WX22OU Double Cassette Deck

#### AD-W20 Double Cassette Deck

High-speed dubbing casssete deck with quick-reverse record/playback in both decks. Features 2+2 heads; 2 motors; continuous record/playback; programmable 18-selection edit dubbing; auto bias/EQ; Dolby B; Dolby C; music search; blank skip; I.ED meters; headphone jack; rec mute. w&F 0.6% wrms; s/N metal 78 dB Dolby C. 16.63" w x 4.38" h x 12.75" d; 12.3 lb . \$550

#### **AD-WX808 Double Cassette Deck**

#### AD-S40 Dolby B & C Cassette Deck

Features 3 heads; 2 motors; auto bias/EQ; Dolby HX Pro; dual capstans; bias fine tuning; headphone jack; rec mute; computer designed keyboard front control panel; ADMS; electronic digi

### AD-WX707 Double Cassette Deck

Autoreverse cassette deck with Dolby B and C. Features bias fine tuning; continuous playback; feather-touch IC logic controls; high-speed dubbing; auto rec mute; auto tape selector; rec/play timer standby (deck 2). s/N 78 dB Dolby C, 65 dB Dolby B; FR 20-16,000 Hz normal-bias tape, 20-17,000 Hz high bias, 20-18,000 metal. 16.94" w x 5" h x 12.31" d; 111b...... \$250

#### **AD-R30 Autoreverse Cassette Deck**

#### AKAI

GX-R99-B 3-Head Autoreverse Cassette Deck Sets and maintains optimum record level; teflonbonded head housing of beryllium-alloyed diecast zine to maintain accurate azimuth; super GX (glass and crystal) head; high-tuned DC amp with Foldback Electrode Transistors (FBET) for increased midrange resolution and widened dynamic range; 5 motors; auto bias/EQ; Dolby B; Dolby C; dual capstans; bias fine tuning; direct drive; elapsed-time counter; remaining-time counter; music search; output level control; memory stop/ play; rec mute; headphone jack; auto fader; FLD display; record cancel; gold RCA jacks; auto tape monitor; timer start; feather-touch full-logic controls; direct lead-in; power eject. Wireless remote control optional. W&F 0.028% WRMS; FR ferric 20-18,000 Hz ± 3 dB, high bias 20-19,000 Hz  $\pm$  3 dB, metal 20-21,000 Hz  $\pm$  3 dB; S/N (A-wtd) metal: 70 dB Dolby B, 80 dB Dolby C, 60 dB no NR. 17.3" w x 4.1" h w 14.6" d; 19.1 lbs . \$649

#### GX-8-B 3-Head 3-NR-System Cassette Deck

Quartz-PLL direct-drive motor for low W&F; super GX (glass and crystal) head; manual bias trim; extended-range peak meter; 3 motors; Dolby B; Dolby C; dbx; dual capstans; bias fine tuning; elapsed-time counter; remaining-time counter; music search; output-level control; rec mute; headphone jack; auto mute; rec cancel; gold-plated RCA and headphone jacks; FLD display; feather-touch full-logic controls; direct lead-in; power eject. W&F 0.04% wrms; FR ferric 20-19,000 Hz  $\pm$  3 dB, high bias 20-20,000 Hz  $\pm$  3 dB, metal 20-21,000 Hz  $\pm$  3 dB; S/N (A-wtd) metal: 70 dB Dolby B, 80 dB Dolby C, 115 dB dbx, 60 dB no NR.3.9" d; 14.3 lb ....... \$609
WISCONSIN DISCOUN 2417 W. BADGER		ү рлү	MORE?
MADISON, WI 53	3713	ervice, 1st In Qua	lity, 1st In Price
DISCOUNT HOTLINE	1-80	0-356	_9514
(IT'S EASY TO SAVE-CA		OR CALL 1-608-271-68	
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VHS MTS HIFI \$379	SHERWOOD \$2770 \$269	AIWA ADWX220 \$329	TEAC V770 \$289
* FULL HQ CIRCUITRY * MTS TUNER	★ AUDIO/VIDEO RECEIVER ★ 70 WATTS/CH, WIRELESS	★ BEST DUBBING DECK     ★ QUARTER TIME DUB	★ 3 HEAD, 2 MOTOR ★ DOLBY B + C + HX PRO
ZENITH MTS HIFI \$399	KENWOOD KRV126 CALL!	CLARION 8400 \$149	SHERWOOD CRD210 \$ 165
★ HQ, MTS, HIFI ★ ON SCREEN PROGRAMMING	★ AUDIO/VIDEO RECEIVER ★ 125 WATTS/CH, WIRELESS	★ DIGITAL CAR STEREO ★ AUTO REVERSE, DOLBY	★ DIGITAL CAR STEREO ★ DOLBY B + C, CD INPUTS
MARANTZ VR560 \$569	TECHNICS SAR510 \$459	PIONEER CLD909 \$549	SHERWOOD CRD350 \$ 189
★ 4 HEAD, MTS, HIFI ★ 71 FUNCTION REMOTE	★ AUDIO/VIDEO RECEIVER ★ 100 WATTS/CH, WIRELESS	* COMBINATION CD/LASER * PLAYS ALL THREE SIZE DISCS	DIGITAL DIN CAR STEREO     DOLBY B + C, HIGH POWER
JVC HRD570 \$679	TECHNICS SLP220 \$189	TEAC ZD5000 \$579	CLARION 8825RT \$239
The second se			
★ 4 HEAD, MTS, HIFI ★ DIGITAL SPECIAL EFFECTS	* WIRELESS REMOTE * 20 TRACK PROGRAMMING	* AUDIOPHILE DISC PLAYER	+ DIGITAL CAR STEREO
JVC GRC7U	SONY	* ZERO DISTORTION	* DOLBY, HIGH POWER
CALL!	D-10 \$274	\$169	X-2000R \$899
SPECIAL PURCHASE		WIRELESS	6-HEAD
		* PORTABLE DISC MAN	* AUTO REVERSE 10" REEL
HEADPHONES	1. ALL UNITS FACTORY FRESH WITH 6	and the second se	CARTRIDGES
KOSS PRO 4AAA +	FULL WARRANTY 2. ALL ORDERS PROCESSED WITHIN 7	EVERY PRODUCT SOLD ALL SALES REPRESENTATIVES	SHURE V15 V MR
SENNHEISER HD430		FULLY FACTORY TRAINED EXTENDED WARRANTIES AVAILABLE ESTABLISHED 1954	ORTOFON OM40
SONY MDRCD5	4. WE CAN SHIP COD 10 5. NO EXTRA CHARGE FOR 10	TOLL FREE WARRANTY SERVICE	SHURE M104
•22	MASTERCARD OR VISA 11	SOME ITEMS LIMITED QUANTITIES	STANTON 500A

#### GX-6-B 3-Head Dolby B & C Cassette Deck

Super GX (glass and crystal) heads for increased dynamic range; extended-range peak meter for music with high dynamic range; manual bias trim; auto mute; feather-touch full-logic controls; record cancel; gold-plated RCA and headphone jacks; FLD display; direct lead-in; power eject; 3 motors; dual capstans; bias fine tuning; direct drive; elapsed- and remaining-time counter; music search; output-level control; rec mute. W&F 0.04% wrms: FR ferric 20-19,000 Hz ± 3 dB, high bias 20-20,000 Hz ± 3 dB, metal 20-21,000 Hz ± 3 dB; S/N (A-wtd) metal: 70 dB Dolby B, 80 dB Dolby C, 60 dB no NR ..... \$549

#### GX-R70EX-B Autoreverse Cassette Deck

Sets and monitors optimum recording levels; twin-field Super GX head with separate gaps for recording and playback; twin active power supply for stable amplification and lower IMD; auto fader; reverse selector; peak/peak spectrum meters; auto mute; direct lead-in; power eject; rec balance; 2 heads; 3 motors; auto bias/EQ; Dolby B & C; dbx; dual capstans; elapsed-time counter; music search; output-level control; rec mute; headphone jack. Wireless remote control optional. W&F 0.05% wrms; FR ferric 20-17,000 Hz ± 3 dB, high bias 20-18,000 Hz ± 3 dB, metal 20-19,000 Hz ± 3 dB; S/N (A-wtd) metal: 70 dB Dolby B, 80 dB Dolby C, 110 dB dbx; 60 dB no NR. 17.3" w x 4.1" h x 11" d; 11.5 lb .... \$549

#### **GX-R60EX-B** Autoreverse Cassette Deck

Twin-field Super GX head with separate gaps for recording and playback and twin active power supply for stable amplification and lower IMD. Features feather-touch full-logic controls; FLD display; reverse selector; direct lead-in; power eject; rec balance; 2 heads; 2 motors; Dolby B & C; dbx; dual capstans; elapsed-time counter; music search; output level control; rec mute; headphone jack. Wireless remote control optional. W&F 0.05% wrms; FR ferric 20-17,000 Hz ± 3 dB, high bias 20-18,000 Hz ± 3 dB, metal 20-19,000 Hz ± 3 dB; S/N (A-wtd) metal: 70 dB Dolby B, 80 dB Dolby C, 110 dB dbx; 60 dB no NR. 17.3" w x 4.1" h x 11" d; 11 lbs ..... \$429

#### HX-A451W-B Double Cassette Deck

High-speed cassette deck with random programmable dubbing and playback for both transports. Master driver mechanism uses 3rd motor for tape synchronization. Features feather-touch full-logic controls; auto mute; rec pause; timer start; blank skip; 3 motors; Dolby B & C; music search; elapsed-time counter; LED meters; mic inputs; rec mute; headphone jack. Wireless remote control optional. W&F 0.09% wrms; FR ferric 30-15,000 Hz ± 3 dB, high bias 30-15,000 Hz ± 3 dB, metal 30-16,000 Hz ± 3 dB; S/N (A-wtd) metal: 67 dB Dolby B, 77 dB Dolby C, 57 dB no NR. 17.3" w x 4.3" h x 11.5" d; 9.7 lb ... \$380

#### HX-A305W-B Double Cassette Deck

HX heads; normal- and high-speed dubbing; sequential play; Dolby B NR ..... \$229

#### **AUDIO-TECHNICA**

T-RMX64 4-Track Cassette Deck

tures 3 heads; 3 motors; Dolby B & C; 6 switchable mike/line outputs; 6 mike inputs; 2-band parametric equalizer; master output-level control; soft-touch controls; phantom power; LED output display; 60-dB total attenuation; 2 send/return loops; channel return and sub solos; headphone jack. FR high bias 20-18,000 Hz ± 3 dB; s/N (all A-wtd), high bias 55 dB no NR, 64 Dolby B, 68 Dolby C. 23.3" w x 5.4" h x 20.4" dD ... \$1.695

#### **BANG & OLUFSEN**

**Beocord 5500 Autoreverse Cassette Deck** Automated recording; Auto Azimuth Guidance; auto Dolby B and Dolby C for play; auto and manual rec level; programs 23 tracks; HX Pro headroom extension; tape loads in motorized



drawer; black and silver; remote controlled by Master Control Panel. w&F <0.09% wrms; speed deviation  $\langle \pm 1.5\%$ ; s/N with chrome tape >64 dB Dolby B, >74 dB Dolby C; 16.5" w x 3" h x 12.75" d; 18.7 lb ..... \$999

Beocord 3300 Dolby B/HX Pro Cassette Deck Integrates with Beosystem 3300 for remote control from multiple rooms; black plexiglass and brushed aluminum; optional wall brackets; sensitouch controls; remote controlled from Terminal 3300 remote; communicates with 3300 turntable and CD player for coordinated recording; auto search; meters adjust for tape type; sendust heads; auto demagnetization. w&F <0.07% wrms; speed deviation  $<\pm 1.5\%$ ; s/N with chrome tape >65 dB Dolby B; 16.5" w x 2.75" h x 9.9" d; 8.37 

#### DENON

#### **DR-M44HX 3-Head Cassette Deck** Features Dolby HX Pro; Dolby B & C NR; dualcapstan transport; full-logic control transport; computer-controlled silent mechanism; directdrive FG servo motor; nonslip reel drive; computer-controlled bias fine-tuning; full auto-stop; SF combination head; dual power supply; MPX-filter switch; 4-digit tape counter with memory stop; FL peak level meter; real-time counter; wired remote control; rec pause/mute; 1-touch rec/standby; output level control; headphone jack. Includes wood side panels. FR 25-20,000 Hz ± 3 dB with metal tape; w&F 0.035% wrms; s/N >75 dB

**DR-M30HX 3-Head Cassette Deck** 4-track deck with integral 6-in, 4-out mixer. Fea- | Features wireless remote control; Dolby HX Pro;

(Dolby C) ..... \$650

PRICES LISTED are manufacturers' suggested retail prices (also referred to as *list* prices); actual selling prices are set by individual dealers. All prices are subject to change without notice.

Dolby B & C NR; dual-capstan transport; full-logic control transport; computer-controlled silent mechanism; non-slip reel drive; manual bias finetuning; full auto-stop; SF combination head; dual power supply; MPX-filter switch; 4-digit tape counter with memory stop; FL peak level meter: balance control; rec pause/mute; auto-space; 1touch rec/standby; output level control; headphone jack. FR 25-20,000 Hz ± 3 dB with metal tape; W&F 0.045% wrms; s/N >73 dB (Dolby C) ..... \$500

#### DR-M20 3-Head Cassette Deck

Features Dolby B & C NR; dual-capstan transport; full-logic control transport; computer-controlled silent mechanism; non-slip reel drive; manual bias fine-tuning; full auto-stop; SF combination head; dual power supply; MPX-filter switch; 4-digit tape counter with memory stop; FL peak level meter; balance control; rec pause/



mute; auto-space; 1-touch rec/standby; output level control; headphone jack. FR 25-19.000 Hz ± 3 dB with metal tape; w&F 0.045% wrms; s/N >73 dB (Dolby C) ..... \$400

#### **DR-M14HX** Cassette Deck

Features wireless remote control; Dolby HX Pro; Dolby B & C NR; full-logic control transport; computer-controlled silent mechanism; non-slip reel drive; manual bias fine-tuning; full auto-stop; SF R/P head; constant current drive circuit; dual power supply; MPX-filter switch; 4-digit tape counter with memory stop; FL peak level meter; balance control; rec pause/mute; auto-space; music search; 1-touch rec/standby; output level control; headphone jack. FR 25-18,000 Hz ± 3 dB with metal tape; w&F 0.045% wrms; s/N >72 dB (Dolby C) ..... \$400 DR-M12HX. As above except without remote control ..... \$340

#### **DR-M10HX** Cassette Deck

Features Dolby HX Pro; Dolby B & C NR; fulllogic control transport; computer-controlled silent mechanism; non-slip reel drive; manual bias fine-tuning; full auto-stop; SF R/P head; dual power supply; 4-digit tape counter with memory stop; FL peak level meter; balance control; rec pause/mute; auto-space; music search; 1-touch rec/standby; headphone jack. FR 25-18,000 Hz ± 3 dB with metal tape; w&F 0.05% wrms; S/N >72 dB (Dolby C) ..... \$280

#### **DR-M07** Cassette Deck

Features Dolby B & C NR; full-logic control transport; manual bias fine-tuning; full auto-stop; SF R/P head; 3-digit tape counter; LED 6-segment peak level meter; balance control; 1-touch rec/ standby: headphone jack. FR 40-16.000 Hz ± 3 dB with metal tape; w&F 0.057% wrms; S/N >73 dB (Dolby C) ..... \$210

#### Accessories

ACA-20. Side panels for DR-M30HX, M20HX, M14HX, and M12HX cassette decks ..... \$30

#### **DUAL by ORTOFON**

#### CC5050 Cassette Deck

Three-head stereo cassette deck with Dolby B and Dolby C noise reduction. Frequency response 20-19,000 Hz ± 3 dB with metal (Type IV) tape. Black finish ..... \$380

#### FISHER

#### **CR-W98 Double Cassette Deck**

Double autoreverse cassette deck with 6-function wireless remote control. Features autoreverse for both transports; synchronized 1-touch highspeed dubbing; sequential play; Dolby B & C NR;



#### **CR-W96 Double Cassette Deck**

#### **CR-W95 Double Cassette Deck**

#### **CR-W86 Double Cassette Deck**

#### **CR-W85 Double Cassette Deck**

#### **CR-W56 Double Cassette Deck**

#### FOSTEX

#### Model 160 4-Track Cassette Deck/Mixer

#### Model X-30 4-Track Cassette Deck/Mixer

#### HARMAN KARDON

#### CD491 Dolby B/C/HX Pro Cassette Deck

Ultrawideband cassette deck with direct-drive dual-capstan transport; 3 heads; 2 motors; Dolby B; Dolby C; Dolby HX Pro; bias fine trim with record and bias calibration test-tone oscillators; music search; output level control; memory stop/ play; logic control; weighted peak-hold LED meters; mic inputs; mic/line mixing; headphone jack; rec mute. Timer controllable. W&F 0.025% WRMS; FR with all tape types 20-24,000 Hz  $\pm 3$  dB; S/N (A-wtd, with high bias tape) 58 dB no NR, 66 dB Dolby B, 75 dB Dolby C ..... \$950

#### TD392 Dolby B/C/HX Pro Cassette Deck

3 heads for monitoring during recording; Sendust record head, narrow-gap high-density ferrite play head; 1 motor; Dolby B; Dolby C; Dolby HX Pro; solenoid logic transport; bias fine trim with test-tone oscillator; output level control; weighted LED meters; headphone jack; rec mute. W&F 0.05% WRMS; FR with all tape types 20-22,000 Hz  $\pm$  3 dB; S/N (A-wtd, with high-bias tape) 58 dB no NR, 66 dB Dolby B, 75 dB C ..... \$675

#### CD302 Cassette Deck

#### CD202 Cassette Deck

#### CD102 Cassette Deck

#### **HITACHI**

#### **DW99** Double Autoreverse Cassette Deck

#### DW77 Double Autoreverse Cassette Deck

#### DW33 Double Autoreverse Cassette Deck

#### JVC

#### **DDVR77J Cassette Deck**

Autoreverse cassette deck with Multi-Editor that allows creation of fade-ins and fade-outs after a

#### TDV66JBK Cassette Deck

#### TDW660JBK Double Cassette Deck

Double autoreverse cassette deck is remote controllable when used with selected JVC Compu-Link components. Features Dolby B & C NR; twin quick autoreverse systems; two-motor fulllogic mechanisms; double-speed editing with synchro start; continuous back-to-back play of two tapes: auto/synchro rec mute (deck B); auto tape selection; music scan; timer start; oversize LCD panel with electronic tape counter......\$385

#### TDW60JBK Double Cassette Deck

#### TDW550JBK Double Cassette Deck

Double cassette deck is remote controllable when used with selected JVC Compu-Link components. Features two-motor full-logic mechanisms; double-speed editing with synchro-start; continuous back-to-back play of two tapes; Dolby B & C NR; auto/synchro rec mute (deck B); auto tape selector; music scan; timer start; oversized LCD panel with electronic tape counter......\$305

#### TDW330JVK Double Cassette Deck

#### TDX301JBK Cassette Deck

#### TDW220JBK Double Cassette Deck

Double cassette deck with Dolby B & C NR. Features U-turn autoreverse system (deck B); softtouch logic control mechanisms; double-speed editing with synchro start; auto tape selector (deck A); electronic record/play switching; 6-LED multi-peak indicator for each channel; stereo microphone inputs.....\$235

#### TDX201JBK Cassette Deck

Computer-controlled full-logic cassette deck with Compu-Link remote capability. Features Dolby B

and Dolby C noise reduction; stereo microphone inputs; 6-LED multi-peak indicator; automatic record mute ...... \$185

#### TDW110JBK Double Cassette Deck

Double cassette deck with Dolby B NR. Features two soft-touch logic control mechanisms (1 playback, 1 rec/play); double-speed editing with synchro start; ANRS noise reduction system; auto tape selector (deck A); electronic record/play switching; 6-LED multi-peak indicator for each channel ..... \$165

#### **KENWOOD**

#### **KX-96W** Double Autoreverse Cassette Deck

Double cassette deck with dual bidirectional rec/ play system. Features quick-reverse: two motors: full-logic computer control; Dolby B & C NR; high-speed dubbing; continuous relay play; relay and dual recording; direct 16-program search system; index scan; headphone jack; LED peak meters; auto tape selector. w&F 0.1% wrms; s/N 72 dB; FR 30-15,000 Hz ± 3 dB (Type II). Remote controlled through KC-206 preamp and Kenwood receivers. 16.53" w x 4.69" h x 10.44" d; 

#### **KX-660HX** Full-Logic Cassette Deck

Basic series cassette deck with Dolby HX Pro headroom extension system. Features Dolby B & C NR with dynamic stabilizer; manual/auto recording bias adjust control; low-imp Permlic rec/ play head; silent 2-motor drive with full-logic computer control; high-rigidity mechanism and head mount; direct 16-program search system; auto-rec mute; blank search; index scan; re-recording standby; repeat with auto blank skip; counter zero stop; master rec and L/R preset level controls; FL wide-range peak meters; FL linear tape counter; auto tape sel; headphone jack; L/R mic inputs; timer rec/play capable. FR 20-18,000 Hz ± 3 dB (metal); w&F 0.06% wrms. 17.31" w x 4.44" h x 12.81" d; 11 lb..... \$300

#### **KX-66CW** Double Cassette Deck

Cassette deck with autoreverse play/rec deck and unidirectional playback only deck. Features fulllogic computer control; Dolby B & C NR; 2 motors; high-speed dubbing; continuous relay play; relay recording; direct 16-program search system; index scan; auto tape selector; auto rec mute; headphone jack; LED peak meters. w&F 0.1%; s/ N 72 dB; FR 30-15,000 Hz ± 3 dB (Type II). Remote controlled through KC-206 and Kenwood receivers; 11.2 lb ..... \$280

#### **KX-76R** Autoreverse Cassette Deck

Full-logic control cassette deck with 9-program search system. Features Dolby B & C NR; index scan; continuous autoreverse; auto tape selector; auto recording mute; LED peak meters; headphone jack; L/R mic inputs; remote controlled through KC-206 preamp and Kenwood receivers. w&F 0.06% wrms; S/N 73 dB; FR 30-15,000 Hz ± 3 dB (Type II). 16.56" w x 4.5" h x 10.63" d; .... \$250 84 lb

#### **KX-56CW** Double Cassette Deck

Features 1 rec/play mechanism; Dolby B & C NR; two motors; soft-touch controls; high-speed dubbing; single relay paly; auto tape selector; I ED peak meters; headphone jack; L/R mic inputs; timer ready; remote controlled through KC-206 preamp and Kenwood receivers. w&F 0.15% wrms; s/N 72 dB; FR 30-15,000 Hz ± 3 dB (Type II). 16.56" w x 4.69" h x 10.44" d; 8.8 lb . \$200

#### **KX-46C Cassette Deck**

Features soft-touch controls; music search; auto tape selector; LED peak meters; L/R mic inputs; headphone jack; timer ready. w&F 0.09% wrms; s/N 72 dB; FR 30-15,000 Hz ± 3 dB (Type 11).

16.56" w x 4.81" h x 10.56" d; 8.4 lb . . . . \$175

#### **KYOCERA**

#### D-811 Dolby B/C/HX Pro Cassette Deck

2 heads; 3 motors; 3 preset bias/EQ's; Dolby B; Dolby C; dual capstans; bias fine tuning; direct drive; digital electronic counter for elapsed and remaining time; output level control; memory repeat stop/play; LED peak-hold meters; softtouch controls; mike inputs; headphone jack with volume control; rec mute; wireless remote. W&F 0.02% wrms; metal 20-22,000 Hz ± 3 dB, high bias 20-20,000 Hz ± 3 dB, normal 20-20,000 Hz ± 3 dB; S/N (A-wtd) metal: 58 dB no NR, 10 dB Dolby B, 20 dB Dolby C; line-input sens for 0-dB reading 70 mV; line output level with 0-dB indication 580 mV; mike input sens 0.5 mV ... \$750

#### D-611 Dolby B/C Cassette Deck

2 heads; 3 motors; 3 preset bias/EO's; bias fine tuning; direct drive; output level control; memory repeat stop/play; LED meters; soft-touch controls; mike inputs; headphone jack; rec mute; wireless remote. W&F 0.035% wrms; metal 20-22,000 Hz ± 3 dB, high bias 20-20,000 Hz ± 3 dB, normal 20-20,000 Hz ± 3 dB; S/N (A-wtd) metal: 58 dB no NR, 10 dB Dolby B, 20 dB Dolby C; line-input sens for 0-dB reading 70 mV; line output level with 0-dB indication 580 mV; mike input sens 0.5 mV. 18.12" w x 4" h x 12.12" d; 16 lb ..... \$550

#### **Remote-Control Accessories**

RC-101 Remote Control Center. For selection/ function control of Kyocera products. Single-cable interconnect to units; 2 external remote sensor inputs; manual override ..... \$320 RS-103 Sensor. Single-cable connection to Kyocera RC-101 control center and external remotecontrol sensor. Allows multi-room remote control of Kyocera remote-capable CD player, receivers, and cassette decks ..... \$90 RT-102 Transmitter. Handheld transmitter with 12 receiver, 6 tape deck, and 5 CD player functions. Auto system power on/off. Controls main functions on Kyocera's remote-control comronents directly or through remote sensors ... \$60

#### LUXMAN

#### K-03 Direct-Drive Cassette Deck

3-head cassette deck features 3 motors; Dolby B and C NR; dual capstans; bias fine tuning; direct drive; remaining time counter; output level control; memory stop/play; rec mute; headphone jack; logic control; Duo-Beta circuitry. w&F 0.022% wrms; frequency response with metal



tape 20-22,000 Hz, CrO2 20-20,000 Hz, normal 20-20,000 Hz; signal-to-noise ratio with metal tape and Dolby C >73 dB, Dolby B >67 dB, no noise reduction >60 dB; 17.81" wide x 6.38" high x 14.38" deep; 24.64 lb ..... \$1,200

#### K106 Autoreverse Cassette Deck

Remote-capable cassette deck with timer function. Features blank search; rec mute/auto space; auto tape selector; programmable search; auto record pause; auto scan; intro scan; 2 heads; 3 motors; Dolby B; Dolby C; dbx; Dolby HX Pro; dual capstans; bias fine tuning; blank skip; elapsed-time counter; music search; memory stop/play; LED meters; soft-touch controls; rec mute; headphone jack. w&F 0.05% wrms; FR (± 3 dB) ferric 20-17,000 Hz, high bias 20-19,000 Hz, metal 20-19,000 Hz; s/N (A-wtd) ferric: 66 dB Dolby B, 70 dB Dolby C, 89 dB dbx; high bias: 67 dB Dolby B, 71 dB Dolby C, 90 dB dbx; metal: 67 dB Dolby B, 71 dB Dolby C, 90 dB dbx. 9.9 lb; 17.25" w x 4.5" h x 12.06" d . \$580

K-112 Cassette Deck Features Dolby HX Pro, Dolby B and C; feathertouch full-logic-controls; 4-digit electronic counter with memory; fine bias control; system remote control capability. s/N metal Dolby C 73 dB, CrO2 72 dB; distortion 0.3%; w&F 0.05% wrms; FR metal 20-21,00 Hz ± 3 dB; CrO2 20-20,00 Hz ± 3 dB ..... \$500

#### K105 Autoreverse Cassette Deck

Remote-capable cassette deck with blank search. Features rec mute/auto space; auto record pause; auto scan; intro scan; 2 heads; 3 motors; Dolby B; Dolby C; dbx; dual capstans; blank skip; elapsedtime counter; music search; LED meters; softtouch controls; rec mute; headphone jack. w&r 0.05% wrms; FR (± 3 dB) ferric 30-16,000 Hz, high bias 30-18,000 Hz, metal 30-18,000 Hz; s/N (A-wtd) ferric: 65 dB Dolby B, 69 dB Dolby C, 90 dB dbx; high bias: 67 dB Dolby B, 71 dB Dolby C, 90 dB dbx; metal: 67 dB Dolby B, 71 dB Dolby C, 90 dB dbx. 9.9 lb; 17.25" w x 4.5" h x 12.06" d..... \$480

#### MARANTZ

#### DT84 Digital Audio Tape Deck

DAT deck with wireless remote control. Records at 48-kHz sampling frequency; 44.1 and 48 kHz sampling frequency play; 4x oversampling; sub-



code post recording; 30-track random-program play; cue/review; 200x high-speed search; 2-way repeat; auto rewind/auto replay. FR 5-20,000 Hz; s/N 96 dB; THD 0.01% ..... \$1,900

#### SD-55 Stereo Cassette Deck

2 head cassette deck with dual motor and microprocessor control. Features Dolby B and C NR; variable bias fine tune control; auto tape type sensor; rec mute; memory tape counter with auto stop; MPX filter..... \$780

#### Double Cassette Decks

#### SD565 Autoreverse Double Cassette Deck

Double cassette deck with autoreverse, record, and playback for both transports. Features 15song quick music search; auto tape selector; highspeed dubbing; mike/line mixing; auto rec mute; Dolby B & C; 2 heads; 2 motors; memory stop/ play; LED meters; soft-touch controls; mic inputs; headphone jack. w&F 0.05% wrms; record/playback FR (± 3 dB) ferric 35-15,500 Hz, high bias 35-16,500 Hz, metal 35-17,500 Hz; s/N (all Awtd) metal 65 dB Dolby B, 72 dB Dolby C. 16.5" w x 4" h x 10.25" d; 11.9 lb ..... \$450

#### SD160 Double Cassette Deck

Features Dolby B NR; high-speed dubbing; mic input, LED meters. FR normal 40-13,000 Hz,

CrO2 40-14,000 Hz, metal 40-15,000 Hz; s/N without NR 54 dB, Dolby B 64 dB; w&F 0.08%. 4.38" h x 16.5" w 7.25" d; 8.4 lb ...... \$170

#### Portable Cassette Decks

#### PMD 430 dbx Portable Cassette Deck

#### PMD 420 Dolby B Portable Cassette Deck

#### PMD 221 Portable Cassette Deck

Features 2 speeds (1.88 and 0.94 IPS); 3 heads; mic inputs; headphone jack; built-in speaker; built-in mike; pitch control; 3-position tape selector; ext mike and speaker jacks; manual or auto level control; switchable limiter; 3-way power. w&F 0.12% wrms; FR ferric 40-12,500 Hz  $\pm$  3 dB. s/N (A-wtd) ferric: 48 dB no NR; line-input sens for 0-dB reading 70 mV; line output level with 0-dB indication 400 mV; mike input sens 0.3 mV. 9" w x 2" h x 6.5" d; 2.9 lb....... \$330

#### PMD 201 Portable Cassette Deck

Features 2 speeds (1.88 and 0.94 IPS); 2 heads; mic inputs; headphone jack; built-in speaker; built-in mike; pitch control; 3-position tape selector; ext mike and speaker jacks; manual or auto level control; switchable limiter; 3-way power. w&F 0.12% wrms; FR ferric 40-12,500 Hz  $\pm$  3 dB. s/N (A-wtd) ferric: 48 dB no NR; line-input sens for 0-dB reading 70 mV; line output level with 0-dB indication 400 mV; mic input sens 0.3 mV. 9" w x 2" h x 6.5" d; 2.9 lb...... \$280

#### MITSUBISHI

#### DT-160 7 Cassette Auto-Changer

#### NAD

#### 6300 Monitor Series Cassette Deck

#### 6155 Dolby B/C/HX Pro Cassette Deck

With Play Trim; Dolby B; Dolby C; Dolby HX Pro; DC servo motors; LED meters ..... \$448

#### 6240 Dolby B & C Cassette Deck

Play Trim; Dyneq headroom extension for improved high-frequency response; compatible with normal, chrome, metal tape; bias fine tuning;

#### NAKAMICHI

#### Dragon Autoreverse Stereo Cassette Deck

Microprocessor-controlled 3-head cassette deck with Dolby B and C. Features Auto Azimuth Correction system; assymetrical diffused-resonance transport; Super Linear Torque directdrive motors; auto-retracting slot guides; tapepad lifter; auto tape slack take-up; 2-speed cueing; 2-speed master fader; auto rec pause; rec-level and bias-calibration controls with 2-tone oscillator; dual-gap ferrite/sendust erase head; separate tape and EQ switches for ZX, SX, and EX cassettes; direct-coupled recording and playback amplifiers; left, right, master input levels; output level control; rec mute; high-output headphone jack; defeatable infrasonic filter; 4-digit LED electronic counter with memory stop and repeat. w&F 0.019% wrms; FR 20-22,000 Hz ± 3 dB with ZX tape; s/N Dolby B/C on 66/72 dB at 400 Hz with 3% THD (A-wtd with ZX tape at 400Hz, 0 dB); sep/crosstalk 37/60 dB at 1,000 Hz, 0 dB; input sens/imp 50 mV/50 kilohms line; output level/ imp 1 V/2.2 kilohms line, 45 mW/8 ohm headphones; 17.75" w x 5.31" h x 11.81" d; 21 ĺЬ... .....\$1,995

#### CR 7A 3-Head Cassette Deck

#### **RX-505 3-Head Cassette Deck**

Discrete stereo cassette deck with unidirectional auto reverse to eliminate bidirectional azimuth error. Mechanism turns cassette over at end of side during record or playback. Features asymmetrical dual-capstan closed-loop transport; auto fade (20 secs before end of tape); Dolby B and C; DC servo motors; auto record pause; LED peak level meters reading from -40 to +10 dB; dualspeed master fader; punch-in recording; memory stop/play; soft-touch controls. w&F <0.04% wrms; FR 20-20,000 Hz ± 3 dB all tape types; S/N >70 dB with Dolby C and metal tape; THD <0.9% with ZX tape; line-input sens for 0-dB reading 50 mV; line-output level with 0-dB indication 1,000 mV; 17.75" w x 5.69" h x 11.81" d; ....\$1,295 22 lb . . . RX-202. Similar to above with 2 heads. w&F <0.06% wrms. 17.75" w x 5.38" h x 10" d; 19 lb, ... \$695

#### MR-1 Discrete 3-Head Pro Cassette Deck

Cassette deck with asymmetical dual-capstan diffused-resonance transport. Features Dolby B and C; 3 motors; memory stop; rec mute; external NR loop accessed via standard phono jacks; dual 16segment peak-reading electronic level meters; Crystalloy recording and play heads; subsonic filter; MPX filter; ± 6% pitch control front-panel 0.25" unbalanced line-input jacks; rear balanced XLR input and output jacks; unbalanced 0.25" rear jacks. Balanced inputs: imp 600 ohms; rated input level +4 dBm; headroom 16 dB to max input level (+20 dBm); min input level -6 dBm. Unbalanced inputs: imp 100 kilohms; nominal recording level with input of -20 dBV (0.1 V); nominal input level 0.316 V. Comes with EIA standard rack-mount adaptor. Optional remote control. w&F 0.027% wrms, ± 0.048% wtd peak; FR 20-20,000 Hz ± 3 dB at -20 dB...... \$945

#### CR 5A 3-Head Cassette Deck

#### BX-300 Dolby B & C Cassette Deck

Discrete 3-head cassette deck with asymmetrical dual-capstan transport driven by direct-drive capstan motor. Features 3 motors; dual capstans; bias fine tuning; direct drive; output level control; memory stop/play; LED meters; soft-touch controls; headphone jack; rec mute; pitch control; wired remote control; 2-speed master fader; defeatable MPX filter; 2-position EQ switch; 3-position tape selector; separate L + R output level. w&F 0.027% wrms; FR ferric 20-20,000 Hz ± 3 dB, high bias 20-20,000 Hz ± 3 dB, metal 20-20,000 Hz ± 3 dB; s/N (A-wtd) metal: 64 dB Dolby B, 70 dB Dolby C; line-input sens for 0-dB reading 50 mV; line output level with 0-dB indication 1,000 mV. 16.94" w x 3.94" h x 9.88" d; 

#### MR-2 2-Head Pro Cassette Deck

#### BX-125 Dolby B & C Cassette Deck

Microprocessor-controlled silent-mechanism 2head cassette deck. Features 2 heads; 3 motors; output level control; memory stop/play; LED meters; soft-touch controls; headphone jack; 2-speed master fader; defeatable MPx filter; 2-position Eq switch; 3-position tape selector; separate L + R output level. w&F 0.06% wrms; FR ferric 20-20,000 Hz, high bias 20-20,000 Hz, metal 20-20,000 Hz; s/N (A-wtd) metal: 62 dB Dolby B, 68 dB Dolby C; line-input sens for 0-dB reading 50 mV. line output level with 0-dB indication 500 mV. 16.94" w x 3.94" h x 9.88" d; 11 lb ... \$475

#### **BX-100 2-Head Cassette Deck**

#### NEC

#### K-700E Double Cassette Deck

High- and normal-speed dubbing cassette deck cam be remote controllable when used with NEC unified-remote integrated amps or receivers. Features 2 heads; 2 motors; 15-program random memory for recording and playback; Dobly B & C; continuous playback; music search; flayingstart recording; auto play; intro play; auto rec mute; 4-digit counters; LED meters; soft-touch controls; mike inputs. w&F <0.06% wrms; FR



dB no NR, 66 dB Dolby B, 75 dB Dolby C. 16.88" w x 4.31" h x 10.62" d; 11.5 lb ..... \$349

#### K-510 Double Cassette Deck

#### NIKKO AUDIO

#### D-100III Autoreverse Cassette Deck

#### ND-850W Cassette Deck

Double cassette deck ..... \$430

#### D-60W Double Cassette Deck

Features 6 motors; high-speed dubbing; Dolby B & C; ABPS; IP; RPSS; random dubbing song search (RDSS). Optionally rack mountable ...... \$420

#### ND-750 Cassette Deck

Full-logic autoreverse cassette deck with Dolby B & C ..... \$299

#### **D-30W Double Cassette Deck**

High-speed dubbing cassette deck with continuous play. Features Dolby B & C; separate 1./R input level controls; multiplex filter; mic inputs; headphone output; soft-touch operation. Optionally rack mountable \$290

#### **ONKYO**

#### Integra TA-2090 Unidirectional Cassette Deck

Computer-controlled cassette deck with Dolby B, C, dbx NR and Dolby HX Pro. Features 3 heads; 3 motors; auto bias/EQ; dual capstans; bias fine tuning; direct drive; elapsed-time counter; remaining-time counter; music search; output level control; memory stop/play; mike input; headphone jack; rec mute; record calibration controls; sendust heads; MPX filter; fluorescent meters; 2color peak hold. Remote control and side panels optional. w&F 0.02% wrms; FR 25-17,000 Hz ± 3 dB (Type-I tape), 25-19,000 Hz ± 3 dB (Type-II tape), 25-21,000 Hz ± 3 dB (Type-IV tape); s/N (Type-IV tape) 60 dB no NR, 70 dB Dolby B, 80 dB Dolby C, 87 dB dbx. 17.69" w x 3.93" h x 15.44" d; 20 lb ..... . \$900 CW-20. Optional woodgrain side panels for TA-2090.....\$60/pr

#### **TA-RW490 Double Cassette Deck**

Features double autoreverse; double recording; high-speed and real-time dubbing; continuous re-

#### Integra TA-2058 Unidirectional Cassette Deck

Cassette deck with computer-controlled 3-motor transport, Dolby B& C NR, and Dolby HX Pro. Remote-control compatible with Onkyo remotecontrolled receivers. Features auto bias-adjusting system to optimize FR within 5 sec; 3 heads; auto bias/EQ; elapsed-time counter; remaining-time counter; music search; memory stop/play; LED meters; mike inputs; rec mute; headphone jack; MPX filter; 3 repeat modes; master left/right level fader with balance fine tuning. w&F 0.045% wrms; FR 30-17,000 Hz ± 3 dB (Type-II tape), 30-18,000 Hz ± 3 dB (Type-IV tape); s/N (Type-



#### Integra TA-2048 Unidirectional Cassette Deck

#### TA-W460 Double Cassette Deck

#### **TA-R260** Autoreverse Cassette Deck

#### **TA-2140 Unidirectional Cassette Deck**

Features Dolby B & C; Dolby Hx Pro; 2 heads; 2 motors; computer-controlled silent-mechanism transport; fine-tuning accu-bias; automatic music control system; auto bias/EQ; real-time 4-digit tape counter; blank skip; mike inputs; headphone jack; auto space; 1ED meters. Remote control optional. w&F 0.06% wrms; FR 30-15,000 Hz ± 3 

#### **TA-RW44 Double Cassette Deck**

#### **TA-R240** Autoreverse Cassette Deck

#### TA-2130 Unidirectional Cassette Deck

#### **TA-2017B Unidirectional Cassette Deck**

Features Dobly B & C; 2 heads; 1 motor; bias fine tuning; 1.ED meters; soft-touch controls; mike inputs; direct-function transport; peak level meters; MPX filter. w&F 0.07% wrms; FR 30-14,000 Hz  $\pm$  3 dB (Type-I tape), 30-15,000 Hz  $\pm$  3 dB (Type-II tape), 30-16,000 Hz  $\pm$  3 dB (Type-IV tape); s/N (Type-IV tape) 56 dB no NR, 66 dB Dolby B, 76 dB Dolby C. 17.13" w x 4.44" h x 10.63" d; 10 lb. Black finish only ...... \$190

#### **RC-5T Wired Remote Control**

Optional wired remote control operates major transport functions of Onkyo-compatible turntables and cassette decks. 13-ft cord ........... \$55

#### PARASOUND

#### PIONEER

CT-1380WR Double Cassette Deck

Features Pioneer "SR" unified remote control;

autoreverse recording and playback in both decks; Dolby B & C; high-speed dubbing; continuous dubbing; relay record and play; random-access programming of up to 10 songs per tape side;



#### **CT-V70 Double Cassette Deck**

#### CT-X707WR(BK) Double Cassette Deck

Features autoreverse; Dolby B & C; high-speed dubbing; relay paly; synchro start; music search; record mute. w&F 0.075% wrms; s/N >57 dB no NR. 3.94" h x 14.19" w x 12.94" d ...... \$325

#### **CT-1280WR Double Cassette Deck**

#### CT-2070R(BK) Autoreverse Cassette Deck

#### **CT-980W Double Cassette Deck**

#### PROTON

#### 740 Autoreverse Cassette Deck

Full-logic-controlled cassette deck with Dolby B, C, and dbx. Features 2 heads; 1 motor; auto bias/ EQ; elapsed-time counter; music search; output level control; memory stop/play; LED meters; soft-touch controls; mic inputs; headphone jack; rec mute; sleep timer function; 9 program memory selection; adaptable to timer for playback or record. w&F 0.05% wrms; FR ferric 25-16,000 Hz ± 3 dB, high bias 25-18,000 Hz ± 3 dB, metal 25-19,000 Hz ± 3 dB; s/N (A-wtd) ferric: 49 dB no NR, 58.5 dB Dolby B, 68 dB Dolby C, 78 dB dbx, high bias: 53 dB no NR, 62 dB Dolby B, 71.5 dB Dolby C, 85 dB dbx, metal: 53 dB no NR, 60 dB Dolby B, 70 dB Dolby C, 95 dB dbx; line-input sens for 0-dB reading 90 mV; line output level with 0-dB indication 700 mV; mic input sens 0.35 mV ..... \$329

#### AD-300 Autoreverse Cassette Deck

Features Dolby B & C NR; autoreverse (in play and rec); MPX filter; auto bias selector; full-logic



#### 720B Dolby B & C Cassette Deck

Stereo cassette deck with Dolby B and C. Features soft-touch operation; one-touch record; bias circuit to reduce crosstalk between stereo channels; defeatable MPX filter; LED record indicators; balance control; mic inputs; headphone jack; mic/line mixing capability. w&F 08%; FR 30-17,000 Hz  $\pm$  3 dB (ferric); 30-17,000 Hz  $\pm$  3 dB (high bias), 30-18,000 Hz  $\pm$  3 dB (metal); s/N ferric, 65.5 dB with Dolby B, 74 dB with C, high bias/metal tape, 69.5 dB with Dolby B; 78 dB with C. 16.5" w x 4.38" h x 9.75" d...... \$199

#### RCA

#### MTR225 Double Autoreverse Cassette Deck

#### REALISTIC

#### SCT-100 Double Autoreverse Cassette Deck

Dolby B and Dolby C; high-speed dubbing; compatible with normal, high-bias, metal tapes; mic inputs; headphone jack; 2-color 8-LED peak-level meters; sequential play; soft-touch controls. W&F 0.08% wrms; FR (± 3 dB) ferric 40-12,500 Hz, high bias 40-13,000 Hz, metal 40-14,000 Hz; S/N 69 dB Dolby C, 61 dB Dolby B ...... \$230

#### SCT-83 Autoreverse Cassette Deck

Dolby B; Dolby C; music search; solenoid operation; plays 1 side, both sides, or repeats continuously; compatible with normal, high-bias, metal tape; mic and headphone jacks; intro scan. W&F 0.06% wrms; FR (± 3 dB) ferric 40-14,000 Hz, high bias 40-15,000 Hz, metal 40-16,000 Hz; S/N 70 dB Dolby C, 62 dB Dolby B ....... \$220

#### SCT-74 Double Cassette Deck

#### SCT-45 Double Cassette Deck

4 heads; 2 motors; Dolby B; manual azimuth adjust; elapsed-time counter; mic inputs; headphone jack. W&F 0.1% wrms; FR ( $\pm$ 3 dB) ferric 40-12,500 Hz, high bias 40-13,000 Hz, metal 40-14,000 Hz; S/N (A-wtd) ferric 60 dB Dolby B. 16.5" W x 5" H x 8.81" D; 8 lb, 10 oz ... \$130

#### SCT-46 Double Cassette Deck

Dolby B; 2 heads; high-speed dubbing; headphone and mic jacks; Synchro-Start; continuous play; 2-color LED level meters; permalloy rec/ play head. W&F 0.1% wrms; FR (± 3 dB) ferric

#### SCT-35 Dolby B Cassette Deck

#### SCP-30 Cassette Player

Plays	metal, high-bias,	normal tap	es; pau	se; auto
	simulated walnu			
5.25*				\$50

#### 8-Track Cartridge Player

#### TR-169 8-Track Cartridge Player

Stereo 8-track player; auto or manual program change; output level control; program LED's. 4" x 10" x 7"......\$50

#### REVOX

#### **B215 3-Head Cassette Deck**

Cassette deck with 3 microprocessors for control of bias, level, EQ, transport, and real-time counter. Features 3 heads; 4 motors; digital storage of bias, level, EQ settings for 6 tape formulations; manual or auto record-level setting; diecast transport chassis; azimuth-stable pivoting headblock; 2 programmable locate buttons; loop



mode; auto start-of-record locate. Counter computes elapsed time on partially wound tapes. w&F 0.1% wrms; FR ferric 30-18,000 Hz  $\pm$  3 dB, high bias and metal 30-20,000 Hz  $\pm$  3 dB; s/N (A-wtd) ferric: 55 dB no NR, 64 dB Dolby B, 70 dB Dolby C, high bias: 57 dB no NR, 65 dB Dolby B, 72 dB Dolby C, metal: 58 dB no NR, 66 dB Dolby B, 72 dB Dolby C, time-input sens for 0-dB reading 50 mV; line output level with 0-dB indication 775 mV; 17.7" x 6" x 13" ....\$1,880

#### ROTEL

#### RD870 Dolby B/C/HX Pro Cassette Deck

#### RD850 Dolby B & C Cassette Deck

Cassette deck with sendust rec/play head, ferrite core erase head. Features soft-touch controls; LED meters; mic inputs; DC servo motors; head-phone jack. w&F 0.08% wrms; FR ferric 30-17,000 Hz  $\pm$  3 dB, high bias 30-17,000 Hz  $\pm$  3 dB, netal 30-18,000 Hz  $\pm$  3 dB; s/N high bias; 55 dB no NR, 64 dB Dolby B, 72 dB Dolby C; 17" w

For explanations of abbreviations, specifications, and technical terms, consult the glossary on page 221.

#### SAE

#### C101 3-Head Cassette Deck

#### C102 2-Head Cassette Deck

Full-logic microprocessor cassette deck. Features tape transport encased in electronic sliding drawer; 2 heads; 2 motors; Dolby B; Dolby C; manual azimuth adjust; elapsed-time counter; remainingtime counter; music search; blank skip; memory stop/play; LED meters; rec mute; sendust heads. w&F 0.06% wrms; FR 20-20,000 Hz for all tape types; s/N (high bias): 55 dB no NR, 65 dB Dolby B, 74 dB Dolby C; line-input sens for 0-dB reading 70 mV; line output level with 0-dB indication 650 mV. 19" w x 3.5" h x 14" d; 18 lb ... \$429

#### SANSUI

#### **D-W11 Double Cassette Deck**

Auto-reverse high-speed dubbing cassette deck. Features 2 heads and 2 motors for each transport; Compu-Edit; 16-track RMPS; 15-track Automatic Music Program Search; auto fader; rec cancel; intro skip; timer record/play; manual and auto level controls; auto bias/EQ; Dolby B & C NR; dual capstans; auto azimuth adjust; elapsed-time counter; music search; blank skip; memory stop/ play; LED meters; mike inputs; headphone jack; rec mute; black or silver. w&F 0.05% wrms; FR metal 30-17,000 Hz  $\pm$  3 dB; s/N (A-wtd) metal: 57 dB no NR, 66 dB Dolby B, 73 dB Dolby C. 16.94" w x 4.37" h x 12" d; 13.4 lb ...... \$600

#### D-705 Dolby B & C Cassette Deck

Cassette with timer record/play and real-time auto tape monitor. Features 3 heads; 2 motors; bias/EQ; dual capstans; bias fine tuning; blank skip; music search; output level control; LED meters; rec mute. w&F 0.035% wrms; FR metal 20-21,000 Hz  $\pm$  3 dB; S/N (A-wtd) metal: 68 dB Dolby B. 16.94" w x 4.36" h x 12.25" d ... \$500

#### **D-3000WR Double Cassette Deck**

#### **D-505R** Autoreverse Cassette Deck

#### SANYO

#### **RDW79 Double Cassette Deck**

Features 3-way programmable autoreverse; infrared reverse sensor; auto-reverse record; highspeed dubbing; synchro dubbing; Dolby NR; metal-tape capability; dual level meters; auto stop;



soft-touch transport controls; tape counter; headphone jack ...... \$190

#### **RDW59 Double Cassette Deck**

#### **RDW49 Double Cassette Deck**

#### **RDW41 Double Cassette Deck**

#### **RDS29** Cassette Deck

#### SCOTT

#### DD686 Double Autoreverse Cassette Deck

Remote control; Dolby B, Dolby C, dbx NR; fulllogic transports; auto program search; relay play; bias fine tuning; 3-way autoreverse selection;



#### **DD688 Double Cassette Deck**

#### SHARP

#### RT-6W800(BK) Double Cassette Deck

Autoreverse high-speed-dubbing cassette deck with Dolby B. Features soft-touch controls; auto program search; LED peak level meters; metaltape capability; 2 heads; 1 motor; music search; output level control; mike inputs; headphone 

#### RT-W500(BK) Double Cassette Deck

Cassette deck with high-speed synchronous dubbing and continuous playback capability. Features 2 heads, 1 motor; Dolby B; LED peak level meters; headphone jack; mic inputs; metal-tape capability; auto stop. w&F 0.12% wrms; record/ playback FR ferric 50-11,000 Hz ± 3 dB, high bias 50-12,000 Hz ± 3 dB; metal 50-13,000 Hz ± 3 dB; 17" w x 4.88" h x 8.56" d; 7.3 lb ...... \$120

#### RT-115(BK) Dolby B Cassette Deck

### SHERWOOD

S-289RDR Double Cassette Deck Features autoreverse dubbing capability; 2 dubbing speeds; Dolby B & C NR; compatible with



Sherwood Digi-Link remote components; auto music search; auto tape select; LED peak level indicators; relay playback for continuous listening of both decks; timer/start; rec mute ...... \$300

#### SONY

TC-K700ES Unidirectional Cassette Deck Three-head cassette deck with a mid-ship drive system that separates the control circuitry from the audio circuits leaving the tape transport mechanism in the mid-ship portion of the chassis. Features twin monaural DC amp design; LC-OFC laser amorphous heads; Dolby B & C; memory



#### TC-WR950 Double Cassette Deck

Remote-controlled high-speed-dubbing cassette deck with autoreverse, record, and playback for both decks. Features Dolby B & C for both decks; super bias technology; 2 laser amorphous heads in each deck; 2 motors for each deck; 12-selec-

#### **TC-R503** Autoreverse Cassette Deck

Features remote control; Dolby B & C; Dolby Hx Pro; 2 laser amorphous heads; 2 motors; recordlevel calibration; timer record and playback; auto music sensor; music scan; blank skip; auto playback-EQ selector; 24-segment FL meter; linear tape counter; headphone jack with adjustable level; feather-touch controls. w&F 0.05% wrms; FR 30-17,000 Hz  $\pm$  3 dB (Type-IV tape); s/N 59 dB (no NR, Type-IV tape). 14" w x 4.25" h x 11.25" d

#### TC-WR750 Double Cassette, Deck

Remote-controlled high-speed-dubbing cassette deck with autoreverse, record, and playback for deck B and playback and autoreverse for deck A; Features Dolby B & C; 2 sendust heads (deck B); 1 sendust head (deck A); 2 motors for each deck; sync record; timer record and playback; auto music sensor for both decks; blank skip for both decks; auto pause; auto play; autospace rec mute; auto plauback-EQ selector (deck A); manual playback-EQ selector (deck B); 12-segment LED meter; drum tape counter (deck B); headphone jack; feather-touch controls. w&F 0.07% wrms; FR 30-15,000 Hz  $\pm$  3 dB (Type-IV tape); s/N 58 dB (no NR, Type-IV tape). 17" w x 5.12" h x 10.88" d

#### TC-WR550 Double Cassette Deck

#### **TC-R303 Autoreverse Cassette Deck**

#### TC-WR250 Double Cassette Deck

High-speed-dubbing cassette deck with record and playback for deck B and playback for deck A. Features Dolby B & C; 2 sendust heads (deck B); 1 sendust head (deck A); 1 motor for each deck; timer record and playback; auto playback-EQ selector (deck A); manual playback-EQ selector (deck B); 7-segment LED meter; drum tape counter (deck B); headphone jack; soft-touch controls. Wow-and-flutter 0.012% weighted root mean square; frequency response 30-15,000 Hz  $\pm$  3 dB (Type-IV tape); signal-to-noise ratio 58 dB (without noise reduction, Type-IV tape). 16" w x 5.12" h x 9.75" d..... \$210

#### **TANDBERG**

#### TCD 3014A Cassette Deck

8-bit, 32-K, E-PROM microprocessor-controlled stereo cassette deck with 4 servo-controlled tapetransport motors. Features scan to play; scan to stop; auto rewind; auto replay; timer record/play; 3 heads; Dolby B and C; azimuth alignment; bias adjustment; record current adjustment utilizing built-in test system; linear motor to position heads and pinch-rollers to tape; instant "flying start" record/play; Dyneq record equalization; Actilinear II headroom-extension system; peakreading meters; cue and review at half speed; real time/real revolution counter; LED indication of all transport functions. Wireless infrared remote control with built-in receiver included. Rosewood side panels and rack mounts available ...\$1,995

#### **TASCAM BY TEAC**

#### 246 4-Track Cassette Deck/Mixer

#### 234 4-Track Cassette Deck

4-track, 4-channel full-IC-logic cassette deck with sync recording and individual function select for each track recorded. Features 3.75-ips tape speed; digital tape counter; individual VU meters per track with peak LED; punch-in recording; stereo pan pots; balanced and unbalanced inputs; search to zero; block repeat; 3 heads; 3 motors; dbx; output level control; memory stop/play; mike inputs; headphone jack; pitch control. Rack mountable. W&F 0.04%; FR high bias 40-16,000 Hz  $\pm$  3 dB; S/N (A-wtd, high bias) 54 dB Dolby B, 95 dB dbx, 19" w x 5.89" h x 14.06" d; 21.6 lb ... \$949 234L, As above with 1.88-ips tape speed ... \$949

#### 122MKII 4-Track Cassette Deck

2 channels; 3 heads; cobalt amorphous record and play heads; FG-servo direct-drive motor; balanced XLR inputs and outputs; RCA connectors; Hysteresis Tension Servo Control; Dolby HX Pro; bias/level calibration for each ch; index and time counter; block repeat; zero return stop or play; unbalanced phone jack inputs on front panel; rack mountable; Dolby B and Dolby C NR; bipolar power supply; needle VU meters with peak LED's; ± 12% pitch control; output level control; headphone jack with level control; optional re-mote control (RC-71); fader start. W&F 0.04% NAB, 0.08% peak DIN/IEC/ANSI wtd; FR at -20 dB with no NR: 25-20,000 Hz ± 3 dB metal, to 19,000 Hz  $\pm$  3 dB chrome, to 17,000  $\pm$  3 dB normal; THD 1% at 0 VU, 400 Hz; S/N (ref 3% THD) 59 dB no NR, wtd, 68 dB Dolby B, over 1,000 Hz, 78 dB Dolby C, over 10,000 Hz; 19" w x 5.25" h w 11.7" d; 16.94 lb...... \$895 

#### 112R Autoreverse Cassette Deck

Rotating play and record heads; Hysteresis Tension Servo Control; 16-pin connector on rear for remote control and interfacing with other decks; rack mountable; optional remote control; Dolby B and Dolby C NR; index and time counter;  $\pm$  15% pitch control; auto bias/EQ; L and R mic inputs; timer standby; auto monitor. W&F 0.03% NAB, 0.06% peak DIN/IEC/ANSI wtd; FR at -20 dB with no NR: 25-20,000 Hz  $\pm$  3 dB metal, to 19,000 Hz  $\pm$  3 dB chrome, to 17,000  $\pm$  3 dB normal; THD 1% at 0 VU, 400 Hz; S/N (ref 3% THD) 60 dB no NR, wtd, 70 dB Dolby B, over 1,000 Hz, 80 dB Dolby C, over 1,000 Hz; 18.2" w \$5.6" h w 11.7" d; 12.79 lb ...... \$795

#### Mini-Studio Porta Two Cassette Deck/Mixer

#### TEAC

#### W-990RX Double Autoreverse Cassette Deck

Continuous recording; parallel recording; 3 motors in each transport; logic control; wireless remote control; sync reverse; 1-touch high-speed or normal speed dubbing; Random Memory Program Dubbing; cobalt amorphous linear-crystal oxygen-free copper rec/play head; Dolby B, Dolby C, dbx NR; independent counters for each transport; 2-color L/R peak meters; intro check; blank scan; timer compatible; rec mute with auto space; headphone jack. W&F 0.045%; FR 30-19,000 Hz 3 dB with metal tape; S/N (3% distortion, wtd) 59 dB no NR, 78 dB (over 1,000 Hz) Dolby C, 91 dB dbx (1,000 Hz); 13.3 lb... \$759

#### **R-919X Autoreverse Cassette Deck**

#### V-970X Dual-Capstan 3-Head Cassette Deck

Closed-loop transport; 3 motors; 1 erase head, 1 record head, 1 play head; logic control; remote control; Dolby HX Pro headroom extension; dou-

# PRICES LISTED

are manufacturers' suggested retail prices (also referred to as *list* prices); actual selling prices are set by individual dealers. All prices are subject to change without notice.

ble Dolby B, Dolby C, dbx NR; 2-color L/R peak meters; intro check; blank scan; memory stop/ play; timer compatible; manual bias calibration with oscillator (separate for L and R ch); headphone jack; electronic tape counter displays time; CD level check; program search; direct selection; block repeat; MPX filter; optional wooden side panels; output level control. W&F 0.028%; FR 25-20,000 Hz 3 dB with metal tape; S/N (3% distortion, wtd) 60 dB no NR, 80 dB (over 1,000 Hz) Dolby C, 92 dB dbx (1,000 Hz)..... \$699

#### AD-4 Cassette Deck and CD Player,

Wireless remote control; random program dubbing of 16 tracks; auto space; Dolby B and Dolby C NR; 1 erase, 1 record/play head; autoreverse; synchro start auto dubbing; CD repeat. CD player section: S/N 94 dB; THD 0.02%; sep 90 dB. Cassette deck section: W&F 0.05%; FR to 16,000 Hz ..... \$599

#### W660R Double Autoreverse Cassette Deck

Double quick-autoreverse cassette deck with full IC-logic transport control. Features 2 heads; 3 motors; 2 transports; RMPD; cobalt amorphous head in deck II; continous playback; auto bias/ EQ; Dolby B; Dolby C; blank skip; music search; LED meters; rec mute; headphone jack. W&F 0.05% wrms; FR ferric 25-18,000 Hz ± 3 dB, high bias 25-19,000 Hz ± 3 dB, metal 25-20,000 Hz ± 3 dB; S/N (A-wtd) metal: 69 dB Dolby B, 78 dB Dolby C. 12 lb; 17.12" w x 4.36" h x 11.44" d ..... \$599 W460-C. Similar to W660R without autoreverse and cobalt amorphous head ..... \$549 D-525C. Similar to W460-C without blank scan and RMPD ..... \$349

#### AD-7 Cassette Deck and CD Player

Wireless remote control; random program dubbing of 15 tracks; auto space; rec mute; auto bias/ EQ; Dolby B, Dolby C, dbx NR; MPX filter; erase, 1 record/play head; autoreverse; Time Edit calculates CD tracks that will fit on tape, changing order to fill tape; timer compatible; synchro start auto dubbing; blank scan; headphone jack with level control; twin rec-level controls; bias adjust control; CD repeat of disc or program; index search; 3-beam laser. CD player section: S/N 95 dB; THD 0.004% at 1,000 Hz; sep >90 dB; W&F unmeasurable. Cassette deck section: W&F 0.05%; FR 30-19,000 Hz ± 3 dB with metal tape. 16 lb ..... \$569

R-616X Autoreverse Cassette Deck 2 motors; 1 erase head, 1 rotating record/play head; logic control; Dolby HX Pro headroom extension; Dolby B, Dolby C, dbx NR; 2-color L/R peak meters; intro check; blank scan; memory stop/play; timer compatible; headphone jack with level control; electronic tape counter displays time; 1-touch recording; independent L/R input controls; program search; direct selection; block repeat; MPX filter; CD level check. W&F 0.05%; FR 25-20,000 Hz with metal tape; S/N (3% distortion, wtd) 59 dB no NR, 74 dB (1,000 Hz) Dolby C, 90 dB dbx (1,000 Hz); 11 lb .... \$489

#### V-770 3-Head Cassette Deck

Full IC-logic tape transport; 2 motors; auto bias/ EQ; Dolby B and Dolby C; Dolby HX Pro; bias fine tuning; elapsed-time counter; music search; output level control; memory stop/play; LED meters; rec mute; headphone jack; intro check; gold-plated jacks; MPX filter; Computatic Program Search (CPS). W&F 0.05% wrms; FR (all ± 3 dB) ferric 25-18,000 Hz, high bias 25-19,000 Hz, metal 20-20,000 Hz; S/N (A-wtd) metal 69 dB Dolby B, 74 dB Dolby C. 17.12" w x 4.75" h x 10.44" d; 10.8 lb ..... \$469

V-550X Dolby B/C/dbx Cassette Deck Full-IC-logic cassette deck with cobalt amor-

phous head. Features 2 heads; 2 motors; auto bias/EQ; elapsed-time counter; music search; memory stop/play; LED meters; mic inputs; rec mute; headphone jack; MPX filter; intro check; 1touch recording. W&F 0.05% wrms; FR ferric 25-18,000 Hz  $\pm$  3 dB, high bias 20-19,000 Hz  $\pm$  3 dB, metal 20-20,000 Hz ± 3 dB; S/N (A-wtd) metal: 69 dB Dolby B, 74 dB Dolby C, 90 dB dbx. 11 lb; 17.12" w x 4.75" h x 10.44" d . \$429

#### **R-435X Autoreverse Cassette Deck**

Cassette deck with rotary head system. Features 2 heads; 1 motor; Dolby B; Dolby C; dbx; output level control; LED meters; soft-touch controls; mic inputs; rec mute; headphone jack. W&F 0.06% wrms; FR ferric 30-16,000 Hz ± 3 dB, high bias 30-17,000 Hz ± 3 dB, metal 30-17,000 Hz ± 3 dB; S/N (A-wtd) metal: 65 dB Dolby B, 70 dB Dolby C, 90 dB dbx. 9 lb; 17.12" w x 4.89" h x 10.75" d ..... \$299

#### W-310C Double Cassette Deck

Continuous play; Dolby B and Dolby C NR; compatible with metal tape; 5-part LED VU display; 3-digit tape counter; fine bias control. 6.4 lb ......\$179 W-300. Similar to W-310C except lacks Dolby C and fine bias control ..... \$159

#### V-210C Dolby B/C Cassette Deck

2 heads; 1 motor; uses normal or metal tape; fine bias control; 5-part LED VU meter; 3-digit tape counter; auto stop. 6.4 lb ..... \$129 V-200. Similar to V-210C except lacks Dolby C and fine bias control ..... \$119

#### **TECHNICS**

#### **RS-T80R Double Cassette Deck**

Features quick autoreverse, record, and play for both transports; 4 reverse modes; parallel and 3hr series recording on both transports; series playback; synchro start; FL display; auto bias/ EQ; feather-touch controls; remote-control capability with some Technics receivers; high-speed editing; 4 heads; 2 motors; Dolby B, Dolby C, dbx NR; elapsed-time counter; music select; headphone jack. W&F 0.08% WRMS; S/N (A-wtd) high bias 57 dB no NR, 67 dB Dolby B, 75 dB Dolby C, 92 dB dbx. 16.94" w x 4.36" h x 10.91" d; 11.7 lbs..... \$600

#### **RS-T55R Double Cassette Deck**

Features quick autoreverse for both transports; Dolby B, Dolby C, and dbx NR; high-speed dubbing; auto bias/EQ; synchro start, stop; rec mute; auto space; anti-resonant metallic feet; edit search on Transport A; soft-touch controls; 28-part digital peak readout ..... \$420 RS-T33R. Similar to above except lacks dbx and autoreverse on Transport B ..... \$350 RS-T22. Similar to RS-T33R execpt lacks syn-and digital peak readout ..... \$195

RS-B29R Autoreverse Cassette Deck Cassette deck with V-Tri-Hold rotary head and 3point head support for minimal lateral/vertical variance and precise alignment in both directions. High-pitch extra-tempered steel-azimuth adjusting screws maintain correct head angle. Features 2 heads; 1 motor; Dolby B and Dolby C; remotecontrolled through some Technics receivers; feather-touch controls; auto rec mute; timer rec/ play; elapsed-time counter; music select; mike inputs; LED meters; headphone jack. W&F 0.08% WRMS; S/N (A-wtd, with high-bias tape) 57 dB no NR, 67 dB Dolby B, 75 dB Dolby C. 16.94" w x 3.94" h x 9" d; 7.9 lbs ..... \$270

#### **RS-B207 dbx Cassette Deck**

Features 2 heads; 2 motors; Dolby B, Dolby C,

and dbx NR; elapsed-time counter; mike inputs; headphone jack; soft-touch controls; 1-touch recording; full auto stop; digital counter; FL display; rec level balance; timer rec/play. W&F 0.08% WRMS; S/N (A-wtd with high-bias tape) 57 dB no NR, 66 dB Dolby B, 74 dB Dolby C, 92 dB dbx. 16.94" w x 4.53" h x 8.75" D; 7.5 lbs ..... \$225

#### RS-B107 Dolby B & C Cassette Deck

Features FL peak-level meters; 1-touch recording; full auto stop; digital counter; FL display; rec-level balance controls; timer rec/play; 2 heads; 1 motor; elapsed-time counter; mike inputs; headphone jack; soft-touch controls. W&F 0.08% WRMS; S/N (A-wtd, with high-bias tape) 57 dB no NR, 66 dB Dolby B, 74 dB Dolby C. 16.94" w x 4.53" h x 8.75" d; 7.5 lbs . . . . \$190

#### **RS-B105 Dolby B Cassette Deck**

Features direct-mode switching; 2 heads; 2 motors; 1-touch recording; full auto stop; rec-level balance controls; timer rec/play; elapsed-time counter; LED meters; soft-touch controls; mike inputs. W&F 0.08% WRMS; S/N (A-wtd, with high-bias tape) 56 dB no NR, 66 dB Dolby B. 16.94" W × 4.53" H × 9.28" D; 6.6 lbs ... \$145

#### **UHER OF AMERICA**

#### **CR 1601 Portable Cassette Deck**

Compact front-loading portable cassette recorder with monitor facility featuring 8 hours record time and built-in voice actuating system. Features 3 heads; 2 motors; dual capstans; bias fine tuning; manual azimuth adjust; direct drive; elapsed-time counter; output level control; memory stop/play; LED meters; soft-touch controls; mike inputs; headphone jack; rec mute; 3 tape speeds: 1.88 ips, 0.94 ips and 0.16 ips with ALC. W&F <2% wrms; FR ferric 20-19,000 Hz ± 3 dB; 9.3" w x 2.3" h x 

### **CR-160AV** Portable Cassette Deck

Stereo cassette deck with Dolby B and C NR. Fea-



tures 2 heads; 1 motor; manual azimuth adjust; mike inputs; headphone jack; ALC with 2 time constants; sep channel record level control; 3 built-in monitor speakers. Operates on dry cells, 12-V car battery or 120 V AC. w&F 0.2% DIN; FR ferric 30-16,000 Hz  $\pm 3$  dB, high bias 30-16,000 Hz ± 3 dB; s/N ferric: 64 dB no NR, 55 dB Dolby B; high bias: 66 dB no NR, 57 dB Dolby B; line-input sens for 0-dB reading 588 mV; line output level with 0-dB indication 775 mV; mike input sens 0.35 mV ..... \$899

#### Accessories

#### F-423 Diapilot

Self-contained unit for synchronized tape control

The listings are based on data provided by the manufacturers. For more product information, contact an authorized dealer or the manufacturer directly. Manufacturers' addresses and phone numbers are listed in the directory beginning on page 226.

operation of automatic slide projector for	use
with Uher open-reel and cassette decks. D	0IN
plug connector \$	260

#### Z-135 Power Supply/Charger

Power s	upply/charger	unit for	Uher	cassette re-
corders				\$107

#### **VECTOR RESEARCH**

#### VCX-345 Double Cassette Deck

Double cassette deck with Dolby B and C NR. Features 2-speed dubbing; synchro-start dubbing; continuous play; power-assist transport controls; mic inputs; manual dubbing/recording level; met-



#### VCX-325 Double Cassette Deck

#### VCX-250 Dolby B & C Cassette Deck

#### YAMAHA

#### KX-1200U 3-Head Cassette Deck

#### K-1020B 3-Head Cassette Deck

#### K-720B Autoreverse Cassette Deck

Features pure sendust heads; Dolby B, C, And HX Pro; dbx; introscan; music search; remaining time; auto fade; linear counter; programmed recording and playback. Black; 13 lb ...... \$499

#### K-640B Autoreverse Cassette Deck

#### **KX-W500 Double Cassette Deck**

#### K540B Cassette Deck

#### K-222B Double Cassette Deck

#### KX-400U Autoreverse Cassette Deck

Features permalloy rotary head design; one-way autoreverse; Dolby B, C, and HX Pro; music search; auto tape selector; forward/reverse intro scan; blank skip; phrase repeat; auto fader; rec return; auto rec mute; timer rec/play; optional RS-KW5 wireless remote control; 2-color 6-segment LED peak level meters. Black; 11 lb ..... \$299

#### K340B Cassette Deck

Features Dolby B, C, and HX Pro; sendust R/P low-impedance head; 2 motors; full-logic operation; auto-tape selector. Black; 11 lb..... \$259

#### K-142B Double Cassette Deck

#### KX-200U Cassette Deck

#### Accessories

## OPEN-REEL TAPE DECKS

#### REVOX

#### PR99 MK II Stereo Tape Deck

Stereo half-track recorder with 2 speeds: 15- and 7.5-, or, alternatively, 7.5- and 3.75 ips. Features direct drive; servo-controlled capstan; electrically



controlled reel motors; 10.5" reel capacity; balanced XLR line-in/out and switched cal/uncal level settings; high- or low-imp mic input (balanced, XLR option); 2-way Self-Sync with complete tape-editing facilities including tape dump, logic-controlled transport; true VU meters with LED peak indicators; tape/source monitoring; safe/ready record switches; 6-digit LED real-time counter; address locate; zero locate; variable speed control; manual/remote-control/fader-start operation. w&F 0.06% DIN at 15 ips, 0.08% at 7.5 ips, 0.1% at 3.75 ips; FR +2/-3 dB 30-22,000 Hz at 15 ips, to 20,000 Hz at 7.5 ips, to 16,000 Hz at 3.75 ips; S/N 66 dB at 15 and 7.5 ips, 63 dB at 3.75 ips; case or 19" rack mount; 19" w x 15.7" h x 7.9<sup>"</sup> d.....\$2,799 Console ..... \$475 Carrying case ..... \$295

#### **B77 MKII Stereo Tape Recorder**

Stereo open-reel tape recorder with 3 motors. Two speeds (3.75 ips and 7.5 ips). Features  $10.5^{\circ}$  reel capacity; front-panel vari-speed control  $\pm 10\%$ ; integrated-drive-logic computer-type push-point function keys; built-in tape cutter;

dual vu meters with peak level indicators; separate left/right record and input level controls; tape monitor switch; provision for remote control of all functions and electric timer operation; connectors for remote control of tape transport functions, remote control of variable tape speed, and slide projector or crossfade unit. w&F less than ± 0.1% at 3.75 ips, less than 0.08% at 7.5 ips; FR +2/-3 dB 30-16,000 Hz at 3.75 ips, 30-20,000 Hz at 7.5 ips; s/N < 64 dB at 3.75 ips, < 67 dB at 7.5 ips, mic input level/imp 0.15 mV/2.2 kilohms (low position, 50-to-600-ohm mics), 2.8 mV/110 kilohms (high, 20 kilohm mics). Also available in high-speed, low-speed, super-low-speed, two- and four-track versions. 16.3" h x 17.8" w x 8.14" d; 37.5 lb.....\$2,250 B77 Autostart. Same as B77 except with vox control ..... .....\$2,530 B77 Slide Sync. Same as B77 except with additional head for slide projector control....\$2,591

#### TASCAM

44-OB 4-Track Open-Reel Tape Deck 3 heads; ± 12% pitch control; punch-in record-

## OPEN-REEL TAPE DECKS

#### 42 NB Open-Reel Tape Deck

Half-track open-reel tape deck with 3 heads;  $\pm 12\%$  pitch control; punch-in recording; soundon-sound; full-logic feather-touch controls; tape/ source monitoring; remote control; LED counter; real-time counter; mic/line mixing; separate L/R input level controls; rack mountable; direct-drive motor; accepts 10.5" reels. Tape speeds 7.5/15 ips; FR 30-22,000 Hz  $\pm 3$  dB at 7.5 ips, 30-24,000 Hz  $\pm 3$  dB at 15 ips; W&F 0.06/0.05% wrms at 7.5/15 ips; THD 0.8% at 1,000 Hz, 15 ips, 0 VU; S/N 70 dB at 15 ips; output level 1,230 mV. 70.5 lb; 17" w x 19.88" h x 12.5" d ......\$2,695

#### 34B 4-Track Open-Reel Tape Deck

3 heads;  $\pm 12\%$  pitch control; full-logic controls; feather-touch controls; tape/source monitoring; remote control; LED counter; mic/line mixing; separate L/R input level controls; rack mountable; accepts 10.5" reels. Tape speeds 7.5/15 ips; FR 40-22,000 Hz  $\pm 3$  dB at 15 ips,40-16,000 Hz  $\pm 3$  dB at 7.5 ips; W&F 0.05/0.07% wrms at 15/ 7.5 ips; THD 0.8% at 1,000 Hz, 15 ips, 0 VU; S/ N 68/66 dB at 15/7.5 ips; output level 300 mV. 44 lb; 16.06" w x 18.06" h x 10.12" d ... \$1,795

#### 32 Open-Reel Tape Deck

Half-track 2-track-mastering open-reel recorder with 3 heads;  $\pm 12\%$  pitch control; punch-in recording; manual cueing; full logic feather-touch controls; tape/source monitoring; remote control; LED counter; mic/line mixing; separate L/R input level controls; rack mountable; accepts 10.5" reels. Tape speeds 7.5/15 ips; FR 40-22,000 Hz  $\pm 3$  dB at 15 ips, 40-16,000 Hz  $\pm 3$  dB at 7.5 ips; W&F 0.05/0.07% wrms at 15/7.5 ips; THD 0.8% at 1,000 Hz, 15 ips, 0 VU; S/N 68/66 dB at 15/7.5 ips; output level 300 mV. 44 lb; 16.06" w x 18.31" h x 10.12" d......\$1,495

#### 22-4 4-Channel Open-Reel Tape Deck

0.24-track 4-ch master open-reel recorder with 3 heads, internal logic control,  $\pm 6\%$  pitch control, sync recording, remote punch-in, search to cue, search to zero. Tape speeds 15, 7.5 ips; FR 40-22,000 Hz  $\pm$  3 dB at 15 ips; W&F 0.05% wrms at 7.5 ips, 0.04% wrms at 15 ips; THD 1% at 1,000 Hz; S/N 60 dB at 7.5 ips, 61 dB at 15 ips; line input sens 300 mV; output level 300 mV. 40 lb; 16.36" w x 16.12" h x 10.25" d .......\$1,495

#### 22-2 Open-Reel Tape Deck

Half-track 2-channel master open-reel recorder. Features 3 heads; sound-on-sound; tape/source monitoring; mic/line mixing; accepts 7" reels. Tape speeds 7.5/15 ips; FR 40-22,000 Hz  $\pm$  3 dB at 7.5 ips, 35-25,000 Hz  $\pm$  3 dB at 15 ips; W&F 0.05/0.08% wrms at 15/7.5 ips; THD 1% at 1,000 Hz, 15 ips, 0 VU; S/N 68/64 dB at 15/7.5 ips; output level 300 mV. 30.8 lb....... \$895

#### TEAC

#### X-2000R dbx Open-Reel Tape Deck

#### X-2000 dbx Open-Reel Tape Deck

#### X300R Autoreverse Open-Reel Tape Deck

#### X-300 Stereo Open-Reel Tape Deck

#### TECHNICS

## RS-1520US Open-Reel Tape Deck

Compact pro tape deck. Half-track, 2-ch record/ play and quarter-track, 2-ch record/play and quarter-track, 2-ch play; 4-head system; 15-, 7.5-, 3.75-ips speeds; quartz PLL DC brushless servo direct-drive capstan motor; reel tables; 2-tape tension-controlled DC brushless direct-drive motors; isolated loop direct-drive transport; full IC-logic tape transport; direct switching from mode to mode without tape strain; separate L and R bias/ EQ controls; L and R VU meters; strobe. W&F 0.018% wrms at 15 ips, 0.3% wrms at 7.5 ips; fast-wind time 150 secs with 2,500-ft tape; FR 30 30,000 Hz  $\pm$  3 dB at 15 ips, to 25,000 Hz at 7.5 ips; signal-to-noise ratio 60 dB at 0.8% distortion;

## PRICES LISTED are manufacturers' suggested retail prices (also referred to as *list* prices); actual selling prices are set by individual dealers. All prices are subject to change without notice.

sep 50 dB; mic input sens 0.25 mV (-72 dB); mic imp 200-10,000 ohms; 17.5" h w 18" w x 10.12" d ......\$2,200

#### **RS-1500US Open-Reel Tape Deck**

Open-reel tape deck with 3 speeds (15, 7.5, and 3.75 ips). Features half-track 2-channel record, playback, erase; quarter-track 2-ch playback; quartz PLL DC brushless servo direct-drive capstan motor with double pinch rollers, 2 tape-tension-controlled DC brushless direct-drive reel motors, 4 heads for recording, half- and quartertrack erasure, mixing; reel capacity 10.5"; IC-logic plus transistor tape-transport controls with LED indicators, mode-to-mode switching with auto pause between modes; 3-position bias and EQ switches; dual 2-scale VU meters with ± 3-dB normal, +6-dB high-range meter scale selector; separate mic and line-level input controls with mixing; 0/20-dB mic attenuator; output-level control; L/R tape/source monitor switches; L/R rec mode switches; 4-digit tape counter showing elapsed time in mins, secs; timer start with external audio timer; edit dial; fast-wind time 150 secs (2,500-ft, 1.5-mil tape). W&F 0.018% wrms at 15 ips, 0.03% at 7.5 ips; FR 30-30,000 Hz ± 3 dB at 15 ips, 20-25,000 Hz at 7.5 ips, 20-15,000 Hz at 3.75 ips; S/N 60 dB NAB wtd at 7.5 ips, 58 dB at 3.75 ips; THD at 400 Hz, 0 VU 0.08%; sep 50 dB; input sens/imp 0.25 mV/4.7 kilohms (mic, unbalanced), 60 mV/150 kilohms (line, phono jack); rosewood veneer side panels; 19.36" w x 17.5" h x 10.12" d.....\$1,800 RS-1506US. Similar to RS-1500US except 4track, 2-ch play/record; 2-track, 2-ch play\$1,800 RS-1700. Similar to RS-1506US except autoreversing 4-track, 2-ch record/play ..... \$2,200

#### UHER

#### 6000 Report Universal Tape Recorder

4-speed (3.75, 1.88, 0.94, 0.47 ips) tape recorder. Records up to 24 hours on 1 tape. Designed for monitoring, court reporting, surveillance. Features 5" reel capacity; built-in DNR; switchable auto level control; electronic tape tension control; 4 motors; switchable loudspeaker; tape counter; A/V input jack. 11" w x 3.5" h x 9" d; 8 lbs ......\$1,729

#### **Report Monitor Series Tape Recorders**

Report Monitor series decks feature 3 heads, AC function indicators, integrated power supply, fully electronic amp switching, battery or AC operation, tape-tension regulators, die-cast aluminum casings. All models can be used in portable or stationary applications. Speeds 7.5, 3.75, 1.88, 0.94 ips. 4400 Report Monitor. 2-track stereo...\$1,549 4200 Report Monitor. AV. Half-track monaural....\$1,449

#### Accessories



#### ACOUSTIC RESEARCH

**Connoisseur Series** 

#### **ETL-1 Manual Turntable**

Manual belt-drive turntable with electronic speed control and 3-point dual-spring suspension system factory tuned with removable lead weights. Features adjustable isolation feet; sapphire main bearing; 33.33 and 45 rpn; 8.5-lb platter. w&F 0.03% wrms; rumble -81 dB; 20.44" w x 7.5" h x 17.5" d (dustcover down); 29 lb. Natural cherry finish \$700

#### ES-1 Manual Turntable

#### AR Series

#### EB-101 Manual Turntable

Manual belt-drive pivoted-arm turntable with fully isolated 3-point suspension. Arm and platter on subchassis formed by pressed-steel T-bar spring-suspended and damped at 3 points. 33.33 and 45 rpm. Features 12-pole synchronous motor (500 rpm at 50 Hz, 600 rpm at 60 Hz); 3.9-lb platter; detachable carbon-fiber headshell with clamping screw on arm; base finished in oiled walnut veneer. w&F 0.05% DIN; rumble -72 dB DIN; effective tonearm mass without cartridge 12 g; cartridge weight range 3-9 g; effective tonearm length 229 mm; overhang 16 mm; vertical and horizontal friction <100 mg; 18.19" w x 7" h x 15.25" d (dustcover down); 13.5 lb ...... \$425

#### ADC

#### LT 60 Automatic Turntable

Linear-tracking belt-drive P-mount turntable. Features 33.33 and 45 rpm; soft-touch electronic controls; illuminated electronic strobe with pitch control; anti-feedback suspension.  $16.5" \le x 5"$  h x 15.5" d (dustcover down); 15.5 lb ..... \$140

#### LT 34 Automatic Turntable

#### RC1 Changer Turntable

#### a/d/s/

#### Atelier P4 Automatic Turntable

Can be controlled by remote when used with a/ d/s/ R4 receiver or CC4 tuner/preamp. With quartz-crystal-controlled direct drive; pivoted arm; ultra-low-mass tonearm; 33.33 and 45 rpm; variable speed control with strobe; holds platter and tonearm on a subchassis that floats on 4 tuned mounts. W&F  $\pm$  0.025% wrms; rumble -75 dB DIN B, 53 dB DIN A; effective tonearm length 8.69°; max tracking error 2.2°; 17.5° w x 4.53" h x 14.25" d (dustcover down); 11 lb \$649

#### RC1 Unified Remote Control

Infrared wireless remote controls P4, R4 receiver, CD3 CD player, and other a/d/s/ components......\$100

#### AKAI

AP-A305-B Semiautomatic Turntable Belt drive; straight low-mass tonearm..... \$99

#### **BANG & OLUFSEN**

#### Beogram 5500 Automatic Turntable

Short tangential tonearm; 33 and 45 rpm; silver and black; remote controlled by B&O Master Control Panel; repeats play up to 7 times; leafspring suspension; compatible with B&O micro-



cross cartridges; auto record-size sensing; auto interior light. w&F 0.06% DIN, 0.03% wrms; DIN-weighted rumble -80 dB; 12.5" w x 3" h x 12.75" d; 11.6 lb .......\$450

#### Beogram 3300 Belt-Drive Turntable

Tangential tonearm; 33 and 45 rpm; remote control with Terminal 3300 remote, Master Control Link, or Datalink system; black plexiglass and brushed aluminum; can be wall mounted with optional shelves; repeat; interior light; auto pause at end of tape, and cassette deck pauses at end of LP; leaf-spring-suspended subchassis; neoprene belt; electronic speed control (within 0.2%). w&t 0.06% DIN, 0.03% wrms; DIN-weighted rumble -80 dB; 16.5" w x 3" h x 12.75" d; 11.7 lb \$399

#### Beogram TX-2 Automatic Turntable

Tangential-tracking belt-drive turntable; 33 and 45 rpm; fixed headshell. Recommended tracking force 1-1.5 g; W&F 0.03% DIN; rumble -80 dB; 16.5" w x 3" w x 12.75" d; 22 lb ...... \$329

#### Beogram RX-2 Automatic Turntable

Belt-drive turntable with pendulum-suspended chassis and straight pivoting tonearm; 33 and 45 rpm; fixed headshell. Recommended tracking force 1-1.5 g; w&F 0.035% DIN; rumble -75 dB; 16.5" w x 2.5" h x 17.9" d; 16 lb ...... \$229

## CW & J WALKER BY MUSIC & SOUND IMPORTS

#### CJ-58 MKII Manual Turntable

#### CJ 61 Turntable

Belt-drive turntable with independent 3-point
fully adjustable suspension; floating subframe de-
sign utilizes a min of vibration-causing materials
for excellent dynamic behavior and rapid recov-
ery following excitation. Features manual-pivoted
arm. 33.33 and 45 rpm. w&F 0.06%; rumble -77
dB; effective tonearm mass without cartridge 11
g\$329
Without tonearm \$179

#### DENON

All arm and automatic functions of Denon turntables are noncontact, microprocessor controlled. Motor servo is controlled and maintained by magnetic speed detection.

#### **DF-59L Direct-Drive Turntable**

#### **DP-47F** Direct-Drive Turntable

#### **DP-35B** Automatic Turntable

Features dynamic servo tracer tonearm; begins and ends play automatically; flat-twin direct drive; high-density compound base. Black . \$320

#### **DP-23F Turntable**

Full-size automatic	turnable	with	dynamic servo
tracer. Black			\$260

#### **DP-7F Turntable**

P-mount	automatic	turntable w	ith dynamic servo
tracer. B	lack		\$180

#### DUAL BY ORTOFON

#### CS5000 Semiautomatic Turntable

#### CS505-3 Semiautomatic Turntable

Belt-drive, heavy mass platter and acoustic mat. Features floating chassis design; vario-pitch; carbon fiber headshell on ULM tonearm. Walnut or



#### CS505-2 Belt-Drive Turntable

Semiautomatic turntable with acoustic mat. Features floating-chassis design; vario-pitch; ULM tonearm. Available in black or walnut wood base ...... \$290

#### CS503-1 Semiautomatic Turntable

Belt drive turntable features solid block shock-absorbing chassis with damping feet; heavily damped platter; ULM tonearm; carbon fiber headshell. 33/45 rpm, w&F <0.07%/0.04%; rumble, unwtd. >46dB. 17.3" w x 4.5" h x 14.3" d. Black \$250 hase

#### CS2215GM Fully Automatic Turntable

Belt drive featuring die-cast aluminum platter with vario-pitch; shock absorber chassis; ULM tonearm with detachable headshell. Black 

#### CS2110GM Semiautomatic Turntable

Belt drive with electronic speed control and shock absorber chassis. Black base ...... \$180

#### HARMAN KARDON

#### **T65C Semiautomatic Turntable**

Belt-drive turntable with AC sine-wave driven motor; 33.33 and 45 rpm; ± 3% speed pitch control; 3-point floating suspension with counter-weighted subchassis; 3.3 lb. platter; highly absorbent platter mat; disc stabilizer; removable ultralow capacitance cables with gold-plated plugs. W&F 0.025% wrms; rumble -70 dB DIN-B; tonearm mass without cartridge 9.5 g ..... \$575

# HEYBROOK BY D'ASCANIO AUDIO

#### TT-2 Series II Turntable

Hand-assembled belt-drive 33.33- and 45-rpm armless manual turntable with removable armboard. Features low-speed synchronous motor driving massive 2-piece platter; adjustable 3-point spring-suspension subchassis of cast aluminum; laminated armboard; massive wood base. Fin-

#### HITACHI

#### **HTMD46** Automatic Turntable

Linear tracking; belt drive; MM cartridge with diamond stylus; auto size/speed selector; photo sensor return; feather-touch IC-logic control; muting; front-panel operation; die-cast aluminum-alloy platter; remote controlled through Hitachi HTA50AV or HPT120AV. W&F 0.045% wrms; S/N 70 dB D1N-B ..... \$180

#### J.A. MICHELL BY RMI

Gyrodec Manual Turntable Belt drive; 33.33 and 45 rpm; balanced 3-point suspension. W&F 0.04% wrms; rumble <78 dB; S/N <76 dB A-wtd. 53 cm w x 19 cm h x 42 cm d (dustcover down); 43 lbs.....\$1,190

#### Synchro Manual Turntable

Belt drive; 3-point suspension; 33.33 and 45 rpm; W&F 0.05% wrms; rumble <74.5 dB; S/N <72 dB A-wtd. 18" w x 5.5" h x 13.5" d (dustcover down); 18 lbs ..... \$650

#### JVC

#### QLA75 Quartz-Locked Turntable

Select Series turntable features double-servo quartz control; dynamic-Q damping system for tonearm; J-shaped tonearm interchangeable with straight arm; gimbal support; high-torque corless DC servo motor and heavy platter. Mirror-finished multi-layer solid cabinet. W&F 0.18% wrms; S/N 80 dB (DIN-B). 19.5" w x 8.25" h x 16.5" d; 30.8 lb ..... \$650

#### ALFQ5BK Quartz-Locked Turntable

Automatic direct-drive turntable with double-servo quartz control and Super-FG servo for speed accuracy. Features coreless DC-FG-servo directdrive motor with smooth cog-free rotation; independent suspension system; low-mass straight tonearm with low-center-of-gravity support for reduced IMD and W&F; space-efficient dustcover; P-mount compatible; repeat; strobe; cueing lever; 33.33 and 45 rpm; floating tonearm/platter suspension. w&F 0.025% wrms; rumble 78 dB; effective tonearm length 220 mm; max tracking error -0°43', +3°35'. 17.19" w x 3.19" h x 14.19" d (dustcover down); 10.8 lbs ..... \$180

#### ALF350BK Automatic Turntable

Automatic turntable with remote control capability when used with JVC Compu-Link components. Features new cabinet support system and large insulators; low-mass straight tonearm with low-center-of-gravity support for reduced IMD and w&F; precision DC-servo motor; P-mount compatible; front-mounted cueing control . \$165

#### ALF3BK Automatic Turntable

Automatic direct-drive turntable with new cabinet support system and large insulators for better stability and higher resistance to vibration and acoustic feedback. Features coreless DC-FG-servo direct-drive motor with smooth cog-free rotation; low-mass straight tonearm with low-center-ofgravity support for reduced IMD and W&F; Pmount compatible; pivoted arm; strobe; cueing lever; 33.33 and 45 rpm; variable speed control. w&F 0.03% wrms; rumble 78 dB; effective tonearm length 220 mm; max tracking error  $-0^{\circ}43^{\circ}$ , +3°35°. 17.19" w x 4.25" h x 14.19" d (dustcover down); 10.1 lbs..... \$145

#### AL-A1BK Semiautomatic Turntable

Semiautomatic belt-drive turntable with new cabinet support system and large insulators for better stability and higher resistance to vibration and acoustic feedback. Features coreless DC-servo belt-drive motor with powerful torque and low noise; low-mass straigh tonearm with low-centerof-gravity support for reduced IMD and W&F; Pmount compatible; pivoted arm; cueing lever; 33.33 and 45 rpm. w&F 0.045% wrms; rumble 65 dB; effective tonearm length 220 mm; max tracking error -0°43', +3°35'. 17.19" w x 4.25" h x 14.19" d (dustcover down); 8.1 lbs ..... \$105

#### **KENWOOD**

#### **KD-76FC** Linear-Tracking Turntable

Programmable direct-drive turntable with 7-track random program memory. Features auto disc size/speed selector; slotless/coreless FG servo drive; dual-magnet type cartridge; cartridge sensor sensitivity selector; remote controlled through KC-206 preamp and Kenwood receivers; w&F



less than 0.025 wrms. 16.56" w x 3.56" h x 14.13" d; 11 lb ..... \$240

#### **KD-66F** Linear-Tracking Turntable

Automatic direct-drive turntable with auto leadin and return. Features slotless/coreless FG servo drive; P-mount cartridge connector (cartridge included); cueing control; repeat switch; auto disc size/speed selector: w&F less than 0.025% wrms: remote controlled through KC-206 preamp and Kenwood receivers. 16.56U w x 3.75U h x 14.13U d; 9 lb ..... \$200

#### **KD-56R Direct-Drive Turntable**

Semiautomatic turntable with slotless/coreless FG servo drive. Features P-mount cartridge connector (cartridge included); straight tonearm; cueing; w&F less than 0.028% wrms. 16.56" w x 4.06" h x 14.38" d; 7.7 lb..... \$130

#### KD-36R Belt-Drive Turntable

Semiautomatic turntable features straight tonearm: P-mount cartridge connector (cartridge included); cueing; W&F less than 0.05% wrms. 16.56" w x 4.06" h x 14.38" d; 7 lb ..... \$120

#### **KYOCERA**

#### PL-910 Manual Turntable

Armless belt-drive turntable with ceramic platter and base. Features 33.33 and 45 rpm; variable speed control with strobe; cutless-core power transformer; dual suspension; heavy-duty DC-servo brushless motor; 11-lb platter assembly. W&F 0.025% wrms; s/N 78 dB DIN-B; accepts 9"-10" tonearms. 18" x 7.5" x 15.25"; 44 lb .... \$2,000

#### **PL-701** Automatic Turntable

Fully automatic turntable with 4.6-lb platter and microcomputer electronic sensing tonearm. Features belt drive; pivoted arm; 33.33 and 45 rpm; variable speed control; strobe. Supplied with stabilizer (0.7 lb); straight aluminum tonearm; dual suspension. W&F 0.03% wrms; S/N 70 dB DIN-B; effective tonearm length 8.88" (0.6" overhang); max tracking error ± 2°; 18.12" w x 6" h x 15.36" d; 19.6 lb ..... \$450

#### PL-601 Semiautomatic Turntable

Front-panel controls; belt drive; dual suspension; pivoted arm; 33.33 and 45 rpm; variable speed control with strobe; wood base with adjustable feet; nonfriction electronic sensing; straight aluminum tonearm. W&F 0.035% wrms; S/N 68 dB DIN-B; effective tonearm length 8.5" (0.6" overhang); max tracking error ± 2°; 18.12" w x 6" h x 15.36" d; 17.4 lb ..... \$350

# LINN PRODUCTS BY AUDIOPHILE SYSTEMS

#### LP12 Manual Single-Play Turntable

Belt-drive 33.33-rpm turntable with manual tonearm; 24-pole synchronous motor; 12" zinc-aluminum alloy die-cast platter with felt mat; 1point oil-bath bearing; hardened tool-steel spindle; adjustable 3-point spring-suspension subchassis; heavy-gauge stainless-steel base plate; solid hardwood base; optional 45-rpm adapter. W&F

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0.04% wrms; rumble -60 dB unwtd; speed accuracy  $\pm 0.04\%$ ; 17.5" w x 14" d x 5.5" h . . \$945

#### Axis Manual Turntable

#### LUXMAN

#### P-102 Belt-Drive Turntable

Automatic linear-tracking turntable with strobe, variable speed control, floating tonearm/platter suspension, cueing lever, repeat play, manual play. P-mount compatible. Remote capable. w&F 0.04% wrms; rumble 70 dB; effective tonearm length 133 mm; max tracking error  $0.1^{\circ}$ . 16.36" w x 4.5" h x 14.06" d (dustcover down); 11.61 b.......\$350

#### P-100 Belt-Drive Turntable

Automatic linear-tracking turntable with pivoted arm, 3.33 rpm only, variable speed control, floating tonearm/platter suspension, cueing lever. w&F 0.06% wrms; rumble 72 dB; effective tonearm length 222 mm. 16.36" w x 4.81" h x 14.89" d (dustcover down); 11.7 lb ...... \$250

#### MARANTZ

#### TT-451 Linear-Tracking Turntable

#### **TT-170 Semiautomatic Turntable**

Belt drive turntable features front panel cueing; P-mount cartridge; 33.33/45 rpm; w&F 0.08% wrms; rumble -55 dB. 4.63" h x 16.5" w x 13.25" d; 9.5 lb ......\$100

#### MICRO SEIKI BY ANALOG EXCELLENCE

#### SZ-1T Manual Turntable

#### SX-555FVW Manual Turntable

#### SX-111FV Belt-Drive Turntable

Vacuum hold-down; air-bearing system; rosewood cabinet; 22-lb bronze platter; 33.33 and 45 rpm; variable speed control. W&F 0.0225% wrms; S/N 78 dB A-wtd .....\$3,995

#### **RX-1500VG Thread-Drive Turntable**

#### **BL-99V Manual Turntable**

#### **RX-1500 Basic Turntable**

Belt-drive nonresonant zinc-alloy turntable with ability to mount 2 tonearms simultaneously. Features 33.33 and 45 rpm; variable speed control; aluminum platter. W&F 0.025 wrms; S/N 78 dB A-wtd. 19" w x 6" h x 13" d; 40 lbs....\$1,495

#### NIKKO AUDIO

#### MIKKO AUDIO

NP-750 Automatic Turntable Fully automatic quartz-lock direct-drive turntable .......\$240

#### P-5 Semiautomatic Turntable

Direct-drive semiautomatic turntable with 20pole, 30-slot brushless DC 3-phase motor. Features die-cast aluminum platter; straight-line tonearm;  $\pm 3\%$  pitch control. w&F 0.085% wrms; rumble 38 dB weighted ........\$200

#### P-3 Semiautomatic Turntable

Semiautomatic full-size belt-drive turntable with P-mount tonearm, repeat key, and manual damped cueing. w&F 0.045% ........... \$100

#### NP-550 Turntable

#### **ONKYO**

#### **CP-1057FB Integra Automatic Turntable**

Computer-controlled quartz-PLL direct-drive turntable. Features pivoted arm; strobe; 33.33 and 45 rpm; triple-stage isolation; floating subchassis on 3-point suspension; gimbal-support tonearm bearings; computer-controlled tonearm functions; separate motor for tonearm; 2-speed search; straight low-mass tonearm; Polysorb vibration absorbing compound for record mat and cabinet feet; gold-lacquered platter; gold-anodized tonearm; opto-electronic record-end detector; black finish. Remote control optional. w&F 0.023% wrms; rumble -80 dB; effective tonearm length 226 mm; max tracking error  $+3^{\circ}, -1^{\circ}$ . 17.44" w x 6.25" h x 16.12" d; 20 lb ..... \$350



#### CP-1046FB Automatic Turntable

Computer-controlled direct-drive pivoted-arm turntable. Features PLL; quartz-lock; 33.33 and 45 rpm; 2-color quartz-lock indicator; triple-stage isolation system with floating subchassiss; 3-point subchassis suspension; computer-controlled motor-assisted tonearm; opto-electronic record-end detector; straight low-mass tonearm; gimbal-precision tonearm bearings; 2-speed search; black finish. Remote control optional. w&F 0.025% wrms; rumble -75 dB; effective tonearm length 224 mm; max tracking error +3°, -1.5°. 16.5″ w x 5.06″ h x 14.75″ d (dustcover down); 13 lb\$230

#### **CP-1036A Semiautomatic Turntable**

Direct-drive pivoted-arm turntable. Features PLL; quartz-lock 33.33 and 45 rpm; triple-stage isolation with floating subchassis; front-panel controls; straight-line low-mass tonearm; gimbal-support precision tonearm bearings; balck finish with smoked dustcover. w&F 0.025% wrms; rumble -70 dB; effective tonearm length 224mm; max tracking error  $+3^{\circ}$ ,  $-1.5^{\circ}$ .  $16.5^{\circ}$  w x 5.06" h x 14.75" d (dustcover down); 12 lb ...... \$180

#### **CP-116F Semiautomatic Turntable**

Belt-drive truntable with auto-return and -reset controls. Features front-panel controls; straightline low-mass tonearm; damped cueing. W&F



0.045% wrms; rumble -70 dB; effective tonearm length 210 mm; max tracking error +4.5°, -1°. 16.5" w x 5.06" h x 14.75" d...... \$110

#### **RC-5T Wired Remote Control**

#### **ORACLE AUDIO**

#### Premiere Mark III Manual Turntable

#### Delphi MK III Manual Turntable

Belt-drive turntable without tonearm. Features 33.33 and 45 RPM; hi-torque DC motor; adjustable spring-suspension system; record-coupling system; tonearm/cartridge protractor and strobe disc included. 19" w x 6" h x 14." d; 35 lb\$1,395 Dephi Aluminum. Aluminum/24k gold plating......\$1,970 Delphi Black. 24k gold plating .....\$2,295

#### Alexandria Mark III Manual Turntable

Belt-drive turntable without tonearm. Features 33.33 and 45 RPM; hi-torque DC motor; adjust-

## able spring-suspension system; record-coupling system. 20" w x 6" h x 15" d ...... \$895

#### PARASOUND

#### T/FS-880 Semiautomatic Turntable

#### TTb-720 Semiautomatic Turntable

#### PIONEER

#### PL-V70 Programmable Turntable

#### **PL-L550 Automatic Turntable**

#### PL-670(BK) Automatic Turntable

Direct-drive turntable with Stable Hanging Rotor. Features dynamic resonance absorber; T4P P-mount cartridge adaptor; Polymer Graphite straight tonearm; auto disc size selector. w&F 0.025%. 4.62" h x 16.56" w x 14.38" d ... \$150

#### PL-X505(BK) Automatic Turntable

#### PL-570(BK) Automatic Turntable

#### RCA

#### MT230 Linear Tracking Turntable

#### REALISTIC

#### LAB-2200 Direct-Drive Turntable

Automatic linear-tracking turntable with Realistic/Audio-Technica dual-magnet P-mount cartridge, repeat button, straight tonearm, strobe, variable speed control, 33.33 and 45 rpm. W&F 0.065% wrms; rumble 62 dB DIN; effective tonearm length 132 mm..... \$150

#### LAB 450 Semiautomatic Turntable

#### LAB-330 Turntable with Phono Preamp

#### **REVOLVER BY MUSIC HALL**

#### **Revolver Belt-Drive Turntable**

#### REVOX

#### B291 Linear-Tracking Turntable

Quartz-controlled direct-drive turntable with patented Revox Linatrack system. Features ultrashort linear-tracking tonearm; pitch control regulation of  $\pm 9.9\%$  in precise 0.1% steps, with LED display showing the variation; P-mount cartridge



adaptor; channel balance; auto start; front-panelmounted controls; w&F <0.05%. 17.7" w x 5.6" h x 15.6" d; 20 lb .....\$1,000

#### **ROKSAN ENGINEERING**

#### **Xerxes Turntable Without Tonearm**

Medite top platform; 2-piece single-point bearing designed to be self-centering and self-aligning; inner and outer platters of solid aluminum alloy;



spring-mounted revolving motor; felt mat; separate power supply in small box; 33.33 or 45 rpm;

diamond-turned platter and pulley. 15" x 6" x 19".

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## ROTEL

#### RP850 Belt-Drive Turntable

Pivoted-arm turntable features 33.33 and 45 rpm; 4-pole hysteresis synchronous motor. W&F 0.03% wrms; max tracking error +2.35 to  $-1.3^\circ$ ; signal-to-noise ratio 70 dB (DIN-B); 17" w x



#### SANSUI

#### XP-99 Automatic Turntable

#### SCOTT

#### **PS4004** Automatic Turntable

#### PS59C Semiautomatic Turntable

33.33 and 45 rpm; P-mount arm and cartridge; pitch control with electronic strobe; frequencygoverned DC servo motor; w&F 0.1% wrms; rumble -55 dB DIN B; 16.8 w x 4 h x 13.3 d



(dustcover down) ..... \$110

#### SHERWOOD

ST 887 Fully Automatic Direct-Drive Turntable Digi-Link remote compatibility with other Sherwood products. P-mount cartridges; direct readout stylus pressure indicator; DC servo motor; front panel access to controls; 33.3/45 rpm vari-

#### able pitch ...... \$180 |

#### ST-875 Semiautomatic Turntable

Belt-drive turntable with push-button cueing, auto reject, auto return, and DC-servo motor. Features pivoted arm; P-mount compatible; 33.33 and 45 rpm. w&r 0.08% wrms; effective tonearm length 225 mm; max tracking error  $+2.6^\circ$ ,  $-1^\circ$ , 17.36" w x 4.88" h x 14.25" d; 11 lb ..... \$100

#### SONOGRAPHE BY CONRAD-JOHNSON

#### SG-3 Manual Turntable

Belt-drive turntable without tonearm. Tuned suspension, resonance-free polymer platter. W&F <0.02% wrms; rumble -65 dB; 18.25" w x 6.75" h x 14.5" d (dustcover down); 23 lbs ..... \$449

#### SONY

#### **PS-FL7IIB** Automatic Turntable

#### PS-LX520 Automatic Turntable

#### PS-LX430 Automatic Turntable

Belt-drive P-mount turntable with pivoted arm. Features 33.33 and 45 rpm, cueing lever, anti-resonanse base, disc size selector, remote control capability. w&F 0.046%; rumble 70 dB ... \$165

#### PS-LX230 Semiautomatic Turntable

Belt-drive turntable with pivoted arm. Features 33.33 and 45 rpm, cueing lever, anti-resonance base, disc size selector. w&F 0.045%; rumble 70 dB. 7.75 lb \$130

#### SOTA INDUSTRIES

#### SOTA Sapphire Series III Turntable

Manual 2-speed belt-drive turntable with variable speed control and strobe. Heavyweight (22 lb) sub-assembly for maximum isolation; exclusive inverted bearing with sapphire disc; single piece (11 lb) platter, rim drive. w&F 0.02% wrms; rumble -84.5 dB; 20.5" w x 7.5" h x 16.25" d 44 lb; oak finish..... \$975 African rosewood ..... .\$1,075 STAR Series III Sapphire. As above with vacuum hold-down system: low-level pressure, continuous through play, adjustable vacuum. Includes acrylic vacuum supermat. All-wood top and speed control panel; heavy-duty dust cover, oak finish .....\$1,600 Black lacquer ......\$1,800 Ebony, Brazilian rosewood ......\$1,900 Wood......\$1,900 African rosewood, walnut and cherry .... \$1,750 Vacuum Acrylic Supermat. For Stars or vacuum Sapphires. Designed for optimal coupling, matched impedance, extreme damping .... \$150 Acrylic Supermat. For all nonvacuum decks. Acrylic/Intermat system transfers energy from vinyl and damps fully, including platter ... \$135 Acrylic Supermat. For Sapphire ...... \$100 Electronic Flywheel. A/C line conditioner for the Sapphire and Star turntables only. Isolates and regulates motor/drive from all outside interference (voltage shifts, EMI, RFI, hash) ..... \$300 Reflex Clamp. Couples record to platter (in conjunction with Supermat) with reflex action. One

#### Vacuum Conversion Kit

#### SYSTEMDEK

#### Systemdek IV Turntable

Belt drive turntable w/33.33/45 rpm. Wow & flutter 0.06%; rumble -78 dB; pivoted tonearm; anti-skate adjustment; fixed cartridge mount; 19.5" x 15.75" x 6"; with tonearm \$850 Without tonearm \$699

#### Systemdek II X Turntable

Belt drive turntable w/33.33/45 rpm. Wow & flutter 0.08%; rumble -78 dB; pivoted tonearm; anti-skate adjustment; fixed cartridge mount; 18.75" x 14.5" x 5.5". With tonearm ..... \$459 Without tonearm ..... \$299

#### **TECHNICS**

## SL-M3 Automatic Direct-Drive Turntable

#### SL-1200MKII Direct-Drive Disco Turntable

Quartz-controlled 33.33- and 45-rpm manual turntable. Features  $\pm 8\%$  quartz-locked pitch control; quick start and stop; pop-up stylus light; gimbal-suspended tonearm with height adjust ment; brushless DC motor; aluminum die-cast cabinet; W&F 0.025\%.

#### SL-M2 Manual Direct-Drive Turntable

#### SL-MA1 Automatic Direct-Drive Turntable

#### SL-J33 Programmable PLL Turntable

Direct-drive automatic P-mount turntable allows up to 8 tracks to be played in any order. Indicates number of tracks on album side and which track is playing. Remote controlled through some Technics receivers. Features linear tracking; quartz lock; 33.33 and 45 rpm; front-panel feather-touch controls; cueing; auto stylus muting. W&F 0.012%; rumble -78 dB; 9 lbs ..... \$240

#### SL-L20 Automatic Linear-Tracking Turntable

Belt-drive P-mount turntable can be operated by remote control through some Technics receivers. Features front-panel soft-touch controls; cueing; 2-speed search; auto disc-size/speed detection to prevent tonearm from lowering on empty mat; 33.33 and 45 rpm. W&F 0.045% wrms; rumble -70 dB; 8 lbs \$190

#### SL-QD33 Automatic Direct-Drive Turntable

Can be operated by remote control through some Technics receivers. P-mount; 2 motors to avoid mechanical linkages between tonearm and platter-drive motor; end-of-disc detection; electronic feather-touch front-panel controls; ultra-low

#### SL-J11D Linear-Tracking Turntable

Belt-drive automatic P-mount turntable; 33.33 and 45 rpm; electronic feather-touch controls; cueing; auto-disc-detection system to prevent lowering of tonearm on empty mat; TNRC antivibration cabinet. W&F 0.045% wrms; rumble -70 dB; 7.5 lbs \$180

#### SL-QD22 Semiautomatic P-Mount Turntable

#### SL-BD1 Manual P-Mount Turntable

Belt-drive turntable with variable speed control; strobe; 33.33 and 45 rpm. W&F 0.045% wrms; rumble -70 dB; effective tonearm mass without cartridge 7.5 g, length 230 mm; max tracking error +0° 32° at inner groove and +2° 32° at outer groove; 7.1 lbs \$125

#### SL-BD10 Manual P-Mount Turntable

Belt-drive turntable with aluminum die-cast fullgimbal pivot with highly rigid lightweight aluminum tonearm. Features front-panel cueing control; TNRC vibration-isolation base; pivoted arm; 3.33 and 45 rpm. W&F 0.45% wrms; rumble -70 dB D1N B; max tracking error  $+2^\circ$ ... \$100SL-BD22K. As above; semiautomatic..... \$120

#### SH-100 Plug-In Headshell

#### Turntables Without Tonearms

#### SP-10MK3 33/45/78-rpm Turntable

#### SP-10MK2A 33/45/78-rpm Turntable

#### SP-15 33/45/78-rpm Turntable

Quartz-synthesized direct-drive turntable reachesfull speed in 0.4 sec (40° of rotation); stops in 0.4sec (40° of rotation) at 33.33 rpm;  $\pm 9.9\%$  quartz-locked pitch control. W&F 0.025% wrms; rum-ble 56 dB DIN-A, 78 dB DIN-B.\$870SP-25. Similar to SP-15 except no 78-rpm speed, $\pm 6\%$  pitch control\$500SH-15B2. Heavy acoustic rubber base with simulated wood for SP-25 and SP-15SH-15B3. Similar to SH-15B2 except heavyacoustic rubber base only\$330

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#### ACCUPHASE BY MADRIGAL

#### AC-2 MC Phono Cartridge

#### AC-3 MC Phono Cartridge

#### ADC

#### **TRX 3 Phono Cartridge**

Induced-magnet cartridge with line-contact nude rectangular diamond stylus; precision die-cast metal body; ultra-rigid beryllium cantilever; screw-down lock stylus system mount. FR 20-26,000 Hz  $\pm 1$  dB; recommended tracking force 1.2 g  $\pm 0.2$  g; output voltage 3 mV (5 cm/sec at 1 kHz); ch balance within 0.5 dB (1 kHz); ch sep >30 dB (1 kHz); compliance 40 x 10-<sup>6</sup> cm/dyne static; imp 3.9 ohms (1 kHz); CD resistance 650 ohms; load resistance 47 kilohms; load capacitance 275 pf; weight 8 g; stylus tip nude PH line contact; 0.12 x 0.06 x 0.05 (vital HI) ..... \$300

#### **TRX 1 Phono Cartridge**

Induced-magnet cartridge with line-contact nude diamond stylus; precision die-cast metal body; screw down lock stylus system mount; titanium beryllium cantilever. FR 20-24,000 Hz  $\pm 1$  dB; recommended tracking force 1.2 g  $\pm 0.2$  g; output voltage 3 mV (5 cm/sec at 1 kHz); ch balance within 1 dB (1 kHz); ch sep >30 dB (1 kHz); compliance 40 x 10-6 cm/dyne static; imp 3.9 ohms (1 kHz); DC resistance 650 ohms; load resistance 47 kilohms; load capacitance 275 pf; weight g; stylus tip nude PH line contact 0.3 x 0.22 x 0.5 (vital 1) ...... \$225

#### PSX-40 Phono Cartridge

Induced-magnet cartridge with P-mount adaptor so cartridge is usable for both conventional and P-mount tonearms. Features  $0.2 \times 0.7$  mil nude diamond stylus, tapered titanium tube cantilever. FR 20-24,000 Hz; tracking force  $1.25 \pm 0.2$  g; weight 5.9 g (7.2 g with adaptor) ...... \$135

#### **PSX-30** Phono Cartridge

#### **PSX-20** Phono Cartridge

Induced-magnet cartridge with P-mount adaptor so cartridge is usable in both conventional and Pmount tonearms. Features 0.3 x 0.7 mil bonded elliptical diamond stylus; aluminum cantilever. FR 20-20,000 Hz; tracking force 1.5  $\pm$  0.2 g. \$90

#### PSX-10 Phono Cartridge

#### ADCOM

#### SXC-van den Hul MC Phono Cartridge

High-output MC cartridge with tubular sapphire cantilever and van den Hul stylus. Features 3.5micron contact radius; vertical groove extended to 85 microns; aluminum cantilever; crosscoil armature. Output 2.3 mV at 5 cm/s; FR 20-20,000 HZ +3, -0 dB; tracking force 1.8 g; square-wave rise time 7 ms; ch sep 20 dB; 4.7g....... \$500

#### XC-MRII Moving-Coil Phono Cartridge

#### XC-LTII Moving-Coil Phono Cartridge

High-output MC cartridge with Line-Trace stylus, thin-wall aluminum cantilever, crosscoil armature. Output 2.3 mV at 5 cm/sec; FR 20-20,000 Hz  $\pm 1$  dB; ch sep 28 dB at 1 kHz; tracking force 1.8 g; tip mass 0.35 mg; weight 4.7 g .... \$290

#### HC-vdH II Moving-Coil Phono Cartridge

#### AKG ACOUSTICS

#### P100LE Phono Cartridge

#### Super Nova P8ES Phono Cartridge

Moving-iron cartridge with patented transversal suspension system with the new van den Hul II replaceable diamond. Features FR/crosstalk curve; carbon-fiber stylus brush; screwdriver. Output 2.8 mV at 3.54 cm/sec; FR 10-28,000 Hz ± 1 dB; sep 30 dB at 1,000 Hz; tracking force range 1-1.5 g; cartridge weight 3.5 g..... \$450

#### P-25S Phono Cartridge

Variable-reluctance, induced-magnet cartridge with patented diamond-technology transversesuspension system, cylindrical/magnet design. Features FR/crosstalk curve; carbon-fiber stylus brush; screwdriver; antiresonance compound. Output 2.7 mV at 3.54 cm/sec rms; FR 10-28,000



Hz; sep  $\pm 1$  dB; tracking-force range 0.75-1.25 g; "Analog-Six" stylus mass 0.015 mg; 3.5 g . \$250

#### **P-15S Phono Cartridge**

Variable-reluctance, induced-magnet cartridge with patented diamond-technology transversesuspension system, cylindrical magnet. Features FR/crosstalk curve; carbon-fiber stylus brush; screwdriver, antiresonance compound. Output 3.4 mV rms at 3.54 cm/sec; FR 10-23,000 Hz; sep  $\pm$  1.5 dB; tracking force 1.0-1.5 g; elliptical diamond stylus; stylus mass 0.018 mg; 3.5 g.. \$165

#### P10ED Studio Phono Cartridge

#### P-10S Phono Cartridge

Variable-reluctance, induced-magnet cartridge with patented transverse suspension, cylindrical magnet. Features carbon-fiber stylus brush; screwdriver; antiresonance compound. Output 5.8 mV rms at 3.54 cm/sec; FR 20-20,000 Hz; sep ± 2dB; tracking force 1.25-2.0 g; elliptical diamond stylus; stylus mass 0.25 mg; 3.5 g... \$115

#### P-5ED Phono Cartridge

Variable-reluctance, induced-magnet cartridge with patented transverse suspension, cylindrical magnet. Features compatability with automatic turntables, record changers; elliptical diamond stylus. Output 5.8 mV rms at 3.54 cm/sec; FR 20-20,000 Hz; tracking force 1.5-2.0 g ...... \$80

#### P4 Phono Cartridge

#### ANDANTE BY SUMIKO

#### S Phono Cartridge

#### HSP MM Phono Cartridge

Output 6 mV at 3.54 cm/sec; FR 18-25,000 Hz; sep 28 dB at 1,000 Hz; tracking force 1-2 g; cartridge weight 6 g ..... \$34

#### P-76 MM Phono Cartridge

Hand-wound coils; square-shank nude-mount with tapered line-contact diamond stylus. Output 2.5 mV at 3.54 cm/sec; FR 8-45,000 Hz ± 3 dB; sep 30 dB at 1,000 Hz; tracking force 1-1.5 g; car-

#### APATURE BY ACR

#### Koce MC Phono Cartridge

High-output MC cartridge with 0.3 x 0.7 mil man-made flawless nude elliptical diamond mounted on a tapered cantilever. Output 3.2 mV (1 kHz/50 mm/sec); output balance at 1,000 Hz within 1 dB; sep at 1,000 Hz 25 dB; DC resistance 120 ohms; imp 120 ohms; vertical tracking angle 20°; compliance 10 x 10-6 cm/dyne; tracking force  $2 \pm 0.3$  g; cartridge weight 4.2 g . \$200

#### **Blue Phono Cartridge**

MC cartridge with samarium-cobalt magnet for 3.2-mV output. Snap-apart body for user-replaceable MC section with stylus. Elliptical stylus; aluminum cantilever. Output 3.2 mV at 100,000 Hz at 5 cm/s; FR 15-40,000 Hz ± 3 dB; sep 25 dB at 1,000 Hz; tracking-force range 2 ± 0.3 g; car-Panama. Similar to Blue but MM and P-mount with adaptor ..... \$60 Replacement Stylus. ..... \$30

#### ASTATIC

#### Moving Flux Series

MF 100. Output 3.5 mV at 5 cm/sec; FR 10-20,000 Hz ± 1 dB; sep 25 dB at 1 kHz; tracking 20,000 Hz ± 2.5 dB; sep 20 dB at 1 kHz; tracking force 1.5-2.0 g; elliptical diamond stylus; compli-18,000 Hz ± 3 dB; sep 20 dB at 1 kHz; tracking force 1.5-2.5 g; spherical diamond stylus; compliance 35 x 10-6 cm/dyne ..... \$80

#### Induced-Magnet Series

IM-10E. User-replaceable, 0.3 x 0.7-mil elliptical diamond stylus. Output 4.1 mV at 5 cm/sec; FR 10-20,000 Hz ± 2.5 dB; sep 22 dB at 1,000 Hz; tracking force 1.5-2.5 g; cartridge weight 7.5 g; compliance 35 x 10-6 cm/dyne ..... \$52 IM-25P. P-mount; user-replaceable spherical diamond stylus. Output 4.2 mV at 5 cm/sec; FR 20-20,000 Hz ± 3 dB; sep 20 dB at 1,000 Hz; tracking force 1-1.5 g; cartridge weight 5.9 g; compli-4.2 mV at 5 cm/s; FR 10-20,000 Hz ± 3 dB; sep 20 dB at 1,000 Hz; tracking force 2.0-2.5 g; cartridge weight 7.5 g; compliance 30 x 10-6 cm/ dyne ..... \$40

#### AUDIO-TECHNICA

#### Dual Moving-MicroCoil Series **AT35E Phono Cartridge**

Cartridge with user-replaceable Moving Micro-Coil stylus assembly. Features low-mass design; 0.2 x 0.7-mil nude-mounted BiRadial squareshank diamond stylus. Output 0.4 mV at 5 cm/

sec; ch balance/sep 0.5/30 dB at 1 kHz; tracking force 1.2-1.8 g ..... \$295

#### AT31E Phono Cartridge

Cartridge with user-replaceable Moving Micro-Coil stylus assembly. Features square-shank 0.2 x 0.7-mil biradial diamond stylus. Output 0.4 mV at 5 cm/sec, ch balance/sep .59 dB at 1 kHz; tracking force 1.21-1.8 g ..... \$195

#### AT30E Phono Cartridge

Dual moving MicroCoil model with user replaceable stylus assembly and 0.3 x 0.7 mil BiRadial stylus. Features thin-wall tube cantilever. Output 0.3 mV at 5 cm/sec; sep 25/15 dB at 1,000 Hz; tracking-force range 1.4-2 g; cartridge weight 5 g. Recommended load imp 10-20 ohms ..... \$150

#### AT30HE Phono Cartridge

Stereo cartridge with user-replaceable Moving MicroCoil stylus assembly. High output eliminates need for transformer; 0.3 x 0.7-mil nudemounted diamond stylus. Output 2 mV; sep 29 dB at 1 kHz; tracking-force 1.4-1.8 g ..... \$150

#### AT 312EP Phono Cartridge

Universal-mount MC cartridge with user-replaceable stylus. Dual moving MicroCoil™. output 0.4 mV at 5 cm/sec; sep 30 dB at 1 kHz; trackingforce range 1-1.5 g; cartridge weight 6 g. Comes with .5" mounting adapter ..... \$175

## Vector-Aligned Series AT160ML Phono Cartridge

Paratoroidal-coil MM cartridge with Microline<sup>™</sup> stylus mounted on gold-plated beryllium cantilever. Output 5 mV at 5 cm/sec. sep 31 dB at 1 kHz; tracking-force range 0.8-1.8 g; 8.1 g . \$295 ATN 160 ML. Replacement stylus ..... \$125

#### AT155LC Vector-Aligned Phono Cartridge

Output 5.0 mV at 5 cm/sec at 1 kHz; FR 5-35,000 Hz with class 1 tolerance; ch balance/sep 0.5/31 dB at 1 kHz; tracking force 0.8-1.6 g; nude-mounted square-shank linear-contact stylus; beryllium cantilever; Vector-Aligned dual mag-net; para-toroidal coil ...... \$250 ATN155LC, Replacement stylus ..... \$100

#### AT140ML Vector-Aligned Phono Cartridge

Output 5 0 mV at 5 cm/sec; FR 5-32,000 Hz with class II tolerance; ch balance/sep 0.75/30 dB at 1 kHz; tracking force 0.8-1.8 g; nude-mounted square-shank MicroLine™ stylus; Vector-Aligned dual magnet; para-toroidal coil ..... \$195 ATN140ML. Replacement stylus ...... \$75

#### AT130E Vector-Aligned Phono Cartridge

Para-toroidal coil construction; output 5.0 mV at 5 cm/sec; FR 10-30,000 Hz with class II tolerance; ch balance/sep .75/30 dB at 1 kHz; 0.2 x 0.7 mil nude biradial stylus ..... \$135 ATN130E. Replacement stylus ..... \$50

#### AT125LC Vector-Aligned Phono Cartridge

Para-toroidal coil construction; output 5.0 mV at 5 cm/sec; FR 15-28,000 Hz with class II tolerance; ch balance/sep .59 dB at 1 kHz; linear-contact titanium-bonded stylus ..... \$150 ATN125LC. Replacement stylus ..... \$60

#### AT120E Vector-Aligned Phono Cartridge

Para-toroidal coil construction, output 5.0 mV at 5 cm/sec; FR 15-25,000 Hz with class II tolerance; ch balance/sep .59 dB at 1 kHz; tracking force 1-1.8 g; Vector-Aligned dual magnet; 0.3 x 0.7-mil BiRadial nude-mounted diamond stylus ATN120E. Replacement stylus ..... \$45

#### AT110E Phono Cartridge

Output 4.5 mV at 5 cm/sec; ch sep 26 dB at 1 kHz; tracking force 1-2 g; 0.4 x 0.7-mil BiRadial

bonded dia	mond stylus.							\$70
ATN110E.	Replacement	stylus						\$35

#### AT105 Phono Cartridge

Output 4.5 mV at 1 kHz; tracking force 1.5-2.5g; ch sep 26 dB at 1 kHz; 0.7-mil UniRadial bonded diamond stylus; dual magnet ..... \$55 ATN105. Replacement stylus ..... \$30

#### P-Mount Series

#### AT231LP Phono Cartridge

Universal-mount MM cartridge with linear-contact stylus. Output 3.5 mV at 5 cm/sec. sep 31 dB at 1 kHz; tracking-force range 1-1.5 g; cartridge weight 6 g; 0.5" mounting adapter ..... \$145

#### AT221EP Phono Cartridge

Universal-mount MM cartridge with square-shank 0.2 x 0.7 mil biradial stylus; output 5 mV at 5 cm/sec. sep 31 dB at 1 kHz; tracking-force range 1-1.5 g; weight 6 g; 0.5" adapter ..... \$135

#### AT216EP Phono Cartridge

Universal-mount MM cartridge with 0.3 x 0.7 mil biradial stylus; output 5 mV at 5 cm/sec. sep 29 dB at 1 kHz; tracking-force range 1-1.5 g; car-tridge weight 6 g; 0.5" mounting adapter . . \$100

#### AT211EP Phono Cartridge

Universal mount MM cartridge with 0.4 x 0.7 mil biradial stylus; output 5 mV at 5 cm/sec. sep 29 at 1 kHz; tracking-force range 1-1.5 g; cartridge weight 6 g; 0.5" mounting adapter ...... \$75

#### AT201EP Phono Cartridge

Universal mount MM cartridge with 0.4 x 0.7 mil biradial stylus; output 5 mV at 5 cm/sec. sep 26 dB at 1 kHz; tracking-force range 1-1.5 g; cartridge weight 6 g; comes with 0.5" mounting adapter ... 

#### AT201P Phono Cartridge

Universal-mount MM cartridge with 0.6 mil uniradial stylus; output mV 5 cm/sec. sep 26 dB at 1 kHz; tracking-force range 1-1.5 g; cartridge weight 6 g; 0.5" mounting adapter ...... \$55

AT152MLP Phono Cartridge Direct-plug-in cartridge for P-mount turntables. Features extremely stiff but lightweight beryllium cantilever and nude-mounted square-shank MicroLine<sup>™</sup> diamond stylus ..... \$250

#### AT132EP Phono Cartridge

Direct plug-in cartridge for P-mount turntables. Features Vector-Aligned dual-magnet system with tapered alloy cantilever; 0.2 x 0.7-mil nudemounted biradial diamond stylus ..... \$150

#### AZDEN

#### **GM-P5L Phono Cartridge**

P-mount MC cartridge with Nude line-contact stylus and boron cantilever. Output 0.2 mV at 5 cm/sec; sep 30 dB at 1,000 Hz; tracking force range 1-1.5 g; cartridge weight 5.9 g . . . . . \$250

#### YM-P50VL Moving-Magnet Phono Cartridge

MM cartridge with Vital Nude line-contact stylus and tapered aluminum cantilever. Output 4 mV at 5 cm/sec; sep 30 dB at 1,000 Hz; tracking force range 1-1.5 g; cartridge weight 5.9 g. .... \$150

#### GM-1E Moving-Coil Phono Cartridge

MC cartridge. Output 2 mV at 5 cm/sec; sep 28 

#### YM-10VE Moving-Magnet Phono Cartridge

MM cartridge with 0.3 x 0.7 mil Vital elliptical stylus. Output 4.5 mV at 5 cm/sec; sep 26 dB at 1,000 Hz; tracking force range 1.5-2.5 g; cartridge weight 4.5 g; ch bal 1.5 dB at 1,000 Hz .... \$90

#### YM-P50E Moving-Magnet Cartridge

Universal mount cartridge with aluminum tube cantilever and 0.3 x 0.7 mil elliptical stylus. Output 4 mV at 5 cm/sec; channel sep min 28 dB at 1,000 Hz; t-force 1.25 g; weight 5.9 g ..... \$90

#### YM-10E Moving-Magnet Phono Cartridge

#### YM-P20E Moving Magnet Phono Cartridge

Universal mount cartridge with 0.3 x 0.7 mil stylus. Output 4 mV at 5 cm/sec; sep 24 dB; tracking force 1.25+ g; cartridge weight 5.9 g ... \$70

#### YM-10C Moving-Magnet Phono Cartridge

#### YM-P50C Moving-Magnet Phono Cartridge

#### **BANG & OLUFSEN**

#### MMC Series Phono Cartridges

All MMC cartridges feature armature mounted perpendicularly to the cantilever; crystal sapphire cantilever; multi-radial diamond; four high-output, low-imp coils wound on cores of very low permeability aligned in perfect symmetry with the magnet.

MMC-1. Diamond contact line 0.1 × 0.1 mm sqr.; stylus bonding nude; cantilever sapphire tube; recommended tracking force 10 mN/1 gram; FR 20-20,000 Hz ± 1 dB; 1.6 g ..... \$445 MMC-2, Diamond contact line 0.12 × 0.12 mm sqr.; stylus bonding nude; cantilever sapphire tube; recommended tracking force 10 mN/1 g; FR stylus bonding nude; cantilever tapered aluminum tube; recommended tracking force 10 mN/1 g; FR 20-20,000 Hz ± 2 dB; 1.6 g ..... \$195 MMC-4. Diamond elliptical 0.20 mm round; stylus bonding titanium; cantilever tapered alumi-num tube; recommended tracking force 12 mN/ 1.2 g; FR 20-20,000 Hz ± 2.5 dB; 1.6 g .... \$115 MMC-5. Diamond elliptical 0.25 mm round; stylus bonding titanium; cantilever tapered aluminum tube; recommended tracking force 15 mN/ 1.5 g; FR 20-20,000 Hz± 3 dB; 1.6 g ...... \$65

#### CELLO

#### Maestro MC Cartridge

#### Chorale MC Cartridge

## DENNESEN ELECTROSTATICS

#### **ABLT-1 Tonearm**

Air-bearing lateral-tracking tonearm includes air pump. Entire armtube removable; any range desired. Stylus overhang 0 mm; overall length and effective length vary (user adjustable); tracking error 0°; 1.5 lb.....\$1,450

#### DENON

#### DL-1000 MC Phono Cartridge

#### **DL-305 MC Phono Cartridge**

Features twin radius; baron cantilever. Output 0.2 mV at 50 mm/sec; FR 20-75,000 Hz; sep 28



#### DL-304 MC Phono Cartridge

Moving-coil phono cartridge features baron cantilever; high compliance \$395

#### DL-302 MC Phono Cartridge

Features high output; detail, charm and depth; baron cantilever. Output 0.25 mV at 50 mm/sec; FR 28-70,000 Hz; separation 28 dB at 1,000 Hz; tracking-force range 1.4-0.2 grams; cartridge weight 6.0grams.......\$260

#### **DL-301 MC Phono Cartridge**

Output 0.3 mV at 50 mm/sec; FR 20-60,000 Hz; sep 28 dB at 1,000 Hz; tracking-force range 1.4-0.2 g; cartridge weight 4.7 g......\$160

#### DL-160 MC Phono Cartridge

Output 1.6 mV at 50 mm/sec; FR 20-50,000 Hz; sep 28 dB at 1,000 Hz; tracking-force range 1.6-0.3 g; cartridge weight 4.8 g......\$115

#### **DL-110 MC Phono Cartridge**

Output 1.6 mV at 50 millimeters per seconds; FR 20-45,000 Hz; separation 25 dB at 1,000 Hz; tracking-force 1.80-0.30 g; weight 4.8 g .... \$85

#### **DL-80 MC Phono Cartridge**

Output 1.6 mV at 50 mm/sec; FR 20-45,000 Hz; sep 20 dB at 1,000 Hz; tracking-force range 1.8-0.3 grams; weight 4.5 grams. \$60

#### DIGITRAC BY ORTOFON

#### 300SE Phono Cartridge

Variable Magnetic Shunt cartridge with aluminum cantilever and nude fine-line diamond stylus. Output 4 mV at 5 cm/sec; FR 20-30.000 Hz; sep 24 dB at 1,000 Hz; high compliance 35um/ mn; tracking force 1-1.5 g; weight 6 g .... \$200

#### 200NE Phono Cartridge

Variable Magnetic Shunt cartridge with aluminum cantilever and elliptical nude diamond stylus. Output 4 mV at 5 cm/sec; FR 20-25,000 Hz; sep 22 dB at 1,000 Hz; high compliance 30  $\mu$ m/ mN; tracking force 1.25-1.75 g; weight 6 g \$140

#### **100E Phono Cartridge**

#### 190S Moving-Magnet Cartridge

#### EMINENT TECHNOLOGY

#### Model 2 Straight Tonearm

Straight-line-tracking, air-bearing tonearm with adjustable VTA/SRA over an are while playing record. Airpump included. Adjustable height; interchangable arm tube with preset geometry; decoupled counterweight in horizontal plane; interchangable preset counterweights. Headshell and tonearm manufactured as 1 piece. Tracking-force range 0-5 g; effective mass 5-20 g vertical, 20-30 g horizontal. Overall length 290 mm; effective length 180 mm; 400 g \$850

#### ENTRE BY ANALOG EXCELLENCE

#### MC-9 Sapphire MC Phono Cartridge

#### MC-5 Boron MC Phono Cartridge

#### MC-1 Basic MC Phono Cartridge

Double-wound coils; vital nude diamond stylus. Output 0.5 mV at 5 cm/sec; FR 20-30,000 Hz ± 3 dB; sep 22 dB at 1,000 Hz; tracking force 1.8-2 g; cartridge weight 5.9 g; imp 3 ohms ...... \$195

#### EPOCH BY STANTON

#### Epoch II Series Model HZ9S Cartridge

#### LZ9S Low Impedance Phono Cartridge

Includes Stereohedron II stylus. Output 0.04 mV; FR 10-50,000 Hz, individually calibrated to 20,000 Hz; tracking force 0.75-1.5; 3.8 g ... \$250

#### HZ8S Phono Cartridge

Includes Stereohedron II stylus. Output 0.8 mV; FR 10-20.000 Hz; sep 35 dB at 1.000 Hz, 22 dB at 10.000 Hz; tracking force .75-1.5; 4 g ..... \$190

#### LZ8S Low Impedance Phono Cartridge

Includes stereohedron II stylus. Output 0.04 mV; FR 10-20.000 Hz; sep 35 dB at 1,000 Hz; 22 dB at 10,000 Hz; tracking force .75-1.5; 3.8 g  $\dots$  \$190

#### **HZ7S Phono Cartridge**

Includes Stereohedron 11 stylus. Output 0.8 mV; FR 10-20,000 Hz; sep 30 dB at 1,000 Hz, 15 dB at 10 kHz; tracking .75-1.25 g; 4 g ........\$120

#### HZ6E Phono Cartridge

Includes elliptical stylus. Output 0.8 mV; FR 10-20,000 Hz; sep 30 dB at 1,000 Hz, 15 dB at 10,000 Hz; tracking force 0.75-1.25 ...... \$95

#### **GOLDBUG LABS BY RMI**

#### Mr. Brier MC Phono Cartridge

#### Clement II MC Phono Cartridge

Beryllium hollow-tube cantilever and pure-oval diamond tip. Output 22 mV at 5 cm/s; FR 20-20,000 Hz  $\pm$  1 dB; sep 27 dB at 1,000 Hz; tracking force 1.6-1.8 g; cartridge weight 5.6 g . \$490

# ... \$70

#### Medusa MC Phono Cartridge

Oval diamond stylus. Output 2 mV at 5 cm/s; FR 20-20,000 Hz ± 1 dB; sep 27 dB at 1,000 Hz; tracking force 1.8-2 g; cartridge weight 5.8 g\$250

#### GRADO

#### Joseph Grado Signature Series MCX Cartridge

Hybrid design with 4 separate magnetic gaps around cantilever; compatible with light- to medium-mass tonearms and standard 47,000-ohm MM inputs; user-replaceable stylus. Output 1.5 mV; resonance 8-12 Hz; torsional resonance approximately 25,000 Hz; resistance 70 ohms; inductance 9 Mh . . .....\$300

#### 8MX Cartridge

User-replaceable stylus; compatible with standard 47,000-ohm MM inputs; output 3.5 mV; electrical resistance 475 ohms; inductance 45 mH \$200

Specifications for all models below: 0.5" mounting centers (or optional P-mount for some); input load 47,000 ohms; inductance 45 millihenries; DC resistance 475 ohms; pickup weight 5 g.

#### **Professional Series**

Designed for high output and stability under severe use, for broadcast, in changers, or arms that will not track at 1 g; recommended tracking force 2-3 g. Output 4 mV at 3.54 cm/sec (45°); sep 20 dB 10-20.000 Hz.

XCE+. Specially selected units from XT production; elliptical diamond stylus ..... \$40 XTE+. Elliptical diamond stylus ..... \$27

#### Super Flux-Bridger Series

With 0.5" or P-mount. Recommended tracking force 0.75-2 g. Output 4 mV at 3.54 cm/sec (45°); sep 25 dB 10-30,000 Hz. \$265 V2 

True Ellipsoid stylus

All it wild composid stylds
X1+, True Ellipsoid stylus \$180
X+. Grado diamond stylus \$120
XF1+. Grado diamond stylus \$99
XF2+. Elliptical diamond stylus \$82
XF3E+. Elliptical diamond stylus \$66

#### Flux-Bridger Series

0.5" or P-mount: elliptical diamond stylus; Rec- ommended tracking force 1-2 g. Output 4 mV at 3.54 cm/sec (45°); sep 20 dB 10-30,000 Hz.	
XCE+1,	
XTE+1\$20	

#### Replacement Styli

For standard 0.5 and P-mount cartridges; spherical styli available for 78-rpm records \$4.00 additional. X2+/S. 2 gold dots ......\$100.00 X1+/S. 2 yellow dots .....\$69.00 XF2+/S, 2 white dots ......\$33.00 
 XF3E + /S. Tan plate
 \$30.80

 XCE + 1/S. 2 silver dots
 \$28.50
 XCE+/S, 2 red dots .....\$26.50 XTE+/S. 2 red dots .....\$18.75

#### HIGHPHONIC BY ANALOG EXCELLENCE

XTE+1/S. 2 silver dots ......\$15.50

#### MC-D15 Signature MC Phono Cartridge

High-compliance diamond cantilever; gold-finish alloy body; ultra-line-contact stylus. Output 0.11 mV at 5 cm/sec; FR 10-120,000 Hz ± 2 dB; sep 35 dB at 1,000 Hz; tracking-force range 0.6-0.9 g; cartridge weight 6.5 g; left/right chs balanced within 0.001 mV output ......\$2,000

#### MC-D12 MC Phono Cartridge

Diamond cantilever. Output 2.5 mV ..... \$1,250

#### MC-D10 MC Phono Cartridge

Diamond cantilever. Output 0.13 mV (1,000 Hz, 5 cm/sec); FR 10-80,000 Hz; 6.6 g ..... \$1,250

#### MC-A6 Signature MC Phono Cartridge

Titanium/aluminum alloy cantilever with siliconcarbide whiskers; 0.1 x 1.2 mil ultra-line-contact stylus. Output 0.12 mV at 5 cm/sec; FR 10-85,000 Hz  $\pm$  2 dB; sep 34 dB at 1,000 Hz; tracking force 0.8-1.2 g; cartridge weight 6.5 g; left/ right ch balanced within 0.001 mV output. \$745

#### MC-R5 MC Phono Cartridge

Ruby cantilever; ultra-line-contact stylus; nonresonant body. Output 0.12 mV at 5 cm/sec; FR 10-75 Hz ± 2 dB; sep 30 dB at 1,000 Hz; tracking force 0.9-1.1 g; cartridge weight 6.5 g; left/right ch balanced within 0.002 mV output ..... \$695

#### MC-A3 MC Phono Cartridge

Ultra-line-contact stylus; aluminum alloy body. Output 0.12 mV at 5 cm/sec; FR 10-70,000 Hz ± 2 dB; sep 28 dB at 1,000 Hz; tracking force 1-1.2 g; cartridge weight 6.5 g..... \$395 MC-A2E. Same as MC-A3 with elliptical stylus; FR 20-50,000 Hz ± 3 dB ..... \$295

# HEYBROOK BY D'ASCANIO AUDIO

#### The Heybrook Tonearm

Pivoted-tracking magnesium-tube straight tonearm with adjustable vertical tracking angle and fixed headshell. Statically balanced with fixed headshell and locking counterweight. Trackingforce range 0-3 g; overall length 11.62" ... \$498

#### IVC

#### Z45EBP P-Mount Cartridge

P-mount dual-magnet cartridge with diamond

#### **KISEKI BY SUMIKO**

#### Lapis Lazuli MC Cartridge

Made from lapis lazuli, blue stone with small gold particles; diamond cantilever; stylus, armature, magnet as in Agaat cartridges (see below); tested for about 50 hours with music; made on special order, requiring 2-3 months ......\$5,600

#### Agaat Ruby 4.5 Cartridge

SaCo magnet 3 times as large as ordinary magnets for 35% higher output than Purpleheart or Blue Silverspot cartridges; 0.3-mm diameter, 4.5mm long ruby cantilever; line-contact PF stylus 0.14 x 0.6 mil; bottom plate of aluminum/magnesium alloy bonded to body; color varies between white, black, red, green, blue; optimum performance after 15 hours playing, 22° C, humidity 65%. Output around 0.4 mV; ch balance ± 0.25 dB; sep ± 30 dB; FR 20-50,000 Hz; imp 42 ohms; tracking force 1.6-2.2 g; 11.2 g ......\$2,100

#### Purpleheart Sapphire MC Cartridge

Housing of purpleheart wood; 4.5-mm-long sapphire cantilever with 0.3-mm diameter; same pole pieces and stylus as in Agaat Ruby 4.5 (above); Sendust armature; SaCo magnet. Output 0.4 mV (1,000 Hz, 5 cm/sec); ch balance ± 0.25 dB, sep ± 30 dB; FR 20-50,000 Hz; imp 42 ohms, 120 µsec; tracking force 2 g; 7.5 g .....\$1,784

#### Purpleheart MC Cartridge

Aluminum/magnesium-alloy bottom plate; purpleheart wood housing changes from brown to purple in daylight; 0.14-x-0.60-mil super-elliptical stylus; SaCo magnet; gold/purple color; aluminum cantilever overlaid with boron; optimum performance after 15 hours playing at 22° with 65% humidity. Output around 0.4 mV; ch balance ± 0.25 dB; sep ± 30 dB; FR 20-50,000 Hz; imp 6 ohms; VTA 20°; tracking force 1.6-2.2 (2 g optimum); weight 7.5 g ..... \$1,240

# LINN PRODUCTS BY AUDIOPHILE SYSTEMS

#### Troika Low-Output MC Cartridge

Elliptical stylus; body milled from solid aluminum; 3 mounting screws; flying-lead cartridge tags eliminate 1 connector. FR 20-20,000 Hz ± 1 dB; sep >30 dB at 1,000 Hz; tracking force 1.5-1.7 g; ch bal at 1,000 Hz within 1 dB; recommended load 470 ohms; tracking angle 20°\$1,250 Replacement stylus ..... \$833

#### Kama Low-Output MC Cartridge

Elliptical stylus; body milled from solid aluminum. FR 20-20,000 Hz ± 1 dB; sep 30 dB at 1,000 Hz; tracking force 1.5-1.7 grams; cartridge Replacement stylus ..... \$583

#### Asaka Moving-Coil Cartridge

Elliptical stylus; body milled from solid aluminum. Output 0.2 mV; FR 10-50,000 Hz ± 3 dB; sep 27 dB at 1,000 Hz; tracking force 1.5-1.9 grams; cartridge weight 5.7 g; VTA 20°.... \$550 Replacement stylus ..... \$367

#### K-9 Moving-Magnet Cartridge

Elliptical	stylus;	aluminum	cantilever	. FR 20-
20,000 Hz	± 2 dB	; sep 25 dI	Bat 1,000 I	Hz; track-
ing force	1.5-1.9	grams; VTA	. 20°	\$185
Replacem	ent styl	us		\$111

#### Basik Moving-Magnet Cartridge

Spherical stylus. FR 20-20,000 Hz ± 2 dB; ch sep 25 dB; tracking force 1.8 g; weight 6 g. .... \$50

#### Topearms

## Ittok LV-II Tonearm

Tonearm with 11.5" overall length, 9" stylus-pivot distance, damped cueing mechanism. Features radial ball bearings. Effective mass 12 g; total cable capacitance 100 pF; cartridge weight range 3-12 g ..... \$750

#### **Basik Plus Tonearm**

Straight statically balanced tonearm with fixed aluminum headshell and decoupled counterweight. Tracking-force range 0-3 grams calibrated to 0.1 gram; effective mass 11 grams; stylus overhang 18 mm; overall length 284 mm; effective length 230 mm. Includes Basik cartridge\$250

#### MADRIGAL

#### Carnegie One MC Cartridge

Line-contact stylus; beryllium with carbon-fiber core enclosed in aluminum cantilever. Output 0.28 mV at 0.5 cm/s; sep >30 dB at 1,000 Hz; tracking-force range 1.5-1.8 g; cartridge weight 6.7 g; scanning radius 5 µm; VTA 24°.... \$690

#### McINTOSH

#### MCC 1000 MC Phono Cartridge

Moving-coil phono cartridge with beryllium pipe cantilever. Output voltage 0.25 mV, 1,000 Hz, 45° peak, 3.54 cm/sec; ch sep more than 27 dB at 1,000 Hz; ch balance less than 1 dB; internal imp 14 ohms; stylus force 1.5 g  $\pm$  0.02g; 5.7 g \$1,000

# MICRO SEIKI BY ANALOG EXCELLENCE

#### C-2 High-Output MC Cartridge

Beryllium pipe cantilever; line-contact stylus. Output 2.5 mV at 5 cm/sec; FR 10-30,000 Hz; tracking force 1.8 g ± g; cartridge weight 9.5 g; internal imp 120 ohms; compliance 8 x 10 cm/ dyne ..... \$395

#### CARTRIDGES સ્ટ TONEARMS

#### **MISSION ELECTRONICS**

#### The Rose Cartridge

MC cartridge made from solid rosewood wired internally with ultra-fine linear crystal. Line-contact stylus; annealed boron cantilever; output 0.2 mV at 5 cm/sec; FR 20-20,000 Hz  $\pm$  0.5 dB; sep 25 dB at 1,000 Hz; max tracking force 2 g; cartridge weight 6.2 g; VTA 20°..... \$599

#### Solitaire MM Phono Cartridge

Output 3 mV at 5 cm/sec; FR 20-20,000 Hz ± 2 dB: sep 28 dB at 1,000 Hz; tracking force 1.8-2 g; cartridge weight 5.7 g ..... \$99

#### 773MM MM Phono Cartridge

Cartridge with 0.3 x 0.8 mil synthetic diamond stylus. Output 4 mV at 1,000 Hz, 3 mV 50 mm/ sec at 1,000 Hz; sep 28 dB at 1,000 Hz; tracking force 1.5-2.5 g ..... \$79

Tonearms

#### The Mechanic Tonearm

Tonearm cut from single billet of aluminum with minimum number of separate pieces; direct-coupled rigid two-plane symmetric and concentric bearings in ceramic cups; fixed 23° 45' offset angle (adjustable); effective length 228 mm; pivot-spindle 210 mm; overhang 18 mm; effective mass 16 g; friction (horizontal or vertical) -14 g..\$1,400

#### MONSTER CABLE

#### Alpha Genesis 1000 MC Cartridge

Low output; diamond-sputtered cantilever; phase-corrected coils ..... \$800 **500**.....\$650

#### Alpha 2 H.O. MC Cartridge

High output; Micro-Ridge stylus; sapphire cantilever; Magnetic Field Control<sup>™</sup> coil ..... \$650

#### **MUSIC & SOUND IMPORTS**

#### Mas 282 Series II Tonearm

Offers max rigidity and stability. Bearing system tolerance of 10 microns. Features straight, dynamically balanced, decoupled counterweight. Tracking-force range 0-2.5 g calibrated to .1 g; effective mass 11 g; stylus overhang 18 mm; effective length 229 mm ..... \$169

#### Mas Econocoil Phono Cartridge

High-output moving-coil cartridge with exceptionally flat response from 20-20,000 Hz. Features elliptical stylus; accousticly inert fibre glass reinforced plastic body. Output 2 mV at 1,005 cm/sec; FR 20-40,000 Hz ± 3 dB; sep 25 dB; tracking force 1.5-1.8 g; weight 4.5 g ..... \$129

#### **MUSIC HALL**

#### **Bullet Cartridge**

Highly modified Audio-Technica cartridge with elliptical stylus ..... \$100

#### ORTOFON

#### Ortophase Moving-Coil Phono Cartridges

MC3000. MC cartridge with ultra low mass (0.25 mg) moving system. Features propriety Ortofon Fg Replicant 100 stylus mounted on a rigid aluminum conical cantilever; carbon fiber armature wound with pure silver coils and a neodymium permanent magnet. Aluminum oxide, ceramic cartrige housing with Moh scale hardness factor of 9. Output voltage at 1,000 Hz 5cm/sec 0.1 mV; ch.sep. at 1,000 Hz >25dB; FR 5-90,000 Hz +4 -1dB; tracking ability at 315 Hz at recommended tracking force >80 µm; 9.5 g ..... \$1500 MC2000. MC cartridge with low-mass (0.27 mg) moving system; wide-range damping and rigid

aluminum conical cantilever. Features symmetrical contact-line diamond; aluminum armature for a mass reduction of 66% in relation to traditional armature designs to prevent magnetic noise; samarium cobalt magnet; pure silver coils. Output voltage at 1,000 Hz, 5 cm/sec 0.050mV; ch sep at 1,000 Hz >25 dB; FR 5-90,000 Hz; tracking ability at 315 Hz at recommended tracking force >100 μm; weight of unit 11 g ..... \$750 MC30 Super. MC cartridge with extruded aluminum body, and carbon fiber support system, and silver coil windings. Stylus Fg type I with stylus tip radius r/R 4.5/80  $\mu$ m. Output 0.25 mV at 1000 cm/sec; FR 15-45,000 Hz; sep >25 dB at 1,000 Hz; tracking ability at recommended tracking force 90 µm; weight 9 g ..... . \$450 MC20 Super. MC cartridge with extruded aluminum body. Features Van den Hul stylus; carbonfiber support system. Output 0.25 mV at 1,000



cm/sec; FR 15-40,000 Hz; sep >25 dB at 1,000 Hz; tracking-force range 1.5-1.9 g; cartridge Hz +3, -1 dB; sep >25 dB at 1,000 Hz; trackingforce range 1.2-1.8 g; weight 5.3 g ..... \$250 MC-100U. Low-mass MC cartridge with widerange damping system. Features nude elliptical diamond. Output 0.09 mV at 1,000 cm/sec; FR 20-20,000 Hz +3, -1 dB; sep 25 dB at 1,000 Hz; tracking-force range 1.2-1.8 g; cartridge weight 5.3 g ..... \$150 MC10 Super. MC stereo phono cartridge with elliptical nude stylus. Vertical tracking angle 20°, output 0.25 mV at 1 kHz, 5 cm/sec; balance <1.5 dB at 1 kHz; FR 20-20,000 Hz ± 1 dB; tracking force 1.5 g; FIM distortion <1%; 7 g ..... \$150

#### High-Output Moving-Coil Cartridges

X5MC. High output MC cartridgefor direct connection to MM phono input. Features Fg type 2 nude diamond stylus. High output/low moving mass achieved through focused magnetic field and only 230 coil windings per pole piece. Output 2 mV at 5 cm/sec. FR 15-40KHz +4 -1.5 dB; sep >25 dB at 1,000 Hz. weight 4.1 g ...... \$300 X3-MC. High-ouput MC cartridge connects directly to MM-phono input. Features focused magnetic field for high output with low-moving mass (230 coil windings per pol piece) and nude fine-line diamond. Output 2 mV at 5 cm/sec; FR 20-40,000 Hz +4, -1.5 dB; sep >25 dB at 1,000 Hz; tracking-force range 1.8-2.2 g; cartridge weight 4.1 g; vertical tracking angle 23° ..... \$190 X3-MCP. P-mount version of X3-MC .... \$190 X1-MC. High-ouput MC cartridge with low-moving mass, aluminum cantilever, and elliptical diamond. Output 2 mV at 5 cm/sec; FR 20-30,000 Hz +4, -1.5 dB; sep >22 dB at 1,000 Hz; track-..... \$100 X1-MCP. P-mount version of X1-MC .... \$100

#### **Diamond Collection 500 Series**

540. MM cartridge utilizing proprietary slotted pole pin construction for improved high frequency response. Patented locking stylus guard to secure sylus to cartridge body avoiding unwanted resonances. Square-shank nude diamond Fg type

I. Output at 3mV at 1 kHz per 5 cm/sec. FR 20-28kHz +4, -1 dB; sep >25 dB; tracking force nude fine-line diamond. FR 20-25,000 Hz . . \$225 520. Similar to 530 except uses a square-shank nude elliptical diamond, sep 23dB; FR 20-23,000 Hz ..... \$150

Optimum-Mass Cartridges OM-40 Gold. Variable-magnet-shunt cartridge with individually calibrated Van den Hul stylus. Output 3.5 mV at 1,000 cm/sec; FR 20-30,000 Hz; sep 25-1,000 dB at 1,000 Hz; tracking-force range 1-1.5 g; cartridge weight 5 or 2.5 g. \$300 OM-30. Low-mass variable-magnetic-shunt phono cartridge. Features cartridge body of neryl plastic for rigidity and low weight; copper coils; mu-metal container for electrical system; nude fine-line diamond stylus; tracking force 1.25 g; FR 20-27,000 Hz; output voltage at 1,000 Hz (5 cm/ sec) 3.5 mV; wt 2.5 grams; ch sep at 1,000 Hz 25 OM-20. Similar to OM-30 except for a more rectangular nude elliptical diamond stylus; designed for medium-weight tonearms; FR 20-22,000 Hz; output voltage at 1,000 Hz (5cm/sec) -4 mV\$175 OMP-20, P-Mount version of OM-20; 6 g. \$175 OM-10. Similar to OM-20 except for a heavier stylus tip; designed for use with heavier tonearms; tracking force 1.5 gram; FR 20-20,000 Hz; output voltage at 1,000 Hz (5 cm/sec) 4 mV; ch sep at 1,000 Hz 22 dB ..... ..... \$95 OMP-10. P-Mount version of OM-10; 6 g. . \$95 OM-5E. Similar to OM-10 except for heavier stylus tip; for use with heavier tonearms. Tracking force 1-5 g; FR 20-20,000 Hz..... \$65 OMP-5E. P-Mount version of OM-5E ..... \$65

#### Pro Series

Concorde Pro Kit. MM cartridge kit with one Concorde integrated pro body and two spherical pro styli. FR 20-20,000 Hz; output 5 mV at 1,000 Hz 5 cm/sec; sep/balance at 1kHz 20/2dB; weight 16 g ..... \$95 OM Pro-Kit. MM-cartridge kit with one OM Pro body and 2 pro stili. Features spherical stylus and aluminum cantilever. Output 5 mV at 5 cm/sec; FR 20-18,000 Hz ± 3 dB; sep 20 dB at 1,000 Hz; tracking-force range 3-5 g; cartidge weight 5 g\$95 Stylus Pro. Replacement stylus for OM Pro Kit.....\$30

#### 300 Series

320U. Universal P-mount with 0.5" mount adapter, moving magnet generating principal. Square shank nude eliptical diamond. FR 20-22,000 Hz; output 5 mV at 5 cm/sec; sep 24dB ..... \$129 310U. Similar to 320U except has highly-polished elliptical diamond stylus. FR 20-20,000 Hz . \$89 305E. Similar to 310U except has an elliptical diamond stylus. sep 23dB ..... \$60

#### Universal Series

TM20U. Variable-magnetic-shunt cartridge with square shank nude eliptical diamond and universal mount. Output 4 mV at 1 kHz, 5 cm/sec; FR 20-25,000 Hz; bal/sep. 1.5/25 dB; wt 6g . . \$129 TM14U. Stereo cartridge with elliptical diamond stylus and unversal mount. FR 20-20,000 Hz; output 4.5 mV; sep/balance 25/1.5 dB at 1 kHz; equivalent stylus tip mass 0.5 mg; recommended load 47k ohms/200 pF; tracking force 1.25g \$89 TM7U. Cartridge with elliptical diamond stylus and universal mount. FR 20-20,000 Hz; output 5 mV at 1 kHz, 5 cm/sec; sep/balance 22/2 dB at 1 kHz; tracking force 1.25 g ..... \$60

#### VMS Series Phono Cartridges

FF15XE MkII. Variable Magnetic Shunt cartridge with 8-µm elliptical diamond stylus tip. Output 3.2 mV at 1 kHz, 1 cm/sec; FR 20-20,000

Hz; balance/sep 2 dB/20 dB at 1 kHz; compliance 20 µm/mN horizontal, vertical; trackingforce range 1.5-3 g; 5 g ..... \$50

#### PARASOUND

#### PCe77 P-Mount Phono Cartridge

Induced-magnet cartridge with aligned elliptical stylus. Output 4 mV at 3.54 cm/sec; FR 20-26,000 Hz ± 0.8 dB; sep 30 dB at 1,000 Hz; tracking force 1.25 g; cartridge weight 6.1 g .... \$80

#### PCs55 Phono Cartridge

Standard 0.5"-mount induced-magnet cartridge with low mass, medium compliance, and hinged stylus guard. Thin-walled aluminum cantilever, 0.6-mil uniradial stylus. Output 5 mV at 3.54 cm/ sec; FR 20-20,000 Hz ± 1 dB; sep 28 dB at 1,000 Hz; tracking force range 1.5-2 g; cartridge weight 3.7 g ..... \$60

#### IM1700 P-Mount Phono Cartridge

Induced-magnet cartridge with spherical stylus and aluminum cantilever. Output 5 mV at 3.54 cm/s; FR 20-20,000 Hz ± 1 dB; tracking-force 

#### PICKERING

#### XLZ/7500S Phono Cartridge

Cartridge with nude Stereohedron diamond stylus tip. Sens 0.06 mV/cm/sec ± 2 dB; FR 10-50,000 Hz; sep 35 dB; tracking force 0.5-1.5 g; includes Dustamatic brush; replacement stylus D7500 ..... \$250

#### XSV/5000 Phono Cartridge

Cartridge with nude Sterehedron diamond stylus tip. Output 3.8 mV; FR 10-50,000 Hz; tracking force 0.5 to 1.5 g; sep 35 dB; includes Dustamatic brush. Replacement stylus D5000 ..... \$250 XSV/4000. Similar to XSV/5000 except FR 10-36,000 Hz; tracking force .75-1.5 g; replacement stylus D5000 ..... \$180

#### XV-15/1200 Phono Cartridge

Output 4.4 mV at 5.5 cm/sec; FR 10-30,000 Hz; 0.2 x 0.7-mil elliptical stylus; tracking force 0.75 to 1.25 g; sep 35 dB; features Dustamatic brush; replacement stylus D1200..... \$150

#### XV-15/757S Cartridge

Stereohedron stylus, output 4.4 mV; tracking force .75 -1.5 g; FR 10-25,000 Hz; replacement stylus D7578 ..... \$125

#### XSV/3000 Phono Cartridge

Output 5 mV at 5.5 cm/sec; FR 10-30,000 Hz; Stereohedron stylus tip; tracking force 0.75 to 1.5 g; sep 35 dB; features Dustamatic brush; replacement stylus D3000..... \$120

#### XV-15/625E Phono Cartridge

Output 4.4 mV at 5.5 cm/sec; FR 10-25,000 Hz; 0.3 x 0.7-mil elliptical stylus; tracking force 0.75 to 1.5 g; sep 35 dB; features Dustamatic brush; 

#### XV-15/625DJ Phono Cartridge

Designed for disco use. Output 0.8 mV/cm/sec; sep 30 dB; tracking force 1-4 g; 0.3 x 0.7-mil elliptical stylus ..... \$75

#### XV-15/400E Phono Cartridge

Output 5.5 mV at 5.5 cm/sec; FR 10-25,000 Hz; 0.4 x 0.7-mil elliptical stylus; tracking force .75 to 1.5 g; sep 35 dB; features Dustamatic brush; replacement stylus D400 ..... \$85

#### **P-Mount Cartridges**

TLZ/7500S. High-performance low-imp cartridge with 4-coil, high-energy samarium cobalt magnet. Nude stereohedron stylus; output 0.06 mV/cm/sec; travking force .75-1.5 g; FR 10-tracking .75-1.5 g; FR 10-36,000 Hz ..... \$180 XSP/3003. Stereohedron series P-Mount cartridge with output 3.3 mV. fr 10-30,000 Hz; tracking force .75 to 1.5 g, ± .25 g ..... \$120 TL-4S. 4-coil induced magnet. Stereohedron stylus, output 4.4 mV, tracking force .75-1.5 g, FR 10-25,000 Hz ..... \$150 TL-3S. Stereohedron stylus. Output 4.4 mV;



tracking .75-1.5 g; FR 10-25,000 Hz ..... \$125 TL-2S. Stereohedron stylus. Output 4.4 mV; tracking .75-1.5 g; FR 10-22,000 Hz ..... \$100 TL-2E, Elliptical stylus. Output 4.4mV; tracking .75-1.5 g; FR 10-22,000 Hz ..... \$85 TL-1. Std P-Mount, 2-coil movin magnet. Tracking .75-1.5 g. Elliptical stylus, FR 10-20,000 Hz, output 4.4 mV..... \$75 TL625DJ. P-Mount cartridge. FR 20-20,000 Hz, output 44 mV, tracking force 3.5-4 g. Replace-tracking force .75 to 1.5 g; FR 10-22,000 Hz \$55 TLE. Elliptical stylus. Output 4.4 mV; tracking force .75 to 1.5 g; FR 10-20,000 Hz ..... \$50

V-15/ Series II-S. Stereohedron stylus, FR 10-25,000 Hz, output 3.5 mV. Replacement stylus DSR-S..... \$80 V-15/Series II-EE. Elliptical stylus, FR 10-20,000 Hz, output 3.5 mV. Replacement stylus DSR-..... \$50 EE. ..... V-15/ Series II-E. Elliptical stylus, FR 10-18,000 Hz, output 3.5 mV. Replacement stylus DSR-

#### PIONEER

#### PC-295T Induced-Magnet Cartridge

T4P P-mount cartridge. FR 10-33,00 Hz; output voltage 2.5 mV; tracking force 1.25 g ..... \$80 PN-295T. Replacement stylus for PC-295T. \$35

#### PC-300T Induced-Magnet Cartridge

T4P P-mount cartridge. FR 10-33,000 Hz; output voltage 2.5 mV; tracking force 1.25 g ..... \$80 PN-300T. Replacement stylus for PC-300T. \$30

#### PC-290T Induced-Magnet Cartridge

T4P P-mount cartridge. FR 10-33,000 Hz; output voltage 2.5 mV; tracking force 1.25 g ..... \$70 PN290T. Replacement stylus for PC-290T . \$30

#### PC-5MC Moving-Coil Cartridge

High-output MC cartridge. FR 10-32,000 Hz; output voltage 2 mV; tracking force 1.7-2.3 g. . \$54 PN-5MC. Replacement stylus for PC-5MC . \$32

#### PC-250T Moving-Magnet Cartridge

T4P P-mount cartridge. FR 10-30,00 Hz; output voltage 2.5 mV; tracking force 1-1.5 g ..... \$50 PN-250T. Repelacement stylus for PC-250T \$20

#### PREMIER BY SUMIKO

#### MMT Tonearm-Featured on cover

Highly rigid medium-mass tonearm with double gimbal bearings; bearing design of Sumiko's The Arm for extremely free movement with no bearing play or chatter. Features decoupled counterweight; optional damping; removable headshell with azimuth adjustability and LC-OFC cartridge leads ..... .....\$290

#### FT-3 Straight Tonearm

Statically balanced tonearm with anti-resonance foam-stuffed tube. Features decoupled counterweight; cone and ball race bearings; LC-OFC litz wiring; VTA adjustable during play; termination box with LC-OFC flexible link and gold-plated RCA jacks. Fixed-azimuth adjustable magnesium headshell. Tracking force 0-3 g calibrated to 0.1 g; effective mass 10 g; offset angle 23°; stylus overhang 17.3 mm; overall length 305 mm; effective length 239 mm; tracking error 0.123°/cm; 20 oz......\$475 FT-3K......\$395

#### REALISTIC

#### **RXT6** Realistic/Shure Cartridge

Telescope stylus; dynamic stabilizer; tracking force 1.25-1.75 g; P-mount adaptor and installation kit ...... \$50

#### **RXP3** Realistic/Shure Cartridge

P-mount; elliptical diamond stylus; tracking force 1.25 g ..... \$40

#### R47XT Realistic/Shure Cartridge

Elliptical diamond stylus (10 x 18 microns); tracking force 1.75-2.25 g; sep 20 dB ..... \$30

#### **RS500DJ Realistic/Stanton Cartridge**

Pro Series cartridge for radio stations and dance clubs (back-cues and scratch mixes); tracking R500DJ. Replacement stylus ..... \$20

#### RX1500 Dual-Magnet Plug-In Cartridge

Diamond elliptical stylus; tracking force 1-1.5 g.....\$30

#### **R25XT Realistic/Shure Cartridge**

Elliptical diamond stylus (10 x 18 microns); tracking force 2.5-3.5 g ..... \$20

**RS3P.** Diamond stylus for RXP3 and Shure M92E, M99E, M104E ..... \$28 R8X. Diamond stylus for R1000, Shure M90, M75 series ..... \$20 RS50E. Diamond elliptical stylus for ADC, QLM34 MK III, P32, K5E cartridges ..... \$22 RT1500. Diamond elliptical stylus for RX1500, M75ECS series ..... \$15 42-2772. Diamond conical stylus ...... \$15 DAT-2. Diamond conical stylus for Pickering V15/AT-1/2, KLH, similar cartridges ..... \$12 ATN-771E. Diamond elliptical stylus for Audio-Technica AT-70/71/71E......\$11 RSK8C. Diamond conical stylus for QLM30 and ADC K series cartridges ..... \$11 PS-203. Diamond stylus for Clarinette 14/15/16 and 13-1117/1118 ..... \$6

#### **REVOLVER BY MUSIC HALL**

#### **Revolver Straight Tonearm**

Statically balanced pivoted direct-coupled tonearm with zero free-play-adjusted precision ball races; decoupled counterweight; fixed aluminum

For explanations of abbreviations, specifications, and technical terms, consult the glossary on page 221.

#### SAEC BY ANALOG EXCELLENCE

#### C-1 MC Phono Cartridge

#### C-2 High-Output MC Cartridge

#### C-102 MC Phono Cartridge

Medium-output; aluminum cantilever; nude diamond stylus. Output 0.6 mV at 5 cm/sec; FR 20-30,000 Hz  $\pm$  2 dB; sep 25 dB at 1,000 Hz; tracking force 1.6-1.8 g; cartridge weight 7 g; internal imp 40 ohms; compliance 10 x 10-6 cm/dyne5295

#### Tonearms

#### WE-8000S/T Straight Tonearm

#### WE-506/30 J-Shaped Tonearm

## WE-407/23 J-Shaped Tonearm

#### WE-317S J-Shaped Tonearm

#### WE-308N J-Shaped Tonearm

Statically balanced tonearm with double-knifeedge bearing and stainless steel pipe. Universal aluminum/titanium alloy headshell; tracking force 0-3 g calibrated to 0.1 g; offset angle 12.5°; stylus overhang 5 mm; overall length 329 mm; effective length 235 mm; tracking error <1.5° \$395

#### SHURE

Ultra 500. All of V15 type V MR (see below) plus other features. Total eff mass 0.165 mg; dynamic vertical stylus compliance at 10 Hz 20  $\mu$ cm/dyne; output at 1,000 Hz 3.2 mV ...... \$400

#### V15 Type V-MR Phono Cartridge

MM cartridge with improved low-distortion Micro-Ridge stylus tip and Microwall beryllium stylus shank for increased trackability. Features viscous-damped Dynamic Stabilizer and Side-Guard stylus protection system; includes Duo-Point Alignment Gauge and computer performance printout. Output 3.2 mV at 1,000 Hz (5 cm/sec peak velocity); FR 10-28,000 Hz; sep >25 dB at 1,000 Hz; tracking force 1.0 g ....... \$297

#### V15 Type V-B Phono Cartridge

#### V15 Type V-P Phono Cartridge

#### ML140HE Phono Cartridge

#### ML120HE Phono Cartridge

#### M111HE Phono Cartridge

Features telescoped stylus shank, Hyperelliptical tip, Dynamic Stabilizer, Side-Guard stylus protection system; rigid, low-mass converter allows mounting to either conventional 0.5"-mount tonearms or most P-Mount tonearms; output 5.0 mV at 1 kHz (5 cm/sec peak velocity); FR 20-20,000 Hz; sep 25 dB; tracking force 1.25 g.....\$146

#### M110HE Phono Cartridge

Features telescoped stylus shank, Hyperelliptical tip, and Side-Guard stylus protection system; rigid, low-mass converter allows mounting to either conventional 0.5"-mount tonearms or all Pmount tonearms; same specs as M111HE . \$119

#### M105E Phono Cartridge

#### M104E Phono Cartridge

Cartridge with accurate-tracing 0.2 x 0.7 mil elliptical stylus tip and tubular heat-treated aluminum stylus shank. P-Mount compatible and includes rigid 0.5"-mount converter. Output 5.0 mV at 1 kHz (5 cm/sec peak velocity); I'R 20-20,000 Hz; sep 25 dB at 1 kHz; tracking force 1.25 g. Replacement stylus N104E ....... \$76

#### M55E Phono Cartridge

MM cartridge. Output 6.2 mV at 5 cm/sec peak velocity (1 kHz); FR 20-20,000 Hz; tracking force 0.75-2 g; sep 20 dB (1 kHz); 0.2 x 0.7-mil biradial (elliptical) stylus, replacement stylus N55E . \$71

#### M44E Phono Cartridge

MM cartridge. Output 9.5 mV at 5 cm/sec peak velocity (1 kHz); FR 20-20,000 Hz; tracking force 1.75-4 g; sep 20 dB (1 kHz); 0.4 x 0.7-mil biradial (elliptical) stylus; replacement stylus N44E . \$62

#### M99E Phono Cartridge

#### **M92E Phono Cartridge**

Heat-treated tubular aluminum stylus shank and 0.4 x 0.7 mil elliptical stylus tip. P-Mount compatible and fits conventional 0.5"-mount tonearms with rigid converter. Output 5.0 mV at 1 kHz (5 cm/sec peak velocity); FR 20-18,000 Hz; sep 20 dB; tracking force 1.25 g ........\$33

#### SIGNET

#### MK440ML MC Cartridge

Dual moving MicroCoil design features microline stylus on gold-plated beryllium cantilever. Output 0.1 mV at 5 cm/sec; FR 5-50,000 Hz; sep 25 dB at 1,000 Hz, 18 dB at 10,000 Hz; trackingforce range 1-1.6 g; cartridge weight 7 g ... \$600

#### TK10ml Series II MM Cartridge

#### MK220E MC Cartridge

Dual moving MicroCoil design with non-user replaceable stylus. Features 0.2 x 0.7 mil nude square-shank miniature elliptical diamond. Output 0.4mV at 5 cm/sec; FR 5-50,000 Hz; sep 25 dB at 1,000 Hz; cartridge weight 4.8 g....\$400

#### MR5.0ml MM Cartridge

Unicore-coil generating system with LC-OFC wire and microline stylus on gold-plated beryllium cantilever. Output 5 mV at 5 cm/sec; FR 5-37,000 Hz; sep 33 dB at 1,000 Hz, 25 dB at 10,000 Hz; tracking-force 0.8-1.8 g ...... \$350

#### MR5.0lc MM Cartridge

Unicore-coil generating system with LC-OFC wire and square-shank nude stylus on beryllium cantilever. Output 50 mV; FR 5-35,000 Hz; sep 33 dB at 1,000 Hz, 23 dB at 10,000 Hz; tracking-force range 0.8-1.6 g; cartridge weight 6 g . \$275

#### TK8LCp P-Mount MM Cartridge

Universal design with straight-line-contact stylus on beryllium cantilever. Output 5 mV at 5 cm/

#### MR5.0me MM Cartridge

Unicore-coil generating system with LC-OFC wire and 0.2 x 0.7 mil square-shank nude stylus. Output 5 mV at 5 cm/sec; FR 5-30,000 Hz; sep 30 dB at 1,000 Hz, 20 dB at 10,000 Hz; tracking-force range 0.8-1.6 g; cartridge weight 6 g . \$225

#### MK120He MC Cartridge

High-output design features user-replaceable stylus with 0.2 x 0.7 mil nude square-shank diamond. Output 2 mV at 5 cm/sec; FR 15-30,000 Hz; sep 29 dB at 1,000 Hz, 20 dB at 10,000 Hz; tracking force 1.2-1.8 g; weight 5 g ...... \$200

#### MK66e MC Cartridge

Low-mass cartridge with dual moving MicroCoil design. Features user-replaceable stylus with 0.2 x 0.7 mil square-shank nude diamond. Output 0.5 mV at 5 cm/sec; FR 15-30,000 Hz; sep 29 dB at 1,000 Hz, 20 dB at 10,000 Hz; tracking-force range 1.2-1.8 g; cartridge weight 4.2 g .... \$200

#### MR5.0e MM Cartridge

#### MK55e MC Cartridge

#### TK6Ep MM P-mount Cartridge

Universal design with 0.2 x 0.7 mil square-shank nude diamond. Output 5 mV at 5 cm/sec; FR 10-30,000 Hz; sep 29 dB at 1,000 Hz, 20 dB at 10,000 Hz; tracking-force range 1-1.5 g ... \$150

#### HiTec 107 P-mount Cartridge

Universal with 2 magnets, linear-contact stylus. Output at 1,000 Hz, 5 cm/sec 3.0 mV; FR 10-30,000 Hz; sep at 1,000 Hz 31 dB, 10,000 Hz 21 dB; tracking force 1-1.5 g; weight 6 g..... \$150

#### MR5.0 Basic MM Cartridge

Unicore-coil generating system with LC-OFC wire and 0.4 x 0.7 mil bonded elliptical stylus. Output 5 mV at 5 cm/sec; FR 15-25,000 Hz; sep 27 dB at 1,000 Hz, 17 dB at 10,000 Hz; tracking-force range 1.3-2.3 g; cartridge weight 6 g . \$125

#### HiTec 105 MM P-mount Cartridge

#### TK4Ep MM P-mount Cartridge

Universal design with 0.3 x 0.7 mil nude stylus. Output 5 mV at 5 cm/sec; FR 15-20,000 Hz; sep 28 dB at 1,000 Hz, 19 dB at 10,000 Hz; trackingforce range 1-1.5 g; cartridge weight 6 g ... \$95

#### HiTec 103 MM P-mount Cartridge

#### TK2Ep MM P-mount Cartridge

Universal design with 0.4 x 0.7 mil elliptical stylus. Output 5 mV at 5 cm/sec; FR 15-25,000 Hz; sep 26 dB at 1.000 Hz, 17 dB at 10,000 Hz; tracking-force range 1-1.5 g; cartridge weight 6 g \$65

#### HiTec 101 MM P-mount Cartridge

Universal with dual magnets. 0.6-mil conical stylus. Output 5/cm/sec 5mV; FR 20-20,000 Hz; 24 dB sep at 1,000 Hz, 15 dB at 10,000 Hz; tracking force 1.0-1.5 g; cartridge weight 6 g ...... \$60

#### Tonearms

#### XK-35 Tonearm

#### **Tonearm** Accessories

#### SME BY SUMIKO

#### SME Series V Straight Tonearm

#### SONUS BY SONIC RESEARCH

#### CD-11 D-5 Dimension 5 Phono Cartridge

#### SB-11 Super Blue Phono Cartridge

#### CG-12 Gold Blue Phono Cartridge

#### Silver Phono Cartridges

(RCS-22 replacement stylus) ...... \$100 CS-23 Silver E. Biradial (elliptical) stylus I-R 10-20,000 Hz ± 1.5 dB ...... \$95 RCS-23, Replacement stylus ...... \$45

#### **CB-23 Black A Phono Cartridge**

#### SR-202 Stereo Cartridge

#### SPM-5 Plug-In Cartridge

#### SPM-3 Cartridge

Low-mass elliptical stylus 0.2 x 0.7 mil; FR 20-20,000 Hz, thin wall tube cantilever; ch balance  $\pm$  1 5 dB (replacement stylus RPSM-3) ... \$115

#### SPM-2 Cartridge

Elliptical stylus 0.2 x 0.7 mil, sep 20 dB at 1,	000
Hz; 6.0 g	\$90
SPM-1, Similar to SPM-2 but has 0.3 x 0.7	mil
elliptical stylus	\$60

#### SOUTHER ENGINEERING

#### Veritas Moving-Coil Cartridge

 $\begin{array}{l} \mbox{Mc cartridge with coils on each side of pivot and hollow boron cantilever. Features line-contact diamond. Output 0.5 mV at 5 cm/sec; FR 20-60,000 Hz <math display="inline">\pm$  0.5 dB; sep 30 dB at 1,000 Hz; tracking-force range 1.75-2.25 g; cartridge weight 4.4 g. \$800 Gamma, As above except 25-dB sep .... \$450 \$\$

#### Tonearms

#### Tribeam 12 Straight Tonearm

Statically balanced tonearm with stainless-steel Flagship. Features tri-quartz track sand-filled chassis; one-knob VTA adjust while playing. Velox and titanium headshell; tracking-force range 0.5-2.5 grams; effective mass adjustable med to high; offset angle 0°; overall length 254 millimeters; effective length 50 millimeters .....\$3,000 Tribeam 16, For 16" discs ......\$3,500

#### SLA 3 Tri-Quartz Straight Tonearm

Statically balanced tonearm with pure-quartz track and equimass-patented system. Velox and titanium headshell; tracking force range 0.5-2.5 grams; effective mass adjustable from medium to high; offset angle 0°; overall length 254 mm; effective length 50 mm; tracking error 0°; 13.4 oz\$850

#### Southern Junior Straight Tonearm

#### **STANTON**

Calibration Series

#### 981LZ Mk IIs Phono Cartridge

Low-imp cartridge, fully calibrated for exact precision with nude Stereohedron diamond stylus.

Includes mounted "longhair" brush. Output 0.06 mV/cm/sec 22 dB; tracking force 1 g  $\pm$  .25 g; FR 10-50,000 Hz; sep 35 dB; weight 5.5 g .... \$250

#### 981HZ Mk IIs Phono Cartridge

#### 881S Mk IIs Phono Cartridge

#### 681EEE MK II-S Phono Cartridge

#### High-Performance P-Mounts

#### L-847S P-Mount Cartridge

Top-of-the-line P-Mount cartridge. Features Stereohedron stylus; tracking .75-1.5 gs; output 0.7 mV/cm/sec; FR 10-36,000 Hz; ch balance <2 dB; sep 35 dB, 5.9 g; replacement stylus D84S. \$180

#### L-837S P-Mount Cartridge

#### Stereo Standard P-Mount Series

#### L747S Plug-In Cartridge

Features Stereohedron stylus. FR 10-25,000 Hz; tracking force 0.75-1.5 g; output 0.9 mV/cm/sec; sep 35 dB; 5.7 g. Replacement stylus D747S\$125

#### L737S Phono Cartridge

Plug-in cartridge features Stereohedron stylus. Tracking force 0.75-1.5 g; output 0.9 mV/cm/ sec; FR 10-22,000 Hz; ch balance 2 dB; ch sep 35 dB. Replacement stylus D73S; weight 5.7 g \$100

#### L737E Plug-In Cartridge

#### L-727E P-Mount Phono Cartridge

Plug-in cartridge with 0.4 x 0.7-mil elliptical stylus. FR 10-25,000 Hz; tracking force .75-1.5 g; output 0.8 mV/cm/sec; sep 32 dB ...... \$75

#### L725E P-Mount Cartridge

#### L720EE P-Mount Cartridge

Professional Cartridges Low-Impedance Series

#### 885LZS Low-Impedance Cartridge

Low-imp stereo cartridge with long-contact-line Stereohedron stylus, mounted "longhair" brush.

#### 785LZE Phono Cartridge

#### Disco Series

#### 680SL Disco Cartridge

Output 1.1 mV/cm/sec; FR 20-20,000 Hz; balance/sep 2/30 dB; load resistance 47 kilohms; load capacitance 275 pF; nude Stereohedron stylus tip; tracking force 3-6 g with brush ... \$109

#### L680EL Disco Cartridge

#### 680EL Disco Cartridge

#### 681SE Phono Cartridge (Calibrated)

Output 1 mV/cm/sec; FR 10-10,000 Hz  $\pm$  0.5 dB; 10,000 Hz to 20,000 Hz, individually calibrated; balance/sep  $\pm$  2 dB/35 dB (1 kHz); load imp 47 kilohms; load capacitance 275 pF; tracking force 2-4 g; 0.4 x 0.7-mil elliptical stylus; weight 5.5 g with self-supporting (1 g) brush; replacement stylus D6800SE, D6810 for LPs, D6827 for 78s\$110

#### 680 Disco Cartridge

#### L500AL Disco Cartridge

#### 500AL Disco Cartridge

Output 1.0 mV/cm/scc; FR 20-17,000 Hz  $\pm$  2 dB; bal/sep  $\pm$  2/28 dB (1 kHz); load resistance 47,000 ohms; load capacitance 275 pF; tracking force 3-7 g; 0.7 mil spherical stylus. Weight 5 g; replacement stylus D5107AL........\$37.50

#### Stereo Standard Series (with "Longhair" Brush)

#### 680EE (S) Phono Cartridge

#### 680EE Phono Cartridge

 **Broadcast Standard Series** 

#### **600EE Phono Cartridge**

#### Broadcast Series-Mark II

#### SUPEX BY SUMIKO

#### SD-901 Mark IV T.Q.A. Phono Cartridge

High-output MC cartridge with improvements over SD-901E in high-frequency linearity, tracking, and dynamics. Output 1.7 mV at 3.54 cm/ sec; FR 10-42,000 Hz  $\pm$  2 dB; sep 27 dB at 1,000 Hz; tracking force 1.8-2.2 g; wt 9.1 g .... \$380

#### SD-900 Mark IV T.Q.A. Phono Cartridge

#### SD-3300 Phono Cartridge

#### SYSTEMDEK

#### **TA-1** Tonearm

#### TALISMAN BY SUMIKO

#### Virtuoso DTi Phono Cartridge

MC cartridge with diamond itanium-tube cantilever and anti-resonance foam insert; mass-reduced van den Hul Type 1 stylus. Output 1.8 mV at 5 cm/sec; FR 15-35,000 Hz  $\pm 3$  dB; sep 30 dB at 1,000 Hz; tracking force 1.75-2.25 g; cartridge

For explanations of abbreviations, specifications, and technical terms, consult the glossary on page 221.

weight 7.5 g																\$	1,200	
Virtuoso Boron	,	•	,	•	•		•		,	•	•	•		•	•	•	\$856	

#### Talisman B MC Cartridge—Featured on cover

Direct Field Focus design to reduce magnetic losses and fringing effects by eliminating magnetic yokes and all but 1 pole piece; energy from samarium cobalt ring magnet pulled across coils by front-mounted pole piece; solid zinc body for reduced resonance, tapered for rigidity; minimal internal air spaces; low-mass boron-tube cantilever; long-line-contact diamond ..... \$345 Talisman S. Identical to Talisman B except sapphire-tube cantilever ..... \$395 Talisman A. Identical to Talisman S except aluminum/magnesium alloy cantilever with nudemounted elliptical diamond stylus ..... \$253

#### Alchemist IIIs Phono Cartridge

"Intensified Focus" design for high output without slow transients, poor tracking ability, straining at high modulations. Intense magnetic focus at coils concentrates energy to prevent virtually all losses and fringing effects. Hollow sapphire cantilever with laser-indexed, grain-oriented longline contact stylus. Solid zinc body to prevent resonance. Output 2.0 mV at 3.54 cm/sec: FR 10-60,000 Hz; sep 30 dB at 1,000 Hz; tracking force 1.5-2.5 g; cartridge weight 6.7 g ..... \$462

#### Alchemist IIB Phono Cartridge

Similar to Alchemist IIIs except boron-rod cantilever with nude-mount elliptical stylus .... \$323 Alchemist IA. Similar to Alchemist IIIs except aluminum/magnesium cantilever with nudemount elliptical stylus ..... \$323

#### **TECHNICS**

EPC-205CMK4 MM P-Mount Cartridge Ultra-low-mass-cantilever, P-Mount cartridge.

Output 2.5 mV at 5 cm/sec; sep 25 dB at 1,000 Hz; tracking force 1.25 g  $\pm$  0.25 g; cartridge weight 6 g; 0.2 x 0.7 mil elliptional nude diamond; effective moving mass 0.019 mg; neodymium magnet ...... \$250 EPC-205CMK4. Same as EPC-205CMK4 except regular mounting ..... \$280

#### EPC-P310 MCMK2 MC Cartridge

With ultra-low-mass cantilever. Output 1.2 mV at 5 cm/sec; separation 25 dB at 1,000; trackingforce range 1.25 g ± 0.25 grams; cartridge weight 6 g; 0.139-mg boron cantilever; neodymium magnet; coreless twin ring coils; 0.2 x 0.7 nude diamond stylus ..... \$200

#### EPC-P550 MM Cartridge

With ultra-low-mass cantilever. Output 2.5 mV at 5 cm/sec; sep 25 dB at 1,000 Hz; tracking force range 2.5 g  $\pm$  0.25 g; cartridge weight 6 g; 0.3 x 0.7 mil elliptical diamond ..... \$100

#### EPC-P540 MM Cartridge

Output 2.5 mV cm/sec; sep 25 dB at 1,000 Hz; tracking force 1.25 ± 0.25 grams; cartridge weight 6 g ..... \$70

#### EPC-P530 MM Cartridge

Output 2.5 mV at 5 cm/sec; sep 25 dB at 1,000 Hz; tracking force 1.25 ± 0.25 grams; cartridge weight 6 g..... \$50

Tonearm

#### EPA 250 S-Shaped Tonearm

Dynamically balanced tonearm with decoupled counterweight. Tracking-force range 0-2 g; effective mass 14 g; stylus overhang 15 mm; overall length 343 mm; effective length 250 mm; tracking error +1°6' at inner groove and +2°6' at outer groove ...... \$475

#### YAMAHA

#### MC-100 Moving-Coil Phono Cartridge

Features cross-matrix air-core moving-coil system; pure-beryllium tapered tubular cantilever; distinctive metal housing for high magnetic flux density; origninal equalizing damper; high energy samarium cobalt magnet. 9.5 g ..... \$300

#### MC-505 Moving-Coil Phono Cartridge

Features cross-matrix moving-coil system; pureberyliium tapered tubular cantilever; Low Temperature Dependency (LTD) equalizing damper; Sendust core; 1-point suspension; resonance-free one-piece housing. 3.4 g ..... \$200

#### MC-501 Moving-Coil Phono Cartridge

Features cross-matrix moving-coil system; aluminum tapered tubular cantilever; Low Temperature Dependency (LTD) equalizing damper; Sen-dust core; resonance-free housing.  $3.4 \text{ g} \dots \text{\$150}$ 

#### MC-10 Moving-Coil Phono Cartridge

Features cross-matrix moving-coil system; aluminum tapered tubular cantilever; original equalizing damper; metal housing assembly; one-point suspension. 5.4 g ..... \$120

#### MC-21 MC/MM Phono Cartridge

Features MM/MC phono input compatibility; cross-matrix moving-coil system; aluminum tapered tubular cantilever; original equalizing damper; resonance free housing. 2.8 g ..... \$70

#### ZETA BY RMI

#### Zeta Straight Tonearm

Statically balanced tonearm with fixed aluminum headshell. Tracking force 1-5 grams; effective mass 16 grams; stylus overhang 18 mm; overall length 290 mm; effective length 210 mm . . \$875

## TURNTABLES

(Continued from page 124.)

#### THORENS BY EPI

All Thorens turntables are belt-driven, single-play units having straight tubular tonearms for maximum rigidity; gimbal suspension; antiskate control: 9.12" effective tonearm length; tracking error <0.18"/cm (<0.46"/in.).

Phantasie Semiautomatic Single-Play Turntable Belt-drive 33.33 and 45-rpm turntable with solid plexiglass chassis; 16-pole synchronous motor; twin solid-core chassis and 3-point leaf-spring suspension. w&F 0.35%, rumble -52 dB unwtd, -72 dB wtd .....\$2,295 TD 320. As above with wood chassis .... \$549 TD 321, Armless version of TD-320 ..... \$450

#### TD 520 Semiautomatic Single-Play Turntable

Belt drive with auto tonearm lift, motor shut-off. 33.33, 45, 78 rpm; electronic speed selection; ± 6% pitch control; twin solid-core chassis; 3point leaf-spring suspension. w&F 0.035% \$999 TD 521. Same as above without tonearm . . \$900

#### TD 318 Semiautomatic Single-Play Turntable

Belt-drive 33.33 and 45 rpm turntable with 16pole synchronous motor; twin solid-core chassis; 3-point leaf-spring suspension. W&F 0.04%; rumble -50 dB unwtd, -70 dB unwtd ... \$399 TD 316. Manual turntable similar to TD 318 without auto lift and shut off ..... \$299

#### TD 280 Semiautomatic Single-Play Turntable Belt-drive 33.33/45 rpm with 24-pole synchro-

nous motor. 1-piece solid-core chassis and spring damping elements in feet. w&r 0.045%; rumble -48 dB unwtd, -70 dB wtd ..... \$249

#### VECTOR RESEARCH

#### VT-185 Belt-Drive Turntable

Features quick-start DC-servo motor; traditional plug-in head-shell with standard 0.5" mounting centers; front-panel controls; aluminum-alloy



platter; auto-return and shut-off; auto-start function; separate pitch controls for 33 and 45 rpm (± 3%); strobe. w&F 0.05% wrms; s/N 68 dB (DIN B). 17.38" w x 4.5" h x 14.63" d; 11.5 

#### VT-155 Belt-Drive Turntable

Features DC-servo motor; P-mount cartridge compatibility; front-panel controls; aluminum-alloy platter; auto-return and shut-off; pitch control; strobe; 8.75 lb ..... \$100

#### YAMAHA

#### **PF-800B** Semiautomatic Turntable

Belt-drive pivoted-arm turntable with dynamic balance twin-pipe tonearm. Features 2-section zinc plus aluminum platter; 33.33 and 45 rpm speeds; variable speed control ± 6%. w&F 

#### TT-500U Automatic Turntable

Direct-drive turntable with RS integrated remote system compatibility. Features straight tonearm design; resonance absorbing turntable mat; disc clamper. Black; 15 lb ..... \$229

#### PF-50B Automatic Turntable

Direct-drive turntable with 3-point floating suspension and knife-edge dynamic-balance tonearm. P-mount compatible; 33.33 and 45 rpm; resonance-absorbing mat; disc clamper/EP adap-PF-20B. Similar to PF-30 except semiautomatic, standard EP adapter ..... \$149

#### TT-400U Automatic Turntable

Belt-drive; compatible with RS system remote straight tonearm; resonance-absorbing mat; disc clamper. Black; 15 lb ..... \$179

#### TT-300U Semiautomatic Turntable

Belt-drive; straight tonearm design; resonance-absorbing turntable mat; EP adaptor. Black finish; 10 lb ..... \$149

## SPEAKERS



#### **3D ACOUSTICS**

#### 3D610 Surround 5-Piece Speaker System

5-piece phase-conditioned surround-sound speaker system with all matrixing built in to 3D10 magnetically shielded subwoofer. Features 10" shield dual-wind-voice-coil woofer; 6" rubber-roll midrange; 1" cloth-dome foam-encased tweeter. FR 30-20,000 Hz ± 3 dB; min power 30 W rms; max power 150 W rms; sens 88 dB sPL/W/m; imp 16 ohms. Oiled-walnut and black finishes. Subwoofer: 24" wide x 16" high x 13.75" deep; 49 lb, satellites 14" wide x 8.5" high x 7.25" deep; 30 lb/pr ..... \$975/system

#### 3D610 System 3-Piece Speaker System

3-piece speaker system with built-in matrixing for 3D phase-conditioned surround sound. Magnetically shielded for near-video placement. Features 10" dual-wind-voice-coil woofer; 6" rubber-roll midrange; 1" cloth-dome foam-encased tweeter. FR 30-20,000 Hz ± 3 dB; min power 30 W rms; max power 150 W rms; sens 88 dB sPL/W/m; imp 8 ohms. Oiled-walnut and black finishes. Subwoofer: 24" wide x 16" high x 13.75" deep; 49 lb, satellites 14" wide x 8.5" high x 7.25" deep; 30 lb/pr ..... \$650/system

#### 3D Column Passive-Radiator Speaker

Magnetically sheilded speaker with built-in matrixing for 3D phase-conditioned surround sound. Features 10" cone passive radiator; 6" controlledoutput rubber-roll woofer; 1" cloth-dome tweeter. FR 35-20,000 Hz ± 3 dB; min power 25 W rms; max power 150 W rms sens 88 dB SPL/W/m; imp 8 ohms. Tech black with solid walnut finish. 12 w x 31" h x 10.5" d; 42 lb ..... \$490/pr

#### **3D Cube Acoustic-Suspension Speaker**

Bookshelf 2-way speaker with 7-element low-distortion crossover network. Features 6" rubberroll controlled-output cone woofer; 0.75" polycarbonate-dome ferrofluid-damped tweeter. FR 70-20,000 Hz ± 3 dB; min power 15 W rms; max power 150 W rms; sens 88 dB SPL/W/m; imp 8 ohms. Tech black with solid walnut finish. Mirror-imaged matched pairs. 9.75" w x 9.75" h x 9.75" d; 15 lb ea ..... \$240/pr

#### ACOUSTIC INTERFACE

#### Sound Prism Speaker

Vented-horn speaker with 24" x 52" compression woofer, 13" x 22" horn midrange, 7.25" x 3" horn tweeter, built-in triamplification (1,500 W/ woofer, 300 W/midrange, 100 W/tweeter). Features midrange, tweeter level controls; oiled walnut or oak cabinet. FR 10-10,000 Hz ± 1 dB; sens 105 dB sPL/W/m; crossovers 550 and 5,000 Hz; imp 8 ohms; 72" h x 27" w x 36" d; 500 lb ..... \$30,000/pr

#### Sound Portal Speaker

Vented-horn speaker with 24" x 32" compression woofer, 19" x 7" horn midrange, 5" x 5" horn tweeter. Features midrange, tweeter level controls; oiled walnut or oak cabinet. FR 15-20,000 Hz ± 2.5 dB; crossovers 800 and 5,000 Hz; sens 101 dB spL/W/m; min power 15 W; imp 8 ohms; 48" h x 25.5" w x 24" d; 175 lb ..... \$7,000/pr

#### Studio Reference Speaker

Vented speaker with 12" woofer, 15" x 4" horn midrange: 5.25 x 2" horn tweeter. Features midrange, tweeter level controls; oiled walnut or oak cabinet; black cloth grille. FR 22-20,000 Hz ± 2.5 dB; crossovers 880 and 5,000 Hz; sens 98 dB SPL/ W/m; mim power 15 W; imp 8 ohms; 48" h x 18.5" w x 16" d; 102 lb ......\$3,180/pr

Professional Series II Speaker Vented speaker with 12" woofer; 2" dome midrange; 1" dome tweeter. Features midrange and tweeter controls; oiled walnut or oak cabinet; black cloth grille. FR 29-20,000 Hz ± 2.5 dB; crossovers 800 and 6,600 Hz; sens 95 dB sPL/W/ m; min power 15 W; imp 8 ohms; 36" h x 18.5" w x 16" d; 80 lb.....\$1,780/pr

## Transcendent Speaker

Vented speaker with 12" woofer, 1.25" dome midrange/tweeter. Features midrange, tweeter level controls; oiled walnut or oak cabinet; black cloth grille. FR 38-20,000 Hz ± 2.5 dB; crossover 1,900 Hz; sens 94 dB spl/W/m; min power 15 W; imp 8 ohms; 51 lb ..... \$980/pr

#### **Intimate Speaker**

Acoustic-suspension speaker with 10" woofer, 1" dome tweeter. Features tweeter level control; oiled walnut or oak cabinet; black cloth grille. FR 49-20,000 Hz ± 2.5 dB; crossover 5,000 Hz; sens 93 dB sPL/W/m; min power 15 W; imp 8 ohms; 19" h x 12" w x 12" d; 29 lb ..... \$580/pr

#### Shadow Speaker

Acoustic-suspension speaker with 8" woofer, 1" dome tweeter. Features cylindrical cabinet covered with black cloth grille. FR 69-20,000 Hz ± 2.5 dB; crossover 5,000 Hz; sens 91 dB sPL/W/ m; min power 15 W; imp 8 ohms; 24.5" h x 8.75" .....\$380/pr

#### Angstrom Speaker

Acoustic-suspension speaker with 6.5" woofer, 1" dome tweeter. Features charcoal enamel cabinet; black cloth grille. FR 78-20,000 Hz ± 2.5 dB; sens 90 dB sPL/W/m; min power 15 W; imp 8 ohms. 12.88" h x 7.5" w x 6.5" d; 9 lb; walnut or oak finish ..... \$350/pr Charcoal-enamel finish ..... \$250/pr

#### Tremor Subwoofer

Vented subwoofer with 2 woofers in separate subenclosures. Features oiled walnut or oak cabinet; black cloth grille. FR 29-200 Hz ± 2.5 dB; sens 96 dB sPL/W/m; min power 15 W; imp 8 ohms; 27" h x 63.5" x 16" d; 150 lb ..... \$1,090 ea With 2 800 W/ch amps ..... \$1,790 ea

#### ACOUSTAT

#### Model Eight Electrostatic Speaker

Eight-panel vertical-array electrostatic speaker. Min power 50 W x 2; imp 6 ohms; FR 24-20,000 Hz  $\pm$  2 dB. 36" w x 94" h x 4" d; total weight of each system 440 lb ..... \$5,500/pr

#### Model Six Electrostatic Speaker

Six-panel vertical-array electrostatic speaker. Min power 50 W x 2; imp 6 ohms; FR 26-20,000 Hz ± 2 dB. 28" wide x 94" high x 4" deep; 340 lb/ system ..... \$4,500/pr

#### Spectra 3 Electrostatic Speaker

Three-panel variable-width electrostatic with built-in selectable woofer. Mirror image pair. Min power 70 W; imp 4 ohms; FR 30-20,000 Hz  $\pm$  2 dB. 33" wide x 66" high x 2" deep; 220 lb/system .....\$2.995/pr

#### Spectra 2 Electrostatic Speaker

Two-panel variable-width electrostatic with builtin selectable woofer. Mirror image pair. Min power 70 W; imp 4 ohms; FR 30-20,000 Hz ± 3 dB. 22" wide x 66" high x 2" deep; 180 lb/sys-

#### Model Two + Two Electrostatic Speaker

Four-panel vertical-array electrostatic speaker. Min power 50 W; imp 4 ohms; FR 28-20,000 Hz  $\pm 2$  dB. 20" w x 94" h x 4" d; 200 lb/system .....\$2,599/pr

#### Model Three Electrostatic Speaker

Three-panel curved-array electrostatic speaker. Min power 70 W; imp 4 ohms; FR 30-20,000 Hz  $\pm 2$  dB. 28" w x 72" h x 4" d; 196 lb/system .....\$2,199/pr

#### Model One + One Electrostatic Speaker

Two-panel vertical line-source electrostatic speaker. Min power 70 W; imp 4 ohms; FR 30-20,000 Hz ± 2 dB. 11" w x 94" h x 4" d; 144 lb/ system ..... \$1,750/pr

#### Model One Electrostatic Speaker

Single-panel electrostatic speaker with satellite woofer. Min power 75 W; imp 4 ohms; FR 30-18,000 Hz ± 3 dB. 11" w x 72" h x 4" d; 180 lb/ system ..... \$1,299/pr

#### ACOUSTIC RESEARCH

#### MGC-1 Ambience-Subsystem Speaker

Floor-standing acoustic-suspension speaker with delayed ambience subsystem built into enclosure plus MGC-1e control and amplification electronics. Speakers are mirror-imaged pairs consisting of a 4-way passive system and a 2-way active subsystem for delayed ambience radiation. Electronic unit controls system parameters and provides signal processing, delay, and power amplification for delayed ambience subsystem. Main system features two 8" cone woofers; two 4" cone lower/ midrange drivers; one dual-dome driver with a 1.5" upper midrange dome and a 0.75" tweeter dome closely spaced on a single magnet. Delayedambience system features 6" woofer in sub-enclosure; 1" dome tweeter. FR (3-dB down point, half power) 39 and 32,000 Hz; power range 25-250 W; sens 88 dB SPL/W/m; imp 4 ohms; 26.25" w x 52" h x 16.12" d; 150 lbs; oiled solid and walnut veneers ..... \$3,600/pr

#### MGC-2 Ambience-Subsystem Speaker

Floor-standing acoustic-suspension speaker with delayed ambience subsystem built into enclosure plus MGC-1e control and amplification electronics. Speakers are mirror-imaged pairs consisting of a 3-way passive system and an active subsys-

## The company that set the standards for modern loudspeakers now raises them.

AR invented the high fidelity bookshelf loudspeaker with our Acoustic Suspension principle in 1954. Since that time, the speaker business has been divided into two pr ncipal camps: AR and the companies imitating AR.

Today AR introduces the TSW Series. These Acoustic Suspension speakers are so refined in performance, so sophisticated in technology, they're a virtual textbook of loudspeaker design.

We've carefully shaped, braced, and grooved the inside of our cabinets corresist unwanted resonance. We've selected special carbon-filled polypropylene diap magms to lower distortion at low frequencies. Our new 6½-inch midrange driver reproduces vccals with precision. And we mount our 1 tanium dome tweeter on a unique Tetra-Heix<sup>™</sup> plate to minimize diffraction and its consequent distortion.



As an integral part of the project, we harnessed the talents of one of America's top industrial designers to create a speaker that you'll be proud of even when it's not playing. In place of the typical 1/125-inch veneer, these speakers have solid American Walnut or Oak tops and bottoms\* nearly one inch thick.

one inch thick. The new TSW Series Loudspeakers. Once again, AR reshapes the future o loudspeakers.





RESEARCH We speak from experience. Æ

## SPEAKERS

tem for delayed ambience radiation. Electronic unit controls system parameters and provides signal processing, delay, and power amplification for delayed ambience subsystem. Main system features one 12" polypropylene woofers; two 4" polypropylene cone midranges; 1" titanium dome tweeter. Delayed-ambience system features one 6.5" polypropylene bass-midrange driver. FR (3dB down point, half power) 39 and 27,000 Hz; power range 25-200 W; sens 88 dB SPL/W/m; imp 4 ohms .....\$2,000/pr

#### TSW-910 4-Way Speaker

Floor-standing columnar acoustic-suspension speaker with tetra-helix tweeter mounting plate. Features two 12" woofers (one front-firing, one rear-firing); 8" lower-midrange driver; two 6.5" midranges; 1" titanium-dome liquid-cooled tweeter with acoustic lens; split crossover network. Power range 35-400 W; imp 4 ohms; FR - 3 dB(half-power) points at 28 Hz and 32,000 Hz. 15.75" w x 52.81" h x 18.5" d......\$2,000/pr

#### TSW-810 3-Way Speaker

Floor-standing columnar acoustic-suspension speaker with tetra-helix tweeter mounting plate. Features two 10" woofers (one front-firing, one rear-firing); two 6.5" midranges; 1" titanium-dome liquid-cooled tweeter with acoustic lens; split crossover network. Power range 25-250 W; imp 4 ohms; FR -3 dB (half-power) points at 33 Hz and 32,000 Hz; sens 90 dB with 2.83 V rms input at 1 meter on axis. 15.75" w x 42.56" h x 18.5" d; 95 lb ..... \$1,700/pr

#### TSW-610 3-Way Speaker

Floor-standing acoustic-suspension speaker with tetra-helix tweeter mounting plate. Features 12" woofer; 6.5" midrange; 0.75" titanium-dome liq-uid-cooled tweeter with acoustic lens. Power

range 15-175 W; imp 4 ohms; frequency response  $\pm$  3 dB (half-power) points at 40 Hz and 40,000 Hz; sensitivity 90 dB with 2.83 V rms input at 1 meter on axis. Solid walnut or oak top and bottom with black-vinyl-veneer cabinet and black cloth grille. 14.06" wide x 32.88" high x 13.31" deep; 57 lb ..... \$900/pr

#### TSW-510 3-Way Speaker

Floor-standing acoustic-suspension speaker with tetra-helix tweeter mounting plate. Features 10" woofer; 6.5" midrange; 0.75" titanium-dome liquid-cooled tweeter with acoustic lens. Power range 15-150 W; imp 4 ohms; FR -3 dB (halfpower) points at 44 Hz and 40,000 Hz; sens 90 dB with 2.83 V rms input at 1 meter on axis. Solid walnut or oak top and bottom with black-vinyl-veneer cabinet and black cloth grille. 14.06" w x 30.13" h x 13.31" d; 49 lb ..... \$720/pr

#### TSW-410 3-Way Speaker

Bookshelf acoustic-suspension speaker with tetra-

helix tweeter mounting plate. Features 8" woofer; 6.5" midrange; 0.75" titanium-dome liquidcooled tweeter with acoustic lens. Power range 10-100 W; imp 4 ohms; FR -3 dB (half-power) points at 46 Hz and 40,000 Hz; sens 89 dB with 2.83 V rms input at 1 meter on axis. Solid walnut or oak top and bottom with black-vinyl-veneer cabinet and black cloth grille. 12.31" w x 24.5" h x 11.72" d; 30.5 lb..... \$560/pr

#### TSW-310 2-Way Speaker

Floor-standing acoustic-suspension speaker with tetra-helix tweeter mounting plate. Features 10" woofer; 0.75" titanium-dome liquid-cooled tweeter with acoustic lens. Power range 10-100 W; imp 6 ohms; FR -3 dB (half-power) points at 45 Hz and 40,000 Hz; sens 90 dB with 2.83 V rms input at 1 meter on axis. Solid walnut or oak top and bottom with black-vinyl-veneer cabinet and black cloth grille. 12.31" w x 27.75" h x 11.72" d; 35.5 lb . . .....\$500/pr

#### TSW-210 2-Way Speaker

Bookshelf acoustic-suspension speaker with tetrahelix tweeter mounting plate. Features 8" woofer; 0.75" titanium-dome liquid-cooled tweeter with acoustic lens. Power range 10-100 W; imp 8 ohms; FR -3 dB (half-power) points at 54 Hz and 40,000 Hz; sens 87 dB with 2.83 V rms input at 1 meter on axis. Solid walnut or oak top and bottom with black-vinyl-veneer cabinet and black cloth grille. 9.81" x 17.56" x 8.4"; 15.3 lb\$350/pr

#### TSW-110 2-Way Speaker

Bookshelf acoustic-suspension speaker with tetrahelix tweeter mounting plate. Features 6.5" woofer; 0.75" titanium-dome liquid-cooled tweeter with acoustic lens. Power range 10-75 W; imp 8 ohms; FR -3 dB (half-power) points at 68 Hz and 40,000 Hz; sens 88 dB with 2.83 V rms input at 1 meter on axis. Solid walnut or oak top and bottom with black-vinyl-veneer cabinet and black cloth grille. 9.81" w x 14.94" h x 8.4" d; 14 1Ь... ..... \$260/pr

#### TSW-100 2-Way Speaker

Bookshelf acoustic-suspension speaker features 6.5" woofer; 1" liquid-cooled tweeter. Power range 10-75 W; imp 8 ohms; FR -3 dB (half-power) points at 72 Hz and 25,000 Hz; sens 89 dB with 2.83 V rms input at 1 meter on axis. Solid walnut or oak top with black-vinyl-veneer cabinet and black cloth grille. 9.81" w x 14.19" h x 8.4" d; 12.3 lb ..... ..... \$225/pr

#### **Connoisseur Series**

All Connoisseur Series speakers feature woofer and midrange drivers with carbon-loaded polypropylene cones, vertically arrayed drivers, and genuine walnut veneer cabinets.

#### 50T 3-Way Speaker

Floor-standing acoustic-suspension speaker features 12" woofer; 6.5" midrange; 1" titaniumdome tweeter; three inputs for tri-amp operation capability. Power range 15-200 W; imp 4 ohms; FR (-3 dB points) 31-22,000 Hz; sens 90 dB with 2.83 V rms input at 1 meter on axis. 14.63" w x 32" h x 13.13" d; 78 lb ..... \$1,150/pr

#### 40T 3-Way Speaker

Floor-standing acoustic-suspension speaker fea-tures 10" woofer; 6.5" midrange; 1" titaniumdome tweeter; three inputs for tri-amp operation capability. Power range 15-150 W; imp 6 ohms; FR (-3 dB points) 41-22,000 Hz; sens 88 dB with 2.83 V rms input at 1 meter on axis. 12.63" w x 27.5" h x 13.25" d; 43 lb ..... \$860/pr

#### 35T 3-Way Speaker

Bookshelf acoustic-suspension speaker features 8" woofer; 6.5" midrange; 1" titanium-dome tweeter; two inputs for bi-amp operation capability. Power range 10-100 W; imp 6 ohms; FR (-3 dB points) 50-22,000 Hz; sens 88 dB with 2.83 V rms input at 1 meter on axis. 10.81" w x 22.88" h x 10.88" d; 24.2 lb..... \$700/pr

#### 19T 3-Way Speaker

Bookshelf acoustic-suspension speaker features 6.5" woofer-midrange; 1" titanium-dome tweeter; two inputs for bi-amp operation capability. Power range 10-75 W; imp 8 ohms; FR (-3 dB points) 65-22,000 Hz; sens 88 dB with 2.83 V rms input at 1 meter on axis. 10.13" w x 16" h x 6.94" d; 14.5 lb ..... \$370/pr

#### The Subwoofer

Floor-loaded acoustic-suspension subwoofer with crossover. Features two 10" drivers in oiled walnut-veneer cabinet. Power range 15-200 W; sens 87.5 SPL/W/m; imp 4 ohms. 30.88" w x 16.38" h 

#### Partners Series

#### **Powered Partner Speaker**

Acoustic-suspension booskshelf 2-way speaker with shielded drivers for use with TV and personal stereo systems. Features built-in equalized amp; on/off switch; volume and tone controls; AC/DC inputs; 4" long-throw woofer; 1" liquidcooled tweeter. Can be placed on top or near TV, hung on a pole, mounted on wall, or clamped to a shelf with optional clamps. FR 50-25,000 Hz ± 3 dB; imp 10 kilohms. Black aluminum finish. Triangular shape 10.5" w x 6" h x 7.62" d; 7 lb ea.....\$380/pr

#### Rock Partner 2-Way Speaker

Acoustic-suspension floor-standing or bookshelf speaker with 8" long-throw woofer and 1.25" liquid-cooled cone tweeter. Triangular shaped with versitile mounting placements and options. FR 65-22,000 Hz ± 3 dB; max power 100 W rms; sens 88 dB SPL/W/m; imp 8 ohms. Black vinyl ve-neer. 9.5" x 14.75" x 8.75"; 15 lb ea... \$280/pr

#### **Environmental Partner 2-Way Speaker**

Weather-resistant acoustic-suspension speaker with triangular shape for versatile mounting op-tions. Features 4" long-throw polypropylene woofer; 1" liquid-cooled polymer cone tweeter. Power range 7-75 W; imp 6 ohms; FR 95-25,000 Hz ± 3 dB; sens 88 dB SPL/W/m. Die-cast aluminum case and endcap. 10.5" w x 6" h x 7.63" d; 6 lb ea..... \$280

#### AR Series

#### **AR1MS Miniature Speaker**

Acoustic-suspension speaker with rigid deepdrawn aluminum cabinet. Threaded inserts on rear allow multiple mounting options. 4" cone woofer; 1" dome tweeter. FR 95-25,000 Hz ± 3 dB; power range 7-75 W; sens 95 dB SPL/W/m; imp 4 ohms; satin black finish; 4.75" w x 7.62" h x 4.8" d; 4.5 lb..... \$275/pr

#### a/d/s/

#### Monitor Series

M15 Floor-Standing 3-Way Speaker Vertically aligned "unison" drivers (2 10" woof-ers and 5.25" midrange in separate subenclosure, 1" dome tweeter); woofers near floor, midrange at top, to control boundary effects; copolymer diaphragms; 4th-order (24 dB per octave) Linkwitz-Riley crossovers at 200 and 2,000 Hz; stainlesssteel voice-coil former; magnetic cooling fluid in midrange and tweeter for high power handling and dynamic linearity; frameless perforated-steel grilles; walnut veneer or black. FR 30-22,000 Hz ± 3 dB; sens 89 dB SPL/W/m; imp 8 ohms. 47.3" h x 11.5" w x 15.8" d; 105 lb ..... \$2,750/pr

M12. Similar to M15 except 8" woofers; FR 36-22,000 Hz  $\pm$  3 dB; sens 88 dB SPL/W/m; 43.3" h x 10.5" w x 14.2" d; 85 lb .......\$1,850/pr M10. Similar to M12 except 1 10" woofer; 33.7" h x 11.5" w x 13" d; 80 lb ......\$1,350/pr

#### **Compact Monitor Series**

#### CM7 3-Way "Unison" Speaker

7" woofer, 1.5" dome midrange, 1" dome tweeter; copolymer diaphragms; 4th-order Linkwitz-Riley crossovers at 700 and 2,000 Hz; voice-coil formers of stainless steel for woofer and Kapton for midrange and tweeter; magnetic cooling fluid in midrange and tweeter for high power handling and dynamic linearity; enclosure molded from polymer resin filled with metallic mineral for high density and inertness; frameless perforated steel grille. Black or white, FR 40-22,000 Hz + 3 dB: sens 87 dB SPL/W/m; imp 4 ohms; 16.4" h x 8.8" w x 10.9" d; 45 lb ..... \$1,350/pr CM6. Similar to CM7 except 2-way, with 6" woofer and 1" tweeter; 2,000-Hz crossover; FR 50-22,000 Hz ± 3 dB; 12.7" h x 7.3" w x 8.9" d; 33 lb ..... ... \$850/pr CM5. Similar to CM6 except 5.25" woofer; FR 65-22,000 Hz 3 dB; sens 86 dB SPL/W/m; 9.7" h x 5.7" w x 6.9" d; 22 lb ..... \$500/pr

#### L Series

#### L990 3-Way Tower Speaker

Floor-standing speaker with drivers vertically aligned and positioned for optimum imaging and control of floor reflections. 10" Stifflite woofer, 1.5" woven soft-dome midrange, 0.75" woven soft-dome tweeter; 12-dB-per-octave all-pass crossovers at 700 and 4,000 Hz; Kapton voicecoil formers and magnetic cooling fluid in midrange and tweeter; frameless perforated steel grille; black or oak veneer. FR 38-25,000 Hz ± 3 dB; sens 87 dB SPL/W/m; imp 8 ohms; 34.7" h x 10.5" w x 11.7" d; 65 lb....... \$975/pr

#### L780 3-Way Bookshelf Speaker

#### L690 2-Way Tower Speaker

Floor-standing speaker with drivers vertically aligned and positioned for lobe-free wide dispersion. 8" Stifflite woofer, 0.75" woven soft-dome tweeter; 12-dB-per-octave all-pass crossover at 2,000 Hz; Kapton voice-coil former and magnetic cooling fluid in tweeter; frameless perforated steel grille; black or oak veneer. FR 44-20,000 Hz ± 3 dB; sens 88 dB SPL/W/m; imp 8 ohms; 31.1" h x 9.5" w x 10.5" d; 45 lb ....... \$590/pr

#### L570 2-Way Bookshelf Speaker

Acoustic-suspension speaker with 8" Stifflite woofer and 1" soft-dome tweeter. Features selfresetting solid-state tweeter protector; high-grade finish with removable black convex-steel grille; FR 46-20,000 Hz  $\pm$  3 dB; crossover at 1,800 Hz; sens 88 dB SPL/W/m; nominal imp 8 ohms; 20" h x 11.62" w x 10.12" d; oak veneer or black \$499/pr

#### **Miniature Speakers**

#### 300W 2-Way Acoustic-Suspension Speaker

5.25" high-compliance, long-excursion Stifflite woofer, 1" soft-dome tweeter; diffraction-corrected flush-mounted drivers; walnut-veneer cabinet

#### 300CC 2-Way Acoustic-Suspension Speaker

5.25" high-compliance long-excursion Stifflite woofer, 1" soft-dome tweeter. Features aluminum enclosure (black textured urethane with convexsteel grille). Available on special order in 6 custom colors with matching grilles and brackets (black, light grey, dark grey, beige, mocha, white). FR 65-20,000 Hz  $\pm$  3 dB; crossover 2,000 Hz with 12 dB/oetave slope; sens 89 dB SPL/W/ m; rated input 50 W continuous; imp 4 ohms. 8.36" h x 5.88" w x 5.75" d...... \$380

#### 200CC 2-Way Acoustic-Suspension Speaker

4" high-compliance ultra-long-excursion woofer, 1" soft-dome tweeter; brushed-aluminum enclosure (textured urethane with convex-steel grille). Available on special order in 6 custom colors with matching grilles and brackets (black, light grey, dark grey, beige, mocha, white). FR 85-20,000 Hz  $\pm 3$  dB; crossover 2,000 Hz with 12 dB/octave slope; sens 88 dB SPL/W/m; rated input 30 W continuous; min input 5 W; imp 4 ohms. 6.88" h x 4.25" w x 4.75" d ...... \$290

#### ADVENT

#### The Advent Maestro

Acoustic-suspension floor-standing speaker with solid-pecan top and base with beveled edges, antidiffraction baffle cover, and grille with rounded side edges. Features 10" black cone and surround woofer; 2" mica-filled black polypropylene-dome



#### The Advent Legacy

#### **Prodigy Speaker**

Liquid-cooled floor-standing speaker with solidpecan endcaps and wrap-around grille. Features 8" high-excursion surround woofer with aluminum voice coil; 0.75" ferrofluid-filled soft-dome tweeter with complex crossover network. FR 48-22,000 Hz  $\pm 3$  dB; min power 75 W rms; max peak power 300 W; sens 87 dB spl/W/m; imp 8 ohms. 13" w x 22" h x 8.62" d; 22 lb.. \$299/pr

#### The Baby Advent

#### **ALLISON ACOUSTICS**

Prices slightly higher in the West.

#### IC-20 Image-Control Speaker

Triangular acoustic-suspension tower speaker with I side facing wall, I side facing in, I facing out; each side facing away from wall has 10" woofer, 4 3.5" convex midranges, 4 1" convex tweeters; relative balance of mids and tweeters on each panel may be adjusted by remote control or with switch on rear to direct more sound in (for precise imaging with more direct and less reflected sound), out (for open and spacious ambience with more reflected and less direct sound), left, right, or centered (for equal amplitude at off-center listening positions); level of each panel has 3 possible settings; LED's on center of speaker display setting; drivers positioned to minimize room interaction; inside woofer pointed into cabinet, outside woofer pointing out; separate inputs for woofers and for mids and tweeters for easy biamping; auto-resetting resistors in each cross-over; cabinet panels 0.75"-1.25" thick, braced front-to-back and between panels; interior damped with glass fiber; passive parallel half-section crossovers at 350 and 3,750 Hz; oak, walnut. or black. FR -3 dB at 28.5 Hz, -8 dB at 21 Hz; imp 6 ohms nominal, 8 average, 5 min; power range 30-400 W/ch; sens 87 dB SPL/2.83 V/m; 21" w x 48" h x 12" d; 100 lb ...... \$4,900/pr

#### CD9 3-Way Floor-Standing Speaker

Stabilized-radiation-loading speaker with 10" woofer, 3.5" convex-diaphragm midrange, 1" convex-diaphragm tweeter, designed for placement against single wall. LC half-section crossover network; switches to select system acoustic power response (flat to concert-hall balance slope); walnut or oak-veneer cabinet with handrubbed lacquer finish; steel base. FR down 3 dB at 35.5 Hz; crossovers 350 and 3,750 Hz; imp 4 ohms; efficiency 0.7% at floor/wall intersection; power range 30-200 W; 37.5" h x 12 .5" w x 10 .75" d ......\$1,100/pr

#### CD8 3-Way Floor-Standing Speaker

Stabilized-radiation-loading speaker with 8" woofer, 3.5" convex-diaphragm midrange, 1" convex-diaphragm tweeter. LC half-section crossover network with switches to select system acoustic power response from flat to concert-hall slope. Walnut- or oak-veneer cabinet with handrubbed lacquer finish. Crossover frequencies 450 and 3,750 Hz; efficiency 0.7%; power range 30-200 W; response -3 dB at 39 Hz; 28.62" h x 10.5" w x 10.5" d...... \$790/pr

#### CD7 2-Way Floor-Standing Speaker

Stabilized radiation-loading speaker with 8" woofer, 1" convex-diaphragm tweeter, designed

The listings are based on data provided by the manufacturers. For more product information, contact an authorized dealer or the manufacturer directly. Manufacturers' addresses and phone numbers are listed in the directory beginning on page 226.

#### Series LC 100 Speakers

2-way stabilized-radiation-loading speakers which perform optimally standing on floor away from walls. All have walnut-grain vinyl cabinet and Allison convex-diaphram 1" tweeter; LC crossover network with 2 chokes and premium capacitors. Crossover at 2,000 Hz; sens 90 dB SPL/2.83 V/m; power range 15-150 W.

LC 120. 8" woofer; response -3 dB at 41 Hz. 21.75" h x 13.75" w x 7.5" d ...... \$320/pr LC 110. 8" woofer; resonance -3 dB at 46.5 Hz. 18" h x 11.5" w x 7.5" d ..... \$260/pr

#### ALTEC LANSING

#### 501 3-Way Tower Speaker

Acoustic suspension speaker system with 2 10" carbon fiber woofers; 2" midrange; 1" dome tweeter each with polymide vacuum-deposited titanium power range 150 W nominal 300 W max; sens 93 dB W/m; imp 4 ohms; 46" h 12" w x 13.5" d ......\$1,500/pr

#### 508 3-Way Tower Speaker

#### 401 3-Way Acoustic-Suspension Speaker

#### 201 2-Way Speaker

Acoustic suspension speaker with 8" carbon fiber woofer and 1" polymide/titanium tweeter. Power range 75 W nominal, 150 max; sens 91 dB W/m; nom imp 6 ohms. 22" h x 12" w x 9" d \$500/pr

#### 101 Bookshelf Speaker

#### 55 Weatherproof Speaker

Compact indoor/outdoor speaker. 2-way acous-



tic-suspension speaker with 4" carbon fiber cloth woofer reinforced with epoxy and a 20-mm polymide dome tweeter. FR 85-20,000 Hz  $\pm 3$  dB; power range 40 W nominal, 80 W max; imp 4 ohms; 9.38" h x 7" w x 5.31" d..... \$250/pr

AMBRIA by PARASOUND

#### S-2000 5-Piece System

Subwoofer obelisk with 6 drivers; 4 satellite 2way speakers (for pole, wall, ceiling mount with Ambria fixtures); black or white; subwoofer hand-rubbed piano-grade lacquer. FR 28-22,000



 $\pm$  3 dB; sens 92 dB; imp >4 ohms with up to 10 satellites; subwoofer 12" x 12" at base, 46" h ......\$1,750/system S-1000. Similar to S-2000 except 3 pieces; subwoofer obelisk has 4 drivers; 2 satellite speakers. FR 35-22,000  $\pm$  3 dB; imp >4 ohms up to 6 satellites. Subwoofer 9" x 9" at base, 35" h \$900/system

S-100. Extra satellite speakers for S-1000 and S-2000 systems. Black or white ...... \$335/pr

#### S-150 2-Way Link Speaker

Molded enclosure; volume control. FR 70-22,000 Hz ± 3 dB; sens 92 dB ..... \$495/pr

#### AMERICAN ACOUSTICS

#### PSW-200 Powered Subwoofer

#### 9500B Tower Speaker

#### 8550 3-Way Speaker

Vented speaker with 15" polymer coated woofer; 5" sealed back ferrofluid damped midrange; soft dome polymer ferrofluid tweeter. FR 37-22,000 Hz; sens 98.5 dB W/m; imp 4/8 ohm; crossover frequencies 700 Hz, 5,000 Hz; power handling 205 W rms, 410 W peak; 30.38" h x 18.5" w x 14.5" d ..... \$980/pr

#### 5550 4-Way Speaker

Vented design with 15" polymer coated woofer, 5" sealed back ferrofluid midrange; soft dome polymer ferrofluid tweter, 3" come ferrofluid tweeter. FR 43-22,000 Hz; sens 96.5 dB W/m; imp 4/8 ohm; crossover frequency 1,700 Hz, 6,000 Hz; power handling 120 W/rms, 240 W/ peak; 27" h x 15.5" w x 10.25" d ..... \$750/pr

#### 4550 3-Way Speaker

Vented design with 10" polymer woofer; 5" sealed back ferrofluid midrange; soft dome ferrofluid tweeter. FR 45-22,000 Hz; sens 95.5 dB W/ m; imp 4/8 ohm; power handling 80 W/rms, 160 W/peak; 24" h x 15" w x 10" d ..... \$550/pr

#### 3550 Bookshelf Speaker

2-way vented design with 8" polymer woofer; soft dome polymer ferrofluid damped and cooled tweeter. FR 60-22,000 Hz; sens 94.5 dB W/m; imp 4/8/ ohm; power handling 45 W/rms, 90 W/peak18.5" h x 11.25" w x 8" d .... \$340/pr

#### 2550 Bookshelf Speaker

2-way vented bookshelf speaker with 6.5" polymer woofer; soft dome polymer ferrofluid tweeter. FR 65-22,000 Hz; sens 91.5 dB W/m; imp 4/8 ohm; power handling 40 W/rms, 80 W/peak; 12.75" h x 9.38" w x 7" d ...... \$260/pr

#### **APOGEE ACOUSTICS**

#### Apogee Full-Range Ribbon Speaker

Full-range ribbon speaker with seamless crossover. Features steel framework; trapezoidal woofer panel; 0.5" tweeter ribbon; 2" midrange ribbon. sp1. 115 dB; imp 4 ohms. 80.5" h x 35" w x 4" d; 300 lb ea.....\$8,000/pr

#### Diva 3-Way Ribbon Speaker

Full-range ribbon speaker with adjustable seam-
less crossover. Features trapezoidal woofer rib-
bon; separate midrange and tweeter ribbons. SPL
115 dB; imp 4 ohms. 73" h x 31" w x 3"d ;150 lb
ea \$7,000/pr

#### Scintilla Full-Range Ribbon Speaker

Full-range ribbon speaker with internal seamless crossover. Features trapezoidal woofer ribbon; integrated, coalescent midrange/tweeter ribbon that utilizes filed magnetic and electromagnetic constraints. SPL 110 dB; imp 4 or 1 ohms. 57" h x 30" w x 3.5" d; 140 lb ea ......\$3,780/pr

#### Duetta 2-Way Ribbon Speaker

Mid-size 2-way full-range ribbon speaker. Utilizes ribbon transducers for both midrange/tweeter and woofer. Features trapezoidal woofer ribbon; combination midrange/tweeter ribbon; internal seamless crossovers. spl. 100 dB; imp 4 ohms. 58" h x 26" w x 3" d; 115 lbs ea ......\$2,780/pr

#### Caliper 2-Way Ribbon Speaker

Mid-size 2-way full-range ribbon speaker. Features trapezoidal woofer ribbon; narrow-canted combination midrange/tweeter ribbon; seamless crossover circuitry. spl. 105 dB; imp 3 ohms. Taupe or grey finish. 48" h x 24" w x 2" d; 70 lb ea.....\$1,995/pr

#### ART AUDIO by OWI

#### 2300-FX Weatherized Speakers

Wall-mount 2-way weatherized flat-wave system. Imp 4 ohm; power capacity 30-60 W; woofer ap-

For explanations of abbreviations, specifications, and technical terms, consult the glossary on page 221.



prox 5" x 5" flat wave; strontium magnet; tweeter approx 1.5" Dyna-ribbon. Available in ivory or black; 9" h x 9" w x 1.5" d; 2.6 lb/ea . \$320/pr

#### **DX-7** Compact Powered Speaker

#### **BAW-103 Weatherized Mini Speaker**

#### **BA-200 Compact Speaker**

#### **BA-402 Compact 3-Way Speaker**

#### ATC LOUDSPEAKER

#### SCM-50 Speaker

Bass-reflex floor-standing near-field studio control monitors with drivers employing soft domes, short voice coils in long magnetic gaps, high-flux density, dual suspensions, and cast frames for low distortion and high SPL. Features 9" cone woofer; 3" soft-dome midrange; 1" dome tweeter. FR 45-18,000 Hz  $\pm$  3 dB, 80-12,000 Hz  $\pm$  2 dB; min power 50 W rms; max power 500 W rms; sens 85 dB SPL/W/m; imp 8 ohms. Oak and black standard finishes. 12" w x 28" h x 16" d; 85 lb ea.....\$3,300/pr SCM-50A. Similar to SCM50 except contains 3way modified 2nd-order active filter with phase correction driving 3 amps (200-W bass, 100-W mid, 50-W highs). Overload protection by active FET momentary gain reduction plus tweeter thermal protection by light distinguishing resistor (LDR). Well balanced continuous SPL of 112 dB with substantial transient headroom. 12" w x 28" h x 16" d; 95 lb ea ...... \$5,500/pr SCM-100. Similar to SCM50 except 12" cone woofer. Sens 88 dB spi/W/m, max continuous sound-pressure level 115 decibels plus transient headroom; frequency response 35-18,000 Hz ± 3 dB, 60-12,000 Hz ± 2 dB. 16" w x 33" h x 19" d; 115 lb ea ..... . \$4,200 SCM-100A. Similar to SCM50A except 12" cone woofer, max continuous SPL 115 dB plus transient 

#### AUDIOSOURCE

#### LS-Nine Speaker

#### LS-Seven Speaker

2-way compact speaker with 6.5" polywoofer 1" soft-dome tweeter, wood enclosure. FR 70-20,000 Hz; max power 60 W; imp 8 ohms; sens 87 dB SPL/W/m; L-C crossover at 2 kHz; genuine whiteoak veneer, cloth grille; 8.88" w x 13.62" h x 6.44" d; 7 lb ..... \$260/pr

#### LS-One Speaker

Acoustic-suspension 2-way speaker with 4" polypropylene woofer, 1" tweeter. FR 100-20,000 Hz; power range 12-40 W; imp 8 ohms; sens 87 dB SPL/W/m; crossover 2.5 kHz; black cast-aluminum enclosure with metal grille, bracket included; 7.12" h x 4.5" w x 4.561" d; 5.5 lb ... \$180/pr LS-One Walnut. Walnut veneer 8" x 5" x 4.69" ... \$200/pr LS-One W/T. Weathertight, stainless-steel grille and bracket .... \$200/pr

#### AUDIO PRO BY SONIC RESEARCH

## A4-14 Biamplified Speaker System

Biamplified 3-way bass-reflex bookshelf speaker incorporates Ace-Bass subwoofer with two 5" down-firing rear-mounted woofers and own amp, flush-mounted 4.5" cone midrange, 1" soft-dome tweeter with separate amp. Features room-matching bass control. tweeter control, sens control (100 mV-50 V range), L/R signal pushbutton, bassblend push-button control, power on/off signal-actuated in automode; walnut or black-ash finish; speaker stands included. FR 30-20,000 Hz  $\pm 2$  dB; crossovers 300 and 2.5 kHz; distortion 2% at 96 dB spt/half-space/m at 30 Hz; 20.5" h x 2.12" w x 10.5" d ..... \$2,095/system

#### A2-2 Mini Powered Speaker

Mini speaker with Ace-Bass and Ace-Plus circuits in each channel. Includes volume control, three line inputs and tape output on amp carrying case. FR 50-20,000 Hz; sens 99 dB SPL/W/m. Glossy lacquer finish available in white, black, red or grey. 8.25" h x 5.5" w x 4.13" d; 22 lb1195/system

#### A2-1 Mini Powered Speaker

#### 3-40 Passive Speaker

#### 2-25 2-Way Speaker

Features 1<sup>st</sup> soft-dome tweeter; 8<sup>st</sup> midrange woofer. FR 50-20,000 Hz -3 dB; crossover at 2,000 Hz; imp 4 ohms 20.25<sup>st</sup> x 11.25<sup>st</sup> x 10.25<sup>st</sup>; sens 90 dB sPL/W/m; walnut finish ...... \$549/pr

#### **Amplified** Subwoofers

B4-200. Super subwoofer features 4 long-throw 8" woofers; built-in 150-W amp giving 110 dB sPL

#### **BANG & OLUFSEN**

#### Beolab Penta Floor-Standing Speaker

Powered 5-sided bass-reflex speaker with 150-W amp in each cabinet; 9 drivers in 3-way configuration (4 5" woofers, 4 3" mids, 1 1" dome tweeter vertically aligned); dynamic clipping attenuator for compression; 3-position bass-level switch; auto turn on and off; when used with Beosystem 5500, digital display shows source, volume, recording status, overload; finished in brushed stainless steel with black grille. Frequency response 40-20,000 Hz +4, -8 dB; 65" high x 5" wide x 5" deep; 53 lb ......\$2,999/pr

#### RL 140 Speaker

#### Beovox S-80.2 Speaker

3-way speaker in infinite-baffle cabinet with 8" woofer, 3" dome phase-link midrange, 1" tweeter; baffle moldings designed for min diffraction; vertically aligaed drivers; auto driver protection; rosewood veneer (other finishes available). Max power 80 W rms; dispersion 100"......\$700/pr

#### RL 60.2 Speaker

Floor-standing speaker with 1" dome tweeter, 2 5" cone wooters, aluminum passive radiator; charcoal black. FR 45-20,000 Hz +4, -8 dB; power range 10-90 W; sens 93 dB SPL/W/m; imp 8 ohms; 21.25" w  $\leq 16$ " h  $\propto 7$ " d; 19.6 lb .....  $\leq 00/pr$ 

#### Beovox CX100 Compact Speaker

#### **B&W LOUDSPEAKERS**

#### **808 Ported Speaker**

#### Matrix 801 Series 2 Speaker



#### CM2 Matrix Mini Tower

Floor standing 4th order Butterworth vented system consisting of CMI head unit crossing over at 150 Hz into subwoofer section forming the stand. B&W matrix enclosure is employed in both stand and head module. APOC system. Imp not less than 4 ohms; power range 50-200 W. 39.19" h x 6.38" w x 8.31" d; Base width 10" x 9.5" d. Finish column-black, white, nextel grey, walnut\$1,650/pr Rosewood finish ......\$1,950/pr

#### **Matrix Series Speakers**

All Matrix speakers are acoustic suspension and feature an electronic time delay overload protection, homopolymer polypropylene bass/mid drivers, and ferrofluid-cooled tweeters. Matrix enclosure comprised of a honeycomb structure of interlocking perforated cross members bonded to the outer walls and filled with acoustic foam for resonance-free environment for drivers.

Matrix 3. Floor-standing speaker with two 200mm cone woofers (one for lower bass and other for bass/mid frequencies); 26-mm polyamide tweeter; heavy magnet assemblies in mid/bass drivers (5 lbs ea). FR 70-25,000 Hz ± 2 dB; min power 25 w rms; no upper power limit due to overload protection; sens 90 dB SPL/W/m; imp 4 ohms. Available in walnut and black ash finishes. 10.25" w x 35.75" h x 16" d; 64 lb ..... \$2,198/pr Rosewood finish ..... \$2,698/pr Matrix 2. Bookshelf speaker with 200-mm cone woofer; 26-mm polyamide dome tweeter. FR 80-25,000 Hz ± 2 dB; min power 25 w rms; no upper power limit due to overload protection; sens 87 dB SPL/W/m; imp 4 ohms. Available in walnut and black ash finishes. 10.25" w x 23.5" h x 12.25" d; 35 lbs.....\$1,498/pr Rosewood finish ..... \$1,798/pr Matrix 1. Bookshelf speaker with 1500-mm cone woofer, 26-mm polyamide dome tweeter. FR 80-25,000 Hz ± 2 dB; min power 25 w rms; no upper power limit due to overload protection; sens 85 dB SPL/W/m; imp 4 ohms. Available in walnut and black ash finishes. 9" w x 16" h x 12.25" d; 35 lbs ..... \$1,098/pr Rosewood finish ..... \$1,398/pr

#### **Digital Monitor Series**

DM1600. Features low-density Matrix enclosure; finite-analysis metal-dome tweeter. Power range

30-200 W. 25" h x 9.25" w x16" d; 24.25lb; black ash or walnut ...... \$800/pr

#### DM330i Acoustic-Suspension Speaker

Floor-standing speaker with 8" woofer, 8" bass/ midrange driver, 1" polyamide dome tweeter. FR 48-20,000 Hz ± 3 dB; power range 10-100 W; sens 91 dB SPL/W/m; imp 8 ohms; walnut or black ash finish; 11.5"5" x 33.75" x 12.62"; 37.5 lb \$720/pr

#### CM1 Matrix Mini Speaker

#### DM220i 3-Way Speaker

#### LM-1 Leisure Monitor Speaker

#### DM110i 2-Way Speaker

#### DM100i Acoustic-Suspension Speaker

#### BOSE

AM-5 Acoustimass Speaker System Compact 3-piece speaker system with Acoustimass bass module and Direct/Reflecting cube satellites.

The listings are based on data provided by the manufacturers. For more product information, contact an authorized dealer or the manufacturer directly. Manufacturers' addresses and phone numbers are listed in the directory beginning on page 226.



Each satellite has 2 separate cube enclosures that can be used stacked or separated and are switchable for direct or reflecting configuration. The bass module has 2 6.5" woofers in a double-ported enclosure. Features positive temperature coefficient protection circuit; high positive current coefficient resistor to compress overloading input signals. Max input power 165 W. Satellite cube: 3.5" on a side with a 1" extension for the grille. Bass module: 12" w x 20" 1 x 8" h ...... \$699/system

#### 901 Series V Speaker System

Direct/Reflecting acoustic-matrix speaker with Active Equalizer and 8 rear-facing, 1 front-facing 4.5" full-range drivers. Features pentagon-shaped cabinet with multi-cell injection-molded core with particle-board external panels and walnut veneer finish; Active Equalizer with specifically designed fixed EQ; bass shelf control to provide 6 dB of attenuation at 40 Hz; tape monitor switch. Power range 10 W to unlimited; imp 8 ohms; dynamic range 106 dB; noise 90 dB re 1 V (A-wtd); max input 2.1 V rms at 35 Hz. Equalizer 13" w x 4.88" d x 2.75" h. Speaker 21" w x 13" d x 12.36" h. Sold only in stereo pairs (equalizer supplied with each pair).......\$1,485/pr Speakers only ......\$1,264/pr 901 Speaker Pedestals, Black or bronze \$100/pr

#### 601 Series III Speaker System

Floor-standing Direct/Reflecting with all tweeters and one woofer mounted above main enclosure in Free Space Array configuration for lifelike stereo imaging. Features two 8" Digital Dynamic Range cone woofers; four 3" cone tweeters; subport enclosure system with slotted port. Min power 10 W; max power 200 W; sens 87 dB SPL/W/m; imp 8 ohms. Hardwood veneer with walnut finish. 12.31" w x 30" h x 12.5" d; 45 lbs ... \$1,026/pr

#### 501 Series IV Speaker System

#### 401 Speaker System

#### 301 Series II Speaker System
#### 201 Series II Speaker

#### **101 Music Monitor**

#### **RM-1 RoomMate Powered Speaker**

Pair of speakers with stereo amp in one to accept output of pocket stereo and portable CD player through audio cable. 4.5" full-range driver with helical voice coils in each speaker. Features active EQ; distortion-limiting circuitry; AC powered. Power supply 25-W transformer; enclosure of structural polypropylene composite. Peak SPL 101 dB with 300-3,000 Hz pink noise at 1 meter. Each speaker 6" x 9" x 6"; 10 lb. Black or white finish \$229/pr MMA-2. Mounting arms \$40/pr TB-1. Travel bag \$40/pr

#### Video RoomMate Powered Speaker

Bass-reflex bookshelf speaker for use with any VCR, TV, monitor, or LaserDisc player. Features 4.5" fully shielded full-range helical-voice-coil driver; fully shielded electronic amplification/active-equalization system; dual-tuned ports; 6-ft RCA cable; volume control; mono 4-connector. Gray enclosures with black baffle and silver/gray grille. Input imp 30 kilohms; acoustic output 100 decibels sound-pressure level with 300-3,000 Hz pink noise at 1 meter. 6" w x 9" h x 6" d\$279/pr MM-2. Mounting arms..........\$40/pr

#### **Point Two Series**

#### 10.2 Speaker

#### 8.2 Speaker

#### 6.2 Bass-Reflex Speaker

Bookshelf speaker with controlled-dispersion-pattern design for Stereo Everywhere performance. Features 8" woofer; two 3" tweeters; Stereo Targeting system; dual-chamber sub-ported bass venting system; interactive crossover network; hardwood veneer with teak finish. Min power 10 W rms; maximum power 100 W rms; nominal impedance 4 ohms. 20" wide x 10" high x 9.62" deep; 19.5 lb. Optional speaker stand (AS-1) available at extra cost ...... \$599/pr

#### 4.2 Bass-Reflex Speaker

#### 2.2 Bookshelf Speaker

Compact bookshelf speaker with Stereo Everywhere design. Features 6" long-excursion woofer; 2" magnetic-fluid-cooled tweeter; slot-port bass tuning system; teak vinyl finish. Power range 10-75 W; max power handling 60 W continuous; imp 8 ohms. 9.88" w x 14.75" w x 7.5" d; 12 lb \$299

#### **BOSTON ACOUSTICS**

#### T Series Speakers

#### T1000 3-Way Speaker

#### T830 3-Way Speaker

#### Designer Series Speakers

All Designer speakers are designed for flush mounting in walls or ceilings and come packaged ready to install. Each water-resistant speaker has a matte white finish that can be painted to match room decor. Includes mounting hardware with optional brackets available for installation in new construction. Prices vary depending on included installation costs.

#### 360 2-Way Speaker

Flush-mount speaker with 6.5" copolymer-cone woofer and 1" CFT4 ferrofluid-cooled soft-dome tweeter. Woofer specially designed to provide full bass without needing special enclosure. Power range 5-60 W rms; FR 48-20,000 Hz ± 2 dB; imp 8 ohms; sens 90 dB SPL/W/m. 12.06" h x 8.63" w; mounting depth 3.25" ......\$350-\$450/pr

#### 350 2-Way Speaker

Flush-mount speaker with 5.25" copolymer woofer and 1" CFT4 ferrofluid-cooled soft-dome tweeter. Power range 5-50 W rms; FR 58-20,000 Hz ± 2 dB; imp 4 ohms. 9.5" h x 6.75" w; mounting depth 2.63" ......\$300-\$400/pr

#### 705 White Full-Range Speaker

Compact dual-cone full-range speaker. Imp 4 ohms; FR 58-17,000 Hz ± 3 dB. 5.88" h x 5.88" w; mounting depth 1.75" ...... \$90-\$150/pr

#### A Series Speakers

#### A150 Series II 3-Way Speaker

#### A100 Series II 2-Way Speaker

#### A70 Series II 2-Way Speaker

#### A60 Series II 2-Way Speaker

Acoustic-suspension speaker with 8" copolymercone woofer and 1" Texlite soft-dome ferrofluidcooled tweeter. Power range 15-75 W rms; FR 52-20,000 Hz  $\pm$  3 dB; crossover at 3,000 Hz; sens 90 dB SPL/W/m; impedance 8 ohms. Woodgrain vinyl finish with charcoal grille or matte black vinyl finish with black grille. 18.25" h x 11.25" w x 7.75" d ...... \$220/pr

#### A40V Series II Video Speaker

#### A40 Series II 2-Way Speaker

### PRICES LISTED

are manufacturers' suggested retail prices (also referred to as *list* prices); actual selling prices are set by individual dealers. All prices are subject to change without notice.

#### BOZAK

#### Symphony No. 1 CS-4000A Modern Speaker

Infinite-baffle 3-way floor-standing speaker with 2 woofers, 6.5" midrange, and 8 2" tweeters in array. Max power 250 W; crossovers 400 and 2,500 Hz at 6 dB/octave; imp 8 ohms. Walnut enclosure; 44.5" h x 26.25" w x 15.62" d ...\$2,599/pr CS-4000 CL. Same as CS-4000A with Classic styling .......\$2,899/pr CS-4000 M. Same as CS-4000A with Moorish styling ......\$3,099/pr

#### **B-1002 Bard Outdoor Speaker**

#### **Digital Music Series**

#### DMS-6000Wi Speaker

Floor-standing infinite-baffle speaker with 12" cone woofer, 6" midrange, 2" cone mid-tweeter, and 0.75" dome supertweeter. FR 28-21,000 Hz  $\pm$  3 dB; minimum power 10 W rms, max power 300 W rms; sens 94 dB SPL/W/m; imp 8 ohms; genuine oak veneer finish; 80 lb; 15.5" w x 41" h x 12.5" d......\$1,349/pr

#### DMS-4500i Speaker

Floor-standing bass reflex speaker with 12" cone woofer, 4" cone midrange, and 1" dome tweeter. FR 25-21,000 Hz  $\pm$  3 dB; minimum power 10 W rms, max power 150 W rms; sens 95 dB sPL/W/ m; imp 8 ohms; kumaka laminate or oak finish; 48 lb; 15.5" w x 26.5" h x 11.5 $\pm$  dD ... \$719/pr

#### DMS-3000i Speaker

Bookshelf bass reflex speaker with 8" cone woofer, 2" cone midrange, and 1" soft-dome tweeter. FR 32-21,000 Hz  $\pm$  3 dB; minimum power 10 W rms, max power 150 W rms; sens 91 dB SPL/W/ m; imp 8 ohms; kumaka laminate or dark oak; 32 lb; 11.5" w x 24" h x 9" d ..... \$519/pr

#### DMS-5500i Speaker

#### DMS-3500i Speaker

#### DMS-2000i Speaker

#### DMS-2500i Speaker

Two-way speaker with 8" woofer; 1" soft-dome tweeter. Frequency response 35-21,000 Hz  $\pm 2.5$ decibels; maximum recommended power 150 W; kumaka laminate finish; 22" h x 8.75" d x 10.5"

#### w; 30 lb..... \$399/pr

#### Miniature System Series

#### MB-80' Speaker

#### MBS-1 Subwoofer

Variable-Density pulp/lamb's wool cone subwoofer with 2 voice coils. Features baffle design; vented cabinet. FR 20-85 Hz  $\pm$  3 dB; imp 8 ohms nominal; sens 88 dB sPL/W/m; min power 25 W; max power 200 W; crossover 12 dB/octave at 80 Hz. 23.5" h x 14.5" w x 12.25" d; 48 lb; genuine wood veneer, walnut, oak, or black..... \$400 ea

#### BSM by LASER AUDIO

#### Series 12 MKII 4-Way Speaker

#### Series 7 MKIV 3-Way Speaker

Floor-standing acoustic-suspension speaker with 12" polypropylene cone woofer; 4" cone midrange; 2" cone tweeter; circuit overload protecion. FR 30-20,000 Hz  $\pm$  3 dB; min power 15 W rms; max power 100 W rms; sens 94 dB SPL/W/ m; imp 4/8 ohms. Ebony wood-grain finish. 15" w x 27" h x 11" d; 28.5 lb ........... \$240/pr

### Series 4 MKIV 3-Way Speaker

Floor-standing bass-reflex speaker with 10" polypropylene cone woofer; 3" cone midrange; 1" cone tweeter; circuit overload protecion. FR 40-20,000 Hz  $\pm$  3 dB; min power 15 W rms; max power 65 W rms; sens 92 dB sPL/W/m; imp 4/8 ohms. Ebony wood-grain finish. 14" w x 24" h x 10" d; 18.5 lb ...... \$190/pr

#### Series 3 Bass-Reflex Speaker

#### **CALRAD ELECTRONICS**

#### 20-316 Compact Bookshelf Speaker

#### CANTON

#### CA 30 Active Speaker

Quad-amplified floor-standing speaker with differential amp and motional feedback system for each driver section (120 W woofer, 100 W midrange, 100 W tweeter). Features four 260-mm cone woofers; 190-mm cone woofer; 38-mm metal-dome midrange; 25-mm titanium-dome tweeter; Darlington output stage for amps; auto on/off 

#### CA 20 Active Speaker

#### CA 15 Active Speaker

#### CT 120 Floor-Standing Speaker

4-way bass-reflex speaker features 310-mm ( $\approx$  12") woofer; 200-mm ( $\approx$  8") bass/midrange; 38-mm ( $\approx$  1.5") midrange; 25-mm ( $\approx$  1") titanium-



dome tweeter. Power handling 200 W continuous/ 350 W peak; imp 4 ohms; crossover frequencies 250 Hz, 1,100 Hz, 4,600 Hz. 14.2" wide x 47.25" hide x 15.6" d .....\$5,000/pr

#### CT 100 Floor-Standing Speaker

4-way bass-reflex speaker features 260-mm ( $\approx$  10") woofer; 160-mm ( $\approx$  6") bass/midrange; 38-mm ( $\approx$  1.5") midrange; 25-mm ( $\approx$  1") titaniumdome tweeter. Power handling 180 W continuous/300 W peak; imp 4 ohms; crossover frequencies 250/1,100/4,600 Hz. 12.6" wide x 41.3" high x 14.1" deep ......\$3,500/pr

#### CT 90 Floor-Standing Speaker

3-way bass-reflex speaker features 260-mm ( $\approx$  10") woofer; 120-mm ( $\approx$  5") midrange; 25-mm ( $\approx$  1") titanium-dome tweeter. Power handling 150 W continuous, 250 W peak; imp 4 ohms; crossover frequencies 450/4,000 Hz. 12.2" w x 35.5" h x 12.9" d ...... \$2,250/pr

#### **CT 80 Floor-Standing Speaker**

3-way bass-reflex speaker features 220-mm ( $\approx$ 8.5") woofer; 120-mm ( $\approx$  5") midrange; 25-mm  $(\approx 1^{"})$  titanium-dome tweeter. Power handling 100 W continous/150 W peak; imp 4 ohms; crossover frequencies 450/4,000 Hz. 11" w x 31.5" h x 11.5" d.....\$1,500/pr

#### Karat 60 Bookshelf Speaker

3-way speaker features 260-mm woofer; 120-mm midrange; 25-mm titanium-dome tweeter; power handling 100 W continuous/150 W peak; imp 4 ohms. 12.4" w x 22.9" h x 12.5" d ... \$1,500/pr

#### Karat 40 Bookshelf Speaker

3-way speaker features 220-mm woofer; 120-mm midrange; 25-mm titanium-dome tweeter; power handling 90 W continuous/130 W peak; imp 4 ohms. 10.9" w x 20.1" h x 10.9" d ... \$1,200/pr

#### Karat 30 Bookshelf Speaker

2-way speaker features 220-mm woofer; 25-mm titanium-dome tweeter; power handling 80 W continuous/110 W peak; imp 4 ohms. 10.8" w x 17" h x 10.9" d ..... \$800/pr

#### Karat 20 Bookshelf Speaker

2-way speaker features 200-mm woofer; 25-mm titanium-dome tweeter; power handling 50 W continuous/80 W peak; imp 4 ohms. 8.7" w x 13.5" h x 8.2" d ..... \$650/pr

#### GL 300 F Speaker

Low-profile 2-way speaker acoustically tuned for wall mounting. Features 25-mm dome tweeter (fabric); long-throw 160-mm cone woofer cone. Enclosure surfaces black or white; grille of perforated steel plate; color to match enclosure; permafix spring clamps; 5-m connecting cable; removable grille. Nominal imp 4 ohms; nominal power handling 40/60 W; FR 48-30,000 Hz; crossover at 1,700 Hz; 12.6" w x 8.66" h x 3.15" d ..... \$500/pr With walnut finish ..... \$550/pr

#### GL 260 Speaker

Weatherproof low-profile 2-way speaker with 160-mm woofer, 25-mm dome tweeter. Features wall-mounting suitability; white or black finish; perforated metal grille. 42-30,000 Hz; crossover 1,700 Hz; power range 60 W; distortion <1%; imp 4 ohms; 10.5" h x 7.12" w x 4.75" d\$475/pr With walnut finish ..... \$525/pr

#### HC 100 Speaker

Bookshelf speaker with 110-mm cone woofer, 25mm dome tweeter. Features Permafix spring clamps; 5-m connecting cable; one-point mounting fixture; removable grille. FR 48-30,000 Hz; max power 60 W; imp 4 ohms; black, white, or bronze finish; 5.12" w x 7.5" h x 5.75" d; 5 lb ..... \$325/pr

#### **Plus S Speaker**

2-way bookshelf minispeaker suitable as satellite in connection with Canton Plus Beta and Plus C subwoofers. Features 110-mm cone woofer; 25mm dome tweeter; flush wall mount; removeable grill. FR 45-30,000 Hz; minimum power 20 W; max power 80 W; sens 87.2 dB spL/W/m; imp 4 ohms. 4.72" w x 8.07" h x 3.94" d; black, white, brown finishes ..... \$325/pr Walnut finish ..... \$495/pr

#### Subwoofers

#### **Plus Beta Active Subwoofer**

Floor-standing bi-amplified woofer system containing amplification for satellites and subwoofer. Features 310-mm cone woofer; signal-correction circuit; thermal overload; short-circuit protection; bass level control; adjustable crossover; adjustable input sens; auto on/off; terminals and switching for up to 4 satellite speakers. FR 20-70/ 90/120 Hz ± 3 dB; amp output power 140 W ea; THD and <0.1%. Black, white, or walnut finish. 13.5" w x 15" h x 15" d; 50 lb ..... \$2,000 ea

#### Plus C Subwoofer

Compact passive 310-mm cone subwoofer for use in connection with satellites such as Canton Plus S. FR 22-120 Hz; min power 35 (2x) W; max power 75 (2x) W; sens 89.9 dB SPL/W/m; imp 4 ohms. 14.7" w x 13.4" h x 13.8" d; 10.5 Kg; black, white, walnut finishes ..... \$550 ea

#### CARVER

#### The Amazing Loudspeaker

Floor-standing panel speaker with line-source ribbon drivers with low mass, high efficiency, and high speed. 4 planer subwoofers in panel for low frequencies and ribbon for mid to high frequencies. Black. Min power 100 W rms; max power 350 W rms; sens 91 dB sPL/W/m; imp 5 ohms. 24" w x 60" h x 4" d; 160 lbs ......\$1,576/pr

#### CELESTION

#### System 6000 Subwoofer

Double dipole low frequency array primarily for use with SL 600 model (below). Uses 2 12" long throw units in each of the 2 systems and is sensitivity matched to the SL 600 with adjustment available. Electronic section contains crossover and EQ components, with variable gain and extension controls ...... \$3,000/pr

#### SL600 2-Way Speaker

2 way sealed box design, using Aerolam cabinet of 12 liter volume. 120 W program power handling and designed for use on rigid stands. Copper dome tweeter and bass unit with integral dust cover ......\$1,800/pr SL6S. Similar to above. Two-way speaker with aluminum 1-piece tweeter and 6" dual-surround woofer ..... \$900/pr

#### 700 Sealed Box Speaker

2-way sealed box design, using Aerolam cabinet of 12-liter volume. 120 W program power handling; uses integral speaker stand. Metal dome tweeter for high frequencies and 2-part roll surround on woofer ..... \$800-\$1,000

#### DL10 Series 2 3-Way Speaker

Bass-reflex speaker with separate midrange enclosure. 10" woofer, 6" midrange; 1.25" aluminum dome tweeter, and 6" bass unit with integral dust cover and roll surround ..... \$900/pr

#### **DL8 Series 2 2-Way Speaker**

Sealed cabinet speaker with 8" celoprene cone woofer and 1" metal tweeter. Designed for stand mounting, uses figure 8 cabinet brace and is available in simulated American walnut or black finishes .... .....\$540/pr

#### DL6 Series 2 2-Way Speaker

Sealed box design, 8" woofer and 1" metal-dome tweeter. Designed for use on speaker stands. Available in simulated American walnut and black finishes ..... \$430/pr

#### **DL4 Series 2 2-Way Speaker**

Compact, 2-way sealed-box speaker, using 6" woofer and 1" metal-dome tweeter. Designed for stand or bookshelf mounting ..... \$330/pr

#### **CELLO**

### Amati Speaker

Compact speaker for wall, shelf, or stand mounting (see listing in accessories section for speaker stands); available in many finishes. 27" w x 20" h x 10" d .....\$3,500/pr

#### CERWIN-VEGA

Digital Series Speakers

#### D-9 Speaker

3-way, 4 driver, floor-standing speaker with 15" woofer, dual 6" midranges and 1" tweeter. Features Helmholz/Theile enclosure fabricated from high-density pressed board with woodgrain vinyl finish and acoustically transparent brown stretch grille. FR 29-20,000 Hz; power range 5-350 W; sensitivity 101 dB; impedance 4 ohms; crossover frequencies 500 and 3,500 Hz; 35.5" x 18" x 17.75"; 85 lb .....\$1,050r

#### D-7 Tower Speaker

3-way tower speaker with 12" woofer, dual 6" cone distributed midrange driver in large chamber, 1" horn tweeter. Features circuit protection: midrange. tweeter level controls; FR 25-20,000 Hz ± 3 dB; crossovers 500 and 3.5 kHz; sens 98 dB sound-pressure level W/m; maximum recom-mended power 200 W; imp 8 ohms.... \$870/pr

#### D-5 Horn-Tweeter Speaker

Floor/shelf 3-way speaker with 12" woofer, 6" cone midrange, 1" horn tweeter. Features circuit protection; tweeter level controls; FR 32-20,000 Hz ± 3 dB; crossovers 700 and 3.5 kHz; sens 96 dB sPL/W/m; max power 150 W; imp 8 ohms ..... \$660/pr

#### **D-3 Bookshelf Speaker**

3-way shelf-speaker with 10" woofer, 6" cone midrange, 1" horn tweeter. Features circuit protection; midrange, tweeter level controls; FR 30-20,000 Hz ± 3 dB; crossovers 700 and 3.5k Hz; sens 94 dB SPL/W/m; imp 8 ohms; finished in hickory woodgrain vinyl w/brown stretch cloth grille ..... \$580/pr

#### D-2 Vented Speaker

2-way vented speaker with 10" woofer in cast alu-minum frame and 1" voice coil horn. Features high-frequency protection circuit breaker; direct-radiating vented enclosure; hickory woodgrain vinyl finish with brown stretch-cloth grille. Frequency response 30-20,000 Hz; power handling min/max 5/125 W; sens 94 dB; nominal imp 8 ohms; crossover frequency 3,000 Hz; 23.5" h x 14" w x 10" d; 38 lb ..... \$440/pr

#### D-1 2-Way Speaker

2-way speaker with 8" woofer and 1" voice-coil high frequency horn. Features resettable high-frequency protection circuit breaker; vented cabinet; hickory woodgrain vinyl with cloth grille. FR 30-20,000 Hz; power min/max 5/100 W; sens 92 dB W/m; 8 ohms imp; crossover frequency 3,000 Hz; 20" h x 11" w x 10" d; 49 lb/pr ..... \$340/pr

#### SW-12B Subwoofer

Vented direct-radiating subwoofer compatible with most 4/8 ohm speakers. 12" floor-facing driver built on die-cast aluminum frame with 7-Ib magnet. Power range 5-125 W; sensitivity 92 dB W/m; woodgrain vinyl veneer finish; measures 13.25" high x 25.5" wide x 16.25" deep; total weight 48 lb ..... \$300/ea

The listings are based on data provided by the manufacturers. For more product information, contact an authorized dealer or the manufacturer directly. Manufacturers' addresses and phone numbers are listed in the directory beginning on page 226.

#### **AT Speaker Series**

#### AT-15 3-Way Speaker

#### AT-12 3 Way Speaker

#### AT-10 3 Way Speaker

Similar to above with 10" woofer and internal self-resetting circuit breaker. Power hadling capacity 5-150 W; sens 95 dB; nominal imp 6 ohms; 28.5" h x 14" w x 13.5" d; 40 lb ..... \$620/pr

#### AT-8 2 Way Speaker

2 way version of above with 8" woofer, dome tweeter. Power handling capacity 5-100 W; sens 94 dB; nominal imp 6 ohms; 21" h x 12" w x 10" d; 26 lb ...... \$410/pr

#### SE Speaker Series

#### **380SE Speaker**

Floor-standing bass reflex speaker with 15" cone woofer, 2 7" polyolefin cone midranges, and 1" VC elliptical tweeter. FR 29-20,000 Hz ± 3 dB; minimum power 5 W rms, max power 405 W rms; sens 102 dB SPL/W/m; imp 6 ohms; black vinyl; 90 lbs; 17.5" w x 36" h x 19.5" d\$1,080/pr

#### 300SE Speaker

#### 280SE Speaker

Floor-standing bass reflex speaker with 12" cone woofer, 6" cone midrange, and 1" VC horn loaded dome, elliptical tweeter. FR 32-20,000 Hz  $\pm$  3 dB; minimum power 5 W rms, max power 155 W rms; sens 96 dB sPLW/m; imp 6 ohms; black vinyl; 44 lb; 14.5" w x 25.5" h x 11.5" d \$690/pr

#### 250SE Speaker

#### 240SE Speaker

Bookshelf bass reflex speaker with 10" cone woofer and 1" VC horn loaded dome elliptical tweeter. FR 32-20,000 Hz  $\pm$  3 dB; minimum power 5 W rms, max power 125 W rms; imp 6 ohms; black; 36 lb; 12.5" w x 25" h x 11.5" d \$470/pr

#### 200SE Bookshelf Speaker

2-way version of 240SE. Direct-radiating 8" woofer, 1" tweeter. FR 32-20,000 Hz ± 3 dB; power range 5-100 W; imp 6 ohms; black; 32 lb; 22" x 10.5" x 12.25" ...... \$410/pr

#### CHAPMAN SOUND

**T9 4-Way Floor-Standing Speaker** Air-suspension speaker comes standard in biwired, bi-ampable configuration. 2 10" polyla

#### T7 3-Way Floor-Standing Speaker

Air-suspension speaker available bi-wired and biampable. 10" polylaminate cone woofer, 5" polylaminate cone midrange, 1" dome tweeter. FR 30-20,000 Hz  $\pm$  3 dB; min power 50 W rms; max power 200 W continuous, 500 W peak; sens 86 dB SPL/W/m; impedance 4 ohms; oak finish with black grille; 14" wide x 39" high x 11" deep; 75 lbs each ......\$1,495/pr

#### T4 2-Way Bookshelf Speaker

#### DAHLQUIST

### DQ-20 Speaker

Three-way vertical-phase-array speaker intended for floor placement. Speaker contains 250-mm cone woofer; 120-mm cone midrange; 20-mm dome tweeter. Minimum power 70 W rms; impedance 4 ohms. Available in oak with black or white grille.....\$1,800/pr

#### **DQ-10 Speaker**

#### **DQ-1 W Subwoofer**

#### **Dynamic Tracking Studio Monitors**

#### DQM-9 Speaker

Dual rear-firing tuned-port speaker system features rigid die-cast zinc chassis drivers on antidiffraction baffle in "unbox" enclosure; 11" woofer and 5" cone midrange feature flat-wound ribbon-wire voice coils; tweeter is 1" soft dome. Power range 25-200 W; sens 95 dB SPL/W/m; crossovers 450 and 3.5 kHz; imp 8 ohms; 14.5" w x 25" h x 13.25" d; 55 lb; suede gray Nextel vibration damping and oak or walnut sides with black lacquer top finishes ......\$1,350/pr

### DQM-9 Compact Speaker

#### ST-9 Speaker Stand

#### M SERIES

#### M-909 Floor-Standing Speakers

Genuine wood enclosure, spaced grille with solid wood trim, flocked anti-diffraction baffle. 3 way Quasi-Phased Array ......\$1,100/pr

#### M-907 Acoustic-Suspension Speaker

Real wood walmut enclosure, spaced grille with solid walnut trim. 3 way with 10" woofer, 5" midrange, 1" dome tweeter, damped enclosure. 28" h x 14.5" w x 12.5" d ...... \$820/pr

#### M-905 Tuned-Port Speaker

#### **DAYTON WRIGHT**

#### D XG-10 MK II/d Electrostatic System

#### XG-10 MK II/i Electrostatic System

Top-centered tweeter,	XIM-11	interface	module,
2/XW-10 subwoofers	•••••	• • • • • • • • •	\$7,894

XAM-7. Speaker ...... \$4,035/pr

#### XAM-4 4-Way Speaker

10" subwoofer; main drivers 6", 1", 0.6"; ambience driver 6". Crossover assymetric 100 Hz, 4,300 Hz, 11,000 Hz; 4-ohm min imp; 48" h x 11" w x 16" d; 80 lb .....\$1,491/pr

#### LCM-1a 3-Way Speaker

Supertweeter; 1" soft-dome tweeter, 7.5" Bextrene woofer; front panel tilted 20°. FR 40-18,000 Hz  $\pm$  3 dB; min imp 4 ohms; 20" h x 11" w x 14" d (bottom), 7.1" (top); 22 lb...... \$608/pr

#### ICBM-1 Subwoofer System

May be used as stand for LCM-1a or used separately; will increase maximum overload of LCMla by 12 dB at low frequencies. Frequency response extension to below 16 Hz. 2 long-throw 10" woofers; min imp 4 ohms; black vinyl finish; 48" h x 11" w x 24" d; 66 lb ......\$1,323/pr

#### **dB PLUS**

All dB Plus speakers have 1" dome tweeters, walnut-vinyl finish, black knit grilles, and nominal impedances of 8 ohms with minimum of 4 ohms.

#### 1212 Floor-Standing Bass-Reflex Speaker

2 12" viscous-damped cone woofers; 6.5" cone midrange. FR 23-22,000 Hz ± 3 dB; minimum power 10 W, max power 200 W; sens 103 dB SPL/W/m; 54 lbs; 12.24" w x 36.60" h x 11.5" d ......\$1,000/pr

#### 1010 Floor-Standing Bass-Reflex Speaker

2 10" viscous-damped cone woofers. FR 25-22,000 Hz ± 3 dB; minimum power 20 W, max power 150 W; sens 100 dB SPL/W/m; 45 lb; 12.24" w x 36.60" h x 11.5" d...... \$750/pr

#### 990 Floor-Standing Passive-Radiator Speaker

10" viscous-damped cone woofer. FR 30-22,000 Hz ± 3 dB; minimum power 10 W, max power 100 W; sens 98 dB SPL/W/m; 37 lb; 12.24" w x 32.60" h x 11.5" d...... \$550/pr

#### 880 Bass-Reflex Speaker

10" viscous-damped cone woofer. FR 35-22,000 Hz ± 3 dB; minimum power 10 W, max power

aker. Features low-diffraction 10

For the music listener, evaluating loudspeakers is one part science and nine parts art. The difference in measured response between two speakers may be slight, yet one will sound superb, the other merely adequate.

The only test instruments which can accurately and reliably distinguish good from bad-or great from merely good--are your ears. And even they have to be used with knowledge and care.

A loudspeaker has a difficult job. It must reproduce sounds ranging from the quietest whisper of a human voice to the full thunder of a symphony orchestra. That's a ratio of about one to a billion. It's beyond the range of any loudspeaker made today --but this need not concern us, as it is also beyond the range of any recording medium. However, within its range, a good loudspeaker will reproduce the most

complex sounds imaginable, with an absolute minimum of coloration or distortion.

But you can go even further. You can demand that two loudspeakers, working together, define between them the

exact point in space from which each individual sound
vidual sound
originally emanated. You can also expect a sense of the acoustic

surroundings in which the recording was made.

To hear a pair of loudspeakers actually do this is an unforgettable experience. Once you've

heard it, it's unlikely that you'll ever settle for less. For these characteristics are essential to the

suspension of disbelief vital to the appreciation of recorded music.

Please take the opportunity to audition a pair of DQ-20 loudspeakers, and bring out the best in your music.

100 W; sens 96 dB SPL/W/m; 29 lb; 11.88" w x 23.88" h x 11.5" d..... \$450/pr

#### 440 Bookshelf Bass-Reflex Speaker

6.5" polypropylene cone woofer. FR 45-22,000 Hz ± 3 dB; minimum power 10 W, max power 80 W; sens 94 dB SPL/W/m; 16 lb; 9.5" w x 15.88" h x 9.25" d...... \$350/pr

#### dbx

#### dbx Soundfield 1A Speaker

Two floor-standing enclosures, each with 4 10" woofers, 4 4" midranges, and 6 0.5" dome tweeters. Self-balancing phased arrangement produces both measurably flat axial and power response (20-20,000 Hz ± 2 dB) and stable and consistent image anywhere in listening area (no preferred listening location). Computer-designed crossover individually tailors amplitude and phase of each driver to produce psychoacoustically optimized radiation pattern and constant imp (4 ohms). System includes processor to go in preamp/receiver tape-monitor loop. Processor equalizes speaker FR and also features power amp monitor/speaker protector; rumble suppressor; adjustable HF/LF EQ and high-pass/low-pass filters for ends of audio band; auto ch balancing for out-of-balance program material; ambience control; bypass (for headphone listening); and replacement tape moni-tor; Sens 90 dB SPL 2.83 V/m, average room; power range 30-400 W/ch; system will produce 110 dB spL in 3,000 cu-ft. room. Walnut or oak veneer with dark brown grilles. 42" h x 14.5" w x 14.5" d; 80 lb ..... \$3,000/system

#### Soundfield 50 Speaker

Two floor-standing vented enclosures each with 10" woofer, 6.5" midrange, 4" uppre midrange, and 3 ultra-wide-dispersion 0.5" tweeters. Phased arrangement produces both measurably flat response (34-20,000 Hz ± 2.5 dB) and consistent "Listen Anywhere" stereo imaging throughout room. Sens 91 dB sPL/2.83 V/m; imp 4 ohms nominal, 2.5 ohms min; power range 40-400 W; phased-arranged crossover 200 Hz, 800 Hz, 3,150 Hz, main axis. Walnut or black base and top wit matching grille wraps .................\$2,000/pr

#### Soundfield Ten Speaker

#### dbx Soundfield 100 Speaker

#### dbx Soundfield 1000 Speaker

Two floor-standing vented enclosures each with 8" woofer, 4" midrange, and 2 ultra-wide-dispersion 0.5" tweeters. Phased arrangement produces both measurably flat response (45-20,000 Hz  $\pm$  3

#### DCM

#### Time Frame TF2000 3-Way Speaker

Floor-standing folded tapered transmission-line speaker with two 8" cone woofers, two 6.5" cone midranges, and 1" horn-loaded tweeter. Accurate impulse response combines with high efficiency and power handling for digital sources. FR 30-20,000 Hz  $\pm$  3 dB; min power 20 W rms; max power 1,000 W rms; sens 92 dB SPL/W/m; imp 8 ohms. Available in dark oak or brown grille. 60" h x 23" w x 11" d ... \$1,999 to \$2,299/pr

#### **Time Window 3 Speaker**

Folded transmission-line 3-way speaker intended for floor placement. Features time-coherent point source for more accurate off-axis sound reproduction. Adjustable high-and middle-frequency energly output, narrow to wide image spatial control; also utilizes acoustic anti-diffraction lenses. 8" cone woofer; 6.5" cone midrange; 2.75" soft-plastic-dome tweeters. FR 24-20,000 Hz; min power 10 W, max power 200 W; sens 90 dB; imp 8 ohms; available in dark oak with dark brown fabohms; 16.25" wide x 39.25" high x 12.36" deep........\$1,399 to 1,499/pr

#### Time Frame TF1000 3 Way Speaker

Tapered transmission-line speaker. Mirrored image with 8" woofer, .75" soft plastic dome tweeter, acoustic anti-defraction lens, 4" mid-frequency driver, transmission line termination. Max power rating 50 W rms pink noise continuous/ 300 W peak program; 8 ohm imp; sens 91 dB W/ m; 49 lb; 49" h x 19.5" w x 8" d..\$999 to 1,099

#### Time Window 1A Speaker

Hybrid transmission-line speaker intended for floor placement. Improved version of original Time Window with wide-angle sound distribution, pinpoint imaging properties and high powerhandling capability. Features cylindrical back and triangular-prism front. Optimized for min time-dispersion error. Contains two 6.5" cone woofers with acoustic lens; 2.75" soft plastic dome tweeter with acoustic lens. Min power 10 W, max power 200 W; sens 91 dB; imp 8 ohms; dark oak with dark brown fabric; 32 lb; 15" w x 36" h x 11.75" d ....... \$879to 949/pr

#### Time Frame TF 700 Speaker

Floor-standing folded tapered transmission-line speaker with 8" cone woofer, 4" cone midrange, and .75" dome tweeter. Accurate impulse response for digital sources. FR 34-20,000 Hz  $\pm$  3 dB; min power 20 W rms; max power 250 W; sens 90 dB SPL/W/m; imp 8 ohms. 45" h x 18" w x 7" d ...... \$749 to \$799/pr

#### Time Frame TF500 Speaker

Mirror-imaged floor-standing loudspeaker. Features 6.5" cone woofer; .75" soft-plastic-dome tweeter with acoustic lens; folded, tapered transmission-line bass loading; FR 34-20,000 Hz; power range 10-100 W; sens 90 dB SPL/W/m; imp 8 ohms; dark oak finish with dark-brown fabric

For explanations of abbreviations, specifications, and technical terms, consult the glossary on page 221.

grille; 17" wide x 41" high x 6.75" deep; 42 lb.....\$549 to \$599/pr

#### Time Frame TF 350 Speaker

#### Time Frame TF 250 Speaker

#### **DENNESEN ELECTROSTATICS**

#### Dennesen Nine 3-Way Speaker

Floor-standing bass-reflex electrostatic hybrid speaker designed for minimal edge refractions and reflections. Features electrostatic tweeter system; 10" bextrene woofer; 6.5" bextrene midrange; 6 3" electrostatic tweeters. Phase corrected and time alligned. Includes separate electronic crossover for bi-amping in stereo or summed subwoofer. Includes summed subwoofer. FR 20-35,000 Hz  $\pm$  3 dB; min power 50 W rms; max power 200 W rms; sens 89 dB SPL/W/m; imp 8 ohms. Oiled walnut finish. 11" w x 35" h x 15" d; 60 lb ......\$2,650/pr

#### **DESIGN ACOUSTICS**

#### PS-30 3-Piece Speaker System

Consists of 2 PS-5 satellites, PS-LF bass module. Satellites are low-diffraction design with 5" midwoofer, 1" soft-dome tweeter. Bass module has 12" dual voice coil, long-throw woofer; power satellites/subwoofer 35/250 W ...... \$695/set

#### **PS-LF Bass Module**

Down-firing dual voice coil, long-throw 12" woofer with twin crossover networks at 18 dB/ octave, 140 Hz. Features input for use with PS-5 satellites (below); biamp inputs for use with other satellites. Response to below 40 Hz; walnut veneer cabinet; brown cloth grille; power range 15-250; 21" h x 16" w x 16" d ...... \$350/ea

#### **PS-5 Speaker**

#### DA 360 Indoor/Outdoor Speaker

Omnidirectional all-weather speaker for indoor or outdoor use. Features rust-proof heavy-duty plastic enclosureas; dual driver system, white finish; mounting from angles or pipe mounted from \$240/pr

#### Point Source Series

#### **PS 103 Floor-Standing Speaker**

Acoustic-suspension speaker with down-firing 10" woofer housed in a seperate enclosure within the cabinet. 6" midwoofer and 0.75" dome tweeter in the upper portion of the cabinet. 5-way binding posts will accept bare stranded cable up to 8 gauge, looped wire, banana plugs, spade lugs, and terminal pins. Cabinet is mounted on casters. Sens 88 dB SPL/W/m; power range 30-250 W/



#### PS-10 3 Way Bookshelf Speaker

Acoustic-suspension 3-way speaker with downfiring 10" long-throw woofer, 5" midwoofer, 1" soft-dome tweeter. Features tweeter level control; mirror-image driver placement; acoustically treated baffle; walnut-vinyl finish; brown cloth grille. FR 48-20,000 Hz; crossovers 190 and 2,000 Hz; sens 90 dB sp1/W/m; power range 15-200 W; imp 8 ohms; 14" h x 13.75" d x 11" w\$500/pr

#### **PS-8A 3 Way Speaker**

#### PS-6 Bookshelf Speaker

#### **PS-6V Shielded Bookshelf Speaker**

Acoustic-suspension speaker. Features 6.5" longthrow woofer; .75" soft-dome tweeter; mirror-image driver placement; acoustically treated baffle; shielded magnets for use with video monitors. FR 50-20,000 Hz; power range 10-100 W; sens 88 dB SPL/W/m; imp 8 ohms; 8" x 12" x 11.5" \$260/pr

#### DESKTOP LOUDSPEAKER SYSTEMS

#### DLS-2x Intimate Speaker System

4-piece speaker system with satellites carved from

solid wood. 2 DM-2x satellites house  $3.25^{\circ}$  cone woofer,  $0.75^{\circ}$  dome tweeter,  $0.15^{\circ}$  supertweeter; 2 BMW-2 subwoofers house  $6.5^{\circ}$  cone driver and 2 7" passive radiators. FR 38-30,000 Hz  $\pm$  3 dB; power range 20-200 W; sens 87.5 dB SPL/W/m; imp 4 ohms; black or walnut finish \$999/system

#### DLS-2 Intimate Speaker System

#### **DLS-1A Intimate Speaker System**

#### BMW-2 Intimate Subwoofer

Floor-standing subwoofer with 6.5" cone driver,

# Honesty. It's been a rare virtue in sound. Until now. Introducing the new Design Acoustics PS-103 3-Way Loudspeaker



While other speakers attempt to make their mark with bombast and sizzle, the Design Acoustics PS•103 loudspeaker system has been created to accurately reflect the actual sonic drama of the music. No more. And certainly no less.

#### Hear the original acoustic space

The PS-103 starts with smooth, uniform response for every octave of music. That's basic. Dispersion at the higher frequencies is also enhanced by a tapered, sealed, independent Point Source enclosure for the 6" mid-range and %" tweeter. The result of this combination is an appropriate spaciousness to the reproduced sound...neither collapsed, nor overextended. With the PS-103, the illusion of a live performance is more accurate, making possible a more intense reaction to the music.

#### Bass you can feel

The illusion is enhanced by the extended bass performance from the 10" down-firing woofer, housed in its own cabinet with unique multi-element baffles that stiffen the enclosure while smoothing and extending useful sound output. You both hear and feel the deepest bass, while sensing the original room acoustics all around you.

#### **Honestly superior**

Before you settle for an artificial sounding speaker, give our spectacular honesty a chance. Audition the Design Acoustics PS•103 loudspeaker system today. Write for the names of Design Acoustics dealers in your area. Like you, they are very serious about very good sound.



CIRCLE NO. 20 ON READER SERVICE CARD

#### DM-1 Intimate Speaker

#### S-1 Speaker Stand

For use with wide-screen TV, stereo TV or audio system. Phase aligned; flat black finish; invisible wiring track. 8" w x 17" h x 8" d; 2.2 lb \$65/pr

#### **ELECTRO-VOICE**

#### Interface Series II Speakers

Each Interface 2-way full-range vented direct-radiator system uses an 8" midrange/woofer and 1.5" Super Dome tweeter with a 25-W long-term power-handling capacity in a scientifically-designed "optimally-vented" enclosure. Lowest octave of speaker's bass response is reproduced by the vent (Interface 1) or vent substitute (passive radiator, Interface 2 & 3) so as the frequency lowers, the excursion of woofer decreases producing better transient rsponse, lower distortion, and 6-dB higher efficiency. Cabinets are particle board covered with simulated walnut-grained vinyl and include a dark-brown grille.

Interface 3. FR 40-18,000 Hz  $\pm$  3 dB; long-term average power capacity 50 W; 10-ms short-term power capacity 200 W; sens 92 dB sPL/W/m; imp 8 ohms nominal, 5 ohms minimum; crossover frequencies 57 Hz acoustical, 1,500 Hz electrical. Includes 12" low-frequency radiator. 14.75" w x 25.25" h x 13.13" d; 33 lb . \$630/pr Interface 2. FR 47-18,000 Hz  $\pm$  3 dB; long-term average power capacity 50 W; 10-ms short-term power capacity 200 W; sens 92 dB sPL/W/m; imp 8 ohms nominal, 5 ohms minimum; crossover frequencies 66 Hz acoustical, 1,500 Hz electrical. Includes 10" low-frequency radiator. 13.75" w x 24.25" h x 10.69" d; 25 lb . 5546/pr Interface 1. FR 56-18,000 Hz  $\pm$  3 dB; long-term average power capacity 50 W; 10-ms short-term power capacity 200 W; sens 92 dB sPL/W/m; imp 8 ohms nominal, 5 ohms minimum; crossover frequencies 79 Hz acoustical, 1,500 Hz electrical. 11.38" x 21.25" x 9.69" ...... \$420/pr

#### Sentry 500 Monitor Speaker

Monitor speaker with Constant Directivity for uniform coverage over 100° angle from 250 Hz on up to 10,000 Hz and a 60°-angle coverage for up to 18,000 Hz to eliminate "hot spots" or "dead zones" at particular frequencies. 12" direct-radiator woofer and Super Dome tweeter aligned for minimal phase distortion through mid-band crossover area. Designed for 0.25- to 0.5-space mounting. Optional WB-23 wall mount for corner mounting. FR 1 meter on axis ancehoic environment swept 0.33-octave pink noise  $\pm$  3 dB 40-18,000 Hz; crossover frequency 1,500 Hz; phase variation 300-3,000 Hz  $\pm$  30°; long-term average power handling 100 W at 8 ohms; short-term 10ms power handling 400 W; nominal imp 8 ohms; min imp 6 ohms. 4-position tweeter attenuation from flat to -9 dB in 3-dB steps. 23.75" w x 27" h x 13" d; 70 lb ......\$499 ea

#### Sentry 100A Monitor Speaker

Compact monitor with Super Dome tweeter and 8" direct-radiator woofer in an optimally vented enclosure. Features front-mounted high-frequency control; 4th-order Butterworth tuning; utility cabinet with scratch-resistant matte-black vinyl; steel-reinforced grille covered with gray cloth. Designed for rack mounting. FR 1 meter on axis anechoic environment swept 0.33-octave pink noise  $\pm$  3 dB 45-18,000 Hz; crossover frequency 2,000 Hz; long-term average power handling above 40 Hz 300 W; short-term 10-ms power handling above 40 Hz 300 W; short-term 10-ms power handling above 40 Hz 300 W; short-term 5255 ea

#### **EMINENT TECHNOLOGY**

#### LFT-III Planar Doublet Speaker

#### ENERGY

#### **Reference** Connoisseur

#### Reference

2-way bass-reflex front-port monitors matched within 0.12 dB left and right. 7" polypropylene cone woofer with PVC-stitched suspension; 1.5" dual hyperdome tweeter; includes stands; lagos walnut or black vinyl. FR 34-20,000 Hz  $\pm$  1.5 dB off axis; sens 89 dB SPL/W/m; imp 8 ohms; power range 20-200 W; 24.62" h x 10.5" w x 12" d; 34 lbs ......\$1,060/pr

#### **Pro Monitor**

2-way bass-reflex mirror-imaged speakers matched 0.5 dB left and right. With stands. 7" polypropylene cone woofer with PVC-stitched suspension; 1.5" dual hyperdome tweeter. Walnut-grain vinyl with black sag-resistant fabric grilles. FR 28-20,000 Hz  $\pm$  1.5 dB off axis; sens 89 dB SPL/W/m; 24.62" x 10.5" x 12" \$800/pr

#### EPI

EPI Time/Energy Series II Speakers All EPI Time/Energy Series II speakers have 2-

PRICES LISTED are manufacturers' suggested retail prices (also referred to as *list* prices); actual selling prices are set by individual dealers. All prices are subject to change without notice. layer bass and midrange speaker cones and treble speaker domes. Stiff plastic layer resists flexing. Other damping layer controls resonances. Ferrofluid-cooled treble voice coils.

#### T/E 320 Series II 3-Way Speaker

### T/E 280 Series II 2-Way Speaker

#### T/E 250 Series II 3-Way Speaker

#### T/E 120 Series II 2-Way Speaker

Bookshelf speaker with 10" woofer, 1" tweeter. Features dark-oak-grain vinyl-veneered cabinet and brown grille cloth. FR 38-20,000 Hz  $\pm$  3 dB; crossover at 1,800 Hz; power range 15-100 W; imp 8 ohms. 25.5" h x 15.5" w x 8.25" d\$320/pr

#### T/E 100 Series II 2-Way Speaker

Bookshelf speaker with 8" woofer, 1" tweeter. Features dark-oak-grain vinyl-veneered cabinet



and brown grille cloth. FR 40-20,000 Hz  $\pm 3$  dB; crossover at 1,800 Hz; power range 15-100 W; imp 8 ohms. 21" h x 13" w x 7" d  $\dots$  \$260/pr

#### T/E 70 Series II 2-Way Speaker

Bookshelf speaker with 6" woofer, 1" tweeter. Features dark-oak-grain vinyl-veneered cabinet and brown grille cloth. FR 55-20,000 Hz  $\pm$  3 dB; crossover at 1,800 Hz; power range 15-90 W; imp 8 ohms. 17.5" h x 10.5" w x 5.75" D... \$200/pr

#### EPI Time/Energy Monitor Speakers

Time/Energy Monitor speakers combine elements of Time/Energy speaker technology with design concepts of pro monitor speakers for many performance benefits of T/E Series II speakers.

#### T/E Monitor 2 Three-Way Speaker

T/E Monitor 1 Three-Way Speaker Floor-standing speaker with 10" woofer, 6" cone

150 STEREO BUYERS' GUIDE 1988

midrange, and 4.5" x 2.75" horn tweeter. Features black-ash woodgrain vinyl-veneered cabinet with black grille cloth and tweeter output level control. Crossovers at 500 and 5,000 Hz; power range 10-250 W; imp 6 ohms. 30.5" h x 12" w x 9" d ..... \$440/pr

#### TE Mini Monitor Two-Way Speaker

Floor-standing speaker with 10" woofer and 4.5" x 2.75" horn tweeter. Black ash grille cloth. Crossover at 4500 Hz; power range 10-150 W; imp 8 ohms. 24.75" h x 11.75" w x 11.12± d ..... \$360/pr

#### Magnus Series Speakers

#### EPI Magnus A24 3-Way Speaker

Floor-standing speaker with two 12" woofers, 6" mid-bass driver, and CDH tweeter. Features constant-dispersion horn tweeters; dual level controls; closed frame. Crossovers at 500 and 4,000 Hz; power range 10-350 W peak; nominal impedance 4 ohms. Walnut-grain vinyl-veneered cabinet and brown grille cloth; 10.5" high x 17" wide x 10.88" deep ..... \$700/pr

#### EPI Magnus A12 3-Way Speaker

Bookshelf speaker with 12" woofer, 6" mid/bass driver, and CDH tweeter. Crossovers 500 and 4,000 Hz; power range 10-300 W peak; imp 4 ohms; walnut-grain vinyl-veneered cabinet and brown grille cloth; 25.88" h x 15.36" w x 11.5" d ..... \$500/pr

#### EPI Magnus A11 3-Way Speaker

Bookshelf speaker with 10" woofer, 6" mid-bass driver, and CDH tweeter. Crossover 500 and 4,000 Hz; power range 10-220 W peak; imp 4 ohms; walnut-grain vinyl-veneered cabinet and brown grille cloth; 22.88" h x 12.88" w x 11.5" d ..... \$400/pr

#### EPI Magnus A10 2-Way Speaker

Bookshelf speaker with 10" woofer and CDH tweeter. Crossover 4,000 Hz; power range 10-200 W peak; imp 4 ohms; walnut-grain vinyl-veneered cabinet and brown grille cloth; 22.88" h x 12.88" w x 11.5" d ..... \$320/pr

#### **EPOS by MUSIC HALL**

#### ES 14 Sneaker

8" custom-made woofer; aluminum tweeters; black ash or walnut veneer. 19.5" x 8" x 11.5" ..... \$900

#### ESM by ENERGY

#### ESM-2 Bass-Reflex Speaker

Mirror-imaged pair with 8" woofer; 1" ferrofluid dome tweeter; phase-corrected crossover at 2,000 Hz; walnut or black ash vinyl; black grilles. FR 40-22,000 Hz ± 3 dB; sens 86 dB SPL/W/m; recommended power range from 12-100 W; nominal impedance 8 ohms, minimum impedance4 ohms; 23" x 11" x 11"; 24 lb each ...... \$350/pr ESM-3. Similar to ESM-2 except FR 45-22,000 Hz; power range 10-80 W; 20" x 10" x 9"; 20 lb each ..... \$250/pr

#### ESS

#### AMT Series

#### **AMT-Monitor Speaker**

Floor-standing passive radiator speaker with 21.5" x 21.5" Heil air motion transformer with mylar articulated diaphragm. Features 12" cone passive rad; 12" cone woofer. FR 35-23,000 Hz ± 3 dB; minimum power 35 W rms, max power 400 W rms; sens 91 dB sPL/W/m; imp 6 ohms; oiled walnut finish; 18.5" x 41" x 12". \$1,299/pr

#### AMT 1D Speaker

Floor-standing passive-radiator 2-way speaker with 12" polypropylene woofer, 12" passive radi-ator. Features 21.5" x 21.5" Heil air motion transformer with mylar articulated diaphragm; midrange presence, brilliance controls; oiled-walnut finish; black-brown grille. FR 35-23,000 Hz ± 3 dB; crossover 800 Hz; max power 400 W; imp 6 ohms; horizontal/vertical dispersion 120°/30° sens 91 dB SPL/W/m; 35.25" h x 16.25" w x 16.25" d; 85 lb ..... \$1,199/pr

#### AMT II Speaker

Floor-standing passive-radiator 2-way speaker with 10" fiber cone woofer, 10" passive radiator. Features 21.5" x 21.5" Heil air motion transformer with mylar articulated diaphragm; midrange, presence, brilliance controls; oiled-walnut finish; black-brown grille. FR 38-23,000 Hz ± 3 dB; crossover 900 Hz; max power 160 W music; imp 6 ohms; horizontal/vertical dispersion 120°/30°; sens 91 dB SPL/W/m/; 33.75" h x 15.5" w x 15.5" d; 65 lb ..... \$899/pr

#### Mini Monitor 620 Speaker

2-way mini Bookshelf speaker. Features dynamic 5.25" long excursion woofer; 1.25" dome shape tweeter; 5" passive radiator. FR 60-20,000 Hz  $\pm 4$ dB; power range 10-60 W; sens 87 dB SPL/W/m; imp 8 ohms; oiled walnut veneer finish; 7" w x 12" h x 7.5" d; 16.5 lb/pr ..... \$158/pr

#### High-Dynamic-Range Speakers

#### HD-312 Speaker

Floor-standing bass reflex speaker with 12" woofer, 3" x 7" horn midrange, and 2.4" horn tweeter. FR 38-20,000 Hz ± 3 dB; min power 10 W rms, max power 110 W rms; sens 95 dB SPL W/m: imp 4 ohms; walnut or grain vinyl; 42.5 lb; 14.5" w x 25" h x 12" d ..... \$399

#### HD-310 Speaker

Floor-standing bass reflex speaker with 10" woofer, 3" x 7" horn midrange, and 2.4" horn tweeter. FR 45-20,000 Hz  $\pm$  3 dB; minimum power 10 W rms, max power 65 W rms; sens 95 dB sPL/W/m; imp 4 ohms; walnut or grain vinyl finish; 35.5 lb; 12.25" w x 22" h x 12" d ..... \$339/pr

#### HD-210 Speaker

Floor-standing bass reflex speaker with 10" woofer, 2.4" horn tweeter. FR 45-20,000 Hz  $\pm$  3 dB; minimum power 10 W rms, max power 65 W rms; sens 95 dB SPL/W/m; imp 4 ohms; walnut or vinyl; 12.25" w x 22" g x 12" d .... \$279/pr

#### **Performance Series**

#### **PS-1220 Floor-Standing Speaker**

Floor-standing passive-radiator speaker with 12" woofer, Heil air-motion transformer tweeter with 10.4" x 10.4" radiating area, dynamic 4" midrange with hi-temp voice coil. FR 28-23,000 Hz ± 1 dB at midband; sens 93 dB SPL/W/m; imp 4 ohm; power range 10-200 W; solid walnut finish ..... \$429/pr

#### **PS-1020 Floor Standing Speaker**

Floor standing passive radiator speaker with 12" woofer, Heil air-motion transformer tweeter-midrange. 10.4" x 10.4" radiating area; FR 28-23,000 Hz ± 1 dB at midband; sens 93 dB SPL W/m; imp 4 ohm; power range 10-150 W; solid walnut finish ..... \$369/pr

#### **PS-920 Bookshelf Speaker**

Passive-radiator speaker with 8" woofer, Heil airmotion transformer tweeter-midrange with 10.4" x 10.4" radiating area. FR 38-23,000 Hz ± 1 dB at midband; sensitivity 91 dB SPL/W/m; impedance 4 ohm; power range 5-100 W; solid walnut finish ..... \$319/pr

#### PS-820 Bookshelf Speaker

Passive radiator speaker with 6" woofer, Heil Air-motion transformer tweeter-midrange with 10.4" x 10.4" radiating area. FR 42-23,000 Hz ± 1 dB; sens 89 dB SPL/W/m; imp 4 ohm; power range 5-125 W; solid walnut finish .... \$259/pr

#### **EUPHONIC AUDIO**

#### Precept Model A 3 Way Speaker

Floor standing speaker with 2 polymer-cone midranges, 1" fiberglass inverted-dome tweeter, 10" coated paper cone woofer. Internally wired with Monster Cable, FR 35-18,500 Hz ± 2 dB; sens 91 dB @ 2.83 V rms; min imp 4 ohms; 39" h x 13" w x 13" d; 65 lb/ea ..... \$2,200/pr

#### Precept Model B 3 Way Speaker

Floor standing speaker with 1 8" polypropylene woofer, 4.5" TPX cone midrange, 0.75" treated linen dome tweeter. FR 36-19,000 Hz  $\pm$  2.5 dB; sens 91 dB @ 2.83 V rms; min imp 4 ohms; 36" h x 11.5" w x 11.5" d; 53 lb/ea .....\$1,550

#### FISHER

STV-440 3-Way Speaker Features 15" woofer; 5" ferrofluid midrange; 3" ferrofluid tweeter; magnetic field compensated;



150 W rms max. 17.8" w x 38.6" h x 12.8" d; oak vinyl veneer finish ..... \$600/pr

#### STV-430 3-Way Speaker

Features 15" woofer; 4" ferrofluid midrange; 3" ferrofluid tweeter; magnetic field compensated; 100 W rms max. 17.8" w x 36" h x 12.8" d; oak vinyl veneer finish ..... \$400/pr

#### STV-420 3-Way Speaker

Features 12" woofer: 4" ferrofluid midrange: 3" ferrofluid tweeter; magnetic field compensated; 100 W rms max. 14.3" w x 29.7" h x 12.9" d; oak vinyl veneer finish ..... \$300/pr

#### STV-410 3-Way Speaker

Features 10" woofer; 4" midrange; 3" tweeter; magnetic field compensated; 60 W rms max. 12.3" w x 25.7" h x 10.9" d; oak vinyl veneer finish ..... \$200/pr

#### Amplified Speakers

All amplified speakers feature built-in amplifiers rated to deliver 30 W/ch into 8 ohms with no more than 0.1% THD; 3-way bass-reflex design (except STA-226, 2-way); 8" woofers; 4" midranges; 3" tweeters; magnetic field compensation; RCA line input jacks.

STA-226. (2-way) 8" woofer, 3" tweeter ... 400 STA-341. Matches height of Fisher 25" PC series . \$400 STA-361. Matches height of Fisher 26" PC series TV's ..... \$400

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τv	s	•	•			•			•		•	•	•		• •							• •										\$400	

#### TV/Audio Speakers

All speakers feature 8" woofer; 4" midrange; 3" tweeter; magnetic field compensation for placement near a TV or video monitor. Max power 50 W rms

*rms.* 

 STV-380. 10.2" w x 25.6" h x 11" d... \$220/pr

 STV-340. 10.2" w x 23.4" h x 11" d... \$200/pr

 STV-013. 10.2" w x 24" h x 11" d... \$200/pr

 STV-012A. 11" w x 19" h x 11" d... \$200

#### FOCUS SPEAKER SYSTEMS

#### **High-Definition Tower Speaker**

2-way staggered-transmission-line speaker with 3 phase-aligned drivers; 1.25" inverted Kevlar dome tweeter with 3-lb magnet; 2 8"-mm woofers; lead-lined cabinet; cabinet made of 14-layer epoxy-pulp sleeve; internal bracing; rounded baffle; subenclosure for tweeter; solid oak bases, tops, side rails; 1st-order crossover at 1,000 Hz; crossover components matched to better than 1% tolerances; adjustable and removeable spiking system. FR 35-20,000  $\pm$  2 dB; group delay better than ± 0.02 msec; nominal imp 4 ohms, min imp 3.2 ohms; sens 92 dB SPL/W/m; power range 30-200 W/ch; 14" w x 64" h x 16.5" d; 115 lb\$2,950/pr

### .7 High-Definition Monitor Speaker

2-way computer-matched time-aligned speaker with Pox Pulp internally braced cabinet; 8" woofer; 1" dome tweeter; contoured port; hardwired crossovers. FR 37-19,000 Hz ± 2 dB; nominal imp 8 ohms, min imp 4.8 ohms; power range 30-150 W/ch; sens 90 dB SPL/W/m; 12" w x 28" h x 12" d; 37 lb..... \$995/pr Matching Stands ..... \$195/pr

#### .5 High-Definition Monitor Speaker

Bookshelf speaker with Pox Pulp cabinet; 8" woofer; 1" dome tweeter. FR 45-20,000 Hz ± 3 dB; nominal imp 8 ohms, min imp 4.8 ohms; b; nominal hip 6 onns, hin hip 4.5 onns, power range 30-150 W/ch; sens 90 dB SPL/W/ m; 12" w x 19" h x 12" d; 27 lb ..... \$750/pr

#### FOSTEX

#### RP2001 4-Way Planar/Cone Speaker

Sealed bass enclosure for cone woofer; mid-bass planar driver handles 200-1,000 Hz; dipole midrange handles 1k-7k; 12.5-mm-wide supertweeter with samarium-cobalt magnet. FR 30-45,000 Hz; sens 90 dB SPL/W/m; imp 8 ohms .. \$3,300/pr RP2001R. In rosewood......\$3.500/pr

#### **RP1001 3-Way Planar/Cone Speaker**

Vented box with cone woofer; planar midrange
and supertweeter. FR 40-45,000 Hz; sens 90 dB
SPL/W/m; imp 8 ohms \$1,990/pr
<b>RP1001R</b> . In rosewood

#### **RP60** Coaxial Bass-Reflex Speaker

Regulated Phase tweeter mounted in front of 6.5" woofer in vented box; 2 voice coil/magnet assembly; double spider. Frequency response 70-20,000 Hz ...... \$598/pr RP80. Similar to RP60 except 8" woofer\$738/pr

#### **FRIED PRODUCTS**

#### G/3 3-Way Speaker

Floor-standing transmission-line speaker with series crossover networks and duocone drivers. Features full-free-flow transmission-line loading of midrange and aperiodic-design principles for linearity and dynamic, range. 10" polypropylene duocone woofer; 6.5" midrange; 0.75" dome tweeter. FR 23-22,000 Hz  $\pm$  3 dB; power range 10-200 watts averaged root mean square; sensitivity 91 decibels SPL/W/m; impedance 8 ohms. Walnut and oak finishes. 16" wide x 44" high x 18" deep; weight 100 lb ..... \$2,200/pr

Studio IV 3-Way Speaker "Flow-resistance" floor-standing speaker with duocone drivers and series networks. Features 8" duocone woofer; 2" duocone midrange; 1.75" dome tweeter. FR 26-22,000 Hz ± 3 dB; power range 10-1,000 W; sens 91 dB sPL/W/m; imp 8 ohms. Walnut finish. 12" w x 39" h x 18" d; 75 lb ..... \$1,230/pr

#### C/3-L 2-Way Speaker

Full-transmission-line-loaded speaker for use alone or as a satellite. Features 6.5" duocone woofer; 0.75" dome tweeter; series networks; pyramid shape. FR 60-22,000 Hz ± 3 dB; power range 10-250 W rms; sensitivity 91 dB spL/W/m; nominal impedance 8 ohms. 10.5" wide x 13.5" high x 15.5" deep; 20 lb .... \$950/pr assembled C/3-L Kit. As above except as a kit to put together ..... \$430/pr

#### Model O/3 Subwoofer Kit

Mirror-image dual-channel subwoofer kit with transmission-line design and 10" woofer. Normal input for use with Fried satellite speakers, biamp input for use with other satellites. Response within 3 dB at 20 Hz; power range 25-200 W; fuse protected. 31" h x 24.5" w x 13.5" d . . \$700/pr Model SM/3. Similar to Model O12 except 12" woofer and max power 400 W. 38" h x 29.5" w x 15" d. Kit ..... \$800/pr

A/3 2-Way Speaker Features 8" polypropylene woofer; 1" soft-dome tweeter; edge-on free-flow filters; line tunnel. FR 45-20,000 Hz ± 3 dB; power range 25-100 W; imp 8 ohms; crossover frequency from woofer to tweeter at 2,000 Hz; sensitivity 89 dB sPL/W/m. 23" h x 13" w x 10.5" d ..... \$635/pr

### Q/3 2-Way Speaker

Features 8" polypropylene woofer; dome tweeter; edge-on free-flow filters; circuit-breaker protection. FR 45-20,000 Hz; power range 20-100 W. 20" h x 13" w x 10.5" d ..... \$440/pr

#### Beta Full-Range Speaker

Full-range speaker of mini-monitor proportions with polypropylene cones, linear crossovers. Features 6.5" polypropylene woofer; composite tweeter with 2" cone and 0.62" dome; series filter crossover; distributed bass-loading free-flow filter system. Walnut or black-ash finish. 13.5" h x 8" w x 8" d ..... \$325/pr

#### Duo Subwoofer

"Flow-resistance" floor-standing subwoofer with dual-voice-coil polypropylene driver. Features 10" cone woofer. FR 30-100 Hz ± 3 dB; power range 20-200 W; sens 90 dB sPL/W/m; imp 8 ohms. Walnut or black-ash finish .....\$330 ea

#### **GENESIS**

#### Genesis 66/2 Floor Standing Speaker

3-way floor-standing speaker with ferrofluid cooled 1" inverted aluminum dome tweeter, 3" treated fabric dome midrange in tuned sub-enclosure, 2 8" magnesium silicate filled polypropylene cone woofers, 4th-order tuned port. FR 28-25,000 Hz ± 3 dB; sens 92.5 dB W/m; power range 30-350 W; imp 4 ohms; oak veneer; 44" h x 18" w 12" d; 81 lb ..... \$1,800/pr

Genesis 44/2 2 Way Speaker 2 way design with 10" tuned passive radiator. Woofer and tweeter same as 66/2 (above). FR 34-25,000 Hz ± 3 dB; sens 91 dB W/m; imp 5 ohms average; recommended power 15 W min, 150 W max; oak veneer; 32.5" h x 18" w x 9" d; 42 lb ..... \$800/pr

### Genesis 33/2 2 Way Speaker

2 way speaker with 10" tuned passive radiator. Woofer and tweeter same as 66/2. FR 39-25,000 Hz ± 3 dB; sens 91 dB W/m; recommended power 15 W min, 150 W max; imp 5 ohms average; oak veneer; 29 " h x 16" w x 8" d; 31 lb\$650/pr vinvl finish ..... \$550/pr

#### Genesis 22/2 2 Way Speaker

Rear mounted 10" passive radiator. Woofer and tweeter same as 66/2. FR 46-25,000 Hz  $\pm$  3 dB; sens 91 dB W/m; recommended power 15 W min, 150 W max; imp 5 ohms average; oak ve-neer; 23.5" h x 14" w x 7.6" d; 28 lb . \$500/pr vinyl finish ..... \$440/pr

#### Genesis 11/2 Bookshelf Speaker

2 way acoustic suspension speaker. Woofer and tweeter same as 66/2. FR 50-25,000 Hz ±3 dB; sens 90 dB W/m; imp 5 ohms average; recom-mended power 15 W min, 150 W max; 19 " h x 12.25" w x 7.5" d ..... \$330/pr

#### Genesis 7 Bookshelf Speaker

2-way tuned-port speaker with 0.8" polycarbonate dome tweeter; 6.5" polymer/fibre woofer; FR 60-20,000 Hz  $\pm$  3 dB; sens 90 dB W/m; recommended power 10 W min, 60 W max; imp 6 ohms average; 16" h x 11.75" w x 5" d ..... \$200/pr

#### **GNP LOUDSPEAKERS**

#### Valkyrie II Acoustic-Suspension Speaker

Floor-standing speaker with midrange lead-suspension system for better isolation and all polypropylene drivers. Features 2 6.5" cone woofers: 3" dome midrange; 6.5" cone midrange; 1" dome tweeter. FR 32-21,000 Hz ± 3 dB; min power 25 W rms: max power 200 W rms; sensitivity 90 dB SPL/W/m; impedance 8 ohms. Walnut, stainedoak or black satin finish. 12" wide x 46" high x 15" deep; 188 lb.....\$1,895/pr

#### System 220 Acoustic-Suspension Speaker

Floor-standing speaker with minimum-diffraction/phase-coherent separate satellite woofer and all polypropylene drivers. Features 2 6.5" cone woofers; 3" dome midrange; 6.5" cone midrange; 1" dome tweeter. FR 34-21,000 Hz ±3 dB; min power 25 W rms; max power 200 W rms; sens 90 dB SPL/W/m; imp 8 ohms. Walnut, stained-oak or black satin finish. 12" w x 42" h x 15" d; 138 lb ..... \$1,149/pr

#### System 110 Acoustic-Suspension Speaker

Floor-standing speaker with minimum-diffraction/phase coherent-separate satellite woofer and all polypropylene drivers. Features 8" cone woofer; 6.5" cone midrange; 1" dome tweeter. FR 44-21,000 Hz ± 3 dB; min power 25 W rms; max power 150 W rms; sens 90 dB SPL/W/m; imp 8 ohms. Walnut, stained-oak or black satin finish. 12" w x 37" h x 12" d; 102 lb ..... \$749/pr

#### Model 20 Acoustic-Suspension Speaker

Bookshelf satellite minimum-diffraction/phasecoherent speaker can be used with or without woofer. Features 6.5" cone woofer; 3" dome midrange; 1" dome tweeter. FR 59-21,000 Hz ±3 dB; min power 25 W rms; max power 150 W rms; sens 90 dB sPL/W/m; imp 8 ohms. Walnut, stained-oak or black satin finish. 9" w x 17" h x 9" d; 22 lb ..... \$599/pr

#### Model 10 Acoustic-Suspension Speaker

Bookshelf satellite minimum-diffraction/phasecoherent speaker can be used with or without woofer. Features 6.5" cone woofer/midrange; 1" dome tweeter. FR 68-21,000 Hz ± 3 dB; minimum power 25 W rms; max power 100 W averaged root mean square; sensitivity 90 dB SPL/W/m; imp 8 ohms. Walnut, stained oak or black satin finish. 8" wide x 12" high x 7" deep; 15 lb\$350/pr

#### **REUBEN GUSS ENTERPRISES**

#### **Custom Monitor Speaker System**

#### System 1: Guss Monitor Speaker System

Floor-standing speaker system with 102 drivers in 4 enclosures. Features 12 15" cone woofers; 24 5" dome dual-diaphragm midranges; 16 1" dome tweeters; 50 custom piezo-electric supertweeters. Controls include midrange; tweeter; rear ambience; satellite. FR 25-25,000 Hz  $\pm$  3 dB; power range 30-600 W; sens 92 dB sPL/W/m; imp 6 ohms; walnut oak; 36" w x 73" h x 21" dj; 375 lb, 50,000/system

#### System 2: Symphony Speaker System

#### System 3: Concerto Speaker System

#### System 4: Sonata Speaker System

#### HARTLEY PRODUCTS

#### The Reference

Floor-standing 4-way speaker with 24" superwoofer, 10" midrange, two 7" tweeters. Crossovers 250, 3,000, 7,000 Hz; FR 16-25,000 Hz; power range 25-300 W; impedance 5-8 ohms; wood cabinet with removable knit grille; 50.25" h x 36" w x 24" d......\$4,995/pr

#### The Concertmaster

Floor-standing 4-way speaker with 18" woofer, 10" midrange, two 7" tweeters. Crossovers at 250, 3,000, 7,000 Hz; FR 16-25,000 Hz; power range 25-300 W; impedance 5-8 ohms; wood cabi-

The listings are based on data provided by the manufacturers. For more product information, contact an authorized dealer or the manufacturer directly. Manufacturers' addresses and phone numbers are listed in the directory beginning on page 226. net with removable black grille; 41.5" high x 29" wide x 18" deep ...... \$3,850/pr

#### H Series

All cabinets in the H Series have hand-rubbed walnut veneers and black knit grilles.

#### H-100 Speaker

#### H-200 Speaker

#### H-300 Speaker

Aligned air-column speakers with two 10" longthrow woofers with 1.5" high-temperature voice coil, chemically treated cone assembly, 4 1.5" aircolumn midranges, two 1" mylar dome tweeters. FR 30-25,000 Hz  $\pm$  3 dB; power range 5-150 W rms; imp 4 ohms; crossover 3,400 Hz; 43" h x 15" w x 15" d ......\$1,000/pr

#### SPL-1 System

Includes 2 SW-10 bass modules, ST-4 phasor arrays, tilt stands for SW-10, aluminum adjustable stands for ST-4, mounting screws, stereo crossover, Allen key. All parts have hand-rubbed walnut veneers; black knit grilles. Frequency response 25-25,000 Hz  $\pm$  3 dB.

SW-10. Aligned air-column subwoofer with 10" woofer with 1" high-temperature dual voice coil, polymer cone, magnetic suspension, EFM magnet; 3" polymer cone midrange, magnetic suspension, with two 3" air columns; imp 6 ohms; power range 15-100 W rms.

ST-4. Polar-aligned phasor with phasor-array supertweeter; imp 8 ohms; power range 15-150 W rms; 12" h x 5" w x 5" d ...... \$1,700/system

#### **HECO OF AMERICA**

#### SAT 6000 Bookshelf Speaker

#### D6300 2-Way Speaker

Bookshelf acoustic-suspension speaker with 4.12" cone woofer and 1" metal-dome tweeter. FR 80-3,200 Hz ± 3 dB; max power 50 W rms; sens 87 dB spL/W/m; crossover point at 2,000 Hz with 12 dB/octave slope. Black metallic finish. 8.12" w 4.5" h x 4.75" d; 7.25 lb ..... \$280/pr

#### Subwoofers

#### Sub 6000 Compact Subwoofer

Floor-standing subwoofer with auto or manual turn on/off. Driven by 90-W amp and includes two 60-W amps to drive satellite speakers. Features 10" cone woofer; adjustable input sensitivity and bass level. FR 25-120 Hz  $\pm$  3 dB; maximum power 90 W rms; sensitivity 90 dB SPL/W/m; crossover slopes 24 dB/octave for subwoofer, 12 dB/octave for mids and highs fixed at 120 Hz. Black metallic finish. 11" wide x 11" high x 12" deep; 22 pounds each ..... \$665 ea

#### Sub 9000 Powered Subwoofer

#### HEYBROOK by D'ASCANIO AUDIO

#### HB-3 3-Way Speaker

#### HB-LC 2-Way Speaker

#### HB-2R 2-Way Speaker

Hand-assembled reflex-tuned bookshelf speaker with 6.5" doped-cone woofer; 1" dome tweeter; 15-element crossover; physical time alignment. FR 40-20,000 Hz  $\pm$  3 dB; imp 8 ohms; power range 15-100 W. Walnut or gloss-black finish. 16.36" h x 9.25" w x 9.25" d; 19 lb ...... \$599/pr

#### HB-1 2-Way Speaker

Hand-assembled acoustic-suspension bookshelf speaker with 8" doped-cone woofer; 1" dome tweeter. Features removable rear panel for biamping FR 42-20,000 Hz  $\pm$  3 dB; imp 8 ohms; power range 10-75 W; sens 89 dB SPL/W/m. Walnut vinyl or gloss-black finish. 18.75" h x 11.5" w x 9.25" d; 19 lb...... \$329/pr

#### Point Five 2-Way Speaker

#### HITACHI

#### HSA4040 3-Way Tower Speaker

#### HSA3050 3-Way Tower Speaker

10" woofer; 3" midrange; 2" tweeter; max power 60 W; detachable grille cloth ...... \$250/pr

#### HSA6120 4-Way Tower Speaker

Bass reflex; 10" cone woofer; max power 120 W; magnetically shielded; 4" midrange; 3" tweeter; 1" ribbon supertweeter; detachable grille cloth ......\$220/pr

#### HSA2028 2-Way Tower Speaker

Bass	reflex;	8″ \	woofer;	2″	tweeter;	max	power 30
W: w	vood ca	abine	et				\$150/pr

#### IMAGE

All Image speakers, both in the Concept and Reference Series, have nominal impedances of 6 ohms, with minimum impedance of 4 ohms, and black grilles.

#### **Concept 200 Ported Speaker**

#### **Concept 100 Ported Speaker**

#### **Reference Two Ported Speaker**

### **Reference One Ported Speaker**

#### **Reference .5 Ported Speaker**

#### INFINITY

### IRS Series V Reference Speaker

Modular 4-piece 3-way floor-standing speaker. Features 2 woofer modules with six 12" woofers in feedback loop of servo amp (2 1,800-W woofer amps); 2 midrange/tweeter modules with 12-dipole midrange drivers; 36 tweeters in dipole linesource array (24 front/12 rear-facing); bass variable low-pass filters; low-pass variable damping; woofer level controls; selectable input imp midrange/tweeter amp control; woofer phase switch; servo bass on/off circuit; Monster Cable wiring for midrange and woofer. FR 16-40,000 Hz ± 2 dB; crossovers 70 Hz nominal, 60-120 Hz at main control unit woofer/midrange, 5 kHz midrange/ tweeter; midrange/tweeter amp input range 100-500 W/ch; oiled and "Grand Piano" Indian rosewood finish; 100-ft cable for hookup of midrange/tweeter to midrange/tweeter amp. Woofer modules: 7' 6" h x 18" square; midrange/tweeter modules 7' 6" h x 40" w (with hollow and sandfilled curved wing sections) .... \$45,000/system

#### **IRS** Series

#### IRS Beta Speaker

#### Kappa Series

#### 9 Kappa Reference Standard Speaker

5-way design features 2 12" cast-frame L/Ctuned woofers; SEMIT K supertweeter; rear-firing

EMIT K tweeter; 3" polydome rear radiator; polygraph K composite polypropylene/graphite 5" mid-bass dome; 3" edge-wound polydome K midrange; internal crossovers; biampable; oak solids and veneer with high-density particle board with furniture-grade lacquer finish. FR 29-45,000 Hz ± 3 dB; crossover frequencies 80, 800, and 4,500 Hz; power rating 60-340 W/rms; sensitivity 89 dB spL/W/m; impedance 4-6 ohms. 59.5" high x out supertweeter, rear-firing tweeter and radiator, and 1 woofer. FR 33 Hz-45,000 Hz ± 3 dB; power rating 50-250 W/rms; sens 89 dB sPL/W/m; imp 4-6 ohms. 47.5" h x 20.5" w x 8" d . . \$1,898/pr 7 Kappa. 3-way design similar to 8 Kappa with 12" woofer, 3" polydome K midrange, and EMIT K tweeter. Power rating 40-200 w/rms; FR 37 Hz-45,000 Hz. 37" h x 17" w x 12" d \$1,318/pr 6 Kappa. 3-way design similar to 7 Kappa except the woofer is 10". Power rating 30-150 w rms; Frequency response 39 Hz-45,000 Hz. 25" h x 15" w x 10.5" d ..... \$998/pr

#### SM Speaker Series

#### SM 150 3-Way Speaker

Floor-standing bass-reflex speaker with 15" cone woofer, 2 4.5" midranges, and 1" polycell dome tweeter. FR 29-27,000 Hz ± 3 dB; min power 10 W/rms, max power 300 W/rms; sens 101 dB SPL/W/m; imp 8 ohms; rosewood vinyl; 19" w x 39.5" h x 12.5" d......\$1,118/pr

#### SM 120 3-Way Speaker

#### SM 100 2-Way Speaker

#### **RS** Speaker Series

### RS 6000 3-Way Speaker

Features 2 10" cone woofers, 2" dome midrange, EMIT planar tweeter. FR 41-44,000 Hz  $\pm$  3 dB; sens 89 dB SPL/W/m; min power 35 W rms; max power 200 W averaged root mean square. 15" wide x 37" high x 10" deep ...... \$850/pr



Infinity IRS Beta

#### RS 5000 3-Way Speaker

Acoustic-suspension speaker with 10" cone woofer, 3.5" cone midrange, and EMIT planar tweeter. FR 42-32,000 Hz ± 3 dB; min power 20 W rms, max power 135 W rms; sens 89 dB SPL/W/m; imp 6 ohms; oak vinyl; 15" w x 24" h x 10.25" d ...... \$590/pr

#### RS 4000 3-Way Speaker

### RS 3000 2- Way Speaker

Bookshelf acoustic-suspension speaker with 8" cone woofer and 1" polycell dome tweeter. FR 45-22,000 Hz  $\pm$  3 dB; min power 20 W rms; max power 100 W rms; sens 89 dB SPL/W/m; imp 6 ohms; oak vinyl; 12" w x 20.75" h x 10.25" d ...... \$310/pr

#### RS 2000 2-Way Speaker

Bookshelf acoustic-suspension speaker with 6.5" cone woofer and 35 mm polycell dome tweeter. FR 57-22,000 Hz ± 3 dB; min power 15 W rms; max power 75 W rms; sens 89 dB SPL/W/m; imp 6 ohms; oak vinyl; 8.8" w x 14.25" h x 7.75" d ...... \$200/pr

#### RS 1000 2-Way Speaker

Bookshelf acoustic-suspension speaker 4.5" cone woofer and 35 mm polycell dome tweeter. FR 72-22,000 Hz  $\pm$  3 dB; min power 8 W rms; max power 50 W rms; sens 89 dB SPL/W/m; imp 6 ohms; oak vinyl; 7.5" w x 12.75" h x 6.75" d . \$146/pr

#### JAMO

#### **Digital Monitor Series**

All Jamo Digital Monitor speakers feature Jamo's Center Bass Reflex technology for increased sound pressure at low frequencies and decreased sound coloration, phased-aligned drivers, anthracite finish, and detachable grilles.

Digital 200. 3-way speaker with 10" woofer, 5" midrange, and 1" dome tweeter. Features treble and midrange sound pressure control; treble overload diode. Peak power 300 W; continuous power 200 W; sens 92 dB SPL/W/m; FR 20-24,000 Hz  $\pm$  3 dB; crossover frequencies 540 and 3,800 Hz; imp 8 ohms. 32.25" x 15.75" x 13.75"; 53 lb . .....\$1,198/pr Digital 120. 3-way speaker with 8" woofer, 4" midrange, and 1" dome tweeter. Features treble sound pressure control; treble overload diode. Peak power 180 W; continuous power 120 W; sens 91.2 dB spL/W/m; FR 30-22,000 Hz  $\pm$  3 dB; crossover frequencies 890 and 4,900 Hz; imp 8 ohms. 27.5" x 13.75" x 11.75"; 37.5 lb. \$798/pr Digital 90. 3-way speaker with 6.5" woofer, 4" midrange, and 1" dome tweeter. Features treble sound pressure control; treble overload diode. Peak power 130 W; continuous power 90 W; sens 90 dB spl/W/m; FR 35-20,000 Hz ± 3 dB; crossover frequencies 960 and 5,000 Hz; imp 8 ohms. 23.5" x 11.75" x 9.75"; 24 lb . . . . .. \$598/pr Digital 70. 3-way speaker with 5.5" woofer, 3" midrange, and 1" dome tweeter. Features treble overload diode. Peak power 100 W; continuous power 70 W; sensitivity 89 dB spL/W/m; FR 40-20,000 Hz ±3 dB; crossover frequencies 1,200 and 4,600 Hz; impedance 8 ohms. 19" x 9.5" x 6"; 

#### Professional Series

All Jamo Professional Series 3-way speakers are bass reflex and incorporate Jamo's proprietary Controlled Dispersion treble array of multiple horn-mounted tweeters. All Professional Series speakers feature XLR connection sockets and

screwed terminals for large cables; removable wiremesh grilles; black finish; reinforced corners, and a self-locking fixture for easy stacking.

Professional 400. Features 15" woofer; 5" horn midrange; 5 1" horn tweeters. Peak power 560 W; continuous power 400 W; sens 95 dB sPL/W/m; FR 25-20,000 Hz ± 3 dB; crossover frequencies 900 and 4,000 Hz; imp 8 ohms; max sound pressure 121 dB. 35.5" x 20.5" x 16.75"; 92.6 lb1,800/ pr

#### Compact Line Series

C120. Bookshelf 3-way bass-reflex speaker with 8" dual-magnet woofer, 5" midrange, and 1" dome tweeter. FR 38-20,000 Hz  $\pm 3$  dB; peak power 140 W; continuous power 120 W; sens 92 dB spL/W/m; crossover frequencies 1,200 and 5,000 Hz; imp 8 ohms. Black or white finish. 16.5" x 10.25" x 8.75"; 14.3 lb ..... \$320/pr C90. Bookshelf 3-way bass-reflex speaker with 8" cone woofer, 3.25" cone midrange, and 1" dome tweeter. FR 40-20,000 Hz ± 3 dB; peak power 120 W; continuous power 90 W; sens 91.6 dB spL/W/ m; crossover frequencies 1,200 and 4,000 Hz; imp 8 ohms. Black or white finish. 14.5" x 9" x 8.75"; 11 lb ..... \$240/pr C70. Bookshelf 2-way bass-reflex speaker with 6.5" woofer and 1" dome tweeter. FR 45-20,000 Hz ± 3 dB; peak power 90 W; continuous power 70 W; sens 90 dB SPL/W/m; crossover frequency 2,500 Hz; imp 8 ohms. Black or white finish. 12" x 7.5" x 8.25"; 8.4 lb..... \$190/pr C50. Bookshelf 2-way bass-reflex speaker with 4" cone woofer and 2" cone tweeter. FR 70-20,000 Hz ± 3 dB; peak power 60 W; continuous power 50 W; sens 89 dB SPL/W/m; crossover frequency 2,600 Hz; imp 4 ohms. Black finish. 6.5" x 4" x 6.75"; 2.9 lb ..... \$160/pr

#### JBL

LT Series

#### L100T 3-Way Speaker

Floor-standing speaker with 12" aquaplas-laminate woofer, 5" high-polymer-laminate midranger, and 1" pure-titanium-diaphram tweeter. Max power 200 W continuous, 800 W peak; crossovers 800 and 4,500 Hz; sens 91 dB SPL/W/ m. Oiled hardwood veneer. 36.5" h x 16" w x

13.25" d; 70 lb ..... \$1150/pr L80T 3-Way Speaker

#### L60T 2-Way Speaker

#### L20T 2-Way Speaker

#### JBL Series

JBL 940 4-Way Speaker

Floor-standing bass-reflex speaker with 1" titanium-laminate dome tweeter, 10" x 8" high-polymer-laminate cone woofers, and 5" high-polymer-

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laminate cone midrange. FR 34-25,000 Hz ± 3 dB; min power 10 W rms, max power 300 W rms; sens 94 dB spL/W/m; impedance 4 ohms; rosewood vinyl finish. 65 lb; 18.5" wide x 43.75" high x 10.25" deep ..... \$790/pr

### JBL 830 3-Way Speaker

Floor-standing bass-reflex speaker with 2 8" high-polymer-laminate cone woofers, and 1" titanium-laminate dome tweeter. FR 40-25,000 Hz ± 3 dB; minimum power 10 W rms, max power 200 W rms; sens 94 dB spL/W/m; imp 4 ohms; rosewood vinyl finish; 53 lb; 16.75" w x 39.75" h x 8.75" d..... \$590/pr

#### JBL 630 3-Way Speaker

Floor-standing bass-reflex speaker with 2 6.5" high-polymer cone woofers and 1" titanium-laminate dome tweeter. FR 42-25,000 Hz ± 3 dB; min power 10 W rmss, max power 150 W rms; sens 93 dB spl/W/m; imp 4 ohms; rosewood vinyl finish. 40 lb; 15" w x 35.75" h x 8.25" D .... \$450/pr

#### JBL 82 2-Way Speaker

Floor-standing bass-reflex speaker with 8" poly-mer-laminate cone woofer and 1" titanium-laminate dome tweeter. FR 45-25,000 Hz ± 3 dB; min power 10 W rms; max power 125 W rms; sens 90 dB spL/W/m; imp 8 ohms; rosewood vinyl finish. 30 lb; 14" w x 22" h x 8" d ..... \$330/pr

#### JBL 62 2-Way Speaker

Bookshelf bass-reflex speaker with 6.5" high-polymer-laminate cone woofer and 1" dome tweeter. FR 55-25,000 Hz ± 3 dB; min power 10 W rms, max power 100 W rms; sens 89 dB SPL/ W/m; imp 8 ohms; rosewood vinyl finish. 16 lb; 10" w x 16" h x 7" d ..... \$230/pr

Ti Series

#### 250 Ti 4-Way Speaker

Floor-standing speaker with 14" woofer, 8" lower midrange, 5" polypropylene midrange, and 1" titanium-diaphram tweeter. Mirrored-image SFG magnetic structure. Max power 400 W; nominal impedance 8 ohms; crossovers 400, 1,400, and 5,200 Hz; sensitivity 90 dB SPL/W/m. Handoiled Burmese teak finish. 52" high x 22.5" wide x 14.25" deep; weight 126 lb ..... \$3,790/pr

#### 240 Ti 3-Way Speaker

Floor-standing speaker with 14" woofer, polypropelene midrange, and ultra-low-mass pure-titanium-diaphram tweeter. Features SFG magnetic structure. Max power 300 W/ch; nominal imp 8 ohms; crossover 900 Hz, 4,000 Hz; sens 89 dB SPL/W/m. Hand-oiled Burmese teak; 36.62" h x 18" w x 12" d; 85 lb .....\$1,790/pr

#### 120 Ti 3-Way Speaker

Features 12" woofer; polypropylene midrange; ultra-low-mass pure-titanium-diaphram tweeter; SFG magnetic structure. Max power 250 W; nominal imp 8 ohms; crossovers 900 and 4,000 Hz; sens 89 dB SPL/W/m. Hand-oiled Burmese teak; 24.5" h x 14.5" w x 11" d; 54 lb ..... \$1,190/pr

#### 18 Ti 2-Way Speaker

Features 6.5" polypropylene woofer; ultra-lowmass pure-titanium-diaphram tweeter; SFG magnetic structure. Max power 200 W; nominal imp 8 ohms; crossover 3,000 Hz; sens 88 dB spl/W/ m. Hand-oiled Burmese teak; 14.75" h x 9.36" w x 7.19" d; 17.5 lb..... \$590/pr

#### Pro III 2-Way Speaker-Featured on Cover

Audio/video monitor with 1" titanium-dome tweeter, 5" high-polymer mid/low driver, and high-spatial-identification dividing network. Features magnetic shielding; die-cast enclosure material; polypropylene structural foam. Sens 87 dB; max power 100 W rms. 9.5" h x 6.25" w x 5.63" d ......\$240/pr MTC-1 Adaptor. Clamp-on unit that allows Pro III to be mounted on photo tripods, mic stands and other wall or clamp-mount systems. \$35/pr MTC-2 Wall/Ceiling Mount System. Allows Pro III to be mounted on any rigid surface while permitting the speaker to be aimed in almost any di-be clamped onto variety of objects such as shelves, poles, or table tops while permitting range of adjustments. Includes MTC-2...\$65 ea

#### Everest DD55000 3-Wya Speaker

Features constant-directivity design; 15" woofer in vented enclosure; defined-coverage horn-loading midrange; biradial constant-coverage horns; ultra-high-frequency slot-loaded ring radiator; mylar capacitors; aircone inductors; polystyrene and polypropylene bypass capacitors; 3 position switches to vary output levels of compression driver and ring radiator; mid-bass attenuator; high-density compressed wood; Rosewood ve-neer. Power range 40-250 W; imp 8 ohms; sens 100 dB spL/W/m; crossovers 850 and 7,500 Hz. Mirror-image pairs. 55.13" h x 36" w x 20" d .....\$9.900/pr

#### Subwoofers

#### B460 Subwoofer

Bass system consists of JBL Model 2245H 18" driver mounted in vented enclosure of 8 cubic feet. The combination is third-order quasi-Butterworth. Features die-cast aluminum frame; integrally stiffened cone with foam surround; edgewound voice coil with 4" diameter and nearly 1" long; individually machined magnetic pole piece and back plate; cone coated with aquaplas damping formulation for optimum mass and density; large high-flux symmetrical-field-geometry magnetic structure in dirvers to reduce second-harmonic distortion; density-compressed wood enclosure; 1" thick and heavily braced. Min recommended power 200 W; imp 8 ohms; crossovers 63 Hz (external crossover); sens 94 dB; magnetic as-sembly weight 20 lb; 24.81" h x 38.31" w x 24.25" d; shipping weight 125.5 lb ... \$1,700 ea

#### **B-380 Subwoofer**

Bass system with 15" bass driver and 4" ribbonwire voice coil in vented alignment. Features hand-crafted oiled American black walnut veneer cabinet; biamp option with BX63A; max recommended power 600 W; crossover frequency 63 Hz; sens 90 dB; 27.5" x 20.75" x 17" ... \$750 ea

#### **BX63A Dividing-Summing Network**

Electronic dividing-summing network designed

PRICES LISTED are manufacturers' suggested retail prices (also referred to as *list* prices); actual selling prices are set by individual dealers. All prices are subject to change without notice.

to match characteristics of JBL B380 and B460 subwoofers. Features active low-pass filter with crossover frequency continually adjustable from 63 to 125 Hz. Passive high-pass will bridge stereo amp to provide single-ch drive. Provides proper voltage drive for JBL B380 or B460 subwoofers, adjustable imp compensation for different amps. s/N 95 dB; THD 0.01%; max outputs 18 dBV 

#### **JENSEN**

Model 3120 3-Way Speaker Features 12" cone woofer; 5" midrange; 3" tweeter. FR 48-21,000 Hz; max power 150 W peak, 60 W continuous; imp 8 ohms. 29" h x 15.5" w x 10.5" d; 30 lb ..... \$379/pr

#### Model 3100 3-Way Speaker

Features 10" cone woofer; 5" midrange; 3" tweeter. FR 43 Hz-21 kHz; max power 125 W peak, 50 W continuous; imp 8 ohms. 20" h x 13" w x 10.5" d; 24 lb ..... \$299/pr

#### JPW LOUDSPEAKERS

#### **AP3 Infinite-Baffle Speaker**

Features wiring for biamp capabilities; 200-mm doped-paper-cone woofer; 19-mm soft-plastic dome tweeter with Ferrofluid damping. FR 55-20,000 Hz ± 3 dB; min power 10 W rms ; max power 100 W rms; sens 100 dB spl/W/m; imp 8 ohms Available in walnut, black ash, blonde ash or teak finishes. 53.36 lb/pr; 10.25" w x 20.5" h x 11.5" d . . ..... \$499/pr

#### **AP2 Infinite-Baffle Speaker**

Features wiring for biamp capabilities; 200-mm doped-paper-cone woofer; 19-mm soft-plastic dome tweeter with Ferrofluid damping. FR 60-20,000 Hz ± 3 dB; min power 10 W rms; max power 80 W rms; sens 80 dB spl/W/m; imp 8 ohms. Available in walnut, black, blonde ash and teak finishes. 42.32 lb/pr; 10.25" w x 17.25" h x 10.25" d ..... .....\$349/pr

#### P1 Infinite-Baffle Speaker

Floor-standing speaker features 200-mm dopedpaper-cone woofer; 19-mm soft-plastic dome tweeter with Ferrofluid damping. FR 65-20,000 Hz ± 3 dB; min power 10 W rms; max power 70 W rms; sens 90 dB SPL/W/m; imp 8 ohms. Available in walnut and black finishes. 33.5 lb/pr; 10.25" w x 17.25" h x 10.25" d ..... \$299/pr

#### J.S. ENGINEERING (JSE)

#### Infinite Slope Model 1.8 Speaker

Infinite slope phase shift bass loading speaker with patented phase shift. Contains 8" and 10" cone woofers, 6" cone midrange, and 28 mm dome tweeter. FR 35-20,000 Hz ± 3 dB; minimum power 20 W rms, max power 300 W rms; sens 90 dB spl/W/m; imp 8 ohms; oak, walnut, black gloss; 100 lb; 16" w x 38" h x 16" d..\$1,695/pr

#### Infinite Slope Model 1 Loudspeaker

Sealed floor-standing speaker featuring Infinite Slope crossover and patented Phase Shift Bass Loading. Front of speaker angled 15°. Two cone woofers 7", 8"; 28 mm dome tweeter. Available in oak, walnut, black gloss. FR 40-20,000 Hz ± 2 dB; power range 10-150 W; imp 8 ohms; sens 90 dB SPL/W/m; 13" x 29" x 14.5" ..... \$995/pr Model 2. Similar to above except has cone woofers of 12" and 10", with 6.5" cone and 2" dome midranges, 21 mm dome tweeter. Front of speaker angled 8°. FR 25-24,000 Hz ± 2 dB; power range 50-350 W; sensitivity 90 dB sp1/W/m; nominal impedance 8 ohms; 47" high x 18" wide x 16" deep at bottom of enclosure, 11" deep at top; 150 lb ..... \$2,295/pr



# "How Come So Much?"

It's easy to spend a lot of money on speakers. So make sure you get a lot of value and performance in return.

Start with the cabinet. Don't settle for wood grained plastic. Look for *real wood* in a time-honored design.

Then peel back the grille cloth. If you find some ho-hum handful of cheap cones and domes, keep shopping. If you're staring down the throat of a horn and into the eye of a compression driver, you may be on to a speaker worth your money.

Oh, and the listening test. That's the most important. Compare several models with the hottest licks on your favorite CD. You'll know when you've turned on the speakers that deliver *real* dynamic range.

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#### Infinite Slope Model .6 Speaker

Floor-standing ported speaker with infinite slope crossover (100 dB/octave). Features 8" cone woofer; 1" dome tweeter. FR 40-20,000 Hz ± 3 dB; power range 5-150 W; sens 91 dB spL/W/m; imp 8 ohms; walnut, oak, black lacquer finish; 11" w x 23" h x 13" d; 35 lb ...... \$599/pr

#### JVC

#### SX-A3 2-Way Speaker

#### SX-A6 4-Way Speaker

#### SP5WD 3-Way Speaker

Floor-standing 3-way bass-reflex speaker with low-magnetic-leakage design for A/V use. Features 12" woofer; dark walnut finish. Power handling capacity: 120 W/240 W (music); imp 8 ohms ......\$135 ea

#### SP3WD 3-Way Speaker

#### KEF

#### Reference Series

### Model 107 3-Way Speaker

Floor-standing coupled-cavity bass-loading speaker uses 2 woofers operating into resonant chamber vented at top of enclosure to combine sensitivity of bass reflex with accuracy and bassextension of acoustic suspension. Features 2 10" cone woofers; 4" polypropylene-cone midrange; 1" ferrofluid-cooled soft-dome tweeter; pivoting midrange/tweeter head assmebly with individual contoured enclosures for minimum diffraction, reduced off-axis coloration, and optimum stereo imaging; hybrid crossover network with built-in passive crossover and outboard KUBE active bass EQ with controls for contour, damping, and extension. Conjugate load-matched passive crossover presents amp with uniform imp at all frequencies. FR 20-20,000 Hz ± 2 dB; min power 50 W rms; max power 300 W rms; sens 90 dB sp1/ W/m; imp 4 ohms. Walnut, black ash, rosewood. 13" w x 46" h x 17.75" d; 99 ib ......\$3,900 104/2 KUBE. Active bass EQ with controls for contour and extension ..... .... \$200

#### 104/2 3-Way Speaker

Floor-standing speaker with cone woofers vertically aligned, coupled-cavity bass loading technique, chassis-less drivers, conjugate load matching. Two 8" cone woofers, two 4.5" cone midranges and 1" ferrofluid-cooled dome tweeter. FR 55-20,000 Hz  $\pm 2$  dB; power range 25-200 W; sensitivity 92 dB sound-pressure level with input of 1 watt measured at 1 meter; imp 4 ohms; 11" w

x 35.5" h x 16.36" d; 70.5 lb. Walnut or black ash
finish\$1,800/pr
Rosewood finish \$1,850/pr
104/2 KUBE. Active bass EQ with controls for
contour and extension \$200

#### 103/3 3-Way Speaker

Bookshelf coupled-cavity bass-loading speaker with woofer operating into resonant chamber vented at bottom of enclosure to combine sensitivity of bass reflex with accuracy and bass-extension of acoustic suspension. Features 8" cone woofer; 6" polypropylene-cone midrange; 1" ferrofluid-cooled soft-dome tweeter; hybrid crossover network with built-in passive crossover and outboard KUBE active bass EQ with controls for contour and extension. Conjugate load-matched passive crossover presents amp with uniform imp at all frequencies. FR 50-20,000 Hz ± 2 dB; min power 50 W rms; max power 200 W rms; sens 92 dB sPL/W/m; imp 4 ohms. Walnut, black ash, rosewood. Includes feet for shelf mounting. 10.5" w x 22.75" h x 12.5" d; 38 lb ..... \$1,390/pr KS103/3. Optional floor stands for free-standing placement ..... \$109/pr

#### Model 102 2-Way Speaker

Bookshelf closed-box speaker with 6" polypropylene-cone woofer and 1" ferrofluid-cooled softdome tweeter. Features hybrid crossover network with built-in passive crossover and outboard KUBE active bass EQ with controls for contour and extension. Conjugate load-matched passive crossover presents amp with uniform imp at all frequencies. FR 65-20,000 Hz "2 dB; min power 50 W rms; max power 200 W rms; sens 92 dB SPL/W/m; imp 4 ohms. Walnut, black ash, rose wood. 8.25" w x 13" h x 10.5" d; 15 \$790/pr ULS20. Optional floor stands ...... \$125/pr

#### C Series

#### C80 3-Way Speaker

Floor-standing closed-box speaker with conjugate load-matched crossover network that presents amp with uniform imp at all frequencies. Features flat-diaphragm woofer; 6" polypropylenecone midrange; 1" ferrofluid-cooled soft-dome tweeter; matched real-wood walnut, rosewood, or black ash veneers. FR 50-20,000 Hz  $\pm$  3 dB; min power 15 W rms; max power 150 W rms; sens 89 dB sPL/W/m; imp 4 ohms. 10.5" w x 33.5" h x 12.5" d; 44 lb ............\$1,090/pr

#### C60 2-Way Speaker

#### C40 2-Way Speaker

Floor-standing closed-box speaker with 3rd-order bass loading to increase low-frequency extension and power handling. Features two 8" polypropylene-cone woofers; 1" soft-dome tweeter. FR 68-20,000 Hz  $\pm$  3 dB; min power 100 W rms; max power 100 W rms; sens 91 dB SPL/W/m; imp 8 ohms. Simulated black ash and walnut finishes. Cabinet measures 9.75" wide x 25.75" high x

For explanations of abbreviations, specifications, and technical terms, consult the glossary on page 221.

10.5" deep; 21 pounds each	\$490/pr
KS150. Optional stands	. \$79/pr

#### C30 2-Way Speaker

Bookshelf closed-box speaker with 8" polypropylene-cone woofer and 1" soft-dome tweeter. FR 70-20,000 Hz  $\pm$  3 dB; min power 10 W rms; max power 100 W rms; sens 90 dB sPL/W/m; imp 8 ohms. Simulated walnut and black ash finishes. 9/75" w x 20" h x 8.5" d; 16 lb ..... \$350/pr KS280. Optional stands ...... \$89/pr

#### C20 2-Way Speaker

Bookshelf closed-box speaker with 3rd-order bass loading to increase low-frequency extension and power handling. Features 8" polypropylene-cone woofer; 1" soft-dome tweeter; shelved low-frequency response. FR 72-400 Hz  $\pm$  3 dB rising 3 dB to  $\pm$  3 dB 800-20,000 Hz; min power 10 W rms; max power 100 W rms; sens 90 dB sPL/W/ m; imp 8 ohms. Simulated black ash and walnut finishes. 9.75" w x 13.5" h x 8.5" d; 12 lb\$290/pr

#### C10 2-Way Speaker

Bookshelf closed-box speaker with 3rd-order bass loading to increase low-frequency extension and power handling. Features 6" polypropylene-cone woofer; 1" soft-dome tweeter; shelved low-frequency response. FR 90-500 Hz  $\pm$  3 dB rising 3 dB to  $\pm$  3 dB 1,000-20,000 Hz; min power 10 W rms; max power 60 W rms; sens 88 dB SPL/W/m; imp 8 ohms. Simulated black ash and walnut finishes. 8.25" w x 12" h x 7" d; 8 lb ... \$220/pr

#### **KENWOOD**

#### LS-P9100 4-Way Speaker

Basic Series floor-standing speaker with 17" passive radiator. Features 10.5" polypropylene woofer; 4" polypropylene midrange; flat-leaf supertweeter plus 2 cone tweeters in wide dispersion Ton-Säule vertical array; high-grade crossover network; auto-resetting overload protector; highrigidity enclosure; simulated rosewood finish. Max input power 250 W; sens 91 dB/W/m; crossover FR 900, 5,500, 10,000 Hz; imp 8 ohms. 17.31" w x 44.5" h x 13.25" d; 62 lb ... \$720/pr

#### LS-P5100 4-Way Speaker

Basic Series floor-standing speaker with 13" passive radiator. Features 8.5" polypropylene woofer; 4" polypropylene midrange; flat-leaf supertweeter plus 2" cone tweeter in wide dispersion Ton-Säule vertical array; high-grade crossover network; auto-resetting overload protector; high rigidity enclosure; simulated rosewood finish. Max input power 150 W; sens 90 dB/W/m; crossover FR 800, 5,000, 10,000 Hz; imp 8 ohms. 14.56" w x 35.44" h x 10.69" d; 40 lb . \$480/pr

#### LSK-702W 3-Way Speaker

#### LSK-502W 3-Way Speaker

#### LSK-302W 2-Way Speaker

#### LSK-05S Surround Speaker

Full-range speaker for rear-channel sound. Fea-

#### LSK-01S Surround Speaker

#### **KEVEK BY RMI**

#### ES.12 3-Way Floor-Standing Speaker

Ported speaker; 8-sided cabinet houses 12" cone woofer; 6.5" cone midrange; 19-mm dome tweeter. FR 30-20,000 Hz ± 3 dB; power range 20-300 W; sens 90 dB SPL/W/m; imp 8 ohms. Natural or black grilles. 22" w x 49.5" h x 11" d; 50 lb.....\$1,790/pr

### ES.10 3-Way Floor-Standing Speaker

#### ES.8 2-Way Floor-Standing Speaker

ported speaker. 8-sided cabinet houses 8" cone woofer, 19-mm tweeter. FR 55-20,000 Hz  $\pm$  3 dB; power range 20-150 W; sens 87 dB SPL/W/m; imp 8 ohms. Natural or black grilles. 18" w x 31.75" h  $\times$  10.25" d; 31 lb ..... \$900/pr

#### ES.6 2-Way Ported Speaker

6.5" cone woofer, 19-mm dome tweeter. FR 60-20,000 Hz  $\pm$  3 dB; power range 10-150 W; sens 88 dB SPL/W/m; imp 8 ohms. Natural or black grille; 12.5" w x 20" h x 8" d; 18 lb ... \$495/pr

#### **KINDEL AUDIO**

#### PLS-A 2-Way Speaker

Floor-standing line-source speaker with vertical array of 6 6.5" woofers and 16 1" dome tweeters. FR 35-22,000 Hz  $\pm$  3 dB; power range 5-500 W rms; sens 94 dB SPL/W/m; imp 8 or 2 ohms. Available in oak or walnut finish. 22" w  $\pm$  67" h x 9" d; 130 lb ea......\$2,000/pr

#### P-200 MKII 2-Way Speaker

Sealed-box speaker with high-frequency control, binding posts, and low-diffraction grille. Features 2 6.5" polypropylene woofers (1 for low bass and 1 for mid bass); 2.5" cone tweeter; 0.75" dome supertweeter. FR 40-22,000 Hz  $\pm$  3 dB; power range 5-100 W; sens 90 dB SPL/W/m; imp 4 ohms; crossover frequencies 300, 1,500, and 8,000 Hz. Natural or dark oak finish. 10" W x 24" h x 10" \$600/pr

#### P-100 MKII 2-Way Speaker

#### P-50 MKII 2-Way Speaker

Sealed-box speaker designed for stand placement. Features high-frequency control; binding posts; low-diffraction grille; 6.5" polypropylene woofer; 2.5" cone tweeter. FR 50-20,000 Hz ± 3 dB; power range 5-50 W; sens 86 dB sPI/W/m; imp 8 ohms; crossover frequency 2,500 Hz. Natural or or dark oak finish. 8" wide x 14" high x 8" deep; 16 lb ...... \$250/pr

The Purist Series

#### Purist LT 2-Way Speaker

#### Purist ST 2-Way Speaker

#### **KINETIC AUDIO**

#### Titan 6-Way Speaker

#### Trapezium 5-Way Speaker

Floor-standing ported speaker. 12" polypropylene-cone woofer; 6.5" polypropylene-cone midrange; 2" textile-dome midtweeter; 1.12" synthetic-dome tweeter; 0.75" synthetic-fluid cooling/ damping). Crossover points at 90, 500, 3,000, 7,000 Hz; linear-phased driver arrangement in mirror-image pairs; front-mounted fuse and noninductive level controls. Interconnecting harness of color-coded high-performance speaker cables; 5-way heavy-duty binding posts. Mirror-matched high-grade walnut veneer. Black grille with nonresonant frame. FR 12-22,000 Hz  $\pm$  1.0 dB; min power 45 W, max 200 W; sens 90 dB Spt./W/m; imp 6 ohms; 205 lb; 16" w x 60" h x 20" d. Includes grilles, stands, casters ..........\$4,000/pr

#### Labyrinth 4-Way Speaker

Floor-standing ported speaker. 12" polypropylene-cone woofer; 6.5" polypropylene-cone midrange; 2" textile-dome midtweeter; 1.12" synthetic-dome tweeter (both tweeters have magnetic-liquid cooling/damping). Crossover points 90, 500, 3,000 Hz; linear-phased driver arrangement in mirror-image pairs; front-mounted fuse and noninductive level controls. Interconnecting harness of color-coded high-performance speaker cables; 5-way heavy-duty binding posts. Mirror-matched high-grade walnut veneer. Black grille with nonresonant frame. FR 16-22,000 Hz  $\pm$  1.5 dB; min power 35 W, max 200 W; sens 91 dB spt/W/m; imp 6 ohms; 185 lb; 16" w x 48" h x 18" d. Includes grilles, stands, and casters....\$3,000/pr

#### Trapezoid 4-Way Speaker

Floor-standing ported speaker. 12" polypropylene-cone woofer; 6.5" polypropylene-cone midrange; 1.12" synthetic-dome tweeter with magnetic-liquid cooling/damping; 0.75" syntheticdome supertweeter with magnetic-liquid cooling/ damping. Crossover points 90, 2,000, 7,000 Hz; linear-phased driver arrangement in mirror-image

# FULL-RANGE PLANAR MAGNETIC \$495 PAIR



# MAGNEPLANAR® SMGa

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pairs; front-mounted fuse and noninductive level controls. Interconnecting harness of color-coded high-performance speaker cables; 5-way heavyduty binding posts. Mirror-matched high-grade walnut veneer. Black grille with nonresonant frame. FR 18-22,000 Hz  $\pm$  1.5 dB; min power 20 W, max 200 W; sens 92 dB sPL/W/m; imp 8 ohms; 115 lb; 16" w x 40" h x 14" d . \$2,000/pr

#### **Stat Monitor**

Floor-standing or large-shelf 3-way ported speaker. Features 12" polypropylene-cone woofer; 6.5" polypropylene-cone midrange; 1.12" syntheticdome tweeter with magnetic-liquid cooling/ damping. Crossover points 90, 2,000 Hz; linearphased driver arrangement in mirror-image pairs; front-mounted fuse and noninductive level controls. Interconnecting harness of color-coded high-performance speaker cables; 5-way heavyduty binding posts. Mirror-matched high-grade walnut veneer. Black grille with nonresonant frame. FR 18-22,000 Hz ± 1.5 dB; min power 15 W, max 200 W; sens 93 dB sPL/W/m; imp 8 ohms; 95 lb; 14.5" w x 26" h x 14" d. \$1,000/pr

#### Stat Miniature Monitor

2-way ported speaker. Features 6.5" polypropylene-cone woofer; 1.12" synthetic-dome tweeter with magnetic-liquid cooling/damping; crossover point 2,000 Hz; linear-phased driver arrangement in mirror-image pairs; front-mounted fuse and noninductive level controls. Interconnecting harness of color-coded high-performance speaker cables. 5-way heavy-duty binding posts. Mirrormatched high-grade walnut veneer. Black grille with nonresonant frame. Frequency response 38-22,000 Hz  $\pm$  2 dB; minimum power 5 W, maximum 150 W; sensitivity 93 dB SPL/W/m; impedance 8 ohms; 30 lb; 9" w x 15" h x 9" d\$700

#### Subwoofers

#### **Trapezoid Subwoofer**

#### Stat Subwoofer

Ported subwoofer with 12" polypropylene cone driver, built-in 180-Hz crossover, and separate direct-to-woofer terminals. Features interconnecting harness of color-coded high-performance speaker cables; 5-way heavy-duty binding posts; mirror-matched high-grade walnut veneer; black grille with nonresonant frame. FR 18-2,000 Hz ± 2 dB; min power 15 W, max 350 W; sens 93 dB SPL/W/m; imp 8 ohms; 80 lb; 14.5" w x 26" h x 14" d ...... \$450/pr

#### **KIRKSAETER**

#### Monitor Tower 260 4-Way Speaker

### Monitor 201 3-Way Bookshelf Speaker

Air-suspension speaker with 12" long-excursion woofer; 2" soft-metal midrange; 0.75" titanium tweeter; crossovers at 600 and 5,000 Hz. Sens 93 dB SPL/W/m; imp 4-8 ohms; 14.2" w x 24.7" h x 11.9" d .....\$1,450/pr

#### Monitor Tower 140 3-Way Speaker

Floor-standing acoustic-suspension speaker with 10" long-excursion woofer, 2" suprynol-dome midrange with 2.3-lb magnet, 0.75" titaniumdome tweeter; 8 wood or 4 glossy lacquer finishes. Power range 10-140 W; sens 93 dB sPL/W/m; imp 4-8 ohms. 11.12" w x 37" h x 11.12" d ......\$1,400/pr

### Monitor 141 3-Way Speaker

#### Monitor Tower 125 3-Way Speaker

Floor-standing acoustic-suspension infinite-baffle speaker with 8.5" long-excursion woofer, 2" suprynol-dome midrange with 2.3-lb magnet; 0.75" titanium-dome tweeter; 8 wood or 4 glossy !acquer finishes. Power range 10-125 W; sens 93 dB SPL/W/m; imp 4-8 ohms; 9.5" w x 33" h x 9.5" d ......\$1,149/pr

### Monitor 121 3-Way Speaker

Bookshelf infinite-baffle speaker. Features 8" long-excursion woofer; 2" suprynol dome midrange; 0.25" titanium-dome tweeter with Ferrofluid magnet. FR 22-32,000 Hz  $\pm$  5 dB; power range 10-130 W; sens 92 dB SPL/W/m; imp 4-8 ohms; walnut, mahogany, teak, cherry, black/ white/antique/dark/unfinished oak finishes; 12.25" w x 20.5" h x 10.25" d...... \$900/pr

#### Monitor 101 2-Way Speaker

Bookshelf infinite-baffle speaker. Features 8" long-excursion woofer; 1" titanium-dome tweeter with twin magnet. FR 35-32,000 Hz ± 5 dB; power range 10-80 W; sens 92 dB spL/W/m; imp 4-8 ohms; walnut, mahogany, teak, cherry, black/ white/antique/dark/unfinished oak finishes; 10.62" w x 18.36" h x 8.62" d...... \$900/pr

### SAT-1 2-Way Ported Speaker

#### Subwoofers

#### Subwoofer 501 Active

#### Subwoofer 500

Floor-standing infinite-baffle amplified subwoofer

The listings are based on data provided by the manufacturers. For more product information, contact an authorized dealer or the manufacturer directly. Manufacturers' addresses and phone numbers are listed in the directory beginning on page 226.

#### **KLIPSCH**

#### Klipschorn 3-Way Speaker

Fully horn-loaded speaker requiring corner placement. Sens 104 dB sPL/W/m; power handling 100 W; FR 35-17,000 Hz ± 5 dB. 52" h x 31.25" w x 28.5" d. Priced depending on finish from approximately ......\$3,198/pr

#### Belle Klipsch 3-Way Speaker

Horn-loaded floor-standing speaker with same drive components as Klipschorn. Sens 104 dB SPL/W/m; power handling 100 W; FR 45-17,000



Hz  $\pm 5$  dB. 35.62" h x 30.12" w x 18.75" d. Available in exotic woods. Priced depending on finish from approx.....\$2,598/pr La Scala. Fully horn-loaded 3-way speaker similar to Belle Klipsch but available only in natural birch, stained birch, or black finishes. Specs same as Belle Klipsch. 35.5" h x 23.75" w x 24.5" d. Priced depending on finish from approx\$1,706/pr

#### Cornwall II 3-Way Speaker

Features 15" woofer in ported enclosure; hornloaded compression tweeter and midrange. Sens 100 dB spt /W/m; power handling 100 W; FR 38-20,000 Hz  $\pm$  3 dB 35.75" h x 25.5" w x 15.5" d. Available in exotic woods. Priced depending on finish from approx......\$1,638/pr

#### Forte 3-Way Speaker

Features horn-loaded compression drivers for tweeter and midrange; 12" woofer; 12" passive radiator mounted on rear of cabinet. FR 32-20,000  $\pm$  3 dB; sens 98 dB sPL/W/m; power handling 100 W. 35.38" h x 16.5" w x 12" d. Available in exotic woods. Priced according to finish from approx........\$1,180/pr

#### Heresy II 3-Way Speaker

#### Kg<sup>4</sup> 2-Way Speaker

Floor-standing speaker with 12" rear-mounted passive radiator, 2 8" polymer-cone woofers, and

#### kg<sup>2</sup> 2-Way Speaker

#### KOSS

#### JCK/5000 Wireless Speaker System Infrared wireless speakers with tone/volume con-

trols on each cabinet; on/off power switch; bat-



tery recharger (batteries not included); 2" tweeter; 6.5" woofer; FR 40 Hz-20,00 Hz. 15" w x 9" h x 5" d ...... \$350/pr

#### M/100 Plus Powered Speaker

Built-in 20-watt amp allows connection to any headphone jack of TV, portable tape, or CD player. FR 50-30,000 Hz; s/N 80 dB; THD <5% at 1 kHz; 4 ohm imp. 27 lb/pr ..... \$260/pr

#### M/90 Plus Double-Woofer Speaker

Features 2 4.5" woofers; and 1" dome tweeter. FR 50-30,000 Hz; sens 88 dB SPL/W/m; 4 to 6 ohm imp; max power 20 W continuous, 100 W peak. 12.88" h x 5.25" w x 5.5" d; 30 lb/pr . \$220/pr

#### Dynamite M/80 Plus Speaker

Acoustic-suspension bookshelf speaker with automatic circuit breaker to guard against speaker damage. Features dual-active  $4.5^{\circ}$  woofers, 1" dome tweeter. FR 50-30,000 Hz  $\pm 3$  dB; min power 10 W/rms; max power 100 music; imp 6 ohms. 8 lb. 5.25" w x 12" h x 5.25" d..... \$180/pr

#### M/60 Plus 2-Way Speaker

Features 1" dome tweeter; 4.5" woofer. FR 100-30,000 Hz; sens 84 SPL/W/m; imp 8 ohms nom, 6 ohms min; power range 15-75 W music. 8.5" h x 4.75" w x 5.5" d ...... \$135/pr

#### LASER AUDIO

#### FXT-10 MKIV 2-Way Speaker

#### R-150 MKV 3-Way Speaker

#### R-100 MKV 3-Way Speaker

#### FXT-8 MKVI 2-Way Speaker

Floor-standing double-active speaker with two 8" polypropylene-cone woofers; 1" dome tweeter; circuit-overload protection. FR 40-20,000 Hz ± 3 dB; min power 15 W rms: max power 100 W rms; sens 92 dB SPL/W/m; imp 4/8 ohms. Solid-select maple top. 13" w x 33" h x 12" d; 30 lb \$560/pr

#### LAZER-TECH SPEAKERS

#### OM908 3-Way Speaker

#### PY15 3-Way Speaker

#### LT12 Tower Monitor Speaker

Features 12" poly woofer; 4.5" extended-range driver; 1" soft-dome tweeter; separate isolation chambers for bass and midrange drivers; extensive internal bracing; 18" sloped-front sound plane; twin rear-firing tuned ports; 3-way computer-matched crossover network. Rosewood or teak finish with removable black grilles. FR 32-25,000 Hz; sens 93 dB SPL/W/m; crossover 700 and 4,000 Hz; minimum power 10 W; maximum power 250 W. Enclosure measures 46.25" high x 14" wide x (6" x 12.5") deep; 90 lb ea . \$695/pr

#### WD 80 Wedge Speaker

Acoustic suspension speaker with 38° off vertical front sound plane and 8" polypropylene woofer; 4.5" midrange; 1" liquid-cooled soft-dome tweeter; 3-way computer-matched crossover. FR 38-25,000 Hz; sens 91 dB; crossover 800 Hz/3,700 Hz; power range 7-150 W; available in oak, walnut, teak, white rosewood, or traditional rosewood formica; 45 lb ea; 36" h x 11" w x 2.5/12.5" d

#### LP 8.8 Acoustic Suspension Speaker

3-way speaker with translucent 8" woofer and computer-matched 8" translucent passive radiator; 4.5" midrange; 1" liquid-cooled soft-dome tweeter; rear-mounted 6" wide-dispersion horn; computer-matched crossover network; separate

#### PM12 Acoustic-Suspension Speaker

#### LINN PRODUCTS BY AUDIOPHILE SYSTEMS

#### DMS Isobarik Floor-Standing Speaker

Isobarik-loading 3-way speaker with 12", 9" woofers, 5" midrange, 2 1" dome tweeters. Can be triamped. FR 25-20,000 Hz ± 1.5 dB; crossovers at 375 and 3 kHz; instantaneous dynamic range 54 dB; imp 4 ohms; power range 50-500 W; 30" h x 15" w x 16.5" d .......\$3,295/pr

#### S.A.R.A. Isobarik Bookshelf Speaker

Isobarik-loading 2-way speaker with 2 8" woofers, 1" dome tweeter. Cast structural foam housing. FR 36-20,000 Hz  $\pm$  2 dB; imp 4 ohms; 17" h x 13" w x 10" d .....\$1,350/pr

#### K.A.N. Acoustic-Suspension Speaker

2-way bookshelf speaker with 5" woofer, 1" dome tweeter. FR 70-20,000 Hz ± 3 dB; imp 8 ohms; 12" h x 7.5" w x 6.5" d ...... \$550/pr

#### Index Acoustic-Suspension Speaker

Floor or bookshelf placement; 8" KEF B200 cone woofer; 1" dome tweeter; cabinet of full 0.75" high-density particle board; 50-strand 20-amp cable. FR 60-20,000 Hz  $\pm 3$  dB; power range 15-50 W; sens 87 dB SPL/W/m; imp 8 ohms. 11" w x 17" h x 8" D; 17 lb; black woodgrain.. \$425/pr

#### M&K

#### Satellite 1B 2-Way Speaker

#### Satellite 2B 2-Way Speaker

Acoustic-suspension speaker with 6.5" polypropylene woofer and 1" soft-dome tweeter. Features selector for 36 tonal balances; midrange, treble character switches. Walnut or oak finish with black grille. FR 65-20,000 Hz  $\pm$  3 dB; power range 15-100 W. 10.5" h x 6.5" w x 7" d; 9 lb \$525/pr

#### SX-4 2-Way Satellite Speaker

Acoustic-suspension speaker with 2 5" woofers and 2 1" soft-dome tweeters. Features selector for 4 tonal balances via multiple inputs. Black vinyl finish. FR 70-20,000 Hz  $\pm$  3 dB ...... \$475/pr

#### Satellite 3B 2-Way Speaker

#### SX-7 2-Way Satellite Speaker

Bookshelf acoustic-suspension speaker with cir-

cuit-breaker protection. Features cast-aluminum box with perforated metal grille; 4" paper-cone midrange; 0.75" soft-dome tweeter. FR 100-20,000 Hz  $\pm$  3 dB; power range 5-100 W; sens 87 dB spL/W/m; imp 4 ohms. Black finish. 4.5" w x 7.36" h x 4.5" d; 6 lb ..... \$220/pr

#### Subwoofers

#### V1B Subwoofer

#### VX-4 Subwoofer

#### VX-7 Subwoofer

#### Accessories

#### LP-1S Passive Electronic High-Pass Filter

Line-level electronic high-pass filter for biamping with M&K subwoofers. Available in 8.5" front panel or 19" rack mount. 100 Hz crossover point at 18 dB/octave. With bypass switch ....\$275 Without bypass switch ....\$250

#### RC-1 Satellite/Subwoofer Remote Control

#### Satellite Speaker Stand

Stand for M&K satellite speakers. Allows for permanent attachment of satellite to stand. Walnut/ oak veneers, black vinyl finishes ...... \$95/pr

#### **V** Filter

Plug-in high-pass filter for biamping with M&K subwoofers. 100 Hz crossover at 6 dB/octave. 3 versions to match amp input imp ..... \$50/pr

#### MAGNASPHERE by MAGNAT

Delta II, Gamma, and Beta speakers have Soft-Metal Domes; Ribbon-Wire voice coils of oxygenfree copper wound on aluminum core for better heat dissipation and power handling; ball-shaped, baffle-free midrange and tweeter spheres for omnidirectional dispersion; black perforated steel grilles.

#### **Delta II Floor-Standing Speaker**

6-sided acoustic-suspension speaker with 6 5.25U long-throw woofers; gray or black enamel. FR 32-29,000 Hz ± 3 dB; power range 30-150 W; imp 4 ohms; sens 88.5 dB sPL/W/m; 13.8" w x 44" h x 13.8" d; 65 lb ......\$2,990/pr

#### **Gamma Floor-Standing Speaker**

4-sided pyramid-shaped speaker with 2 8" woofers, 2 5.25" midwoofers (1 front, 1 back); European mahogany or black-oak veneer. FR 32-29,000 Hz ± 3 dB; power range 30-150 W; imp 4 ohms; sens 88 dB sPL/W/m; 14" w x 50" h x 14" d; 67 lb ......\$2,190/pr

#### **Beta Floor-Standing Speaker**

4-sided pyramid-shaped speaker with 8" woofer, 5.25" midwoofer. European mahogany or blackoak veneer. FR 37-29,000 Hz ± 3 dB; power range 30-120 W; imp 4 ohms; sens 87 dB SPL/W/m; 13" w x 43" h x 13" d ......\$1,790/pr

#### MSP Series Speakers

Acoustic-suspension speakers with Ribbon-Wire voice coils: Soft-Metal Dome tweeters: baffles electrostatically coated with flocking to reduce highfrequency ripples; tweeters and midranges cooled with ferrofluid; cabinets of extra-heavy-duty highdensity multi-layer wood with internal bracing.

MSP 300. Floor-standing speaker with 2 8" longfiber-pulp woofers, 3" cone/dome midrange, 1' tweeter; European walnut or black-oak veneer, top plate 8-layer hand-finished black lacquer. FR 32-29,000 Hz ± 3 dB; power range 25-150 W; imp 4 ohms; sens 88 dB sPL/W/m; 11.5" w x 42.3" h x 11" d; 60 lb ..... \$1,490/pr MSP 200. Floor-standing speaker with 8" long-fiber-pulp woofer, 3" cone/dome midrange, 1" tweeter; European walnut or black-oak veneer, top plate 8-layer hand-finished black lacquer. FR 37-29,000 Hz ± 3 dB; power range 25-120 W; imp 4 ohms; sens 88 dB spL/W/m; 11.5" w x 36.6" h x 11" d; 52 lb......\$1,290/pr MSP 110. Floor-standing speaker with 8" long-fiber-pulp woofer, 3" cone/dome midrange, 1" tweeter; European walnut or black-oak veneer, top plate 8-layer hand-finished black lacquer. FR 39-29,000 Hz; power range 25-120 W; imp 4 ohms; sens 88 dB spl/W/m; 11.5" w x 31" h x 11" d; 42 lb .....\$1,090/pr MSP 70. Bookshelf speaker with 10" woofer, 2.75" midrange, 1" tweeter; black woodgrain vinyl. FR 39-29,000 Hz ± 3 dB; power range 25-100 W; imp 4 ohms: sens 90 dB sPL/W/m; 12.6" w x 22.9" h x 11.5" d; 33 lb ..... \$790/pr MSP 60. Bookshelf speaker with 8" woofer, 2.75" midrange, 1" tweeter; black woodgrain vi-nyl. FR 41-29,000 Hz ± 3 dB; power range 25-90 W; imp 4 ohms; sens 89 dB sPL/W/m; 11.5" w x 20.1" h x 10.5" d; 28.6 lb ...... \$650/pr MSP 50. Bookshelf speaker with 8" woofer, 1" tweeter; black woodgrain vinyl. FR 45-29,000 Hz ± 3 dB; power range 25-80 W; imp 4 ohms; sens 88 dB spl/W/m; 10.7" w x 17.4" h x 9.5" d; 22 . \$500/pr lb. . . . . . . . . . . . . . . MSP 10. Vented minispeaker with 5.25" polypropylene woofer and 1" tweeter; high-density cabinet in textured black vinyl. FR 60-29,000 Hz ± 4 dB; power range 25-50 W; imp 4 ohms; sens 87 dB spl./W/m; 5.7" w x 8.9" h x 6.9" d; 6.6 lb ..... \$390/pr

#### Monitor Series Speakers

Bookshelf acoustic-suspension 3-way speakers with low-resonance, high-rigidity diaphragms designed for low coloration. Crossover networks use low-dissipation capacitors designed for improved imaging and texture. Magnat Ribbon-Wire® woice coils used in tweeter for 40% increased winding density and improved transient response. All woofers are cone shaped; all midranges are 4" cones; all tweeters are dome shaped. Black wood-grained vinyl with black metal grilles.

#### MAGNEPAN

#### Magneplanar Tympani-IVa

Planar-magnetic speaker with reduced-mass midrange driver. Features 5-ft-long, 2.5-micronsthick foil tweeter. 3 panels per side; 71" h x 18" w x 1" d .....\$3,800/pr

#### Magneplanar MG-IIIa Speaker

Floor-standing full-range bipolar panel speaker with planar-magnetic and ribbon-driver design. Can be biamplified. Drivers are 1 planar-magnetic woofer (620" sq.); 1 planar-magnetic midrange (170" sq.); 1 line-source 5' bipolar ribbon tweeter (14.25" sq.). Imp 4 ohms; off-white cloth, oak frame; 55 lb ea......\$1,995/pr

#### Magneplaner MG 2.5/R Speaker

Floor-standing full-range bipolar panel speaker with planar/magnetic woofer and 42" long ribbon tweeter. 2-way design, optional grille fabrics, oak side rails .....\$1,550/pr

#### Magneplanar MG-IIC Speaker

Floor-standing 2-way speaker with Magneplanar woofer and tweeter. Features oak side rails; brown fabric grille. FR 40-18,000 Hz  $\pm 3$  dB; power range 25-200 W rms; imp 5 ohms purely resistive; crossover 400-1,600 kHz at 6 dB/octave; 71" h x 22" w x 2" d; 70 lb ....\$1,225/pr

#### Magneplanar MG-IC Speaker

Floor-standing 2-way speaker with Magneplanar woofer and tweeter. Features oak side rails; offwhite fabric grille. FR 45-18,000 Hz  $\pm$  4 dB; crossover 1.6 kHz; sens 82 dB sound-pressure level with 1-watt input measured at 3 ft.; power range 40-200 W rms; imp 5 ohms purely resistive; 60° h x 22° w x 2° d..... \$880/pr

#### Magneplanar SMGa Speaker

Full-range 2-way speaker with 0.5-mil diaphragm driven by Magneplanar magnetic field. Features oak side rails; brown fabric grille. FR 50-16,000 Hz  $\pm 4$  dB; power range 20-100 watts averaged root mean square method; impedance 4 ohms purely resistive; crossover 2.4 kHz; 48.56" h x 24.25" w x 1.75" d; 70 lb ...... \$495/pr

### PRICES LISTED

are manufacturers' suggested retail prices (also referred to as *list* prices); actual selling prices are set by individual dealers. All prices are subject to change without notice.

#### MARANTZ

#### SP 1515 Ported Speaker

Floor-standing speaker with 15" woofer; 5" ferrofluid cone midrange; 3" ferrofluid cone tweeter; sculptured furniture-style cabinet. Max power 165 W; sens 92 dB sPL/W/m; imp 8 ohms; Bartonwood vinyl finish; 18" w x 32.5" h x 16.5" d; 47 lb ..... \$400/pr

#### SP124 Tower Speaker

3-way speaker with 12" woofer; 12" passive radi-ator; 4" midrange with ferrofluid; 3" tweeter with ferrofluid. Max power 170 W; sens 91 dB/W/m; imp 8 ohms. Oak vinyl finish; 37.75" h x 14.75" w x 13.5" d; 33.7 lb... .....\$400/pr

#### SP104 Tower Speaker

3-way speaker with 10" woofer; 10" passive radiator; 4" midrange with ferrofluid; 3" tweeter withferrofluid. Max power 135 W; sens 90 dB/ W/m; imp 8 ohms. Oak vinyl finish; 37.75" h x 13" w x 11" d; 30 lb ..... \$340/pr SP103. Same as above without passive radiator ..... \$300/pr

#### SP 1200 Ported Speaker

Floor-standing speaker with 12" woofer; 4" ferrofluid cone midrange; 3" ferrofluid cone tweeter. Maximum power handling 165 watts; sensitivity 90 dB SPL/W/m; nominal impedance 8 ohms. Bartonwood vinyl finish; 15" w x 29.5" h x 11.5" d; 32 lb ..... \$300/pr

#### SP 1000 Ported Speaker

Features 10" woofer; 4" ferrofluid cone mid-range; 3" ferrofluid cone tweeter. Max power range 130 W; sens 89 dB SPL/W/m; imp 8 ohms. Bartonwood vinyl finish; 13" w x 27" h x 11" d; 25 lb ..... \$240/pr

#### SP 800 Ported Speaker

Features 8" woofer; 4" ferrofluid cone midrange; 2" ferrofluid cone tweeter. Maximum power 60 W; sens 89 dB sPL/W/m; imp 8 ohms. Bartonwood vinyl finish; 13" w x 26" h x 8.5" d; 15 lb ..... \$150/pr

#### SP208 Ported Speaker

2-way speaker system with 8" woofer and 2" tweeter. Max power 50 W; sens 90 dB/ W/m; imp 8 ohms. Oak vinyl finish; 18.75" h x 10.63" w x 8.38" d; 10.5 lb..... \$120/pr

#### **MARTIN-LOGAN**

The Monolith Electrostatic Speaker

Floor-standing curvilinear electrostatic panel speaker mouned atop tuned subwoofer box. Designed for wide dispersion without the use of delay lines or lenses. Constant voltage crossover provides phase coherency. Features 2' x 4' ele-trostatic cell for 100-24,000 Hz and 12" polypropylene-cone subwoofer with 2" voice coil that is down 3 dB at 16 Hz. FR 28-24,000 Hz ± 2 dB; power range 30-500 W; sens 90 dB SPL/W/m; impedance 8 ohms. Available in variety of finishes. Measures 25" wide x 75" high x 13.5" deep; 165 lb each ..... \$4,850/pr

#### The Sequel Electrostatic Speaker

Floor-standing electrostatic/subwoofer system. Features visually transparent electrostatic transducer that operates from 200-24,000 Hz; 30° seamless horizontal disperson in vertical linesource format; 1' x 4' electrostatic cell; super-lowmass 10" subwoofer in tuned chamber with matrix voice coil to create linear field in large excursion modes. FR 26-24,000 Hz ± 3 dB; power range 30-300 W; sensitivity 89 dB sound-pressure level with 1-watt input measured at 1 meter; imp 6 ohms. Oak and black finish. 14.5" w x 74" h x 13.5" d; 110 lb ea .....\$2,750/pr

#### The CLS Electrostatic Speaker

Floor-standing curved electrostatic speaker. Features wide-dispersion format for full-range reproduction; 2' x 4' electrostatic cell to reproduce all frequencies from 50-22,000 Hz; 30\* seamless horizontal dispersion: 4' line-source vertical: arc-free diaphragm; see-through appearance. FR 50-22,000 Hz ± 2 dB; power range 20-150 W; sensitivity 85 dB SPL/W/m; impedance 6 ohms. Available in variety of finishes. 26" w x 48" h x 2" d; 50 lb ..... \$2,490/pr

#### McINTOSH

#### XRT-22 Speaker System

2-piece speaker consisting of bass cabinet containing 2 12" woofers and 8" midrange drivers, and tweeter column containing 23 1" tweeters. Bass cabinet: 40.75" h x 25.75" w x 12.75" d; tweeter column: 79.5" h x 10.5" w x 1.63" d; oak finish ..... \$4,000/system Walnut finish ..... \$4,250/system

#### XRT18 Speaker System

2-piece speaker consisting of bass cabinet contain-ing 12" woofer and 6" midrange and high-frequency column frame containing sixteen 1" dome tweeters. Features 3-ampere fast acting fuse for woofer and midrange and 1.25-ampere fuse for tweeters. Cabinet constructed of 48-pound density fiber board with walnut veneer exteriors. Sens 86 dB sPL/W/m; max power 150 W continuous program power, 500 W peak; min power 30 W; imp 8 ohms; crossover frequencies 350 and 1,500 Hz. Bass cabinet 27.22" h x 17.5" w x 11.75" d, tweeter column 57.31" h x 10.5" w x 1.63" d; total weight 92 lb ..... \$2,250/system

#### XD 717 3-Way Speaker

Floor-standing speaker with 12" woofer, 6.5" midrange, and 1" dome tweeter. Sens 87 dB SPL/ W/m; recommended power handling 30-100 W; imp 8 ohms; crossover frequencies 350 and 1,000 Hz. Cabinet constructed of 0.75" high-density particle board with internal bracing and airtight assembly. Walnut veneer protected by oil-like multi-coat hand-rubbed lacquer finish. 37.75" h x 17.5" w x 11.88" d; 66 lb ..... \$1,598/pr

#### XD 715 3-Way Speaker

Floor-standing speaker with 10" woofer, 5" midrange, and 1" dome tweeter. Sens 87 dB SPL/W/ m; m2x power 100 W program noise; min power



Martin-Logan Monolith

30 W; imp 8 ohms; crossover frequencies 350 and 1,000 Hz. Cabinet constructed of 0.75" high-density particle board with internal bracing and airtight assembly covered by walnut veneer. 30" h x 14.75" w x 10.06" d; 43 lb ..... \$1,198/pr

#### XL1 2-Way Compact Speaker

Bookshelf speaker with 6" woofer, 1" dome tweeter, and 1,000 Hz crossover network. Features 0.6-ampere fast-acting fuse. Max power 80 W program noise, 200 W peak; min power 30 W; imp 8 ohms; sens 85 dB spL/W/m. Cabinet constructed of 0.75" high-density particle board with internal bracing and air-tight assembly. \$525/pr XL 1W Subwoofer. Dual-voice-coil subwoofer designed to complement and extend performance of McIntosh XL 1 speaker. Features 12" woofer; two 1.5-ampere fast-acting fuses; walnut veneer cabinet protected by an oil-like multi-coat handrubbed lacquer finish. Sens 85 dB sPL/W/m; max power 100 W program noise, 250 W peak; min power 30 W; crossover frequency 90 Hz. 32.22" h 

#### MERIDIAN by MADRIGAL

#### M100 3-Way Powered Speaker

Inter-Active speaker with 4 power amps (3 70 W/
ch, 1 35 W/ch) driving 2 5" woofers, 2 5" mi-
dranges, 1 2" dome tweeter. 0.75" birch cabinet
of low resonance with rear-loaded passive radia-
tor. 39" h x 16" w x 18" d; 70 lb ea; wal-
nut \$6,300/pr
Rosewood finish \$6,775/pr

#### M20 2-Way Powered Speaker

Ported speaker with two 5" woofers, 2" tweeter, power supply, 2 power amps in low-resonance cabinet; 0.75" A-quality birch plywood cabinet; all-metal stand with resonance damping available. FR 38-20,000 Hz ± 3 dB; max output 105 dB; 20" h x 15" d x 7" w. Walnut or teak finish; with amplifiers ..... \$2,300/pr Rosewood finish; with amps ..... \$2,600/pr

#### M30 2-Way Powered Speaker

Compact Inter-Active speaker with 5" woofer, 1.25" tweeter; time-delay correction; power supply; power amps. FR 38-20,000 Hz ± 3 dB; max output 100 dB free-standing, up to 103 dB on shelf; 14.5" h x 12" d x 7" w. Walnut, teak, or black ash finish; with amps ..... \$1,625/pr

#### MIRAGE ACOUSTICS

All speakers are ported; nominal imp 6 ohms (min 4); black knit grilles; dome tweeters with crossover point of 2,200 Hz.

#### M1 Floor-Standing Speaker

2 8" polypropylene woofers with 38-oz magnets crossing over to 2 4" cone midranges (1 front, 1 back) at 300 Hz; 2 0.75" soft dome tweeters (1 front, 1 back); black lacquer. FR 20-22,000 Hz ± 3 dB; min power 60 W; max power 400 W; sens 86 dB sPL/W/m; imp 6 ohms; 120 lbs; 19.5" w x 60" h x 9" d .....\$3,000/pr

460 2-Way Speaker 8" woofer; 1" dome tweeter; black vinyl. Frequency response 40-20,000 Hz ± 3 dB; sensitivity 88 dB spi/W/m; power range 15-120 W; 25" x 10" x 11" ..... \$400/pr

#### 360 2-Way Speaker

8" woofer; 0.75 tweeter; black vinyl. FR 50-20,000 Hz ± 3 dB; sensitivity 88 dB output with input of 1 watt measured at 1 meter; power range 15-100 W; 20" x 10" x 9"; 20 lb each ..... \$300/pr

#### 210 2-Way Speaker

6.5" woofer; 0.75" tweeter; black vinyl. FR 60-20,000 Hz ± 3 dB; sensitivity 88 dB output with

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input of 1 watt measured at 1 meter; power range 15-70 W; 15" x 9" x 9"; 15 lb each.... \$230/pr

#### **MISSION ELECTRONICS**

#### Argonaut Floor-Standing Speaker

#### Freedom 2-Way Speaker

Time-aligned drivers; integral locking stand; transverse-folded cabinet with visco-elastic damping; optimum placement near rear wall; 8" reinforced-homopolymer cone woofer; 1" super-ellipse cavity-loaded tweeter. FR 40-20,000 Hz ± 3 dB; min power 20 W; max power 150 W; sens 92 dB sPL/W/m; imp 8 ohms; black, gray, walnut; 28 lb; 11" w x 24.5" h w 12" d ...... \$899/pr

#### Renaissance 2-Way Speaker

#### 707 Bass-Reflex Speaker

2-way speaker with limestone/polypropylene front baffle board; steel-reinforced 8" paper woofer; 0.75" ferrofluid dome tweeter. FR 50-20,000 Hz  $\pm$  3 dB; min power 20 W, max power 100 W; sens 92 dB SPL/W/m; imp 8 ohms; black and walnut; 17.7 lb; 10" w x 19" h x 11" d \$499/pr

#### 700 Leading Edge Acoustic-Suspension Speaker

#### 70 II Acoustic-Suspension Speaker

#### MOREL ACOUSTICS

### Duet 2-Way Double-Magnet Speaker

New MDT-33 tweeter, 28 mm soft-dome design with double-magnet structure, Hexatech technique winding (aluminum wire, wound hexagonally) and ferrofluid cooled. MW-164 6" doublemagnet woofer also using the Hexatech voice coil. FR 40-22,000 Hz  $\pm 2$  dB; power handling 150 W rms; 8" w x 15" h x 12" d; 20 lb ..... \$950/pr

#### MLP-403-II 3-Way Speaker

Ported floor-standing speaker with Variovent. 9" free-edge paper-cone woofer; 3" dome midrange; 1.1" dome tweeter. FR 38-25,000 Hz  $\pm$  3 dB; min power 10 W, max power 125 W rms; sens 88 dB SPL/W/m; imp 4-8 ohms; finished in walnut, teak, or black; 21" h x 12" w x 10" d; 26 lb\$750/ pr

#### MLP-206 2-Way Speaker

Acoustic-suspension bookshelf speaker with cabinet proportioned similarly to the smaller MLP-202 II (below) with 33-litre volume. Features 9" 

#### MLP-202 II Bookshelf Speaker

#### CR-7 2-Way Speaker

Acoustic-suspension bookshelf speaker with asymmetrical cabinet design to eliminate internal standing waves and improve dispersion and flatness of frequency response. Features 6" treated-paper cone woofer with metal grille; 1" soft-dome tweeter with metal grille. Available in mirrored pairs. Black finish. FR 70-25,000 Hz  $\pm$  3 dB; min power 20 W rms; max power 200 W rms; sens 90 dB SPL/W/m; imp 4-8 ohms. 11" w x 7.5" h x 4.75" x 7" d; 10 lb ea ...... \$395/pr

#### MLP-201 2-Way Speaker

Acoustic-suspension bookshelf speaker with 9" free-edge paper-cone woofer, 1.1" dome tweeter. FR 48-20,000 Hz ± 3 dB; power range 10-100 W

#### MTX by MITEK

#### Pro 215 Floor-Standing Speaker

#### Pro 115 Floor-Standing Speaker

Bass-reflex speaker with computer-aided Thiele/ Small-aligned cabinet. Features 15" cone woofer, 2 5" PL-5 cone midranges; 3" horn-loaded tweeter. FR 60-21,000 Hz  $\pm$  3 dB; power range 5-200 W rms; sens 99.6 dB SPL/W/m; imp 4 ohms; heavyduty aviation carpet; 77 lb; 21.25" w x 29.75" h x 16" d ......\$1,200/pr

#### Pro 210 Floor-Standing Speaker

Bass-reflex speaker with computer-aided Thiele/ Small aligned cabinet. Features 2 10" cone woofers; 2 5" PL-5 cone midranges; 3" horn-loaded tweeter. FR 70-21,000 Hz  $\pm$  3 dB; power range 5-300 W rms; sens 101.6 dB SPL/W/m; imp 4 ohms; heavy-duty aviation carpet; 67 lb; 23.5" w x 18.25" h x 12.5" d ...... \$880/pr

#### Pro 110 Bass-Reflex Monitor Speaker

### MUSIC AND SOUND IMPORTS

#### Mas 925 III 3-Way Speaker

Floor-standing speaker with 10" polypropylenecone passive radiator; 8" poly-cone woofer; 1.75" textile-dome tweeter; 0.75" textile-dome tweeter. FR 30-18,000 Hz  $\pm$  3 dB; power range 25-150 W;

For explanations of abbreviations, specifications, and technical terms, consult the glossary on page 221. sens 91 dB sPL/W/m; imp 8 ohms; natural oak, dark oak veneer finishes; 39 lb; 23.5" w x 11.88" h x 11.88" d ...... \$699/pr

#### NAD

#### 300A 3-Way Speaker

#### NADY SYSTEMS

#### WTS-1 Speaker

Portable self-powered speaker with 15-W cordless amplifier. Features 2-channel FM receiver; microphone; miniature body pack stereo transmitter. Speaker houses 6.5" woofer; 1.5" cone tweeter. 8.5" w x 12.75" h x 7.31" d ...... \$200/sytem

#### NEC

#### RS-100 3-Way Speaker

Floor-standing speaker with twin-transmissionpath low-frequency (varibly damped) enclosure. Features Poly-Arc adjustable high-frequency array; 10" polypropylene passive radiator; 2 8" polypropylene woofers; 1.38" cambric-dome midrange; 1" elliptical-dome tweeter. FR 28-18,500 Hz  $\pm$  3 dB; power range 25-200 W; sens 90 dB sPL/W/m; imp 4 ohms. 14" w x 42" h x 16" d; 103 lb ......\$1,500/pr

#### RS-500 3-Way Speaker

#### SW0-300BU Subwoofer

#### AVS-300E 2-Way Surround-Sound Speaker

Compact acoustic-suspension speaker designed for rear-channel reproduction of surround sound. Features 5.5" cone woofer; 1" polymer-dome tweeter. Power range 5-60 W; nominal imp 8 ohms; sens 89 dB SPL/W/m; FR 60-20,000 Hz. 6.5" w x 9.75" h x 5.62" d ...... \$199/pr

#### NIKKO AUDIO

#### LS-100 3-Way Speaker

Floor-standing acoustic-suspension speaker. Features 12" cone woofer with 20-oz magnet; 3" cone midrange; 1" cone tweeter; auto protection unit. Sens 86 dB sPL/W/m. Glossy black oak enclosure \$250/pr

#### NOVAK LOUDSPEAKER

#### Model 2 Vented 2-Way Speaker

6.5 plastic cone woofer vertically aligned with ferrofluid-damped dome tweeter; 4th-order Butterworth woofer loading; 1st-order crossover with mylar capacitors; min-diffraction baffle; nonallergenic antistatic black foam grille; external fuses.

FR 44-24,000 Hz ± 3 dB; sens 91 dB SPL/W/m; power range 5-60 W; 11.25 w x 20.4 h x 10.9 d; shipping weight 26 lb. Black formica \$330/pr

Walnut or oa											

#### **OHM ACOUSTICS**

#### Walsh 5 Vented Speaker

Features Walsh driver; 3 controls for lows, perspective (midrange), and highs, each with 3 positions; gold-plated 5-way binding posts; gold internal connectors; Monster Cable internal wiring; veneered top edge of cabinet. FR 25-25,000 Hz ± 4 dB; min power 50 W rms; max power 500 W rms; imp 4 ohms; 1,000-W headroom rating for CD's. Available in walnut, oak and rosewood finishes or teak/white/black lacquer. 95 lbs; 17.5" x 17.5" at bottom tapering to 15" x 15" at top; 43" tall. Limited edition run of only 500 sets worldwide, each signed and numbered ..... \$4,800/pr

#### 4XO Floor-Standing Speaker

Bass-reflex speaker features inverted conical surface driver; gold-plated 5-way binding posts; gold internal connectors; lead-lined cabinet; Monster Cable internal wiring; casters; tufflex transmission block; ferrofluid cooled; protection circuits; acoustical attenuator for controlled dispersion: sonically transparent circular metal grille. Standard finish walnut and oak, available in Scandinavian rosewood, black, or white lacquer. FR 32-23,000 Hz ± 4 dB; sens 91 dB SPL/m/2.83 V; power range 30-500 W; peak handling 700 W; imp 8 ohms. 40" h x 15.5" x 15.5" at base tapering to 11.75" x 11.75" at top; 63 lb ... \$2,000/pr

#### **3XO Floor-Standing Speaker**

Bass-reflex speaker features inverted conical surface driver; press-connector inputs accept banana plugs or up to 12 gauge wire; lead-lined cabinet; casters; tufflex transmission block; ferrofluid cooled; protection circuits; acoustical attenuator; circular metal grille. Standard finish walnut and oak, available in Scandinavian rosewood, black, or white lacquer. FR 36-22,000 Hz ± 4 dB; sens 90.6 dB spL/m/2.83 V; power range 18-200 W; peak handling 300 W; imp 8 ohms. 36" h x 13.5" x 13.5" at base tapering to 10.5" x 10.5" at top; 43 lb ......\$1,500/pr

#### 2XO Floor-Standing Speaker

Bass-reflex speaker features inverted conical surface driver; press-connector inputs accept banana plugs or up to 12 gauge wire; sub-bass activator: tufflex transmission block; ferrofluid cooled; protection circuits; acoustical attenuator; circular metal grille. Standard finish walnut and oak, available in Scandinavian rosewood, black, or white lacquer. FR 44-21,000 Hz ± 4 dB; sens 90.2 dB sPL/m/2.83 V; power range 15-120 W; peak handling 200 W; imp 8 ohms.  $32.5^{\circ}$  h x  $11.5^{\circ}$  x  $11.5^{\circ}$  x  $11.5^{\circ}$  at base tapering to  $9.25^{\circ}$  x  $9.25^{\circ}$  at top; 29 lb ..... \$1,000/pr

#### Ohm C<sub>3</sub> Speaker

Features 10" polypropylene driver with 38-oz ferrite magnet; 1.5" liquid-cooled voice coil; pentavented liquid-cooled 1" soft dome tweeter; 10-oz ferrite magnet: 2,400 Hz/14,000 Hz Sub-Bass Activator; vented (quasi-third order Butterworth filter); press connectors; 0.62" flakeboard stockoiled walnut finish, oak on special order. FR 37-21,000 Hz ± 4 dB; imp 4 ohms; 26.36" h x 15" w x 11.75" d..... \$750/pr

#### **1XO Floor-Standing Speaker**

Bass-reflex speaker features inverted conical surface driver; press-connector inputs accept banana plugs or up to 12-gauge wire; tufflex transmission block; ferrofluid cooled; protection circuits; acoustical attenuator; circular metal grille. Walnut finish. FR 48-20,000 Hz ± 4 dB; sens 90 dB

SPL/m/2.83 V; power range 10-90 W; peak handling 150 W; impedance 8 ohms. 32.5" high x 11.5" wide x 11.5" deep at base tapering to 9.25" x 9.25" at top; 24 lb ..... \$700/pr

#### Model L2 Speaker

Features 8" woofer; 2" tweeter; 2" supertweeter; tweeter level control; oiled-walnut finish. FR 42-20,000 Hz  $\pm$  4 dB; crossovers 1.7 and 10 kHz; power range 8-100 W; sens 100-dB SPL at 3 ft; 20" h x 12" w x 9.75" d ...... \$595/pr

#### Model E<sub>2</sub> Speaker

2-way vented speaker with 8" woofer with 5-oz ferrite magnet and 1" liquid-cooled voice coil. Features liquid-cooled Penta-Vented tweeter: 2,700 Hz Sub-Bass Activator; vented enclosure (quasi-third order Butterworth filter); press connectors; 0.62" flakeboard stock, oiled-walnut finish; 21.5" x 11.5" x 7.25" deep; imp nominal/ minimum 8/4 ohms; FR 48-17,000 Hz ± 4 dB; efficiency 0.73%; recommended power 7-75 W rms on music\$395/pr

#### **ONKYO**

#### S-70 4-Way Speaker

Bass-reflex speaker with 12" polypropylene-cone woofer with high-power voice coil. 5" PVA-treated ferrofluid-cooled midrange, 1" polycarbonatedome ferrofluid-cooled tweeter, and 0.5" polycarbonate-dome ferrofluid-cooled supertweeter. Features self-resetting auto overload protection. FR 55-20,000 Hz ± 3 dB; power range 10-150 W rms; sens 93 dB SPL/W/m; imp 8 ohms. Natural-oakveneer finish. 16" w x 40.75" h x 10.25" d; 49 lb ..... \$600/pr

#### S-58 3-Way Speaker

Floor-standing bass-reflex speaker with self-resetting overload protection. Features 15" polypro-pylene-cone woofer; 5" PVA-treated ferrofluidcooled cone midrange; 1" polycarbonate-dome ferrofluid-cooled tweeter. FR 65-20,000 Hz  $\pm 3$ dB; power range 10-100 W rms; sens 92 dB SPL/ W/m; imp 8 ohms. Oak vinyl finish. 17.5" w x 33.12" h x 12.88" d; 48 lb ..... \$400/pr

#### S-38 3-Way Speaker

Floor-standing bass-reflex speaker with self-resetting overload protection. Features polypropylenecone woofer; PVA-treated ferrofluid-cooled cone midrange; 1" polycarbonate ferrofluid-cooled dome tweeter. FR 65-20,000 Hz ± 3 dB; power range 10-100 W rms; sens 91 dB spL/W/m; imp 8 ohms. Oak vinyl finish. 14.5" w x 33" h x 11.5" d; 37 lb ..... \$300/pr

#### HS-15 2-Way Speaker

Compact speaker with high-strength mesh grille, 6.25" cone woofer, 2 2.75" cone tweeters. Dark gray finish; mirror-image pairs; FR 55-20.000 Hz; max power 45 W; imp 8 ohms. 8.12" w x 13.87" h x 9.62" d; 10 lb ..... \$250/pr

#### PARASOUND

#### AWs280 All-Weather Speaker

Ported bookshelf speaker designed to function outdoors year-round. 6" polypropylene cone woofer, labyrinth bass loading, 1.5" poly cone tweeter. High-density particle-board beige enclosure with molded outer shell and mounting hooks. FR 65-20,000 Hz ± 4 dB; power range 10-60 W; sens 88 dB SPL/W/m; imp 8 ohms. 10" w x 14.5" h x 9.5" d; 11 lb ..... \$245/pr

CPI-440bi Compact Perfect Image Speaker 2-way speaker with 4" high-compliance carbonfiber-reinforced polypropylene cone woofer and 1" ferrofluid-damped soft-dome tweeter with acoustic blanket. Nondiffraction cabinet; 1st-order network with polypropylene capacitor; 4th-

order vented design. Simulated black oak finish. FR 70-22,000 Hz ± 4 dB; THD at 92 dB -1%; imp 4 ohms; sens 88 dB sPL/W/m; sustained power handling 55 W rms; max power 150 W rms; time aligned within 0.05 µs. 9" h x 5.88" w x 6.5" d ..... \$235/pr

#### CMs330 Compact Monitor Speaker

Bookshelf speaker in die-cast aluminum enclosure. High-compliance polypropylene 4" cone woofer, 1" soft-dome tweeter with phasing plug and ferrofluid damping. 12-dB/octave crossover includes separate choke for woofer. With mounting brackets. FR 60-22,000 Hz ± 4 dB; power range 10-80 W; sens 89 dB SPL/W/m; imp 4 ohms. Black aluminum. 4.62" w x 7.12" h x 4.5" d: 6 lb ..... \$215/pr

#### **CRs220 Compact Bookshelf Speaker**

Remote speaker with birch finish. 6-dB/octave crossover with separate choke for woofer. Mounting brackets included. 4" woofer; 1.5" tweeter. FR 80-20,000 Hz ± 4 dB; power range 10-60 W; sens 92 dB spi/W/m; imp 4 ohms; 5" w x 8.25" h x 4.5" d; 6 lb ..... \$110/pr

#### Subwoofer

#### BPI-A60 Bass Perfect Image Subwoofer

Subwoofer with built-in 60-W amp. 6th-order bass alignment with amp equalized for driver. 12" driver with 2" voice coil and 5-lb magnet; highor low-Z inputs; auto turn-on relay; adjustable crossover gain; 1"-thick nonresonant enclosure. Simulated rosewood finish. FR 20-180 Hz ± 3 dB: THD at 100 dB <0.5%; input sens line 250 mV-1.5 V, low-Z 1 V; input imp line 50 kilohms, speaker 22 ohms; power output 60 W rms from 20-180 Hz with -0.05% THD; low-pass crossover adjustable from 63-180 Hz; 12-dB/octave slope and infrasonic filter. 27.5" h x 15.75" w x 13.75" D .......\$525 ea

#### PENTAGRAM

#### P-10A Floor-Standing 3-Way Speaker

Pentagonal pyramid speaker with external or internal crossover and no resistors. 15" dampedcone passive rad; 10" cone woofer; 3" dome midrange; 2" ribbon tweeter; discteck wiring; polypropylene capacitors; 10-gauge aircore coil. FR 24-20,000 Hz ± 2 dB; min power 35 W; max power 250 W; sens 90 dB spL/W/m; imp 7.3 ohms. 26.5" w x 33.25" h x 24.5" d; 92 lbs; oak or wal-

#### P-8A Floor-Standing 3-Way Speaker

Damped pentagonal pyramid speaker with no resistors. Features 12" damped-cone passive rad; 8" polypropylene cone woofer; 3" dome midrange; 2" ribbon tweeter; discteck wiring; polypropylene capacitors. series circuit; quasi 12-dB/crossover. FR 34-20,000 Hz ± 2 dB; min power 25 W; max power 150 W; sens 90 dB SPL/W/m; imp 7.3 ohms. 18.5" w x 23.5" h x 18.5" d; 54 lbs. Oak or walnut finishes ..... \$1,100/pr

#### P-6 2-Way Speaker

Speaker with specially shaped internal bracing system. Features 6.5" polypropylene cone woofer; 1" dome tweeter. FR 45-22,000 Hz  $\pm$  2.5 dB; power handling 60 W; sens 91 dB SPL/W/m; walnut or oak veneer; 14.5" w x 18" h x 8.25" d; 22 lbs ...... \$495/pr

#### WP-1 Wall-Mounting 2-Way Speaker

Transmission-line speaker with discteck wiring and polypropylene capacitors. Features 6.5" polypropylene cone woofer; 1" dome tweeter. FR 40-20,000 Hz ± 2.5 dB; min power 15 W; max power 60 W; sens 91 dB sPL/W/m; imp 7.6 ohms. 13.5" W x 36" h x 3.44" d; 23 lbs. Black grille face ..... \$495/pr

WP-2 Wall-Mounting 2-Way Speaker

#### PHASE TECHNOLOGY

Phase Coherent Series

#### PC-1000 4-Way Speaker

Floor-standing phase-coherent passive-radiator speaker. Features met-polypropylene bypass capacitors; 10" solid-piston RPF radiator; 8" solidpiston RPF woofer; 5.25" solid-piston RPF midrange; 1" soft-dome tweeter; accepts banana plugs. FR 30-20,000 Hz  $\pm$  3 dB; power range 25 W; sens 250 dB sPL/W/m; imp 8 ohms; walnut and dark oak; 15.5" w x 38.25" h x 8.5" d; 70 lb.....\$1,300/pr

#### PC-800Ho 3-Way Speaker

#### PC-600Ho 2-Way Speaker

### PC-60 2-Way Speaker

#### PC-40 2-Way Speaker

Bookshelf phase-coherent acoustic-suspension speaker with met-polypropylene bypass capacitors; accepts banana plugs; genuine wood veneer; removable min-diffraction grille; speaker protection. 5.25" solid-piston RPF woofer; 1" softdome tweeter. FR 70-20,000 Hz  $\pm$  3 dB; power range 15-80 W; sensitivity 89 dB sound-pressure level with an input of 1 watt measured at 1 meter; imp 4 ohms; walnut, stained-oak, light-oak finish; 6.5" w x 9.75" h x 5.25" d; 10 lb .... \$360/pr

The listings are based on data provided by the manufacturers. For more product information, contact an authorized dealer or the manufacturer directly. Manufacturers' addresses and phone numbers are listed in the directory beginning on page 226.

#### Euro Series

#### 745 ES 3-Way Speaker

Floor-standing acoustic-suspension speaker with angled projected front baffle for minimum diffraction. Features 8" cone woofer; 6.5" cone midrange; 1" soft-dome tweeter; removable min-diffraction grille; rubber surround on woofer and midrange. Accepts banana plugs. FR 35-20,000 H2 ± 3 dB; min power 15 W rms; max power 120 W rms; sens 93 dB SPL/W/m; imp 4 ohms. 10" w x 35.25" h x 11.75" d; 42 lb...... \$550/pr

#### 535 ES 3-Way Speaker

#### 325 ES 2-Way Speaker

Bookshelf acoustic-suspension speaker with angled projected front baffle for minimum diffraction. Features 6.5" cone woofer; 0.5" dome tweeter; removable min-diffraction grille; rubber surround on woofer. Accepts banana plugs. FR 55-20,000 Hz  $\pm 3$  dB; min power 15 W rms; max power 80 W rms; sens 92 dB sPL/W/m; imp 4 ohms. Walnut or black-ash vinyl finish. 8" w x 17.25" h x 8.75" d; 17 lb ..... \$240/pr

#### Subwoofer/Satellite Systems

#### PC-60/50 Subwoofer/Satellite Set

#### PC-40/30 Subwoofer/Satellite Set

#### Subwoofers

#### PC-50 Subwoofer

Down-firing floor-loaded acoustic-supension subwoofer with met-polypropylene bypass capacitors; internal passive crossover for use with satellite speakers; feet extenders for heavy carpeting; genuine wood veneer. 10° solid-piston RPF<sup>TM</sup> woofer. FR 30-150 Hz  $\pm$  3 dB; power range 25-200 W; sens 87 dB sound-pressure level with input of 1 watt measured at 1 meter; imp 8 ohms; walnut, light oak, stained oak finish; 13″ w x 14″ h x 15″ d; 33 lb ......\$330 ea

#### PC-30 Subwoofer

Down-firing floor-loaded acoustic-suspension subwoofer with met-polyproplene bypass capacitors, internal passive crossover for use with satellite system; feet extenders for heavy carpeting; genuine wood veneer. 8" solid-piston RPF woofer. FR 35-150 Hz  $\pm$  3 dB; power range 15-150 W; sens 89 dB sFL/W/m; imp 4 ohms; walnut, stained oak, light oak finish; 11" w x 12" h x 13" \$250 ea

#### PINNACLE

### PN15 4-Way Speaker

Floor-standing 4th-order-vented speaker with LCR-type modified quasi 2nd-order phase-coherent network. Features 10" polypropylene woofer; 1.5" convex fabric-dome midrange; 1" convex fabric-dome tweeter; 0.75" polycarbonate fluidome supertweeter; mylar capacitors; ultra-low-resistance air-core inductors. Imp and resonance compensated. Finished cabinet with removable grilles and binding-post terminals. FR 36-21,000 Hz ± 3 dB; min power 15 W rms; max power 150 W rms; sens 92 dB sPL/W/m; imp 6 ohms. Mahogany or cherry wood veneer. 16" w x 27.88" h x 9.94" d; 46 lb ...... \$750/pr

#### PN10 3-Way Speaker

Floor-standing 4th-order-vented speaker with LCR-type modified quasi 2nd-order phase-coherent network. Features 10" polypropylene woofer; 1.5" convex fabric-dome midrange; 1" polycarbonate fluidome tweeter; mylar capacitors; ultralow-resistance air-core inductors; binding-post terminals. Imp and resonance compensated. Cabinet has built-in 2" pedestal and removable balckknit grilles. FR 36-21,000 Hz  $\pm$  3 dB; min power 15 W rms; max power 150 W rms; sens 90 dB SPL/W/m; imp 6 ohms. Hickory vinyl finish. 16" w x 27.88" h x 9.94" d; 42 lb ...... \$499/pr

#### Monitor 200 3-Way Speaker

### PN8 Compact 3-Way Speaker

Acoustic-suspension speaker with 0.75" ferrofluid polycarbonate tweeter, 4.5" polypropylene-cone midrange, and 8" polypropylene-cone woofer. FR 60-21,000 Hz ± 3 dB; min power 10 W rms; max power 80 W rms; sens 90 dB spL/W/m; imp 4 ohms; Hickory vinyl veneer; 9.75" w x 15.25" h x 8.88" d; 32 lb/pr ..... \$299/pr

#### PN7 3-Way Speaker

Bookshelf bass-reflex speaker with 6.5" polypropylene woofer; 1" convex fabric-dome tweeter; 0.75" polycarbonate fluidome supertweeter. Push-spring terminals and removable black-knit grilles. FR 55-21,000 Hz ± 3 dB; min power 10 W rms; max power 70 W rms; sens 90 dB SPL/W/m; imp 4 ohms. Hickory vinyl finish. 9.25" w x 14.5" h x 8.5" d; 26 lb/pr..... \$249/pr

#### PN 6+ 2-Way Speaker

Bookshelf speaker with front-mounted Diaductport design. Features 0.75" ferrofluid dome tweeter; 6.5" polypropylene woofer. FR 55-21,000 Hz  $\pm$  3 dB; sens 89 dB SPL/w/m; min power 10 W rms; max power 60 W rms. Hickory vinyl veneer; 9.25" w x 14.5" h x 7.88" d; 26 lb/pr\$229/ pr

#### PN6 2-Way Speaker

Bookshelf acoustic-suspension speaker with 6.5" polypropylene woofer; 0.75" polycarbonate flui-

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components. Steeped in audio breakthroughs and advanced designs. Harman Kardon's Citation division introduceo the world's first Utrawideband amplifier in 1963the Citatron 2 vacuum .ube amplifier. In 1572, the Citation '4. the first FM sterep tuner with Phase Locked Loop (PL\_) MPX decoding

Dr. Sidney Harman, Founder and Chairman of Harman Kardon

was introduced. In 1977, the 150-Watt-per-channel Citation 19 became the first powe: amplifier to feature low negative feedback. 1991 saw the introduction of the Citation XX. Its exclusive High instantaneous Current Capability (HCC, design provided the instantaneous current required to precisely drive and control any loudspeaker system.

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superior adjacent and alternate channel rejection lets you ture in more stations with more fidelity than was ever before possible

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CITATION TWENTY - THREE IN TYPICAL SINGLE IF TUNER

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#### PN 5+ 2-Way Speaker

Bookshelf speaker with Diaduct-port design. Features 0.75" polycarbonate ferrofluid tweeter; 5.25" polypropylene-cone woofer. FR 65-21,000 Hz; sens 86 dB SPL; power range 10-50 W; imp 6 ohms; 6.75" w x 11.25" h x 6.88" d; 17 lb/ pr......\$149/pr

#### PIONEER

#### CS-V900D 3-Way Speaker

#### DSS-E10 3-Way Speaker

#### **DSS-9 3-Way Speaker**

#### **DSS-7 3-Way Speaker**

#### CS-707 4-Way Speaker

Bass-reflex speaker with 15.75" dual-voice-coil woofer, 4.75" midrange, horn tweeter with acoustic lens, and twin-piezo supertweeter. Features EBD (electronic bass drive); 3-position tone selector; LED power indicator. 1mp 8 ohms; sens 98 dB SPI/W/m; max power 300 W. Walnut-grain vinyl finish. 28.56" h x 17.69" w x 10.56" d\$720/pr

#### CS-V90 4-Way Speaker

Magnetically shielded speaker with 12" woofer, 6.31" low midrange, 4.75" high midrange, and 2" tweeter. Nominal imp 6 ohms; sens 90 dB sp1./ W/m; max power 120 W. Rosewood-grain vinyl finish. Each enclosure measures 15.34" wide x 47.44" high x 16.81" deep ..... \$700/pr

#### CS-607 4-Way Speaker

Bass-reflex speaker with 12" dual-voice-coil woofer, 4.75" midrange, horn tweeter with acoustic lens, and twin-piezo supertweeter. Features EBD (electronic bass drive); LED power indicator. Imp 8 ohms; sens 96 dB SPL/W/m; max power 210 W. Walnut-grain vinyl finish. 25.56" h x 16.12" w x 11.25" d ...... \$600/pr

#### **DSS-5 3-Way Speaker**

#### DSS-E6 3-Way Speaker

#### CS-V9920 4-Way Speaker

#### CS-V70A 3-Way Speaker

### CS-V9020 3-Way Speaker

#### CS-407 3-Way Speaker

Bass-reflex speaker with 12", 4" midrange, and 2.5" cone tweeter. Imp 8 ohms; sens 94 dB sPL/ W/m; max power 150 W. Walnut-grain vinyl finish. 24.81" h x 14.94" w x 10.38" d ... \$360/pr

### S-V909X(BK) 3-Way Speaker

Magnetically shield speaker with 8.69" polymergraphite woofer, 1.38" midrange, and 1" tweeter. Features tone control. Max power 120 W. 18.12" h x 10.62" w x 9.44" s ...... \$360/pr

#### CS-G301WAII 3-Way Speaker

Bass-reflex bookshelf speaker with 12" woofer, 4.75" midrange, and 2.62" tweeter. Imp 6 ohms; sens 91.5 dB spi./W/m; max power 120 W. Wal-

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#### S-V707X(BK) 3-Way Speaker

#### CS-VX50A 2-Way Speaker

Magnetically shielded compact speaker designed as surround-sound or external TV monitor speakers. Wall mountable (rear brackets attached). Features 7" woofer; 2.5" tweeter. Nominal imp 6 ohms; sens 90 dB SPL/W/m; max power 60 W. Rosewood-grain vinyl finish. Sold as mirror-image pairs. 8.69" w x 13.75" h x 7.5" d . \$200/pr

#### CS-G201WAII 3-Way Speaker

Bass-reflex bookshelf speaker with 10" woofer, 3" midrange, and 2.62" tweeter. Imp 6 ohms; sens 90 dB SPL/W/m; max power 100 W. Walnut grain vinyl finish. 24" h x 13.75" w x 11.81" d ......\$200/pr

#### CS-G101WAII 2-Way Speaker

Sealed box bookshelf speaker with 10" woofer and 2.62" tweeter. Imp 6 ohms; sens 90 dB SPL/ W/m; max power 50 W. Walnut-grain vinyl finish. 22.44" h x 13" w x 7.81" d...... \$140/pr

#### S-X7 Full-Range Speaker

Compact bass-reflex speaker desined for surround-sound applications. Features 3.5" driver; sens selector switch; black vinyl finish. Imp 16 ohms; sens 90 dB SPL/W/m; max power 30 W. 5.44" h x 7.5" w x 4.5" d.............\$120/pr

#### **POLK AUDIO**

#### SDA-SRS Signature Reference Speaker

Floor-standing speaker that incorporates coherent Line-Source True Stereo (SDA) technology for 3-dimensional imaging. Features 15" planar passive radiator; 8 6.5" trilaminate polymer midranges; 4 1" silver-coil soft-dome tweeters. FR 14-2,600 Hz  $\pm$  3 dB; power range 10-1,000 W; sens 95 dB sPL/W/m; imp 4 ohms. Oiled oak, walnut, or black-lacquer finish. 21" w x 63.75" h x 13" d ......\$2,990/pr

#### SDA-SRS2 Signature Reference Speaker

Floor-standing smaller-version SDA-SRS. Features Polk's SDA True Stereo Technology for 3dimensional imaging; 15" passive radiator; 4 6.5" trilaminate polymer bass/midrange drivers; 2 1" silver-coil polymer-dome tweeters. Power range 10-750 w rms; sens 93 dB SPL/W/m; imp 4 ohms. Oiled-walnut, -oak, or black-lacquer finish .....\$2,000/pr

### SDA-1C 3-Way Speaker

Floor-standng speaker. Features 4 Polk MW 6600x trilaminate polymer bass/midrange drivers; Stereo/Dimensional isophase crossover system for blending all 12 active drivers of 2 SDA-1's; SL 2000 L/P high-frequency radiator incorporating an exclusive silver-coated voice coil windings for FR beyond 25,000 Hz and hyperbolic section polyamide diaphragm; sub-bass radiator. Recommended power 10-500 W; FR 15-26,000

### PRICES LISTED are manufacturers' suggested retail prices

(also referred to as *list* prices); actual selling prices are set by individual dealers. All prices are subject to change without notice.

Hz; imp 4 ohms; crossover frequencies 50, 100, and 2,500 Hz; system resonance 15 Hz; sens 95 dB spl/W/m. Oiled-walnut or -oak cabinet. Black studio version at lower cost. 43.5" h x 16.5" w x 12" d; 85 lb ......\$1,600/pr

#### SDA-2B 2-Way Speaker

Similar to SDA-1B except 2 6600X bass/midrange and SL2000 tweeter drivers. Crossover frequencies at 50 and 2,500 Hz. FR 15-26,000 Hz; system resonance 15 Hz; sens 92 dB spL/W/m; imp 6 ohms. Oiled-walnut or -oak cabinet. Black studio version at lower cost. 39.5" h x 16.5" w x 12" d ..... \$1,200/pr

SDA Compact Reference System + (CRS+) Bookshelf speaker with SDA technology for lifelike three-dimensional imaging. Features 2 6.5" trilaminate polymer bass/midrange drivers; 1" SL 2,000 polymer dome tweeter; 10" passive cone radiator. FR 24-25,500 Hz; power range 10-250 W; sens 92 dB SPL/W/m; imp 4 ohms. Black ash, walnut or rosewood furniture-grade vinyl finish. Hand-rubbed oak or walnut finish available at extra cost. 20" w x 12.5" h x 9.5" d . . . . \$800/pr

#### R.T.A. 12C Monitor 3-Way Speaker

Real-time-array floor-standing speaker with 12" low-resonance molded-foam subwoofer, 2 6.5" polymer-laminated bass/midrange drivers, and SL 2,000 tweeter. FR 17-25,000 Hz; crossover frequencies 40 and 2,000 Hz; power range 10-500 W; imp 6 ohms. Walnut- or rosewood-grain finish. Genuine walnut-veneer finish available at ex-tra cost. 39" h x 16" w x 12" d...... \$960/pr

#### R.T.A. 11T Monitor 3-Way Sepaker

Real-time-array floor-standing speaker with 2 8" low-resonanace subwoofers, 2 6.5" polymer-laminated bass/midrange drivers, and a 1" polymerdome tweeter. FR 15-25,000 Hz; power range 10-250 W; imp 6 ohms; crossover frequencies 60 and 2,500 Hz. Black-ash or rosewood-grain fin-.....\$850/pr ish .

#### Monitor 10B 3-Way Speaker

Sub-bass radiator/sealed floor-standing speaker with 10" fluid-coupled subwoofer, 2 6.5" bass/ midrange drivers, and 1" soft-dome tweeter. FR 22-25,000 Hz; power range 10-250 W; imp 6 ohms; crossover frequencies 60 and 3,000 Hz. Black-ash, walnut-grain, or rosewood-grain finish. Genuine walnut-veneer finish available at extra cost. 28" h x 16" w x 11.5" d ..... \$660/pr

### Monitor 7C 3-Way Speaker

Sub-bass radiator/sealed bookshelf speaker with 10" subwoofer, 6.5" plasticized bass/midrange driver, and 1" soft-dome tweeter. FR 26-25,000 Hz; power range 10-100 W; imp 6 ohms; crossover frequencies 60 and 3,000 Hz. Black-ash, wal-SL 2,000 tweeter. FR 31-25,000 Hz; power range 10-60 W; imp 4 ohms. 21.5" h x 10.5" w x 8.5" \$400/pr d . .

Monitor 5Jr + 3-Way Speaker Bookshelf speaker with 1" SL 2,000 tweeter, 6.5" tri-laminate polymer bass/midrange driver, and 6.5" fluid-coupled subwoofer. FR 29-26,000 Hz; power range 10-100 W; imp 4 ohms. Black-ash, 

### Monitor 4.5 2-Way Speaker

Bookshelf speaker with 6.5" tri-laminate polymer bass/midrange driver, 1" moving-coil highd-frequency radiator, and isophere crossover. Features cabinet and grille design to eliminate diffraction effects. FR 30-25,000 Hz ± 3 dB; power range 10-100 W; max output 114 dB sPL; crossover frequency 4,500 Hz; imp 6 ohms. 17" h x 9" w x 8.88" d ..... \$220/pr

#### Monitor 4A 2-Way Speaker

Bookshelf speaker with trilaminate-polymer 6500 woofer, 1" moving-coil high-frequency radiator, and isophase crossover network. Features cabinet and grille design to eliminate diffraction effects and terminated transmission duct that loads bass/midrange driver into deep-bass range. FR 55-21,000 Hz ± 3 dB; power range 10-80 W; max output 114 dB spL; crossover frequency 4,500 Hz; imp 6 ohms. 14.5" H x 8.5" W x 7.36" D\$170/pr

#### POLYDAX

#### Audax EZ-302 2-Way Speaker

Compact speaker with die-cast aluminum, mirror-imaged, wedge-shaped enclosure to eliminate internal standing waves and optimize acoustic coupling. Features 4" cone woofer with butyl rubber surround and die-cast ZAMAC basket; 1" soft-dome textile tweeter matched to woofer. FR 60-20,000 Hz ± 3 dB; min power 10 W rms; max power 50 W rms; sens 86 dB sPL/W/m; imp 4 ohms. Available in matte-black finish. 8" w x 5" h x 6.62" d; 7 lbs..... \$300/pr

#### PROTON

#### AL-300 Floor-Standing Speaker

Floor-standing speaker withs 12" woofer air-sus-pension enclosure with 30-oz magnet and diffraction control to alter radiation pattern; 3.5" treated cone midrange with integral subenclosure; 1" polyester soft-dome tweeter with fluid cooling.



weighted average, 3.3 ohms min; sens 90 dB sPL/ W/m; 100 W average 1,000 W peak into 4 ohms for 250 ms repeated 10 times with 2 second intervals. FR 39-20,000 Hz ± 2 dB; THD <1% at 85 dB SPL ..... \$899/pr

# PSB SPEAKERS by LINCOLNWOOD

All speakers are 2-way, with 1" dome tweeters; imp 8 ohms; long-throw woofers with aluminum voice coil; acoustic Butterworth crossovers with air-core inductors and bipolar capacitors.

#### Stratus Tower Speaker

8" woofer with focused magnetic gap; cloth-dome tweeter; 2nd-order crossover at 1,800 Hz; light oak, dark oak, black wood finishes. Frequency response 60-20,000 ± 2 dB; sensitivity 88 dB SPL/ 2.83 V/m; power range 15-150 W; 13.5" wide x 29.75" high x 12.75" deep; 45.5 lb each \$1,300/pr

#### 70R Stand-Mount Speaker

8" woofer with focused magnetic gap; 2nd-order crossover at 1,800 Hz; black or hickory. FR 60-20,000 ± 2 dB; sens 88 dB sPL/2.83 V/m; power range 15-150 W; 13.5" w x 29.75" h x 12.75" d; 45.5 lb ea ..... \$600/pr

#### 50R Stand-Mount Speaker

8" woofer with focused magnetic gap; 2nd-order crossover at 1,800 Hz; black or hickory. FR 70-20,000 ± 2 dB; sens 88 dB SPL/2.83 V/m; power range 15-150 W; 11.5" w x 22.25" h x 10.5" d; 29 lb ea ..... \$500/pr

#### 40R Stand-Mount Speaker

8" woofer with focused magnetic gap; 3rd-order crossover at 2,000 Hz; black or hickory. FR 70- $20,000 \pm 2 \text{ dB}$ ; sens 90.5 dB spL/2.83 V/m; power range 15-150 W; 10.25" w x 21" h x 17" d; 24 lb ea .....\$350/pr

#### **30R Bookshelf Speaker**

6" woofer; 3rd-order crossover at 2,500 Hz; black or hickary. Frequency response 80-20,000 ± 2 dB; sensitivity 87 dB sPL/2.83 V/m; minimum power 15 W; maximum power 125 W; 8.5" wide x 14.5" high x 8.25" deep; 15 lb ea.... \$250/pr

#### Subwoofer

#### Subwoofer 1

Optimized for 50R speakers, can be used with 30R or other speakers with sens 86-92 dB SPL/ W/m; stereo crossover network at 100 Hz rolls off frequencies going to satellite speakers at 6 dB/ octave; 2.8 extra-long-throw woofers with aluminum voice coils can be combined for mono; tuned port; black or hickory finish; Barton hickory or black ash. Power range 30-200 W rms; system resonance 26 Hz; sens 88 dB SPL/W/m; 22" w x 22" h x 22" d; 90 lb ..... \$700

#### OUAD

#### ESL-63 Electrostatic Speaker

Full-range electrostatic doublet speaker with dipole source (radiates sound from front and back of panel. reflecting energy from wall behind speakers). Features 2 protection circuits. Power range 100-190 W; sensitivity 86 dB, 2.83 V rms; impedance 8 ohms; axis band limits -6 dB at 35 Hz, third-order, -6 dB at 20,000 Hz; 92.5 x 66 x 27 cm; 23 kg; black ..... \$3,150/pr ESL-63 Pro. Professional version with carrying handles ......\$3,800/pr

#### QUASAR

#### SW99 2-Way Speaker

Bookshelf box speaker. Features 10-W/ch internal amp; 5.5" cone woofer; 2.5" cone tweeter. FR 35-20,000 Hz ± 10 dB; max power 10 W; imp 8 ohms; black; 7.28" w x 12.28" H x 8.16" d; 20 lb ..... \$200/pr

#### SW30 Full-Range Speaker

Bookshelf round-ball speaker designed for use as rear-channel speakers. Features 4" cone midrange. Includes stands. FR 150-20,000 Hz ± 10 dB; black\_ 6" diameter; 5.25 lb ..... \$50/pr

### RCA

#### SPK500 Dimensia 3-Way Speaker

Floor-standing bass-reflex speaker with Zero Magnetic Distortion for placement next to video monitor. Features 11" cross-carbon woofer; 4" pure carbon midrange; 1" titanium-alloy dome tweeter. FR 28-20,000 Hz ± 3 dB; max input power 160 W rms; imp 8 ohms. 12.75" w x 36" h x 12.5" d ..... \$549/pr

System impedance 4 ohms nominal, 6 ohms

#### SPK400 Dimensia 3-Way Speaker

Floor-standing acoustic-suspension speaker with Zero Magnetic Distortion. Features  $12^{"}$  nyloncoated woofer;  $4^{"}$  resin-coated midrange;  $1^{"}$  soft dome tweeter. FR 35-20,000 Hz  $\pm 3$  dB; max input power 120 W rms; imp 8 ohms. 13.63" w x 24.25" h x 12.75" d...... \$399/pr

#### SPK250 Dimensia 2-Way Speaker

Acoustic-suspension speaker with Zero Magnetic Distortion. Features 8" polypropylene woofer, 1" soft-dome tweeter. FR 45-20,000 Hz  $\pm$  3 dB; max input power 80 W rms; imp 8 ohms. 9.5" w x 15.63" h x 9.5" d..... \$269/pr

#### SPK050 Surround-Sound Speaker

#### REALISTIC

Nominal imp of all Realistic speakers is 8 ohms.

#### Mach Two 3-Way Speaker

Vented Ferrofluid-cooled speaker with 15" woofer, 5" cone midrange, 4" dual-radial superhorn tweeter; level controls for midrange and tweeter; walnut veneer. Max power 160 W; sens 94 dB SPL/W/m; 27.56" x 17.75" x 11.81" ... \$500/pr

#### Nova 15 Speaker

Walnut-veneered vented speaker with 2.5" tweeter. Max power 60 W; 19" x 16.75" x 7.5" \$160/pr

#### MC-1800 Acoustic-Suspension Speaker

#### MC-800 2-Way Bookshelf Speaker

6.5" woofer; 2.5" cone tweeter; removable cloth grille; push-on speaker terminals. Max power 40 W. 13.5" x 8.88" x 5.31" ...... \$80/pr

#### 40-165 Mini Speakers

2.5" square drivers; attached cable with mini plug for portable CD players and pocket stereos. Max power 1 W; 3.6" x 2.9" x 1.75"...... \$20/pr

#### 40-155 Stereo Mini Speaker

Single enclosure with 2 1.5" drivers; mini plug for portable CD players and pocket stereos. 3.12" x 3.25" x 1.25" ..... \$10

#### Optimus Speakers

1000. Floor-standing bass-reflex tuned-port speaker with 15" high-compliance woofer, 5" midrange, 3" tweeter. FR 50-20,000 Hz ± 3 dB; max power 100 W rms; sens 92 dB SPL/W/m; imp 8 ohms. Oiled-walnut finish. 17.3" W x 31.8" H x 11.6" D; 44 lb ..... \$400/pr 900. Floor-standing bass-reflex tuned-port speaker with 12" high-compliance woofer, 4" midrange, 2.5" Ferrofluid tweeter. FR 50-20,000 Hz ± 3 dB; max power 100 W rms; sens 90 dB SPL/ W/m; imp 8 ohms. Oiled-walnut finish. 14" W x 29.75" H x 10.88" D; 33 lb ..... \$300/pr 600. Bass-reflex speaker; 8" woofer; 4" midrange; 2.5" cone tweeter; removable cloth grille; recessed color-coded spring-loaded terminals. Max power 70 W; sens 90 dB SPL/W/m. Oiled walnut veneer ..... \$200/pr

#### Minimus Speakers

7W. Walnut-veneer mini speaker with 4" woofer; 1" soft-dome tweeter; removable cloth grille; spring terminals. Max power 40 W; 8" x 5" x 4".....\$120/pr 7. Die-cast metal enclosure; long-excursion 4" woofer; 1" soft-dome tweeter; deluxe crossover for smooth response without artificial peaks; hanger slots and recessed spring connectors for wall mounting. Max power 40 W; 7.1" x 4.4" x 4.3" ..... \$100/pr 25. 5" long-throw woofer; 2.5" tweeter; walnut veneer. Maximum recommended power 40 W; 11" x 6.7" x 4.3" ...... \$60/pr 0.6. Powered speakers with 2.5" drivers for use with portable CD players and pocket stereos; 8 C batteries needed; with case, strap, cable. 5.6" Н..... \$50/рг 18. 4" driver; spring terminals; walnut vinyl finish. 9.4" x 5.75" x 4.75" . . . . . . . . . . . \$44/pr 3.5. Molded enclosure with steel grille; spring terminals for attached cables. Maximum power 15 W: 5.75" x 3.6" x 3.1" ..... \$40/pr 2.5. 4" driver; walnut vinyl finish. Max power 10 W; 6.6" x 4.9" x 3.1" ..... \$32/pr 3. 5" driver; walnut-vinyl finish. Max power 7 W; 10" x 8.5" x 5.5" ..... \$28/pr 0.3. Cube speaker with 3" driver; walnut veneer. Max power 7 W; 4" x 4" x 3.3" ..... \$26/pr Mounting Brackets. For 7W and 7...\$14.95/pr Mounting Brackets. For 3.5..... \$9.95/pr

#### **Supertweeters**

#### **REVOX**

#### Agora B Amplified Speaker

Floor-standing triamplified active ported speaker incorporating three 100-watt amps with active dividing networks in each enclosure. Designed to be driven from preamp or direct from high-level sources such as CD player. Features push-pull dual-woofer design with one woofer facing into enclosure to eliminate even-order harmonic distortion. Two 8" cone woofers; 4.75" cone mid-



range; 0.75" titanium-dome tweeter. Low-frequency amp utilizes feedback to compensate for back-EMF. Also features 4-step bass and treble controls; bass-blend switch; auto power on/off. FR 30-21,000 Hz  $\pm$  3 dB; sens 110 dB SPL/W/m; real walnut veneer finish with brown grille or polished ebony finish with black grille. 16.75" w x 29" h x 16.75" d; 68 lb.......\$4,000/pr Black lacquer finish......

#### Symbol MK-II 3-Way Speaker

Floor-standing speaker with 12.2" passive radiator. Features 12.2" woofer; 4.8" midrange; 1" tweeter; screw-lock connection terminals; fuse overload protection. Max power input 200 W continuous, 300 W peak; imp 4 ohms; sensitivity 92 dB sound-pressure level with input of 1 watt measured at 1 meter. Dark walnut veneer finish; 16.7" w x 39.8" h x 16.3" d; 112 lb ...\$3,200/pr

#### Atrium MK-II 3-Way Speaker

Floor-standing bass-reflex speaker features 10.2" woofer; 4.8" midrange; 1" tweeter; screw-lock connection terminals; fuse overload protection. Max power input 140 W continuous, 180 W peak; imp 4 ohms; sens 91 dB SPL/W/m. Dark walnut veneer finish; 13.5" w x 33.6" h x 14.5" d; 84 lb ......\$2,000/pr

#### Plenum MK-II 3-Way Speaker

3-way bass-reflex bookshelf speaker. Features 10.2" woofer; 4.5" midrange; 1" tweeter; screw-lock connection terminals; fuse overload protection. Max power input 130 W continuous, 170 W peak; imp 4 ohms; sens 89 dB sPL/W/m. Dark walnut veneer finish; 13.7" w x 22.8" h x 13.4" d; 55.2 lb ................\$1,600/pr

#### Forum MK-II 3-Way Speaker

3-way bass-reflex bookshelf speaker. Features 9.6" woofer; 3.9" midrange; 0.7" tweeter; screwlock connection terminals; fuse overload protection. Max power input 110 W continuous, 150 W peak; imp 4 ohms; sens 88 dB SPL/W/m. Dark walnut veneer finish; 13" w x 17.5" h x 13.4" d; 36.8 lb ......\$1,600/pr

#### Piccolo Miniature Speaker

#### Studio 4 Acoustic-Suspension Speaker

Compact speaker with black cabinet and metal grille. Features 9" cone woofer; 1.25" dome midrange; 0.75" dome tweeter. FR 40-22,000 Hz  $\pm 3$ dB; power range 20-70 W; imp 4 ohms; 11.5" w x 18.31" h x 11.62" d; 20.5 lb ...... \$600/pr

#### **ROBERTSON AUDIO**

#### Twenty-One Infinite-Baffle Speaker

Floor-standing speaker with custom-built drivers designed to have the speed of electrostatics. Features two 8" cone woofers; 1.5" cone tweeter. FR  $30-22,000 \text{ Hz} \pm 3 \text{ dB}$ ; min power 20 W; sens 92.5 dB SPL/W/m; imp 4 ohms. 19" w x 31.5" h x 9" d; 54 lb. Mahogany finish ......\$1,695/pr

#### Eleven 2-Way Speaker

#### ROCKUSTICS

All Rockustics speakers are designed with an indivdually hand-crafted natural-look stone enclo-



sure to blend into outdoor landscaping. Rockustics speakers are completely water- and weather-proof for outdoor applications and feature positive, negative, and ground connection terminals.

Stonehenge. 3-way speaker with 8" woofer, 5.4" midrange, and 1" dome tweeter. FR 54-18,500 Hz ± 3 dB; power handling 150 W; imp 4 ohms; sens range, and 1" dome tweeter. FR 54-18,500 Hz ± 3 dB; power handling 150 W; imp 4 ohms; sens 90 dB sPL/W/m. 120 lb..... \$1,500/pr Rocky Jr. 2-way speaker with 6.5" long-throw polypropylene-cone woofer, 1" soft-dome ferrofluid-cooled tweeter, and third-order crossover (3,000 Hz). FR 58-18,500 Hz ± 2.5 dB; impedance 5 ohms nominal, 3.7 ohms minimum; sensitivity 90 dB spl/W/m ..... \$650/pr

#### **ROKSAN ENGINEERING**

#### Darius Speaker with Integral Stand

2-way infinite-baffle speaker with dedicated cage frame on spike feet that clamps cabinet at 8 nodal points; all panels of 1" Medite with mitred joints; tweeter mounted on minibaffle suspended on springs from main cabinet (desiged to resonate at frequency well below tweeter's range) for isolation from woofer and cabinet effects; can be used away from walls, angled in at approximately 90°; separate crossover. Cabinet 16" x 18.5" x 10.5"; stand 17.5" x 38" x 13".

Rosewood													\$3,500/pr
White ash					•						•		\$3,030/pr
Walnut													\$2,900/pr
Black ash		*											\$2,750/pr
Crossover													\$265

#### SANSUI

#### XL-500C 4-Way Speaker

Floor-standing passive-radiator tower speaker. Features ported enclosure; polypropylene mica and carbon midrange (PM-C); 12" passive rad; 12" TCCF cone woofer; 4.75" cone midrange; 2" dome tweeter; 0.62" dome supertweeter. Max power 320 W; sens 93 dB sPL/W/m; imp 8 ohms. Available in walnut finish. 15" w x 40.56" h x 13" d: 55 lb . .....\$1,320/pr

#### XL-300 4-Way Speaker

Floor-standing speaker. Features ported enclosure; 3-step level control; 10.5" TCCF cone woofer; 4.75" PC-M cone midrange; 2" dome tweeter; 0.62" dome supertweer. Max power 270 W; sens 92 dB spL/W/m; impedance 8 ohms. Available in walnut finish. 15" w x 31.12" h x 9.06" d; 46.2 lb ..... \$1,000/pr

#### XL-100 3-Way Speaker

Floor-standing bass-reflex speaker. Features ported enclosure; 3-step level control; 10.5" TCCF (tri-composite carbon-fiber) cone woofer; 4.75" PC-M cone midrange; 2" dome tweeter. Max power 200 W; sens 91 dB sPL/W/m; imp 8 ohms. Available in walnut finish. 14.75" w x 26.56" h x 12.81" d; 28.7 lb ..... \$850/pr

#### S-5000U 4-Way Speaker

Floor-standing speaker features 12" cone woofer; 5" cone ferrofluid midrange; 1" dome tweeter with ferrofluid; 0.50" dome supertweeter with ferrofluid. Max power 200 W; sens 91 dB/w/m; imp 8 ohms. 16" w x 41" h x 11" d; 48lb\$850/pr. S-3000U, Similar to S-5000U except does not have 0.50" dome supertweeter ..... \$700/pr

#### S-2000U 3-Way Speaker

3-way design with passive radiator. Features 12" cone woofer; 4" cone midrange; 3" cone tweeter; 12" cone passive radiator. Max power 160 W; sens 92 dB/W/m; imp 8 ohms. 15.25" w x 41" H x 11" D; 44 lb ..... \$526/pr

#### S-V929U 4-Way Speaker

Floor-standing magnetically shielded speaker for audio/video use. Features 12" cone passive radiator; 12" cone woofer; 4" cone midrange; 2.5" cone tweeter. FR 29-22,000 Hz ± 3 dB; max power 160 W rms; sens 92 dB spL/W/m; imp 8 ohms. Simulated wood-grain finish. 15.25" w x 41" h x 11" d; 48 lb ..... \$600/pr

#### S-V828U 4-Way Speaker

Floor-standing magnetically shielded speaker for audio/video use. Features 10" cone passive radiator; 10" cone woofer; 4" cone midrange; 2.5" cone tweeter. FR 32-22,000 Hz ± 3 dB; max power 160 W rms; sens 91 dB SPL/W/m; imp 8 ohms. Simulated wood-grain finish. 13" w x 37.44" h x 11" d; 41 lb ..... \$460/pr

#### S-1000U 3-Way Speaker

Features 12" cone woofer; 4" cone midrange; 3" cone tweeter. Built in self-restoring overload protector. FR 32-22,000Hz. max power 160/w; sens 91 dB SPL/W/m; imp 8 ohms. 15.25" w x 37.5" h x 11" d; 391b ..... \$350/pr

#### S-V727U 4-Way Speaker

Floor-standing magnetically shielded speaker for audio/video use. Features 10" cone passive radiator; 8" cone woofer; 4" cone midrange; 2" cone tweeter. FR 30-22,000 Hz ± 3 dB; max power 65 W rms; sens 90 dB sPL/W/m; imp 8 ohms. Simulated wood-grain finish. 13" w x 34" h x 10.25" d; 28.5 lb ..... \$320/pr

#### SCOTT

All Scott speakers use acoustic-suspension enclosures with PVA-coated woofers.

#### S12T6 Multidirectional Speaker

Floor-standing 3-way 6-driver speaker with 12" woofer, 2 4.5" ferrofluid-cooled midranges (1 front, 1 top), 3 1.75" ferrofluid-cooled tweeters (1 front, 2 top); oak-vinyl finish. FR 42-20,000 ± 4 dB; power range 15-175 W rms; sens 22 dB spL/
 W/m; 16.5" w x 31.2" h x 10.7" d .... \$480/pr
 \$10T5. Similar to \$12T6 except 10" woofer, 5 drivers, max power 150 W ..... \$400/pr

**S153 Floor-Standing 3-Way Speaker** 15" woofer, 4.5" ferrofluid-cooled midrange, 1.75" ferrofluid-cooled tweeter. FR 40-20,000 Hz ± 4 dB; power range 15-175 W rms; sensitivity 91 dB spL/W/m; 18.75" wide x 33" high x 11" deep; 45 lb . \$400/pr S123. Similar to above except 12" woofer and max power 150 W ..... \$330/pr

#### Audiophile One 2-Way Speaker

Bookshelf speaker with 3-way binding posts; passive tweeter protection; air-core crossover coils; 6.5" woofer; 1" textile soft-dome tweeter. FR 55-22,000 Hz ± 4 dB; power range 15-150 W rms; sens 90 dB SPL/W/m; imp 4 ohms. Oak-vinyl finish. 9.2" w x 14.75" h x 7.12" d ..... \$300/pr

#### S103 3-Way Bookshelf Speaker

10" woofer; ferrofluid-cooled 4.5" midrange; 1.75" center-mounted ferrofluid-cooled tweeter; hickory-vinyl finish. FR 45-20,000 ± 4 dB; power range 10-100 W rms; sens 92 dB sPL/W/m; imp 8 ohms; 11.75" w x 21.75" h x 9" d..... \$230/pr

#### S82 2-Way Bookshelf Speaker

8" woofer; 1.75" ferrofluid-cooled tweeter; hickory-vinyl finish. FR 55-20,000 Hz  $\pm 4$  dB; power

For explanations of abbreviations. specifications, and technical terms, consult the glossary on page 221.

range 5-85 W rms; sens 92 dB SPL/W/m; 9.5" w x 18" h x 7.6" d..... \$160/pr S62. Similar to S82 except 6.5" woofer and max power 70 W ..... \$140/pr

#### SDM by SOUND DYNAMICS

All SDM speakers are bass reflex, with 5" cone midrange, 1" horn tweeters, crossovers at 2,000 and 5,000 Hz, nominal impedances of 8 ohms, minimum impedances of 4 ohms, in walnut or black viny with black knit grilles.

#### Monitor Three Speaker

12" woofer. FR 25-22,000 Hz ± 3 dB; sens 98 dB SPL/W/m; power range 15-125 W; 26" x 15" x 12"; 33 lb each ..... \$600/pr

#### **Monitor Two Speaker**

10" woofer. FR 30-22,000 Hz ± 3 dB; sens 97 dB SPL/W/m; power range 10-112 W; 24" x 14" x 9"; 29 lb each ..... \$500/pr

#### **Monitor One Speaker**

8" woofer. FR 35-22.000 Hz ± 3 dB; sens 96 dB 

#### SHAHINIAN ACOUSTICS

#### **Obelisk 3 Speaker**

Folded double-prism 50" hybrid transmission line speaker with 8" asymetrically placed high temperature voice coil, poly woofer, 10" mass-loaded-membrane viscous-damped polypropylene passive radiator, 2 1.36" cambric ultra-light exposed dome midranges, 4 0.36" "W"-shaped polymid-dome tweeters. Imp 4 ohms nominal; min power 50 W; max power 500 W. Walnut and oak standard finishes; optional finishes available. 29" h x 14.5" w x 12.5" d 55 lb ..... \$1,750/pr

#### ARC 3-Way Speaker

Vertical transmission-line speaker with time-aligned phase-correct driver placement. 8" high temperature voice coil; polypropylene woofer; 10" mass-loaded-membrane viscous-damped passive radiator; 1.36" cambric ultra-light exposed dome tweeter; imp 4 ohms nominal; min power 30 W; max power 350 W; natural, medium or dark oak finish on 0.75" fiberboard. 27.5" h x 14" w x 9.75" d; 42 lb ..... \$1,050/pr

#### Lyre 3-Way Speaker

Lamb's-wool-filled plastic isolation chamber for 5.25" Poly/Hybrid curved cone midrange. 8" Poly/Hybrid curved textured cone woofer with 1.5" Hi-temp voice coil; 1" Polyamide dome tweeter; 10" passive radiator. FR 30-18,00 Hz -3 dB. Dark or light oak veneer; 23.50" h x 11.75" w x 11.75" d; 43 lb ..... \$850/pr

#### **Elf 2-Way Speaker**

Forward firing small monitor with tuned-damped vent enclosure. 5.25" polypropylene woofer with rubber edge; 1" polypropylene-dome tweeter. FR 55-18,000Hz -3 dB; imp 6 ohms nominal; min power 25 W; max power 150 W. Natural medium or dark oak finish. 12.5" h x 6.62" w x 7.75" d; 25 lb/pr .... \$375/pr

#### Subwoofers

#### Contra Bombarde Subwoofer

Twin conical slot-loaded-horn subwoofer with both channels incorporated in common enclosure each having folded-horn path. Two 8" polypropylene rubber-edged high temperature voice coil woofers; FR 16-1,000 Hz -3 dB; imp 6 ohms nominal/ch; max power short duration peaks 1,000 W. Walnut finish on0.75" Finland Birch. Optional finishes available. 35" h x 27.5" w x 18.5" d; 180 lb ..... \$850/ea

#### **Double Eagle Stereo Subwoofer**

Stereo subwoofer in one enclosure with acoustically separated channels. Two 8" polypropylene rubber-edged high-temperature voice coil woofers; two 10" mass-loaded-membrane viscous damped polypropylene passive radiators. FR 26-1,0000 Hz -3 dB; crossover 18 dB built in at 140 Hz; imp 6 ohms nominal/ch; max power short duration peaks 1,000 W. Walnut finish on Finland birch. Optional finishes available. 30" h x 23" w x 14" d; 105 lb ...... \$850/ea

#### SIGNET

#### SL-100 Definitive Image Speaker

Floor-standing bass-reflex speaker with Ferralipse, wide-dispersion frequency invariant acoustic lens to provide dispersion greater than 120° at 20,000 Hz. Phase coherent for better imaging. Features 10" long-throw cone woofer; 3"



soft-dome midrange; two 1" soft-dome tweeters. FR 40-20,000 Hz ± 3 dB; min power 25 W/rms; max power 200 W/rms; sens 90 dB sPL/W/m; imp 8 ohms. 12.68" w x 35.83" h x 15.81" d; 66 lb ......\$1,450/pr

#### SNELL ACOUSTICS

#### Type A/III 4-Way Speaker

Floor-standing acoustic-suspension speaker with curved baffle to eliminate diffraction, mechanically isolated midrange enclosure, floor-loaded woofer, and rear-loaded supertweeter for accurate room response. Hand-adjustment of crossover values for specific drivers assures acoustic performance virtually identical to reference speaker. Features 12" high-power long-excursion massloaded mechanically isolated cone woofer; 5" mechanically-isolated cone midrange; 1" individually adjusted controlled-dispersion dome tweeter; 0.75" low-mass ferrofluid-cooled dome supertweeter. Dual gold-plated inputs allow biwiring or biamping with or without electronic crossover. FR 24-26,000 Hz ± 3 dB, 38-18,000 Hz ± 1 dB; power range 80-400 W rms; imp 4 ohms. Hand-sanded, hand-rubbed matching oak or walnut veneers. 23.5" w x 50.75" h x 14" d; 148 lb. Oak ......\$4,680/pr Walnut ..... \$4,490/pr

#### Type C-i 4-Way Speaker

Floor-standing acoustic-suspension sloped mirror-imaged speaker with midrange and tweeter baffle and rear-loaded supertweeter for optimum room response and flat early-arrival sound. Hand-adjusted crossover values for specific drivers assures acoustic performance virtually identi-

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cal to reference speaker. Features 10" mass-loaded dynamically balanced long-throw high-power woofer; 5" cone midrange; 0.75" low-mass polymer-dome tweeter; 0.75" low-mass polymer-dome supertweeter. Dual gold-plated inputs for biwiring or biamping with or without electronic crossover. Hand-sanded hand-rubbed matched oak or walnut veneers. FR 24-20,000 Hz  $\pm$  3 dB; power range 80-400 W rms; sens 86 dB SPL/W/m; imp 8 ohms. 44" h x 14.75" w x 12.75" d. Oak\$1,800/pr Walnut ......\$1,890/pr

#### Type E/II 3-Way Speaker

#### Type Q 2-Way Speaker

Bookshelf speaker designed for stand placement. Each speaker is individually adjusted to match reference speaker within fraction of dB. Features 6.5" polypropylene cone woofer; 1" rear-firing textile-dome tweeter; flush grille to eliminate diffraction. Crossover frequency 2,200 Hz. Hnadsanded and rubbed matched pairs in oak or walnut veneers. 10.5" w x 15.5" h x 6.75" d\$780/pr **Type Q Stand.** Speaker stand designed for use with Type Q speakers. Can be mass loaded with sand or lead and incorporate spikes on the bottom. Oak or walnut veneer. 32" h..... \$120/pr

#### Type J/II 2-Way Speaker

Bookshelf bass-reflex speaker designed to maximize accuracy of early arrival sound and listening room response. Hand-adjustment of crossover values for specific drivers assures acoustic performance virtually identical to reference speaker. Features 8" polymer-treated curvalinear cone woofer; 1" soft-dome tweeter; dual gold-plated inputs for optional biwiring and biamping. Handsanded, hand-rubbed oak or walnut veneers. Sens 92 dB SPL/W/m; power mage 15- 150 W rms; FR 49-22,000 Hz ± 2 dB; imp 8 ohms. 23" h x 13" w x 10" d; 38 lb. Oak ..... \$650/pr Walnut ..... \$680/pr Type J Stand. Speaker stand designed for use with Type J speakers. Can be mass loaded with sand or lead and incorporate spikes on the bottom. Oak or walnut veneer ...... \$98/pr

#### Type K 2-Way Speaker

#### SONAB by AUDIOSOURCE

#### OA-52 2-Way Speaker

Bass-reflex (tuned to 30 Hz) speaker with 7" woofer and 1" dome tweeter. FR 27-20,000 Hz

± 3 dB; sens 89 dB spL/W/m; imp 8 ohms; 16.06" x 20.75" x 14.5"; 43.5 lb ea; rosewood or walnut veneers ......\$1,700/pr

#### OA-51 2-Way Speaker

#### OA-50 2-Way Speaker

#### SONOGRAPHE BY CONRAD-JOHNSON

#### SL 21 Mini-Monitor Satellite Speaker

#### SW 1000 Stereo Subwoofer

2 side-firing magnetically shielded 10" woofers in golden oak cabinet. FR 25-110 Hz  $\pm$  2 dB; power range 10-200 W; sens 90 dB SPL/W/m; imp 8 ohms; 36" w x 19.5" h x 18" d ..... \$849/ea SW 500. Same as SW 1000 except mono, with 1 10" woofer; 18" x 19.5" x 18" ..... \$595/ea

#### SONY

#### APM-66ES 3-Way Speaker

Bass-reflex speaker with APM (Accurate Pistonic Motion) driver technology that incorporates light, rigid, flat-diaphragm deisgn. Features 66 sq-in APM woofer; 7.4 sq-in APM midrange; 1.4 sq-in APM tweeter; built-in circuit breaker for tweeter protection; heavy-duty cabinet construction with rounded edges. Includes speaker cord. FR 30-30,000 Hz; sens 89 dB SPL/W/m; power capacity 100 W nominal, 200 W peak; nominal mp 6 ohms; crossover frequencies 600 and 4,500 Hz. 15" w x 26" h x 14.38" d .....\$1,100/pr

#### APM-22ES 2-Way Speaker

Bass-reflex speaker with APM (Accurate Pistonic



Motion) driver technology that incorporates a light, rigid, flat-diaphragm design. Features 45 sq-in APM woofer; 1.4 sq-in APM tweeter; circuit breaker for tweeter protection; heavy-duty cabi-

net construction with rounded edges. Includes speaker cord. FR 40-20,000 Hz; sens 88 dB SPL/ W/m; power capacity 80 W nominal, 160 W peak; nominal imp 6 ohms; crossover frequency 2,000 Hz. 11.5" w x 20.38" h x 12.62" d\$500/pr

#### SOTA INDUSTRIES

#### Simile 2-Way Speaker

2-way slot-loaded speaker with passive radiator. 7" woofer, 1" tweeter. FR 45-22,000 Hz -3 dB; sens 91 dB W/m; crossover, staggered ploes, bass filter at 1,000 Hz, high-pass filter at 3,000 Hz; 16.25" h x 12" w x 11.5" d at base; top 9" w x 7' d; cherry finish ..... \$1,295 Ebony, rosewood ......\$1,495

#### SOUND ASSOCIATES

#### Enigma Dipole Subwoofer

Free-standing enclosureless single-source movingcoil subwoofer with electronic crossovers and all cables. Features fail-safe over-excursion protection device; 2 self-contained signal generators; active 3rd-order (18 dB/octave) electronic crossovers with FET/polystyrene highpass and FET/ polycarbonate lowpass design; straight-through (no switch contacts or controls) highpass and gold Tiffany input and output jacks; internal-system polarity testing; 1" solid rock-maple speaker frame; front-panel switch for before/after comparing; optional 450-W MOSFET drive amp. Min power 50 W; max power 600 W continuous, 1,200 W pulses; sens 88 dB SPL/W/m at 50 Hz; imp 6 ohms min. Solid exotic hardwood finish. Without ..... \$2,495 ea amp . .

#### SOUND DYNAMICS

#### **1500 Concert Monitor**

Computer-tuned 2-way bass-reflex, mirror-imaged pairs with matched parts. 1" horn-loaded soft-dome tweeter with free-floating dome suspension; 15" woofer with high-gauss linear forced motor and epoxy potting. FR 28-23,000 Hz ± 3 dB; sens 102 dB sPL/W/m; min power 20 W; max power 250 W; imp 8 ohms. 34.75" x 18" x 16"; 90 lbs ea; walnut grain vinyl; base attached ..... \$900/pr

#### 700 Concert Monitor

Computer-tuned 2-way bass-reflex mirror-imaged pairs with matched parts. 1" horn-loaded softdome tweeter with free-floating suspension; 12" woofer with high-gauss linear forced motor and epoxy potting. FR 32-23,000 Hz ± 3 dB; sens 101 dB sPL/W/m; min power 15 W; max power 200 W; nominal impedance 8 ohms. 27.75" x 14.36" x 12"; 45 lbs ea; walnut grain vinyl; with 10" stands ..... \$700/pr

#### **500 Concert Monitor**

Computer-tuned 2-way bass-reflex mirror-imaged pairs with matched parts. 1" horn-loaded softdome tweeter with free-floating suspension; 10" high-gauss plastic-coated woofer. FR 34-23,000 Hz ± 3 dB; sens 98.5 dB SPL/W/m; min power 10 W; max power 200 W; imp 8 ohms. 23.36" x 12.12" x 11.88"; 38 lbs each; walnut grain vinyl; with 10" stands ..... \$500/pr

#### 100 Concert Monitor

Computer-tuned 2-way bass-reflex mirror-imaged pairs with matched parts. 1" horn-loaded softdome tweeter with free-floating suspension; 6" high-gauss plastic-coated woofer. FR 38-23,000 Hz ± 3 dB; sens 96 dB sPL/W/m; min power 5 W; max power 150 W; imp 8 ohms. 16.75" x 9" x 9.5"; 20 lbs each; walnut grain vinyl; with 26" stands ..... \$300/pr

#### 100S Mk II Bookshelf Speaker

Bass-reflex speaker with 6.5" polypropylene cone

woofer and 1" dome tweeter. FR 50-20,000 Hz D3 dB; power range 10-70 W rms; sens 93 dB SPL/W/m; imp 8 ohms; walnut or black vinyl; 20 lbs each;  $9.5^{\circ}$  W x 15.9° H x  $9.25^{\circ}$  D\$250/pr

### SPECTRUM LOUDSPEAKERS

#### Model 410 2-Way Speaker

Floor-standing Thiele-aligned bass-reflex speaker with plastic-impregnated 10" composite matrix cone woofer; 1" dome tweeter with acoustic imp transformer. FR 18-22,000 Hz; min power 30 W rms; max power 250 W rms; sens 89 dB SPL/W/ m. Natural oak or walnut finish. 14.5" w x 38.5" h x 11.75" d: 59 lbs ..... \$749/pr

#### 208A Stand-Mount Speaker

Thiele-optimized bass-reflex speaker designed for floor placement on special stands. 8" cone woofer; 1.5" cone tweeter; 0.5" aluminum dome tweeter; finished in walnut vinyl. Power range 10-100 W; FR 38-20,000 ± 3 dB; sens 91 dB sPL/W/m; 33 lb ea; 14.5" w x 25.5" h x 10.5" d . . \$395/pr 208AB. Black, pebble-grain vinyl ..... \$395/pr 208AO. Oak veneer ..... \$495/pr Black lacquered stands ..... \$59/pr

#### **108A Bookshelf Speaker**

Theile-optimized bass-reflex speaker. Features 8" cone woofer; 1.5" cone tweeter with aluminum dome tweeter. FR 48-20.000 Hz ± 4 dB; min



Many speakers offer a reasonable illusion of simple left-right stereo. And some can also provide wellbalanced, full-range sound. But the new SL-100 loudspeaker system from Signet goes a significant step further. It reaches beyond the speakers' physical location to precisely recreate the spatial dimensions of the original recording.

This three-dimensional accuracy is achieved by a patented breakthrough in directivity control: the Ferrallipse Acoustic Lens.\* A remarkable dual-ellipsoid sonic reflector, it was originally presented to the scientific community at the Audio **Engineering Society Convention on** October 14, 1985. A reprint of the AES paper is available on written request. The Signet SL-100 loudspeaker is its first commercial audio application.

The Ferrallipse Acoustic Lens combines and focuses the output of two precision 1" high frequency transducers to achieve truly uniform 120° dispersion coupled with uncommonly high power handling capacity.

SIGNET

**SL-100** 

Before you select a speaker system, visit your Signet dealer. Bring your most demanding analog or digital recordings, and your memories of how music really sounds. Then sit down, relax, and close your eyes. You'll be transported by a remarkably convincing sonic illusion. The new Definitive Image Loudspeaker, only from Signet.

\*Ferrallipse" is a registered trademark of Phase Coherent Audio, Inc.



CIRCLE NO. 1 ON READER SERVICE CARD

#### **SPICA**

#### **Angelus Floor-Standing Speaker**

#### TC-50 Bookshelf Speaker

Acoustic-suspension bookshelf speaker with triangular shape allowing system to be within 15° of absolute phase from 350-5,000 Hz. Features 6" cone woofer, 1" dome tweeter. FR 58-14,000 Hz  $\pm$  3 dB; power range 25-50 W, 100 W peak; sens 83 dB SPL/W/m; imp 4 ohms; 13" w x 15.55" h x 11.75" d; 21 lb/ea. Oak or walnut veneer\$450/pr

#### Servo Subwoofer

#### SPL

All SPL speakers have dome tweeters, nominal impedance of 8 ohms, with minimum impedance of 6 ohms, in black-ash vinyl with black knit grilles.

#### 4000 Bass-Reflex Speaker

#### 3000 Bass-Reflex Speaker

#### 2000 Passive Radiator Speaker

8" woofer; 1" tweeter; crossover at 2,200 Hz. FR 35-22,000 Hz ± 3 dB; sens 95 dB SPL/W/m; power range 10-100 W; 33" x 12" x 9"; 33 lb each......\$500/pr

#### 1000 Bass-Reflex Speaker

2 5.25" woofers; 0.75" tweeter; crossover at 3,000 Hz. FR 40-20,000 Hz ± 3 dB; sens 90 dB spL/W/ m; power range 10-75 W; 21" x 10" x 12"; 26 lb each ...... \$400/pr

#### STILLWATER DESIGNS

#### Hideaways Surround Sound Speaker

Behind-the-couch ultra slim surround sound speakers designed for use with any surround sound decoder. 1" dome tweeter; 8" polypropylene woofer; 10" passive radiator; power range 10-100 W/ch; imp 8 ohms; crossover 3,000 Hz; 17" h x 30" w x 5.25" d (bottom) x 4" d (top)\$470/pr

#### SUMO

#### Samson Bass-Reflex Subwoofer

Floor-standing subwoofer with 15" compositecone woofer, 18.62-lb magnet assembly, 4" edgewound copper voice coil; symmetrical mag

#### **Opus Two 2-Way Speaker**

Floor-standing acoustic-suspension speaker with 6.5" treated-cone woofer, 1" composite-dome tweeter with copper-clad aluminum voice coil. Features symmetrical magnetic-field woofer design with copper-clad pole piece for reduced 2nd-



order harmonic distortion; imp-matching conjugate crossover network with extremely low group delay ( $\pm$  0.2 ms from 100-20,000 Hz); solid-oak end caps. FR 42-24,000 Hz +0, -3 dB min power 35 W rms; max power 250 W rms; sens 85 dB SPL/W/m; imp 4 ohms. Oak or piano-finish black. 10.5" w x 39" h x 5" d; 20 lb... \$699/pr **Opus Three.** Bookshelf version of Opus Two. 10.25" w x 17.5" h x 9.75" d; 16 lb... \$649/pr

#### SYMDEX

#### Epsilon Floor-Standing Speaker

Sealed-box speaker with modular phase-linear crossovers. Features time-aligned drivers; polpropylene capacitors in crossover; 10" cone woofer; 6.5" cone midrange; 1" soft-dome tweeter. Power range 50-250 W; sens 85 dB SPL/W/m; imp 8 ohms; 13" w x 48.5" h x 13" d; 110 lb; black cloth with oak or black top plate; computer-matched pairs .......\$1,795/pr

#### Sigma S Speaker

#### Gamma 2-Way Speaker

Acoustic suspension speaker with 1" cambric soft dome tweeter, 6.5" bextrene sandwhich individually damped woofer. FR 60-20,000 Hz; crossover 1st order, Bi-wire capability; High-Q air-core coils; polypropylene capacitors; noninductive wire wound resistors; 45 lb/ea;  $10^{\circ}$  w x 6" d x 39" h; base plate measures  $13^{\circ}$  w x  $13^{\circ}$  d\$995/pr

#### **Omega S Woofer**

Specially designed add-on woofer system with 10" bextrene driver for use with Symdex Sigma (above) to form integrated 3-way system with increased dynamic range and power handling; contains passive crossover network for interfacing with the Sigma as well as provision for biamping; spike feet standard; gold pin and socket interconnect to Sigmas (no jumpers); FR to 40 Hz;  $13.5^{\circ}$  w;  $31^{\circ}$  h x  $13.5^{\circ}$  d; sold in computer-matched

pairs with same finish options as Sigma\$1,495/pr

#### SYNTHESIS by CONRAD-JOHNSON

#### **Reference Speaker System**

5-piece system with 2 subwoofer columns (each with 2 10" woofers), 2 midrange/high-frequency units (with 7" midranges, 1" dome tweeters, leaf supertweeter; golden oak with radiused solid-hardwood edges; active electronic crossover supplied. FR 22-32,000 Hz  $\pm$  2 dB; power range 10-250 W; sens 91 dB SPL/W/m; imp 8 ohms; subwoofer columns 14" w x 69" h x 14" d; satellites 10" w x 44" h x 10" d ....... \$6,800/system

#### LM 310 Floor-Standing 3-Way Speaker

10" woofer; 7" midrange; 1" dome tweeter; oak cabinet with radiused solid hardwood edges. FR 25-20,000 Hz ± 2 dB; power range 10-200 W; sensitivity 91 dB SPL/W/m; impedance 8 ohms; 70 lb .....\$2,950/pr

#### LM 300 Floor-Standing 3-Way Speaker

10" woofer; 7" midrange; 1" dome tweeter; oak finish with cream, brown, or black grille. FR 32-20,000 Hz  $\pm 2$  dB; power range 10-100 W; sens 91 dB SPL/W/m; imp 8 ohms; 13.75" w x 44" h x 14.5" d; 70 lb ......\$2,450/pr

#### LM 260 Floor-Standing 2-Way Speaker

Ported; 8" polypropylene woofer; 1" dome tweeter; oak cabinet with radiused solid-hardwood edges. FR 41-20,000 Hz ± 2 dB; power range 10-100 W; sens 91 dB sPL/W/m; imp 8 ohms; 12 w x 39.5 h x 11 d; 50 lb..........\$1,595/pr

#### M 250 Floor-Standing 2-Way Speaker

Ported speaker with 8" cone woofer and 1" dome tweeter; oak finish with cream, brown, or black grille. FR 42-20,000 Hz  $\pm 2$  dB; power range 10-80 W; sens 91 dB sPL/W/m; imp 8 ohms. 10.63" w x 33.75" h x 11.12" d; 45 lb .....\$1,185/pr

#### LM 210 Floor-Standing 2-Way Speaker

Ported speaker with 6.5" polypropylene woofer; 1" dome tweeter; oak cabinet with radiused solidhardwood edges. FR 46-20,000 Hz  $\pm 2$  dB; power range 10-80 W; sens 90 dB sPL/W/m; imp 8 ohms; 10.5" w x 33.5" h x 10.5" d .... \$950/pr

#### TANNOY

#### **Prestige Series**

Westminster. Floor-standing dual-concentric speaker with Sync-Source Time Alignment; compound horn enclosure; 15" cone woofer; 2" compression-horn tweeter. FR 18-20,000 Hz ± 2 dB; min power 10 W; max power 200 W; sens 96 dB SPL/W/m; imp 8 ohms. 43" w x 59" h x 28" d; 253 lbs each. Walnut finish..... \$10,000/pr Guy R. Foundation Memory. Floor-standing dual-concentric speaker with Sync-Source Time Alignment; quadruple-ducted-port enclosure; 15" cone woofer; 2" compression-horn tweeter. FR 29-20,000 Hz ± 2 dB; min power 10 W; max power 200 W; sens 95 dB sPL/W/m; imp 8 ohms. 31" w x 43" h x 19" d; 136 lbs each. Walnut finish . . . . .....\$6,800/pr Edinburgh. Floor-standing dual-concentric speaker with Sync-Source Time alignment; distributed port reflex enclosure; 12" cone woofer; 2" compression horn tweeter. FR 30-20.000 Hz  $\pm$  2 dB; min power 10 W; max power 200 W; sens 92 dB sPL/W/m; imp 8 ohms. 25.5" w x 40" h x 16.5" d; 97 lbs each; walnut finish ... \$5,500/pr Stirling. Floor-standing dual-concentric speaker with Sync-Source Time Alignment; dual variabledistributed enclosure; 10" cone woofer; 2" com-pression-horn tweeter. FR 35-20,000 Hz  $\pm$  2 dB; min power 10 W; max power 150 W; sens 93 dB SPL/W/m; imp 8 ohms. 20.5" w x 33.5" h x 15" d; 48.5 lbs each. Walnut finish......\$3,700/pr
### S P E A K E R S

#### **Planet Series**

#### **TECHNICS**

#### SB-M3 3-Way Floor-Standing Speaker

Ported linear-phase honeycomb-disc speaker with mirror-image cabinets; tweeter and midrange attenuators; low-noise 18-dB/octave mid/high crossover; heavy-duty terminals for large-gauge speaker wires; resettable thermal relay protection. 13" woofer; 3.12" mid; 1.12" tweeter. FR 38-35,000 Hz  $\pm$  5 dB; max power 200 W music, 100 W DIN; sens 90 dB spt./W/m; imp 6 ohms; 68.3 lbs; 15.75" w x 26.36" h x 13.12" d ..\$1,800/pr

#### SB-RX50 Bass-Reflex Bookshelf Speaker

2-way speaker with 9.5" flat-diaphragm woofer and coaxial 1.12" flat-diaphragm tweeter. Can be placed upright or sideways without affecting sound quality. FR 30-48,000 Hz at 16 dB below average level; max power 160 W music; sens 87 dB SPL/W/m; imp 6 ohms. Wood finish. 11.89" w x 18.92" h x 11.09" d; 36.4 lbs ..... \$920/pr

#### SB-R200 Wall-Mounting 3-Way Speaker

Passive radiator speaker with concentric coaxial honeycomb-disc drivers, passive radiator outside, all in the same plane for phase linearity. Resettable thermal relay protection; internally shielded. Includes wall kit, angled stands, flat speaker cables. 12.5" passive radiator; woofer; tweeter. FR 65-25,000 Hz  $\pm$  5 dB; max power 160 W music, 80 W DIN; imp 8 ohms; available in black; 19.8 lbs; 23.88" x 14.88" x 3.75" d ...... \$675/pr

#### SB-X700A Ported Floor-Standing Speaker

#### SB-X500A Borted Floor-Standing Speaker

#### SB-RX30 2-Way Bookshelf Speaker

#### SB-L95 3-Way Floor-Standing Speaker

#### SB-X300A Ported Floor-Standing Speaker

#### SB-C250 2-Way Compact Speaker

With 7" crystallized MICA PP-diaphragm cone woofer, 1" dome tweeter. Max power 100 W music. 9.19" w x 14 62" h x 8" d ...... \$300/pr

#### SB-L75 3-Way Floor-Standing Speaker

### SB-L55 3-Way Floor-Standing Speaker

#### SB-L35 2-Way Floor-Standing Speaker

#### Micro Series

#### SB-F2MK2 Mini Honeycomb-Disc Speaker

#### SB-R100 Passive-Radiator Speaker

#### SB-F1MK2 Mini Honeycomb-Disc Speaker

Sealed-box speaker in die-cast metal enclosure; Internal shielding; resettable thermal relay protection; protective metal grille; switchable 4/8ohm imp; tripod mountable; linear-phase design to sound especially good while playing Genesis.  $4.75^{"}$  woofer;  $1.12^{"}$  tweeter. FR 65-33,000 Hz  $\pm$  5 dB; max power 80 W music, 40 W D1N; sens 86 dB sound-pressure level with input of 1 W measured at 1 meter;  $5.36^{"}$  d ...... \$310/pr

#### THIEL

#### CS 3.5 Coherent Source Speaker



#### CS 2 Coherent Source Speaker

Floor-standing ported speaker with 8" cone woofer, 3" cone midrange, and 1" dome tweeter. Completely time and phase coherent. Time coherence achieved with sloping baffle; phase coherence achieved with synthesized first-order crossover networks. Features anti-diffraction grille; castmagnesium driver baskets; polypropylene crossover capacitors. FR 38-20,000 Hz  $\pm 2$  dB; power range 50-250 W; sens 87 dB sPL/W/m; imp 6 ohms. Oak, walnut, black, rosewood, teak finishes. 12" w x 39" h x 12" d; 62 lb ....\$1,550/pr

#### CS1 Coherent Source Speaker

#### **TRIAD DESIGN**

System Two Speaker Floor-standing acoustic-suspension speaker sys-

### S P E A K E R S

#### System One Speaker

3-piece all-acoustic-suspension speaker. Features 2 time-offset-corrected satellites; infinitely adjustable volume control; 6.5" polypropylene cone woofer; 3.5" treated-cone midrange; 0.75" Ferrofluid-cooled dome tweeter. FR 45-20,000 Hz  $\pm 4$  dB; power range 25-100 W; sens 88 dB SPL/W/ m; imp 8 ohms; oak or walnut finish; 5.5" w x 8.5" h x 5" d; 20 lb ... \$\$25/three-piece system

#### HSW-400 Powered Subwoofer

#### HSS-400 2-Way Speaker

Acoustic-suspension speaker with unique shape to produce proper time-offset correction. Features 8" polypropylene cone woofer; 1" dome tweeter. FR 100-20,000 Hz  $\pm$  3 dB; power range 10-100 W; sens 89 dB sPL/W/m; imp 8 ohms; walnut finish; 11" w x 18" h x 8" d; 13 lb\$450/pr

#### **HSS-300 Bookshelf Speaker**

#### **Bass Base Powered Subwoofer/Cabinet**

#### HSW-300 Powered Subwoofer

#### ULTRALINEAR by ESS

#### UL-1530 Speaker

Floor-standing 3-way acoustic-suspension speaker protective circuit and resetting circuit breaker.

The listings are based on data provided by the manufacturers. For more product information, contact an authorized dealer or the manufacturer directly. Manufacturers' addresses and phone numbers are listed in the directory beginning on page 226.

#### UL-1230 Speaker

Floor-standing acoustic-suspension speaker with  $12^{"}$  cone woofer,  $4.5^{"}$  cone midrange, and  $2.5^{"}$  cone tweeter. Features protective circuit with resetting circuit breaker. FR 45-22,000 Hz  $\pm 3$  dB; minimum power 5 W rms, max power 100 W rms; sens 92.5 dB sPL/W/m; imp 4 ohms; 29 lb; 14.5" w x 26.5" h x 10.75" d ..... \$298/pr

#### **UL-1030 Speaker**

Floor-standing acoustic-suspension speaker with protective circuit and resetting circuit breaker. Contains 10" cone woofer; 4.5" cone midrange; 2.5" cone tweeter. FR 50-22,000 Hz ± 3 dB; minimum power 5 W rms, max power 100 W rms; sens 92.5 dB spL/W/m; imp 4 ohms ... \$258/pr UL-208 Speaker

Bookshelf acoustic-suspension speaker. 8" cone woofer and 2.5" cone tweeter. Features protective circuit with resetting circuit breaker. FR 60-22,000 Hz  $\pm$  3 dB; minimum power 5 W rms, max power 100 W rms; sens 93 dB sPL/W/m; imp 4 ohms; walnut grain vinyl finish; 18 lb; 10.75" w x 18" h x 8" d...... \$198/pr

#### VANDERSTEEN AUDIO

#### Model 4 5-Way Speaker

Floor-standing dynamically aligned sealed 5-way speaker in cast basket. Features two 12" cone subwoofers; 8" cone woofer; 4.5" cone midrange; 1.12" dome tweeter; 0.75" dome supertweeter. FR 26-30,000 Hz  $\pm 2$  dB; power range 100-200 W; sens 89 dB SPL/W/m; imp 4 ohms. 18" w x 52" h x 17" d; 150 lb. Available in oak or walnut finishes ......\$3,850/pr

#### Model 2C 4-Way Speaker

Floor-standing 4-way bi-wired speaker. Features 10" cone subwoofer; 8" cone woofer; 4.5" cone midrange; 1" dome tweeter. FR 29-21,000 Hz  $\pm 2$  dB; power range 40-150 W; sens 89 dB spL/W/ m; imp 8 ohms. 16" w x 36" h x 10" d; 60 lb. Oak or walnut .......\$1,125/pr

#### 2W Subwoofer

Floor-standing sealed speaker with three 8" cone woofers. Features 200-W internal amp; cast basket; crossover. FR 26-80 Hz  $\pm$  3 dB; sens 82-94 dB SPL/W/m. 18" w x 18" h x 17" d; 80 lb. Oak or walnut \$1,200/ea

#### Model 1B 2-Way Speaker

#### VECTOR RESEARCH

All Vector Research speakers feature anti-resonant 1-piece woofer baskets; mid- and high-frequency drivers with ferrofluid damping; soft-dome tweeters; bass-reflex design; 8-ohm impedance; lightoak finish.

 

#### **VELODYNE ACOUSTICS**

#### **ULD-18 Powered Subwoofer**

#### **ULD-12 Powered Subwoofer**

#### Passive Crossover/Bypass

High-pass crossover with bypass capabilities for ULD-18 or ULD-15. 7" w x 1.5" h x 6" d \$100

#### WHARFEDALE

#### Diamond V Speaker

#### Active Diamond Plus Speaker

#### **Diamond IV Speaker**

#### **Diamond III Speaker**

#### WOLCOTT AUDIO

#### MDF Omnisphere Speaker

Floor-standing bass-reflex speaker uses a single point source of sound with a spherical dispersing surface. A vertically aligned tweeter driving the space between opposing and closely spaced 6" radius sphere and semisphere forms a radial horn which along with 4 quadrant pyramid-mounted woofer/midrange drivers produces single-pointsource omnidirectional dispersion. Features four 6.5" polypropylene-cone, butyl-surround woofers; 28 mm soft-dome tweeter; dimmer-controlled lamp in sphere, auto electronic tweeter protection. FR 30-20,000 Hz  $\pm$  3 dB; power range 20-250 W rms; sens 90 dB SPL/W/m; imp 6 ohms. Unit on casters (with floor-loaded ports) for easy repositioning after rearranging the furniture. Walnut-veneer finish. 21" w (at base) x 50" h x 21" d (at base); 86 lb ..... \$3,750/pr MDH. Same as MDF except black/grey hightech finish ..... \$2,950/pr

### SPEAKERS

#### YAMAHA

#### Monitor Speakers

#### NS-1000X 3-Way Speaker

Bookshelf speaker with 12" pure-fiber cone woofer, 3.5" beryllium-dome midrange; 1.12" tweeter. Features in-line configuration with rounded baffle; low-distortion crossover network; midrange and tweeter level controls. Music input power 200 W: sens 90 dB spL/W/m. 16.75" w x 27.75" h x 13.19" d; 92.4 lb ..... \$1,980/pr

#### NS-1000M 3-Way Speaker

Bookshelf speaker with 12" woofer, 1.12" beryllium-dome midrange; 3.5" tweeter. Features tangential-edge suspension; acoustic-suspension design; acoustic equalizers. Music input power 200 W; sens 90 dB spi/W/m. 14.75" w x 26.62" h x 12.89" d; 68.2 lbs ..... \$1,398/pr

#### NS-500M 3-Way Speaker

Bookshelf speaker with 12" carbon woofer, 4" titanium-carbide semi-dome midrange; 1.19" beryllium-dome tweeter. Features resonance-free enclosure with 3-way mitered construction; low-distortion crossover network; midrange and tweeter level controls. Music input power 200 W; sens 92 dB spL/W/m. 14.75" w x 26.75" h x 12.75" d; 51.7 lb ..... \$798/pr

#### NS-200Ma 3-Way Speaker

Bookshelf speaker with 10" laminated carbon-fiber/spruce cone woofer, 4" pure-carbon fiber cone with titanium-carbide dome midrange; 1.19" titanium-carbide dome tweeter. Midrange and tweeter level controls. Music input power 200 W; sensitivity 90 dB SPL/W/m. 12.62" wide x 23" high x 12.88" deep: 36.3 lb ..... \$598/pr

NS-100X 3-Way Speaker Bookshelf speaker with 9" pure-carbon-fiber cone woofer, 2.36" pure-carbon fiber cone with titanium-carbide dome midrange; 1.19" titanium-carbide dome tweeter. Features field-isolation dualmagnetic system; low-distortion crossover network. Music input power 160 W; sens 91 dB SPL/W/m. 12.25" w x 20.88" h x 10.88" d; 30.8 lb ..... \$498/pr

#### NS-20M 3-Way Speaker

Bookshelf speaker with 9" pure-spruce cone woofer, 1.88" titanium-carbide semi-dome tweeter; 1.12" titanium-carbide semi-dome supertweeter. Features resonance-free enclosure with 3-way mitered construction. Music input power 160 W; sens 91 dB SPL/W/m. 10.62" w x 16" h x 10" d; 20.9 lb ..... \$398/pr

#### NS-10M 2-Way Speaker

Bookshelf speaker with 7" single-sheet white-cone woofer, 1.36" soft-dome tweeter, acousticsuspension enclosure. Music input power 100 W; sens 90 dB sPL/W/m. 8.44" w x 15" h x 7.75" d; 13.2 lb ..... \$338/pr

#### NS-W2 Super Woofer

Supplements bass response for any speaker system. Especially useful for compact speakers. Features 10" woofer; built-in 40-W amp with volume control; magnetic shielding; easy system connection. 17.81" w x 14" h x 12.36" d; 24.6 lb\$249 ea

#### **T**-Series Speakers

#### NS-75T 3-Way Speaker

Bookshelf speaker with 12" carbon-cone woofer; 2.36" titanium-carbide-donie midrange; 1.36" titanium-carbide-dome tweeter. Features heavyduty cable-connection terminals; American-walnut-veneer cabinet; midrange and tweeter level controls; low-distortion crossover network. Music input power 200 W; sens 90 dB sPL/W/m. 14.36" w x 26.75" h x 12.75" d; 47.3 lb ..... \$770/pr

#### NS-55T 3-Way Speaker

Bookshelf speaker with 10" spruce-cone woofer; 2.36" titanium-carbide-dome midrange; 1.36" titanium-carbide-dome tweeter. Features heavyduty cable-connection terminals; low-distortion crossover network. Music input power 200 W; sens 89 dB spi./W/m. 14.12" w x 24.36" h x 12.36" d; 40.7 lb ..... \$570/pr

#### NS-35T 2-Way Speaker

Bookshelf speaker with 10" spruce-cone woofer; 1.36" ti anium-carbide-dome tweeter. Features heavy-duty cable-connection terminals; low-distortion crossover network. Music input power 180 W; sens 90 dB sp1/W/m. 12.62" w x 21.75" h x 12.25" d; 29.7 lb ..... \$390/pr

#### NS-25T 2-Way Speaker

Bookshelf speaker with 8" spruce-cone woofer; 1.36" titanium-carbide-dome tweeter. Features heavy-duty cable-connection terminals; low-distortion crossover network. Music input power 160 W; sens 89 dB spt./W/m. 11.25" w x 19.5" h x 10.12" d; 21.1 lb ..... \$270/pr

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#### AIWA

#### HP-X10 Mini/Phone Headphones

Headphones with flat-formed diaphragm. Features oxygen-free copper litz wire cable; goldplated duo-fit plugs; samarium-cobalt magnets; low-bass control. FR 5-25,000 Hz ± 3 dB; imp 40 ohms; sens 104 dB SPL with 1 mW input. Includes mini connector; phone connector.... \$95

#### HP-A606 Mini/Phone Headphones

#### AKG

#### K-340 Stereo Headphones

Two-way electrostatic/dynamic headphones with fixed-charge electrostatic transducer/dynamic MC transducer and passive diaphragms in each ear-



#### K-260 Open Air Headphones

Open air, circumaural stereo headphone with dynamic MC transducers. Matches 4-600 ohm outputs. 10 ft cable; standard stereo plug .... \$160

#### K-240DF Studio Monitor Headphones

Designed with a flat frequency response based on European requirements for reference monitor headphones. FR 20-20,000 Hz  $\pm$  2 dB; max input 11 V; Matches 4-600 ohm outputs; max SPL 95 dB with <0.3% THD; With 2.5 m cable and standard stereo phone plug; 8.5 oz . . . . . . . \$135

#### K-240M Free-Field Headphones

Free-field stereo headphones; dynamic MC transducer and 6 passive radiators in each circumaural cup. FR 15-20,000 Hz; imp 600 ohms; max SPI 119 dB at 0.3% THD; supplied with 10-ft 4-conductor cable and .25" phone plug; 7.9 oz . . \$110

#### K145 Headphones

Two-way electrostatic/dynamic semi-open headphones. FR 25-24,000 Hz  $\pm$  3 dB; imp 150 ohms; phone connector; 6 oz, cord 10 ft. long .... \$95

#### K-141 Monitor Headphones

Semi-open stereo dynamic pro monitoring headphones with MC transducers. FR 20-20,000 Hz; max SPL 120 dB at 0.5% THD, imp matches 4-600 ohms; 10-ft 4-conductor cable and standard 3conductor stereo phone plug; 6.9 oz ...... \$85

#### K135 Headphones

#### K-130 Stereo Headphones

#### K-45 Stereo Headphones

Ultra-lightweight supra-aural stereo headphones with dynamic MC transducers. FR 30-18,000 Hz; max SPI. 117 dB at 0.9% THD; matches 4-200 ohm outputs; 10-ft 4-conductor cable; combination standard/mini stereo phone plug; 2.7 oz \$55

#### K-2 Mini Headphones

#### ALARON

#### RY-245 Stereo Headphones

Headphones for use with portable and home stereos includes 0.25" stereo adaptor plug; 3.5mm mono adaptor plug; 2 extra sets of earpads . \$10 **RY-242.** As above without accessories ...... \$5

#### AUDIO-TECHNICA

#### AP1400 Open-Back Headphones

#### AP1300 Closed-Back Headphones

#### **AP1200 Open-Back Headphones**

Imp 4-16 ohms; FR 20-20,000 Hz; sens 90 dB SP1/W/m; 0.25" phone plug; 6 ft cable .... \$40

#### AZDEN

#### **DSR-38 Lightweight Headphones**

Lightweight headphones with cord on one side. Features samarium cobalt magnets; aluminum voice coils; super-thin large diameter diaphragm. FR 16-24,000 Hz  $\pm$  3 dB; imp 40 ohms; sens 103 dB SPL with 1-mW input of 1,000 Hz; max power 100 mW; mini and phone connector ..... \$100

#### **DSR-50 Open-Air Headphones**

#### **DSR-48 CD Compatible Headphone**

#### DSR-12 Phone-Plug Headphones

### DSR-68 Mini-/Phone-Plug Headphones

#### DSR-88 Micro-Dynamic Headphone

#### **DSR-64 Mini Headphones/Earphones**

Mini headphones that detatch from band to become earphones. FR 30-20,000 Hz  $\pm$  3 dB; imp 32 ohms; sens 100 dB sPL with 1-mW input of 1,000 Hz; max power 50 mW; mini connector.... \$25

#### **DSR-70 Mini-Plug Headphones**

Conventional small headphones with mute switch. FR 40-20,000 Hz  $\pm$  3 dB; imp 32 ohms; sens 94 dB SPL with 1-mW input of 1,000 Hz; max power 100 mW; mini connector ..... \$20

#### **DSR-69** Anti-Vibration Headphones

Conventional small headphones with anti-vibration system. FR 40-20,000 Hz  $\pm$  3 dB; imp 32 ohms; sens 92 dB SPL with 1-mW input of 1,000 Hz; max power 100 mW ......\$15

#### **BANG & OLUFSEN**

#### Form 1 Headphones

Dynamic, semi-open headphones. Features lightweight self-adjusting earpads with tension relief pads to remove pressure from ear. FR 20-20,000 Hz ± 3 dB; imp 35 ohms; mini & phone connector ......\$110 Form 2 Headphones .....\$55

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#### **BEYER DYNAMIC**

#### **DT 48A Standard-Reference Headphones**

Audiometric-calibration, standard-reference head phones for acoustic measurements. FR 16-20,000 Hz; max power 200 mW ...... \$320

#### **DT 48 Headphones**

#### DT 109 Headphones with Microphone

#### **DT 880 Headphones**

#### **DT 990 Dynamic Headphones**

Circumaural stereo headphones with very large, low-mass-diaphragm design. Frequency response equalized to diffuse soundfield method. FR 5-35,000 Hz ± 3 dB; imp 600 ohms; max power 100 mW 116 dB sPL; sens 96 dB at 1 mV/ch at 1,000 Hz. Includes 0.251 connector. 8 oz ...... \$185

#### **DT 770 Dynamic Headphones**

Circumaural stereo headphones with bass-reflex system to improve accuracy and detail of low frequencies. Closed design isolates ambient noise. Frequency response equalized to diffuse sound-



#### DT 108 Headphones with Microphone

#### **DT 100 Monitor Headphones**

#### DT 96A Multi-Purpose Headphones

#### DT 102 Single-Muff Headphones

#### **DT 550 Lightweight Headphones**

Headphones with semi-open, circumaural design. Lightweight, adjustable suspension, 10-ft coiled cord. FR 10-22,000 Hz ± 3 dB; imp 600 ohms; sens 95 dB SPL with 1-mW input at 1,000 Hz; max power 100 mW; phone plug...... \$125

#### DT 220 Headphones

Headphones with extremely lightweight, closed design; wide-band drivers; soft circumaural ear cushions. FR 20-20,000 Hz ± 3 dB; imp 400 ohms; sens 102 dB SPL with 1-mW input at 1,000 Hz; max power 100 mW; phone plug.......\$120

#### DT 330 MK II Semi-Open Headphones

#### **DT 320 Lightweight Headphones**

Headphones with semi-open, circumaural design. FR 30-20,000 Hz  $\pm$  3 dB; imp 600 ohms; sens 88 dB sPL with 1-mW input of 1,000 Hz; max power 100 mW; .25" phone plug; 3.75 oz ...... \$65

### PRICES LISTED are manufacturers' suggested retail prices

(also referred to as *list* prices); actual selling prices are set by individual dealers. All prices are subject to change without notice.

#### CALRAD ELECTRONICS

15-115 Lightweight Dynamic Headphones Transducers designed to eliminate breakup and



#### **CARTER-CRAFT**

#### 40-416 Mini Headphones

#### 40-411 Mini Headphones

Features rare-earth magnets; adjustable headband; 5-ft cord; super-soft earpads. FR 30-20,000 Hz ± 3 dB; imp 32 ohms. Includes mini and 0.25" connectors. 12 oz......\$19

#### 40-399 Ultra-Light Headphones

#### 40-421 "Pick Pocket" Headphones

#### 40-417 Mini Headphones

Dynamic, open-air headphones with 5-ft cord and mini connector. FR 20-20,000 Hz ± 3 dB; imp 32 ohms. 1.5 oz.....\$11

#### 40-425 Stereo Earphones

#### **Replacement Foam Earpads**

Replacement earpads for Carter-Craft headphones
40-405. For 40-399 headphones. 2-pair pack-
age
40-407. For 40-417 headphones \$1.65/pr
40-409. Earpads for model 40-411 and 40-416
headphones \$2.15/pr

#### DENON

#### AH-D6 Open-Air Headphones

Digital-ready headphones with foamed mica flat diaphragm, LC-OFC cables/wiring, and phone connector. FR 15-22,000 Hz ± 3 dB; imp 32 ohms; max power 200 mW; sens 98 dB ... \$100 AH-D4. Same as AH-D6 except sens 96 dB \$80

#### **AH-D3 Headphones**

#### AH-D1 Headphones

Features high-polymer film diaphragm; copperclad aluminum wire in voice coil; high-energy samarium-cobalt magnet; 1-point cross-support design; OFC cable \$50

#### FOSTEX

#### **T20 Studio Headphones**

Regular Phase system in planar polyester ribbon drivers (diaphragm suspended between opposingpole magnet assemblies); deposited spiral voice coil; oversize ear pads; adjustable headband; ansiotropic ferrite magnets; diaphragm 1.375"; all parts and assemblies secured by screws. Imp 50 ohms; sens 96 dB with 1 mW; max input 200 mW; max output 119 dB with 200 mW; FR 20-30,000 Hz; 10.6 oz \$89 T30 \$125 T10 \$65

#### JECKLIN BY ASTATIC

#### Float II Headphones

#### JVC

#### HA610 Open-Air Stereo Headphones

#### HACD5 Open-Air Stereo Headphones

#### HA510 Open-Air Stereo Headphones

#### HA410 Open-Air Stereo Headphones

Lightweight headphones feature moving-coil drivers and a double headband for lightweght comfort. Sens 97 dB at 1 mW; max input 100 mW. 5.9 oz. with cord \$30

#### **KENWOOD**

#### KH-500 Stereo Headphones

Open-type dynamic headphones with fold-up headband \$30

#### KH-D7 Stereo Headphones

Ultra-lightweight micro headphones with detachable headband \$20

#### KOSS

#### HV/1A Headphones

High-velocity headphones with low-mass Decilite drivers for 15-30,000 Hz FR  $\pm$  3 dB. Distortion 0.5% at 100 dB sPL; sens 0.9 V rms for 100 dB SPL. Acoustical sponge ear cushions; extendable headband with self-adjusting pivoting yokes, soft padded vinyl cover. 10-ft cord; 10.1 oz ..... \$50

#### JCK/200-S Condless Headphones

Dynamic circumaural cordless headphones fea-



ture infrared transmitter and AC adaptor. FR 20-20,000 H2 ± 3 dB \$160

#### JCK/100 Cordiess Headphones

Infrared cordless design. THD < 25% at 100 dB SPL. 3 oz \$130

#### SST/10 Headphwnes

#### Pro/4X Plus Steree Headphones

ACCURACY III ALDIO

Dual-element design combines rare-earth magnet

with	1	oi	e	Z	0	-6	el.	e	¢	tr	1	С	e	:l	eı	m	e	n	t.	F	R	ŀ	0	-4	4	),	0	0	0	H	z	±	1	J
dB .	,																															\$5	Ю	)

#### Pro/4AAA Plus Stereo Headphones

#### SST/7 Headphones

#### SST/6 Headphones

#### PortaPro Headphones

Supraural folding headphones for high-end portable or home use. Features exclusive Comfort Zone mult-pivoting earcup adjustments. Mini plug & 25" phone plug; 2.5 oz w/cord .... \$50

#### Porta/Pro Jr. Headphones

THD <.2% at 100 dB spi. 1 kHz ..... \$40

#### K40LC Plus Headphones

#### SST/5 Headphones

Dynamic headphones with closed circumaral design. Features adjustable leather headband and

beyerdynamic

185

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# Headphones that work with your ears, not against them.



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CIRC., E NO. 87 ON READER SERVICE CARD

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dB	•	•		•	•	•	•	•	•	•	•	•			•	•	•	•	•	•		•						•			•			\$4	40

#### **KSP-II Headphones**

Portable, collapsible headphones. Features reticulated foam ear cushion; carrying bag; 2 plugs\$35

#### K6X Plus Dynamic Headphones

Lightweight	headphones.	100 dB	SPL;	imp	100
ohms; 6.3 oz					\$32

#### SST/4 Headphones

FR 20-20,000 Hz ± 3 dB; imp 35 ohms; sens 100 dB; 6.3 oz ...... \$32

#### **KSP Sound Partner Headphones**

Featherweight phones for pocket stereo use. Folds into compact size to fit into denim tote bag (supplied), comes with accessory adaptors .. \$25

#### **KPL/4 Headphones**

Hear-through headphones for stereo, VCR or TV. Features self-adjusting slide bars; washable cushions; mini-mono adaptor; spare cushions. FR 18-20,000 Hz  $\pm$  dB; imp 100 ohms; 8-ft cord .. \$25

#### **KPL/3 Headphones**

#### KFF/300 Headphones

#### KMP/800 Headphones

Sidewinder earbud design with ultra-thin diaphram, spare cushions, home adaptor. Distortion <1%; imp 32 ohms; 0.75 os ......\$20

#### KFF/200 Headphones

#### **KPL/2 Headphones**

Features adjustable headband; pivoting earcups; spare cushions; .25" adaptor. Imp 35 ohms; 2.5 oz......\$15

#### KMP/600 Headphones

Detachable headband and sidewinder earbud design. Includes hone adapter. THD <1%;0.75 oz.....\$15

#### KMP/400 Headphones

Protective carrying case. THD <1%;0.5 oz . . \$12

### KPL/1 Headphones

#### KFF/100 Headphones

Red/blue/yellow lightweight stereophones. Includes .25" adaptor. Sens 100 dB; imp 35 ohms; 2 oz......\$10

The listings are based on data provided by the manufacturers. For more product information, contact an authorized dealer or the manufacturer directly. Manufacturers' addresses and phone numbers are listed in the directory beginning on page 226.

### LASER BY SWIRE MAGNETICS

#### 1270-9513 Lightweight Headphones

#### MEMOREX BY MEMTEK

Sonic-Lite Headphones

#### SL-88 Deluxe Stereo Earphones

#### SL-90 Deluxe Stereo Headphones

Dynamic headphones with rare-earth samariumcobalt magnets. Human engineered curves, contours, and angles for max comfort. Digital ready. Features gold-plated connectors. Includes mini connector and mini-to-0.25" adapter. FR 20-20,000 Hz ± 3 dB; imp 32 ohms; max power 100 mW; sens 100 dB at 1 mV/ch at 1,000 Hz . \$15

#### SL-60 Stereo Headphones

Dynamic lightweight headphones with adjustable headband and super-soft ear cushions. Includes  $45^{"}$  cord, mini plug, mini-to-0.25" adapter. FR 50-18,000 Hz ± 3; imp 32 ohms; max power 100 mW; sens 92 dB at 1 mV/ch at 1,000 Hz .. \$10

#### SL-40 Stereo Headphones

#### NADY SYSTEMS

#### IRH-210 Stereo Headphones

Cordless stereo headphone. Infrared transmission 35 ft range. Separate volume controls for each ear. FR 45-15,000 Hz ± 3 dB ...... \$100

#### NAKAMICHI

#### SP-7 Stereo Headphones

#### **ONKYO**

#### **DP-G4 Circumaural Headphones**

#### **DP-L2X Dynamic Headphones**

#### **DP-L1X Dynamic Headphones**

Supra-aural lightweight folding headphones with volume control and stereo/mono selector. Mini

connector and mini-to-0.25" adaptor included. FR 20-20,000 Hz  $\pm$  3 dB; imp 28 ohms; sens 102 dB at 1 mV/ch at 1,000 Hz. 2 oz ..... \$40

#### **DP-S1X In-Ear Dynamic Headphones**

Ultra-mini stereo earphones with folding headband. Mini connector, mini-to-0.25" adaptor, and compact carrying case included. FR 50-20,000 Hz ± 3 dB; imp 18 ohms; max power 30 mW; sens ± 102 dB at 1 mV/ch at 1,000 Hz. 5 g ..... \$36

#### **ORA ELECTRONICS**

Studio Spec Brand

#### **GH111G Stereo Headphones**

Lightweight, compact headphones with gold-plated plug and 27-mm ferrite drivers .......\$3.60

#### PANASONIC

#### EAH-D8 Rare-Earth Headphones

#### EAH-Z70 Dual-Driver Earphones

#### EAH-S35 1.3-Oz Headphones

In black, blue, or red, with adaptor for full-size phone jacks. Max input 100 mV (118 dB); imp 40 ohms; sens 96 dB SPL/mW; 4.9-ft straight cord ......\$25

#### EAH-Z31 0.15-Oz Earphones

In black, pink, red, gray, or white; with case. Max input 50 mV (123 dB); imp 16 ohms; sens 106 dB SPL/mW; 4-ft straight cord ......\$25

#### EAH-Z28 0.19-Oz Earphones

#### EAH-Z9 Folding Headphones

Adjustable headband. Max input 40 mV (117 dB); imp 16 ohms; sens 102 dB SPL/mW; 3.6-ft straight cord; 0.71-oz ......\$15

#### EAH-S18 1.3-Oz Headphones

Adjustable headband; soft ear cushions; adaptor for full-size phone jacks. Max input 100 mV (111 dB); imp 16 ohms; sens 91 dB SPL/mW; 4-ft straight cord ...... \$10

#### EAH-Z17 0.16-Oz Earphones

#### PICKERING

#### CD-4 Headphones

#### CD-2 Stereo Headphones

#### **CD-1 Elliptical Shaped Headphones**

Intermediate size eliptical shaped headphone. FR

20-20,000 Hz; sens 105 dB; 7 ft Y cord with gold plated mini stereo plug and standard stereo adaptor ......\$25

#### **CD-6 Stereo Headphones**

Lightweight headphone with dynamic high velocity element with polyester film diaphram and Sa-



#### Featherfone 108 Headphones

Stereo headphones fit directly in ears; volume control. Frequency response 20-20,000 Hz; sensitivity 105 dB; SPL 0.25 V at 1,000 Hz for each

#### Featherfone 104 Headphones

#### OA-101P Featherfone Stereo Headphones

#### OA-99P Featherfone Headphones

#### **OA-88** Featherfone Headphones

#### **OA-66P Stereo Headphones**

#### PIONEER

#### SE-V100 Audio/Video Headphones

#### SE-50D(BK) Dynamic Headphones

#### SE-205 Dynamic Headphones

Features adjustable headband; 8-ft cord. FR 20-20,000 Hz ...... \$33

#### SE-30D Headphones

# Want more product information?

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#### **QUASAR**

#### SV406 Headphones

Deluxe headphones with adaptor plug for use with 0.25" jacks ...... \$50

#### REALISTIC

**PRO-60 Acoustic Resistance Headphones** Variable-density ear cushions, 10-ft coiled cord with 0.25" phone plug. THD <0.5% ..... \$50

#### LV-10 High-Velocity Stereo Headphones

#### Nova-65 Adjustable Headphones

Side-mounted controls for volume and balance; vinyl drivers; foam-filled ear cushions; padded headband; 10-ft cord with 0.25" plug ..... \$32

#### Nova-55 Dynamic Headphones

Samarium-cobalt magnets; mini plug. FR 20-20,000 Hz ± 3 dB; imp 3.2-600 ohms; max power 5 V. 3 oz ......\$30

#### Nova-40 Adjustable Headphones

#### Nova-45 Lightweight Stereo Headphones

0.25" plug adaptor and rare-earth magnets. FR 20-20,000 Hz  $\pm$  10 dB; imp 32 ohms; max power 40 mW; 6.5-ft cord; 3.3 oz with cord ..... \$25

#### Nova-52 Folding Stereo Headphones

Rare-earth magnets, 6.5-ft cord with 0.12" mini plug. 3 oz ...... \$20

#### Nova-10 Stereo Headphones

2" drivers; adjustable vinyl headband with cush-
ioned earpads. 6.5-ft cord, 0.25" plug \$15
Nova-16. Similar to Nova-10 except has separate
Glide Path level controls \$20

#### Nova-37 Dynamic Headphones

Folding	headband;	samarium-cobalt	magnets;
mini plug			\$15

#### Nova-35 Stereo Headphones

Micro stereo headphones with foam earpads, adjustable headband, 5-ft cord with 0.12" plug. <3 oz

#### Micro-in-Ear Stereo Headphones

#### Nova-33 Lightweight Headphones

Portable headphones. 1.25 oz; foam ear cushions; 0.12" plug; 4-ft cord ......\$10

#### Nova 36 Lightweight Headphones

Fold-up headphones with foam pads; flexible 4-ft, 2-oz cord with 0.12" mini plug ...... \$7

#### Nova-34 Lightweight Headphones

#### SANSUI

#### SS-L55 Dynamic Stereo Headphones

#### SS-L33 Dynamic Stereo Headphones

Isolation-free, around-the-ear stereo headphones with 1.56" drivers. Imp 60 ohms; FR 20-20,000 Hz; max input power 500 mW; sens 104 dB/mW; 2-m cord; 4.4 oz without cord ......\$33

#### MS-33 Dynamic Stereo Headphones

#### SENNHEISER

#### HD 250 Headphones

#### Closed cushion headphone with resonance free



transmission. FR 16-25,000 Hz ..... \$199

#### HD 230 Headphones

#### HD 540 Reference Headphones

#### HD 430 Headphones

#### HDI 2 Wireless Headphones

#### HD 425 Headphones

Open-Air headphones with circumaural ear cushions that rest around the ear. Features replaceable 10-ft cable with phone plug; adjustable headband. FR 18-20,000 Hz ± 3 dB; distortion less than 1%; imp 600 ohms; sens 94 dB with 1 mW input; 5.5 oz without cord ......\$135

#### HD 222 Headphones

Closed-ear light-weight headphones with replaceable 10-ft stranded-steel cable with phone plug; adjustable headband. FR 20-20,000 Hz ± 3 dB; imp 600 ohms ...... \$119

#### HD 420SL Stereo Headphones

#### HD 414SL Stereo Headphones

Headphones with replaceable 10-ft stranded-steel cable with phone plug and adjustable headband. FR 20-20,000 Hz ± 3 dB; imp 600 ohms.... \$89

#### HD 50 Mini Headphones

All user repaiceable parts. FR 20-20,000 Hz, 3 ft cable w/mini to phone plug adaptor ...... \$75

#### HD 410SL Stereo Headphones

Lightweight Open-Aire headphones with replaceable 10-ft stranded-steel cable with phone plug. FR 20-18,000 Hz  $\pm$  3 dB; imp 600 ohms.... \$65

#### PD 100 Mini Headphones

All user replaceable parts. FR 23-18,500 Hz, 3ft cable w/ mini to phone plug adaptor ..... \$58

#### HD 40 Lightweight Headphones

#### SIGNET

#### TK44 Circumaural Headphones

Electret-condenser headphones with adaptor box. FR 10-22,500 Hz  $\pm$  3 dB; imp 4-16 ohms; sens 100 dB at 1 V/ch at 1,000 Hz ...... \$300

#### **TK-22 Headphones**

#### **TK-21 Dynamic Headphones**

#### TK-20 Headphones

#### **TK-11 Headphones**

#### SONY

#### **MDR-CD6** Dynamic Headphones

Supra-aural headphones with sealed-ear design; 30mm dome driver unit; spring-loaded soft-touch eliptical earpads; one-sided cord; independent left/right side click-sliders; stereo Unimatch plug; glod-coated double-layer high-molecule film diaphragm and copper-clad aluminum voice coil. Imp 45 ohms at 1,000 Hz; sens 110 dB/mW; rated power 0.1 W; power handling 0.5 W; FR 2-25,000 Hz; cord length 9.8', 3.9 oz ..... \$120



#### **MDR-V6** Dynamic Headphones

Closed-ear-type monitor headphones with folding-type compact headband; 40mm driver unit; oval earpads; stereo Unimatch plug; OFC litz cord. Imp 63 ohms; sens 106 dB/mW; rated power 0.3 W; power handling I W; FR 5-30,000 Hz. Includes soft case.......\$100

#### **MDR-V4 Dynamic Headphones**

#### MDR-S505 Dynamic Headphones

Large-size open-air-type headphones with volume and tone controls; large-size earpads; 30mm dome drive units; one-sided cord; stereo Unimatch plug. Imp 45 ohms; sens 104 dB/mW; rated power 0.04 W; power handling 0.1 W; FR 15-24,000 Hz; cord length 9' 10"; 2.1 oz ..... \$70

#### MDR-A60 Dynamic Headphones

#### MDR-M33A Dynamic Headphones

Features soft-touch elliptical earpads; one-sided cord; stereo Unimatch plug; 23mm dome driver unit. Imp 25 ohms at 1,000 Hz; sens 100 dB/mW; rated power 0.05 W; power handling 0.1 W; FR 15-14,000 Hz; cord length 9.8'; 1.7 oz ..... \$60

#### **MDR-S303 Dynamic Headphones**

Large-size open-air-type headphones with largesize earpads; 30mm dome drive units; one-sided cord; stereo Unimatch plug. Imp 45 ohms; sens 104 dB/mW; rated power 0.04 W; power handling 0.1 W; FR 15-22,000 Hz; cord length 9' 10"; 1.9 oz ......\$50

#### **MDR-E272** Dynamic Headphones

In-the-ear-type headphones with gold-plated Lshaped mini plug; Sony's Acoustic Turbo-Circuit. Imp 13.5 ohms at 1,000 Hz; sens 104 dB/mW; FR 18-22,000 Hz; cord length 39.38"; 0.17 oz .. \$40

#### **MDR-S101 Dynamic Headphones**

Large-size open-air-type headphones with 23mm dome driver units; large-size earpads; stereo Unimatch plug adaptor. Imp 32 ohms; sens 98 dB/ mW; rated power 0.04 W; power handling 0.1 W; FR 20-20,000 Hz; cord length 6.5'; 1.9 oz... \$30

#### **STANTON**

#### SRS-265 Stereo Headphones

#### SRS-245 Stereo Headphones

Semi-enclosed stereo headphone with deluxe dynamic driver. Features adjustable ratchet-type headband with specially engineered spring suspension; circumaural design. FR 10-22,000 Hz; sens 94 dB at 1 mW; imp 100 ohms; max input 100 mW; distortion <0.5% at 1,000 Hz; 10 ft flat 4-conductor cord with 0.25" plug. 8.6 oz.. \$100

#### SRS-225 Stereo Headphones



Stanton SRS-265 Series Headphone

#### SRS-215 Stereo Headphones

#### ST-PRO Stereo Headphones

#### 35M/HB Dynamic Headphone

#### 35M/SR Disco Headphone

#### **ST-4 Open-Air Headphones**

#### ST-3 Open-Air Headphones

#### ST-2 Lightweight Headphones

#### ST-1 Compact Lightweight Headphones

CD-ready home or portable stereo headphones with 1.36" high-velocity drivers; adjustable black headband; 7.5-ft Y-type 4-conductor cord, 0.25" stereo plug; soft black-vinyl-covered foam ear cushions. FR 25-20,000 Hz  $\pm$  3 dB; imp 32 ohms; max power 100 mW; sens 110 dB at 1 mW/ch at 1,000 Hz; distortion <0.5% at 110 dB. 5 oz \$25

#### Microwafer 14 Lighweight Headphones

#### STAX

#### SR-Lambda/SRM-1 Mk2 Headphones

#### SR-Lambda/SRD-7 Professional

#### SR-Sigma Headphones

#### SR-Lambda Headphones

#### SR-Gamma Headphones

#### SR-5/N Headphones

#### SR-84 Lambda Jr. Headphones

Electret earspeaker system with energizing adapter. FR 20-20,000 Hz  $\pm$  2 dB; imp 8 ohms; sens 95 dB sPL with 1-mW input of 1,000 Hz; max power 10,000 mW; special connector; cord length 7 ft; 7.5 oz with cord......\$199

#### SR-34 Headphones

Electret earspeaker system with energizing adapt-

er. FR 25-20,000 Hz ± 2 dB; imp 8 ohms; sens 95 HP-206 Stereo Headphones auxiliary membranes per system; half-open dedB SPL with 1-mW input of 1,000 Hz; max power Lightweight headphones with volume control; sasign. FR 16-20,000 Hz; SPL 94 dB; imp 600 ohms; 10,000 mW; special connector; cord length 7 ft; 8 marium-cobalt magnet; 0.25" plug adaptor; 2 exnominal loading capacity 200 mW; distortion oz with cord ..... \$129 tra earpads. Imp 32 ohms..... \$22 1.0%; automatic strap adjustment; gimballed ear-**HP-202W Stereo Headphones** Lightweight headphones with 0.25" plug adaptor W 766A Dynamic Headphones SRD-X Adaptor for Stax Headphones and 2 extra earpads. Imp 32 ohms. White .. \$18 Lightweight (2.2 oz) mono/stereo headphones Portable adaptor that allows Stax electrostatic HP-202B. Blue ..... \$18 HP-202R. Red ..... \$18 band ... HP-102 Stereo Headphones Imp 32 ohms ..... \$13 YAMAHA YHD-1 Foldable Headphones **TECHNICS** 5-meter extension cord for use with all Stax ear-**EAH-T10 Compact Headphones** Lightweight headphones with flat planar transducers. Frequency response 15-20,000 Hz ± 7 dB; total-harmonic-distortion 0.2% (100 dB SPL, TEAC 1,000 Hz); sensitivity 100 dB SPL (1 mW input); max input 300 mW; 3.53 oz; includes mini and **YHD-2 Headphones** Deluxe lightweight stereo headphones with soft standard phone plugs ..... \$65

#### EAH-T6 Lightweight Headphones

Compact headphones with stereo mini plug and standard stereo headphone plug adapter. FR 20-20,000 Hz ± 3 dB; imp 40 ohms at 1,000 Hz; max power 100 mW; 1.25 oz ..... \$40

#### **UHER AMERICA**

W765A Stereo Headphones Dynamic stereo headphones with one active, 6

# cups; 3-m cable; 330 g ..... \$90

with 8-ft coiled cord. FR 20-20,000 Hz; imp 200 ohms at 1,000 Hz; lightweight adjustable head-

Orthodynamic headphones. FR 20-20,000 Hz ± 3
dB; imp 125 ohms; max power 1,000 mW; 100
dB/mW (109 dB/V); mini connector; phone con-
nector \$75

Similar to YHD-1 except	with 99 dB/V; imp 125
ohms	
YHD-3. Similar to YHI	D-1 except with 97-dB
output	\$30

#### YHL-003 Headphones

Lightweight fashion-design headphones with mini plug and adaptor for phone plug. FR 20-20,000 Hz  $\pm$  3 dB; imp 150 ohms; sens 103 dB SPL with 1-mW in put of 1,000 Hz; max power 100 mW; 6 ft. cord; 2.8/1.8 oz with/without cord ..... \$50 YHL-006, Similar to YHL-003 except with smaller diaphragm ..... \$40

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#### Accessories

and electret earspeakers to be connected to a headphone jack. Operates on batteries or AC power adaptor. Features variable gain control. FR 25-25,000 Hz ± 3 dB; imp 300 ohms; max power 0.03 mW ..... \$159

#### SRE-15/N Extension Cord

speakers ..... \$35

#### HP-402 Stereo Headphones

vinyl foam cushions. Imp 38 ohms; includes 0.25" plug adaptor ..... \$35

#### HP-302 Mini Stereo Headphones

Samarium-cobalt magnet. Imp 32 ohms; includes 0.25" plug adaptor and 2 extra earpads .... \$26

#### HP-308 Stereo Headphones

Lightweight stereo headphones with standard 0.25" plug adaptor and 2 sets of replacement earpads. Impedance 32 ohms ..... \$25



#### ACCUPHASE BY MADRIGAL

#### G-18 33-Band Graphic Equalizer

Third-octave stereo graphic equalizer with separate power supply for each ch; fully balanced inputs and outputs; 66 individual filter amps, each with discrete components and operating with constant Q throughout their range of 4.3; champagne-gold or black-anodized finish. S/N 110 dB. 17.5" w x 6.31" h x 14.81" d; 26.4 lb ... \$3,650

#### F15L Electronic Crossover

For stereo bi- or triamplification; plug-in boards select crossover frequencies and slopes; 0.5-dB-per-step level controls from 0 dB to 20.5 dB for passbands. S/N 100 dB; 18.3 lb; 17.5" w x 4.4" h x 14.7" \$2,425

#### ACE AUDIO

#### 

#### 6500-DSB Electronic Crossover

Designed to operate with any pair of stereo subwoofers to provide extra bass below 100 Hz; twin level controls; Bessel filters provide optimum slope and improved group delay; any frequency available from 40-200 Hz; slope 12 dB/octave, distortion typically 0.002% at 2 V output; includes 1 plug-in frequency module ......\$156 6500-SF. Similar to model 6500-DSB but also contains a built-in subsonic filter (18 dB/octave below 15 Hz) ......\$181

#### 5000-6 Subwoofer Electronic Crossover

#### 5000 Subwoofer Electronic Crossover

Designed to operate with subwoofers or mini speaker systems. Features level control, defeat switch. Crossover 18 dB/octave at 100 Hz; noise -90 dB; distortion 0.025% at 2 V out, 0.01% typically; 2.25" h x 6" w x 4.36" d.......\$161 Kit......\$120 5000-SF. Similar to 5000 but includes subsonic filter, 18 dB/oct below 15 Hz .....\$186

#### 6000 Electronic Crossover

6000-SF. Similar to model 6000 but also contains a built-in subscnic filter (18 dB/octave below 15 Hz) ......\$181

#### AUDIO CONTROL

C-101 Series Two Equalizer/Analyzer Stereo graphic equalizer features 101-LED spectrum analyzer display that operates on various levels; shows controllable peak-reading modes (fast/slow); horizontal LED's indicate SPL; switchable calibration levels from 2/dB/LED (analyzes pink noise and mike) to 4 dB/LED (displays wider dynamic range). Center frequencies 32, 60, 120, 480, 960, 1,920, 3,840, 7,680, and 15,500 Hz; boost/cut range max 15 dB; -1 dB subsonic rolloff at 25 Hz, -3 dB rolloff at 20 Hz, -21 dB rolloff at 10 Hz; variable input level sens with calibration; auto mike/line input switching; pink-noise generator; stereo paired equalizer sliders; 18 dB/octave subsonic filter; phase correlation rumble reducer circuit. FR 3-100,000 Hz ± 0.75 dB; distortion 0.009%; hum and noise -116 dB; 10,000 Hz bandwidth; input/output impedance 100k/150 ohms; 19" wide x 6.5" high x 3.5" deep ..... \$429

#### Ten Plus Series Two Equalizer

#### Richter Scale Series III Equalizer/Analyzer

Designed to enhance bass response; perfect for integrating subwoofer and satellites, smoothing transition from bass to middle frequencies; combines six-band half-octave bass equalizer, warble tone analyzer, programmable Linkwitz-Riley 24dB/octave electronic crossover; measurement mike; center frequency slide controls at 22.5, 31.5, 45, 63, 90 and 125 Hz, ± 12 dB; stereo warble tone source adjustable to each center band via rotary knob; -20 to +6 dB lighted meter registering mike input; 18 dB/octave infrasonic filter; source/tape monitoring; equalize program; lowfrequency (12 dB/octave at 200 Hz) summing circuit for rumble reduction; frequency point programmable (24 dB/octave) electronic crossover circuit for subwoofer and biamplification modes; mono and inverted mono outputs for bridging; gold jacks. FR 3-100,000 Hz ± 1dB; THD 0.005%; input imp 100,000 ohms; output imp 150 ohms, S/N 120 dB ..... \$349

#### **Phase-Coupled Activator**

Detects and digitally reconstructs fundamental musical frequencies attenuated in the recording processes. Proprietary intelligent circuitry discriminates between sound sources, passing some (like most voices) without adding spurious lows, while restoring missing musical fundamentals. Features in/out switch; subsonic filter 18 dB/oct; programmable electronic crossover; crossover output level; tape monitor; detection ratio sensitivity adjustment; rack mount. FR 5-100,000 Hz

### ± 3 dB; S/N -118 dB; THD 0.005%; IMD 0.01%. 17" w x 2.75" h x 8.5" d; 5 lbs ... \$259

#### **Octave Plus Equalizer**

#### Ten Series Two Equalizer

Stereo graphic equalizer with video/sound input and switching, 18 dB/octave infrasonic filter. Features LED's in slide controls; flashing LED to indicate when in tape EQ mode. Center frequencies 31.5, 63, 125, 250, 500, 1k, 2k, 4k, 8k, 16k Hz; boost/cut range max 12 dB; FR 3-100,000 Hz  $\pm$  1 dB; THD 0.005%; S/N 120 dB ... \$229

#### Video Soundtracker

#### Octave Equalizer

#### AUDIO DESIGN ASSOCIATES

#### EQ-5 Stereo Equalizer

#### AUDIONICS BY FOSGATE

#### SD-3 Dolby Surround

#### ADC

#### Sound Shaper SS-525X Equalizer

#### Sound Shaper SS-412X Equalizer

#### 325X Graphic Equalizer

#### Sound Shaper SS-117EX Equalizer

#### **300SL Equalizer**

#### Sound Shaper SS-100SL Equalizer

#### AKAI

#### AS-P302-B Surround-Sound Decoder

#### APHEX SYSTEMS

#### ESP 7000 Surround Decoder

#### **AUDIO RESEARCH**

#### EC-21 Electronic Vacuum-Tube Crossover

#### AUDIOSOURCE

#### SS-One Surround Sound Processor

#### AV-Four A/V Selector/Surround Sound

#### AV-Three A/V Selector/Processor

#### **EQ-Eight Graphic Equalizer**

10-band equalizer with 90-LED spectrum display. Features LED's on slide controls; control range  $\pm$  12 dB; audio inputs plus second set of inputs for video audio or other high-output source, EQ rec switch; EQ defeat; tape monitor switch. FR 5-100,000 Hz  $\pm$  1 dB; S/N -80 dB; THD 0.03%. 5 lb; 16.5" w x 2.43" h x 7.12" d ......... \$160

#### **AZDEN**

#### GX-500 Graphic Equalizer

33 point 1/3 octave graphic EQ designed for studio or professional applications. Allows input attenuation from 0-20 dB; equalizing range ± 15 dB; FR 10-100,000 Hz ± 3 dB; s/N 106 dB; THD .005%; 17" w x 3.5" h x 9" d; weight 3.5 kg .....\$495

#### **GX-50** Equalizer

Black 10-band equalizer with real-time spectrum analyzer; pink-noise generator; mike. FR 10-35,000 Hz ± 3 dB; S/N 90 dB; THD 0.005%. 10 lb; 17" w x 3.5" h x 9" d ..... \$300 GX-45 10-Band Graphic Equalizer

#### GX-36 10-Band Graphic Equalizer

#### BOZAK

#### E-901A Signal Delay

#### CARVER

#### Digital Time Lens

#### C-9 Sonic Hologram Generator

Designed to restore lifelike space and dimension to music. Sonic Hologram Generator precisely locates instruments and vocals in 3-dimensional space by using otherwise inaudible phase and time information to recreate the original vector sound field. Requires no special source material or additional speakers. Specs and performance identical to Sonic Holography section of C-4000 preamp. 19" w x 1.75" h x 4.62" d..... \$249

#### **CELLO**

#### The Audio Palette

For changing tonal balance in 6 low-Q bands centered at 15, 120, 500, 2k, 5k, 25k Hz; max boost or cut 12 dB; sep input controls for L and R; controls for absolute phase (right 180°, 0°, 180°), EQ (out, in, blend), monitor/center (+10 to <-40 dB), and output level (+10 to <-40 dB); Class A discrete circuitry .......\$8,900

Master Supply 120 V AC ......\$2,250

### CERWIN-VEGA

#### DB-10 Bass Turbocharger

#### **DB SYSTEMS**

#### **DB-3 2-Way Active Crossover**

Two-way 18 dB \$	384
Three-way 12 dB or 6 dB \$	
Two-way 100 Hz, 18 dB \$	322
DB-2A Power Supply	\$85
DBP-1 Auxiliary Cable	

#### DB-3-24 In-Phase Crossover

#### **DB-5** Tone Control

#### **DB-7** Phase Inverter

Phase inverter and bridging adaptor with supersonic and subsonic filters (18 dB). FR 10-1000,000 Hz  $\pm 3$  dB; s/N 109 dB; THD 0.003%; IMD 0.003%. Requires DB-2A power supply or DBP-1 aux cable if used with existing DB Systems equipment. 6.2" w x 2.2" h x 4.5" d..... \$195

#### dbx

#### 14/10 Equalizer/Analyzer

Automatic computerized equalizer/analyzer analyzes and displays the precise sound spectrum heard in a room at either fast or slow speeds from a program input or microphone and adjusts sys-



#### **Digital Series Dynamic-Range Controllers**

Rack-mountable dynamic-range controllers with overeasy compression for background listening. Expansion yields CD-like sound from LP's, FM radio, and TV/video. Features impact recovery for more lifelike "punch": ambience to adjust spaciousness and stereo focus; full LED; hardwire bybass for comparisons; tape/source and pre-record or post-play tape procession.

#### 224X-DS Type-II Noise Reduction System

Rack-mountable NR system doubles tape deck's dynamic range with 40-dB min noise reduction. Features 2-deck switching and dubbing with en-

coding and full monitoring possible; hardwire bypass. Dynamic range 105 dB; THD 0.1% 100-20,000 Hz, 0.5% 30-100 Hz; IMD 0.2% ... \$299

#### 120X-DS Subharmonic Synthesizer

Rack-mountable subharmonic synthesizer with adjustable bands and varible subwoofer crossover. Synthesizes 27-55 Hz subharmonic fundamentals from 55-110 Hz program input. Features variable phase-coherent crossover for subwoofer applications. FR 25-20,000 Hz ± 1 dB; dynamic range 105 dB; crossover 12 dB/octave highpass (-3 dB at 120 Hz), 6 dB/octave derived lowpass ... \$299

#### **DENNESEN ELECTROSTATICS**

#### Phase Restoration Device

Corrects for high-frequency phase delay caused by output filters in digital recorders and CD players. Features process or bypass, phase plus, phase minus. FR 10-100,000 Hz  $\pm$ .1 dB; s/N 90 dB; THD 0.01%; 5 lb; 10" w x 1.75" h x 8" d . \$300

#### DENON

#### DE-70B Dynamic Equalizer

#### FISHER

ASR-875 Surround Sound System Surround system includes CAV-875 surround sound processor/amplifier with wireless remote



#### FOSGATE

#### DSM 3602ag Digital Surround Processor

 outputs or A/v inputs ..... \$795 DSM 3603 Surrround Processor

Same performance characteristics as DSM 360ag less remote control, side channel outputs, A/V inputs, variable time delay or noise reduction. All decoding functions are otherwise identical \$495

#### HARMAN KARDON

#### EQ8 Graphic Equalizer

#### JVC

#### SEAM770BK Graphic Equalizer

#### SUA30 A/V Surround Processor

Surround sound processor with three surround effects including Dolby Surround, hall surround, and simulated surround. Features built-in amplifier; left/right calibration and delay-time controls; volume control for rear speakers; preamplevel output for external power amplifier; heaphone jack for surround sound headphones. Power output: 10 W/ch into 8 ohms from 40-20,000 Hz with no more than 0.5% THD ...... \$235

#### SEA12BK Graphic Equalizer

#### **KENWOOD**

#### GE-1100 12-Band Graphic Equalizer

#### SS-96 Surround Sound Processor

Audio/video surround processor with remote control. Features Dolby Surround processor; theater and stadium effects; time delay control; left/ right channel calibration controls; two VCR inputs with dubbing and audio injection; VDP input; tape monitor; video monitor; FL display; 15 W/ch amplifier; preout connection to external amplifier. 16.56" w x 3.44" h x 10.81" d; 9.9 lb .. \$350

#### SS-75 Surround Sound Processor

Features Dolby Surround processor; theater and stadium effects; time delay control; left/right channel calibration controls; surround volume control; LED leve meter and power indicator;

built-in 5.5 W/ch amplifier; preout connection to external amplifier. 16.56" w x 2.19" h x 8.56" d; 6.8 lb......\$250

#### **GE-76 9-Band Graphic Equalizer**

Features independent L/R channel EQ controls;  $\pm 12$  dB or  $\pm 6$  dB variable range; spectrum ana-



#### **GE-56 12-Band Graphic Equalizer**

Features independent L/R channel EQ controls;  $\pm$  10 dB EQ range; LED display; output level control; line/tape input/output connector; EQ on/off switch. 16.56" wx 3.44" h x 10.25" d; 6.0 lb5160

#### **GE-46 7-Band Graphic Equalizer**

#### **KINETIC AUDIO INT'L**

#### 3-Point Crossover/Level Control

#### 4-Point Crossover/Low-Pass Filter

#### LUXMAN

#### G-100 Graphic Equalizer

#### MARANTZ

#### CDA-94 Outboard D/A Converter

Used with CD players and other digital components providing digital output. When used with Marantz CD94 eliminates ground loops, contact



rectification; accepts 2 wired digital inputs with additional input and output connectors for DAT tape deck; automatically selects correct sampling rate for DAT deck; fixed and variable line outputs, adjustable headphone level and balanced XLR-3 outputs .....\$1,700 EQ 551 Graphic Equalizer

#### EQ 130 Graphic Equalizer

#### MARK LEVINSON BY MADRIGAL

#### LNC-2 Electronic Crossover

Modular system for frequency division of line-level signals. Features 4 active filters (2 high pass, 2 low pass); on/off switch for each high- and lowpass filter, internal stereo/mono switch and Camac connectors; hand-brushed and black anodized finish; 18 dB/octave slopes, optional 6-dB or 12-dB slopes for 3-way stereo operation; optional 6-dB/octave slope OCS modules; output level of each frequency controlled by 10-turn locking potentiometer on front panel. THD 0.002%; wideband noise less than 102 dBV unwtd; accuracy within 5% of specified crossover point; PLS-151 separate power supply load regulation 0.05%; wideband noise output 18 µV; LNC-2: 2.25" h x 19" w x 7.88" d; PLS-151: 4.36" h x 4" w 10.62" d; 12 lb .....\$3,280

#### **MEMOREX by MEMTEK**

#### **Infrared Cordless Headphone Adaptor**

#### NEC

#### AVD-700E Surround-Sound Processor Remote-controlled 16-bit digital-delay surroundsound processor with Dolby, hall, matrix, and



#### NIKKO AUDIO

EQ-950 Graphic Equalizer/Spectrum Analyzer Features 10 bands/ch; spectrum display of separate or combined L/R EQ settings; pink noise generator; mic for EQ slope; EQ bypass; source selector; tape in/out. Center frequencies at 31.5, 63, 

#### EQ-25 10-Band Equalizer

#### EQ-540 9-Band Equalizer

#### **ONKYO**

#### **EQ-35 Integra Graphic Equalizer**

#### **EQ-240 Graphic Equalizer**

#### EQ-18 Graphic Equalizer

#### PARASOUND

#### **PVA-1** Audio/Video Equalizer

#### EQS-1 Equalizer/Spectrum Analyzer

10-band/ch graphic EQ with fluorescent realtime spectrum analyzer and built-in pink-noise generator. Features 22 multiple-detented and illuminated 30-mm stroke sliders; illuminated switches; subsonic filter; bi-directional tape dubbing; record EQ switch for dubbing; switchable line input; display peak hold; electret mike. Max boost/cut 12 dB; center frequencies 30, 60, 120, 250, 500, 1k, 2k, 4k, 8k, 16k Hz; S/N 100 dB; 17.25" w x 4" h x 9.5" d; 10 lb ..........\$345

#### EQ300 Graphic Equalizer/Analyzer

#### EQ225 Equalizer/Analyzer

Illuminated LED's; separate level control for each channel; tape dubbing; video sound input; 3color spectrum display. S/N -100 dB; max boost/cut 12 dB. 17.5" x 2.88" x 8.5" .... \$185

#### **PIONEER**

#### SP-101(BK) Surround-Sound Processor

Features 4 processing modes; 2-ch rear output for unequal delay decoding; super-bass synthesiser; adjustable low-cut filters; simulated stereo; switchable inout level. 16.56" w x 2.38" h x 13.25"

SP-X707(BK) Surround-Sound Processor

#### SG-60(BK) Graphic Equalizer

#### EX-9000(BK) Dynamic Processor

#### EG-X707(BK) Audio/Video Processor

Features 7-band/ch graphic equalizer; spectrum frequency display; video enhancer (detail, sharpness, noise cancel, white clip); color control (color, balance, hue, color depth); audio/video fader control. 3" h x 14.19" w x 13.12" d ..... \$225

#### SR-60(BK) Reverberation Amplifier

#### **GR-551 Graphic Equalizer**

#### AVS-700 A/V Selector/Enhancer

#### **GR-470(BK)** Graphic Equalizer

Features 7 bands/ch; slide controls with LED indicators; black finish/ Center frequencies at 60, 150, 400, 1,000, 2,400, 6,000, and 15,000 Hz. 2.38" h x 16.56" w x 8.69" d ...... \$100

#### **GR-X505(BK)** Graphic Equalizer

Features 7 bands/ch; independent controls for each ch. 2.19" h x 14.19" w x 12.44" d .... \$90

#### RCA

#### MSP400 Dolby Surround Sound Processor

Dimensia surround sound processor with built in amplifier and Dimensia remote operation. Features Dolby Surround; simulated surround; the ater surround; stadium surround; front/rear channel volume with mute; loudness; bass boost; 

#### MGE260 10-Band Graphic Equalizer

#### REALISTIC

#### 31-2020 10-Band Equalizer

10-band/ch EQ with spectrum analyzer, IMX spatial expander; tape 1 and 2 in/out. S/N 95 dB. 16.22" w x 2.62" h x 8.47" d; 6.1 lb ..... \$130

#### 31-2018 10-Band Equalizer

10-band/ch EQ with IMX spatial expander. S/N 95 dB. 350 mm w x 64 h x 146 d ...... \$60

#### SAE

#### E-101 Parametric Equalizer

Computer direct-line parametric equalizer with digital display. Features 2 bands with 10 memories/band; "pre" tape EQ feature. Bandwidth ad-



justable from 0.3-3.0 octaves; boost/cut range ± 16 dB; rated output 2.5 V rms; THD 0.02%; S/N 100 dB; 19" w x 12.5" d x 3.5" h ...... \$650

#### E010 Parametric Equalizer

#### SANSUI

#### SE-99B Graphic Equalizer

#### AV-99 Audio/Video Processor

#### VX-99 Video Processor

#### DS-77 A/V Surround Sound Processor

Provides amplification for rear channel and center front for audio and video sound. Features super bass synthesizer; peak attacker; simulated stereo; built-in amp delay memories. Decodes specially encoded video tapes. FR 20-20,000 Hz  $\pm 3$ dB; THD 0.09%; delay time theater and hall 20 m/sec; 10 W/ch for rear speaker drive. 16.94" w x 2.94" h x 9.88" d; 8.6 b ...... \$400

#### AV-77 Audio/Video Processor

#### SE-88 Graphic Equalizer

Computer-controlled 14-band graphic equalizer. Features front-docking, full-featured remote; 5 memories; bi-directional tape dubbing with or w/ o EQ; instant flat response; memory backup. EQ center frequencies 25, 50, 100, 160, 250, 400, 630, 1k, 1.6k, 2.5k 4K, 6.3K, 20K Hz; boost/cut range ± 10 dB; s/N 100 dB; FR 10-100,000 Hz. 16.94" w x 4.36" h x 11.94" d; 9 lb ..... \$500

#### SE-80 Graphic EQ/Spectrum Analyzer

#### AV-C10 Audio/Video Control Center

Cinema surround sound processor with built-in 15-W/ch amp, 5-band graphic equalizer, and selectable surround sound effects. Features 4 video inputs for bi-directional video tape or disc dubbing; inputs for video accessories; PCM digital audio processor; RF connection; VDP front-panel input; audio-insert capability. FR 20-100,000 Hz

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+0, -3 dB; s/N 70 dB; THD 0.02%; EQ range ± 12 dB. 16.94" w x 3" h x 10.25" d; 9.9 lb .... \$320

#### SE-800 Graphic EQ/Spectrum Analyzer

#### **RA-1000 Electronic BBD Reverb Amplifier**

Features 2 cassette inputs; bi-directional dubbing facilities; twin mike mixing facilities with separate volume controls for duet effect; color graphic display of reverb effect. Reverb time: echo 0-4.5 sec, duel 30-200 m/sec. THD 0.025%. 16.94" w x 4.44" h x 10.75" d; 3.7 lb...... \$300

#### **SANYO**

#### SAV200 Surround-Sound Processor

Features Dolby surround-sound decoder; concert-hall surround mode; variable time delay; ste-



reo-matrix mode; 2-color dimensional surround indicator; surround calibration and balance controls; 20 W/ch power amp ...... \$150

#### SCOTT

#### EQ400 10-Band Graphic Equalizer

10 bands per ch; spectrum analyzer; center frequencies at 31.5, 63, 125, 250, 500, 1k, 2k, 4k, 8k, 16k Hz; max boost or cut 10 dB; delay circuit variable up to 20 millisec; 2 tape-monitor circuits; EQ rec switch. 17.4" w x 3.72" h x 7.6" d \$280

#### SHURE

#### HTS 60RX Remote Extender

#### **AVC20** Power Station

Video/hi-fi expander system with four 30 W/ch amplifiers. Features inputs for three video sources, turntable, aux; 17-function wirelss remote; three volume memories; three surround sound modes; stereo synthesizer; video and audio dubbing capability; independent volume control for each ch; image enhancer; noise filter; two video monitor outputs; bridgeable to two 60-W amps; master volume. FR 20-30,000 Hz ± 1 dB; image enhancer 0 dB, 3 dB, 6 dB. 21 lb... \$599

#### HTS 5000 Surround Sound Processor

Decodes Dolby<sup>TM</sup> stereo sound encoded in video discs, video tape, and broadcast TV. Produces simulated surround sound from mono and stereo sources. Provides up to six ch of audio output: left, right, center, two surround channels, and subwoofer. Features Acra-Vector decoder circuitry with variable digital delay; acoustic space generator; remote control; output LED monitor display. FR 20-20,000 Hz  $\pm$  0.5 dB; s/N (front left, front right, center) -90 dBV, -85 dBV (surround L/R); 16.81" w x 2.38" h x 15.03 d;9.13 lb \$749

#### HTS 5200 Generation 2

Dolby<sup>™</sup> Surround audio processor. Acra-Vector Logic Decoder and variable digital time delay. Acoustic Space Generator<sup>™</sup>; output LED monitor; 

#### SONY

#### DAS-703ES D/A Converter Outboard digital-to-analog converter designed to decode digital audio signals. Features auto selection of 4 different sampling rates (32, 44.056,



#### PCM-501ES Digital Audio Processor

#### SDP-505ES Surround-Sound/Delay Processor

#### SEQ-333ES Graphic Equalizer

Remote-controlled 10-band equalizer that automatically adjusts for room acoustics. Features real-time spectrum analyzer; precision test microphone; 3 inputs and outputs; 8 acoustic memories with 4 pre-programmed curves; automatic or manual equalization; battery backup for programmed settings. Center frequencies 31.5, 63, 125, 250, 500, 1,000, 2,000, 4,000, 8,000, 16,000 Hz; boost/cut range 12 dB (2-dB increments). 17" w x 4.25" h x 10.88" d ....... \$600

#### SOUNDCRAFTSMEN

#### AE2000 Real-Time Analyzer/Equalizer

#### DC 4415 Third-Octave Equalizer

Third-octave stereo equalizer with 21 controls/ channel. Center frequencies 40, 50, 63, 80, 100, 125, 160, 200, 250, 315, 400, 500, 630, 800, 1,000, 1,600, 2,500, 4,000, 6,300, 10,000, 16,000 Hz. Features EQ defeat; infrasonic filter; tape monitor and tape record; Differential/Comparator circuitry for unity gain setting to within 0.1 dB accuracy for highest dynamic range capability. THD and IMD 0.01% at 2 v; s/N 114 dB at 10 v output; input imp 47,000 ohms. Front panel rack mount, 5599

#### DC 2215 Differential/Comparator Equalizer

Stereo 10-band equalizer with Differential/Comparator true-unity-gain circuitry for input to output balancing accuracy to within 0.1 dB. Equalizer filter circuits use precision wire-wound passivecoil inductors for high gain, low noise and distortion. Front-panel controls include tape monitor, I.ED defeat/EQ defeat and EQ tape record. THD and IMD 0.01% at 2 v; S/N ratio 114 dB at 10 v; boost/cut range ± 15 dB. Includes frequency spectrum analyzer test record, computone charts, cables. Front panel is rack mount, brushed aluminum with charcoal finish .......\$399

#### DC 2214 Third-Octave Equalizer

#### **SUMO**

#### Delilah 2-Way Electronic Crossover

#### TEAC

#### EQA-30BL 10-Band/ch Graphic Equalizer

#### EQA-20 Graphic Equalizer

#### EQA-5 Graphic Equalizer

Similar to EQA-20 without spectrum display Includes attenuator, LED meters ........... \$149

#### EQA-10IIS Graphic Equalizer

#### TECHNICS

SH-8065 33-Band Graphic Equalizer With variable-range indicators and selector; tapemonitor switch; parallel L, R sliders. Center frequencies 16, 20, 25, 31.5, 40, 50, 63, 80, 100, 125, 160, 200, 250, 315, 400, 500, 630, 800, 1k, 1.25k, 1.6k, 2k, 2.5k, 3.15k, 4k, 5k, 6.3k, 8k, 10k, 12.5k, 1.6k, 20k, 25k Hz; boost/cut range ± 3/± 12 dB; S/N 110 dB; gain 0 dB; 16.94" w x 13" d x 6.03" \$635

#### SH-8066 Direct-Touch Graphic Equalizer

#### SH-AV44 Powered Surround Sound Processor

Recreates or simulates ambience depending on sound source. Features Dolby surround and Technics AV surround system to extract reverberant sound information from and add phase shift to non-Dolby sources. Can be used with mono and stereo signals. Music, movie, and manual modes; 4 video inputs. S/N 90 dB; 25 w into 8 ohms. 16.94" w x 3.36" h x 10" D; 10.1 lbs \$350

#### SH-8046 Direct-Touch Graphic Equalizer

#### SH-8028 7-Band Graphic Equalizer

With tape rec/playback EQ; sliders with LED indicators; EQ on/off switch; low-noise op amps; calibrated decibel scale; tape monitor (source/ tape) switch; rec mode (straight/EQ) switch. Center frequencies at 63, 160, 400, 1,000, 2,500, 6,300, 16,000 Hz. S/N 110 dB 1HF A; cut/boost ± 12 dB. 16.94" wide x 3.36" high x 7.62" deep; 4.6 lbs ......\$130

#### THRESHOLD

#### Model PCX Electronic Crossover

Dual-ch, dual-passband electronic crossover with 17 user-selectable crossover points between the range of 75 to 1,602 Hz (750 to 16,020Hz available on special order). Computer modeling and optimization of filter circuit design allows 18 dB/



octave slopes that will sum flat within a few % without phase inversion. Separate high- and lowpass filter outputs for each ch may be independently level adjusted with front panel controls. Bridged-mono operation possible with normal and inverted summed mono low-pass filter outputs. 2 PCX may be used in tandem for tri-amplification. Uses fully discrete, direct-coupled J-FET, MOSFET, and bipolar devices. External power supply in separate chassis. Military-grade, glass-epoxy circuit boards with gold-over-nickelover-copper plated paths. Gold-plated signal connectors with Teflon insulation. FR low-pass filter DC to cutoff slope initiation, high-pass filter cutoff slope entry to 100,000 Hz; THD no greater than 0.01% from 20-20,000 Hz; input imp 20,000 ohms; output imp 1,500 ohms, nominal. 1.75" h x 19" w x 6.5" d ......\$1,400

#### **VECTOR RESEARCH**

#### **VQ-125 Graphic Equalizer**

10-band graphic EQ with spectrum analyzer and pink-noise generator. Features independent left/ right EQ controls; 2 tape monitors; dubbing direction selector; rec EQ; 2 line inputs; peak-hold display; subsonic filter; input sens switch. Center frequencies: 32, 64, 125, 250, 500, 1,000, 2,000, 4,000, 8,000, 16,000 Hz; boost/cut range ± 12



dB; s/N 109 dB; THD 0.009%. 16.94" w x 4" h x 9.44" d:10.5 lb \$230

#### VQ-115 Graphic Equalizer

#### YAMAHA

#### **DSP-1 Digital Sound Field Processor**

Features 16 preset acoustic surround modes including 6-channel digital Dolby surround; 16 additional preset effect modes; 16 user-programmable memory modes; 16-character LCD; wireless infrared remote control; 5 variable perimeter adjustments per mode; digital sound field generator \$899 MVS-1. Master volume controller-selector for use with DSP-1. Features input selector for three inputs and one tape monitor; fader for CD player \$149

#### EQ-1100U 10-Band Graphic Equalizer

Graphic equalizer with automatic room EQ. Features independent left and right channel controls;  $\pm$  12 dB equalization range per band; 3 EQ



factory-preset memories; 4 EQ user-preset memories; 10-band spectrum analyzer; pink noise generator; electret condenser microphone; EQ recording capability; 18-key wireless remote control.

Black; 11 lb				\$599
RMA-G60.	Rack	mount	adaptor	for EQ-
1100U				\$18

#### EQ-500U 10-Band Graphic Equalizer

#### GE-60B 10-Band Graphic Equalizer

#### EQ-32 10-Band Graphic Equalizer

#### SR-50B Surround Processor/Amplifier

#### **GE-40B 10-Band Graphic Equalizer**

#### GE-30B 10-Band Graphic Equalizer

#### **GE-20B 10-Band Graphic Equalizer**

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#### ACE AUDIO

#### 4000-X-24 Super Infrasonic Filter

#### 4100 Infrasonic/Ultrasonic Filter

#### 4000b Subsonic Filter

#### **3900 Ground Liminator**

Designed to break up ground-loop faults in con-	
necting cables, thus reducing hum; employs pas-	
sive circuitry \$21	
Kit	έ.

#### ACOUSTIC RESEARCH

#### AR SRC Stereo Remote Control

Remote control system compatible with all component audio systems features 8-bit custom programmed microprocessor and 15-function handheld remote module. Operating distance 40 feet nominal. Remote functions include system on/ off, volume control, balance control, -20 dB mute, full audio mute, source switching via remote tape monitor, left/right speaker comparison, sleep timer, full memory of control settings with power off. Inputs for main, tape monitor, and EPI. (external processor loop) return; outputs for main, tape record, and EPL send; indicators for power on, balance centered, and EPL selected. Attenuation range 0-75 dB plus full-off (>85 dB) in 1.5 dB steps; noise 95 dB below 1 V rms, Awtd; noise decreases with increasing attenuation; THD <0.01%, 1 Vrms, 20-20,000 Hz; FR 6-60,000 Hz ± 0.25 dB; phono cables, battery and instructions included ..... \$189.95

#### ADCOM

#### **GFS-3 Speaker Selector**

Handles up to 3 pairs of speakers with built-in load protection for low-imp loads; headphone output; Twist'n'Lock speaker connectors for heavy-gauge speaker wire. Can be used with amps rated up to 200 W/ch. 7" w x 2.75" h x 5.25"

GFS-6. Similar to above except handles up to 6

.....\$99.95

pairs of speakers\$14	9 95
GFS-6W. As GFS-6 but with stylish white f	ront
panel	9.95
GFS-6S. With silver front panel\$19	9.95
RM-3. Optional rack-mount adaptors for G	FS-
6\$20	
RM-3W, RM-3 in white \$25	5/pr
RM-3S, RM-3 in silver \$25	e /
KWE-55, KWE-5 III SHVEL \$2.	∍∕рг

#### a/d/s/

#### B3 Storage Module-Featured on cover

#### ALLSOP

72560 Audio Care System Includes record cleaning kit, stylus care kit, and

ultraline deluxe audio tape deck cleaning kit ......\$39.95

#### 59000 Rotary CD Cleaning Device

Hand-operated wet-system compact disc cleaner using soft, replaceable pad to clean from center to edge of disc. Gear drive automatically rotates disc while cleaning pad is being turned ......\$29.95

#### 5800 Orbitrac Record Cleaning System

#### 71200 Automatic Cassette Deck Cleaner

Features replaceable, non-abrasive cleaning cartridges. Dual pad design makes it unnecessary to turn cassette over to clean both sides of auto-reverse decks. Suitable for both home and car decks. Comes with storage box, carrying pouch, and extra set of cleaning cartridges ..... \$15.95

#### 75100 Cassette Storage System

Book-shaped cassette storage system for home or travel. Stores tapes in original boxes with labels showing. Holds 12 tapes and comes with doublesided tape to secure original tape boxes ... \$9.95

#### APATURE BY ACR

#### SP-518 Speaker Cable

518 stran	ids of e	lectr	olytic cop	oper s	peaker	wire
with 7 bu	undles of	E 37 .	36-gauge	wires	per cor	nduc-
tor; ultra	flexible l	PVC	jacket			\$350
SP-134.						
strands .						\$195

#### LSD Silver Cable

Linear Synthesized Digital cable for compact di players; balanced line; 8 conductor with Teflon.	
0.5-meter set \$4	40
1-meter set \$5	50
2-meter set \$6	65

#### Gold Interconnect Cables

Patch co	rds	ſo	r	а	u	d	ic	)	а	n	d	t	vi	a	le	0	Þ	ĸ	ıt	c.	h	¢	6	n	n	p	0	n	ents	ī.
0.5-mete	er se	et					•			•																			\$18	3
1-meter	set						•			•						•	•						•			•			\$20	)
2-meter	set	• •	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		•	•		•	•		•	•	•	\$24	ŧ

#### AUDIO DESIGN ASSOCIATES

#### **CC-5 Control Center**

#### SC-1 Remote Control Speaker Selector

Centrally switches up to 8 pairs of speakers an AC power to audio components. Ability to play any or all pairs simultaneously with control of a source transport function and main system off. LED status indicators display on/off for each pair. One 10 amp switched outlet. Used in conjunction w/ MC-11 and MC-110. 19" w x 3.5" h x 11" d .....\$1,395 SC-10 Remote Control Speaker Selector. Same as SC-1 except additional 2 switched outlets and ability to control power and transport function for 2 sources. Used in conjunction w/MC-33 and MC-330. 19" w x 3.5" h x 11" d ......\$2,600 SC-88 Remote Control Speaker Selector. Same as SC-1 except additional wire harness assembly for input source readout. Used in conjunction w/ DSP-8 preamplifier and MC-1100. 19" w x 3.5" h x 11" d .....\$1,495

#### LD-6 Line Driver

Accepts all six input sources for system. Provides 600 ohm buffered outputs; balances source levels; AC power control for six sources. 8 lb ...\$2,500

#### **ASU-10 AC-Switching Unit**

Provides AC power switching of 8 music sources and 2 power amplifiers. Used in conjunction with SC-88 central controller and DSP-8 preamp. 5 lb; 19" w x 1.75" h x 8.75" d ...... \$895

#### MC-11 Remote Room Control

#### MC-33 Remote Room Control

#### MC-1100 Remote Room Control

Provides control of speakers on/off; system off; independent R/L speaker volume; one button selection of 8 sources and transport functions for each source. System and source status readout and thermally protected volume controls. Available in wall mount and table top version. Fits into 2 gang electrical box. Used with SC-88 ... \$450

#### MC-1 Remote Room Control

Provides control of room on/off; system off; digital volume control; direct access of 6 sources and transport functions for each source. System and source status LED's. Available in wall mount and table top version. Fits into standard 3 gang electrical box. Used in conjunction w/ system 565275 MC-3.5 Remote Room Control. Same as MC-1 except one LED indicator for system status. Fits into standard singel gang electrical ......\$300 MC-007 Remote Room Control. Same as MC-3.5 (above)in wireless hand held version .....\$425

#### **MC-88 Remote Room Control**

#### MC-1600 Remote Room Control

Provides control of room on/off; system off; digital volume control; bass up/down; treble up/ down; direct access to 8 sources and transport function for each source. Source and system LED's and readout. Available in wall mount and table top version. Fits into 2 gang electrical box. Used in Conjunction w/ system 8000 . . . . . \$579 MC-1700. Same as MC-1600 except with digital readout of source selection ..... \$679 MC-1800. Same as MC-1600 except with infrared receptors for use w/MC-009 hand held wireless .....\$850 remote . . . MC-1900. Same as MC-1700 except with infrared receptor for use w/MC-009 hand held wireless re-mote ..... MC-009. Same as MC-1600 without LED's or readout in wireless hand held version ..... \$475

#### AUDIO RESEARCH

MCP-2 Solid-State Pre-Preamplifier

Analog Module® pre-preamp boosts output of MC cartridges for input to preamps. Features front-panel selectable loading for MM cartridges; front-panel selection of MC gain and imp; fully balanced and regulated circuitry. FR DC-80,000 Hz ± 0.25; harmonic distortion <0.005% at 1 V rms output from 20-20,000 Hz; MC noise -100 nanoV at 10 ohm input RIAA equalized; 19" w x 3.5" h x 8.5" d......\$1,395

#### **RMV-3 Rack-Mount Ventilator**

#### **RFP-1 Rack-Mount Filler Panel**

#### AUDIOSOURCE

#### RTA-ONE Real-Time Analyzer

Hand-held real-time analyzer and SPC meter with built-in calibrated electret condenser microphone. Features 10 single-octave bands; 90 level LED's LED's for power, low battery, overload. 1 lb without batteries; 6.69" h x 3.88" w x 2" ..... \$250

#### PNG-ONE Pink-Noise Generator

Battery-pow	V¢	21	e	d	1	pi	ir	ık	<u>-</u>	n	0	i	56	2	g	e	n	eı	ra	ıt	0	٢	•	•		\$55
AC adaptor				,		,						•											-			. \$15.95
Carry bag .			,																			,			,	. \$34.95

#### AUDIO-TECHNICA

#### AT605 Audio Insulator System

Vibration-damping feet for use under speakers or turntables to prevent acoustic feedback; individually adjustable height. Supplied in set of 4, with bubble level ......\$33.50

#### AT618 Disc Stabilizer

Solid brass disc with rubber coating designed to damp out sound-coloring resonances. Fits over turntable spindle ......\$28.95

#### AT6015 TechniClean™

Audiophile record maintenance system cleans record surface and reduces static .......\$25.95 AT6016. Deluxe stylus cleaning system with enclosed fluid container ......\$15.95 AT613. TechniClear record cleaner replacement fluid. Removes dust, dirt, and oily finger prints without promoting static. 60 cc ......\$4.50 AT613/500. 500 ml refill .....\$12.95

#### AT609 Headshell Wire Set

Replaces original headshell wiring; set of 4 colorcoded connectors made of silver litz wire and gold plating ......\$10.95

#### AT607 Stylus Cleaning Formula

#### AT608 Record Care Formula

Vital Link Cable Series

#### AT620 Super Conductivity Cable Set

#### BIB

#### A-616 Compact Disc Cleaner

CD cleaner features molded disc tray; chamoiscovered cleaning pad/wheel; cleaning fluid; CD eject lever; chamois cleaning brush .....\$14.95



#### A-611 CD Storage Module

#### A-612 Disposable Tape Head Cleaner

#### **BOULDER AMPLIFIERS**

### Balanced Cables

Gold-plated	3-pin	male to	o 3-pin female.	
CB75, 75 ft			\$148.00/pr	r
CB35, 35 ft			\$95.00/pr	٢
CB12, 12 ft	t. <b>.</b>		\$64.00/pr	-

#### CA06 Interconnect Cables

#### **Boulder Terminator**

Speaker-cable termination network provides termination imp for frequencies where speaker cable must be treated as transmission line. Designed to eliminates reflections back down the speaker cable into amp for improved clarity ... \$32.00/pr

#### BRYSTON

#### .4B Switch Box

High-level switching with gain/balance control. Features 4 inputs (CD player, tuner, tape, aux); 1 tape loop. 9 lbs; 19" w x 1.75" h x 9" d... \$500

#### Switch Boxes

No active components: designed for high-current applications.

3-Way.	With	headphone	jack				*				,	\$195
5-Way.	With	headphone	jack	•	• •	•		• •		•	•	\$125

#### MC Cartridge Step-Up Transformer

#### BUFF STUFF

#### CD Saver

#### **BUSH**

#### Oak Elegants Line

Units have soft-shaped 2.5" -wide solid oak frames, oak veneer on sides and tops, multi-step finish with double-lacquer topcoat, brass accents on oak frames, through-glass brass hardware. concealed fasteners, safety-tempered solar-bronze-tinted glass

doors etched with subtle silk-screen pattern, radiused plinth base. Ready to assemble.

AV1675. Full-sized entertainment center holds 27" TV; adjustable shelf; glass-enclosed storage with adjustable shelves. 49.25" w x 49.9" h x 20" d .....\$529.95 A1665. Audio cabinet with adjustable shelves: 2 glass doors. 23" w x 45" h x 16" d . . . . \$269.95

#### Furniture Systems Series

With rounded corners, soft-shaped tops, fully radiused shelf fronts with decorative accent lines, Library oak finish, full-length solid-oak door pulls, cord openings in rear, 72" tall.

L139WS. Wood and glass doors; middle doors
open 180° for TV viewing; 30" w 19.4" d\$269.95
L132WS. Audio cabinet with wood and glass
doors; 20" w x 19.4" d \$219.95
L134WS. Open shelving above wood doors; 30"
w x 19.4" d\$199.95
L124WS. Wood doors; 15.4" d\$169.95
L121WS. Wood doors; 15.4" d\$149.95
L123WS. Open shelving; 15.4" d\$149.95

#### **AV1375 Deluxe Home Entertainment Center**

A/V center with 25" h x 27" w TV compartment; adjustable VCR shelf; glass-enclosed storage with adjustable shelf; 20.25"-W glass-enclosed audio area with 3 adjustable shelves; silk-screen pattern on glass doors with wood frames. Solid oak and oak laminates with multi-step laquered finish. 49.5" w x 47.62" h x 19" d; 180 lb . . . . \$399.95

#### AV774 Room Divider/Entertainment Center

2 drawers below TV compartment; 4 adjustable bottom doors; wooden door handles; rounded edges on frame; shelving; drawers and doors. Library-oak finish. Cords run through center partition. 49" w x 69.5" h x 15.5" d; 180 lb .\$259.95

#### AV760 Deluxe Audio/Video Center

TV compartment for 26" or 19" TV; safety-tem-pered glass door; 3 adjustable shelves; enclosed space for accessories; pedestal base; adjustable shelf above TV compartment. Library-oak finish. Soft-shaped tops and rounded edges. 47.36" w x 47.25" h x 15.5" d; 145 lb ..... \$229.95

#### A1365 Audio Cabinet

22"-W interior glass-enclosed facade with silkscreen pattern and wood frames; 2 adjustable interior shelves; hand-stained and chiseled accent lines; rounded edges and soft-shaped design. Solid oak and oak laminates with lacquered finish. 23.5" w x 42.25" h x 16.5" d; 78 lb ....\$199.95

#### AV740 Audio/Video Center

L-shaped design; safety-tempered glass door; 3 adjustable shelves; vertically accented doors and side panels; enclosed storage for videocassettes, records, tapes, accessories. Arborwood finish; 91 lb; 47" w x 36" h x 14.94" d ......\$99.95

#### **AV738 Compact Home Entertainment Center**

L-shaped A/V center with open shelf for 26" TV; safety-tempered glass doors with 3 adjustable shelves; enclosed storage; wood handles; radiused door panels; rounded edges; soft-shaped tops. Library-oak finish. 47" w x 35.88" h x 15.5" d; 93 lb .....\$149.95

#### A641 Audio Cabinet

Safety-tempered glass door; 2 adjustable shelves; soft-shaped lift top; 2-wheel casters. Library oak finish. 18.88" w x 38.62" h x 17.5" d; 58 

#### CALRAD ELECTRONICS

#### 10-112 Patchbay

Point-to-point wiring patchbay provides 32 numbered RCA female jacks for multiple use of tape equipment and signal routing. Double-panel-

mount jack assembly allows wireless operation. Steel and aluminum chassis mounts in any 19" rack. Ground-lifted jacks optional. 19" w x 1.75" 

#### CANTON

#### **Connect Series Switchboxes**

Connect 50. Handles 1-4 pairs of speakers; DIN and phono jack; headphone outputs. Features volume controls for adjusting channels 2 and 4;



connection to output of amps, receivers; DIN speaker jacks ..... \$125 Connect 20. Switchbox for 1-3 tape decks or 2 decks and 1 high-level signal source. Features left/right regulators to reduce signal levels before standard DIN speaker jacks ...... \$65

#### **Record**-Care Products

Cantosweep. Record-care brush with antistatic carbon bristles. Removes static charges, dirt particles from grooves before play ..... \$30

#### Cantolink Speaker Cable

40. Premium 40-mm speaker cable .... \$1.45/ft 25. Premium 25-mm speaker cable .... \$0.99/ft

## CARRY DISC BY MUSIC & SOUND IMPORTS

#### Carry Disc CD Holder

Holds 14 CD's in a quick open-and-close carrying case with a protective inner lining of soft velour .....\$15.95

#### **CARTER-CRAFT**

40-428 "Pick-Pocket" Speaker Folding speakers for mini stereo systems. Folds up to fit in pocket or purse. Over 2 feet of stereo cable. Includes suede-cloth carrying case. 4" x 2.5" folded size; 1 lb .....\$21.90

#### 60-409 CD Cleaning Kit

Includes cleaning solution .....\$19.95

#### 60-416 CD Storage Case

Auto eject and add-on unit holds 5 compact discs. Stackable modular design allows expansion of storage system .....\$13.65

#### Soft-Touch Cassette Storage Cases

Storage cases eject tapes by touching drawer front. 40-218. Portable with carry handle stores 12 tapes . .....\$40.45 40-217. Auto unit padded all around for safety, impact, heat resistant. Holds 6 cassettes ... \$35.65 40-216. Expandable unit holds 6 tapes and is expanded by purchasing additional units ... \$21.35

#### 34-155 Deluxe AC Adaptor

U.L.-approved AC/DC adaptor for 3-, 4.5-, 6-, 7.5-, 9-, and 12-V battery-operated components. Features universal 4-way plug. Includes built-in reversing feature. 1.5 lb ...... \$12 34-157. As above with 300/100 mA conversion switch .....\$10.95

#### 40-158 Tape Care Kit

Features chemical cleaners and lubricants for heads, guides, and capstans. For use with auto and home tape decks. Includes 1 bottle each of cleaner and lubricant, a supply of swab-style Kleen Stix, and a specially treated cloth ... \$7.55

#### 40-130-C Cassette Head Cleaner/Demagnetizer

Cordless cassette head cleaner and demagnetizer removes dirt and residual magnetism without use of any current. For home and auto cassette decks ...... \$4.90

#### 40-126 Cassette Head Cleaner

Includes cleaning fluid		4.10
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Clear hinged jewel case	\$2.60
60-415-3. Jewel case 3-pack	\$5.45

#### Speaker Wire

6

2-conductor, 24-, 20-, or 18-gauge wire for hook up to 8-ohm speakers. Clear-plastic insulation. 32-150. 25-ft length, 24 gauge ......\$2.60 32-152. 50-ft length, 24 gauge ......\$4.05 32-156. 50-ft length, 20 gauge ......\$5.75 32-158, 100-ft length, 20 gauge ......\$10.95 32-159. 50-ft length, 18 gauge ...... \$7.94 32-157. 100-ft length, 18 gauge ......\$15.10

#### Connection Cables

Dual, color-coded stereo cable with RCA phono plugs on all ends. 60-342G. 12-ft gold-plated plugs ......\$6.65 60-340G. 6-ft gold-plated plugs ..... 5.20 38-143, 12-ft ..... \$4.60 38-142. 6-ft .....\$3.25 38-141. 3-ft ......\$2.55

#### CARVER

#### MCt Moving-Coil Transformer

Matches low output of moving-coil cartridge to standard moving-magnet phono stage. Selector switch for 3.9, 39, 110 ohms for virtually any moving-coil cartridge. Gain 24 dB; ..... \$129

#### **CELLO**

Speaker Stand	5											
Granite												\$5,500/pr
Wood lacquer												\$2,500/pr
Oak			•						•			\$1,500/pr

#### COUNTERFEET BY SUMIKO

#### Cone-Shaped Feet

To isolate components from mechanical disturbance.

C-3. For components and speakers; with double-
thread tapped screws \$9/ea
C-4. Tall Counterfeet for components and speak-
ers; with double-threaded tapped screws; good on
carpet\$14 ea
C-37. Replaces feet of Sota turntables\$14 ea
C-35. Replaces feet of Oracle turntables \$22 ea
C-36. Replaces Sonographe turntable feet \$14 ea

#### **COUNTERPARTS BY SUMIKO**

#### System Mat

Record platter mat made from lead/barium energy-absorbing layer, anti-static treatment, polymethylmethacrylate base material, warp-reducing concavity. Use with record clamp only..... \$95

#### **Reflex Clamp**

Couples record to mat with reflex action and energy-absorbing lead/barium coating. When used with System Mat, is said to eliminate vibrations and resonances from playing surface ...... \$75

#### **CD** Interface Mats

Clear plastic mats permanently adhere to label side of disc; constrained-layer damping said to reduce vibration; protects from scratches that can damage data. 10 mats per package ....... \$10

#### CUSTOM WOODWORK & DESIGN

All of CW & D's Woodmore cabinets are handcrafted of select hardwood solids and veneers. Available in natural oak, dark oak, natural American walnut, and black oak, with matching shelves. Cabinets can be grouped or stacked to make complete entertainment centers.

#### Magic Lowboy Audio Cabinet

Concealed audio cabinet rises to user height by remote control. Fully enclosed. Max height 53"; closed, measures 47.25" wide x 34" high x 19" deep.......\$2,100-\$2,400

#### 21" Woodmore Audio Cabinet

1 adjustable shelf; casters. 24" w x 21" h x 19" d ..... \$220-\$270

#### 30" Woodmore Audio Cabinet

2 adjustable shelves; casters. 24" w x 30" h x 19" d ...... \$270-\$345

#### 42" Woodmore Audio Cabinet

3	a	dj	ju	S	t	al	Ы	e	5	sł	10	l	v	e	5;	¢	28	IS	t	e	rs	2	4	ŀ"	W	1	x	4	12"	h	х	19	**
d		Ĵ																											\$3	35	5-5	43	5

#### Woodmore Glass-Lid Audio Cabinet

2 adjustable shelves; feather-light hinged lid; casters. 24" w x 42" h x 19" d ..... \$415-525

#### Woodmore Entertainment Table

Finished on all 4 sides; with wood base. 47.25" w x 16" h x 19" d ..... \$345-\$430

#### Woodmore Smallboy Audio Cabinet

2 adjustable shelves; casters. 47.25" w x 21" h x 19" d ...... \$335-420

#### Woodmore Lowboy Audio Cabinet

4 adjustable shelves; casters. 47.25" w x 30" h x 19" d ...... \$415-\$515

#### Woodmore Record Cabinet

4 adjustable shelves; wood-veneer back; stacking accessory. 47.25" x 42" x 14" ..... \$410-\$550

#### Woodmore Doors

Glass Doors. With chrome, black, or gold hardware \$30-\$73 Wood Doors. 160° concealed European hinges and solid-wood pulls \$90-\$230 Rollwood, Veneered razor-sliced slats on wood track \$160-\$180 Drop Leaf. For 21" Woodmore or Woodmore Smallboy \$55-\$64

#### Accessories

Cassette Drawer. Holds 72 cassettes; 4.5 h \$80-\$90

 

 Cabinet Lights. With matching wood rail; 0.75"

 h; includes cord switch
 \$40-\$47

 Wood Back. Custom slotted at additional cost
 \$32-\$55

 Wine Accessories. Solid wood hanging rails for glasses and bottle racks
 \$80-\$96

 Outlet Strips and Boxes. Filtered and spike protected; 8-outlet strip; isolated
 \$195

 2-outlet box with indicator lamps (always on)\$70
 \$100-\$140

#### Stacking Rails and Bases

Solid wood accessories for stacking units into wall systems; with leveler brackets and adjustable levelers; rails 0.75" h; bases 1.75" h . . \$22-\$130

#### DANEFURN

#### Audio Cabinets

#### DB SYSTEMS

#### DB-4B MC Pre-Preamplifier

MC-cartridge pre-preamplifier with low-noise cascode amps, diode-protected inputs. Features internal low/medium/high gain switch. THD 0.0008% 20-20,000 Hz at 1 V; noise -86 dB at 1 mV; FR 10-100,000 Hz +0/-0.1 dB; input/output imp 9k ohms, 2,000 pF/220 ohms; max load 10 kilohms, 3,000 pF; internally adjustable gain/ sens/overload dB/40  $\pm$  V/45 mV high... \$205 With DBP-4 coupler and DB-2A power supply........\$275

#### DBP-11 Phono Capacitance Switch Box

Features front-panel-switchable 100-400-pF loading for 2 MM phono cartridges. Open position is provided. Gold-plated jacks and plugs ... \$79.95 DBP-11MC. Similar to DBP-11 but with resistive instead of capacitive values. Includes 5-ohm load ......\$79.95

#### DBP-2J/5 Passive Switch Box

#### DBP-12X Audio Cable

10-meter length of low-capacitance (400 pF) ste-

PRICES LISTED are manufacturers' suggested retail prices (also referred to as *list* prices); actual selling prices are set by individual dealers. All prices are subject to change without notice.

#### Gold-Plated Connectors

 DBP-9AU. Banana plugs. 8 solderless ... \$24.50

 DBP-9H. Banana handles. 4 red, 4 black. .\$3.50

 DBP-9P. Dual banana (2 pk) ..... \$17.95

 DBP-13J. .25" phono jacks (2 pk) ..... \$17.95

 DBP-13J. .25" phono jacks (8 pk) .... \$17.95

 DBP-13J. .36" phono jacks (8 pk) .... \$29.95

 DBP-13FM. Phono plugs (8 pk) .... \$17.95

 DBP-13FM. Phono plugs (2 pk) .... \$19.95

 DBP-13FX. Phono plugs (2 pk) .... \$19.95

 DBP-14. Gold-plated spade lugs (8 pk) ... \$19.95

 DBP-15. Gold-plated Y-adaptors (2 pk) .... \$12.95

 DBP-16. 12-dB input attenuators .... \$12.95

 DBP-17. Gold-plated ph. coupler (2 pk) ... \$12.95

#### **DBP-6** Phono Equalization Kit

Permits adding 100-400 pF of capacitance to phono input of any preamp or receiver. Consists of 2 Y adaptors, set of gold-plated phono plugs with polystyreme capacitors wired to give 100, 150, 200, 300, 400 pF. Resistive load (1%) included for experimenting with MC cartridges plus pair of empty plugs for making custom values...\$36.95 DBP-6MC. Similar to DBP-6 except for MC cartridges. Loads are 1% 10-, 20-, 50-, 100-, 200metal-film resistors. Two empty plugs included.....\$36.95

#### DBP-10 Phono Alignment Protractor

#### DBP-CK Cramolin Audio Kit

Contact cleaning system. Disolves and prevents oxide formation. Reduces noise and distortion .......\$17.50

#### DBP-VSP Voltage Spike Protector

Plug-in power line adaptor limits voltage surges that can damage solid-state components..\$14.95

#### DBP-SC Souther Clever Clamp

Lightweight clear record clamp. 23 g ..... \$10

#### dbx

#### **DAV-600G Program Route Selector**

Rack-mountable audio/video program route selector connects 3 VCR's, 1 VDP, and 3 tape decks (1 audio, 1 video, 1 audio NR). Features pre and post switching; RCA phono jacks ....... \$399

#### Model 400XG Program Route Selector

#### Model 200XG Program Route Selector

#### **DENNESEN BY SUMIKO**

#### Soundtraktor

Geometric cartridge-alignment	
turntable to Baerwald parameter	ters; metal con-
struction	\$195

#### Pivotram

#### DENNESEN ELECTROSTATICS

#### Pivotram

Locates proper spot to drill tonearm mounting hole. Made of aircraft aluminum. 1 lb; 12" x 3.3" ..... \$100

#### Sound Tractor

Phono cartridge alignment protractor gives proper distance and offset angle for any pivoted in one simple step. Made of aircraft aluminum. 1 lb; 12" x 2" x 3"..... \$100 Same unit but made of plastic ...... \$35

#### **Polaris FM Antenna**

Indoor FM antenna. Totally passive, yet has as much as 14 dB more signal gain than dipole antenna normally used. Includes coax cable and balance. 1 lb; 18" x 2" x 2" ..... \$40

#### **D.G. INDUSTRIES**

#### **Compact Disc Storage Unit**

Stackable plexiglass CD tray. Features storage of 29 compact discs; tilts discs for easy reading of ti-

DISCWASHER

#### **DiscKit Record Care**

Contains D4+ record-care system, Zerostat antis-	
tatic instrument, SC-2 stylus-care system housed	
in DiscOrganizer \$59.95	i.

#### Discset

Provides essentials of record, and stylus care; includes D4+ record-care system, SC-2 Stylus Care System in milled walnut base ..... \$24.95

#### Zerostat-3

Anti-static instrument neutralizes static charges on virtually any surface; works without coating by showering surface with millions of positive and negative ions .....\$29.95

#### **Discwasher Compact Disc Cleaner**

Includes a CD cleaning unit, CD-1 cleaning fluid,
cleaning pad grooming brush and replacement
cleaning pad. 14 oz\$19.95
CD-1. 1-oz fluid refill\$3.95
CD Cleaner Replacement Pads\$4.95

#### **CD Storage System**

Lightweight, durable unit stores up to 20 CDs i	n
their jewel boxes. Can be wall mounted. 6" w x 2	~
h x 14.75" d \$19.9	5

#### D4+ Record Care System

Safe record-cleaning system designed to remove
contaminants without reducing record fidelity.
Consists of D4+ fluid that lifts, suspends contam-
inants; soft-fiber pad with hand-milled walnut
handle to remove debris and dry record; DC-1
pad-cleaner brush\$16.50
1.25 oz replacement fluid\$2.50
6 oz replacement fluid \$10
16 oz replacement fluid \$17
DC-1 brush\$0.69

#### D'Stat II Mat

Turntable mat reduces static charges on contact, provides cushion to reduce sonic, mechanical feedback between record and platter ..... \$8.50

#### SC-2 Stylus Cleaner System

Includes scientifically safe cleaning fluid, precision nylon-fiber brush designed to safely remove stylus contamination. Brush has attached stylusinspection magnifying mirror ..... \$8.50

#### V.R.P. Record Sleeves

Scratch-free record liner sleeves that prevent static charge buildup during record storage and removal from sleeve. Super smooth surface will not ooze plastic additives; 10 pack ..... \$3.50

Cables

#### Gold-ens Audio/Video Cables

Perfectionist cables for audio, video; provide ul-
tra-low capacitance with heavy gold-plated con-
nections with molded nylon insulating sleeves.
2-meter triple strand\$23.95
1-meter triple strand\$21.95
5-meter double strand\$19.95
4-meter double strand\$17.95
2-meter double strand\$15.95
1-meter double strand\$13.95
0.5-meter double strand\$11.95
2-meter single strand \$10.95
1-meter single strand \$9.95

Tape Recording Accessories

#### D'Mag Cassette Deck Demagnetizer

Demagnetizes tape heads, capstans, and entire tape path. Requires no batteries or power cords .....\$19.95

Discwasher Tape Deck CareSet Includes Perfect Path Cassette Head Cleaner and C.P.R. Capstan Pinch Roller Cleaner .... \$12.95

#### C.P.R. Capstan/Pinch-Roller Cleaner

"Positive Drive" cleaning system for cassette decks designed to safely scrub pinch rollers, capstans with advancable cleaning fabric and harm-

#### System II Cassette Tape Care

Combination head and capstan, pinch roller cleaner for cleaning and maintaining all home and car cassette players. Nonabrasive dry fiber matrix tape safely removes dust and oxide buildups on heads and along entire tape path. Capstan, pinch roller cleaner with an advancable fiber-grid surface and specially formulated fluid removes tackiness and contamination from capstan and pinch roller assembly to prevent jammed and eaten tapes. 2.5" w x 4" h x 0.5" d ......\$13.95

#### Perfect Path Cassette Head Cleaner

Nonabrasive dry system for audio cassette decks designed to remove oxides, and gummy residue along tape path and on tape heads ......\$5.95

#### DNM BY MUSIC HALL

#### Interconnect and Speaker Wire

Solid core; designed for enhanced clarity and 

#### DRAKE COMPANY

#### PRC/U Universal Remote Control

Hand held remote control for use with TV, VCR's, cable converters, audio/video, CD players or any infrared remote controlled components. Range 30 feet; used with up to 3 remote comtrolled units. 2.31" w 6.5" L x 0.69" d ...... \$120

## ENTRE BY ANALOG EXCELLENCE

#### ET-100 MC Step-Up Transformer

Step-up transformer for MC cartridges. Can take 3 stereo connections at once with selection on front panel. 4-way switch on front panel for imp matching to MM cartridges ..... \$450

#### FINELINE DISTRIBUTING

#### **Furniture Systems**

Fineline Audio/Video cabinetry are finished inside and out with oak and oak veneers. All surfaces are

hand rubbed with Danish oil and wax. Veneered panels and shelves have a 3/4" hardwood composite core. Shelves are rated to hold up to 125 lb. Custom finishes and options are available. Audio + Video Cabinet. 1 fixed video shelf, 1

fixed, 2 adjustable audio shelves and dividers, 42" h x 49.75" w x 21" d ..... \$370 Tall Video Cabineto 1 fixed, 1 adjustable shelf. and record dividers. 42" h x 20.5" w x 21" d\$210 Short Video Cabinet. 1 adjustable shelf ... \$175 Short Audio Cabinet. 1 shelf and record dividers ..... \$150 Speaker Stands. Matching finish to cabinetry. 15" tall ..... \$130/pr

#### **GENEVA GROUP**

#### **PF-211 Professional Bulk Eraser**

Erases reel-to-reel, cassette, 8-track cartridge tapes to noise level of virgin tapes. 2,300 gauss flux intensity. 2" w x 3.5" h x 5" d; 2 lb, 4 oz.....\$59.95

#### Audio Cassette Drop-In Demagnetizer

Demagnetizes cassette heads in <1 sec when loaded in cassette deck. Battery included; red indicator light; standard-size cassette shell ..... \$18.99

#### VCR-205 Audio/Video Demagnetizer

Removes residual magnetism from heads and tape path parts. 290-gauss field intensity; vinyl covered probe won't harm heads ..... \$39.95

#### Tape Splicing Blocks

Specially grooved to hold tape firmly during splicing. Features 2 deep slits for straight, diagonal cuts. Supplied with double-backed adhesive for mounting without drilling; stainless-steel cutter. 5.75" w x 1" d x 0.31" h. PF-311. For 0.25" tapes .....\$32.28

PF-312. For cassette tapes ......\$32.28

#### PF-400 Compact Disc Storage Albums

LP-size storage unit for CD's. Each holds 4 CD's in clear plastic carrying case. 3-pack: holds 12 CD's total ......\$14.95

PF-890 Street Strap Pocket Stereo Strap Fits all pocket stereos with handles.....\$9.99

QM-505 Cellular Foam Swabs

Package of 25 swabs, for cleaning audio, video tape decks ...... \$9.40

#### PF-116 Tape & Head Cleaner

Aerosol spray; extension tube reaches recessed parts of audio recorders and videocassette decks. 16-oz can .....\$9.09

#### PF-410 Compact Disc Cleaner

Easy-to-use premoistened cleaning pads cleans at least 5 CD's each. 18 pads. 3 oz ......\$10.99

#### PF-562 Audio Cassette Head Cleaner

Cleans heads and tape path components in 5 sec. Features gold-colored metal hubs; nonabrasive cleaning tape; IP alcohol cleaning solution; standard cassette housing. 3.25 oz .....\$7.99

#### QM-108 Tape/Head Cleaner

Liquid tape and head cleaner in 8-oz can.. \$6.10

#### QM-103 Tape/Head Cleaner

Aerosol tape and head cleaner blasts loose oxides, dirt. Supplied with extension tube ..... \$6

#### Audio/Video Splicing Kit

For editing and repairing audio cassettes, VHS and Beta videocassettes; splicing tape for 36 audio or 24 video splices; leader tape for audio cassette, VHS, Beta; with instructions .....\$5.99

#### QM-102 Tape Head Cleaner

#### PF-105 Mini Super Blast

Removes dust and dirt from hard-to-reach areas. 1.5-oz can .......\$2.99

#### PF-870 Double RCA Jack

#### PF-860 Mini-to-RCA Adaptor Cable

#### **PF-115 Electronic Cable Ties**

20 reusable ties; each 5"; with pop locks; trimmable with scissors ...... \$2.29

#### Reel Tabs

Precut adhesive-backed Mylar or metal tabs for tape splicing, editing. Designed for use with Geneva splicing equipment.

#### 0.25" Mylar Reel Tabs

QM-531.	1,000/pkg		,								.\$111.39
	200/pkg .										
QM-521.	50/pkg					•					\$7.56

Cassette	Mylar	Reel	Tabs

QM-522.													,				,		. \$6.68
QM-524.	50/pkg		•	•	•	•	•	•	•	,	•	٠	•	•	•	•	÷	•	. \$9.22

#### HEYBROOK

#### **HBS-3 Speaker Stand**

Loudspeaker stand designed for stable, rigid support. 4 adjustable pointed spike feet top and bottom. 13" w x 10" h x 11" d ..... \$139.95/pr HBS-1. Like HBS-3 except 18" tall \$149.95/pr P-5S. 20" speaker stand ..... \$89.95/pr

#### HB-2S Speaker Stand

Metal, wall-mount stand designed for rigid support. 9.25" w x 10" h x 9.25" d..... \$99.00/pr

#### TS-1 Turntable Wall Shelf

Metal turntable wall shelf designed to eliminate
structural feedback from reaching the turntable.
Features adjustable spike feet for leveling. 20" w
x 16" h x 16" d; 12 lb \$98

#### Heybrook Interconnects

Hand-assembled RCA to RCA interconnect cables with gold-plated plugs. 3-ft length \$59.95/pr

#### **AK-1** Cartridge-Mounting Kit

Cartridge-mounting kit with high-tensile screws	
and nuts; allen key wrench; open-end nut wrench;	
overhang protractor	

#### HIGHPHONIC BY ANALOG EXCELLENCE

MC Step-Up Transformers HP-T7H. For use with 15-40 ohm MC car

#### HP-S5 Headshell

#### HUNT BY MUSIC HALL

#### EDA Carbon-Fiber Record Brush

Cleaning brush with carbon fibers supported by velvet pad to reduce effective length to 2 mm; filiments designed to track record grooves; center pad statically charged to lift dust ......\$19.95

#### INTRACLEAN by AMERICAN RECORDER TECHNOLOGIES

#### S-711 Professional Head Cleaner

Halogenated hydrocarbons clean heads, capstans, pinch rollers; no alcohol ......\$7.95

#### C-911 Autoreversing Cassette Cleaner

In cassette shell; contains S-711 fluid to clean heads, capstan, pinch rollers; nonabrasive cleaning band; automatically switches direction in autoreverse decks; replaceable pads......\$12.95 C-912. Replacement pad kit......\$3.95

#### **D-501 Cassette Demagnetizer**

In cassette shell for insertion into decks . . \$24.95

#### **D-511 Wand Demagnetizer**

Hand-held plug-in demagnetizer for heads, capstans, tape guides, other metal along tape path; auto shutoff when not in use ......\$21.95

C-S1 Audio Cotton Swabs

6 long highly polished maple stick; tightly wound tip mounted with solven-resistant glue ....\$2.95

#### **CD-101 Compact Disc Cleaner**

Chamois-like brush; cleaning solution; disc holder.....\$16.95 CD-102. Replacement cleaning pads.....\$6.95 CD-103. CD cleaning fluid......\$4.95

#### JVC

#### **KENWOOD**

SRC-4000 Audio Rack

Basic series component cabinet features tempered smoked-glass front door; casters; record-storage compartment. 19.31" w x 45.81" h x 16.63" d ...... \$230

AT-56 Audio Timer Features 24-hour clock-timer wtih 12 hour FL

### PRICES LISTED

are manufacturers' suggested retail prices (also referred to as *list* prices); actual selling prices are set by individual dealers. All prices are subject to change without notice. 

#### **KINETIC AUDIO**

#### Cabinets

Furniture-styled equipment/record/tape cabinets. Can be stacked; adjustable-height shelves or rack rails; walnut veneer over particle-board side panels

#### Speaker Stands

Straight or tilted speaker stands with dual-angle up/down capability and flat black satin finish.
S-L. Large \$200.00/pr
S-M. Medium \$150.00/pr
S-S, Small\$125.00/pr

#### Stereo Amplifier/Line-Level Control

For bi/multi-amping, other amp level adjustments. Features 10k-, 25k-, 50k-ohm imp; phono jacks; connectors; mounting hardware .. \$150.00

#### Stereo Amplifier/Speaker Selector

Switches 2 stereo amps into single pair of speakers or 2 pairs of speakers from single stereo amp .......\$150.00

#### KLYNE AUDIO ARTS

#### SK-3 Pre-Preamplifier

#### SK-2A Pre-Preamplifier

Pre-preamplifier for low-output MC cartridges. Features ultra-low distortion and high-resolution design. Gain 24 dB; Bandwidth 0.8-350 kHz; adjustable high frequency contour; output imp 300 ohms \$750

#### KOSS

#### Portable Stereo Speakers

	oster	
	dual full-range	
5202	 	ato/pi

#### LASER BY SWIRE MAGNETICS

Tape Accessories	
Audio Head Demagnetizer	\$15.99
Wet Head Cleaner	
Dry Head Cleaner	\$1.39

#### LASERLINE by CREATIVE POINT

#### CD-2400 Compact Disc Storage Unit

Holds up to 24 CD's. Securing Release Mechanism locks disc in slot and releases disc cartridge at a touch. Made of impact-resistant, high-grade plastic. Modular design for adding additional units. 18.66" w x 4.9" h w 6.75" D; 3.59 lb\$29.95 CD-1200. Same as CD-2400 except holds up to 12 CD's. 12.6" w x 3.95" h x 6.75" d; 2.15 lb\$19.95 CD-800. Same as CD-2400 except holds up to 8 CD's. 6.4" w x 4.9" h x 6.75" d; 1.07 lb ...\$9.95

#### AC-1800 Cassette Storage Unit

Holds 18 cassettes; impact-resistant, high-grade plastic; cassettes lock in place; stackable; hinged door. 16.7" w x 5.4" h x 5.3" d.........\$19.95

#### THE LAST FACTORY

System Formula Series

#### Formula 1 Record Cleaner

For first play and deep cleaning; guaranteed to remove all surface deposits; cleans 60 records; microfiber applicators; 2 oz ......\$13.95

#### Formula 2 Record Preservative

Guaranteed to stop record wear completely for 200 or more plays; protects 60 records; microfiber applicators; 2 oz.....\$16.95

#### Formula 3 All-Purpose Record Cleaner

#### Formula 4 Stylus Cleaner

#### Formula 5 Stylast Stylus Treatment

Guaranteed to extend stylus life up to 10 times normal; to be used before playing each record side; thousands of treatments; 0.25 oz ... \$19.95

#### Formula 6 CD Protection System

Guaranteed to clean discs safely and protect them from minor scratches; smudge protectant; hundreds of treatments; applicator and base \$14.95

#### Formula 7 Cassette Head Cleaner

Guaranteed to clean tape heads and tape-path rollers; 2 cassette mechanisms; exclusive formula; 0.5 oz .....\$13.95

#### **Combination Kits**

See above for contents of each formula. Formulas 2 and 3	\$10.05
Formulas 4 and 5	
Trial-Size Kits 0.5 oz of each formula.	
Formulas 1 and 3	
Formulas 2 and 3	
Formulas 1, 2, and 3	\$13.95

### Microfiber Applicators 10 in each packet ......\$12.50

#### LEBO

Voyager series nylon carry cases are water resistant and are suitable to carry a variety of personal accessories. Features include; zippered openings; padded construction; adjustable straps. Various colors are available.

20030 First Class Voyager. For 30 boxed or 48 unboxed cassettes, with large personal accessory pocket, removable tray, detachable, padded shoulder strap, handle, color coordinated hardware .....\$19.95 21230 Custom Lite Voyager. For 30 boxed or 48 unboxed cassettes, with large personal accessory pocket, removable tray .....\$16.95 21220. Same as above for 20 boxed or 32 unboxed cassettes ..... .....\$13.95 21030 Venturer. For 30 boxed or 48 unboxed cassettes, adjustable shoulder strap ..... \$13.95 25212. For 12 regular or 6 twin box CD's with outside personal accessory pocket and detachable shoulder strap; interior velcro compartment divider .....\$11.95 25006. For 6 regular or 3 twin boxed CD's, dtachable shoulder strap and belt loop.....\$7.95 **21010.** For 10 cassettes or personal accessories, detachable shoulder strap and belt loop  $\dots$  \$6.50

#### LUXMAN

Remote Control Accessories

#### Cables

RC100,	Extention cable	\$40
RC102,	DIN Y cable	\$30

#### MEMOREX BY MEMTEX

#### **CP8** Universal Remote Control

#### Electronic Cassette Demaganetizer

#### Auto Lighter DC Power Adapter

#### **Compact Disc Cleaner**

Cleans digital discs for accurate music; restores uniform disc reflectivity. Includes cleaning solution, pad, bristle brush, and storage case .\$14.99

#### **Double Pair Stereo Cable**

#### **Deluxe Speaker Cable**

16 gauge heavy-duty cable (60% more copper than 18 gauge) and 19 strand pure copper conductors for high conductivity and low signal loss ......\$11.99

#### Safeguard Voltage Spike Protector

#### **Compact Disc Player Dustcover**

#### Graphite Filament Record Cleaner

#### Audio Patch Cables

Features gold plating for maximum signal transfer: low capacitance, heavy shielding for truest sound; 95% braided copper shielding for high fre-

quency	response	?	a	n	a	k	Ж	V	a	li.	st	0	r	ti	0	n.							
6 Foot	Length																			. \$	6.	9	ç
4 Foot	Length																			s	A	٥	(

#### Compact Disc Organizer

#### Compact Disc Storage Case

### stripping necessary ......\$1.99

3-Pack Audio Albums

Design allows tape end in or out for hassle-free storage. Cassette protection for home or car\$0.99

Tape and Record Care Products

X-CD. Cassette head	cleaner	and	demagnetiz-
er			\$6.99
Record Care Kit			\$5.99
<b>Cassette Cleaning Kit</b>			\$2.99
Record Cleaner			\$2.99
<b>Record Cleaning Fluid</b>	1		\$2.69
<b>Cassette Head Cleaner</b>	<b></b>		\$1.89

Headphone Accessories

Headphone Extension. 20-ft lightweight s	tereo
headphone extension cable	\$5.99
Y-Adapter. Dual-headphone adapter	\$2,99
Mono Adapter. Mono adapter for stereo 1	head-
phones	

#### MICRO SEIKI BY ANALOG EXCELLENCE

#### MT-1000L Step-Up Transformer

For 3-ohm MC cartridges. FR 15-60,000 Hz; 13 cm w x 6.5 cm h x 13 cm d; 12.6 lb ..... \$995 MT-1000H. For 40-ohm cartridges ..... \$995

#### MT-500 Step-Up Transformer

For 3- or 40-ohm MC cartridges. FR 15-60,000 Hz; 13 cm w x 6.5 cm h x 13 cm d; 6.6 lb \$595

#### **MISSION ELECTRONICS**

#### **Isoplat Isolation Platform**

#### The Mission Cable

Speaker cable in 1 pair of separated conductors made from pure annealed oxygen-free copper strands (651 x 0.07 mm) with nominal cross-section of 2.5 mm; marked + and -; conductors laid parallel, separated and insulated together in figure-eight section; nominal insulation thickness 0.7 mm; moninal dimension 3.8 x 9.6 mm; directional, designed for use with "M" of Mission towards amp and "n" towards speakers. Specs at 20° centigrade: single conductor resistance 7.7 ohms/km; inductance 1.6  $\mu$ H/m; nominal capacitance 35 pF/m ...... \$2.00/ft

#### M.M. NEWMAN

Heli-Tube,	Spirally	cut in	dustrial grade	cable
wrap25",	.38",.50"	sizes	for bundles up	to 4"
dia; 8 ft len	gths; 0.50	)"		. \$2.25
0.38"				.\$1.60
0.25"				.\$1.45

#### MONSTER CABLE

#### AP-1 MC Pre-Preamp

Imp selectable by front-panel switches; battery powered with recharger included....... \$475

#### **Discus CD Stabilizer**

Disc with same dimensions as CD designed to stabilize discs for reduced errors .......\$29.95

#### Speaker Cable

#### MI Speaker Cable

"MicroFiber" dielectric insulation designed to eliminate "Intertransient" noise, reduce transient interference, intended to preserve power and dynamics: primary and secondary grouped networks; carrying cose, With M Sender,

carrying																	
15-ft pr																	\$325
25-ft pr																	
30-ft pr																	
With X-	Ter	n	1i	na	10	rs	ī.										
15-ft pr																	\$400
25-ft pr																	
30-ft pr																	
From Sp																	

#### Monster Cable Connecting Cables

Improved version of original Monster Cable with new strand configuration designed for midrange clarity, faster transient response, and extended low and high FR. Pre-cut, with universal gold pin ends with lock-notch.

00/f	. \$1.00
	\$35.00/
	\$45.00/
	\$60.00/
0/p	\$95.00/
	\$05 0

#### Superflex Speaker Wire

High-purity copper speaker wire with flexible Duraflex insulation; dividing web between the 2 conductors. Same stranding configuration as Monster Cable but fewer strands of wire \$0.50/ft 25 ft \$40.00/pr 15 ft \$25.00/pr 10 ft \$20.00/pr

#### Powerline 2 Speaker Cable

"Time Coherent" winding designed to eliminate phase inaccuracies, align highs and lows for improved FR, imaging; unterminated ..... \$3.25/ft Powerline 3. Smaller version of Powerline 2.......\$1.75/ft

#### Interconnects

#### M1000 Interconnect Cables

"Total Phase Aligned Bandwidth Balanced" de-
sign; dual conductors and 3 wire networks: "Mi-
croFiber"; M-Terminator connectors. Precut.
<b>20-ft pr</b> \$450
<b>2-m pr</b> \$210
<b>1.5-m pr</b> \$180
1-m pr \$150
<b>0.5-m pr</b> \$110
From Spool \$9/ft

#### Interlink 500 Interconnect Cables

"Precision Bandwidth Balanced" construction; dual conductors with "MicroFiber"; designer colors. Precut.

20-ft pr			 	 	\$180
2-m pr					
1-m pr					
From Spool	• •	• •	 	 	\$4/ft

#### Interlink Reference Connecting Cables

Connecting wire with 3-wire multiple-gauge network for each conductor. Thick core wire designed for for frequencies below 300 Hz. 4 medium conductors intended for midrange, hair-thin woven stranded wires made for 700+ Hz.

20-ft pr . 2-m pr . 1.5-m pr 1-m pr . 0.5-m pr			•	• •	•	•		•	•	•	•	•	• •		•	•		•	•	• •	 •	•	5	5130 5110 \$85	) ) ;
Interlink Interconn crease per 1-mile pr 20-ft pr 2-m pr Interlink Dual-bala foil. 20-ft pr	rfo	nt orri	ci m	ab ar 	10 10	rc na	fo a 	n:	d	s	0 	и  	ne  	j		30 	al.	itj			\$	3. \$'	.0 9. 5	0/fi 863 150 \$70 \$50 <i>ana</i>	1

		\$40
		\$19.95
From Spool	 	 \$0.75/ft

### Genesis Lightspeed Tonearm Interconnect

For connecting cartridge to preamp ..... \$175

	400 Interconnect Cable	
	andwidth Balanced'' design as Inte	
Reference	; "MicroFiber" technology; untern	inat-
ed		25/ft
20 ft		5/pr
	\$39.9	
1.5 m	\$34.9	5/pr
	\$29.9	
	\$24.9	

# UNIQUE SOLUTIONS



When you want the best cabinetry for your audio/video components, look to CWD for incomparable choices. Known for superior style, flexibility and craftsmanship, our modular units let you create a custom wall system that enhances the performance of your components. A system you can add to and rearrange as your home entertainment system grows. Whatever your needs, CWD offers unique solutions for every component requirement including the ingenious Woodmore\* Magic Lowboy, a remote-controlled cabinet that can be raised or lowered with the mere touch of a button. Set it up without a center panel for monitor and speakers, as shown in the dramatic Black Oak wall system (above) ... or with a center panel to house an audio video system in the

#### CALL TOLL FREE 1-800/323-2159 for the dealer nearest you. (Illinois, call 312/563-1745)

Magic Lowboy cabinet used alone (below). CWD cabinets and accessories are truly fine furniture to cherish a lifetime, handmade, hand finished, and outfitted with precision hardware.



Select hardwood solids and veneers available in handsome Natural Oak, Dark Oak, Natural American Walnut or Black Oak. Also in dramatic High Gloss Black.

High Performance modular furniture that keeps pace with your electronic system

CUSTOM WOODWORK & DESIGN INC. Bedford Park, IL 60638

#### NADY SYSTEMS

#### **IR-103 Personal Infrared Stereo Receiver**

Infrared stereo transmitter model IRT-520 plugs into any stereo or tape deck's headphone jack. Infrared signal is transmitted to sensor on top of personal receiver. Any number of Nady infrared receivers can be used in a room. A "slave" transmitter, model IRT-520-S is available to extend range and coverage to outdoor areas such as backyards and swimming pools ........ \$100 IRH-210. Integral headphone/receiver ..... \$60

#### NAKAMICHI

D	<b>M-</b>	10	Head	Demagnetizer
---	-----------	----	------	--------------

Tape head demagnetizer	S	6
------------------------	---	---

#### SF-10 Subsonic Filters

Compact passive filters operate at line level to remove turntable rumble and other infrasonics caused by record warps and tonearm/cartridge resonances. Provides 6 dB/octave filter, down 10 dB at 10 Hz. May be used at tape output or amp tape-input jacks. 2.6" 1 x 0.51" diameter\$15.00/pr

#### NAMIKI BY ANALOG EXCELLENCE

#### **DM-100 Demagnetizer**

For MM and M	C cartridges,	dynamic speakers,
headphones. 164	mm w x 77 n	nm h x 100 mm d.
0.7 kg		\$100

#### **DF-100 AC Polarity Direction Finder**

Identifies polarity of AC	power cord; uses 9-V
battery. 175 mm w x 21 1	mm h x 60 mm d; 260
g	\$100

#### **AV-101B Headshell**

Rigid universal headshell with adjustable azimut	
and overhang; suitable for MC cartridges. 1	6
g\$5	
AV-101S. Same as above except silver \$5	
A-1. For MM or MC cartridges. 10 g \$4	0
AV-11. For MM cartridges. 8 g \$3	0

#### NIKKO AUDIO

#### **CO-23 Crossover**

3-way mono, 2-way stereo, 22-point crossover system with double mids and turnovers ... \$700

### NSR350G Equipment Rack

woodgrain	DIACK	pro	rack	with	double	doors and
glass top .						<b>\$269</b>

#### NPS-1R Switcher

Remote switching	module	• •	•••	•	•	•	•	•	•	•	\$200	)

#### NSR150G Equipment Rack

wooden	гаск	with	glass	door	•	٠	•	٠	٠	۲	٠	•	•	•	٠	٠

### NILES AUDIO

#### MSA-10 Speaker Switcher

Enables play of up to 10 pairs of 4-, 6-, or 8-ohm speakers off of any stereo amp. Features highpower-imp matching transformers; logic circuitry; 10 front-panel controls; rear connector accepts up to 14-gauge speaker wire; separate L+R ch grounds for use with bridged amps. Power handling 250 W/ch. Walnut side panels standard, rack mount ears optional. 17" x 3.5" x 6". \$550 MSA-6R. Remote-controlled, 6-position speaker switching system to turn on or off either from a central location or remotely by using optional wall controls in different rooms. Turns on AC power to main system as well speakers in individual rooms. All 6 locations can be played at once. Maintains nominal 8-ohm load on amp no matter how many pairs are played. 19" w x 5.25" h x 12.12" d; 16 lb ..... \$599 SVC-4. For 4 pairs of speakers. Features individ-

ual volume controls; connection for second amp; autotransformers; seperate L+R ch ground connections for use with bridged amps. 8 lb; 11.2" w x 4.62" h x 5.31" D ..... \$280 SVC-4W. Same as SVC-4 except designed to be flush mounter into a wall. Pre-construction and retrofit versions available ..... \$325 SVC-2. For 2 pairs of speakers. Individual volume controls; autotransformers ..... \$150 HD-5W. Accomodates most kinds of wire or connectors. Features 5-way rear panel terminals; seperate L+R ch grounds; impedance protection. Can be used with any type power amp; handles up to 250 W/ch. 3 lb; 12.5" w x 3.36" h x 6" d\_\_\_\_\_\_\$150 SPS-1. Accommodates up to 14-gauge speaker wire and power handling capacity up to 100 W/ ch. Genuine walnut side panels ..... \$80 Rack mounts ..... \$15

#### **CPM-31 Patching Matrix**

#### **TSB-3 Tape Deck Switch Box**

#### SCW-1 Volume Control

Wall-mounted stereo volume controls for remote speakers. Use of autotransformers instead of Lpads......\$48 SCW-2. Similar to SCW-1 with stereo headphone jack.....\$66 SVC-1. Table-top speaker volume control for remote speakers. Volume adjustment independent from main speakers. Uses autoformer volume control instead of L-pad.....\$75 SCW-2A. Similar to SCW-1 but has selector switch for 2 different amplifier inputs....\$66 SCW-2HP. High-power version of SCW-1. Uses high-power autoformer instead of L-pads. Power handling capacity 15- W/ch. 4.56" W × 4.5" H × 2.56" D; 2 lbs.....\$69.95

#### DPS-1 Amplifier/Speaker A-B Selector

#### **APX-1 Auxiliary Input Selector**

5-input, 1-output stereo selector box for 5 linelevel signal sources. Allows selection by turning a knob. 1 lb,  $5.12^{"}$  w x  $2.5^{"}$  h x  $5.12^{"}$  d .... \$55

#### **PS-1** Phono A-B Switcher

\$115

#### NITTY GRITTY

#### Pro MK 3 Record Cleaner

Professional-type record cleaner designed for consumer use. Wets, scrubs, and vacuums both sides of record simultaneously. Cleans record of all dust, grease, and static charge. Features large oak cabinet; strong vacuum motor; quieter operation. 18" w x 11" h x 11" d; 31 lb ...... \$859

3.5 FL Same as above except cleans one side at a
ime
2.5 FI. As 3.5 FI, but slightly smaller \$469
1.5. Similar to 2.5 FI except no solid oak cabinet
or fluid injection \$35

#### **ONKYO**

#### CB-90V Audio Rack

Rack for Integra and Onkyo components. Fea-
tures black wood; chrome trim; tinted glass; dou-
ble doors; locking casters; adjustable shelves.
20.62" w x 35.31" h x 18.5" d; 19.94" internal
width; 56 lb \$320

#### **RC-AV1M Universal Remote Control**

Audio/video universal remote control can be pro-



#### **ONIX AUDIO BY MUSIC HALL**

#### S.O.A.P. Add-On Power Supply

Designed to add extra current to power amp, increasing dynamics and clarity ...... \$400

#### **ORA ELECTRONICS**

Studio Spec Brand

#### **CD-2 Compact Disc Cleaner**

#### ORTOFON

#### RC-015 Stylus Cleaner

Electronic stylus cleaner with tuned oscillator vibrates all contaminants off the stylus assembly. Includes 20 ml bottle of stylus-cleaning fluid; magnification mirror ......\$34.95

CC-021 Cassette Maintenance Kit

Includes autoreverse cassette cleaner and electronic head demagnetizer .....\$29.95



## SMART SINGLES.

## MODERN MARRIAGE.

If you're like most people who listen to audio cassettes, you've probably used a tape head-cleaner and felt pretty good about your conscientious attitude toward machine maintenance. Unfortunately, most cleaning cassettes allow contaminants to build up on the capstan/ pinch roller assembly. It's a situation that, if left uncorrected, can result in your valuable cassettes being "eaten" when they stick to, and wrap around, the pinch roller (a problem that's even more common in car systems). Fortunately, Discwasher has a simple solution.

Discwasher's Perfect Path<sup>™</sup> Cassette Head Cleaner uses a non-abrasive tape to remove oxides from your tape heads. And our C.P.R.<sup>™</sup> Capstan/Pinch Roller Cleaner uses an advanceable fabric and scientifically-formulated cleaning fluid to scrub away stickiness. Used together, they ensure good sound and "healthy" cassettes.

Now our System II<sup>™</sup> approach combines both technologies in a single cassette, adding convenience to optimum tape deck performance. With regular use, your equipment (and your cassettes) will have a fighting chance for a long, happy life together. Isn't that what you'd expect from Discwasher?



The makers of the famous D4+™Record Cleaning System.

CIRCLE NO. 10 ON READER SERVICE CARD



## "At least we have our O'Sullivan."



The Marshall Collection. Treasured, classic designs crafted with smoothed, hand rubbed, rich solid oak frames and fronts. Elegantly styled furniture, engineered with tomorrow's electronics in mind, with a warm Marshall oak finish. Truly, the essence of our founder's strong dedication for over 32 years to quality furniture at a price you can afford.



TV Cart Model 72600



Two Door Wall Unit Indel 80632 Open Wall Lnit Model 30630 Mode: 80632



ED WITL

NUSP

TV/VCR Cabinet Model 74635



Microwave Oven Cart Model ¢0690

Call or write for a free color brochure: CIRCLE NO. 60 ON READER SERVICE CARD TV/POR Cabinet Model 74600

Audio Cabinet Model 52650



Entertainment Center Model 79680

> O'Sullivan quality furniture is available at fine audio and video dealera, catalog showrooms and rata:lers everywhere

O'Sullivan Incustries Inc. • 19:00 Gulf Street • Lamar, MO 64759 • (417)682-3322

#### **RC-014 Electronic Static Eliminator**

Ion gun with trigger control bombards record surface with static-neutralizing ion particles; will not harm pets, insects, visitors, or furniture\$21.95

#### **RC-017 Acoustic Shock Absorbers**

4 adjustable shock-absorbing feet help prevent acoustic feedback and allow for leveling turntable. For use with turntables up to 45 lb . . \$21.95

#### **CD-040** Compact Disc Maintenance Kit

Includes cleaning cloth, cleaning spray, lens cleaner, in album storage box with padded cleaning surface ......\$19.95 CD-042. Replacement spray for CD-040 ... \$6.50

#### **CC-020 Autoreverse Cassette Cleaner**

Wet-type cleaning cassette cleans all tape heads, capstans, and pinch-rollers in autoreverse cassette decks in 30 sec. Includes cleaning solution and replacement pads .....\$12.95

#### **RC-013 Record Care Kit**

Includes walnut record brush with one-way pile; record cleaning solution to remove dirt and eliminate static; stylus cleaner .....\$16.95 RC-011. Replacement fluid for RC-013 ... \$4.95

#### **RC-010 Carbon Fiber Brush**

Record cleaner with polished carbon fibers to remove dirt from record grooves while built-in copper-wire grounding system eliminates static buildup ......\$9.95

#### **RC-016 Disc Coupler**

Designed to couple the record to the platter for increased bass response and improved imaging. Includes 2 hubs to fit most spindles ..... \$9.95

#### **RC-018 Alignment Tool**

Phono cartridge alignment tool features mirrored surface with two-point alignment system and center spindle cutout ...... \$4.95

#### **RC-012 Stylus Cleaner**

Cleaning fluid removes residue from stylus. Includes fluid and applicator brush ..... \$3.49 RC-009. Stylus pressure gauge ......\$2.95

#### **O'SULLIVAN INDUSTRIES**

#### 52650 Audio Cabinet

Solid oak frame & door; finished in oak laminates; 2 adjustable or removable shelves; clear tempered glass door; casters; Overall 45" h x 20.75" d x 21.88" w; component area 26.13" h x 17.75" d x 20.5" w ......\$164.95

#### 7920 Entertainment Center

Finished in white laminates with adjustable or removable VCR shelf and ten component shelves. Features pull-out turntable shelf; TV area; tempered clear-glass door and twin doors concealing storage area below. Overall 47.25" h x 15" d x 47.88" h; TV area 27.38" h (adj.) 15.38" d x 27" w; VCR shelf 6-8" h (adj) x 15.13" d x 27" w; component area 27.38" h x 14.38" d x 19" 

#### 79280 Entertainment Center

Finished in colonial oak laminates with twin tempered clear-glass doors. Features twin component shelving; large TV area for most 19" TV's; twin vein-lined doors concealing storage area; solid oak door pulls. Overall 47.25" h x 15.5" d x 48.13" w; TV shelf 21.75" - 20.5" - 19.25" h x 

#### 52550 Audio Cabinet

Features twin, tempered clear-glass doors; 3 adjustable component shelves; turntable area; adjustable, retractable top shelf mounted on steel glides; concealed storage area for tapes and accessories; dual-wheel casters. Bartonwood laminates. Overall: 41.25" h x 20" d x 19.5" w, component area: 25" h x 15.75" d x 17.88" w, turntable area 5.12" h x 15.75" d x 15.75" W ......\$149.95

#### 52192 Audio Cahinet

Features tempered, clear-glass lift-lid and door; black-pebble-grain laminate shelves; adjustable middle shelf; album and/or accessory storage spacel dual-wheel casters. Bartonwood laminate. Overall 37.74" h x 15.75" d x 19" w, turntable 

#### PARASOUND

SAS-22 Spiked Speaker Stands Stands adjust up to 22" high; all steel construction; matte black ..... \$85.00/pr

#### LS-20 Steel Speaker Stands

wires. 22" maximum height. Holds speakers of up to 50 lb ..... \$85.00/pr

#### LS-8 Welded-Steel Speaker Stands

speakers weighing up to 150 lbs. Textured matteblack finish ...... \$65.00/pr

#### PREMIER BY SUMIKO

#### **Catalyst Interconnect Cables**

Designed for low series inductance; zero audio transfer loss; transposed twin axial internal wire for low magnetic interference; 1-end grounded shield; gold-plated connectors; connection points machined from solid body; teflon dielectric. Custom lengths available on request. 0.5 meter stereo pair ..... \$92 1.0 meter stereo pair ..... \$100 2.0 meter stereo pair ..... \$119

#### VTA-16 VTA Tonearm Adjustment Device

To adjust tonearm height even while record is playing; tooled to complement MMT and other arms with 16-mm mounting posts ..... \$85

#### PIB-1 Interface Box

Terminates any standard tonearm JIS plug to gold-plated female RCA's; eliminates drag on turntable suspension; electrically neutral interface for interconnect cable ..... \$80

#### HS-12 Universal Headshell

Features solid magnesium; double-lock pins; adjustable azimuth; linear-cystal oxygen-free copper 12.....\$12

#### PROTON

Equipment	racks for audio systems.	
R12		\$249
R11A		\$229

#### REALISTIC

## Walnut-Veneer Audio Cabinet

#### **Hickory-Grained Audio Cabinet**

Full-length tempered glass doors; hinged top; 3 adjustable shelves; storage space for LP's and tapes; metal supports; heavy-duty swiveling casters; unassembled; hickory-grained vinyl finish. 37.5" x 21.25" x 17.25" ..... \$120

#### Tape Control Center

Connects to tape-monitor loop to allow use of three tape decks for monitoring, recording, and dubbing; with illustrated manual ......\$25.95 Micro Head Cleaner

Nonabrasive tape in microcassette-type shell cleans tape path of microcassette machines \$2.99

#### Mini and Micro Tape Tray

Holds 12 minicassettes or microcassettes; smoketinted cover .....\$2.49

#### Tape Recorder Maintenance

Lighted Demagnetizer. 3.5"; for all tape Universal Demagnetizer. For all tape decks; 2 an-sette, probe, mirror, solution, cloth ..... \$5,95 Cleaner Cassette. Felt pads clean heads, pinch roller, capstan; with 0.5 oz of fluid ......\$3.99 8-Track Cleaner. Cleans heads and capstan rollers; nonabrasive ......\$2.99 Cassette Head Cleaner. Removes oxide from head and capstan; with fluid .....\$2.69 Head-Cleaning Kit. With 6-dram bottle of Freon ides on heads; 2 oz ..... \$2.39 Head-Cleaning Spray. Removes dirt and oxide without residue .....\$1.99 8-Track Cleaner. Removes oxide from heads: nonabrasive.....\$1.99 Cleaning Swabs. Reusable lintless foam; 10 sette shell ......\$1.89 Recorder Cleaning Kit. 2 1.25-oz bottles of cleaner and lubricant; 10 swabs .....\$1.69 Cleaning Cloths. To clean tapes and equipment dustcovers; 4 pack .....\$1.49 Cleaning Sticks. Cotton-tipped 6" wood sticks; 100 pack .......\$1.29 Head-Cleaner Solution. Cleans heads, tape guides, capstans, metal parts; 2 oz ......\$0.99 "Nonslip" Solvent. Reduces slipping of idler wheels, belts, etc.; fast drying; won't harm rub-

#### Cassette Accessories

Tape Splicer. Chrome cut/trim lever; with splicing tape and instructions ......\$6.49 Repair Kit. With 32-page manual, housing, la-Index Cards. Fits standard cassette boxes; 20 tions ......\$1.19 Cassette Boxes. Hinged; clear plastic; 3 pack ......\$1.19 Index Labels. Adhesive; 6 each of red, yellow, blue, green; total 24.....\$0.99 Molded Mailers. Meets first-class postal regula-meets first-class postal regulations; 6 pack . \$0.79

#### **Open-Reel** Accessories

7" Metal Reel. With box\$6.95
7" Plastic Tape Reel
Tape-Reel Holders. Fits most recorders; 2
pack\$1.19
5" Plastic Tape Reel \$0.99
3" Plastic Tape Reel. With index and timing
chart\$0.69

#### General Tape Accessories

Bulk	Er	ase	r.	Fo	Г	all	ta	ър	e	ex	ce	pt	m	et	al	ar	nd v	ideo	-
tape .																	\$	15.9	5
Editi	ng	Bl	DC	k.	A	٨lu	m	in	u	m	S	pli	ice	г	fc	r	all	tap	e

All-steel; matte-black finish; channel conceals

Elevates bookshelf speakers 9" above floor. Holds

sizes with 90° and 45° cutting guides; with blade and mounting strip
Phone Pickup. Suction cup attaches to handset;
1/8" mini plug; may be incompatible with elec-
tronic phones\$1.99
Sensing Tape. Metallic tape stops or reverses re-
corders with contact or photosensitive systems;
100" roll
Leader Tape. 7/32 x 200" roll \$0.99
Splicing Tape, 100" roll; 7/32", 3/8", or 1/8"
widths\$0.79

#### REVOX

#### **B206 Infrared Remote Transceiver**

Provides mulit-room remote control of audio/ video systems utilizing infrared remote transmitters. Infrared signals picked up by receiver module and relayed by cable to transmitter "eye" which must be mounted in line-of-sight to equipment. Cable lengths up to 65 feet allowed. Operates with all makes of audio and video infrared remote transmitters. Operates with standard 6 V AC adapter (not included). Receiver: 3" x 1" x 6.5". Transmitter 1.5" x 0.75" x 0.75" .... \$150

#### SAC

#### C-42 Cassette Organizer

Stackable holder for up to 42 cassettes. Features pull-out drawer system; chrome, black, red, white, mauve, and blue finishes ......\$24.95

#### SACpac

A belt which carries a removable bag and pouch. The bag holds a pocket stereo and the pouch holds up to 3 cassettes. The belts are black and the bags/pouches are available in red, white pink, blue, green or black with black trim. The belt is adjustable for sizes from ladies Small to men's Large ...... \$9.95

#### NCDB12 CD Tote

Waterproof nylon bag with high-impact plastic insert; holds 6 double or 12 single Compact Discs, adjustable shoulder strap......\$9.95

CD-12 Compact Disc Organizer Can hold up 12 single CD's and can be interlocked horizontally or vertically. Free standing or wall mounted; smoked plastic ......\$3.95

#### SAEC BY ANALOG EXCELLENCE

#### **ULS-3X Universal Headshell**

Antiresonant ceramic headshell. Made of sintered
multi-crystallized aluminum oxide of >99.7% pu-
rity. 18 g \$125
ULS-2x. Composite headshell. 9.5 g \$42

#### LX-1020 Interconnect Cable

Separate parallel OFC cable; RCA plugs treated with rhodium (platinum) ..... \$40

#### CX-5006A MC Pickup Cord

Separate para			
with rhodium	(platinum)	); imp 20-12	0 ohms; 1.5
m			
CX-5006B,	As above	e except	imp 1-10
ohms			\$52

#### SANSUI

#### AT-700 Programmable Timer

2-piece timer/clock automatically activates equipment for playback or recording at any preset time within any 24-hr period. Easy-to-use touch-panel for programming 3 AC outlets, 700 W total ...... \$100

#### **AT-20 Programmable Timer**

Automatically activates equipment for playback or recording at any set time within 24-hour period. Features digital clock and 3 outlets (700 W total). 16.94" w x 2.31" h x 5.06" d ..... \$125

#### **SANYO**

**RBU1 Universal Remote Control Transmitter** Programmable infrared remote control uses an 8bit microprocessor to learn and use the infrared



codes from as many as three different remote control products. Features multi-function controls to execute up to 87 functions from a 36-button keypad; 5 LED indicators monitor learn mode operation; pre-programmed to work with current Sanyo RC audio/video components ...... \$100

#### SCOTCH

#### **Record Care System**

3-way record protection-dust cleaning, static removal and friction reduction with Sound Life fluid. Applicator attatches to turntable spindle to Sound Life replacement fluid .....\$8.19

**Turntable Dust Guard** Conductive foam turntable pad reduces external electrostatic field to repel airborne dust ... \$6.99

#### ERK-130 Cassette Edit/Repair Kit

Contains precision splicing block; spindle for manually winding cassette tape; 6 polyester picks (adhesive tipped for retrieval of tape ends lost in housing); 6 130-mil splicing tabs; detailed instruction booklet .....\$3.59

SK-.22, 12.5 ft of 1.9 mil polyester splicing tape in dispenser kit......\$2.49 #41. 0.5" x 150" splicing tape ......\$1.20

#### **Re-Label Tape**

0.75" x 700" write-on white tape supplied in dispenser. For labeling all types of audio cassette. Removable ......\$1.99

S-C-HC Cassette Head Cleaner Cassette head cleaner .....\$1.89

#### SERVICE MANUFACTURING

**CD-2HT CD Storage Cabinet** 2-drawer cabinet holds 40 compact discs. Hi-tech black finish ..... \$29.95 CD-2. Similar to CD-2HT except has woodgrain finish ......\$24.95

#### A-3HT Cassette Storage Cabinet

3-drawer cabinet holds 36 audio cassette. Hi-tech
black finish\$21.95
A-3. Similar to A-3HT except has woodgrain fin-
ish

#### CD Carrying Cases

CD418. Padded vinyl case holds 18 single or 9 double CD's ......\$19.95 CD218, Nylon case holds 18 single or 9 double CD's .....\$19.95 CD206. Nylon case holds most portable CD players with battery pack and CD's ..... \$12.95

#### **Cassette Carrying Cases**

2029. Padded nylon attaché case holds 30 boxed
or 60 unboxed cassettes\$34.95
2076. Padded, vinyl attaché case holds 36 boxed
or 72 unboxed cassettes\$24.95
1805. Soft-style, padded, nylon case holds 30
boxed or 60 unboxed cassettes. Includes padded
carry handles and shoulder strap\$24.95
2079. Padded, vinyl attaché case holds 30 boxed
or 60 unboxed cassettes\$21.95
1804. Soft-style, padded, nylon case holds 30
boxed or 60 unboxed cassettes\$19.95
2071. Padded, vinyl attaché case holds 24 boxed
or 48 unboxed cassettes\$19.95
2020. Padded, vinyl, double-sided case holds 60
haved on 120 unbound appointed \$10.05
boxed or 120 unboxed cassettes \$19.95
2060. Padded, vinyl, double-sided case holds 60
2060. Padded, vinyl, double-sided case holds 60 boxed or 120 unboxed cassettes. Hi-tech de-
2060. Padded, vinyl, double-sided case holds 60 boxed or 120 unboxed cassettes. Hi-tech de- sign\$19.95
2060. Padded, vinyl, double-sided case holds 60
2060. Padded, vinyl, double-sided case holds 60 boxed or 120 unboxed cassettes. Hi-tech de- sign
2060. Padded, vinyl, double-sided case holds 60 boxed or 120 unboxed cassettes. Hi-tech de- sign
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2060. Padded, vinyl, double-sided case holds 60boxed or 120 unboxed cassettes. Hi-tech de-sign
2060. Padded, vinyl, double-sided case holds 60 boxed or 120 unboxed cassettes. Hi-tech de- sign
2060. Padded, vinyl, double-sided case holds 60 boxed or 120 unboxed cassettes. Hi-tech de- sign
2060. Padded, vinyl, double-sided case holds 60         boxed or 120 unboxed cassettes. Hi-tech design         1802. Soft, padded nylon case holds 12 boxed or         24 unboxed cassettes         1802. Soft, padded nylon case holds 12 boxed or         24 unboxed cassettes         514.95         2063. Padded, vinyl, attaché case holds 30 boxed or 24         unboxed cassettes         514.95         2063. Padded, vinyl, case holds 12, boxed or 24         unboxed cassettes         \$9.95         1800. Padded, nylon cassette pouch holds 10 cassette sand/or most popular personal stereo/stereo cassette players         \$9.95         1906. Cassette wallet holds 6 unboxed cassette
2060. Padded, vinyl, double-sided case holds 60 boxed or 120 unboxed cassettes. Hi-tech de- sign

#### SHURE

#### M64 Preamplifier

Fixed-gain stereo preamplifier with switch-selected phono, tape EQ; for use with unequalized amplifier inputs, mic's, as buffer amp in "flat" posi-

#### SFG-2 Stylus Force Gauge

Allows precise setting of optimum stylus force for maximum trackability and sharply reduced wear on records and stylus tip ......\$9.25

#### SIGNET

#### Headshells

SK506	5. Univers	al-type headsh	ell made o	f magne-
sium.	Features	factory-fitted	damping	material
and al	len screw	on collar		\$25
SK505	5. Straight	-arm headshel	1	\$15

#### Cleaners

SK314. Auto CD cleaning system. Spins a soft, dry chamois against spinning CD. Cleans for approx 20 seconds and then automatically shuts off. Includes bottle of safe detergent fluid, six optical-SK306. Replacement fluid for SK305 ..... \$4 SK301. Liquid stylus cleaning formula ..... \$5 SK302. Contact cleaner/restorer with 3-way action. Removes oxidation, leaves protective coating to slow-down future oxidation, serves as a contact enhancer. Tools allow thorough cleaning of plugs and jacks. For both audio and video components ..... \$20

VK412. OFC stereo audio/video cable; gold plated RCA to RCA; 3.0 meter ..... \$60 2.0 meter..... \$55 1.0 meter.....\$50 VK212. Economy OFC stereo audio/video cable; gold plated RCA connectors; 3.0 meter .... \$30 2.0 meter ..... \$25 1.0 meter..... \$20 SK402. Litz wire interconnector; low capacitance/low resistance; 10 meter ..... \$99 1.5 meter..... \$45 1.0 meter..... \$40 0.5 meter......\$35 SK403. High-quality all-purpose OFC interconnect cable with ground wire; 2.0 meter ..... \$18 1.0 meter.....\$16 0.5 meter.....\$15 SK485. LC-OFC headshell wire set ..... \$10 VK421. Gold plated RCA to RCA barrel connector ...... \$7 VK422. Gold plated F to F barrel connector. \$7 VK423. Gold plated female RCA to male F connector ...... \$6 SM500. Music line maximum transfer speaker SM20. Music line gold plated terminal end SM10. Same as above 10 ft ..... \$25/pr HT18. HiTec 16 gauge speaker wire .... \$.22/ft HT16. HiTec 18 gauge speaker wire .... \$.15/ft GS200. Gold plated spade lugs; w/red/black insulators ..... \$.50/ea GP200. Gold plated terminal pins; w/red/black insulators .....\$.50/ea **Miscellaneous** Accessories MK12T Moving Coil Transformer. MC transformer to match low output MC cartridges to con-

For explanations of abbreviations, specifications, and technical terms, consult the glossary on page 221.

#### SME BY SUMIKO

#### **Tonearm Cable**

#### **Headshell Wires**

#### P 925 Headshell Spacer

#### SONEX BY ILLBRUCK

#### Sonex Acoustic Foam

Sound-absorbing acoustic foam sheets kill background noise and control room acoustics by absorbing peak frequencies caused by standing waves, resonances, slap echoes, etc. Anechoic-type wedge shapes traps and diffuses sound for the same live-end/dead-end effect used in recording studios.

#### SONRISE CABINET SYSTEMS

Cabinets are fully assembled, made of selected hardwoods hand-finished in Danish oil and sealed with finishing wax, and can be customized. Solid oak is standard, but solid walnut is optional for 30% extra. Cherry, mahogany, or rosewood (or black lacquer on most cabinets) may be substituted. Rack-mount hardware with spring-loaded fully adjustable nuts and infinite internal adjustment on rail for 7% extra. Custom stain (lighter or darker) for 3% extra. Recessed casters are standard on all cabinets. Removable backs available for cabinets with doors.

#### SW-6 Laurelhurst Audio/Video Cabinet

#### SP12L Cascade Left Audio Cabinet

Fixed shelves at record height and turntable height (under top glass lid). 2 adjustable shelves. 23.5" w x 49" h x 17.5" d; 92 lbs ...... \$800

#### SP-12H Cascade Audio Cabinet

#### SK-3 Crestwood Audio Cabinet

#### SJ-7 Woodridge Cabinet

#### E-1 Westwood Audio Cabinet

#### SH-4 Magnolia Audio Cabinet

#### SE-8 Fleetwood Audio Cabinet

#### SM-2 Spiritwood Audio Cabinet

#### SA-1 Oakshire Open Cabinet

Fixed shelf at record height; adjustable shelf. 34" h x 23.5" w x 17.5" d ..... \$375

#### SV-5 Windemere Cabinet

Solid oak or solid walnut cabinet with adjustable middle shelf or optional full-extension slider. 25.25" w x 23.5" h  $\times$  17.5" d .......... \$300

#### SG-11d Mirrormont III CD Cabinet

#### S-G11LP Record/LaserDisc Cube

#### SG-11dL Compact Disc Storage Unit

#### D1 Disc Library

#### **Options**

 Doors. Wood-framed glass, wood, or full glass, three-quarter doors
 \$120

 Drawers. For CD's, audio cassettes, video tapes, etc.
 \$90

 Pull-Out Shelf. Substitutes for adjustable shelf.
 \$80

 Slide-Out Shelf. Fixed at your specification
 \$60

 Soft Lighting Strips
 \$20

#### SONY

AVH-555ES Source Selector

Audio/video source selector for selecting audio or video sources. Already assembled ..... \$450

#### XP-CD7 CD Cleaner

Automatic cleaner for compact discs cleans compact discs automatically .....\$59.95

**CPA-1 Car Cassette Adaptor** 

Adaptor allows hook up of a portable CD player to a car head unit ......\$29.95

#### **CK-CD6 CD Carrying Case**

Carrying case designed for portable CD players ......\$19.95

#### **CK-CD01 CD Carrying Case**

Soft carrying case for portable CD players\$12.95

#### SOTA INDUSTRIES

#### SOTA II Head Amp

Reference device for stepping up low-output MC signal. Solid-state devices designed to combine tube and transistor sound. Features stiff power supply outboard; inherent distortion cancellation; extremely wide bandwidth; controlled clipping characteristics; variable cartridge loading. FR 1-1,000,000 Hz  $\pm$  3 dB; max output 3 V; THD 0.02%; IMD 0.02%; 6" w x 3" h x 6" d... \$500

#### **SOUNDESIGN**

Both models in the Soundesign "Wood Classics" line are 30" wide and 14.75" deep to facilitate their use in modular configurations; each has a light oak finish with gold and black tone trim. Sides, tops and bottoms are 0.75" thick; hidden hardware; factory attached rails; and a one piece hardboard back. Scandinavian style doors with push latches. Shelving is fully finished, including the bottom; hidden cord management system.

#### SOUTHER ENGINEERING

#### **Clearaudio Pre-Preamplifier**

Pre-preamplifiler mounts directly to any MC phono cartridge or headshell with 1" wires. Complete RIAA built in. Comes complete with power supply, line amplifier and volume control, wiring harnesses. RIAA  $\pm 0.05\%$ ; max output 2 V; gain at 1,000 Hz 52 dB, linear amp additional 20-dB gain. Symmetrical input. 7 g .......\$2,000

#### **Clever Clamp Record Clamp**

#### **STANTON**

310B Professional Phono Preamp/Equalizer Designed to correctly interface all Stanton-selected magnetic cartridges for optimum playback of records and calibration of audio systems. Features universal mounting brackets; selection of flat or NAB potemphasis curves; switchable rumble filter; individual gain adjust; high frequency responses; capacitive-cartridge loading trim. Can be used in balanced and unbalanced modes and in-phase and out-of-phase mix of L and R ch for mono reproduction of older records. Output/ch +20 dBm max; gain/ch adjustable 30-60 dB; balanced or unbalanced output; output source imp 5 ohms, designed for loads 150 ohms or higher; FR ± 0.5 dB from 20-20,000 Hz in Flat or Nab positions; THD <0.05% at 20 dBm; rumble filter 3 dB knee at 28 Hz, -35 dB at 5 Hz; max input level at 1,000 Hz 120 mV; input resistance 47 kilohms; input capacitance 15 pF switchable in 50 pF steps to 350 pF max; flow resistance 78,042 pF per inch when on, 56,981 off; ch sep 60 dB min 20-15,000 Hz. RCA phono jacks (input), 5-terminal barrier strip (output). 7.25" w x 2.5" h x 5" d.... \$280

#### SP-98 Pre-preamplifier

#### **RC5-Plus Record Cleaner**

#### ARC-5 Carbon Fiber Brush

#### SAS-3536 Extension Cord

SC4 Mini Stylus Cleaning Kit ..... \$7.95

#### STRAIGHT WIRE

Interconnect Cables

L.S.I. Class A interconnect. Imp  $\pm$  .001 ohm from 100-20,000 Hz; copper conductors; air space dielectric; Teflon insulated plugs. Also available in DIN terminated phono cable. Tan \$55/meter pr + \$90 prep

#### Speaker Cables

#### **SUMIKO**

tridges; designed to improve sonic performance in dynamic range, imaging, high-end linearity......\$250

AC-11 Stulus Cleaner All-in-1 brush and bottle ...... \$16

#### **Rigid Mounting Kit**

Tools and hardware for mounting cartridges to tonearm......\$10

#### **SYMDEX**

#### Tonearm Adaptor

Adapter that converts 5-pin phono plug to Tiffany RCA connectors to allow use of high quality interconnect cable between the tone arm and preamplifier. Uses of copper wire in Teflon sleeving, gold Tiffany connectors. Includes mounting hardware \$185

#### Spikes

#### TALWAR

Audio Cabinets

Anato Cabineis
All Talwar audio cabinets are hand finished and
fitted with solid-brass hardware. Feature 1" solid
hardwood sides; structually reinforced joints; tem-
pered and beveled glass; 8-receptacle power supply
with overvoltage and overcurrent protection; air
columns: wire management system with wells for
interconnects; removeable back; heavy-duty piano
casters; full extension drawer for tapes and acces-
sories; adjustable shelves. Custom-made units with
different dimensions, marbel tops, and exotic wood
available
K-270 Low-boy. 3-sections, solid red oak, 3 ad-
justable shelves. 74" w x 30" h x 20" d; 270
lb
C-270. Solid cherry \$5,640
M-270. Solid mahogany\$5,950
W-270. Solid walnut
K-420 Standard Unit, Solid red oak, 3 adjustable
shelves. 24" w x 48" h x 20" d; 120 lb \$2,000
C-420. Solid cherry \$2,270
M-420, Solid mahogany
W-420. Solid walnut\$2,650
K-320 Standard Unit. Solid red oak, 2 adjustable
shelves. 24" w x 36" h x 20" d; 110 lb \$1,840
C-320. Solid cherry\$2,090
M-320. Solid mahogany \$2,200
W-320. Solid walnut \$2,440
K-220 Standard Unit. Solid red oak, 1 adjustable
shelf. 24" w x 30" h x 20" d; 100 lb \$1,750
C-220. Solid cherry \$1,980
M-220, Solid mahogany\$2,090
W-220. Solid walnut\$2,320

#### **Cabinet** Accessories

#### **Rack Mounting Angles**

24" with hardware for 5 components	<b>\$6</b> 0
36" with hardware for 8 components	\$90
48" with hardware for 10 components	\$120
Cabinet Lights 30" long interior light	\$160

#### Additional Shelves and Drawers

Wood shelf	. \$80
Glass shelf	\$110
Play-free sliders for turntables	\$120
4"-deep drawer for cassettes, accessories	\$120
6.5"-deep drawer for CDs, video tapes	\$170

FB-1 Fluxbuster Eliminates gradual magnetization of phono car-

#### SVC-1 Vibration Isolator

Isolation base with air springs to decouple turntable from air-borne and structure-borne vibrations. Features one 24.25" x 20.25" x 1.5" polished granite supported by air mounts. Requires bicycle pump or compressor to pump air into unit. Resonant freq 2.9 Hz; max loads 200 lbs; 24.5" w x 3.5" h x 20.25" d; 95 lb .....\$1,435

#### **PLF-2 Power-Line Filter**

Eliminates subtle distortion caused by equipment interaction as well as power line noise and hash. Functions as a safety device for excessive voltage spikes and can be plugged between affected component and outlet. Features active-tracking circuits making it insensitive to load imp. Allows users to plug any combination of components with no side effects ..... \$695

#### **SN-1 Static Neutralizer**

Eliminates electrostatically-charged air particles that cause dust and debris accumulation on records. Generates positive and negative ions simultaneously. Operates continuously while record is playing. Fits onto turntable platform or clips onto dustcover. Power consumption 0.5 W; discharges 5000 V to safe levels (<100 V) within 2 sec. 6" w x 1.5" h x 1.5" d; 3 lb..... \$355

#### **MCU-1 Power Control Unit**

Allows switch on any component to act as master power-up controller for an entire system. Component plugged into master receptacle will turn on/ off at zero current crossover all components plugged into the other 4 switched recpetacles to eliminate turn-on transients. Features 15-amp circuit breaker. Surge current 250 amps max for all receptacles. 19" w x 1.5" h x 2" d; 5lb .... \$355

#### **FVS-1** Fan Ventilation System

Features rack-mountable panel; I fan; filter; vi-
bration isolator; all mounting hardware. Noise
level 26 dBA; air flow 45 CFM. Black anodized
steel panel. 19" w x 6" h x 2" d; 4 lb \$170
Additional fan \$60

#### **GB-12 Grounding Bus Bar**

High purity copper bus bar eliminates hum induced by ground loops. Mounts into cabinet side. Includes all hardware.  $1" \le x \le 2"$  h x 0.25" d; 2 lb; 12" long ..... \$70

#### TDK

#### HD-11 Tape Deck Head Demagnetizer

Compact demagnetizer for open-reel or cassette decks. Color-coded LED's show charge status and operating mode. Plastic-covered pivoting tip discharges magnetic build-up on hard-to-reach heads .....

#### HD-01 Cassette-Deck Head Demagnetizer

Battery-operated demagnetizer housed in cassette shell. Discharges magnetic build-up. Recommended for decks that activate transport without power .....\$17.50

#### **HC-1 Cassette-Deck Head Cleaner**

Designed to keep recording heads clean by removing oxide particles. Fits into deck like ordinary cassette. Use after every 8 hours ..... \$1.50

The listings are based on data provided by the manufacturers. For more product information, contact an authorized dealer or the manufacturer directly. Manufacturers' addresses and phone numbers are listed in the directory beginning on page 226.

#### TEAC

E-2 Bulk Eraser Erases 7" and 10.5" reels; pilot light; circuit breaker ......\$100.00

E-3 Tape Head and Guide Demagnetizer Removes residual magnetism ......\$39.99

Carrying Cases ACC-36. Briefcase holds 36 cassettes ....\$29.95 CDC-20. Briefcase holds 20 compact discs\$29.95

#### Storage Cabinets

CSC-36. Holds 36 cassettes .....\$19.99 ASC-42DX. Holds 42 cassettes ......\$18.99

#### **RMK Recorder Maintenance Kit**

3 oz of HC-1 tape-head cleaner, 3 oz rubber cleaner/conditioner, 3 oz stainless polish, cotton RC-3. Replacement rubber cleaner ......\$4.19 SP-3. Replacement stainless polish ......\$4.89

#### **Cassette Head Cleaners**

QP-001. Wet system		•	 •	•	•		•	•				\$8.99
2031. Dry system	•	•	 •	•	•		•	•	• •	•	•	\$1.59

#### Cables

SAC-215, 15-ft	low-capacitance	shielded dual
RCA-RCA interc	connect cable	\$7.79
2321. 25-ft coiled	stereo headphon	e extension ca-
ble with 1/4" phor	e plug at l end a	nd jack at oth-
er end		

#### **TECHNICS**

### SH-8000 Frequency Analyzer

Features 31-point warble-tone generator and 5setting sound-level meter; tweeter-protector switch; sensitive condenser mike; switchable (fast/slow) meter response speed for indication of (has/show) meter response speed for indication of transient or average peaks; battery check switch and meter indication; carrying case. FR 20-20,000 Hz  $\pm 2$  dB; frequency precision  $\pm 6\%$  or better; output level/imp 70 mV/1 kilohm; SPL measurement range 35-105 dB SPL (0 dB = 2 x 10-4 µbar); power source DC 9 V; battery life 10 hours; 2.2 lbs ..... \$185

#### SH-F101 Active Tuned FM Wing Antenna

Compact dipole for reception in strong signal areas. Features auto electronic tuning circuit; high gain; manual tuning knob; die-cast base; relative gain -2 db; figure-8 pattern; half-power angle 90°; output imp 75 ohm; standing-wave ratio 1.2 or less; power source DC 18 V; 16.91" w x 6.36" h x 4.44" d; 1.9 lb ..... \$110

SH-90S Universal/P-Mount Headshell Adapter Combination headshell/adapter allows use of Pmount cartridges in universal-headshell arms .......\$30

#### **TWEEK BY SUMIKO**

#### **Tweek** Fluid

Reduces contact resistance and rectification effects in all metal-to-metal slip-on connections, such as cartridge leads, interconnects, speaker terminals. Designed to make metals act as if conductivity had been increased. Pre-cleaning needed only if contact is badly corroded or very dirty. Brush-on applicator bottle with 0.75 cc diluted in 6.25-cc isopropyl alcohol. Enough to treat an audio or video system 4 to 6 times ..... \$18

#### VANDERSTEEN AUDIO

#### **OL-1 MC Pre-Preamplifier**

Moving-coil preamp with variable loading and high-frequency roll-off. FR 1-500,000 Hz  $\pm 3$  dB;

max output 2 V; THD 0.01%; IMD 0.01% IHF; 4" w x 2.5" h x 6" d; 5 lb ..... \$285

#### **VOGEL'S BY TELECTRONICS**

#### VE 2500 Speaker Base

3-position adjustable stand suitable for many speakers; sturdy impact-resistant ABS plastic; matte black; Max weight 55 lbs; min base 10" x \$".....\$44.09/pr

#### VE 2000 Speaker Stand

Epoxy-finished metal speaker stands with contin-					
uously adjustable slope angle. Speaker may sit un-					
attached on stand or can be mounted to stand					
with double-sided tape or screws. For speakers					
with base at least 8.5" x 7.5". Max weight 45					
lbs\$36.59					
VE 3000. Same as VE 2000 except max weight 66					
lbs\$45.29					

#### **DUO 220 Speaker Bracket**

Speaker clamping bracket designed for speakers whose rear-panel construction makes them unsuitable for mounting with conventional brackets. Speaker clamps between 2 foam-rubber-covered 85-mm discs. Pivot point approx 6" from wall. Design to support loudspeaker with maximum weight of 45 lbs ..... \$34.19/pr

#### BEK 100 Speaker Bracket

Rotating speaker-mounting bracket can be fixed to virtually any wall. Can be adjusted vertically and horizontally. Black-finished steel supports speaker weighing up to 55 lbs. Bracket completely hidden by loudspeaker ..... \$22.19/pr

#### **Minor 50 Speaker Bracket**

Wall bracket for mounting smaller speakers. Continuously adjustable through 180° horizontally and 30° vertically. Black-finished steel supports 

#### **YALE AUDIO**

"Set-It-To-Here" Position Markers Adhesive vinyl appliques indicate where controls should be set. Includes straight and curved arrows; arrows pointing to lines; pointing hands; switches; buttons in; buttons out. Useful for tone controls, equalizer sliders, tape-monitor buttons, processing loops, etc. Black, red, or white. Useful for complex systems ......\$6.49

#### YAMAHA

#### YSR-20B Audio Cabinet

Fits all standard size home audio components. Features glass lift top and doors. Available in black vinyl finish ..... \$400

#### YSR-27A Audio Cabinet

Genuine oak rack features glass door and oak lift-

#### SLC-10 Equipment Rack

Black metal, fits all standard 19" rack mount components. Features rack or shelf mounting (4 shelves provided). 77 lb ..... \$399

#### YVR-2B Video Cabinet

Holds up to 27" video monitor and videocasette recorder. Features double glass doors. Black vinyl finish ..... \$300

#### YVS-1B Video Cabinet

Genuine oak cabinet holds up to 27" monitor and VCR. Features double glass doors and heavyduty casters ..... \$250

SPS-10 Speaker Stands Black wood finish ..... \$55/pr

### POCKET STEREO



### AIWA

#### HS-T600A AM/FM Cassette Pocket Stereo

Features rechargable battery system; metal/CrO2 EQ switch; Dolby B; EQ; headphones; autoreverse; anti-roll mechanism. Uses 2 AAA batteries. 2.94" w x 4.5" h x 1.06" d; 8.7 oz ...... \$210

#### **HS-J700A Autoreverse Pocket Stereo**

#### HS-T500 AM/FM Cassette Pocket Stereo

#### HS-J350 Autoreverse Pocket Stereo

Pocket cassette player/recorder with AM/FM radio. Features stereo recording directly from builtin tuner, built-in electret mic, and optional stereo



#### HS-G600 Autoreverse Pocket Stereo

Features metal/chrome EQ switch; Dolby B; EQ; headphones; anti-roll mechanism; battery indica-

tor. Works with rechargeables. Uses 2 AAA batteries. 2.88" w x 4.19" h x 0.94" d; 7.6 oz . 150

HS-T200 Autoreverse AM/FM Pocket Stereo Features metal/chrome EQ switch; Dolby B; antiroll mechanism; battery indicator. Uses 2 AA batteries. 3.36" x 4.5" x 1.36"; 10.1 oz .... \$115

#### HS-T360 Autoreverse AM/FM Pocket Stereo

#### HR-SO1MKII AM/FM Pocket Stereo

Features folding headphones; second headphone jack. Uses 2 AA batteries. 4.6 oz ...... \$75

#### HR-SO8 AM/FM Headphone Receiver

Features double folding headband; FM mono/-



#### HR-SO6 FM Pocket Stereo

Features folding headphones. Uses 2 AAA batteries. 3 oz ...... \$65

#### ALARON

#### RY-381 AM/FM/Cassette Pocket Stereo

#### RY-379 AM/FM/Cassette Pocket Stereo

Cassette pocket stereo with AM/FM tuner. Features auto-stop; stop, FF, play cassette operation; belt-clip; volume control; stereo headphone. Uses 3 AA batteries (not included). 6.38" w x 3.5" h x 1.38" d ......\$30

#### RY-280 Solar AM/FM Pocket Stereo

Solar cells recharge built-in Ni-Cad battery. Includes folding lightweight headphones; adjustable elastic arm band; pocket clip. 3.5" x 1.63" x 0.75" ..... \$30

#### RY-278 AM/FM Headphone Receiver

AM/FM-multiplex featherweight headphone radio with adjustable headband that folds up for storage. Features foam-padded earpieces; 1.ED stereo indicator; in-out jack; doubles to connect with other personal or home stereos (connecting cables not included); operates on 2 AA batteries (not included)......\$25

#### **RY-275 AM/FM Pocket Stereo**

#### RY-271 Cassette Pocket Stereo

Cassette pocket stereo features slide volume control; stereo headphone; high-impact case. Uses 2 AA batteries. 4.25" x 3.25" x 1.38" ...... \$20

#### RY-212 AM/FM/Cassette Pocket Stereo

#### RY-273 Mini FM Receiver

Features headphon; slide switch for power and volume. Uses 3 A76 button-cell batteries (not included). 3" x 1.25" x 0.44" ..... \$12

#### **HITACHI**

**CP-203R AM/FM Cassette Recorder** With headphones; locking rewind; auto stop. 3.5" x 5.5" x 1.5"; <1 lb ...... \$60

#### CP 201R AM/FM Cassette Player

#### JVC

#### CX-R7K AM/FM Pocket Cassette Recorder

Autoreverse AM/FM stereo cassette recorder with built-in battery charger. Features Dolby B NR (playback only); full-logic transport mechanism; Hi-Fi 4-track fixed head; 3-way reverse mode selector; normal/metal tape EQ selector; local/DX switch; control lock feature. Includes AC adaptor, rechargeable battery, stereo headphone, stereo microphone, and carrying case. 3.25" w x 4.69" h x 1.19" d; 8.72 oz. without battery ...... \$190

#### CX-F7K AM/FM Cassette Pocket Stereo

Autoreverse AM/FM stereo cassette player with rechargeable battery. Features Dolby B NR; fulllogic transport mechanism; normal/metal tape EQ selector; 3-way reverse mode selector; Hi-Fi 4track fixed head; control lock feature. Includes AC-R7 battery charger, rechargeable battery, stereo headphone, and carrying case. 3.19" w x 4.5" h x 1" d; 7.05 oz. without battery ...... \$160

#### CX-7K Cassette Pocket Stereo

Autoreverse stereo cassette player with rechargeable battery. Features Dolby B NR; full-logic
# POCKET STEREO

# MAGNAVOX

D6643 AM/FM Cassette Tuner

Autoreverse; 3-band graphic EQ; FM-stereo indicator; 3-V DC power jack; detachable belt clip



# D6668 Rechargeable Cassette Player

# D6658 AM/FM-Stereo Cassette Tuner

# D6648 AM/FM-Stereo Cassette Tuner

FF and rewind; auto stop; headphones; detachable belt clip; FM-stereo LED; needs 2 AA batteries. 3.25" x 5.25" x 1.5" ..... \$45

# D6636 AM/FM Cassette Tuner

# D6607 Cassette Player

Anti-roll mechanism; lightweight headphones; locking FF; belt clip; auto stop. Needs 2 AA batteries. 4.75" x 3.75" x 1.25".....\$25

# D666 Cassette Player

# PANASONIC

# RX-SA79 AM/FM/Cassette Pocket Stereo

Extra Bass System (off, light, or heavy); autoreverse; NiCad battery charger for 3 hrs of play; 3band graphic equalizer; Dolby NR; DX/local FM-sens switch; headphones; belt clip; auto stop; uses battery charger or 1 AA battery. 9 oz \$160

# **RF-HX7 FM Stereo Radio Headphones**

FM stereo tuner built into headphones with cord to connect to pocket cassette player or portable CD player; mica-filled flat diaphragms; soft mut-



ing; FM stereo/mono switch; power LED; LC-OFC connection cord and phone plug adaptor; needs 2 AAA batteries. 5.5 oz .............\$100

# RX-SR35 AM/FM/Cassette Recorder

5-band graphic equalizer; autoreverse; 1-touch recording; built-in condenser mic; jack for external mic; auto stop; FF and rewind; pause; LED's for



# RX-SA78 AM/FM/Cassette Pocket Stereo

# RX-SR25 AM/FM/Cassette Recorder

# **RF-H25** AM/FM Pocket Radio

# RX-1936 AM/FM/Cassette Pocket Stereo

3 radio-station presets; Ultra-Phonic mode to boost highs and lows; headphones; FF and rewind; auto stop; belt clip; needs 3 AAA batteries; LED's for batteries and FM stereo. 5.5 oz... \$65

# **RF-HD5 FM Stereo Headphone Radio**

# RX-SA66 AM/FM/Cassette Pocket Stereo

# RF-H8 AM/FM Headphone Radio

Folding headphone radio with built-in AM and FM antennas and optional external FM antenna; FM stereo/mono switch; in silver, burgundy, or blue; needs 1 AAA battery. 3 oz ......... \$50

# RX-SA60 AM/FM/Cassette Pocket Stereo

With headphones; auto stop; DX/local FM-sens switch; FF and rewind; FM stereo LED; belt clip; needs 2 AA batteries or optional AC adaptor; in black, red, pink, or silver. 8 oz ......\$35

# RF-H20 AM/FM Pocket Radio

Features slide-rule tuning; FM soft muting; detachable belt clip; folding headphones. Needs 1 AAA battery. In black, yellow, or red. 3.94" x 1.5" x 0.36"; 1 oz ......\$35

# RF-435 AM/FM Pocket Radio

With headphones and built-in 4-band graphic equalizer; FM stero/mono switch; FM stereo LED; belt clip; slide-rule tuning; needs 2 AAA batteries. 3 oz......\$30

# **RF-H2 FM Stereo Headphone Radio**

# RF-422 AM/FM Pocket Radio

# **RF-411 FM Pocket Radio**

# RQ-JA61 Cassette Pocket Stereo

With headphones; auto stop; FF and rewind; belt clip; black, pink, or blue. Needs 2 AA batteries or optional AC adaptor. 7.5 oz. 3.36" x 4.5" x 1.44" ..... \$20

# PRICES LISTED

are manufacturers' suggested retail prices (also referred to as *list* prices); actual selling prices are set by individual dealers. All prices are subject to change without notice.

# POCKET STEREO

# QUASAR

# GX3686 Cassette/AM/FM Pocket Stereo

Features dynamic boost switch to boost bass and treble frequencies; autoreverse; metal/chrome EQ switch; Dolby B; headphones; anti-roll mechanism; FM AFC; tone switch. Uses 2 AA batteries. 3.25" w x 4.62" h x 1.36" d; 9.2 oz ...... \$97

# GX3677 Cassette/AM/FM Pocket Stereo Features autoreverse; metal/chrome capability; built-in condenser microphone. Use 2 AA batter

ies ...... \$90

# GX3800 Cassette/AM/FM Pocket Stereo

Features autoreverse; built-in speakers; 3-band EQ; collapsible headphones; radio sleep switch; power/battery LED indicator; phone/speaker selector; flexible FM antenna. Operates on 3 AA batteries or optional KT655 AC adaptor ..... \$60

# GX3676 Cassette/AM/FM Pocket Stereo

Features 3-band equalizer; autoreverse with direction button; local/Dx switch; anti-roll mechanism; FM AFC; tone switch. Detachable belt clip and lightweight headphones included. Uses 2 AA batteries. 3.31" w x 5" h x 1.5" d; 11 oz ... \$60

# GX3667 Cassette/AM/FM Pocket Stereo

Features lightweight headphones; auto stop; fast forward and rewind; LED FM stereo indicator; local/DX switch. available in black, pink, or lavender. Uses 2 AA batteries ......\$35

# 3666 Cassette/AM/FM Pocket Stereo

Features fast forward and rewind; auto stop; FM AFC. Detachable belt clip and lightweight headphones included. Uses 4 AA batteries. 3.5" w x 5.88" h x 1.56" d; 9.7 oz ......\$35

# REALISTIC

SCP-5 AM/FM Stereo Cassette Recorder Autoreverse; Dolby B; EQ switch for all tapes; LED's for tape direction, FM stereo, low batteries; 2 AA batteries. 5.75" x 3.5" x 1.4" .... \$80

# SCP-24 AM/FM Stereo Cassette Player

# SCP-17 Stereo Cassette Recorder

Mono speaker; records in stereo with built-in mics; jacks for external mics; FF and rewind; L and R volume controls; compatible with rechargeable batteries; case with shoulder strap; needs 2 AA batteries.  $5^{\circ} \times 3.4^{\circ} \times 1.9^{\circ} \dots \dots \times \$80$ 

# SCP-19 Stereo Cassette Player

Dolby B; autoreverse; EQ switch for all tapes; LED's for tape direction, batteries; belt clip; needs 2 AA batteries. 4.75" x 3.5" x 1.4" ... \$60

# SCP-20 Stereo Cassette Player

Equalizer boosts or cuts bands centered at 100, 1,000, and 10,000 Hz; auto stop; LED for batteries; detachable belt clip; needs 2 AA batteries. 4.5" x 3.25" x 1.3" ......\$30

# SCP-22 Stereo Cassette Player

L and R volume controls; auto stop; LED for batteries; detachable belt clip; needs 2 AA batteries. 4,5" x 3.5" x 1.4" ......\$25

# SCP-26 Stereo Cassette Player Weatherproof housing; belt clip; needs 2 AA batteries. 4.75" x 4.1" x 1.75" ...... \$30

# SANSUI

FX-W51R Cassette/AM/FM Pocket Stereo Features 5-band graphic EQ; auto reverse; head-

phones. Uses 2 AA batteries. 3.25" w x 4.75" h x 1.25" d ......\$120

# FX-W31R Pocket Cassette Player

# SANYO

F4 Pocket AM/FM Stereo Cassette Player Ultra-slim autoreverse cassette player with builtin AM/FM tuner. Features 2-way autoreverse; Dolby NR; FM-stereo indicator; rechargeable bat-



tery pack; auto-stop mechanism; AC adaptor; stereo headphones; battery indicator; carrying case; battery case. 4.06" x 2.69" x 0.81"; 5 oz ... \$200

# P4 Pocket Stereo Cassette Player

Ultra-slim autoreverse cassette player with Dolby NR. Features 2-way autoreverse; rechargeable battery pack; auto-stop mechanism; AC adaptor; stereo headphones; battery indicator; carrying case; battery case. 4.06" w x 2.69" h x .69" d; 4.07.

# MGR 650D AM/FM Stereo Cassette Player

# WR66 Pocket AM/FM Stereo Cassette Player Mini-size splash-proof cassette player with built-

in AM/FM tuner. Features specially sealed case; anti-rolling mechanism; AFC; stereo/mono switch; FM-stereo indicator; auto-stop mecha-



MGR87 Pocket AM/FM Stereo Cassette Player Mini-size autoreverse cassette player with built-in AM/FM tuner. Features 3-band graphic equalizer; rechargeable capability; auto-stop mechanism; 

# **RP80 AM/FM Stereo Headset Radio**

# SHARP

# JC-850 Pocket Cassette Radio

Features rechargeable Ni-cad battery; AM/FM tuner; 3-band graphic EQ; listening while recharging; autoreverse; Dolby B; dynamic headphones. Uses AA batteries and AC adaptor. FR 40-16,000 Hz (CrO2/Metal), 40-14,00 Hz (normal). 2.75" w x 4.53" h x 0.84" d; 7.02 oz. Available in black blue, red, silver \$200

# JC-R72 Pocket Cassette Radio

Stereo cassette player with AM/FM tuner, supplied charger, and Ni-cad batteries. Available in 5 colors. 3.5" w x 5.59" h x 1.63" d ...... \$50 JC-F3. Same as above without recharger ... \$40

# JC-128 Pocket Cassette Radio

Stereo cassette player with AM/FM tuner. Uses AA batteries. Available in black, blue, pink, red,



and yellow. 3.44" w x 5.44" h x 1.44" d; 9.35 oz (without batteries) .....\$29.95

# SONY

# WM-D6C Pocket Cassette Recorder

Features record and play modes; Dolby B & C; disc quartz-lock drive system; stereo mini microphone jack; anti-rolling mechanism; 3-way power supply. Includes headphones, case, and connection cord. Uses 4 AA batteries.  $6.74^{\circ}$  h x  $1.5^{\circ}$  w x  $3.75^{\circ}$  d; 1 lb, 7 oz .......\$380

# WM-D3 Pocket Cassette Recorder

# WM-F20011 Pocket Cassette/Radio

Features autoreverse; record and play modes; Dolby B; stereo mini microphone jack; belt drive system; anti-rolling mechanism; AM/FM tuner; local/DX switch; 3-way power supply. Includes

# POCKET STEREO

# WM-F107 Pocket Cassette/Radio

# WF-F100II Pocket Cassette/Radio

Features autoreverse; Dolby B; belt drive system; anti-rolling mechanism; AM/FM tuner; local/Dx switch; 3-way power supply. Includes headphones, rechargeable battery, charger, and case. 2.75" h x 4.36" w x 0.78" d; 7.1 oz ..... \$180

# WM-F80 Pocket Cassette/Radio

# WM-100II Pocket Cassette Player

# WM-F76 Pocket Cassette/Radio

# WM-F73 Pocket Cassette/Radio

# WM-F77 Pocket Cassette/Radio

# WM-F69 Pocket Cassette/Radio

# WM-F68 Pocket Cassette/Radio

# WM-F46 Pocket Cassette/Radio

Features record and play modes; stereo mini microphone jack. belt drive system; AM/FM tuner; local/DX switch; 3-way power supply. Includes headphones and belt clip. Uses 2 AA batteries. 3.47" h x 5.5" w x 1.45" d; 12.3 oz ...... \$80

# WM-F45 Pocket Cassette/Radio

Features water-resistant design; belt drive system; anti-rolling mechanism; AM/FM tuner; local/DX switch. Include headphones and strap. Uses 2 AA batteries.  $5.5^{\circ}$  h x  $3.62^{\circ}$  w x  $1.5^{\circ}$  d; 11.3 oz \$80

# SRF-5 Pocket Radio

# SRF-F1 Pocket Radio

FM-only radio designed to attach to any standardsize headband. Features built-in rechargeable battery and water-resistant design. Includes headphones, headband, armband, and DC-DC charger. 1.88" h x 3.38" w x 0.59" d; 1.4 oz ...... \$65

#### WM-45 Pocket Cassette Player

# WM-F43 Pocket Cassette/Radio

Portable AM/FM pocket stereo cassette player. Features 3-band graphic EQ; belt drive system; AM/FM tuner; local/DX switch;3-way power supply. Includes headphones and belt clip. Uses 2 AA batteries.  $3.5^{\circ}$  h x  $5.25^{\circ}$  w x  $1.44^{\circ}$  d; 8.6 oz \$57

# WM-68 Pocket Cassette Player

#### SRF-4 Pocket Radio

# WM-F41 Pocket Cassette/Radio

#### SRF-R7 Headphone Radio

# WM-43 Pocket Cassette Player

Features 3-band graphic EQ; belt drive system. Uses 2 AA batteries. 4.75" h x 3.5" w x 1.44" d; 7.8 oz ......\$43

# SRF-FM2 Headphone Radio

FM-only radio with local/DX switch. Uses 2 AA batteries. 3.6 oz ...... \$33

WM-41 Pocket Cassette Player Features belt drive system; belt clip. Includes

# Prices Listed

are manufacturers' suggested retail prices (also referred to as *list* prices); actual selling prices are set by individual dealers. All prices are subject to change without notice.

he	ad	lphone	₽S.	Uses :	2 A	A	ba	itt	er	ies	. 3	3.3	8	"	ł	ı	х	4.	75″
w	х	1.38"	d;	6.9 02	ι.														\$32

# SRF-35W Pocket Radio

AM/FM radio with 3-band graphic EQ and local/ DX switch. Includes headphones and belt clip. Uses 2 AA batteries. 3.41" h x 2.72" w x 0.88" d; 4.4 oz ......\$30

# SRF-19W Pocket Radio

AM/FM	pocket radio	uses 2 AA	batteries.	4.33" h
x 2.38"	w x 0.88" d;	3.6 oz		\$23

# SRF-16W Pocket Radio

# **TOSHIBA**

# KT-4097 Remote Control Pocket Stereo



# KT-4087 Rec/Play AM/FM Pocket Stereo

# KT-4068 Cassette/AM/FM Pocket Stereo

# KT-4066 Cassette/AM/FM Pocket Stereo

KT-4065. Same as KT-4068 without graphic EQ ...... \$100

KT-4057 Cassette/AM/FM Pocket Stereo	
AM/FM stereo; cassette; 3 band graphic EQ \$1	00
KT-4047. Similar to above \$	80

# 

# KT-4026 Cassette/AM/FM Pocket Stereo

# Stereo Pocket Radios

# **RP-2066 Headphone/Radio**

1-piece design headphone/AM/FM radio. Digital tuning with 5 AM 5 FM preset stations  $\dots$  \$170

# BLANK TAPE



# BASF

#### **DX** Series

Metal IV Cassette
Metal particle formulation features high perfor-
mance cassette mechanism.
C120, 120 min\$5.99
Chromdioxid Maxima II Cassettes
High-density chrome formulation features high-
performance cassette mechanism.
C90. 90 min\$2.99
C60, 60 min\$2.24
Coo, co mm
Chromdioxid Extra II Cassettes
Pure chrome formulation features high-perfor-
mance cassette mechanism.
C120. 120 min
<b>C90.</b> 90 min
<b>C60.</b> 60 min
Coo, oo min
LH Maxima I Cassettes
Ferric tape with high maximum-output-level for

increased signal-to noise ratio. Features high formance cassette mechanism.	
<b>C90.</b> 90 min	

# LH Extra 1 Cassettes

Ferric tape with	extended s/N	and precision	mech-
anism.			
C90. 90 min			\$1.49
C60. 60 min			\$1.24

# DENON

All Denon cassettes feature large window, life-time warranty, head cleaning leader, and transparent, H-shaped slip sheets for optimal back tension.

# High Density Series

# **HD-M Metal Cassettes** High-stability pure metal tape formulation uses high-density dispersion technology that yields a residual magnetic flux density of over 3,500 Gauss and a coercivity of 1,200 Oersted.

HDM-90.																									
HDM-60.	60	min.	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	\$5

# HD8 High-Bias Cassettes

High-density metal particle formula uses New
High Technoroum magnetic pigment to increase
residual flux density to 2,800 gauss yielding an
MOL of -3.5 dB at 10 kHz.
HD8-90. 90 min\$4.75
HD8-60. 60 min\$3.75

# HD7 High-Bias Cassettes

Type-II formulation with extended high-frequen- cy response and low noise. Residual flux density 1,700 Gauss, MOL -7.0 dB at 10 kHz.
HD7-90. 90 min
HD6 High-Bias Cassettes Type-II formulation with extended high-frequen- cy response. Residual flux density 1,700 Gauss, MOL -6.0 dB at 10 kHz.

HD6-90, 90 min.....\$3.25 HD6-60. 60 min.....\$2.50

# **DX4** Ferric Normal Cassettes Type-I formulation with extended frequency response. Residual flux density 1,700 Gauss, MOL -4.5 dB at 10 kHz. DX4-60. 60 min. ..... \$3 **DX3 Ferric Normal Cassettes**

Improved DX3 offers a 12% increase in both retentivity and coercivity yielding better high-frequency response and dynamic range. MOL -6.0 dB at 10 kHz. DX3-90. 90 min ..... \$3

DX3-60, 60 min ......\$2.50

# **DXI Ferric Normal Cassettes** Low-noise high-output type I cassette with high sensitivity and high MOL (-9.5 dB at 10 kHz). DX1-90, 90 min ......\$2.25 DX1-60, 60 min .....\$1.75

# FUJI

FR Series Cassette Tape					
Type I normal-bias casettes with 120 µs EQ and co-					
balt-modified fine Beridox particles.					
FR (C-46), 46 min \$2.69					
FR (C-60). 60 min \$2.99					
FR (C-90), 90 min\$3.99					

# FR Series Metal Cassette Tape

Metal-coated tape with a designed for metal bias,	
hinged plastic box.	1 -1 0
FR (C-46). 46 min	
FR (C-60), 60 min	
FR (C-90). 90 min	\$8.49

FR-I Super Series Cassette Tape Super-premium Type I normal-bias casettes with 120 µs EQ and cobalt-modified fine Beridox magnetic particles. FR-I Super (C-46), 46 min ..... \$3.79 FR-I Super (C-90), 90 min ..... \$5.49

# FR-II Series Cassette Tape

Chromium-dioxide cassettes with tensilized polyester base; designed for Type II/CrO<sub>2</sub> bias, 70-µsec equalization; packaged in hinged plastic box. Features super-fine Beridox magnetic particles FR-II (C-46). 46 min .....\$3.99 FR-II (C-90), 90 min .....\$5.99

# FR-II Super Series Cassette Tape

Super-premium Type II high-bias casettes with 70
µs EQ and cobalt-modified super-fine Beridox
magnetic particles.
FR-II Super (C-46), 46 min \$4.39
FR-II Super (C-60). 60 min \$4.89
FR-II Super (C-90), 90 min
DR Series Cassette Tape
DR (C-46), 46 min\$2.39

DR (C-60), 60 min.....\$2.59

DR (C-90), 90 min.....\$3.49

DR (C-120), 120 min.....\$4.99

# **GT-11 Series Cassette Tape**

High bias, 70-microsecond E shell, and clear plastic case. pad.	
C-46.	
C-60	

# **GT-I Series Cassette Tape**

Normal bias, 120 µsec EQ car audio cassette with
heat-resistant tape, shell, and clear plastic case;
tensilized polyester backing.
<b>GT (C-46).</b> 46 min\$3.79
<b>GT (C-60).</b> 60 min\$4.19
GT (C-90). 90 min \$5.49

# **GOLDSTAR**

All tapes have tensilized polyester base material; tape width 3.81 mm; tape length 135 m; yield strength (5%) kg; breaking strength 1.0 kg; residual elongation 0.05%; squareness ratio 0.85; sens uniformity 0.3 dB; output fluctuation 0.4 dB (except for HD: 0.5 dB).

HD Normal-Bias Cassettes
Coercivity 340 Oe; retentivity 1,300 Gauss; sens
+0.5  dB  (315  Hz).
C-90. 45 min per side \$2
HR Normal-Bias Cassettes
Coercivity 340 Oe; retentivity 1,500 Gauss; sens
+1.0  dB  (315  Hz).
C-90. 45 min per side \$3
HZ Normal-Bias Cassettes
Coercivity 360 Oe; retentivity 1,600 Gauss; sens
+2.0  dB  (315  Hz).
C-90, 45 min per side \$4
CRX High-Bias Cassettes
Cobalt-doped iron-oxide particles. Coercivity 550
Oe; retentivity 1,600 Gauss; sens +2.5 dB.
C-90. 45 min per side \$5
MTX Metal-Bias Cassettes
Pure metal particles. Coercivity 1,050 Oe; retenti-
vity 3,000 Gauss.; sens +2.0 dB (315 Hz)
C-90. 45 min per side \$6
IRISH

High-Output Cassettes Precision-shell ferric cassette in No	prelco box.
XR-90. 45 min per side XR-60. 30 min per side	\$2.70
I aw Naise Cassettes	

Precision	shell j	ferri	c cass	ett	e	in	N	ore	lco	b	ox.
LN-90.4	5 min	per	side.				• •			• •	\$2.15
LN-60. 3	0 min	per	side.							• •	\$1.75
LN-30. 1	5 min	per	side.			• •	•••	•••		• •	\$1.50

# JVC

ME-PROII Metal Cassette Tape
Metal-particle tape with high magnetic density
and high particle acicularity for high MOL. Coer-
civity 1,100 Oe.
ME-90PII, 90 min\$3.90

# BLANK TAPE

UFII High-Bias Cassette Tape
Coercivity 660 Oe.
UFII-90, 90 min\$1.75
UFII-60.60 min\$1.50
UFI Normal-Bias Cassette Tape
Coercivity 380 Oe.
UFI-90, 90 min\$1.65
UFI-60. 60 min\$1.20
GI Normal-Bias Cassette Tape Popular series Coercivity 370 Oc

Popular series.	Coercivity 370 Oe.	
C-90. 90 min		
C-60, 60 min	\$0.85	

# LASER BY SWIRE MAGNETICS

Laser UHD-II Cassettes
High-bias ferric cassettes with high energy and ex-
tended frequency response.
C-90. 45 min per side\$2.59
<b>C-60.</b> 30 min per side\$1.99
Laser UHD-I Cassettes Normal-bias ferric cassettes with high-energy, high-density formulation. C-90, 45 min per side

# C-60. 30 min per side .....\$1.99

# Laser XL Cassettes

Normal-bias ferric cassettes with extra	low noise
for voice or music.	
C-120. 60 min per side	\$2.49
C-90. 45 min per side	\$1.89
C-60. 30 min per side	\$1.49
C-45. 22.5 min per side	\$1.39

# MAXELL

# Digital Audio Tape

Features Ceramic-Armor metal-particle formulation.



<b>K-120DML</b> 120 min\$14.99
MX Metal Cassettes
Metal bias/EO.
MX-46. 46 min\$3.98
MX-60. 60 min\$4.61
MX-90, 90 min \$6.15
XLII-S Epitaxial Cassettes
High-level bias; 70-µsec EQ.
XLII-S60. 60 min \$3.77
XLII-S90. 90 min\$4.82
XLI-S Epitaxial Cassettes
Normal bias; 120-µsec EQ.
XLI-S60. 60 min\$3.77
XLI-S90. 90 min
XL-II Epitaxial Cassettes
Chrome type; high-level bias; 70-p.sec EQ.
C-46. 46 min\$3.14
C-60. 60 min\$3.24
<b>C-90.</b> 90 min\$3.87
UDS-I Normal Bias Cassettes
Features phase accuracy shell, frictionless slip

sheets, Quin-Lok hubs, cleaning leader.

C-46. \$2.30 C-60. \$2.50
C-90\$3.24 UDS-11 High-Bias Cr0, Cassettes
Features phase accuracy shell, frictionless slip sheets, Quin-Lok hubs, cleaning leader. C-46\$2.30
C-60
Normal-Bias Cassettes           UR-46. 46 min         \$1.45           UR-60. 60 min         \$1.56           UR-90. 90 min         \$1.80           UR-120. 120 min         \$2.70
Open-Reel Tapes
XLII Open-Ree! Tapes           Designed for use with EE-tape-capable decks.           XLII 35-90, 1,800 ft           XLII 35-180, 3,600 ft
XLI Back-Coated Open-Reel Tapes           XLI 35-90B, 1,800 ft, 7" reel\$12.59           XLI 35-180B, 3,600 ft, 10.5" reel\$35.16
Ultra-Dynamic Open-Reel Tapes           UD50-60, 1,200 ft, 7" reel         \$8.70           UD35-90, 1,800 ft, 7" reel         \$9           UD35-180, 3,600 ft, 10.5" reel         \$27.98
MEMOREX BY MEMTEK
CDX II High Bias Cassettes Metal tape for High Bias (type II) setting. Superior tape for recording CD or digitally-sourced music at high bias, $70 \mu$ sec setting. Greater headroom for distrotion-free reproduction at significsantly higher recording levels than conventional high bias tapes. New permanent reference cassette mecha- nism shell. C-90
HBX II High-Bias Cassettes High-performance ferric/cobalt tape for use at high bias 70 μ sec setting. Higher MOL's, greater sensitivity compared to standard high bias and CrO, tapes. New permanent reference cassette mechanism. HBX II High Bias C-90
HB II High-Bias Cassettes Premium tape for high bias 70 μ sec EQ position. Improved low end MOL, greater sensitivity, new permanent reference cassette mechanism.
HB II High Bias C-90         \$2.79           HB II (type II) C-60         \$2.29
MRX 1 Normal-Bias Cassettes Premium normal bias tape. Full lifetime warranty. High visibility clear shell C-90\$2.69
C-60\$2.19
dbs Normal Bias CassettesNormal-bias tapes for all general purpose voice ormusic recording. Features high-visibility clear shellC-120.S2.59C-90.C-60.\$1.49C-46.S1.29
NAKAMICHI
ZX Reference Cassette Tapes Metalloy (metal-particle) formulation for record- ing on metal-compatible decks only; features ul- tra-high coercivity and retentivity for improved dis- tortion and MOL; 70-μsec EQ.

ZX-C60, 60 min .....

ZX-C90. 90 min..... \$10

# SX II Reference Cassette Tapes

Double-coated ioni. mulation. CrO <sub>2</sub> bia			for-
SXII-C60, 60 min SXII-C90, 90 min			

# SX Reference Cassette Tapes

Single-coated ionized coba	It and ferric oxide for-
mulation; high coercivity p	ermits use of Cr0, bias
and EQ (70 µsec) for 4-5 d	B better S/N ratio.
SX-C60. 60 min	
SX-C90. 90 min	\$6.50

# EX II Reference Cassette Tapes

Single-coated and EO (120	ferric usec)	oba as	lt fe EX	ormule tape:	ation; same bias extra-low noise,	
high output.						
EXII-C60. 60	) min .	• • •			\$4.25	
EXII-C90, 90	) min .					

# PANASONIC

CrO <sub>2</sub> -Position Cassettes		
RT-90EX2, C-90 length.	2 pack	\$9.95

Normal-Bias Cassettes
<b>RT-60EN2</b> , C-60 length. 2 pack
RT-80EN2. C-90 length. 2 pack\$5,45
RT-60FS2. Fashion series. C-60 length. Color-
tinted shell. 2 pack\$5.45

# Microcassettes

RT-602 MC. C-60 length. 2 pack	\$5.95
RT-604 MC. C-60 length. 4 pack	\$11.95
RT-90 AMC. C-90. Angrom com	position . \$6.95

# REALISTIC

Cassette Tape Prices may vary according to quantity purchased, with prices lower per tape with larger quantities.

MIV Type IV Metal			
Fine-grain metal	particles;	5-screw	housing;
hinged storage box.			
MIV-90. 90 min		\$6	.99-\$4.89
MIV-60, 60 min		\$5	.99-\$4.19

# MII Metal Type II High-Bias Tape

Metal tape for recording and playback with Type
II bias and EQ; head-cleaning leader; hinged stor-
age box.
MII-90, 90 min \$5.69-\$3.99
MII-60. 60 min \$4.89-\$3.43

# HD Hi-Definition Chrome-Equivalent

For recording and playback with high-bias Type II
bias and EQ: head-cleaning leader; hinged storage
box; index card.
HD-90. 90 min \$4.29-\$2.97

HD-90,	90	min.			•		•		•				•			•		\$4.29-\$2.97
HD-60.	60	min.	•	•	•	•	•	•		•	•	•	•	•	•	•		\$3.49-\$2.45

# XR Type I Premium Ferric Tape

Hinged storage box with index card.	
XR-120. 120 min	\$4.99-\$3.29
XR-90. 90 min	\$3.79-\$2.59
XR-60. 60 min	\$2.79-\$1.89
XR-45, 45 min	

# LN Low-Noise Type I Standard Ferric

Hinged storage box with index card.	
LN-120. 120 min	\$3.49-\$2.29
LN-90, 90 min	\$2.79-\$1.85
LN-60. 60 min	
LN-30. 30 min	

1

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1

....\$7.25

Concertape Type I Cassettes	
C-120. 3-pack; each 120 min	\$4.99-\$4.39
C-90. 3-pack; each 90 min	\$3.59-\$3.19
C-60. 3-pack; each 60 min	\$2.59-\$2.29
C-30. 3-pack; each 30 min	\$1.99-\$1.79
C-90. Single; 90 min	
C-60. Single; 60 min	\$0.88

# BLANK TAPE

Open-Reel Tape
Supertape Premium. Polyester base, super-calen-
dared.
5" reel; 900 ft; 1.0 mil; 1-9 tapes \$3.99 each
5" reel; 900 ft; 1.0 mil; 10+ tapes \$3.19 each
7" reel; 1,200 ft; 1.5 mil; 1-9 tapes \$5.99 each
7" reel; 1,200 ft; 1.5 mil; 10+ tapes \$4.79 each
7" reel; 1,800 ft; 1.0 mil; 1-9 tapes \$6.99 each
7" reel; 1,800 ft; 1.0 mil; 10+ tapes \$5.59 each
7" reel; 3,600 ft; 0.5 mil; 1-9 tapes . \$12.99 each
7" reel; 3,600 ft; 0.5 mil; 10+ tapes. \$10.39 each
Low-Noise. Polyester base.
7" reel; 1,800 ft; 1.0 mil \$5.99-\$4.39 each
7" reel; 2,400 ft; 0.5 mil \$6.99-\$5.19 each
7" reel; 3,600 ft; 0.5 mil \$7.99-\$6.39 each
Concertape. Polyester base.
7" reel; 1,800 ft; 1.0 mil \$2.49 each
8-Track Cartridges
Supertape, 90 mins total time.
1-11 cartridges \$3.99 each
12-24 cartridges \$3.49 each
25-49 cartridges \$3.19 each
50+ cartridges \$2.99 each
Low Noise, Polyester base, 40 mins.
1-11 cartridges \$1.99 each
1-11 Callinges 31.99 Cach

50+ carmuges \$2.99 each
Low Noise, Polyester base, 40 mins.
1-11 cartridges \$1.99 each
12-24 cartridges \$1.79 each
25-49 cartridges \$1.59 each
50+ cartridges \$1.39 each
of the trages the transferred to
Low Noise. Polyester base. 80 mins.
Low Noise. Polyester base. 80 mins. 1-11 cartridges
Low Noise. Polyester base. 80 mins. 1-11 cartridges \$2.69 each

# Microcassettes

Micro-90. Max-length microcassettes record 90 mins at 2.4 cm/sec or 180 mins at 1.2 cm/sec. For capstan-drive recorders. 1-9 tapes \$6.95 each Micro-90. 10 or more tapes ..... \$5.95 each Micro-60. Records 60 minutes at 2.4 cm/sec and 120 mins at 1.2 cm/sec. For capstan-drive recorders. 1-9 tapes ..... \$3.49 each Micro-60. 10 or more tapes ..... \$2.99 each

#### Minicassettes

Mini-30. For rir	n-drive re	corders such	n as Realis-
tic Minisette.	30-min	recording	time. 1-9
tapes			
Mini-30, 10 or r	nore tapes		\$2.49 each

# SCOTCH

# XSM IV Cassettes Fine metal magnetic particle formulation; delivers maximum output up to 10 dB better than typical oxide tapes and up to 7 dB greater than chrome tapes; low distortion, added high-frequency response, and improved S/N ratio.

# XS II Cassettes

Features redeveloped premium grade formula with improved signal-to-noise ratio; less tape hiss; duallayer, cobalt-modified ferric oxide; for use with recorders in the chrome or 70 µsec equalization position; improved shell for critical mechanical permanence and 3-head equipment. 60 min ......\$2.99 

# **CX** Cassettes

proved	low pol	freq yme	quenc r she	y outp ll hou	ut and ses an	featuring im- clarity. 6-screw inner assembly
60 min						\$2.40 \$2.99

#### **BX** Cassettes

Ferric-oxide formulation for all-purpose cassette use; polyester base. S-screw impact polymer shell

• •	•	roller	guides and	high-im-
60 min				\$1.69

90 min .	•	•	•	•		•		•		•	•	•	•	•	•	•	•	•	•		•	\$1.95

# SONY

ES Metal Cassette Type-IV position (70 microsecond equalization) ES-90. 90 min ......\$11.95

# UX Series Cassettes

Type-11 position (70 microsecond equalization)
UX II. C-60
UX II. C-90\$5.50
UX-S II, C-60\$4.75
UX-S II. C-90 \$6.95
UX-ES II. C-60 \$5.25
UX-ES II. C-90 \$7.95
UX-Pro IV. C-60\$7.95
UX-Pro IV. C-90

#### **HF-S Series Cassettes**

Type I position (Normal bias, 120 microsecond equalization) HF-S 60, 60 min .....\$3.10 HF-S 90. 90 min ......\$4.25

#### HF Series Cossettes

Type I position	(Normal	bias,	120	microsecond
equalization)				
HF 46. 46 min .				
HF 60, 60 min .				
HF 90 90 min .				
HF 120. 120 mi	n <i></i>	• • • • •		\$4.05

#### Microcassettes

3MC-60N. 60/120 min															. \$2.75
MC-60N, 60/120 min															
MC-90N, 90/180 min	• •	•	•	•	• •	•	•	•	•	•	•	•	•	•	\$8

# TDK

MA-XG Metal-Alloy (Type IV) Cassette Tape
Metal bias; 70-sec EQ; 3-layer RS-II vibration-
damping mechanism designed to eliminate sympa-
thetic vibrations for reduced modulation noise.
MA-XG 90. 45 min each side
MA-XG 60. 30 min each side \$7
MA-X Metal-Alloy (Type IV) Cassette Tape
Metal bias; 70-sec EQ; 2-layer plastic mechanism;
improved Finavinx formulation desinged for supe-
rior output level and wide dynamic range.
MA-X 90. 45 min each side \$5
MA-X 60. 30 min each side \$4.25
MA Metal-Alloy (Type IV) Cassette Tape
Metal bias; 70-sec EQ; Laboratory Standard mechanism.
MA 00 46 min and side 64

MA-90. 45 min each side ..... \$4 MA-60. 30 min each side .....\$3.50 HX-S High-Bias (Type II) Cassette Tape Metal-particle tape for high-bias setting; Laboratory Standard mechanism. HX-S 90, 45 min each side ..... \$4.50 HX-S 60. 30 min each side. ..... \$3.75 SA-XG High-Bias (Type 1) Cassette Tape RS-11 high-performance cassette mechanism; Super Avilyn formulation. SA-XG 60. 30 min each side ..... \$7

SA-X High-Bias (Type II) Cassette Tape 2-layer shell; dual-coated Super-Avilyn formulation: 70-sec EQ. SA-X 90, 45 min each side ..... \$3.50 SA-X 60. 30 min each side ..... \$3

SA High-Bias (Type 11) Cassette Tape Laboratory Standard Mechanism.

-	SA 90. 45 min each side
5	AD-X Normal-Bias (Type I) Cassette Tape Super Avilyn particles for extra headroom; Labo-
	ratory Standard Mechanism. 120-usec EQ.           AD-X 90, 45 min each side         \$3           AD-X 60, 30 min each side         \$2.50
5	AD-S Normal Bias (Type I) Cassette Tape Rigid plastic C-Thru <sup>m</sup> mechanism designed to control resonances. 120-sec EQ.
	AD-S 90. 45 min each side\$2.50 AD Normal-Bias (Type 1) Cassette Tape
) 5 5 5 5 5	Linear ferric-oxide particles; Laboratory Standard Mechanism. 120-sec EQ. AD-X90. 45 min each side\$2.50
5	AD-X60. 30 min each side\$2.50
5	D (Dynamic) Cassette Tape Normal bias; 120-sec EQ: precision mechanism. D-60, 30 min each side\$1.75
	D-46. 23 min each side
5	Microcassettes D-MC60B3. Same dynamic formulation as stan-
4	dard-size cassettes. Low noise for speech record- ing. 60 min ea; 3-pack\$9
5	VISA by INTERWORLD ELECTRONICS INC.
	UCX-II-S High Tech Turbo High-bias cassette tape with ultra-refined CrO <sub>2</sub>
5	coating and special housing. 60 min
	UCX-II High Tech Turbo High-bias cassette tape.
-	<b>60 min</b>
5	UFX-1 High Tech Turbo Ferric cassette tape with clear housing.
7	60 min \$2.99 90 min \$3.99
;	CX-11 Professional Tape High-bias cassette tape.
5	60 min \$2.49 90 min \$3.49
,	FDX-1 Professional Tape Ferric cassette tape.
#    -	<b>60 min</b> \$1.99 <b>90 min</b> \$2.79
5	Extra Performance II Tape High-bias cassette tape.
•	60 min\$1.99 90 min\$2.49
-	High Performance I Tape         Ferric cassette tape with iron dioxide coating.         60 min       \$1.59         90 min       \$1.99
5	The listings are based on data
′	provided by the manufacturers. For more product information, contact
-	an authorized dealer or the
3	manufacturer directly. Manufacturers' addresses and phone numbers are listed in the directory

listed in the directory

beginning on page 226.



Note: Words in italics are defined elsewhere in the glossary.

AC (alternating current): The current that comes out of the power outlets in American homes, which alternates direction sixty times a second.

**acoustic-suspension:** A type of *infinite-baffle speaker* that uses the air pressure inside a sealed speaker box to control driver motion. It has no *port* or opening.

AM (amplitude modulation): A band of radio frequencies that carries information by changing the strength of the signal. Most AM broadcasts are in mono, but many stations are adding equipment to broadcast stereo AM programs. You must have an AM-stereo tuner to receive them in stereo.

**amplifier:** A separate component, or a section built into an integrated component, that makes the electrical *signal* stronger (increases its amplitude). A *power amplifier* must be connected to a *preamplifier* (or "control amplifier") to switch and process the sound. An *integrated amplifier* combines power-amplifier and preamplifier functions in the same unit. A *receiver* adds an *AM/FM tuner* to the integrated-amplifier configuration.

**analog:** Audio equipment or recording media that operate with *signals* whose waveforms are directly analogous to the sounds they represent; see *digital*.

**automatic turntable:** One that sets the *stylus* onto a record to begin play and removes it at the end of play without the user having to touch the tonearm.

autoreverse: A feature of some cassette decks that allows them to play or record both sides of a cassette without the user having to turn it over manually.

AUX (auxiliary): An input jack found on some receivers, integrated amplifi-

# by William Burton

ers, and preamplifiers that can be used to connect source components such as a compact disc player or a cassette deck but not *turntables*, which require special phono inputs.

**balance:** A control found on some *receivers*, *integrated amplifiers*, and *preamplifiers* that changes the relative volume of the left and right *channels*.

**band:** A particular part of a *frequency* spectrum. For example, a *graphic* equalizer may divide the audio frequency spectrum into ten bands, with one control to adjust the relative volume of each band. The AM and FM bands are distinct parts of the RF (radio-frequency) spectrum.

**bass:** The lower frequencies in the audio spectrum, such as those produced by a string bass or bass guitar. An instrument producing bass tones vibrates air more slowly than one producing *treble* tones.

**bass-reflex:** A type of speaker that has an opening, called a *vent* or *port*, in its enclosure so that the sounds produced by the backward motion of the bass driver(s) reinforce the sounds produced by the forward motion, which come out of the front.

**belt-drive:** A method of rotating the platter of a *turntable* by means of a belt, usually made of rubber, that connects the turntable's motor to the platter.

bias: A very high-frequency signal added to an audio signal being recorded on tape to reduce distortion. Type I (normal or ferric) tape requires less bias than Type II (chrome or chrome-equivalent) or Type IV (metal) tape.

cantilever: The rod or tube in a phono cartridge that holds the stylus and

moves in response to the stylus's motion.

**capstan:** A rotating shaft in a tape recorder that pulls the tape across the *heads.* The tape usually travels between the capstan and the pinchroller. A dual-capstan machine has two capstans; see *closed-loop*.

**capture ratio:** An important specification for an *FM tuner*, it indicates the minimum ratio between the strengths of two FM signals at the same frequency that enables the tuner to suppress the weaker signal by  $30 \ dB$ . Smaller numbers indicate better performance.

cartridge, or phono cartridge: A small component mounted on the end of the tonearm in a *turntable*, it holds the *stylus* that fits in the record groove and vibrates as the record turns. The cartridge turns the vibrations of the stylus into a changing electrical current, or audio *signal*.

CD video (CDV): A compact disc that combines digital audio with video programs. CDV's are gold colored to distinguish them from silvery audio-only CD's.

**channel:** A distinct path for an audio signal. Stereo signals consist of two channels, left and right, which are sent to left and right speakers (or headphones), respectively (see separation). A surround-sound system adds one or more additional channels, usually for the rear. Mono (or monophonic) signals have only one channel.

closed-loop: A drive system used in tape decks where the tape is pulled by two *capstans*, one on either side of the *heads*, so the part of the tape being played or recorded is held taut and is fully isolated from the hubs.

compliance: A measurement of how easily the *stylus* of a *phono cartridge* can be moved by the grooves of a record. A high-compliance cartridge has a more flexible stylus than a low-compliance cartridge.

crossover (network): A circuit that divides lower-frequency sounds from higher-frequency sounds. Crossovers are used in speakers that have more than one driver. In a two-way speaker system, for instance, the crossover sends the low frequencies to the *woof*er and the high frequencies to the *tweeter*. Crossovers are also available separately for use in more elaborate systems.

crossover frequency: The frequency at which an audio signal will be sent at equal levels to both outputs of a crossover circuit. If the crossover is set at 1,000 Hz, say, a 1,000-Hz signal will appear in both outputs, usually at half the original level.

dB (decibel): The common unit of volume (also called loudness or amplitude) of sound or of an electrical signal that represents sound. Technically, a decibel is a measure of the ratio between two power levels. When sound-pressure level (SPL) is measured in decibels, a whisper is about 40 dB and a jet engine about 120 dB. The decibel scale is logarithmic, which means that an increase of 10 dB represents a tenfold increase in power: it takes ten times as much energy to produce an SPL of 80 dB as one of 70 dB, even though 80 dB is subjectively only twice as loud as 70 dB. Doubling the power raises the SPL by about 3 dB; cutting the power in half reduces the volume about 3 dB. Doubling or halving the volume requires a change in SPL of about 10 dB.

**dBf:** One *decibel* referred to a standard power level of one femtowatt (one quadrillionth of a *watt*).

dbx: Ordinarily, a noise-reduction system-more precisely known as dbx II-developed by the dbx company and used in some cassette decks. This system reduces the dynamic range of the audio signal during recording, making the soft parts of the music louder and the loud parts softer. During playback, the processing is reversed, restoring the original dynamic range and reducing the noise added by the tape. The dbx I system is used in professional studio tape recorders. Another type of dbx noise reduction is used in the MTS stereo-TV broadcasting system.

DC (direct current): Electricity that flows in one direction only; see AC (alternating current).

**defeat:** To bypass a *signal*-processing feature, removing it entirely from the circuit. *Tone controls* are sometimes accompanied by a tone-defeat switch, which enables the user to eliminate their effects without changing their settings, allowing easy comparisons of the sound with and without tone-control modifications.

digital: A digit is a number, and anything digital uses numbers in some way. A digital tuner may only use numbers on its front-panel display, or it may use digital-synthesis tuning circuits for improved reception. Compact discs contain a pattern representing a series of binary numbers (strings of ones and zeros); a CD player turns these numbers into a continuously changing current that represents the sound of the master recording. Digital audio tape (DAT) recorders turn analog input signals into binary numbers and record these on tape. For playback, the numbers are read from the tape and converted back into an analog audio signal.

**dipole:** A type of *speaker* that radiates as much sound from its rear as from its front.

**dipole antenna:** A type of antenna that receives radio broadcasts from two directions. A T-shaped folded dipole antenna is often included with a *tuner* or *receiver*.

**direct-drive:** A method of rotating a *turntable* platter by using the motor shaft as the platter spindle.

distortion: An unwanted alteration in an audio signal; also see THD (total harmonic distortion) and noise.

Dolby B and Dolby C: Noise-reduction (NR) systems designed and licensed by Dolby Laboratories for use in consumer tape recorders. They work by making the high sounds softer during recording and louder during playback. Dolby C is more effective than Dolby B, but Dolby B is more common.

**Dolby HX Pro:** A special circuit for tape recorders—the HX stands for headroom extension—that works by lowering the amount of *bias* added during recording when the *signal* being recorded already has a lot of high frequencies. The effect is to allow high frequencies to be recorded at higher levels with less *distortion*.

**Dolby Surround:** A system developed for movie theaters, now available in add-on home components and in some audio/video receivers, that adds two more audio channels (centerfront and rear) to the ordinary right and left stereo channels. To derive the extra channels, a surround-sound decoder adds the left- and right-channel signals together for the center-front channel and subtracts them from each other for the rear channel, usually sent to two rear speakers.

dubbing: The process of making a recording of another recording. A dubbing cassette deck can record from one tape in one *transport* to another in a second transport. Dubbing can be done with two single-transport decks or one dual-transport deck.

dynamic range: The difference, in decibels (dB), between the softest and the loudest possible sounds that a component can produce. Higher numbers are better because they mean the component can reproduce more of the full dynamics of recorded music played through it.

effective mass: A measurement of how much a tonearm resists motion. Tonearms must move quickly to follow the groove of a record, and lighter tonearms usually do this better than heavy ones.

efficiency: The ratio of the energy put into a component to the energy it produces. Usually specified for *speakers*, an efficiency measurement can be helpful in choosing the right *amplifier* for a particular speaker. Speaker efficiency can range from a fraction of 1 percent to as much as 10 percent or more, but this indicates nothing about sound quality, only quantity of acoustic energy for a given input power. A more common way of specifying speaker efficiency is *sensitivity*.

electrostatic: Some *speakers* and headphones use a method of producing sound by moving a flat diaphragm suspended in a high-voltage electrostatic field.

EQ (equalization): The process of

changing the relative volume levels of different parts of the audio *frequency* spectrum in order to compensate for losses or *distortion* at some stage of recording or reproduction. For instance, the output from *speakers* can be equalized to compensate for room acoustics. *Phono signals* require a specific type of playback equalization because of the equalization built into the process of cutting a record.

equalizer: A component, or part of a component, that can be used to equalize (see EQ) an audio signal received from a source component by dividing the signal into various separately adjustable bands. The most common type is the graphic equalizer, which derives its name from the way its sliding controls make a rough graph of the selected frequency changes on its front panel.

filter: A circuit that removes or attenuates a specific part of an audio signal. A subsonic (or infrasonic) filter removes frequencies below the audio range (below 20 Hz). Some cassette decks have MPX filters to remove the 19,000-Hz stereo pilot tone from FM broadcasts. Tone controls and equalizers are adjustable filters.

flutter: A wavering sound caused by quick changes in the speed of electromechanical components such as turntables and cassette decks. Expressed as a percentage of variation from the correct speed, flutter measurements are usually combined with wow measurements in a single wow-and-flutter (W&F) specification. Lower figures are better.

FM (frequency modulation): A type of radio broadcasting that carries audio information by changing the *frequen*cy of the broadcast signal. An FM station with a center frequency of 88.1 *MHz* will actually broadcast a signal that changes from slightly less than 88.1 MHz to slightly more according to the waveform being broadcast.

frequency: How often something vibrates or changes. Sounds are vibrations and can be represented by electrical signals that change at different rates; a low-pitched sound is represented by a slowly changing current, while a high-pitched sound is represented by a quickly changing current. Frequency is measured in cycles per second, or hertz (abbreviated Hz). Most people can hear notes as low as about 20 Hz and as high as 15,000 or 20,000 Hz. In terms of radio, frequency refers to the wavelength of the carrier signal of the station, such as 88.1 *MHz* for an *FM* station or 1,010 *kHz* for an *AM* station.

frequency balance: The relative volume of different parts of the audio frequency range, from low bass to high *treble*.

frequency response: This important specification indicates how evenly a component reproduces different frequencies. A typical spec might be 20 to 20,000  $Hz \pm 3 \, dB$ , which means that the component will reproduce sounds as low as 20 Hz and as high as 20,000 Hz, and all those in between, not more than 3 dB too loud or too soft. If a frequency-response specification does not include a tolerance (the plus-or-minus figure), it is essentially meaningless.

# graphic equalizer: see equalizer.

# head amp: see MC (moving-coil).

heads: The parts of a tape deck that impose a magnetic pattern on a tape (recording) or detect one that is already there (playback). Most audio decks also have another head for erasing tapes, randomizing the magnetic pattern on the tape so that a new one can be recorded. The heads of *analog* recorders are stationary, but those of *digital* audio tape (DAT) recorders rotate like the helical heads in videocassette recorders.

# HX Pro: see Dolby HX Pro.

Hz (hertz): The standard unit of *frequency*, named after the German physicist Heinrich Hertz. Measurements in hertz represent cycles per second, that is, changes away from a basic state and back again. In audio, the basic state is defined either as ordinary air pressure (without sound) or its electrical equivalent (a zero-level *signal*).

**impedance (imp):** The measure, in *ohms*, of the total opposition (resistance and reactance) that a component has to electrical power.

infinite-baffle: A type of speaker where the back wave produced by the driver is prevented from interfering with the front wave, usually by placing the driver in a sealed enclosure. See *acoustic-suspension*.

infrared: A part of the electromagnetic spectrum that is invisible to the human eye. Infrared *frequencies* are used by wireless remote controls to send *signals* to the components they control.

integrated amplifier: A component that performs the functions of both a *preamplifier* and a *power amplifier*.

**isolation:** The separation between a structure and everything surrounding it; usually used in reference to *turnta-ble* tonearms and platters.

kHz (kilohertz): 1,000 Hz.

LaserDisc: Pioneer's trademark for a laser-read videodisc. Other types of videodiscs are no longer available in the U.S. Because LaserDisc players are similar to compact disc players, some combination units can play both kinds of discs and even the new *CD videos*.

LCD (liquid-crystal display): A type of electronic readout that does not generate its own light, therefore using very little power.

LED (light-emitting diode): An LED readout that produces its own light.

**linear-tracking tonearm:** A type of tonearm that moves in a straight line across the radius of a record; see *pivoted tonearm*.

logic: In cassette decks, the ability to switch from one transport function, such as fast forward, to another, such as rewind, without first pressing the stop button; doing this in decks without logic controls can damage the tape. In a *surround-sound* system, logic circuits are used to process the encoded *signals* correctly.

**matrix:** Circuits in *surround-sound* processors that can synthesize a rear *channel* for ambience even if the original recording consists only of left and right *stereo* channels.

MC (moving-coil): A type of phono cartridge in which the magnets are stationary and the coils where the signal is generated move in response to the motions of the stylus in the record groove. Some MC cartridges produce very little current, and their output must be amplified to standard levels by a "head amp" or pre-preamplifier before further processing by a *phonopreamplifier* section.

MHz (megahertz): One million Hz.

**midrange:** The part of the audio *frequency* spectrum between the *bass* and the *treble* frequencies. The midrange includes most voices and the fundamental tones produced by most musical instruments.

MM (moving magnet): The most common type of phonograph cartridge. A moving-magnet cartridge has magnets attached to the interior end of its cantilever. The stylus motion causes these magnets to move near coils of wire, generating an electric current representing the audio signal.

mono (or monophonic): An audio signal in which all the information is combined in one channel; also, a component that handles only one channel, such as a mono amplifier (used in pairs for stereo programs).

MPX (multiplex): A method of combining two or more signals into one signal. Some tape decks have an MPX filter that removes the 19,000-Hz pilot tone from stereo FM broadcasts.

MTS (multichannel television sound): The system devised by Zenith and dbx for stereo TV broadcasting in the United States. An MTS decoder, which may be built into an audio or video component, receives stereo broadcasts and produces stereo signals from them. See SAP.

**mV** (millivolt): One thousandth of a volt.

 $\mu$ s (microsecond): One millionth of a second.

 $\mu V$  (microvolt): One millionth of a volt.

noise: An unwanted part of a processed *signal* that is not related to the original signal. Audio noise usually sounds like hiss.

NR (noise reduction): One of several systems designed to reduce the noise added to an *audio signal* during recording; see *dbx* and *Dolby*.

ohm: The basic unit of impedance.

**output level:** A measure of how strong a *signal* is produced by a component, usually in relation to the strength of the signal put into it.

oversampling: A digital filtering technique used in some compact disc players. The 44.1-kHz signal from the CD is sampled at some multiple of that *frequency* (usually two or four times), which has the effect of raising the frequencies of any spurious signals created by the sampling process well above the audio range. The spurious signals can then be removed by an *analog filter* with a gentle slope, which is said to cause fewer phase irregularities than the sharp-cutoff filter needed without oversampling.

PCM (pulse-code modulation): A system of recording that encodes an audio *signal* in a series of binary numbers (ones and zeros). Compact disc players, *digital* audio tape (DAT) decks, and digital signal processors all use PCM encoding.

**phono:** Abbreviation for "phonograph"; used to refer to the low-level signals produced by a phono cartridge and to the phono input where a turntable is connected to a preamplifier, integrated amplifier, or receiver. Phono inputs use RCA connectors, sometimes called phono plugs.

**pivoted tonearm:** The most common type of tonearm, it swivels on a fixed point so that the *cartridge* at its end can track the record groove from edge to center along a shallow arc. See *linear-tracking tonearm*.

**PLL** (phase-locked loop): A type of *tuner* circuit that improves reception of radio broadcasts by locking the received *frequency* to a synthesized reference frequency, which is usually generated by a quartz crystal.

**P-mount:** A standardized type of *phono cartridge* that can be plugged into any P-mount tonearm without need of adjustment or calibration.

**port:** An opening in a *bass-reflex* speaker that allows the sound wave from the back of a driver to reinforce the sound wave from the front.

power amplifier: A component that is designed to take an audio signal from

a *preamplifier* and make it strong enough to drive speakers.

**preamplifier:** A component that switches and processes audio *signals* from *source* components. The only amplification most preamplifiers do is of the low-level *phono* signals from *turntables* (more precisely, from phono *cartridges)*, raising them to the same level as signals from other source components (called "line level") and applying the necessary *RIAA equalization*.

pre-preamplifier: see MC (moving-coil).

**preset:** On a *tuner* or *receiver*, a memory position where the *frequency* of a selected radio station can be entered for instant recall.

**programming:** Giving a component instructions to carry out at a later time. For instance, many compact disc players can be programmed to play selected tracks in any order.

quartz-synthesis: see PLL.

random access: The ability to go directly to any part of a recorded sequence without having to scan the intervening sections.

**RCA connector:** The most common kind of connector for home audio systems, using small, one-pin *phono* plugs. The cables usually come in pairs, with the right *channel* marked in red and the left channel in black, gray, or white.

receiver: An audio component that performs three basic functions: receiving radio broadcasts, switching and processing audio *signals*, and amplifying the selected signal so it can drive *speakers*.

**RF (radio frequency):** The very highfrequency signals used to broadcast radio programs.

**RFI** (radio-frequency interference): Noise created in audio systems by interference from strong, nearby radio broadcasts.

**RIAA:** The Recording Industry Association of America, which has set standards for the equalization used on phonograph records. Every record has reduced *bass* and boosted *treble*,

and these characteristics must be compensated for on playback by the *phono preamplifier*.

rms (root mean square): A common method of averaging power measurements.

rumble: A measurement of how much motor noise is transmitted through a *turntable* to the *cartridge*. Lower numbers are better.

SAP (separate audio program): A separate mono channel that is broadcast along with the two stereo channels in the MTS system for stereo TV. The SAP channel can be used for various purposes, such as providing an alternative soundtrack in a language different from that used in the primary channels.

scan: A *tuner* feature used to move quickly from one broadcast station to another, stopping on each *frequency* for a few seconds so the user can sample it. On compact disc players, the scan feature is used to move around quickly within a track.

selectivity (sel): A specification that tells how well a *tuner* or *receiver* can differentiate between the selected broadcast *channel* and other stations using nearby *frequencies*. Adjacentchannel selectivity (adj-ch sel) measures rejection of signals from stations broadcasting on either side of the selected station; alternate-channel selectivity (alt-ch sel) measures rejection of signals from stations two channels away from the desired one. Higher numbers are better for both of these specifications.

semiautomatic turntable: A type that lifts the tonearm from the record automatically at the end of the side, though the *stylus* must still be set into the lead-in groove by hand.

sensitivity (sens): A measurement of *speaker efficiency* that tells how much sound is produced 1 meter away from the speaker with an input of 2.83 volts (1 *watt* into 8 *ohms*). Higher numbers are better.

separation: The difference, measured in decibels (dB), between the left and right channels of an audio signal, indicating the amount of leakage between channels in a component. Higher figures are better. signal: An electrical current that is modulated (changed) to represent information.

S/N (signal-to-noise ratio): The difference in level, measured in *decibels* (*dB*), between the loudest possible *signal* a component can produce and its residual *noise*. Higher numbers are better.

**source:** The program *signal* that is being recorded; also, components that provide program signals either by playing a recorded program (*turntables*, cassette decks, compact disc players, etc.) or receiving a broadcast program (*tuners* and *receivers*).

**specification:** A numerical measurement of a component's performance provided by the manufacturer.

**speaker (or loudspeaker):** a component that takes audio *signals* from a *receiver* or *amplifier* and converts them into sound waves.

SPL (sound-pressure level): A measure of acoustic energy, usually encountered in the *sensitivity* rating of a *speaker*; see dB.

stereo: The use of at least two separate *channels* (signal paths) to create the illusion that real music is being produced in the space between, and even beyond, a pair of speakers.

stylus: The needle-shaped material, usually diamond, at the end of the *cantilever* of a *phono cartridge* that is vibrated by the groove on a record.

subwoofer: A separate speaker designed to reproduce bass frequencies only. Subwoofers sometimes contain an *amplifier* and a *crossover* network.

surround sound: see Dolby Surround.

THD (total harmonic distortion): The percentage of an *audio signal* that consists of harmonics—multiples of the fundamental frequencies—introduced by an *amplifier* or other component in its handling of the original signal. Lower numbers are better.

tone controls: Volume controls that affect only certain parts of the audio signal, usually the bass and treble, sometimes also the midrange.

tracking: The ability of a compact

disc player or *phono cartridge* to follow the pattern recorded on a CD or vinyl record.

tracking error: In playing a record, the tonearm should hold the *cartridge* as perpendicular to the record's diameter as possible. The amount of degrees off is the tracking error.

tracking force: The pressure of a stylus on a record, usually measured in grams.

**transport:** The parts of a tape deck that move the tape, including the motor(s), hubs, *capstan(s)*, pinchroller(s), and other mechanisms.

treble: The high part of the audio frequency range; see bass and midrange.

tuner: A component that receives radio *signals* from an antenna and allows the user to select a specific station from the signals received.

turntable: Also known as a phonograph or record player, a turntable rotates vinyl records at the appropriate speed; see *cartridge* and *stylus*.

tweeter: A driver in a *speaker* that is designed to reproduce *treble* sounds (high *frequencies*).

vent: see port.

volume: The measure, usually in *decibels* (*dB*), of the strength of a sound-wave or of an audio *signal*.

W/ch (watts per channel): A specification that indicates how much power an *amplifier* or *receiver* will deliver to each of a pair of *speakers*.

**W&F (wow-and-flutter):** A combined *specification* indicating the speed accuracy of mechanical components such as *turntables* and cassette decks. Lower figures are better; see *wow* and *flutter*.

woofer: A driver in a speaker designed to reproduce the low, or bass, part of the audio frequency spectrum.

wow: A measurement of slow speed variations; usually combined with *flutter*, a measurement of fast speed variations. Lower figures are better.

wrms (weighted root mean square): see rms.

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