

STEREO 1983 BUYERS GUIDE

DIRECTORY OF OVER 3000 PRODUCTS
LATEST FEATURES • SPECIFICATIONS • PRICES

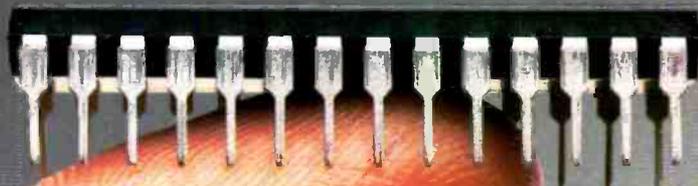
RECEIVERS • AMPLIFIERS • CASSETTE DECKS
CAR STEREO • SPEAKERS • TURNTABLES
PHONO CARTRIDGES • HEADPHONES
SIGNAL PROCESSORS • ETC.

**SPECIAL
CAR STEREO
SECTION**

BUYING ADVICE: How to Choose
and Upgrade a
Component System



WHAT YOUR EAR IS A BRAIN.



This tiny micro-processor is the latest innovation in Pioneer's best components. It can improve the way you listen to your music. And it can also improve your music.

THE SX-8 RECEIVER: DON'T TURN THAT DIAL.

How smart is smart?

For starters, the brain inside the SX-8 allows us to use push button controls, eliminating noise and distortion caused by mechanical dials.

So all you hear is crisp, clean music. Just the way it was recorded. The brain also willingly takes over the chores you used to do yourself.

Just push a button to raise or lower volume or tone, change stations, even check the time. Push the Scan Tuning button and the receiver automatically scans every strong station, playing five seconds of each one.

Then, simply touch the Memory button. Your station, volume, and tone settings will

Not that there's anything wrong with the one you've got.

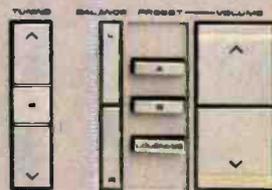
We just had something a little smaller in mind. More like the one you see here.

Technically, it's called a microprocessor or computer chip.

But we like to think of it as a little brain. Because when it's built into our Pioneer receivers, tape decks and turntables, they become more.

They become smart.

And when it comes to getting the most music out of your music, smart components have a lot of advantages over dumb ones.



All-electronic receiver operation does away with knobs and dials. Volume, station and bass and treble levels can be easily monitored thanks to L.E.D. readouts.

AS NEED

record. If you're not one of them, you'll take an immediate liking to the new PL-88F.

It's front loading, stackable and, best of all, it's fully programmable.

Punch in up to eight cuts per side in any order that makes your ears happy. The turntable will automatically skip the ones that don't.

And when you're recording from records to cassettes you'll appreciate the tape deck synchro that automatically

places any Pioneer Auto Reverse tape deck into the pause mode when the turntable tone arm lifts off the record. Leaving you free for more important things.

be instantly stored in the memory. Ready to be recalled just as fast.

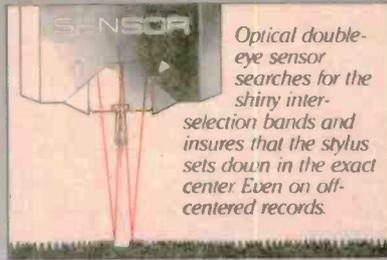
THE CT-9R TAPE DECK: SMART ENOUGH TO FIND NOTHING.

If you've ever done even a small amount of cassette recording, you've gone through the not-so-convenient fast forward/stop/play/reverse/stop/play procedure of trying to find the blank area where your last recording left off and the next one can begin.

The CT-9R, on the other hand, has a button marked Blank Search. Give it a push and it will find the area that's long enough to tape on, back up to the last recorded piece, leave a four second space and stop, ready to record.

Automatically.

And, as if that weren't enough, the CT-9R also has one of the world's fastest Automatic Bias Level Equalization systems. In plain English, that means that it takes just eight seconds for Auto B.L.E. to analyze the tape being used (no easy task with over 200 different tapes on the market) and then adjust the deck for optimum performance with that tape. Improving



Like listening to music.

The Pioneer CT-9R tape deck, SX-8 receiver and PL-88F turntable. Proof that to get the quality of music you buy quality components for, you don't need a lot of knowledge.

You just need a little brain.



PIONEER®

Because the music matters.



The real-time counter reads out the amount of tape left in meaningful minutes and seconds instead of meaningless inches.

the quality of your recordings faster than you can say "wow and flutter."

THE PL-88F TURNTABLE: IT WON'T PLAY WHAT YOU DON'T LIKE.

In the history of recorded music, there has probably been one, maybe two people who like every cut on a



Stereo Review's

STEREO 1983 BUYERS GUIDE®

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"Polk offers an uncommon amount of superior sound at a moderate price."

Stereo Review

"Polks are vastly superior to the competition." Musician Magazine

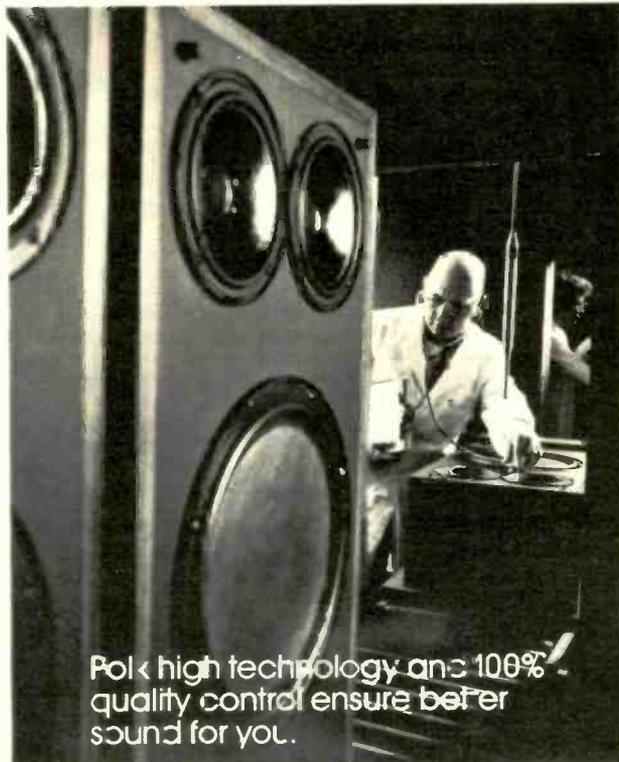
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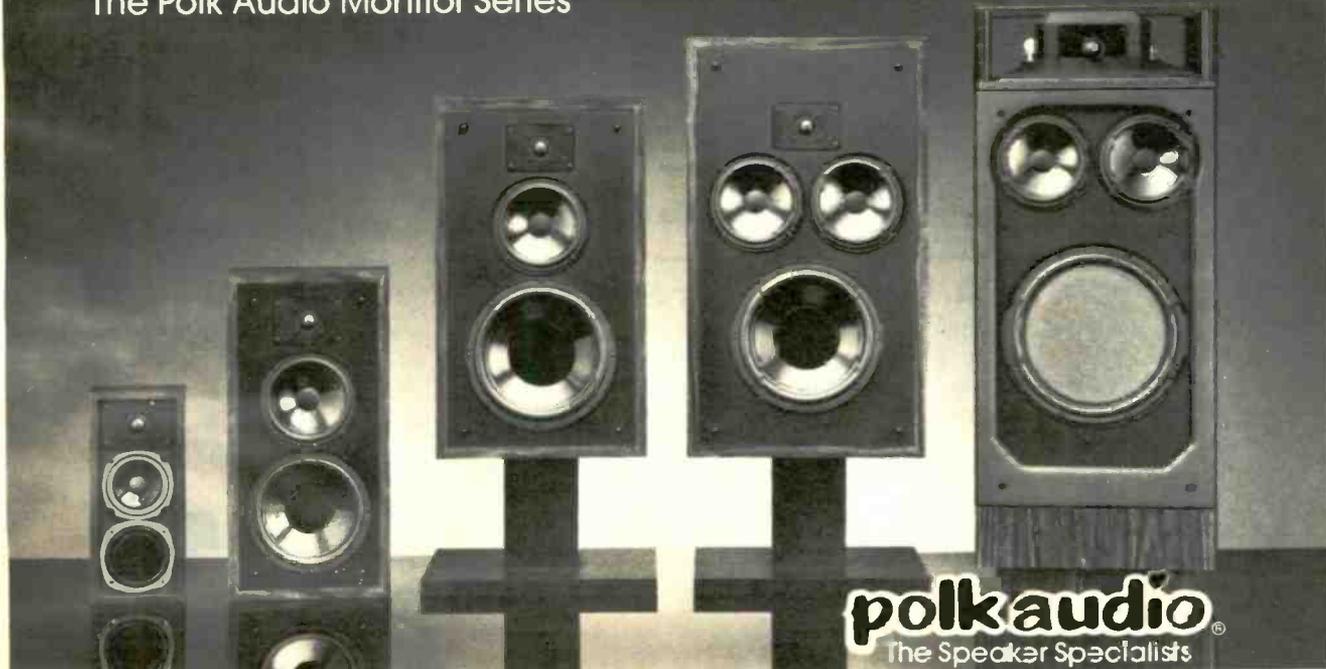
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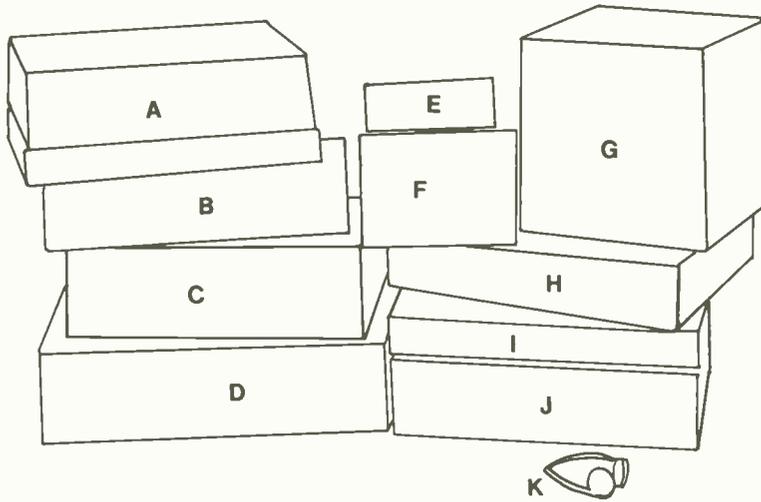
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The Polk Audio Monitor Series



polk audio[®]
The Speaker Specialists

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THE COVER

- A Dual Model CS1268 Turntable
- B Mission Model 776 Preamplifier
- C Yamaha Model M50 Power Amplifier
- D Realistic Model STA-2290 Receiver
- E Alpine Car Stereo Model 7135 AM/FM-Stereo/Cassette Player
- F B&W Model LM1 Speaker System
- G Allison Speaker System
- H Onkyo Model TA2070 Cassette Deck
- I Sherwood Model S-6020CP Preamplifier
- J Sherwood Model S-6040CP Power Amplifier
- K Koss "Sound Partners" Stereo Headphones

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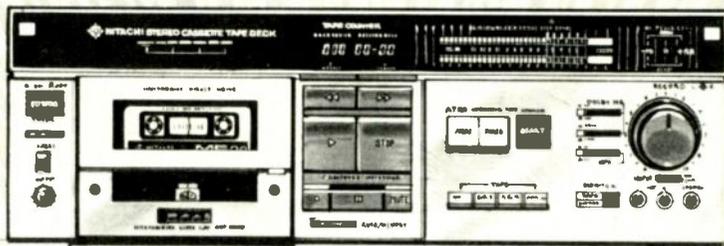
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alloy frame and Reference Standard Mechanism is the first metal reference tape in the industry. SA-X pushes high bias to its limits. AD-X normal bias is extraordinary in its wider dynamic range and its freedom from saturation at high frequency. SA-X and AD-X both feature TDK's specially engineered Laboratory Standard Mechanism. Each cassette comes with a Lifetime Warranty.

TDK's superior technology is just as evident in our SA/EE (Extra Efficiency) and GX open reel tapes. TDK SA/EE is the first open reel tape to use TDK's famous Super Avilyn particle. This gives SA/EE almost double the coercivity and high frequency MOL of conventional open reel tapes. GX

mastering tape offers a wide dynamic range, high MOL and low noise. Both SA/EE and GX feature low distortion and extended frequency response.

MA-R, SA-X, AD-X, SA/EE and GX—they're five of the music world's finest instruments for all of the music and instruments you record. One final note. TDK's new Professional Reference Series of audio cassettes now comes in bold, new packaging. So they stand out in sight just as they stand out in sound.

TDK
THE MACHINE FOR YOUR MACHINE

GETTING STARTED IN HI-FI

By Harold A. Rodgers

If you're involved in selecting your first hi-fi system, you've already found that there are just too many brands, too many models, and too many options to make the choice an easy one. What follows are some guidelines to help you select the components of your stereo system from the vast number of products competing for your dollar. Your goal will be to narrow the choices of equipment down to a few in each category (speakers, phono cartridges, etc.) and study those fairly intensively.

The basic product source material you need is already in your hands—the directory section of this publication, which lists product specifications, features, and the maker's suggested retail price. Add to this informational tool a few other ingredients, as follows. Read product reviews, such as those that appear in STEREO REVIEW and other magazines; read advertisements to learn what the manufacturers claim to be important; and discuss hi-fi with other people who own good stereo systems.

•**Basic Stereo Systems.** Since music exists in the real world as a series of sound waves, something must project those waves to your ears. Most often that something is a loudspeaker (although headphones are an alternative); so we can start by listing a pair of speaker systems as a basic element of the system.

Next, working backward through the chain, the speaker systems must have a source of electric power to run them. In this case, the source is a power amplifier, the second basic component of the system. Continuing, we find that the power amplifier requires information about what it is to make the speaker systems do. This information comes from the preamplifier, supplied in the form of an electrical signal.

Since the preamplifier, or preamp for short, has no means of storing music within itself, it, too, must get its signals

from the outside. These signals come from such sources as a record player, AM/FM tuner, or tape deck. Normally, the preamp incorporates a selector switch that connects the sources into the system one at a time. As the signals may require processing and amplification before being applied to the power amplifier, these functions are also performed by the preamp.

A tuner, essentially a radio without an amplifier or speaker, is relatively self-contained. Its input signal travels through the air from a radio station, is captured by an antenna, and is fed to the input terminals on the tuner. A tape deck, similarly self-contained, gets its input signal from a cassette or open-reel tape or, during recording, from any of the other signal sources connected to the system. A record player, on the other hand, is made up of subcomponents—a turntable that rotates the record and a tonearm with a phono pickup cartridge equipped with a stylus that contacts the grooves in the record. The stylus converts the motion of the groove walls into a corresponding electrical signal that's eventually fed to the preamp. Most often, the turntable and cartridge are bought as separate items, although not always.

In basic stereo systems, the power amplifier, preamp, and tuner are usually combined into a single component known as a *receiver*. The economies of this approach allow the manufacturer to charge less for the combined equivalent elements than if the parts were purchased separately. However, as we examine those electronic elements in more detail, a receiver permits somewhat less flexibility than is possible with separate components. Nevertheless, it's the most popular choice among stereo-component buyers, particularly those putting together their first systems.

Regardless of how the system elements are packaged, they must perform the same specific functions. That is, the power

er amplifier section of a receiver or integrated amplifier (power amp and preamp packaged together) has exactly the same task as a separate power amplifier. The same holds true for, say, the preamp or tuner section of a receiver, compared with the respective separate components. This being the case, let's investigate the electronic elements independently of the way they're packaged.

•**Power Amplifiers.** In essence, the job of the power amplifier is to boost the strength of the signal fed into it by the preamp and produce an output with enough power to drive the speaker systems. Basically, the higher the power of an amplifier, the more you pay for it and the louder a given efficiency speaker system will play without distortion.

The development of power amplifiers has reached a point where distortion is rarely a problem. Distortion levels vary and are often touted by competing manufacturers, but as a practical matter, it's not likely that you'll hear distortion from any modern power amplifier—as long as you're not trying to drive it beyond its power rating.

Distortion is usually expressed as a percentage and, in general, an amplifier that produces 0.1% distortion at full output power won't sound better if the distortion is made lower. Finding an amplifier with rated distortion at least as low as this shouldn't be a problem.

On the other hand, careful attention should be paid to the maximum output power an amplifier can develop without producing excessive distortion. You'll find amplifiers or amplifier sections of receivers rated with a specification closely resembling "X watts per channel into 8 ohms from 20-20,000 Hz at no more than Y% distortion." If an amplifier is driven much beyond its rated power (in watts), distortion increases very rapidly and the sound becomes extremely unpleasant. In addition, an overdriven amplifier can

Introducing a scientific first in stereophone transducer technology and sound.



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By combining a solid state piezoelectric tweeter with a rare earth moving coil transducer, Koss engineers have created a new first in hybrid transducer technology. It's the new Koss PRO/4x. And it's the ultimate in both stereophone listening and the Sound of Koss.

The PRO/4x's unique tweeter design features a piezoelectric bimorph disc mounted to an acrylic impregnated cone. Incredibly, the piezoelectric's bimorph disc moves the cone at frequencies from 2,500 Hz to over 40,000 Hz! That means you'll hear the full timbre of each musical instrument without the harmonic distortion found in headphones that peak out at much lower frequencies.



New Koss Hybrid element

But if the PRO/4x's tweeter can give you a spine tingling thrill, wait till you hear the bass and midrange. The new PRO/4x features a powerful, yet extremely light, samarium cobalt magnet moving coil transducer that reproduces a deep rich bass and a clean, clear midrange. In addition, the PRO/4x's unique floating earplate and Pneumalite® earcushion design conforms automatically to the optimum position for both comfort and maximum seal around the ear for bass performance to below audibility.

Visit your Koss dealer so you can hear how Koss has extended the state-of-the-art in stereophone sound and design with the new PRO/4x. Once you've heard it, you'll never settle for less.

Suggested retail: \$85.

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GETTING STARTED...

very easily damage the speaker systems to which it's connected. In fact, overdriven low-power amplifiers may be responsible for more damaged speakers than are high-power amplifiers.

Playing music loudly takes more power than playing music softly. However, loudness isn't the only criterion for determining your power requirements. Speaker systems vary in the amount of sound they produce for a given input power, the variation generally being in the range of 10:1. It wouldn't be difficult to find speaker A and speaker B that sound equally loud when A is driven by 10 watts and B is driven by 100 watts. This is an important point to consider when choosing a system, because a 100-watt amplifier is far more costly than one that delivers 10 watts.

A difficult point to appreciate about amplifier power is that it doesn't translate into loudness on a one-for-one basis. This has nothing to do with the equipment; rather, it results from characteristics of the human ear. A doubling of the apparent loudness of a sound requires a tenfold increase in power. And a doubling of power is just barely noticeable!

The upshot of all this is that one shouldn't be impressed by small differences in power. If, say, a 25-watt/channel amplifier is unable to produce a satisfying level of loudness driving a given speaker system, substituting a 50-watt/channel amplifier will result in only a marginally louder sound from the same speaker system. A significant increase in sound output would probably require at least 100 watts/channel. (Note that the position of the volume control does *not* correlate with the percentage of its wattage an amplifier is putting out.)

A final characteristic of a power amplifier is the load impedance for which it's rated. Impedance is a somewhat difficult concept to understand, requiring some basic knowledge of electrical circuit theory. In a basic stereo system, in which the amplifier will never drive more than two speaker systems, there's little cause to concern yourself about it. Only when each channel is intended to drive several speaker systems is there any potential for problems. What to do in a case like this will be covered in the article on upgrading stereo systems that follows.

•**Preamplifiers.** The principal job of a preamp is to act as a control center of the system and to route the program material as desired. Clearly, then, it must accept inputs from all the program sources you'll have. Generally, most preamps, including the preamp sections of integrated amplifiers and receivers, have inputs for

phono, tuner, tape, and auxiliary (AUX) sources as a basic minimum. A tape-monitor connection permits you to record and play back without changing cable connections. For higher cost, there are preamps with extra inputs (for example, a second phono or second or third tape recorder, with switches that permit the recorders to feed each other for tape copying). Make sure that your preamp has enough inputs to suit your further expansion plans, if any.

Another function performed by the control center is program equalization via tone controls that boost or cut the treble or bass. Some designs include controls for the midrange.

Tone controls tend to be most useful if: 1) they confine their action to the proper part of the audio spectrum (for example, the treble control should have little or no effect on the bass and very little on the midrange); and 2) their action is smooth and gradual. The best way to check for this is to try the controls and listen to the effect on wide-range music, although this will depend to some degree on the tonal characteristics of your speaker systems.

The phono-input stage is unlike any of the other program-source inputs. Since the signal supplied to it by a phono cartridge is very weak, it must provide more amplification than the other inputs. Also, since the signal recorded on phonograph records is (for technical reasons that needn't be discussed here) severely reduced in bass and heavily boosted in treble, the phono input stage must reverse the process to restore this equalized signal to normal. How accurately it does this and how it interfaces with the phono cartridge you use can significantly affect frequency response and distortion.

•**Tuners.** The job of an FM tuner is to boost the minute signal picked up by the antenna, select a single station from among the dozens on the air in a particular area, demodulate the selected broadcast to recover the audio signal, and deliver the audio to its output. Its principal attributes are selectivity (the ability to single out a particular station without interference from others) and sensitivity (ability to separate weak signals from background hiss or noise). Another desirable attribute is the ability to discriminate against multipath signals, which because of reflections from buildings and the terrain arrive at the tuner as multiple "echos." Multipath, the same phenomenon that gives rise to TV "ghosts," can make an FM signal noisy and distorted.

The numerical specifications that describe tuner performance are almost always given in decibels (abbreviated dB) nowadays, and some of their exact meanings are rather subtle. The beginner who lives in an urban or suburban area within 30 miles or so of FM stations can simpli-

fy his research by looking for a sensitivity figure of as few dB as possible, a selectivity figure of as many dB as possible, and a capture ratio figure of as few dB as possible. Sensitivity figures are generally qualified as "minimum usable" or "for 30-dB quieting" or "for 50-dB signal-to-noise ratio." By far the most meaningful sensitivity specification is "for 50-dB quieting in stereo." Be sure, too, that you aren't comparing one tuner's monophonic rating with another's stereo rating; the mono rating will look decidedly better.

Some tuners contain high-technology features, such as digital-numeric displays, multiple station presets, that are attractive and in many respects convenient, but don't necessarily provide *performance* advantages. While it's true that digital tuning might offer slightly more accurate tuning advantages or marginally lower distortion, manual tuning will likely sound as good.

Taken together, the power amp, preamp, and tuner constitute the electronic part of the stereo system. When combined in the form of a receiver, about 40% of a system's total budget should be applied to their purchase. If you intend to buy separate units (integrated amplifier plus tuner, or preamp, power amp, and tuner), allow an extra 5% or 10% in your budget. A cassette deck should be budgeted separately.

•**Phono Equipment.** As far as buying decisions are concerned, a record-playing system consists of two units: a turntable/toner combination and a phono cartridge. The main attributes of the turntable are its ability to rotate the record at a steady and precise speed without producing objectionable electrical or mechanical noise—such as rumble—and to properly support the cartridge as it plays the record.

Wow and flutter, the turntable's speed irregularities, should be as small as possible, preferably on the low side of 0.1%. Note that wow and flutter figures are normally adjusted (weighted) for audibility and that weighting systems used aren't always the same. Therefore, it's important to compare wow and flutter figures in the same weighting system (rms or peak).

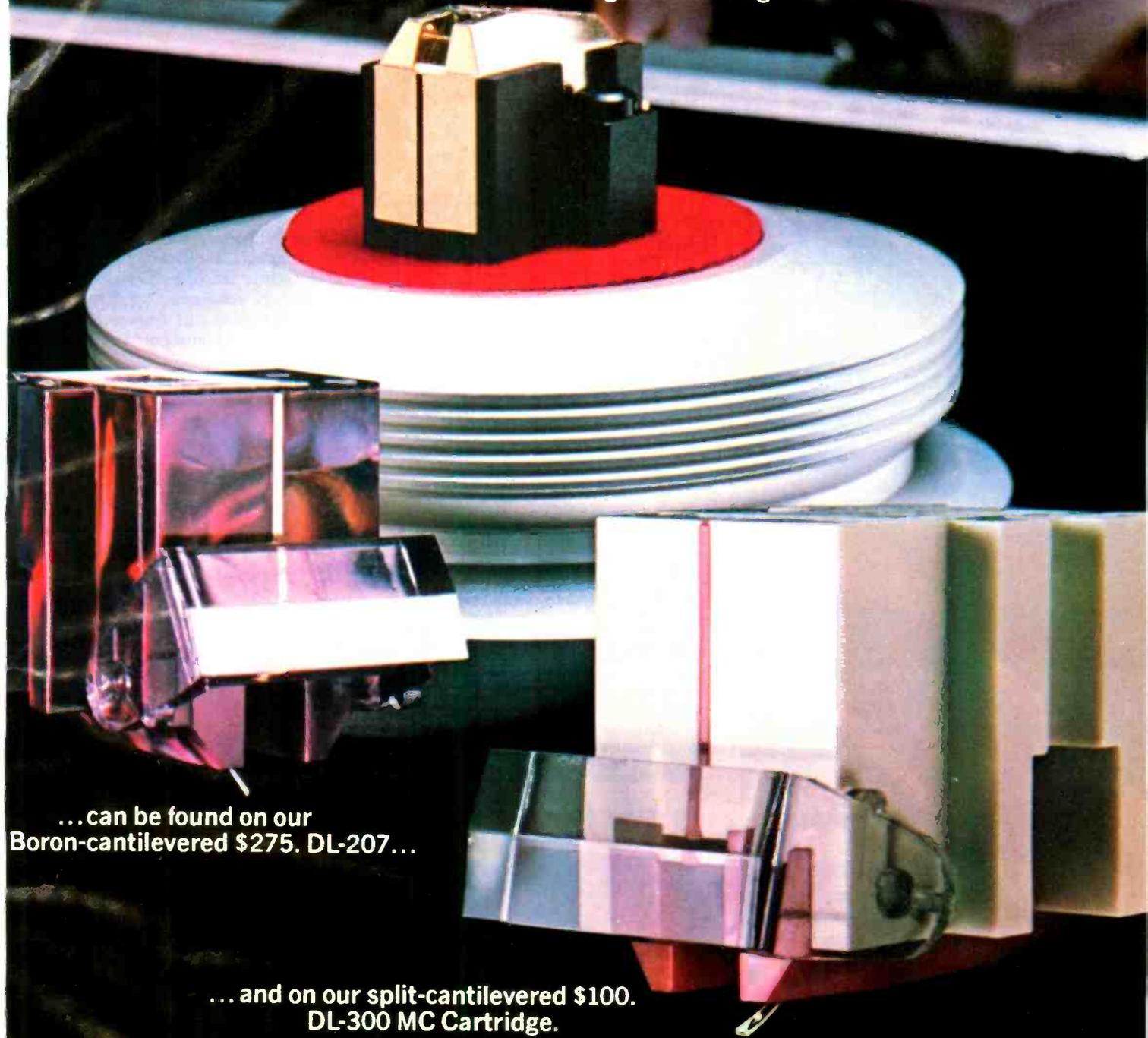
Rumble is usually specified in negative decibels, and a figure of -70 dB is better than one of -60 dB. The same precautions for weighted data also apply here.

Support of the cartridge with proper geometry is reflected by tracking error, which should be as small as possible. As a practical matter, however, there isn't much variation between turntables, particularly at the low end of the market. Other things being equal, the toner's mass should be as low as possible.

Choosing an appropriate cartridge for

DESIGN INTEGRITY:

The same pick-up technology developed for our \$1,000.
DL-1000 Low Mass Moving Coil Cartridge...



...can be found on our
Boron-cantilevered \$275. DL-207...

... and on our split-cantilevered \$100.
DL-300 MC Cartridge.

The perhaps ultimately low effective tip mass of Denon's most expensive cartridge establishes new standards for cartridge tracing and minimal record wear (the recommended stylus force is a mere 0.8g). Yet the basic design configuration of the DL-1000 is common to many Denon cartridges.

For example, an amorphous deposition Boron cantilever (with the highest rigidity/weight ratio known) is also used on Denon's new DL-207, as is Denon's original dual damping mechanism, which effectively cancels resonances in the two critical portions of the musical bandwidth.

More amazing, perhaps, is the fact that Denon's *least* expensive cartridge, the DL-300, benefits from much of the technology that has made Denon Moving Coil Cartridges the world's reference standard for years. Like the DL-1000, it features a cross-coil armature (for better stereo separation and imagery), a poleless magnetic structure (for vastly reduced weight), and a single-point cantilever suspension system (for maximum compliance *and* strength).

Denon products share more than name alone.

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Auto
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A-30**

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Auto Reverse Cas-
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Graphic Equalizer, lock
In Fast Forward and
Rewind, switches for
Stereo/Mono, AM/FM,
Local/Distant, and
Tape Programs. 22
watts per channel.



**NEW
6860**

Features 10
Band Stereo
Graphic Equalizer
/Booster with 80
watts RMS (20 watts x
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Indicators, 10 Slide Bar
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Circle No. 32 for Information on Lear Jet products.

a turntable's tonearm is one of the more critical bits of matchmaking you'll be called upon to do. Generally, both the stylus and the records that are played wear less if the downward or tracking force on the cartridge is kept small. But if it's set too low, mistracking will occur, with dire consequences to both the sound and the life of the record. The lightest tracking force that can be used without disc damage depends on the cartridge chosen and characteristics of the tonearm. Cartridges that track at the lowest forces work best with low-mass tonearms. Beware, therefore, of matching a sophisticated cartridge with a budget turntable/tonearm; both must be upgraded together.

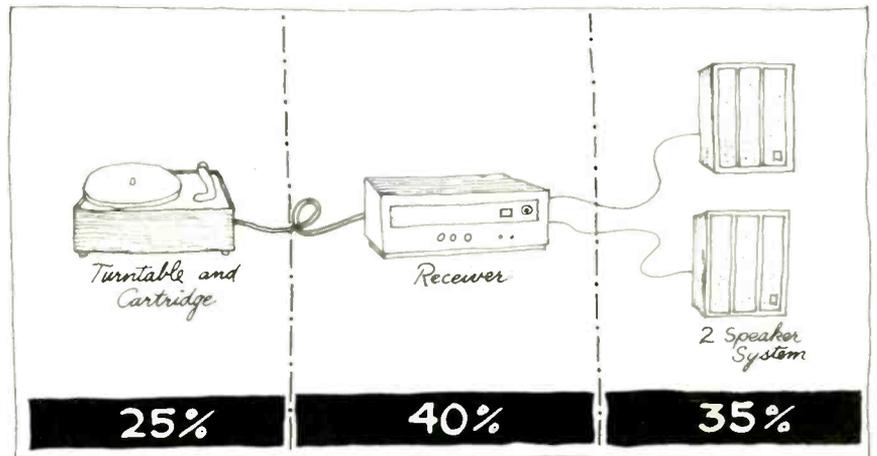
There's more to a record player than just its performance; convenience is an important consideration. If you're on a tight budget and are sure-handed as well, a manual turntable that requires you to position the tonearm at the start of a record side and pick it up again at the

end of play may be a best bet. At the other end of the spectrum are automatic single-play models that execute all the necessary single-play functions at the touch of a button. Semiautomatic models generally require a manual start but provide automatic tonearm return at end of play. Cost tends to rise with additional automation.

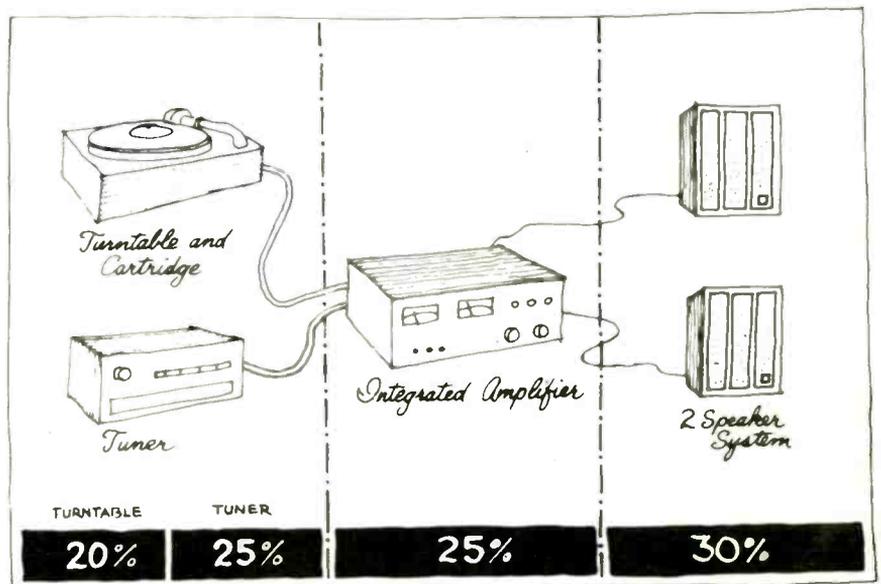
Turntables are sometimes classified according to how the rotating platter is coupled to its drive motor—by belt or directly. Direct-drive models now predominate, although there are still proponents of belt drive who claim that it produces inherently less rumble than direct drive.

Some turntables have their speed referenced to a highly accurate quartz crystal oscillator, rather than to the ac power line, as has been customary. While this is an undeniable gain, this feature might well be foregone by anyone on a tight budget.

Until now, frequency response, one of the commonest buzzwords of high fidelity



In simplest system, greatest dollar amount is apportioned to the receiver.



In intermediate system, more money should be apportioned to input devices.

DESIGN INTEGRITY:

The same Dynamic Servo Tracer tonearm technology found on our \$6,200. DP-100M...
Cutting Lathe Motor AC Direct Drive Turntable.

... can be found on our \$525. DP-52F..
Microprocessor-controlled Fully Automatic AC Direct Drive Turntable.

and on our \$199. DP-11F.
Fully Automatic Flat-Twin Direct
Drive Compact Turntable.

Instead of gimmicks, the Denon DP-100M uses the same cutting lathe motor that creates disc masters. Its Dynamic Servo Tracer system, working in concert with a Denon high-precision, ultra-low mass tonearm effectively suppresses resonances while providing the proper damping for the widest variety of cartridges.

The same Dynamic Servo Tracer system is incorporated on the DP-52F, making it one of the most effective playback systems ever developed for warped and hard-to-trace records. Damping, anti-skating and tonearm lift/locate are all applied through microprocessor-controlled non-contact electronics. Its AC Servo motor employs the same drive principle and magnetic speed control found on Denon's DP-100M.

The DP-11F introduces Denon design technology to a new price category. It features magnetic speed detection, a Flat-Twin Direct Drive motor and the same Microprocessor-controlled Dynamic Servo Tracer tonearm system found at the very top of our line.

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Prices shown are for comparison purposes only.

GETTING STARTED...

ty, has hardly been mentioned. That's because turntables have no frequency response as such, although there may be resonances that to some degree affect the audible response. But in the case of phono cartridges, frequency response is a key consideration.

Nowadays, practically all cartridges have frequency responses extending from 20 hertz (cycles per second, abbreviated Hz) to 20,000 Hz, the limits of audible sound. What separates the good from the mediocre is the amount of variation across this range of frequencies. A cartridge with tight tolerances might vary as little as ± 0.5 dB, while a budget cartridge might vary by as much as 4 or 5 dB.

Another advanced feature found in midpriced and more expensive cartridges are elliptical and even more sophisticated stylus shapes that lengthen the contact area between stylus and disc, while keeping it as narrow as possible. Generally speaking, such styli tend to wear records less and produce slightly less distortion.

In most basic systems, just about 25% of the total budget should be earmarked for the turntable/cartridge system. In a system consisting of separate electronic components, this proportion should be reduced to about 20%.

•**Tape Decks.** Since the cost of open-reel decks can reach some fairly rarified levels, our discussion will be limited to cassette decks.

A cassette deck can be divided into two parts: the transport, which is the mechanical section that holds and moves the tape, and the electronics section that consists of the heads that record and sense the magnetism of the tape and the circuitry that amplifies and processes the signals as necessary. As with turntables, it's necessary that tape movement be as accurate and stable as possible. Good specifications for wow and flutter are, in fact, about the same as for turntables—about 0.1% or, preferably, less. (Weighting factors are used here, too; so remember to take them into account when you make comparisons.)

Signal-to-noise ratio (abbreviated S/N), the ratio of the loudest signal the deck can accept at a given distortion level to the level of residual noise, is an important consideration. Budget decks can generally manage 50 to 55 dB in this department, a level of performance that would usually be considered somewhat marginal. As a result noise reduction is customarily included in the deck's electronics.

The noise-reduction system commonly included is Dolby B, which improves the

S/N ratio by about 10 dB. The total S/N ratio with Dolby B, now 60 to 65 dB, is thus made adequate. Other noise-reduction systems, such as Dolby C, which reduces noise by 20 dB, and dbx, which in principle doubles the S/N ratio, are often included in higher-priced decks and are now finding their way down to the lower-priced models.

The principles of tape recording are far too complicated to discuss in any detail here; so, it won't be possible to explain the workings of all the controls and features. Nevertheless, a few basic recommendations can be made:

1) Look for a deck that can record and play back ferric-oxide and chromium-dioxide or "chrome-equivalent" tapes (which are engineered to have parameters similar to chromium dioxide).

2) Don't worry about ferrichrome tapes, which are a sort of hybrid between ferric and chrome. They aren't often used, and provisions for them are omitted from many machines.

3) Although there's been a proliferation of low-priced decks, able to record and play metal-particle tapes, don't pay too much attention to this capability. Any deck that can play chrome tapes can play metal tapes, and it's seldom necessary to use metal tape for recording unless you're using a live source that produces unpredictably high levels or dubbing audiophile discs. If you plan to do this type of recording, you should get a high-quality (expensive) cassette or open-reel deck.

4) Although a few decks have a frequency response that extends fairly flat to 20 kHz or beyond, such decks are very expensive. As a practical matter, response extending to 16 kHz or so is sufficient to make copies of records that are virtually indistinguishable from the original.

5) Most decks have metering systems to let you monitor the levels of signals recorded onto the tape. It's important to observe these levels; otherwise, the tape may overload (with distortion and loss of highs), or the soft parts of the music may be obscured by background noise. Indicators are easiest to use, especially for beginners, if they show peak, rather than average, levels.

•**Speaker Systems.** These are the only components in the system that actually make sound. No matter how high the quality of the components ahead of them in the signal path, poor speakers will make the entire system sound bad. Unfortunately, the choice of speaker systems is the point at which it's easiest to go wrong.

When all is said and done, the only safe way to choose a speaker system is to try it out in your home. More and more of the better quality audio dealers permit

this. Generally, the arrangement permits you to return a pair of speaker systems (if in perfect condition) for full-value trade-in on another pair. Most reputable dealers will be pleased to offer a trial period in your home, but check this before making a final decision.

Of course, an audition in a store is first necessary to select the pair you'll want to try in your home. Listen to a number of speaker systems in the dealer's showroom to narrow down the choices. Bear in mind that the showroom's acoustics will almost certainly be different from those of your own listening room.

It's often recommended that you take one or more records you know well along to an audition to use as program material. But if you've been listening to antiquated equipment, the improvement will be so great and the sound so different that you can end up totally confused.

A better idea if you have willing friends who own good-quality stereo equipment, is to buy a new record and listen to it through their systems. This way, you'll have a better idea of what to expect and what to listen for in the store. Lacking friends to assist you in this way, it's probably best to use the dealer's program material. If you do this, make sure that the demonstrator plays the type of music you listen to. And while you're at it, make sure the speaker systems can be played loud enough to suit you using an amplifier you can afford. Also, make sure that when the dealer switches from one speaker system to another the audible levels are the same. Otherwise, the louder one will always sound better—even if it isn't. Another caution: Many dealers have "house-brand" speaker systems of unknown quality on which they make substantially greater profit. If the speaker that's being pushed isn't listed in this directory, be very cautious.

•**Choosing A System.** As may be obvious by now, you should select your speaker systems first, allotting to them about 40% of your system budget. Next, select the electronics (receiver or separates) that are capable of adequately driving your speaker systems. Finally, you'll choose a turntable and cartridge, remembering that the match between them is critical.

Now that you have some idea of what the entries in the directory mean (and have consulted the glossary elsewhere in this publication for help with the technical terms), you should get some idea of what components are within your reach. Remember, though, that prices are often discounted from those given in the directory, especially in the larger cities.

Whatever course you choose in selecting equipment for your hi-fi system, try to get all the information you can every time you're faced with a decision. And take your time—haste may make waste.

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Stepping Up To Higher Fi

By Harold A. Rodgers

It can happen at any time. The beloved stereo system that has served faithfully and given great satisfaction just doesn't seem to be cutting the mustard anymore—and, quite possibly, you aren't even sure why. Has the moment arrived to sell the system you have and start over with something better? Maybe it has. But before you visit your audio dealer, it may pay you to consider the possibility of replacing only *part* of the system, or, perhaps, adding to it. That's what upgrading is all about, and it can save you money.

Audio system upgrades can be divided into two broad classes. In the first, a component whose performance is substandard with respect to the whole is identified and replaced; in the second, a new component or processor is added to the system, providing capabilities that were not there before. Either type requires some analysis—the first to determine which is the malperforming component and what form of replacement will truly be an improvement; the second to be sure that the system can really use the new capability.

Reexamining the System. Probably the first thing you should do in approaching a system that is a candidate for upgrading is to be sure that it is operating correctly and is properly installed in its location. The finest speaker systems cannot satisfy your ear if they are radiating all their high frequencies into an overstuffed chair or if they have been so inappropriately placed that their woofers excite all kinds of nasty resonances in the listening room. Likewise, a phono cartridge cannot do its job properly if its stylus is badly worn. (Incidentally, some cartridge bodies will accept replacement stylus assemblies that are of higher quality than the original.) More serious malfunctions, though not especially common, are possible. If you are in serious doubt, the cost of the services of a maintenance technician can represent money well spent. But do check for

bad connections and inadvertently misadjusted controls.

Assuming that everything is working as it should and the sound is still unsatisfactory, the next task is to determine which component is the culprit. This is not always simple, for it is easy for a fault in one area to seem as if it is somewhere else. For example, what seems like an inadequate speaker could really be an amplifier running out of power during loud passages. Let's take a look at the various system components and see how they might misbehave.

• **Power Amplifiers.** Given a power amplifier of reasonable quality to begin with, and in proper working order, the main reason to replace it would be that it has too little power. In such a case, the amplifier would be driven into clipping each time some loud music passage comes along. If an oscilloscope

is available, checking this is easy. Simply set the level of loudness you like and observe the output waveform across the loudspeaker terminals. Significant flat-topping (or flat-bottoming) of the waveform means the amplifier's output-power capability is too small. Double-check by reducing the volume. If the problem is indeed insufficient power, the clipping should cease at reduced volume.

If you lack a scope—as most of us do—you should arrange to borrow an amplifier with more power. Connect it into the system and, once again, listen at the level of loudness you prefer. A notable improvement in sound means that your amplifier was most likely underpowered. Do not fall into the trap of buying a new amplifier whose output power is the same as or close to that of the one you now have just because the distortion specification is lower. Even the least impressive



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1977—Straight Low Mass Tonearms

1978—Auto Accubias

1979—Super Servo & Linear Switching For Amplifiers

1980—First Cassette/Receivers

1981—High Speed Dubbing Cassette Decks, Real Time Counters

1982—Receivers With Built-In CX Decoders



If you're surprised to learn that Onkyo was responsible for many of the major innovations in audio, maybe it's time you checked us out. You'll find complete descriptions of our receivers, tuners, cassette decks, amplifiers, turntables and speakers in the pages of this guide. We're certain that once you compare features, specs and price with other equipment, you'll agree "nobody knows more about audio than Onkyo".

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distortion figures seen these days are much smaller than anything the ear can detect.

There are also some more subtle ways in which an amplifier can cause grief. One is that it may not "like" the load presented by your speakers. In this situation, the amp may clip, break into oscillation, or trip its protection circuitry. Here, too, an oscilloscope will help to pinpoint the problem. Substituting a new amplifier may also help, but if your speakers present an unusual load, it may take an equally unusual amp to drive them happily. You would do well to try an amplifier capable of handling low-impedance loads (down to 2 ohms, if possible) before concluding that the trouble lies elsewhere.

• **Speaker System.** Since even the best speaker systems are not perfect and, therefore, impart some coloration to the reproduced sound, it is possible that a new pair of speakers will put the bloom back into your stereo system. Perhaps your best course here is to visit your friendly dealer and start auditioning speaker systems. We specify a friendly dealer because the only way you will be certain that the new speakers will put the matter right is if you get to take them home on trial. Failing that, if the dealer happens to stock the model you have now, audition the new candidates against a pair of those. Another possibility is that if the dealer will not let you take speakers home to try, he will let you bring yours in to audition them against what he carries.

If you are fortunate, your present amplifier will be just perfect for the new speakers you want to add to your system. But you may also find that it can: (a) overdrive the speakers to the point where the slightest error will reduce the cones to smoking confetti or (b) run itself into clipping trying to drive speakers that demand more power than it has available.

The first problem can be neatly solved by introducing fuses between the amplifier and speakers. If sized correctly--your dealer or the manufacturer can help you with this--they will blow before any harm comes to the speakers. In the second case, however, you must either buy a more powerful amplifier or start to audition speakers whose efficiency is higher. (As a general rule, vented or ported speakers are more efficient than those in sealed cabinets.)

Just as a poor speaker system can hide some of the good things done by the rest of the system, an excellent one can captiously expose faults. This author can recall trading up to a pair of

speakers with bass performance that was soul-stirring rather than merely adequate, only to find that the system was rendered virtually unlistenable by turntable rumble that, previously innocuous, was now reproduced with pristine accuracy. Needless to say, the turntable was soon replaced as well.

• **Record-Playing Equipment.** Probably the best place to upgrade is where corners were cut on the original purchase. All too often, this means the phono cartridge. Few things can give a system the shot in the arm that comes from replacing a cartridge "thrown in" by the dealer or purchased for whatever was left in the budget after the rest of the system was bought. Unfortunately, however, this seemingly simple move can often lead to complications.

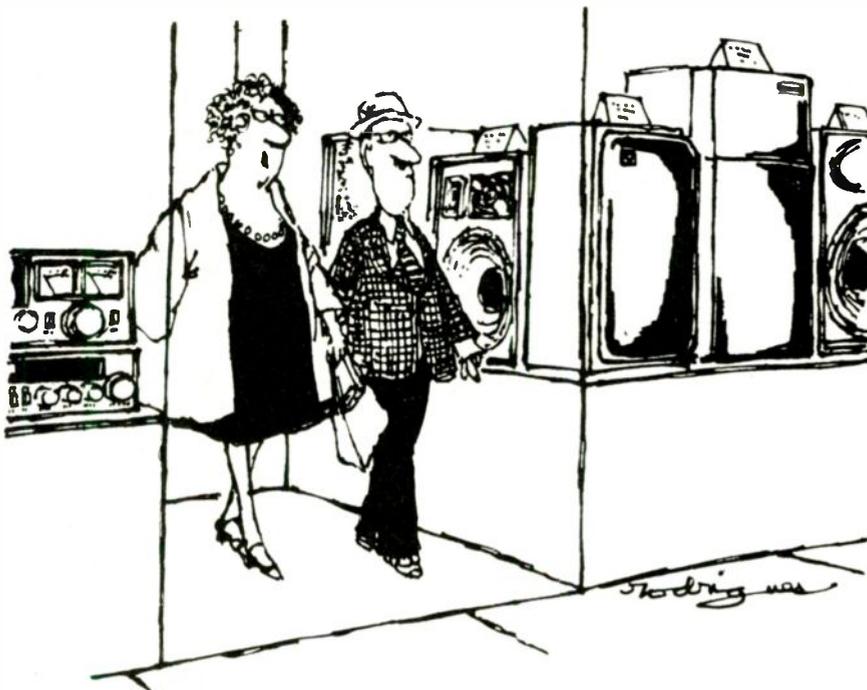
The difficulty is that not every cartridge will work with every tonearm. Moreover, the better the cartridge, the more likely it is to be fussy about its tonearm. Mechanical resonance between the combined mass of the tonearm and cartridge body and the compliance of the cantilever suspension is the problem. It is not possible to eliminate this resonance; the best that can be done is to locate it where it does the least harm. The ideal spot is at about 10 Hz, well below audio cutoff (20 Hz), and above the region (6 Hz) where warps are most common.

Cartridges of high quality are most often designed to work at lower track-

ing forces than their cheaper brethren and, therefore, have styli that are suspended more compliantly. This increase in compliance lowers the resonance and may make the system mechanically unstable, especially when it comes time to track warped records. To offset this problem, a high-compliance cartridge wants a tonearm of lower mass, which will move the resonance back to a more convenient point.

What this all means is that you can probably affix a medium-quality cartridge with moderate compliance to a budget turntable/tonearm combination with good results. If you intend to move close to the top of the line, however, you may well have to get a better turntable (or, at least, a lighter tonearm). Of course, sonic performance is not the only reason to upgrade record-playing equipment. Convenience counts for something, too. In fact, if you have ever had a ham-fisted guest scratch a valued record while fumbling with a manually operated tonearm, you may agree that convenience features such as automatic starting and stopping may be beneficial to the sound of your system after all.

• **FM Tuners.** Generally, what demotes an FM tuner that was previously satisfactory into the ranks of marginal performers is relocation. A tuner that was just fine in the city where stations were nearby may be over its head in a rural area where it must deal with very weak signals. Conversely, a sensitive



"...THIS HAS TO BE THE TENTH STORE -- DOES THERE HAVE TO BE A LITTLE ALLIGATOR ON THE GRILL CLOTH?"

HIGHER FI.....

unit that coped well with weak signals that were well-separated in frequency may not be selective enough to separate individual stations in crowded urban airspace.

More and more, however, engineers are mastering the tradeoffs involved in tuner design, so that a good-quality tuner purchased nowadays will probably function adequately--if not in exemplary fashion--in practically any location. Some of this has been accomplished by means of circuits with better basic performance, but "smart" circuits that enable a tuner to adjust its operating parameters for the signal conditions also deserve some of the credit.

Predictably, some of the automatic features found in modern tuners and receivers--digital-numeric displays and synthesized tuning, to name two--are more addressed to convenience and striking appearance than to performance. True, synthesized tuning automatically keeps the tuner locked to the point of minimum distortion in the received sound, but even so, the difference is hardly likely to be audible.

Yet the touches of luxury that such features afford may be entirely worthwhile to some system owners. Synthesized tuning, for example, most often allows you to store your favorite station in memory presets where they can be tuned in at the touch of a button. And if you change stations frequently, it may indeed be useful to be able to verify your choice by means of a digital readout visible from across the room. A final consideration that applies to convenience features in general is that they may make operation of the system less intimidating to members of your household who lack your experience and skill.

• **Preamplifiers.** Finding a preamp whose circuitry does not test out in the "excellent" category these days is not an easy task. There may be minor differences in, say, signal-to-noise ratio, accuracy of equalization in the phono stage, or distortion. However, these will seldom give a solid basis for choosing one unit over another.

A strong case can be made for choosing a preamp on the basis of how well its inputs and outputs and control features suit the system you have in mind. Does it accommodate enough tape decks? Does it permit tape dubbing? Is there provision for feeding in audio from a television receiver or video tape recorder or disc player? How many ex-

ternal processors can it switch in and out? It seems that considerations such as these are what would engender dissatisfaction or delight with a preamp.

Sometimes a unit may be adequate but have tone controls that don't quite make the grade. In such a case, rather than replacing the preamp, you may find it preferable and more economical to add an outboard equalizer to the system.

• **Moving to Separates.** It may have occurred to you that if you own a receiver, any improvement made to the electronics package of the system means replacement of the receiver in toto. For this reason, audiophiles who are committed to upgrade their systems after a period of time often find it advantageous to choose an electronics package consisting of separates--preamp, power amp, and tuner. Though the initial investment is admittedly more than would be needed for a receiver, the added flexibility is well worth the additional cost. Each element of the system can now be replaced independently of all the others.

• **Adding New Capabilities.** If you are satisfied that the basic performance of your system is up to standard, you may want to consider adding some form of accessory that provides new functions. Imaging devices, for example, can markedly increase the vividness and immediacy of reproduced sound. Such devices are available from sources such as Carver Corporation, Sound Concepts, Omnisonics, and Phase Linear, among others.

Another add-on device that has achieved great popularity in recent years is the time-delay/ambience generator. Acting, in a sense, as the successors to quadraphonic hardware, these devices are designed to submerge the listener in sound, much the way he would be when

listening to live music. Additional speakers are required by these devices, but they can--and perhaps should--be of lower quality than the main speakers. They handle a far narrower range of frequencies at reduced levels and are never noticed by themselves. Many of the time-delay systems, incidentally, incorporate their own power amplifiers. If more elaborate tone controls are what you require, an outboard equalizer may be the answer. These come in two forms--graphic and parametric, with graphic the more popular. If you recognize the limitations of these devices and apply them accordingly, they can be very useful.

The graphic type divides the audio spectrum into bands (most often 10 or so), each about an octave wide, and allows each to be boosted or cut with little effect on any of the others. The parametric type, which is more difficult to adjust, contains several sections, each of which resembles an ordinary tone control except that it is adjustable in more ways. A section of a parametric equalizer can be adjusted for center frequency and width of effective range, as well as for amount of boost or cut.

It is important to remember that the usual run of consumer-grade equalizers will not do much to change the sound of speaker systems that you do not like--although there are professional units that will. Octave bands are too broad to affect the fine detail of speaker frequency response; rather, they just boost or cut whole sections of the response curve intact.

To improve the sound of speakers, you will need an equalizer whose bands are not much more than one-third octave wide. An item such as this is sufficiently expensive that it may make more sense to go right ahead and get better speakers. Octave-band equalization, on the other hand, is fine for touching up program material or room acoustics. The final type of add-on device we will consider is the "black box" that decodes specially encoded records (and tapes). The purpose of this is to reproduce a signal with more dynamic range--as much as 80 to 90 dB in some cases--than can be handled normally. Examples of these are the familiar dbx decoder, which works on discs available from dbx, and the new Cx decoder box introduced by CBS Records to work on some of its newly released discs and some from other sources as well.

Either of these encode/decode systems is capable of stunning results, and since their universes of program material do not intersect, some audiophiles may want to own both. But whatever your choice, be certain that the rest of your system is ready for a heavy-duty workout. Program material of wide dynamic range is an acid test indeed.



GLOSSARY OF AUDIO TECHNICAL TERMS

AMPLIFIERS

Decibel (dB): A measure of the ratio between two power levels. Doubling or halving the power corresponds to a 3-dB change, and 10-dB corresponds roughly to the audible effect of doubling or halving the *loudness* of a signal (although it represents a power ratio of 10:1).

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

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

Filter: A circuit that attenuates signals above or below a specific frequency without materially affecting signals in its pass-band.

Frequency Response: Always specified as a range, such as 50 to 15,000 Hz; but in order to be meaningful it must be further defined in terms of decibel variation from absolute flatness over a specified frequency range (e.g., +3 dB from 50 to 15,000 Hz). An indication of a sound system's ability to reproduce all audible frequencies supplied to it.

Hz: The standard abbreviation of Hertz, the unit of frequency; one cycle per second.

Integrated Amplifier: A single component combining the functions and circuitry of a Power Amplifier and Preamplifier.

Intermodulation (IM): See *Distortion*.

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

Noise: Any unwanted signal unrelated to the desired signal and tending to obscure it. In audio, noise is usually heard as hiss (random noise) or as hum (the power line frequency and its harmonics).

Power Output: FTC rules require that amplifier power be measured with all channels operating, after a standard pre-conditioning period to bring amplifier components to their maximum working temperature. Advertised power must be

expressed in the form: "50 watts minimum rms per channel into 8 ohms with less than 0.3% harmonic distortion from 20 Hz to 20,000 Hz." The manufacturer is free to establish its own power, frequency, and distortion ratings, and implicit in the rating is the statement that rated distortion will not be exceeded at any power from 0.25 watts to rated power.

Power Amplifier: An amplifier driven by a relatively low voltage, low-power signal, of the order of 0.1 milliwatts or less, which delivers a substantial power output to low impedance speaker loads.

Preamplifier: Also known as control amplifier, or control center. A switching, amplification, and equalization component designed to select input signals, amplify them and deliver an output voltage to a power amplifier.

Signal-to-Noise Ratio (S/N): The ratio in dB between a reference power output (usually the amplifier's rated power) and the hum and noise power in the output of the amplifier.

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

THD: See *Distortion*.

Tone Control: A circuit designed to increase or decrease the amplification in a specific frequency range, with little or no effect at other frequencies. Bass tone controls usually affect frequencies below a turnover frequency which may vary between 100 and 1,000 Hz. Treble tone controls are typically "hinged" to affect frequencies above 1,500 Hz. The range of a tone control (the maximum amount by which it can vary the amplification within its operating range) is typically about ± 15 dB, but may be as low as ± 7 dB or as great as ± 20 dB.

TUNERS

AM (Amplitude Modulation): A process in which the program information is imposed on a carrier signal of constant frequency, by varying its amplitude in proportion to program level. Used on the standard broadcast band (550 to 1,650 kHz), and on longwave and shortwave bands.

AM Suppression: The ability of an FM tuner to reject AM signals.

Capture Ratio: The minimum ratio between the strengths of two FM signals on the same frequency that will enable the tuner to suppress

the weaker by 30 dB.

Deemphasis: A form of equalization used in FM tuners, complementary to a pre-emphasis used in transmission. The purpose is to improve the overall S/N ratio, while maintaining a uniform frequency response.

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

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

i-f Rejection: The ability of a superheterodyne AM or FM tuner's i-f circuits to reject external interference at the intermediate frequency.

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

Multipath: A condition in which a signal reaches the receiving antenna over two or more paths of different lengths. The resulting interference causes distortion in the receiver, as well as loss of stereo channel separation.

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

Selectivity: The ability of a tuner to reject unwanted signals on nearby channels.

Sensitivity, in FM: The signal strength a tuner requires in order to reduce noise and distortion to specified levels. "Quieting sensitivity" measures the input signal needed to reduce noise and distortion to 50 dB below the output audio signal level, a fairly listenable condition. "Usable sensitivity" defines the signal level needed to reduce noise and distortion to 30 dB below the audio output, a condition noisy enough to render "usable" a misnomer. Sensitivity is usually stated both in microvolts (μ V) of signal across the tuner's 300-ohm input (figures across the 75-ohm input would be lower) and in "dBf"—decibels above a signal level of one femtowatt (10^{-18} W), equivalent to 0.55 μ V into 300 ohms. See chart.

Synthesizer: A system for generating a precise and stable frequency whose accuracy is determined by a quartz crystal oscillator, instead of inductance/capacitance tuned circuits.

TURNABLES

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

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

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

GLOSSARY...

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

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

Electronic Speed Control: A system whereby a motor's speed is controlled by feedback from a frequency-sensing circuit attached to the device being powered.

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

Pitch Control: A circuit which permits a turntable's speed to be varied slightly.

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

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

Rumble: The audible effect of low-frequency vibration transmitted from the motor or other moving parts to the record or the tonearm. Heard (as a hum or rumbling sound) only when the pickup stylus is on a rotating record. Rumble is measured in dB below a specified signal level.

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

Servo Control: A technique by which the speed or position of a moving device is forced into conformity with a desired, or standard speed or position. The speed of a servo-controlled turntable is established by a precision voltage or frequency standard, to which it is compared and automatically adjusted to reduce the difference to a minimum (see *Electronic Speed Control*).

Skating Force: A frictional force between the pickup stylus and the record material, tending to move the pickup toward the center of the record. It is present only when the cartridge is offset at an angle to reduce tracking error. See *Anti-Skating*.

Statically Balanced Arm: A type of tonearm whose masses are first balanced about the pivot, then unbalanced to provide tracking force.

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

Tonearm: The portion of a record player that supports the phono cartridge and maintains it in the correct relationship to the record surface and the spiral groove.

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

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

PHONO CARTRIDGES

Biradial: See *Elliptical*.

Cantilever: The rod, or tube, that supports the stylus at its free end, is pivoted at or near its other end, and transfers the stylus motion to the generating elements of the cartridge.

Cartridge: The device which holds the stylus (or "needle") and translates into an electrical signal the motions of the stylus as it tracks the wiggling modulations of the groove.

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

Compliance: The ease with which a stylus can be deflected by the groove wall.

Damping: The application of a mechanical resistance, such as a rubber or silicone material, to the cantilever pivot to reduce the amplitude of a resonance.

Elliptical Stylus: A stylus whose cross-section, as seen from above, is an ellipse placed across the record groove. Elliptical styli can more readily trace the finer high-frequency modulations of the groove than spherical styli can.

Magnetic: A type of cartridge which generates its signal from the relative motions of a magnetic field and a coil or coils (either the field or the coils may move, depending on cartridge design). The output is proportional to the velocity of the stylus motion.

Mass (tip): The combined effect of the mass of the diamond stylus, its mounting, the cantilever rod, and the generating elements, as seen by the record groove which must accelerate that mass.

Moving-coil: A type of magnetic cartridge in which the coils, connected to the stylus, move within a stationary magnetic field.

Piezoelectric: A type of cartridge whose generating element is a ceramic, crystal or electret which generates electricity when bent, twisted or stressed. The output of such cartridges can be fairly high. It is also proportional to the amplitude of the stylus motion, rather than stylus velocity.

Shibata Stylus: The first of several multi-radial stylus designs, with two flat facets forming a vee-shaped "prow" in front, and a blunter stern. The main claimed advantage is that the stylus's sharp edges can easily track ultra-fine, high-frequency modulations.

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

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

Tracking Force: The vertical force (in grams) exerted by the stylus on the record groove. Must be high enough to keep the stylus in contact with the groove at all times.

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

TAPE MACHINES

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

Bias: A high frequency current which is combined with the signal being recorded. Necessary for low distortion and noise, and must be adjusted for the properties of the tape used.

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

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

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

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

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

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

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

Dolby Noise Reduction: A family of compressor-expander noise-reduction systems. *Dolby A*, the most elaborate was designed for professional tape recorders and gives 10 dB of noise reduction. *Dolby B*, also able to reduce noise by 10 dB is a lower-cost system designed for cassette recorders and sometimes used in FM broadcasting as well. *Dolby C*, the newest system, is also meant for cassette decks but gives 20 dB of noise reduction.

GLOSSARY...

Dual Capstan: See *Closed Loop*.

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

Echo: A special recording effect, in which a portion of the recorded program is taken from the playback head, a short interval after being recorded, and mixed with the incoming program. Principally used at tape speeds greater than 3 $\frac{3}{4}$ ips, where the delayed signal is not heard as a separate sound.

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

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

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

Half Track: See *Two Track*.

Head: A magnetic component containing a coil through which a signal current is passed, and a narrow gap in its pole structure against which the tape presses.

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

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

Monitor Head: A separate playback head on some tape recorders that makes it possible to listen to the material on the tape an instant after it has been recorded, and while the recording is still in progress.

MPX Filter, Multiplex Filter: Circuits to remove 19 kHz tones from a signal to be recorded, in order to prevent audible interference between the tape recorder's bias signal and the 19-kHz pilot tone in the output signal from a stereo FM tuner or receiver.

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

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

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

Quarter Track: See *Four Track*.

Recording-Level Meter: An indicator on a tape recorder that provides some idea of the signal-levels being applied to the tape from moment to moment. It is intended as an aid in setting the recording levels to ensure that the tape is neither overloaded with excessive levels or "under-recorded" with too little signal, allowing hiss and other noise to intrude.

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

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

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

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

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

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

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

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

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

SPEAKER SYSTEMS

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

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

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

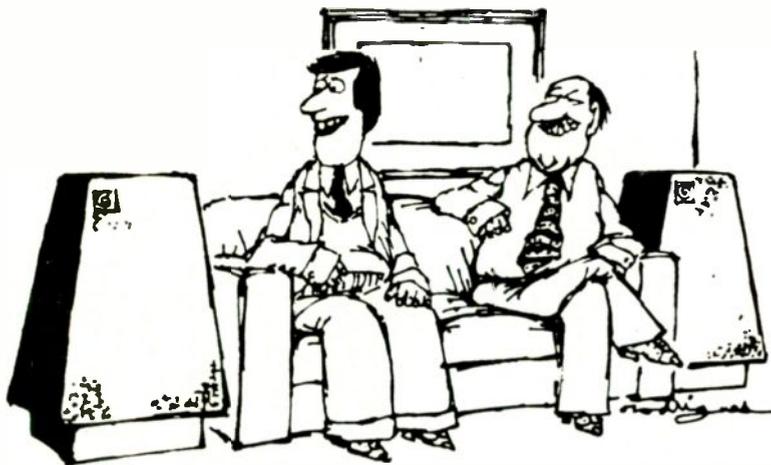
Dipole: A form of speaker which radiates in approximately equal amounts to the rear and the front.

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

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

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

Efficiency: The percentage of the electrical input power to a speaker that is converted to acoustic energy. Varies from a small fraction of one percent to as much as ten percent or more, depending on the design of the speaker. Higher efficiency means that less electrical amplifier



"From zero to 20,000-cycle response—say, those are good speakers, Floyd!"

GLOSSARY...

power is required for a given listening volume, but is not directly related to sound quality.

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

Impedance: A speaker's opposition to the flow of an alternating current, which varies with frequency.

Infinite Baffle: A fully sealed box enclosing the speaker.

Molecular Film: A type of *piezoelectric* speaker.

Motional Feedback: Correction of a speaker's response by feeding information about its motion back to the amplifier. The amplifier then compares the speaker's motions with its own output and changes this output in such a way as to counteract any changes (distortions) created by the speaker.

Moving-Coil: See *Dynamic*.

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

Piezoelectric: A speaker drive principle using a ceramic element which expands or bends under

the application of a signal voltage. This deflection generates a sound output. Used in some tweeter designs.

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

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

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

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

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

Tweeter: A high frequency driver.

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

Woofer: A low-frequency driver.

HEADPHONES & MICROPHONES

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

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

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

Condenser: A type of electrostatic microphone characterized by wide frequency range and low distortion.

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

Electret: A permanently polarized form of condenser microphone.

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

Impedance: See definition under *Speakers*.

Moving Coil: See *Dynamic*.

Omnidirectional: Responding equally to sounds arriving from any direction.

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

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

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

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

SIGNAL PROCESSORS

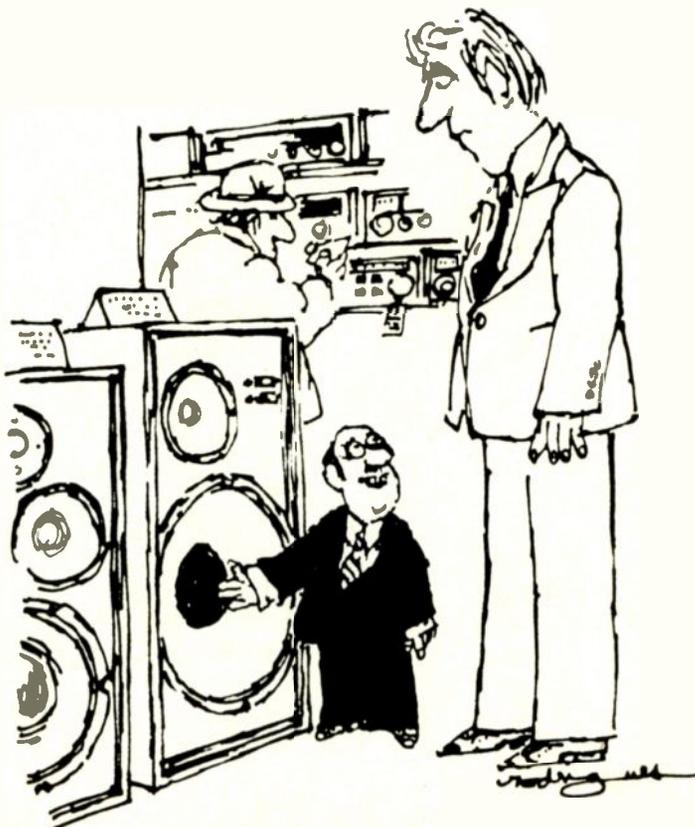
Cx: A compressor/expander noise-reduction system first introduced by CBS Records. Capable of 20 dB of noise reduction, it extends the dynamic range of phonograph discs to 80 to 85 dB. To realize this extension, the user must play the record back through a decoder, but the system is designed so that a record played without decoding is quite listenable.

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

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

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

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



"For the money that is one helluva massive woofer, sir!"

1

RECEIVERS

AIWA

AX-S50U Stereo Receiver

AM/FM-stereo PLL synthesizer mini receiver with 10-station AM/FM preset tuning, LED frequency display, 7-point LED peak-power meters. Features electronic one-touch tuning; auto-search tuning; FM muting; loudness control; click-stop bass/treble control; loudness control; signal-strength meter (uses peak-power display LEDs); tape/source monitor; up/down scan tuning. Output power 20 W/channel continuous, both channels driven into 8 ohms at 0.1% THD; damping factor 30; input sensitivity/impedance 2.5 mV/47k ohms phono, 150 mV/47k ohms aux and tape; S/N ratio 80 dB phono, 95 dB aux and tape; FM usable sensitivity 2 μ V; 50-dB quieting sensitivity mono/stereo 4/42 μ V; S/N ratio mono/stereo 75/70 dB; THD mono/stereo 0.1%/0.3%; capture ratio 1.5 dB; alternate-channel selectivity 70 dB; $11\frac{1}{4}^{\circ}D \times 9\frac{3}{4}^{\circ}W \times 2\frac{1}{4}^{\circ}H$ \$400

AKAI

AA-R42 AM/FM-Stereo Receiver

Stereo receiver with Zero Drive Circuit, moving-coil (MC) cartridge capability. Features dc servo amplifier; subsonic filter; 12-segment fluorescent power meters; digital quartz synthesized tuning; single-screen fluorescent display for all functions; 20 presets, auto-scanning capability; random-access tuning; acoustic memory; automatic fader; tape dubbing. Output power 60 W/channel minimum rms into 8 ohms, 20-20,000 Hz at 0.008% THD \$430

AA-R32. Similar to AA-R42 except no moving-coil cartridge capability or random-access tuning; 16 presets. Output power 45 W/channel \$330

AA-R22 AM/FM-Stereo Receiver

Stereo receiver with dc servo amplifier section, digital quartz synthesized tuning. Features single-screen fluorescent display for all functions; 12 presets, automatic scan capability; acoustic memory; automatic fader; tape dubbing. Output power 30 W/channel minimum rms into 8 ohms, 20-20,000 Hz at 0.05% THD \$250

BANG & OLUFSEN

Beomaster 8000 FM-Stereo Receiver

Remote-controlled FM-stereo receiver with 9 FM station presets. Remote station selection, phono, tape 1, tape 2, tape dub to Beocord 8002 stereo cassette deck, volume control, active filters, bass, treble, loudness controls. Features adjustable tape 1, tape 2, phono levels; tape/line-monitoring facilities for 3-head decks. Output power 150 W rms into 4 ohms with 2 dB headroom, 100 W rms into 8 ohms with 1 dB headroom at 0.05% THD and 0.1% IM distortion; amplifier S/N ratio > 75 dB phono; channel separation > 55 dB; FM stereo usable sensitivity 15 dBf (1.5 μ V) into 75 ohms; FM S/N ratio > 76/> 72 dB mono/stereo at 65 dBf; separation > 40 dB, 100-10,000 Hz \$2600

Beomaster 6000 FM Receiver

Low-profile FM-stereo receiver with full-feature re-

mute control. Features ingenious 7 buttons for one-touch selection of volume, up and down volume scan buttons, hidden slide-type preset volume control; illuminated scale that displays volume settings; digital display FM-stereo tuner with automatic, manual, mono tuning modes; slide-type balance, bass, treble controls; FM tuning display doubles as clock display; loudness switch. Output power 75 W/channel into 8 ohms, 20-20,000 Hz at < 0.08% THD; dynamic headroom 0.7 dB; IM distortion < 0.05%; frequency response 20-20,000 Hz ± 1.5 dB; damping factor > 60; input sensitivity/impedance 0.22 mV/47k ohms phono, 22 mV/200k ohms tape, 500 mV/15-47k ohms line; S/N ratio A weighted > 75 dB phono, > 78 dB tape; separation > 50 dB; output level/impedance 530/1k ohms tape, 500 mV/1k ohms line, 14 V/200 ohms headphones. FM section: mono/stereo usable sensitivity < 15 dBf (1.5 μ V)/39 dBf (25 μ V); 50-dB quieting sensitivity mono/stereo 22 dBf (3.5 μ V)/39 dBf (25 μ V); S/N ratio mono/stereo > 75/> 72 dB at 65 dBf; separation > 40 dB, 100-10,000 Hz; frequency response 20-15,000 Hz ± 1 dB; distortion mono/stereo < 0.2%/< 0.3% at 65 dBf; IM distortion mono/stereo < 0.02%/< 0.18%; capture ratio 1.8; adjacent/alternate-channel selectivity > 6/> 65 dB; spurious/image/i-f response ratio > 110/> 86/> 120 dB; AM suppression/subcarrier rejection > 63/> 72 dB; $20\frac{3}{4}^{\circ}W \times 15^{\circ}D \times 6^{\circ}H$; 32 lb 1700

Beomaster 2400 FM Receiver

Low-slung design with no visible knobs. Features electronic touch-control switching; preset FM station capability. Amplifier section: 30 W/ch continuous into 4 ohms, 20-20,000 Hz at 0.2% THD; IM distortion 0.15%; phono sensitivity 3 mV; S/N ratio > 60 dB phono, 65 dB tape; stereo separation 56 dB at 1 kHz, 38 dB, 250-10,000 Hz. Tuner section: usable sensitivity 19.2 dBf (5.0 μ V) mono; 50-dB quieting sensitivity 38.9 dBf (47 μ V) stereo, 18.5 dBf (4.6 μ V) mono; S/N ratio 70 dB mono, 66 dB stereo at 65 dBf; frequency response 30-15,000 Hz ± 1.5 dB; THD at 50-dB quieting 1.0% or less; IM distortion 0.5% mono, 0.6% stereo; capture ratio 4.5 dB mono; alternate-channel selectivity 58 dB; AM suppression 50 dB; i-f rejection 85 dB; spurious response rejection 87 dB; subcarrier suppression 45 dB at 19 kHz, 50 dB at 38 kHz; stereo separation 35 dB at 1 kHz, 29 dB at 100 Hz, 24 dB at 10 kHz. Front panel touch switches control 2 volume (with illuminated volume direction increase/decrease as volume does same), phono/tape selection and 5 preset FM stations with illuminated display; functions duplicated (except only 4 preset stations) on optional wireless remote. Controls under hinged top panel: main tuning dial, afc switch, bass, treble, balance controls; volume memory presets volume level control; is turned on. $24\frac{1}{4}^{\circ}W \times 9\frac{3}{4}^{\circ}D \times 2\frac{1}{4}^{\circ}H$ \$695

Beomaster 1600 FM Receiver

Features multiplex clutch system consisting of 2 endless-ribbed-belt master controls handling many operations determined by cue levers (one ribbed belt controls volume, balance, bass and treble functions and the other controls FM tuning). Other controls include

afc and phono and tape input selectors. Amplifier: 20 W/ch continuous, both channels driven into 8 ohms; dynamic headroom 1.5 dB at 8 ohms; THD 0.4%; IHF IM distortion 0.2%; damping factor 45; input sensitivity/impedance 0.55 mV/47k ohms phono, 55 mV/470k ohms tape; phono overload 77 mV; frequency response 20-20,000 Hz ± 1.5 dB phono RIAA, ± 1 dB tape; S/N ratio 79 dB phono, 80 dB tape. FM tuner features precision tuning of weak signals through ribbed belt's tactile sensing and variable brightness signal-strength indicator designed to achieve consistently high S/N ratio—tuner's decoder gives mono signal of high quality if stereo signal received is weak; as signal strength improves channel separation is increased; mono usable sensitivity 2.4 μ V/75 ohms; 50-dB quieting at 75 ohms 2.6 μ V mono, 24 μ V stereo; S/N ratio 70 dB mono, 68 dB stereo; frequency response 30-15,000 Hz ± 1.5 dB; distortion 0.3% mono, stereo; capture ratio 1.5 dB; alternate channel selectivity 54 dB; spurious and i-f rejection 110 dB; image rejection 87 dB; stereo separation 40 dB at 1 kHz; precision-machined aluminum, natural wood veneer, polished glass control panel; $23\frac{3}{4}^{\circ}W \times 9\frac{1}{2}^{\circ}D \times 3\frac{1}{4}^{\circ}H$ \$395

BOSE

Spatial Control[™] Receiver

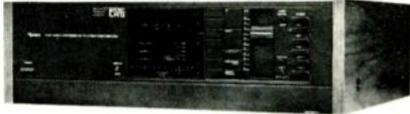
Combines 2 bridged power amplifiers (or 2 stereo pairs), preamplifier, equalizer, compensation circuitry, 2 headphone amplifiers. Designed to enable listener to widen or narrow spatial sound image according to program material played. Power amplifier features 4 direct-coupled (dc) power amplifiers; complete protection circuitry; 2-speaker switching. Output power 100 W/ch continuous into 8 ohms, 20-20,000 Hz at 0.09% THD and IM distortion; S/N ratio 90 dB A weighted with inputs shorted. Preamplifier features automatic CMOS switching logic gain, equalization controls through rear-panel programming of number and types of speakers being used with LED indicator (Bose 901 Speaker System designed to complement Spatial Control[™] Receiver); low- and high-frequency controls with wide/narrow low-frequency range selector, source and room compensation selector, low filter; balance control; narrow/wide spatial slide with in/out select and LED indicator; 2-deck tape monitoring; input selectors with LEDs. Input sensitivity/impedance 2.0 mV/47k ohms phono, 200 mV/50k ohms aux and tape; frequency response 20-20,000 Hz ± 0.3 dB phono RIAA, $\pm 0.1/-0.5$ dB tape and aux; S/N ratio 83 dB phono, inputs shorted; phono overload 145 mV. FM tuner features MOS FET front end; PLL multiplex stereo decoder; FM muting; mode selector with LED; loudness switch; signal-strength, FM tuning meters. Usable sensitivity 10.8 dBf (1.9 μ V) mono, 15.6 dBf (3.3 μ V) stereo; 50-dB quieting 16.11 dBf (3.5 μ V) mono, 36.11 dBf (35 μ V) stereo; S/N ratio 65 dB mono, 70 dB stereo; frequency response 30-15,000 Hz $\pm 0.2/-1.0$ dB; THD 0.1% mono, 0.25% stereo; capture ratio 1.8 dB; alternate-channel selectivity 70 dB; image rejection 80 dB; spurious rejection 100 dB; separation 45 dB at 1 kHz. AM 20-dB usable sensitivity 250 μ V/m ferrite antenna. 25 μ V external antenna. Oiled walnut cabinet, with all controls except volume and tuning,

lighted meters, tuning dial behind bottom front panel; 20½"W × 16¾"D × 6¾"H..... \$925

CYBERNET

Kyocera R-851 Stereo Tuner/Amplifier

Quartz-synthesized PLL AM/FM-stereo tuner/amplifier with MOSFET design throughout. Features fluoroscan digital frequency display; protection circuitry that automatically enlarges safe operating area with regard to high frequencies; pulse sensing protection; 3-band equalizer that controls bass, midrange, treble turnover frequencies; 2-way tape monitor/dub;



subsonic, high filters; 7 AM/7 FM station presets; linear-phase ceramic FM i-f filters; automatic wide/narrow i-f bandwidth selection; MM and MC phono inputs; LED peak power meters; audio attenuator; auto/manual scan tuning; FM high-blend switch. Output power 85 W/channel rms into 8 ohms, 20-20,000 Hz at 0.015% THD; slew rate 60 V/μsec; rise time 1.0 μsec; S/N ratio MC/all other inputs 86/100 dB; FM S/N ratio mono/stereo 88/76 dB..... \$855

R-651. Similar to R-851 except manual normal/narrow i-f bandwidth selection, no MC input. Output power 65 W/channel..... \$730

Kyocera R-451 Stereo Tuner/Amplifier

Quartz-locked PLL synthesizer AM/FM-stereo tuner/amplifier with MOSFET design throughout. Features fluoroscan digital frequency display; 7 AM/7 FM station presets; auto-seek tuning; 2-way tape monitor/dub. Output power 45 W/channel into 8 ohms, 20-20,000 Hz at 0.015% THD; slew rate 40 V/μsec; rise time 1.5 μsec; FM S/N ratio mono/stereo 80/74 dB..... \$550

DENON

DRA-600 Stereo Receiver

Direct-coupled AM/FM-stereo receiver with digital quartz-PLL synthesized tuning system, automatic scan. Features nonswitching class-A amplifier; 8 AM/8 FM presets; oversize power transformer; fixed time constant tone-control circuit; moving-coil (MC) and moving-magnet (MM) phono equalizer; dual tape-dub switch; electronic function switching; wood side



panels optional. Output power 60 W/channel rms into 8 ohms, 20-20,000 Hz at no more than 0.08% THD; IM distortion 0.03%, 60/7k Hz mixed 4:1; damping factor >50 at 1 kHz, 8 ohms; input sensitivity/impedance 2.5 mV/47k ohms MM, 0.3 mV/100 ohms MC; phono overload 150 mV MM, 25 mV MC; RIAA deviation ±0.3 dB, 20-20,000 Hz; S/N ratio 86 dB MM, 72 dB MC, 95 dB tape and aux; FM usable sensitivity 1.8 μV (10.3 dBf); selectivity 60 dB; FM S/N ratio 71 dB at 0.2% THD stereo; AM usable sensitivity 300 μV/m; AM selectivity 30 dB; AM S/N ratio 55 dB; power consumption 200 W; 17.5"W × 16.5"D × 4.5"H; 24 lb..... \$540

DRA-400 Stereo Receiver

AM/FM-stereo receiver with digital quartz-PLL tuning, 5 AM/5 FM presets. Features nonswitching class-A, full direct-coupled amplifier; oversize power trans-

former; moving-coil (MC) phono head amplifier; fixed time constant, positive center defeat tone controls; wood panels optional. Output power 45 W/channel into 8 ohms, 20-20,000 Hz at no more than 0.05% THD; IM distortion 0.03%, 60/7k Hz mixed 4:1; damping factor >80 at 1 kHz into 8 ohms; input sensitivity/impedance 2.5 mV/47k ohms MM, 0.25 mV/100 ohms MC; phono overload 200 mV MM, 20 mV MC; S/N ratio 80 dB MM, 62 dB MC, 95 dB tape and aux; RIAA deviation ±0.5 dB, 20-20,000 Hz; FM usable sensitivity 1.8 μV (10.3 dBf); FM selectivity 77 dB; FM S/N ratio 71 dB at 0.15% THD stereo; AM usable sensitivity μV/m; AM selectivity 55 dB; AM S/N ratio 55 dB; power consumption 130 W; 17.5"W × 16.5"D × 4.5"H..... \$400

FISHER

RS280 Stereo Receiver

Quartz PLL digital synthesizer AM/FM-stereo receiver with fluorescent digital frequency display and built-in 5-band graphic equalizer. Features stepped LED signal-strength meter; FM muting; auto-search tuning; 6 AM/6 FM station presets; manual tuning; high and low filters; FM stereo, memory, tuning, function LEDs. Output power 100 W/channel rms into 8 ohms, 20-20,000 Hz at 0.05% THD, IM distortion; damping factor >50; preamp frequency response 20-20,000 Hz ±0.5 dB all inputs; input sensitivity/impedance 2.5 mV MM, 150 mV tape mon, aux/50k ohms all; phono overload 200 mV; preamp output 150 mV/5k ohms; EQ center frequencies 50, 250, 1k, 4.5k, 15k Hz ±10 dB; hum and noise 70 dB phono, 90 dB aux, tape monitors 1 and 2, IHF A weighted, inputs shorted; FM usable sensitivity mono/stereo 10.77 dBf (1.9 μV)/18.45 dBf (4.6 μV); S/N ratio mono/stereo 70/65 dB; capture ratio 0.8 dB; alternate-channel selectivity 70 dB ±400 kHz; image/spurious/i-f-response ratios 75/85/90 dB; AM-suppression ratio 50 dB; THD 0.3% mono, stereo; separation at 100/1k/10k Hz 40/40/35 dB; frequency response 20-15,000 Hz ±0.5 dB; AM sensitivity 300 μV/m; selectivity 40 dB at ±10 kHz; S/N ratio 55 dB; power consumption 420 W; 17½"W × 16"D × 5¾"H; 36 lb..... \$500

RS270 Stereo Receiver

Quartz PLL digital synthesizer stereo receiver with LED numeric tuning display, class A-II nonswitching dc amplifier. Features dual 9-LED power meters; auto/manual up/down scan tuning; 6-station AM/FM station presets; 5-LED signal-strength indicators; FM muting; moving-coil (MC) head amp; bass, treble controls with 200/400-Hz bass and 3/6-kHz treble turnover frequency selectors; subsonic and high filters; loudness switch; 2-deck tape monitoring with 2-way tape dubbing; input selectors with lighted indicators. Output power 50 W/channel continuous into 8 ohms, 20-20,000 Hz at 0.02% THD, IM distortion; input sensitivity/impedance 2.5 mV/50k ohms MM, 60 μV/22 ohms MC, 150 mV/50k ohms aux, tape, FM usable sensitivity 10.3 dBf (1.8 μV) mono; 50-dB quieting sensitivity 14.14 dBf (2.8 μV) mono, 36.78 dBf (38 μV) stereo; S/N ratio 75/70 dB mono/stereo; THD at 50-dB quieting 0.3%/0.4% mono/stereo; separation 50 dB at 1 kHz..... \$530

RS245 Stereo Receiver

AM/FM-stereo quartz digital synthesizer receiver with 5-band graphic equalizer, fluorescent digital frequency display. Features quartz PLL synthesizer; 6 AM/6 FM presets; auto-search tuning; FM muting. Output power 30 W/channel rms into 8 ohms, 20,000 Hz at 0.07% THD, IM distortion; damping factor >40; preamp frequency response 20-20,000 Hz ±0.5 dB; input sensitivity/impedance 2.5 mV phono, 150 mV tape monitor and aux/50k ohms all; phono overload 130 mV; output voltage/impedance 150 mV/5k ohms; EQ center frequencies 50, 250, 1k, 5.4k, 15k Hz ±10 dB; hum and noise phono/aux and tape monitors 70/90 dB IHF A weighted, inputs shorted; FM usable sensitivity mono/stereo 14.14 dBf (2.8 μV)/21.45 dBf (6.5 μV); S/N ratio mono/stereo 66/62 dB; capture ratio 0.8 dB; image/spurious/i-f-response ratios 50/70/90 dB; AM-suppression ratio 55 dB; THD mono/stereo 0.2%/0.4%; alternate-channel selectivity 60 dB; separation at 100/1k/10k Hz 35/45/30 dB; frequency response 20-15,000

Hz ±1 dB; AM sensitivity 300 μV/m; S/N ratio 50 dB; selectivity 40 dB at ±10 kHz; power consumption 190 W; 17½"W × 11¾"D × 5¾"H; 18 lb 330

RS140 Stereo Receiver

Quartz-locked digital-synthesizer AM/FM-stereo receiver with LED digital tuning display, graphic equalizer. Features 6 AM/6 FM station presets; 5-LED signal-strength meter; auto-scan tuning with indicator; manual/auto tuning switch; FM muting; sliding volume, balance controls; low, high filters; loudness switch; Panel Logic selected-function display. Output power 40 W/channel into 8 ohms, 20-20,000 Hz at 0.09% THD, IM distortion; damping factor >40; input sensitivity/impedance 2.5 mV/47k ohms phono, 150 mV/47k ohms all others; EQ center frequencies 50, 250, 1k, 4.5k, 15k Hz; boost/cut range ±10 dB; hum and noise phono/all others 78/90 dB; FM usable sensitivity mono/stereo 2.3 μV (12.43 dBf)/4.6 μV (18.45 dBf); 50-dB quieting sensitivity mono/stereo 5.5 μV (20 dBf)/45 μV (38.26 dBf); S/N ratio mono/stereo 70/65 dB; capture ratio 1.0 dB; alternate-channel selectivity 60 dB; image/spurious/i-f response ratio 60/50/70 dB; AM suppression 50 dB; THD at 50-dB quieting mono/stereo 0.4%/0.5%; frequency response 20-15,000 Hz ±1 dB; AM usable sensitivity 300 μV/m; power consumption 85 W; 15¾"W × 11½"D × 4¾"H; 15 lb..... \$330

RS220 Stereo Receiver

AM/FM-stereo receiver with slide-rule dial, 5-band graphic equalizer. Features 5-LED signal-strength display; detented volume, balance controls; flywheel tuning; loudness switch; tape monitor. Output power 20 W/channel rms into 8 ohms, 20-20,000 Hz at 0.03% THD, IM distortion; damping factor >40; preamp frequency response 20-20,000 Hz ±1 dB; input sensitivity/impedance 2.5 mV phono, 150 mV tape monitor and aux/50k ohms all; phono overload 130 mV; EQ center frequencies 50, 250, 1k, 4.5k, 15 kHz ±10 dB; hum and noise 70 dB phono, 90 dB aux and tape monitors IHF A wtd, inputs shorted; FM usable sensitivity mono/stereo 14.14 dBf (2.8 μV)/21.45 dBf (6.5 μV); S/N ratio mono/stereo 66/62 dB; capture ratio 1 dB; alternate-channel selectivity 60 dB; image/spurious/i-f response ratios 70/85/100 dB; AM-suppression ratio 55 dB; THD mono/stereo 0.2%/0.4%; separation at 100/1k/10k Hz 35/40/30 dB; frequency response 20-15,000 Hz ±1 dB; AM sensitivity 300 μV/m; selectivity 40 dB at ±10 kHz; S/N ratio 55 dB; power consumption 120 W; 17½"W × 11¾"D × 4¾"H; 16 lb..... \$250

RS120 Stereo Receiver

AM/FM-stereo receiver with analog tuning dial, graphic equalizer. Features 5-LED signal-strength meter; sliding volume, balance controls; tape-monitor input; loudness switch. Output power 20 W/channel into 8 ohms, 20-20,000 Hz at 0.09% THD, 0.1% IM distortion; damping factor >40; input sensitivity/impedance 2.5 mV/47k ohms phono, 150 mV/47k ohms all others; EQ center frequencies 50, 250, 1k, 4.5k, 15k Hz; boost/cut range ±10 dB; hum and noise phono/all others 70/90 dB; FM usable sensitivity mono/stereo 2.8 μV (14.14 dBf)/10 μV (25.43 dBf); 50-dB quieting sensitivity mono/stereo 10 μV (25.43 dBf)/50 μV (39.17 dBf); S/N ratio mono/stereo 70/65 dB; capture ratio 1.5 dB; alternate-channel selectivity 55 dB; image/spurious/i-f response ratio 55/50/70 dB; AM suppression 55 dB; THD at 50-dB quieting mono/stereo 0.5%/1.0%; frequency response 20-15,000 Hz ±1 dB; separation 40 dB at 1 kHz; AM sensitivity 300 μV/m; power consumption 120 W; 15¾"W × 11¾"D × 4¾"H; 13 lb..... \$190

RS-110 Stereo Receiver

AM/FM-stereo receiver with slide-rule dial. Features PLL MPX FM decoder; AM, FM, tape/source, loudness-contour pushbutton switches; 3-LED center-tune aid on dial pointer; bass, treble controls; 4-position speakers selector. Output power 20 W/channel rms into 8 ohms, 20-20,000 Hz at 0.1% THD, IM distortion; damping factor >20; preamp frequency response 20-20,000 Hz ±1.5 dB; input sensitivity/impedance 2.5 mV phono, 150 mV tape moni-

tor/50k ohms all; hum and noise 70 dB phono, 90 dB aux and tape monitor; FM usable sensitivity 14.14 dBf (2.8 μ V) mono, 21.45 dBf (6.5 μ V) stereo; S/N ratio mono/stereo 65/60 dB; capture ratio 1 dB; alternate-channel selectivity 60 dB; image/spurious/i-f response ratios 50/70/90 dB; AM-suppression ratio 55 dB; THD mono/stereo 0.2%/0.4%; separation at 100/1k/10k Hz 35/40/30; frequency response 20-15,000 Hz \pm 1 dB; AM sensitivity 300 μ V/m; selectivity 40 dB at \pm 10 kHz; S/N ratio 55 dB; power consumption 120 W; 15 $\frac{1}{2}$ " \times 11 $\frac{1}{4}$ " \times 5 $\frac{1}{2}$ "H; 16 lb \$180

RS90 Stereo Receiver

AM/FM-stereo receiver with slide-rule tuning dial. Features 5-LED signal-strength meter; LED tuning eye on dial pointer; loudness switch; tape-monitor input; bass, treble controls. Output power 20 W/channel into 8 ohms, 20-20,000 Hz at 0.5% THD, IM distortion; damping factor > 20; input sensitivity/impedance 2.5 mV/50k ohms phono, 150 mV/50k ohms all others; hum and noise phono/all others 70/90 dB; FM usable sensitivity mono/stereo 2.8 μ V (14.14 dBf)/6.8 μ V (21.45 dBf); 50-dB quieting sensitivity mono/stereo 6.5 μ V (21.45 dBf)/55 μ V (40 dBf); S/N ratio mono/stereo 65/60 dB; capture ratio 2 dB; alternate-channel selectivity 60 dB; image/spurious/i-f response ratio 50/70/80 dB; AM suppression 55 dB; THD at 50-dB quieting mono/stereo 0.4%/0.5%; frequency response 20-15,000 Hz \pm 1 dB; separation 40 dB at 1 kHz; AM sensitivity 300 μ V/m; power consumption 70 W; 15 $\frac{1}{2}$ " \times 8 $\frac{3}{4}$ " \times 4 $\frac{1}{2}$ "H; 10 lb \$170

GARRARD

1660 AM/FM-Stereo Receiver

Quartz-synthesized PLL AM/FM-stereo receiver with digital frequency display. Triple-A nonswitching power amplifier. Features Full-Function Light-Touch Tuning (FFLT); 7 AM/7 FM station presets; last-station memory; fluorescent digital station display; LED signal-strength meter; midrange control; wireless assembly; 2 tape monitors; low-, high-cut filters; mute switch. Output power 120 W rms into 8 ohms at



0.03% THD and IM distortion; S/N ratio 97 dB high-level; FM usable sensitivity mono/stereo 1.0/2.5 μ V; alternate-channel selectivity 60 dB; 420 mmW \times 330 mmD \times 132 mmH; 11.3 kg \$450
1560. Similar to 1660 except has analog tuning dial, no memory presets. Output power 80 W rms at 0.05% THD and IM distortion; S/N ratio 90 dB high-level; 10.1 kg \$350

1360 AM/FM-Stereo Receiver

AM/FM-stereo receiver with PLL stereo decoder, LED power meter. Features analog tuning dial; signal-strength meter; FM tuning display; FM mute; 2 tape monitors; mic jack. Output power 70 W rms into 8 ohms at 0.1% THD; S/N ratio 100 dB high-level; FM usable sensitivity mono/stereo 1.8/3.0 μ V; alternate-channel selectivity 60 dB; 420 mmW \times 364 mmD \times 146 mmH; 12 kg \$250
1260. Similar to 1360 except no power meters. Output power 50 W; 11.6 kg \$200

HARMAN/KARDON

hk680i AM/FM-Stereo Receiver

AM/FM-stereo receiver with digitally synthesized quartz-locked tuner. Features digital frequency display; 6 AM/6 FM station presets; 12-LED AM/FM signal-strength meter; defeatable bass, treble controls; subsonic, high-cut filters; 2 tape monitors with 2-way dub; loudness, mute switches; up/down scan tuning. Output power 60 W/channel continuous into 8 ohms, 20-20,000 Hz 0.02% THD; frequency response 1-150,000 Hz -3 dB; IM distortion 0.04%; slew rate

65 V/ μ sec; S/N ratio phono/aux 88/100 d; phono overload 225 mV; FM sensitivity 10.8 dBf (1.9 μ V); 50-dB quieting sensitivity mono/stereo 14.8 dBf (3.0 μ V)/36.1 dBf (35 μ V); S/N ratio 75 dB; frequency response 0-100,000 Hz -3 dB; capture ratio 1.2 dB; alternate-channel selectivity 80 dB; separation 55 dB at 1 kHz \$630

hk580i Stereo Receiver

Output power 45 W/channel into 8 ohms at <0.03% THD; frequency response <1-150,000 Hz +0/-3 dB; slew rate 65 V/ μ sec; hum and noise -85 dB phono, -90 dB aux; input sensitivity 2.2 mV phono, 150 mV aux; phono input impedance 47k ohms; RIAA equalization \pm 0.75 dB; FM usable FM sensitivity 1.8 μ V mono; S/N ratio 75 dB; capture ratio 1.0 dB; alternate-channel selectivity 75 dB; i-f rejection 100 dB; AM rejection 65 dB; separation 48 dB at 1 kHz; THD 0.1%; AM sensitivity 300 μ V/m; 17 $\frac{1}{2}$ " \times 14 $\frac{1}{2}$ " \times 4 $\frac{1}{2}$ "H; 24 lb \$530

hk570i Stereo Receiver

AM/FM-stereo receiver features defeatable bass, treble controls; subsonic, high-cut filter switches; 2 tape monitors with 1-way dub; loudness, mute defeat switches; 5-LED signal-strength, 3-LED center-tune meters. Output power 45 W/channel continuous into 8 ohms, 20-20,000 Hz at 0.02% THD; frequency response 1-150,000 Hz -3 dB; IM distortion 0.05%; slew rate 60 V/ μ sec; S/N ratio phono/aux 88/100 dB; phono overload 150 mV; FM usable sensitivity 11.2 dBf (2.0 μ V); 50-dB quieting sensitivity mono/stereo 15.1 dBf (3.1 μ V)/36.6 dBf (37 μ V); S/N ratio 75 dB; frequency response 0-100,000 Hz -3 dB; capture ratio 1.3 dB; alternate-channel selectivity 70 dB; separation 50 dB at 1000 Hz .. \$350

hk460i. Similar to hk570i minus high-cut filter, 2 tape monitor, dub; has monitor/source tape selector. Output power 30 W/channel at 0.07% THD; IM distortion 0.07%; phono S/N ratio 86 dB; phono overload 130 mV; FM usable sensitivity 12.4 dBf (2.3 μ V); 50-dB quieting sensitivity mono/stereo 15.6 dBf (3.3 μ V)/37.7 dBf (42 μ V); S/N ratio 70 dB; frequency response 0-90,000 Hz -3 dB; capture ratio 1.5 dB; alternate-channel selectivity 67 dB; separation 45 dB at 1 kHz \$330

hk350i. Similar to hk460i minus tone defeat, subsonic filter, LED tuning lock indicator. Output power 20 W/channel at 0.09% THD; frequency response 3-120,000 Hz -3 dB; IM distortion 0.09%; slew rate 40V/ μ sec; S/N ratio phono/aux 85/95 dB; phono overload 100 mV; FM usable sensitivity 13.2 dBf (2.5 μ V); 50-dB quieting sensitivity mono/stereo 16.1 dBf (3.5 μ V)/38.3 dBf (45 μ V); S/N ratio 65 dB; frequency response 0-60,000 Hz -3 dB; capture ratio 2.0 dB; alternate-channel selectivity 60 dB; separation 40 dB at 1 kHz \$250

HEATH

AR-1650 Stereo Receiver

Stereo receiver with fluorescent digital FM display with rotary tuning. Features signal-strength tuning meters; wide/narrow i-f bandwidth selectors, defeatable bass, midrange, treble controls; high, low filters; loudness switch; tape monitor, dub; Output power 125 W/channel continuous into 8 ohms, 20-20,000 Hz at 0.05% THD and IM distortion; frequency response 20-20,000 Hz +0/-0.2 dB; hum and noise -90 dB; input sensitivity 0.67 mV phono, 67 mV aux; phono overload 150 mV; frequency response +0.2 dB 20-20,000 Hz phono RIAA, 20-20,000 Hz +0/-0.2 dB aux THD 0.1% phono, 0.05% aux; FM usable sensitivity mono/stereo 10.3 dBf (1.8 μ V)/16.1 dBf (3.5 μ V); 50-dB quieting sensitivity mono/stereo 13.2 dBf (2.5 μ V)/36.1 dBf (36 μ V); stereo S/N ratio 73 dB; frequency response 20-15,000 Hz \pm 0.5 dB; THD 0.5%; alternate-channel selectivity 40 dB wide, 80 dB narrow; image rejection 100 dB; 21 $\frac{1}{2}$ " \times 16 $\frac{1}{2}$ " \times 7"H \$770

AR-1650S Kit. Silver faceplate \$770

AR-1650B Kit. Ebony faceplate \$790

AJA-1600-2. Optional Dolby FM noise-reduction module \$50

AR-1250 FM-Stereo Receiver

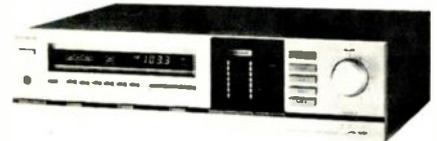
Stereo-FM receiver with fluorescent digital frequency display, rotary tuning, 2-color LED power meter. Fea-

tures 5-LED signal-strength meter; 2-color, 3-LED center-tune meter; high, low filters; defeatable bass, treble controls; FM muting; loudness switch; balance control; 2 tape monitors with 2-way dub; separate access to preamp out, power amp in. Output power 30 W/channel rms into 8 ohms, 20-20,000 Hz at 0.009% THD; frequency response 20-20,000 Hz \pm 0.2 dB; IM distortion 0.012%; S/N ratio phono/aux 75/85 dB; FM usable sensitivity mono/stereo 1.9 μ V (10.8 dBf)/3.5 μ V (16.1 dBf); 50-dB quieting sensitivity mono/stereo 3.5 μ V (16.1 dBf)/38 μ V (36.8 dBf); S/N ratio mono/stereo 70/65 dB; hum and noise -65 dB harmonic distortion mono/stereo 0.15%/0.3%; frequency response 30-15,000 Hz \pm 1.5 dB; 17 $\frac{1}{2}$ " \times 15 $\frac{1}{2}$ " \times 4 $\frac{1}{2}$ "H \$350 kit
AJA-1600-2. Optional Dolby FM noise-reduction module \$50
AJA-1200-2. Optional AM module with rod antenna \$40

HITACHI

HTA-5001 Tuner/Amplifier

Digital synthesizer AM/FM-stereo Super-Linear circuit tuner with preamp/power amplifier in single component. Features fluorescent digital frequency display; 6 AM/6 FM station presets; up/down scan tuning; 3-



LED signal-strength meter; 3-color, 7-LED power meters; auto/manual tuning; tape-copy capability; 2 tape loops; speaker protection; battery memory backup; high-gain AM loop antenna; speakers A/B/A + B selector. Output power 50 W/channel rms into 8 ohms, 20-20,000 Hz at 0.03% THD, 0.05% IM distortion; frequency response 20-20,000 Hz \pm 0.4 dB phono, 10-60,000 Hz \pm 2 dB tape; S/N ratio 72 dB phono; input sensitivity/impedance 2.5 mV/47k ohms phono, 150 mV/47k ohms tape and aux; phono overload 140 mV; output level/impedance 150 mV/600 ohms tape; FM usable sensitivity 10.8 dBf (1.9 μ V) mono; 50-dB quieting sensitivity 16.2 dBf (3.6 μ V) mono; S/N ratio mono/stereo 75/72 dB; THD mono/stereo 0.1%/0.2%; alternate-channel selectivity 75 dB; frequency response 30-15,000 Hz \pm 1 dB; AM sensitivity 400 μ V/m; 17 $\frac{1}{2}$ " \times 14 $\frac{1}{2}$ " \times 4 $\frac{1}{2}$ "H; 16 lb 15 oz \$410
HTA-4001. Similar to HTA-5001 except has single-color, 5-LED power meters. Output power 40 W/channel at 0.03% IM distortion; 15 lb 13 oz \$360

SR-2001 AM/FM-Stereo Receiver

Slim-line analog tuning dial AM/FM-stereo receiver with Vector Tuning System. Features bass-treble, balance controls; source/tape monitor switch; high-gain AM loop antenna; 3-stage IC differential amplification, 2 ceramic filters in i-f stage; PLL IC MPX decoder; loudness switch. Output power 25 W/channel into 8 ohms, 20-20,000 Hz at 0.3% THD, 0.05% IM distortion; frequency response 30-15,000 Hz \pm 0.5 dB phono, 15-30,000 Hz \pm 2 dB tape; S/N ratio 70 dB phono; input sensitivity/impedance 3 mV/50k ohms phono, 150 mV/30k ohms tape; phono overload 120 mV; output level/impedance 150 mV/1k ohm tape out (phono), 150 mV/4k ohms tape out (FM, AM); FM usable sensitivity 10.8 dBf (1.9 μ V) mono; 50-dB quieting sensitivity 17 dBf (3.9 μ V) mono; S/N ratio mono/stereo 0.15%/0.3%; alternate-channel selectivity 55 dB; frequency response 30-12,000 Hz \pm 2 dB separation 40 dB at 1 kHz; AM sensitivity 15 μ V; 17 $\frac{1}{2}$ " \times 11 $\frac{1}{2}$ " \times 3 $\frac{1}{2}$ "H; 12.1 lb \$200

JVC

R-X80 AM/FM-Stereo Receiver

AM/FM-stereo receiver with 5-band SEA graphic equalizer, quartz PLL synthesizer tuner, Super-A power amplifier. Features triple power protection; 8 AM/8 FM station presets; 2 tape monitors; MM and MC phono cartridge capability; digital frequency display. Output power 70 W/channel into 8 ohms, 20-20,000 Hz

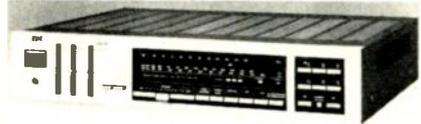
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RECEIVERS

at 0.008% THD; EQ center frequencies 40, 250, 1k, 5k, 15k Hz; boost/cut range ± 12 dB \$570
R-X60. Similar to R-X80 except no MC input. Output power 55 W/channel \$450
R-X40. Similar to R-X60 except 6 AM/6 FM station presets. Output power 40 W/channel \$350

R-K20 AM/FM-Stereo Receiver

AM/FM-stereo receiver with quartz PLL synthesizer tuner, "Digilog" (digital-analog) tuning dial, 3-band



SEA graphic equalizer. Features 6 AM/6 FM station presets; triple power protection. Output power 30 W/channel into 8 ohms, 20-20,000 Hz at 0.03% THD \$280
R-K10. Similar to R-K20 except has 5-LED power meter, standard analog tuning dial \$210

R-S77 AM/FM-Stereo Receiver

Stereo receiver with Super-A digital synthesizer tuner, class-AB power amplifier, 5-band SEA graphic equalizer. Features digital frequency display; 8-LED power meters; 2-way tape monitor/dub; FM muting; 6 AM/6 FM station presets; auto/manual up/down scan tuning; loudness switch; high filter; 5-LED signal-strength meter. Output power 60 W/channel into 8 ohms, 20-20,000 Hz at 0.005% THD, 0.004% IM distortion; damping factor 55; input sensitivity/impedance 2.5 mV/47k ohms phono, 180 mV/43k ohms aux and tape; phono overload 180 mV; frequency response 20-20,000 Hz ± 0.5 dB phono, $+0/-0.2$ dB aux and tape; S/N ratio phono/aux and tape 88/98 dB; EQ center frequencies 40, 250, 1k, 5k, 15k Hz; boost/cut range ± 12 dB; FM usable sensitivity 10.3 dBf; 50-dB quieting sensitivity 37.2 dBf stereo; S/N ratio mono/stereo 80/70 dB; frequency response 30-15,000 Hz $+0.5/-0.8$ dB; THD mono/stereo 0.15%/0.3%; alternate-channel selectivity 80 dB; capture ratio 1.0 dB; image/i-f rejection 78/100 dB; separation 45 dB at 1 kHz; $18\frac{1}{2}^{\circ}W \times 15^{\circ}D \times 4\frac{1}{2}^{\circ}H$ \$530
R-S33. Similar to R-S77 except has analog tuning. Output power 40 W/channel at 0.009% THD; damping factor 45; input sensitivity/impedance 2.4 mV/47k ohms phono, 150 mV/50k ohms aux and tape; frequency response 20-20,000 Hz $+0/-0.2$ dB; FM 50-dB quieting sensitivity 37.2 dBf stereo; S/N ratio mono/stereo 82/70 dB; image rejection 60 dB; $17\frac{1}{2}^{\circ}W \times 13\frac{1}{2}^{\circ}D \times 4\frac{1}{2}^{\circ}H$ \$345
R-S11. Similar to R-S33 except without equalizer. Output power 25 W/channel \$250

R-2X Stereo Receiver

AM/FM-stereo receiver with quartz PLL synthesized tuner, 6 AM/6 FM station presets, OCL power amplifier. Features manual/auto up/down scan tuning; 3-LED center-channel meter; 4-LED peak power meters; triple power protection. Output power 40 W/channel into 8 ohms, 20-20,000 Hz at 0.03% THD; S/N ratio phono/tape 74/91 dB; FM usable sensitivity mono/

stereo 10.3/38.3 dBf; frequency response 30-12,500 Hz $+0.5/-3.0$ dB; $17\frac{1}{2}^{\circ}W \times 13\frac{1}{2}^{\circ}D \times 3\frac{1}{2}^{\circ}H$; 13 lb \$330

KENWOOD

KR-1000 AM/FM-Stereo Receiver

Computerized AM/FM-stereo receiver with quartz PLL synthesizer tuner, digital frequency display, high-speed dc amplifier. Features 6 AM/6 FM station presets; graphic display of memory-stored operations; digital volume control; 7-band acoustic compensator with digital push controls; audio muting; zero-switching amplifier; multifunction timer. Output power 120 W/channel rms into 8 ohms, 20-20,000 Hz at $<0.01\%$ THD \$1250

KR-865G AM/FM-Stereo Receiver

Computerized AM/FM-stereo receiver with high-speed power amplifier, quartz PLL synthesizer tuner. Features 6 AM/6 FM station presets; automatic scan tuning; MM and MC phono inputs; zero-switching amplifier; LED power meters, tuning display. Output power 70 W/channel rms into 8 ohms, 20-20,000 Hz at 0.008% THD \$625
KR-845G. Similar to KR-865G except output power 45 W/channel \$450

KR-850 AM/FM-Stereo Receiver

AM/FM-stereo receiver with quartz PLL synthesizer tuner, digital and LED analog frequency displays, high-speed dc amplifier. Features 6 AM/6 FM station presets; LED power, tuning meters; zero-switching power amplifier; built-in timer. Output power 75 W/channel into 8 ohms, 20-20,000 Hz at $<0.01\%$ THD \$599
KR-830. Similar to KR-850 except no analog dial, timer. Output power 50 W/channel \$430
KR-820. Similar to KR-830 except no zero-switching amplifier, power meters. Output power 33 W/channel \$330
KR-810. Similar to KR-820 except output power 23 W/channel \$249

KR-90 AM/FM-Stereo Receiver

Computerized AM/FM-stereo receiver with digital frequency display. Features high-speed amplifier; LED power, tuning meters; 6 AM/6 FM station presets. Output power 30 W/channel into 8 ohms, 20-20,000 Hz at $<0.05\%$ THD \$329

KVR-510 Audio/Video Stereo Receiver

AM/FM-stereo receiver with quartz PLL synthesizer tuner. Accommodates 2 videocassette recorders or 1 each VCR and videodisc player. Features digital frequency display; 6 AM/6 FM station presets; high-speed amplifier inputs for video game/computer/FM/AM/tape/phono; synthesized stereo with built-in audio enhancer. Output power 30 W/channel into 8 ohms, 20-20,000 Hz at $<0.08\%$ THD \$399

KLH

R-301 AM/FM-Stereo Receiver

Analog-dial AM/FM-stereo receiver with LED signal-strength, tuning indicators. Features A/B/A + B speaker switching; low filter; FM mute; bass, treble controls. Output power 30 W/channel into 8 ohms, 20-20,000 Hz at 0.08% THD and IM distortion; frequency response 20-20,000 Hz ± 0.5 dB; hum and noise phono/all other inputs $-76/-95$ dB; FM usable sensitivity 2 μ V mono; 50-dB quieting sensitivity

mono/stereo 4.0/48 μ V; S/N ratio mono/stereo 68/62 dB; capture ratio 1.8 dB; alternate-channel selectivity 40 dB; image/i-f/spurious response ratio 45/80/70 dB; distortion mono/stereo 0.15%/0.3%; separation 40 dB at 1 kHz; AM sensitivity 300 μ V/m \$250

LUXMAN

RX-103 AM/FM-Stereo Receiver

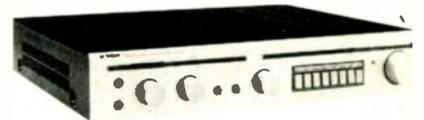
ServoFace digital synthesizer receiver with wireless remote control. Features Duo-Beta amplifier; Computer Analyzed Tuning (CAT); digital frequency display; MC phono preamp; infrared wireless remote control; FL power meters; discrete power amplifier; preamp output. Output power 90 W/channel into 8 ohms, 20-20,000 Hz at 0.015% THD and IM distortion; phono S/N ratio 86 dB; FM usable sensitivity 1.8 μ V (10.3 dBf); FM THD 0.05%; FM separation 48 dB \$1000
RX-102. Similar to RX-103 except has no remote control, MC input; features 24-station memory. Output power 60 W/channel \$600
RX-101. Similar to RX-102 except no preamp output, FL power indicator. Output power 40 W/channel at 0.02% THD and IM distortion; FM THD 0.1% \$500

R-3055 AM/FM-Stereo Receiver

AM/FM-stereo receiver with 5-LED power meters, analog tuning dial. Features A/B speaker switching; moving-coil (MC) phono preamp; bass, treble controls; subsonic, high-cut filters; loudness control; tape/source monitor with 2-way tape dub; FM muting, mono switches; 5-LED tuning direction indicators. Output power 55 W/channel continuous into 8 ohms, 20-20,000 Hz at 0.05% THD; frequency range 15-60,000 Hz; phono S/N ratio 90 dB; phono sensitivity 2.2 mV MM, 0.3 mV MC; phono overload 160 mV; FM usable sensitivity 1.8 μ V; capture ratio 1.3 dB; S/N ratio 75 dB; alternate-channel selectivity 65 dB; separation 45 dB at 1 kHz; $19\frac{1}{2}^{\circ}W \times 12\frac{1}{2}^{\circ}D \times 6\frac{1}{2}^{\circ}H$ \$550
R-3045. Similar to R-3055 except output power 45 W/channel \$450
R-3030. Similar to R-3045 has flasher tuning, no MC input or peak power indicator. Output power 30 W/channel; phono S/N ratio 87 dB; FM THD 0.15% \$350

R-5030 AM/FM-Stereo Receiver

AM/FM-stereo receiver with Duo-Beta dc amplifier, Computer Analyzed Tuning (CAT). Features discrete output power amplifier; flasher tuning; variable loud-



ness control. Output power 35 W/channel continuous into 8 ohms, 20-20,000 Hz at 0.03% THD and IM distortion; phono S/N ratio 83 dB; FM usable sensitivity 1.8 μ V (10.3 dBf); FM THD 0.12% at 1 kHz; FM separation 48 dB at 1 kHz \$350

MARANTZ

SR 8100DC Stereo Receiver

Quartz-lock frequency synthesizer AM/FM-stereo receiver with 5-band stereo equalizer, digital frequency display. Features LED amplifier status indicators; gold-plated input, output jacks; EQ output jack; PLL with pilot canceller; 2 tape monitors with tape copy; low, high filters; dual-gate MOSFET FM front end; electronic input selector; 8 AM/8 FM station presets; programmable triple timer system; electronic station search; EQ defeat, loudness switches. Output power 90 W/channel continuous average into 4 ohms, 20-20,000 Hz at 0.06% THD and IM distortion; frequency response 10-70,000 Hz ± 1.2 dB; input sensitivity 2.7 mV phono, 160 mV high-level; phono overload 225 mV at 1 kHz; S/N ratio 90 dB phono, 98 dB high-level; phono RIAA deviation ± 0.2 dB 20-20,000 Hz; FM 50 dB quieting sensitivity mono/stereo 13.2/36.1 dBf; S/N ratio 50 dB; frequency response 30-15,000 Hz ± 0.5 dB; mono, -1.0 dB stereo; THD 0.15% mono, 0.2% stereo at 1 kHz; cap-

NOTICE TO READERS

Prices of items described are suggested prices only and are subject to change without notice. Actual selling prices are determined by the dealer.

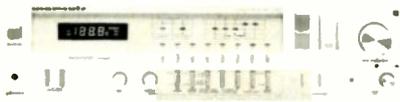
ture ratio 1.0 dB at 65 dBf; alternate-channel selectivity 65 dB; separation 45 dB; $16\frac{1}{2}^{\circ}W \times 15\frac{1}{2}^{\circ}D \times 4\frac{1}{2}^{\circ}H$ \$750

SR 7100DC Stereo Receiver

Quartz-locked synthesizer AM/FM-stereo receiver with dc amplifier, 8 AM/8 FM station presets, digital frequency display. Features LED power output display; gold-plated input, output connectors; 2-speaker switching; bass, midrange, treble controls; 8 kHz filter; 2 tape monitors with tape copy; loudness switch; Computuner™ programmable computer system; automatic on; triple timer system; dual tuning meters; dual-gate MOSFET FM front end; PLL with pilot canceller; up/down station scanning; auto/manual tuning. Output power 63 W/channel, both channels driven into 4 ohms, 20-20,000 Hz at 0.06% THD and IM distortion; damping factor 50 at 20 Hz; input sensitivity/impedance 2.7 mV/47k ohms phono, 160 mV/20k ohms high-level; phono overload 225 mV; S/N ratio 90 dB phono, 98 dB high-level A wtd; frequency response 20-20,000 Hz ± 0.2 dB phono, 10-70,000 Hz ± 1.0 dB high-level; FM IHF usable sensitivity 1.7 μ V mono; 50-dB quieting sensitivity mono/stereo 2.5/35 μ V; S/N ratio 0.15% mono, 0.2% stereo at 1 kHz; frequency response 30-15,000 Hz ± 0.5 dB mono, -1.0 dB stereo; capture ratio 1.0 dB; alternate-channel selectivity 65 dB; image rejection 55 dB; i-f and spurious rejection 90 dB; separation 45 dB at 1 kHz; AM usable sensitivity 20 μ V IHF; S/N ratio 50 dB; $16\frac{1}{2}^{\circ}W \times 15\frac{1}{2}^{\circ}D \times 4\frac{1}{2}^{\circ}H$ \$600

SR 620 CX AM/FM-Stereo Receiver

AM/FM-stereo receiver with PLL digital synthesizer tuner with pilot cancelling, digital frequency display,



CX™ noise-reduction system, video-ready capability. Features gold-plated input, output jacks; up/down touch tuning; automatic scan tuning; 8 AM/8 FM station presets; 2 tape monitors; tape-copy function; midrange, bass, treble controls; low filter; loudness switch; audio muting. Output power 55 W/channel into 4 ohms, 20-20,000 Hz at 0.06% THD; IM distortion 0.05%; damping factor 50; frequency response 20-20,000 Hz ± 1.5 dB; phono sensitivity/overload 2.8/130 mV; S/N ratio 80 dB; high-level sensitivity/impedance 160 mV/25k ohms; FM usable sensitivity 10.2 dBf (1.8 μ V); 50 dB quieting sensitivity mono/stereo 14.5 dBf (2.9 μ V)/38.3 dBf (45 μ V); capture ratio 1 dB; alternate-channel selectivity 60 dB; separation 45 dB at 1 kHz; image/i-f/spurious response ratio 50/80/90 dB; frequency response 30-15,000 Hz $+0.5/-1.5$ dB; AM sensitivity 20 μ V; $16\frac{1}{2}^{\circ}W \times 12^{\circ}D \times 4^{\circ}H$; 13 lb 12 oz \$495

SR 520. Similar to SR 620 CX except no CX decoder, muting; has single tape monitor, no tape copy function. Output power 38 W/channel at 0.09% THD; damping factor 45 \$375

SR 1100 AM/FM-Stereo Receiver

Analog-dial AM/FM-stereo receiver with LED signal-strength, center-tune meters. Features gold-plated input, output jacks; bass, treble controls; FM muting; tape monitor; high filter; loudness switch; center-tune LED. Output power 30 W/channel into 4 ohms, 20-20,000 Hz at 0.6% THD and 0.5% IM distortion; damping factor 30; S/N ratio 83 dB phono; FM usable, 50 dB quieting sensitivities same as for SR 250; THD mono/stereo 0.2%/0.3%; capture ratio 1.2 dB; alternate-channel selectivity 60 dB; image/i-f/spurious response ratio 50/85/80 dB; $16\frac{1}{2}^{\circ}W \times 12^{\circ}D \times 2\frac{1}{2}^{\circ}H$; 13 lb \$285

SR 3100. Similar to SR 1100 except output power 44 W/channel \$285

MITSUBISHI

DA-R35 Stereo Receiver

AM/FM-stereo receiver with quartz synthesizer tuning. Features linear switching circuit; 2-speaker relay

switching; moving-coil head amp; defeatable bass, treble controls; 12 dB/oct high and low filters; separate record selector with 2 tape deck duplication; 10-position loudness compensation; peak level indicators; input selector with separate MM/MC switch; fluorescent digital display; 7 AM/7 FM memory presets; auto scan tuning; LED signal-strength meter, multipath indicator; auto i-f and high-blend with LED indicators, manual defeat. Output power 85 W/channel continuous into 8 ohms, 20-20,000 Hz at 0.01% THD and IM distortion; dynamic headroom 2.0 dB; damping factor 130; input sensitivity/impedance 0.1 mV/100 ohms MC, 2.5 mV/47k ohms MM; 150 mV/47k ohms aux and tape; phono overload 20 mV MC, 250 mV MM; frequency response ± 0.3 dB 20-20,000 Hz phono RIAA, $+0.2/-2.0$ dB; 1-100,000 Hz aux and tape; THD 0.005%; S/N ratio 75 dB MC, 77 dB MM; 106 dB aux and tape; FM usable sensitivity 1.8 μ V (10.3 dBf); S/N ratio 84 dB mono, 79 dB stereo; frequency response ± 0.5 dB 50-15,000 Hz; THD mono 0.08%, stereo 0.10% wide, 0.3% mono, 0.5% stereo narrow; capture ratio 1.5 dB; alternate-channel selectivity 55 dB wide, 75 dB narrow; image rejection 85 dB; i-f and spurious rejection 100 dB; separation at 1 kHz 46 dB; $18\frac{1}{2}^{\circ}W \times 17\frac{1}{2}^{\circ}D \times 5\frac{1}{2}^{\circ}H$ \$650

DA-R25. Similar to DA-R35 minus peak level indicators; amp output 60 W/channel at 0.015% THD and IM dist \$540

DA-R15. Similar to DA-R25 minus moving-coil head amp; phono overload 140 mV; output power 45 W/channel; damping factor 100 \$360

DA-R8. Similar to DA-R15 minus high filter; output power 35 W/channel; damping factor 40; conventional FM section; touch-sensitive lock tuning; mute and band selector switches; alternate-channel selectivity 65 dB; THD 0.08% mono, 0.2% stereo \$230

NAD (USA)

7150 AM/FM-Stereo Receiver

Digital synthesizer AM/FM-stereo receiver with Schots PLL FM detector. Features search, scan tuning; 5 AM/5 FM station presets; noninteractive phono preamp; preamp-out/power-amp-in jacks; 2 tape monitors with independent record, listen selectors; pushbutton bridgeable amplifier with soft clipping; speaker impedance-matching switch. Output power 50 W/channel into 8 ohms, 20-20,000 Hz at 0.02% THD, 250 W into 8 ohms mono; phono input sensitivity 0.4 mV for 1 W output; S/N ratio 78 dB phono; RIAA deviation $\pm 0.25\%$; FM 50-dB quieting sensitivity mono/stereo 12/30 dB; S/N ratio mono/stereo 83/80 dB; capture ratio 0.5 dB; AM rejection 70 dB; alternate-channel selectivity 70 dB; THD mono/stereo 0.05%/0.08%; separation 40 dB broadband \$548

7120. Similar to 7150 except no bridging capability. Output power 20 W/channel; phono S/N ratio 75 dB; FM 50-dB quieting sensitivity mono/stereo 16/35 dB; alternate-channel selectivity 65 dB; FM S/N ratio mono/stereo 78/73 dB; FM THD mono/stereo 0.1%/0.15% \$298

7020 AM/FM-Stereo Receiver

Analog-dial AM/FM-stereo receiver with LED signal-strength, tuning meters. Features infrasonic, ultrasonic filters; bass, treble controls; audio muting; soft clipping™ power amplifier. Output power 20 W/channel continuous average into 8 ohms, 20-20,000 Hz at <0.02% THD and IM distortion; clipping/dynamic headroom $+1.5/+3.0$ dB; slew rate 15 V/ μ sec; damping factor >50; frequency response 20-20,000 Hz ± 0.5 dB; FM 50 dB quieting sensitivity mono/stereo 16/37 dB; S/N ratio mono/stereo 75/70 dB; frequency response 30-15,000 Hz ± 0.5 dB; separation 42 dB at 1 kHz; alternate-channel selectivity 65 dB; capture ratio 1.5 dB; AM suppression 60 dB; image/i-f rejection 50/75 dB; THD mono/stereo 0.2%/0.3% at 1 kHz; AM sensitivity 250 μ V \$348

NIKKO

NR-1000 Stereo Receiver

AM/FM-stereo receiver with quartz synthesized digital tuning, memory presets, auto tune. Features electronic protection circuits; 14-LED power meters; tone-defeat switch; adjustable FM muting control on

rear panel; MC head amp. Output power 65 W/channel rms into 8 ohms, 20-20,000 Hz 0.03% THD; FM usable sensitivity 1.9 μ V \$550

NR-800 Stereo Receiver

AM/FM-stereo receiver with quartz synthesized digital tuning, station memory presets, auto tune. Features electronic protection; 10-LED power meters; 2-stage FM muting. Output power 50 W/channel rms into 8 ohms, 20-20,000 Hz at 0.04% THD; FM usable sensitivity 2 μ V \$480

NR-700 Stereo Receiver

AM/FM-stereo receiver with quartz synthesized digital tuning, station memory presets, auto tuning. Output power 40 W/channel rms into 8 ohms, 20-20,000 Hz 0.04% THD; FM usable sensitivity 2 μ V \$400

NR-500 Stereo Receiver

AM/FM-stereo receiver with servo-lock tuning. Features circuit-breaker protection; 2 tape monitors with dubbing capability; subsonic filter. Output power 35 W/channel rms into 8 ohms, 20-20,000 Hz at 0.05% THD; FM usable sensitivity 2 μ V \$320

NR-520 AM/FM-Stereo Receiver

AM/FM-stereo receiver with quartz synthesizer tuner, amber digital frequency display, LED signal-strength meter. Features up/down scan, auto-seek tuning; 6 AM/6 FM station presets; subsonic filter; loudness-contour switch; A/B/A + B speaker switching; 4-second time-delay turn-on; electronic output protection. Output power 30 W/channel into 8 ohms, 20-20,000 Hz at 0.05% THD \$300

NR-320 Stereo Receiver

AM/FM-stereo receiver with LED signal-strength meter, tuning indicator. Features subsonic filter; A + B speaker switching. Output power 28 W/channel rms into 8 ohms, 20-20,000 Hz at 0.08% THD; FM usable sensitivity 2 μ V \$240

ONKYO

TX-61 AM/FM-Stereo Receiver

Quartz synthesizer AM/FM-stereo receiver with CX noise-reduction system. Features touch volume control; super servo, linear switching circuit; auto scan; MM/low-MC/high-MC phono inputs, switching; 8 AM/8 FM station presets. Output power 60 W/channel into 8 ohms, 20-20,000 Hz at 0.025% THD \$540

TX-51. Similar to TX-61 except no super servo circuitry, only MM/MC inputs, switching. Output power 43



W/channel at 0.04% THD \$400

TX-41. Similar to TX-51 except no CX decoder, linear switching circuit, MC input. Output power 33 W/channel at 0.06% \$300

TX-31 AM/FM-Stereo Receiver

Servo-locked AM/FM-stereo receiver with linear switching amplifier, MM/MC phono inputs, switching. Output power 45 W/channel into 8 ohms, 20-20,000 Hz at 0.04% THD \$350

TX-21. Similar to TX-31 except no MC input. Output power 30 W/channel at 0.06% THD \$250

TX-11. Similar to TX-21 except no servo-lock tuning. Output power 20 W/channel at 0.08% THD \$200

OPTONICA

SA-5407 Digital-Synthesizer Receiver

Digital synthesizer AM/FM-stereo receiver with zero-switching amplifier, moving-coil head amp. Features 5 AM/5 FM station presets; automatic/manual scanning; FM air check; 5-LED signal-strength meter; digital frequency display; FM stereo muting; A/B/A + B speaker switching; 41-step detented volume control; subsonic filter; 2 tape monitors, indicators; tape dub

with indicators; high filter; 2 ac convenience outlets. Output power 60 W/channel into 8 ohms at 0.04% THD; FM usable sensitivity 1.9 μ V \$500
SA-5207. Similar to SA-5407 but 40-W/channel output power; no moving-coil head amp, high filter \$400
SA-5107. Similar to SA-5207 but 25 W/channel output power; single tape monitor; no station presets, auto/manual scanning, FM air check, subsonic filter \$250

JC PENNEY

MCS 3260 Stereo Receiver

Amplifier section: features dual 12-LED power bargraph meters with display off, X10 button selectors; ± 12 -dB bass, midrange, treble controls; low, high filters; loudness, -20-dB audio muting, mode switches; 2-way tape monitor/dub; input selector with LED indicators; 60 W/channel continuous into 8 ohms, 20-20,000 Hz at 0.02% THD and IM distortion; frequency response 10-40,000 Hz ± 1 dB; RIAA phono deviation ± 0.3 dB; phono sensitivity 2.5 mV; phono overload 190 mV; phono S/N ratio 77 dB. Tuner: features PLL frequency synthesizer digital tuning with auto/manual up/down scan tuning and LED digital frequency readout; 6 AM/6 FM station presets; 5-LED signal-strength ladder display; FM muting, multiplex filter. FM section: THD at 1 kHz 0.1% mono, 0.15% stereo; capture ratio 1.0 dB; alternate-channel selectivity 70 dB; 6"H \times 19.44"W \times 13"D \$480
MCS 3249. Similar to 3260 but with 45 W/channel output; no audio mute, X10 power indicator, MPX/low filter; 19"W \times 12 1/2"D \times 5 1/4"H \$380

3285 AM/FM-Stereo Receiver

AM/FM-stereo receiver with quartz-locked digital synthesizer tuner. Active Drive High Speed Switching (ASHSST) dc power amplifier. Features acoustic memory in which bass, treble, filter positions can be preset; 8 AM/8 FM station presets; up/down scan tuning; wide/narrow i-f bandwidth selector; fluorescent digital frequency display; power display; volume setting display. Output power 85 W/channel rms into 8 ohms, 20-20,000 Hz at 0.005% THD; 19"W \times 14.9"D \times 5.7"H; 50 lb \$380

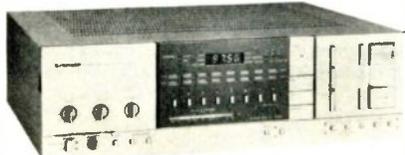
MCS 3236 Stereo Receiver

AM/FM-stereo receiver with dual 10-LED power indicators. Features bass, treble, midrange controls; low, high filters; FM mute; AM/FM/phono/AUX/tape 1/tape 2 input selector; loudness switch. Output power 35 W/channel into 8 ohms, 20-20,000 Hz at 0.04% THD. Tuner section features digital frequency display; flywheel tuning; target tuning; signal-strength meter. 17"W \times 10"D \times 4"H \$330
MCS 3226. Similar to 3236 except has 25-W/channel output power; does not include midrange control, tape 2, frequency display \$250

PIONEER

SX-8 Stereo Receiver

Computer-controlled AM/FM-stereo digital quartz-synthesizer receiver with 8 AM/8 FM presets, time-of-day clock, nonswitching dc amplifier design. Features



digital frequency display; bass, treble, balance controls; up/down scan tuning; output-power display; tape monitor/copy functions; audio, FM muting; subsonic filter; loudness switch; switching for two pairs of speaker system. Output power 100 W/channel continuous into 8 ohms, 20-20,000 Hz at 0.005% THD;

FM usable sensitivity 10.3 dBf (0.9 μ V) mono; capture ratio 1.0 dB; alternate-channel selectivity 80 dB; FM S/N ratio mono/stereo 80/75 dB at 85 dBf; 16 1/8"W \times 14 1/8"D \times 5 1/2"H; 21 lb 3 oz .. \$800
SX-7. Similar to SX-8 except 60 W/channel output power; 21 lb 3 oz \$550
SX-6. Similar to SX-7 except 45 W/channel output power; 18 lb 12 oz \$425

SX-5 Stereo Receiver

Computer-controlled AM/FM-stereo digital quartz synthesizer receiver with 6 AM/6 FM station presets, digital frequency display, nonswitching power amplifier. Features bass, treble, balance, volume controls; up/down scan tuning; loudness, tape, tuning/station-scan, mono/mute-off, loudness switches; front-panel headphones jack. Output power 30 W/channel minimum continuous average into 8 ohms, 20-20,000 Hz at 0.02% THD. FM usable sensitivity 11.2 dBf (1.0 μ V) mono; capture ratio 1.0 dB; alternate-channel selectivity 60 dB; FM S/N ratio mono/stereo 75/70 dB at 85-dBf input; 16 1/8"W \times 12 1/4"D \times 3 3/4"H; 12 lb 13 oz \$325
SX-4. Similar to SX-5 except output power 20 W/channel; no tuning/station-scan switch; 11 lb 7 oz \$250

REALISTIC

STA-2290 AM/FM-Stereo Receiver

Microprocessor-controlled AM/FM-stereo receiver with fluorescent frequency display. Features 6 AM/6 FM station presets; LED signal-strength, power meters; 21-step bass, treble, midrange controls; feather-touch tuning; auto/manual scan tuning; 2-way tape monitor/dub; 3 linear-phase ceramic filters; preamp out/main-amp in connectors; full overload protection. Output power 90 W/channel rms into 8 ohms, 20-20,000 Hz at 0.05% THD; frequency response 15-25,000 Hz ± 1 dB; S/N ratio phono/AUX 85/90 dB; phono overload 230 mV; FM usable sensitivity 10.33 dBf (1.8 μ V); capture ratio 1.5 dB; alternate-channel selectivity 70 dB; image rejection 75 dB; S/N ratio 74 dB mono; separation 50 dB at 1 kHz; 19 1/2"W \times 16 1/2"D \times 5 1/2"H \$600

STA-2080 Stereo Receiver

Stereo receiver features bass, midrange, treble controls; walnut-veneer finish. Output power 80 W/channel continuous into 8 ohms, 20-20,000 Hz at 0.03% THD; S/N ratio 83 dB phono, 99 dB aux; frequency response ± 0.5 dB 20-15,000 Hz phono RIAA, 15-25,000 Hz ± 2 dB high-level; input sensitivity 2.2 mV phono, 160 mV high-level; phono overload 200 mV; tuner S/N ratio 70 dB; capture ratio 1.5 dB; alternate-channel selectivity 70 dB; separation 48 dB at 1 kHz; 20 1/2"W \times 15 1/2"D \times 6"H \$500

STA-2250 Stereo Receiver

AM/FM-stereo receiver with digital synthesizer tuner. Features 8 AM/8 FM station presets; LED frequency display; MPX filter; LEF signal-strength meter; bass, midrange, treble controls; high, low filters; Output power 50 W/channel continuous into 8 ohms, 20-20,000 Hz at 0.02% THD; IM distortion 0.01%; frequency response ± 1 dB 20-15,000 Hz phono, 20-20,000 Hz ± 1 dB high-level; S/N ratio 85 dB phono, 96 dB aux; phono input sensitivity/overload 2.2/170 mV; FM50 dB quieting sensitivity 12.8 dBf mono; S/N ratio 72 dB mono, 67 dB stereo; THD 0.15% at 1 kHz; capture ratio 1.5 dB; selectivity 68 dB; separation 48 dB at 1 kHz; walnut veneer cabinet \$440

STA-850 AM/FM-Stereo Receiver

AM/FM-stereo receiver with 21-LED power meters. Features LED source indicators; LED signal-strength,

tuning meters; Auto-Magic tuning; lighted slide-rule dial; bass, treble controls; A/B/A + B speaker switching; selectable loudness; high filter; tape monitor; protection circuit; FM muting. Output power 50 W/channel into 8 ohms, 20-20,000 Hz at 0.05% THD; frequency response 15-25,000 Hz ± 1 dB; S/N ratio phono/AUX 86/90 dB; phono overload 130 mV; FM usable sensitivity 10.8 dBf (1.9 μ V); alternate-channel selectivity 53 dB; capture ratio 1.5 dB; image rejection 60 dB; S/N ratio 72 dB; separation 48 dB at 1 kHz \$380

STA-790 AM/FM-Stereo Receiver

AM/FM-stereo receiver with 21-LED power meters. Features 7-band equalizer with bypass switch; 30-Hz "cut" button; Auto-Magic tuning; 5-LED signal-strength meter; 40-step volume control; center-detented balance control; high filter; loudness switch; FM muting; tape monitor. Output power 45 W/channel into 8 ohms, 20-20,000 Hz at 0.04% THD; frequency response 15-25,000 Hz ± 1 dB; S/N ratio phono/AUX 86/92 dB; phono overload 140 mV; FM usable sensitivity 10.8 dBf (1.9 μ V); capture ratio 1.5 dB; alternate-channel selectivity 53 dB; image rejection 60 dB; S/N ratio 72 dB; separation 48 dB at 1 kHz; 18 1/2"W \times 10 1/2"D \times 4 1/4"H \$360

SA/ST-500 AM/FM-Stereo Receiver

Stereo receiver with 6-LED power, 5-LED signal-strength meters. Features echo with variable intensity control; auto fade-in/out when switching functions; audio muting; pushbutton source select; lighted analog tuning dial. Output power 30 W/channel into 8 ohms, 20-20,000 Hz at 0.08% THD; frequency response 15-20,000 Hz ± 1 dB; S/N ratio phono/AUX 78/92 dB; phono overload 140 mV; FM usable sensitivity 13.2 dBf (2.5 μ V); capture ratio 2 dB; alternate-channel selectivity 50 dB; image rejection 44 dB; S/N ratio 70 dB; separation 36 dB at 1 kHz; 16 1/2"W \times 9 1/2"D \times 3 1/4"H \$300

STA-110 AM/FM-Stereo Receiver

Stereo receiver with high-sensitivity front end. Features green TUNED LED; Auto-Magic tuning; pushbutton selectors; illuminated analog dial; 11-step bass, treble controls; protection circuits. Output power 22 W/channel into 8 ohms, 20-20,000 Hz at 0.08% THD; frequency response 15-25,000 Hz ± 1 dB; S/N ratio phono/AUX 86/90 dB; phono overload 105 mV; FM usable sensitivity 10.8 dBf (1.9 μ V); capture ratio 1.5 dB; alternate-channel selectivity 60 dB; image rejection 65 dB; S/N ratio 72 dB; separation 45 dB at 1 kHz; 18 1/2"W \times 10 1/4"D \times 5 1/2"H \$280

STA-730 AM/FM-Stereo Receiver

AM/FM-stereo receiver with 30-Hz "cut" button, 5-LED signal-strength meter. Features fluorescent digital frequency display; pushbutton selectors; 10-step bass, treble controls. Output power 27 W/channel into 8 ohms, 20-20,000 Hz at 0.08% THD; frequency response 15-25,000 Hz ± 1 dB; S/N ratio phono/AUX 81/92 dB; phono overload 140 mV; FM usable sensitivity 1.7 μ V; capture ratio 1.0 dB; image rejection 55 dB; S/N ratio 65 dB; separation 45 dB at 1 kHz; 16 1/2"W \times 12 1/2"D \times 3 1/4"H \$270

STA-430 Stereo Receiver

Stereo receiver with bass, treble controls; loudness switch; tape monitor. Output power 10 W/channel continuous into 8 ohms, 20-20,000 Hz at 0.6% THD; frequency response ± 0.5 dB phono, 15-30,000 Hz ± 2 dB high-level; S/N ratio 89 dB phono, 72 dB aux, 70 dB tuner; input sensitivity 2.2 mV phono, 160 mV high-level; phono overload 90 mV; 50 dB quieting sensitivity 16.5 dBf stereo; THD 1.0% at 1 kHz; capture ratio 3.0 dB; selectivity 45 dB; separation 34 dB at 1 kHz; 16 1/8"W \times 12"D \times 5 1/8"H \$160

ROTEL

RX 820 Stereo Receiver

Stereo receiver with 3-LED signal-strength meter, analog dial scale. Features tape monitor, loudness, mode, mute switches; speakers A, A + B switching. Output power 20 W/channel into 8 ohms at 0.1% THD; 109 mmH \times 430 mmW \times 250 mmD \times 109

NEED MORE INFORMATION?

Write directly to the manufacturer or distributor. A list of names and addresses starts on page 188.

Toshiba's CX receivers give you so much music, there's no room for noise.

Toshiba's new CX receivers can do more for music than you've ever heard.

But to understand just how much, it's necessary to understand two things: record surface noise and dynamic range.

WHERE DOES RECORD SURFACE NOISE COME FROM?

Not from the music, but from the record itself. Other than dust on the record, the reason you hear noise is that it lies in the same grooves as the music.

In the past, you had to go out of your way to try to silence this problem, with everything from expensive audio equipment to premium audiophile discs.

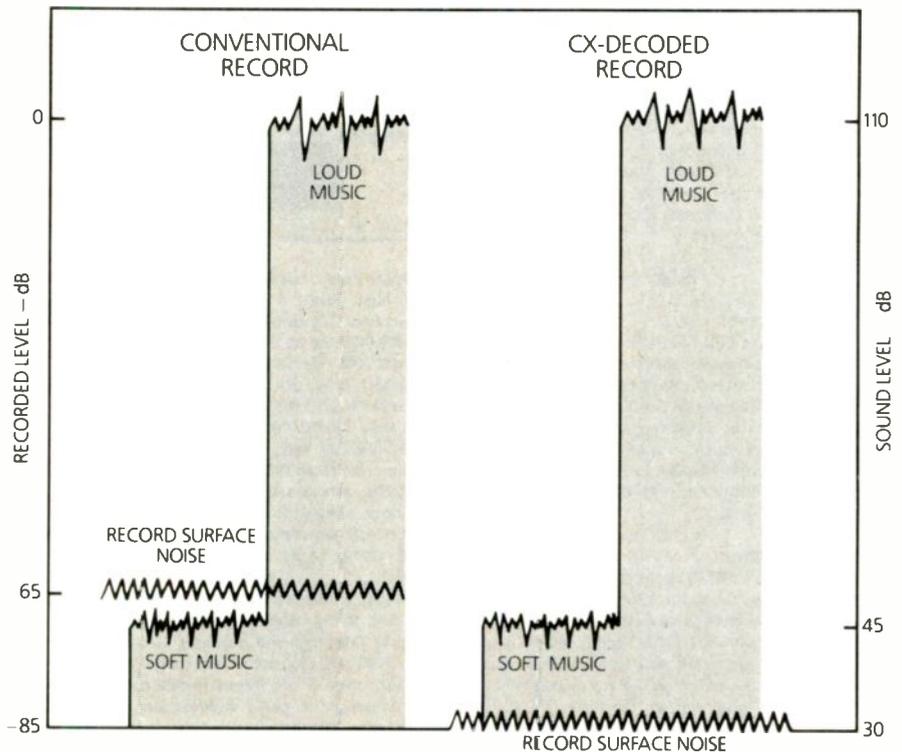
But now you don't have to go any further.

CX RECORDS ARE WHAT YOU'VE BEEN WAITING TO HEAR.

CX records are the latest development in audio technology. CX is a coding process that actually extends the dynamic range of music, and in the process virtually eliminates record surface noise.

Dynamic range is simply the difference in sound level between the loudest and softest passages of music. The dynamic range of live music is usually around 85 dB. But the same music on an ordinary record only approaches 65 dB.

What CX does, is give you the 20 dB of sound you would otherwise miss. Loud passages are louder, soft passages are softer.



And because there's more room for music, there's less room for noise.

YOU HAVEN'T HEARD EVERYTHING YET.

You can play a CX record on an ordinary receiver and it will sound ordinary. But we know you won't settle for that.

That's why Toshiba has included a CX decoder circuit in our new receivers, so you can hear the startling difference CX makes.

Close your eyes and you might think you're in a concert hall. That's how close a CX record comes to reproduction of live sound.

And we've given you a lot more than just a CX switch on our new receivers. Our SA-R3 CX Receiver has 40 watts per channel, with a digital-synthesized tuning system and 12 station pre-sets.

You'll get 25 watts per channel from our SA-R2 CX Receiver, along with servo-lock tuning.

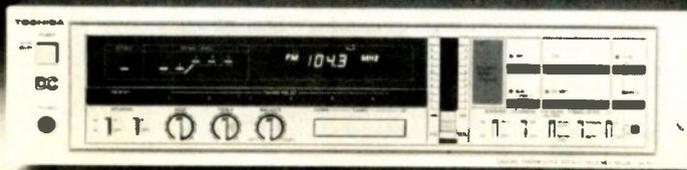
Now all you have to do is listen to our CX receivers for yourself. We think you'll be amazed at what you'll hear.

And what you won't.

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CIRCLE NO. 65 ON READER SERVICE CARD



1 RECEIVERS

mmH..... \$210

RX 840 Stereo Receiver

AM/FM-stereo quartz PLL synthesizer tuner with 5 AM/5 PM station presets, digital frequency display. Features 3-LED signal-strength meter; 7-LED power meter; tape monitor 1 and 2, dub 1 to 2, loudness, mode, mute, high-filter, speakers A, A + B switches. Output power 40 W/channel into 8 ohms at 0.06% THD; 430 mmW × 355 mmD × 109 mmH. \$320

RX 880 Stereo Receiver

AM/FM-stereo quartz PLL synthesizer remote-controllable receiver with 8 AM/8 FM station presets, digital frequency display. Features 5-LED signal-strength meter; nonswitching duo NFB amp circuitry; tape monitor 1 and 2, dub 1 to 2, loudness, mode, mute, subsonic-filter switches. Output power 80 W/channel into 8 ohms at 0.01% THD; 430mmW × 355mmD × 109 mmH..... \$520

SAE

R9B Stereo Receiver

Amplifier features LED bargraph power meter; 2-way tape dubbing; external processor input; bass, midrange, treble controls. Output power 90 W/channel continuous into 8 ohms, 20-20,000 Hz at 0.5% THD. Tuner features digital frequency display; quartz-lock synthesized touch tuning; LED signal-strength, multipath bargraph display; 50-dB stereo quieting sensitivity 36.1 dBf; FM distortion 0.22% (stereo)..... \$849

R6B Stereo Receiver

Amplifier: features LED bargraph power meters; 2-way tape dubbing; external processor input; output power 60 W/channel continuous into 8 ohms, 20-20,000 Hz with 0.05% THD. Tuner features digital frequency display; quartz-lock tuning; LED signal-strength, multipath bargraph meters; 50-dB quieting sensitivity 36.1 dBf (stereo); FM distortion 0.25% (stereo)..... \$675

R-2 AM/FM-Stereo Receiver

Servo-locked tuning AM/FM-stereo receiver with digital frequency display. Features Single-Strata voltage



amplifier; full-complementary power amplifier; black aluminum look. Output power 20 W/channel. \$299

SANSUI

Z-900 AM/FM-Stereo Receiver

Quartz-synthesizer AM/FM-stereo receiver with 7-band graphic equalizer. Features Super Feedforward circuitry; adjustable reverberation amplifier; digital



frequency display that doubles as clock with 3-memory program timer; 8 AM/8 FM station presets; auto/manual, preset scan tuning; fluorescent bargraph power meters; reverb display; LED signal-strength meter; moving-coil phono head amplifier; soft-touch volume control with preset, level indicator; 2 tape monitors; 2-way dubbing; 3-speaker switching; wide/narrow i-f bandwidth. Output power 120 W/channel into 8 ohms, 20-20,000 Hz at 0.005% THD; FM usable sensitivity 10.3 dBf (1.8 μV); FM

S/N ratio 80 dB mono; FM THD <0.005% .. \$960
Z-7000. Similar to Z-9000 except has 4-band graphic equalizer, 2-speaker switching, no reverb amp. Output power 80 W/channel..... \$800
Z-5000. Similar to Z-7000 except has LED peak power meters, Compu Selector System that links to some Sansui cassette decks, turntables for one-touch operation. Output power 70 W/channel at 0.007% THD; FM usable sensitivity 10.8 dBf (1.9 μV)..... \$500
Z-3000. Similar to Z-500 except has dc-servo amplifier. Output power 55 W/channel at 0.008% THD..... \$400

SANYO

DCR350 AM/FM-Stereo Receiver

AM/FM-stereo receiver with PLL frequency synthesizer tuner, 2-way tape monitor/dub. Features 6 AM/6 FM station presets; auto/manual up/down scan tuning; LED digital frequency display; 5-LED signal-



strength meter; bass, treble controls; loudness switch; low, high filters; 41-detent volume control; output protection. Output power 33 W/channel into 8 ohms, 20-20,000 Hz at 0.03% THD; frequency response 10-40,000 Hz +0/-1 dB; phono sensitivity/overload 2.5/150 mV; AUX and tape sensitivity/impedance 150 mV/47k ohms; S/N ratio phono/AUX and tape 78/90 dB; FM usable sensitivity 10.8 dBf (1.8 μV); S/N ratio mono/stereo 75/65 dB; distortion mono/stereo 0.3%/0.4% at 1 kHz; capture ratio 1.5 dB; alternate-channel selectivity 60 dB; spurious/image/i-f rejection 75/60/85 dB; AM rejection 55 dB; separation 45 dB at 1 kHz; AM sensitivity 300 μV/m; 420 mmW × 250 mmD × 120 mmH..... \$280

DCR250. Similar to DCR350 except has analog tuning dial; no tape dub. Output power 22 W/channel at 0.09% THD; high-end response 30 kHz; phono overload 130 mV; FM usable sensitivity 11.2 dBf (2 μV); capture ratio 3 dB; alternate-channel selectivity 55 dB; spurious/image/i-f suppression 55/70/50 dB; separation 40 dB..... \$200

DRC150. Similar to DCR 250 except no station presets, up/down scan tuning, high and low filters, speakers A/B/A + B switching. Output power 22 W/channel..... \$160

H.H. SCOTT

385R AM/FM-Stereo Receiver

AM/FM-stereo receiver with digital frequency display. Features function indicators; dual fluorescent power meters; subsonic, high filters; MM/MC phono preamplifiers; full electronic protection; 2 tape monitors with 2-way dubbing; 3 speaker system capability; wood side panels. Output power 85 W/channel rms into 8 ohms, 20-20,000 Hz at 0.03% THD .. \$600

375 R Stereo Receiver

Stereo receiver with fluorescent digital frequency display, W/dBW fluorescent output meters. Features dc power amplifier with fully complementary OCL output stages, low-noise differential input stage current mirror loaded; short- and open-circuit electronic protection; protection LED; detented bass, midrange, treble controls; high, subsonic filters; 2 tape monitors with 1-to-2 tape dubbing; 3-stage FM i-f ceramic filters; PLL MPX decoder; flywheel tuning; fluorescent center-channel tuning, signal-strength, stereo display; FM muting; MPX filter; 25/50/75-μsec FM deemphasizers; wood side panels. Output power 65 W/channel continuous into 8 ohms, 20-20,000 Hz at 0.05% THD..... \$460

355 R Stereo Receiver

Stereo receiver with dc amplifier with fully complementary OCL output stages, low-noise differential input stage current mirror loaded. Features short- and open-circuit electronic protection; fluorescent power meters calibrated in watts and dBW; protection LED

indicator; center-defeat bass, midrange, treble controls; high, subsonic filters; 2 tape monitors with 1-to-2 tape copying; 3-stage FM i-f ceramic filters; PLL MPX decoder; 5-LED signal-strength meter; 3-LED center-tune meter; FM muting; 25/50/75-μsec FM deemphasizers; MPX filter; wood side panels. Output power 45 W/channel continuous into 8 ohms, 20-20,000 Hz at 0.08% THD..... \$380

335 R Stereo Receiver

Stereo receiver with 12-LED bargraph power displays. Features dc amplifier with fully complementary OCL output, low-noise differential input stage current mirror loaded; short- and open-circuit electronic protection; center-defeat bass, treble controls; subsonic filter; tape monitor; 3-stage ceramic FM i-f filters; PLL MPX decoder; 5-LED signal-strength meter; 3-LED center-tune meter; FM muting; wood side panels. Output power 27 W/channel continuous into 8 ohms, 20-20,000 Hz with 0.08% THD..... \$280

325 R Stereo Receiver

Stereo receiver with dc amplifier with fully complementary OCL output stage, low-noise differential input stage current mirror loaded. Features short- and open-circuit electronic protection; center-defeat bass, treble controls; subsonic filter; 3-stage ceramic FM i-f filters; PLL MPX decoder; 5-LED signal-strength meter; 3-LED center-tune indicator on dial pointer; FM muting; wood side panels. Output power 18 W/channel continuous into 8 ohms, 20-20,000 at with 0.1% THD..... \$230

SHERWOOD

S-9600CP Stereo Receiver

AM/FM-stereo receiver with Touch Lock Tuning™, fluorescent digital frequency display, 8-segment LED output meters. Features all-discrete circuitry throughout audio signal path; 2 linear-phase ceramic i-f filters, double-tuned FM quadrature detector; differential FET input sections in phono preamp, power amp; 40-kHz input buffer filter to power amp; ultra low bass EQ; defeatable bass, midrange, treble controls; noise filter; mute/servo switch; tape 1 and tape 2 monitor, dub facilities; loudness switch; fluorescent signal-strength, center-tune displays. Output power 66 W/channel rms into 8 ohms, 20-20,000 Hz at 0.05% THD and IM distortion; clipping/dynamic headroom 1.18/1.54 dB; damping factor 45; input sensitivity at 1 kHz for rated output 2.5 mV phono, 150 mV AUX and tape; phono overload 200 mV; frequency response 5-40,000 Hz ±0.5 dB; S/N ratio phono/AUX 96/100 dB; FM usable/50-dB quieting sensitivity 1.6 μV/38 μV stereo, 3.0 μV mono; stereo separation 45 dB at 1 kHz; capture ratio 1.2 dB; alternate-channel selectivity 70 dB; image/l-f/spurious response ratios 80/75/85 dB; frequency response 30-15,000 Hz ±0.5 dB; THD 1% stereo and mono; AM sensitivity 300 μV/m; selectivity 25 dB; ac accessory outlets 1 switched, 1 unswitched; 17½"W × 15½"D × 4½"H..... \$480

S-9400CP. Similar to S-9600CP except no tape-du, midrange control, second tape-monitor. Output power 45 W/channel; clipping/dynamic headroom 1.4/1.76 dB; phono overload 160 mV; FM usable sensitivity/mono 50-dB quieting sensitivity 1.7 μV/3.2 μV; FM stereo THD 0.15%; 21.5 lb.. \$400

S-9300CP. Similar to S-9400CP except has 5-point LED signal-strength, 3-point LED center-tune displays. Output power 37 W/channel at 0.06% THD and IM distortion; clipping/dynamic headroom 1.81/2.13 dB; damping factor 50; phono overload 140 mV; phono S/N ratio 91 dB; FM stereo 50-dB quieting sensitivity 40 μV; FM THD stereo/mono 0.15%/0.12%; 16½"W × 13½"D × 4"H; 18.25 lb..... \$320

S-9200CP. Similar to S-9300CP except has no power meters, ultra low bass EQ, mute/servo switches, or noise filter. Output power 24 W/channel at 0.08% THD and IM distortion; FM usable sensitivity/mono 50-dB quieting sensitivity 1.8/3.5 μV; FM THD stereo/mono 0.2%/0.15%; 17 lb..... \$250

S-9180CP Stereo Receiver

AM/FM-stereo receiver with back-lighted slide-rule tuning dial and illuminated pointer, FM center-tune meter, 40-kHz input buffer filter to power amplifier.

Features all discrete circuitry throughout audio path; dual-gate MOSFET input to r-f amplifier; linear-phase FM ceramic i-f filters; double-tuned quadrature detector; PLL MPX demodulator; loudness switch; FM mute; pushbutton tape-monitor, AM, FM, phono, aux functions. Output power 24 W/channel rms into 8 ohms, 20-20,000 Hz at 0.08% THD and IM distortion; clipping/dynamic headroom 1.53/2.0 dB; damping factor 40 at 8 ohms; input sensitivity 2.5 mV phono, 150 mV tape and aux; phono overload 140 mV; S/N ratio phono/aux 91/100 dB; frequency response 8-40,000 Hz ± 0.5 dB; FM usable/50-dB quieting sensitivity 1.8 μ V/40 μ V stereo, 3.5 μ V mono; THD stereo/mono 0.20%/1.5%; S/N ratio stereo/mono 75/80 dB; separation 45 dB; alternate-channel selectivity 65 dB; image/i-/spurious-response ratio 65/70/70 dB; capture ratio 1.5 dB; frequency response 30-15,000 Hz ± 1 dB; AM sensitivity 300 μ V/m; ac accessory outlets 1 switched, 1 unswitched; 16 $\frac{1}{2}$ "W x 13 $\frac{1}{2}$ "D x 4"H; 16.5 lb..... \$220

SONY

STR-VX6 Stereo Receiver

AM/FM-stereo receiver with quartz frequency synthesis tuner, 5-way tuning flexibility, MNOS memory IC. Features legato linear dc power amplifier; pulse power supply; high F_i output transistors; direct-comparator high S/N ratio FM circuit; MC-cartridge facility; switchable phono capacitance; subsonic filter; tape dub; thermodynamic cooling; dual tape monitors; preamp-out/power-amp-in option. Output power 70 W/channel rms into 8 ohms, 20-20,000 Hz at 0.008% THD; 13 lb 11 oz..... \$670

STR-VX5. Similar to STR-VX6 but without phono-capacitance selector, thermodynamic cooling, pre-/power-amp option..... \$530

STR-VX4 Stereo Receiver

AM/FM-stereo receiver with quartz-locked frequency synthesis tuner, 5-way tuning flexibility, MNOS memory IC. Features legato linear dc power amplifier; subsonic filter; tape dub; dual tape monitors. Output power 40 W/channel rms into 8 ohms, 20-20,000 Hz at 0.008% THD; 16 lb 12 oz..... \$430

STR-VX33 Stereo Receiver

AM/FM-stereo receiver with acute servo-lock tuner. Features legato linear dc power amplifier; 8 AM/8 FM station presets with memory back-up; auto/manual tuning; subsonic filter; tape dub; dual tape monitors. Output power 35 W/channel rms into 8 ohms, 20-20,000 Hz at 0.008% THD; 14 lb 5 oz..... \$310

STR-VX22 Stereo Receiver

AM/FM-stereo receiver with servo-lock tuning system. Features auto/manual tuning; 8 AM/8 FM station presets with memory back-up; full complement of operating controls; LED signal-strength/center-tuning display. Output power 28 W/channel rms into 8 ohms, 20-20,000 Hz at 0.07% THD; 13 lb 7 oz... \$250

STR-VX1 Stereo Receiver

AM/FM-stereo receiver with 5 FM-station preset program sensor system, full complement of operating controls, LED signal-strength/center-tuning display. Output power 22 W/channel rms into 8 ohms, 20-20,000 Hz at 0.08% THD; 13 lb 11 oz..... \$225

STUDER/REVOX

Revox B780 FM-Stereo Receiver

Amplifier section: features defeatable ± 8 -dB bass (120 Hz), presence (3 kHz), treble (8 kHz) controls; switchable low, high, low/high filters; mono, loudness, -20-dB audio muting switches; phono, tuner, aux, tape 1 and 2 input selectors. Output power 75 W/channel into 8 ohms, 20-20,000 Hz at 0.05% THD; dynamic headroom 1 dB. Tuner: features microcomputer-controlled digital synthesis tuning; auto up/down push-button scan tuning with $\pm 0.0025\%$ accuracy; LED digital frequency display; 18-station memory preset with last station recall; noise reduction, high blend, FM mono, muting off, stereo-only selectors; signal-strength meter; IHF 50-dB quieting 13.2 dBf (2.5 μ V); stereo THD 0.25%; S/N ratio 78 dB; capture ratio 2 dB; alternate-channel selectivity 78 dB; AM suppression 70 dB; unit can be used with European.

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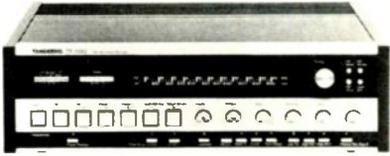
1 RECEIVERS

Asian, U.S. station allocations, deemphasis curves, with standard ac line voltages; 17 $\frac{1}{4}$ "W x 16 $\frac{1}{2}$ "D x 6"H..... \$2899

TANDBERG

TR 2080 Stereo Receiver

Amplifier section: output power 80 W/channel continuous into 8 ohms, 20-20,000 Hz at 0.05% distortion; rise time 1 μ sec. Features provision for 2 tape



decks, 2 phono, 3 pairs speakers. Inputs have separate preamplifiers with adjustable sensitivity controls; mode switch; filters, tone and other controls can modify signals on Tape 2 output. Rosewood and black lacquer finishes available \$1200
TR 2045. Similar to TR 2060 except has FM presets; high, low filters. 45 W/channel; FM stereo S/N ratio 74 dB; AM suppression 65 dB; separation 40 dB \$650

TR3030 AM/FM-Stereo Receiver

Stereo receiver with 4 AM/4 FM station presets, electronic tuning, high-speed dc amplifier, unique 3-stage phono equalizer. Features AM and FM band selector switches; volume, bass, treble, balance, tuning controls; signal-strength, center-tune meters; FM muting; loudness-compensation, mono/stereo, high and low filters, speakers A and B switches. Output power 30 W/channel into 8 ohms at <0.09% THD; hum and noise tape/phono 82/77 dB; 50-dB FM quieting sensitivity mono/stereo 16.2 dBf (1.8 μ V)/37.3 dBf (20 μ V); S/N ratio at 65 dBf mono/stereo 76/74 dB; 51.5 cmW x 32 cmD x 32 cmH \$399

TR3030 AM/FM-Stereo Receiver

Slim-line AM/FM-stereo receiver with electronic tuning, 4 AM/4 FM station presets. Features high-speed dc amplifier; unique 3-stage phono equalizer . \$399

TECHNICS

SA-828 AM/FM-Stereo Receiver

Quartz synthesizer AM/FM receiver with 100-W/channel output into 8 ohms, 20-20,000 Hz at 0.005% THD. Features class-A dc amplifier section with linear feedback; quartz synthesizer digital tuning with analog dial; electronic pushbutton tuning with auto scanning; 7 AM/7 FM station presets with LED indicators; electronic volume control with LED range indicator; space dimension controller with display \$875

SA-626 AM/FM-Stereo Receiver

Slim-profile AM/FM-stereo receiver with 65-W output into 8 ohms, 20-20,000 Hz at 0.005% THD. Features new class-A, straight dc amplifier section with linear feedback; quartz synthesizer digital tuning with analog dial; electronic pushbutton tuning with automatic scanning; 7 AM/7 FM station presets with LED indicators; pushbutton up/down electronic volume control with LED range indicator; audio muting (-20 dB); soft-touch program selectors (tape monitors, loudness, subsonic, high filters, FM muting/mode switch, audio muting); 2 tape monitors with 2-way tape dubbing \$560

SA-424. Similar to SA-626 except 45-W/channel output at 0.007% THD; no audio muting; no pushbutton electronic volume control \$420
SA-222. Similar to SA-424 except 30-W/channel output at 0.04% THD; no class-A dc power amplifier or linear feedback \$280

SA-206 AM/FM-Stereo Receiver

AM/FM-stereo receiver with quartz synthesizer tuner. Features digital frequency display; 6 AM/6 FM station presets; LED signal-strength meter, quartz-lock indicator; A/B/A + B speakers selector; bass, treble controls; subsonic filter; loudness switch; fuseless electronic protection; detachable AM loop antenna. Output power 25 W/channel into 8 ohms, 20-20,000 Hz at 0.04% THD and IM distortion; frequency response 7-70,000 Hz -3 dB; input sensitivity/impedance 0.5 mV/47k ohms phono, 30 mV/22k ohms aux and tape; S/N ratio phono/aux and tape 77/82 dB; FM usable sensitivity 10.8 dBf (1.9 μ V); 50 dB quieting sensitivity mono/stereo 16.1 dBf (3.5 μ V)/38.3 dBf (45 μ V); S/N ratio mono/stereo 78/72 dB; THD mono/stereo 0.08%/0.15% at 1 kHz; frequency response 20-15,000 Hz +1/-2 dB; capture ratio 1 dB; alternate-channel selectivity 65 dB; image/i-f/spurious response ratio 55/75/82 dB; AM suppression 55 dB; separation 40 dB at 1 kHz; AM sensitivity 300 μ V/m; 16 $\frac{1}{8}$ "W x 11 $\frac{1}{4}$ "D x 3 $\frac{1}{8}$ "H; 11 lb \$240

SA-203 AM/FM-Stereo Receiver

Analog-dial AM/FM-stereo receiver with 2-color 5-LED power, signal-strength meters. Features dial pointer that changes color when station is properly tuned; off/x1 x10 power meter switch; switching for 2 sets speakers; bass, treble, balance controls; loudness, FM muting, source/tape monitor switches. Output power 30 W/channel rms into 8 ohms, 20-20,000 Hz at 0.04% THD and IM distortion; frequency response 20-20,000 Hz \pm 2 dB; dynamic headroom 0.7 dB; S/N ratio phono/all others 75/80 dB; input sensitivity/impedance 0.5 mV/47k ohms phono, 150 mV/22k ohms all others; phono overload 120 mV; FM usable sensitivity 10.8 dBf (1.9 μ V); 50 dB quieting sensitivity mono/stereo 14.8 dBf (3 μ V)/38.3 dBf (45 μ V); capture ratio 1.2 dB; alternate-channel selectivity 68 dB; image/i-f/spurious response rejection 55/75/80 dB; AM suppression 50 dB; frequency response 20-15,000 Hz +1/-2 dB; separation 42 dB at 1 kHz; S/N ratio mono/stereo 75/70 dB; THD mono/stereo 0.15%/0.3% at 1 kHz; AM sensitivity 300 μ V/m; 16 $\frac{1}{8}$ "W x 11 $\frac{1}{4}$ "D x 3 $\frac{1}{8}$ "H; 12.3 lb \$220

SA-104 AM/FM-Stereo Receiver

Analog-dial AM/FM-stereo receiver with color-changing illuminated dial. Features 2-color, 3-LED signal-strength meter; pushbutton input selectors; bass, treble controls; A/B/A + B speaker switching; FM muting; tape monitor; loudness switch; fuseless electronic protection. Output power 20 W/channel rms into 8 ohms, 20-20,000 Hz at 0.04% THD and IM distortion; dynamic headroom 0.7 dB; frequency response 7-70,000 Hz -3 dB; input sensitivity/impedance 0.5 mV/47k ohms phono, 30 mV/22k ohms aux and tape; phono overload 140 mV; S/N ratio phono/aux and tape 77/82 dB; FM usable sensitivity 10.8 dBf (1.9 μ V); 50 dB quieting sensitivity mono/stereo 16.1 dBf (3.5 μ V)/38.3 dBf (45 μ V); capture ratio 1.0 dB; alternate-channel selectivity 60 dB; image/i-f/spurious response rejection 55/70/80 dB; AM suppression 50 dB; frequency response 20-15,000 Hz +1/-2 dB; S/N ratio mono/stereo 77/70 dB; THD mono/stereo 0.15%/0.3% at 1 kHz; separation 40 dB at 1 kHz; AM sensitivity 300 μ V/m; power consumption 150 W; 16 $\frac{1}{8}$ "W x 10 $\frac{1}{4}$ "D x 3 $\frac{1}{8}$ "H; 10.6 lb \$190

TOSHIBA

SAR3 Stereo Receiver

Digital synthesizer AM/FM-stereo receiver with 6 AM/6 FM station presets, CX record noise-reduction circuit. Features dc amplifier; switching for 2 pairs speakers; subsonic filter. Output power 40 W/channel continuous into 8 ohms, 20-20,000 Hz at 0.04% THD and IM distortion; phono S/N ratio 72 dB; phono overload 150 mV; FM sensitivity 1.8 μ V; 50-dB quieting sensitivity 3.6 μ V; distortion stereo/mono 0.15%/0.08%; separation 40 dB at 1 kHz; 16.6"W x 13.2"D x 4.3"H; 15 lb \$400
SA-R2. Similar to SA-R3 except output power 25 W/channel; 13.6 lb \$300

VECTOR RESEARCH

VRX-9500 Stereo Receiver

Stereo receiver with dbx*II disc encoder/decoder noise-reduction system, synthesized tuner with programmable timer functions, relay-controlled input selector. Features moving-coil cartridge head amp; 5-point signal-strength/multipath indicator; 3-band panoramic tone control system with selectable frequencies (bass \pm 10 dB 65-220 Hz, midrange \pm 10 dB 350-2000 Hz, treble \pm 10 dB 2.5k-20k Hz); dual 12-point LED output level indicators; pre/main amp jacks. Audio section: output power 90 W/channel into 8 ohms, 20-20,000 Hz at 0.02% THD; power amp input sensitivity/impedance 1 V/47k ohms; IM distortion 0.02% at 8 ohms; S/N ratio 120 dB IHF A weighted at rated output; moving-magnet preamp input sensitivity/impedance 2.5 mV/47 ohms; MM phono S/N ratio 82 dB A weighted. FM section: sensitivity 10.8 dBf (1.9 μ V); S/N ratio 70 dB stereo at 65 dBf; frequency response 20-15,000 Hz \pm 1 dB; distortion 0.08% at 65 dBf (at 1 kHz, stereo); separation 50 dB at 1 kHz; 17 $\frac{1}{4}$ "W x 14 $\frac{1}{2}$ "D x 5 $\frac{1}{8}$ "H; 30 lb 10 oz \$1000

VRX-9000 Stereo Receiver

Amplifier section: features direct-coupled OCL power amplifier circuitry; dual power output meters with low/high-range meter switch; defeatable bass, midrange, treble controls; 12-dB/octave low, high filters; loudness control; -20-dB audio muting, 2-deck tape monitoring with 2-way dubbing; phono, tuner, aux input selector with LEDs. Output power 80 W/channel continuous, into 8 ohms, 20-20,000 Hz at 0.08% THD and 0.1% IM distortion; damping factor 50 at 1 kHz, 8 ohms; input sensitivity/impedance 2.5 mV/47k ohms phono, 150 mV/47k ohms aux, tape 1, 2; frequency response \pm 0.5 dB 20-20,000 Hz phono, 10-50,000 Hz +0.5/-1 dB high-level; S/N ratio 82 dB phono, 93 dB aux and tape. Tuner features PLL frequency-synthesizer quartz-locked digital tuning with up/down scan tuning with hold scan, LED digital frequency display; 6-station AM/FM memory preset; 5-LED signal-strength indicators; 25- μ sec Dolby de-emphasis, FM muting switches; LED FM stereo indicator. FM section: IHF usable sensitivity 10.8 dBf (1.9 μ V); 50-dB quieting 19 dBf mono, 40 dBf stereo; S/N ratio 75 dB mono, 70 dB stereo; frequency response 20-15,000 Hz \pm 1 dB; distortion at 1 kHz 0.08% mono, 0.25% stereo; capture ratio 1.1 dB; alternate channel selectivity 65 dB; spurious rejection 72 dB; image and i-f rejection 100 dB; separation 46 dB at 1 kHz; 17 $\frac{1}{4}$ "W x 14 $\frac{1}{2}$ "D x 5 $\frac{1}{8}$ "H \$550
VRX-8000. Similar to VRX-9000 except 50-W/channel output power \$550

VR-7000 Stereo Receiver

Amplifier section: features direct-coupled OCL circuitry; dual five-LED power level bargraph display with low/high-range meter switch; bass, midrange, treble controls; high filter; loudness switch; 2-deck tape monitoring with 2-way dubbing; phono/aux input selector with LEDs. Output power 65 W/channel continuous into 8 ohms, 20-20,000 Hz at 0.08% THD, 0.1% IM distortion; damping factor 50; input sensitivity/impedance 2.5 mV/47k ohms phono, 150 mV/47k ohms aux and tape; phono overload 180 mV; frequency response \pm 0.5 dB from 20-20,000 Hz phono RIAA, 10-50,000 Hz +0.5/-1 dB high-level; S/N ratio 82 dB phono, 93 dB aux and tape. Tuner features dual-gate MOSFET FM front end; signal-strength, tuning meters; 25- μ sec FM Dolby deemphasis, FM muting switches. FM IHF sensitivity 10.8 dBf (1.9 μ V); 50-dB quieting 19 dBf mono, 40 dBf stereo; S/N ratio 78 dB mono, 71 dB stereo; frequency response 30-15,000 Hz \pm 1.5 dB; distortion 0.15% mono, 0.25% stereo; capture ratio 1.2 dB; alternate-channel selectivity 55 dB; spurious rejection 65 dB; image rejection 50 dB; i-f rejection 80 dB; separation 40 dB at 1 kHz; 5 $\frac{1}{8}$ "H x 17 $\frac{1}{8}$ "W x 14 $\frac{1}{2}$ "D x 5 $\frac{1}{8}$ "H \$550
VR-5000. Similar to VR-7000 minus LED power level display, FM Dolby deemphasis switch. Output power 45 W/channel \$360

VR-3000 Stereo Receiver

Stereo receiver with discrete output transistors in true push-pull configuration. Features 5-point LED signal-strength indicator; LED tuning indicator; dual



HOW CAN SANSUI CLAIM THE WORLD'S ONLY DISTORTION-FREE RECEIVER? SIMPLE. WITH SUPER FEEDFORWARD DC AMP.

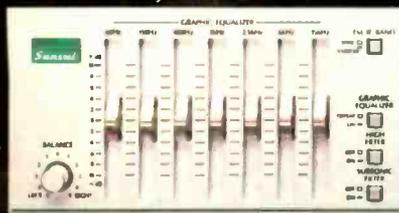
Creating technological breakthroughs is nothing new to Sansui. One of our most recent innovations, the unique Super Feedforward DC power amplifier system routs all types of distortion—harmonic, intermodulation, transient intermodulation, switching—you name it.

And it's the reason we can claim that Sansui's new top-of-the-line, 120-watt* Z-9000 receiver is truly distortion-free.

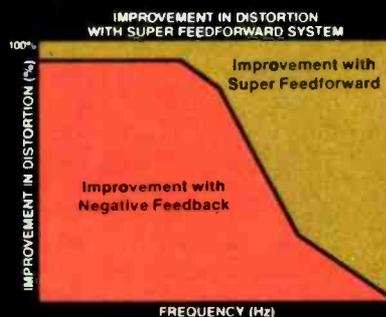
Simply stated, the Sansui Super Feedforward circuit is the perfect marriage between negative feedback and feedforward. As a result, you're never bothered by any type of distortion. You hear precisely what's on the records, tapes and broadcasts. Nothing added, nothing lost—just pure music.

7-band graphic equalizer for greater tone control.

Unlike receivers with conventional two or three tone controls, the Z-9000 provides total flexibility with a state-of-



the-art 7-band graphic equalizer that helps balance the sound in your listening room.



Digital Quartz-PLL tuning is more precise.

While Super Feedforward alone is enough to outperform most receivers, the Z-9000 adds the pinpoint accuracy of drift-free digital Quartz-PLL tuning. To make sure it's as easy to use as it is precise, there's microprocessor-controlled pushbutton pre-selection of eight FM and eight AM stations. Plus automatic scanning to recall each preset station at the previously programmed volume level. Each time you touch the tuning button you can scan or go up and down the FM and AM bands, bringing in perfectly tuned stations even when they're a hairline away from each other.

Extras add more pleasure to your listening.

The Z-9000 is loaded with high technology refinements that let you experiment with sound the way no other receiver can.

The built-in reverb unit with its own display can make your finest tapes and recordings sound even more magnificent by adding natural depth, extra brilliance and sound realism. The exclusive quartz/timer clock with three independent memory functions can be programmed to wake you up, lull you to sleep, and tape a broadcast in your absence. There are also high and subsonic filters and a preamp that handles both moving magnet and moving coil cartridges.

If the new distortion-free Sansui Z-9000 sounds too good to be true, satisfy yourself with an audition at your audio specialist. Or write today for additional details.



SANSUI ELECTRONICS CORPORATION
Lyndhurst, NJ 07071; Gardena, CA 90248
Sansui Electric Co., Ltd., Tokyo, Japan

*120 watts per channel minimum RMS into 8 ohms, 20Hz to 20kHz, with no more than 0.005% total harmonic distortion.

1

RECEIVERS

kHz; 17 $\frac{1}{2}$ "W x 14 $\frac{3}{4}$ "D x 5 $\frac{1}{4}$ "H; 22 lb.... \$250

YAMAHA

R-2000 Stereo Receiver

Natural Sound AM-FM-stereo receiver with Yamaha "X" power amplifier, unique spatial expander, station-locked synthesizer tuning system. Features natural-response tone controls; MC (moving-coil) cartridge head amplifier; auto-phono function; 7 FM/7 AM station presets; ultralinear direct FM detector; fluorescent digital frequency display; 10-point LED signal-strength indicator; DX/local switch; loudness control; dc NFB PLL MPX demodulator; high-Q low-impedance AM loop antenna; pushbutton function switches with lighted indicators; pushbutton search tuning; auto blend; pre/main coupler; switchable subsonic, high filters; dual tape-deck functions with copy capability;

5-point LED output-level indicators; bass, treble controls; loudness switch; tape monitor switch. Audio section: output power 25 W/channel into 8 ohms, 20-20,000 Hz at 0.1 THD; frequency response 10-50,000 Hz \pm 0.5 dB at 1-watt output; S/N ratio 82 dB phono, A weighted, at rated power; input sensitivity/impedance 2.5 mV/47k ohms phono. FM sensitivity 12 dBf (2.2 μ V); frequency response 30-15,000 Hz \pm 1.5 dB in stereo; separation 40 dB at 1

speakers A/B/A + B/C selector. Output power 150 W/channel rms into 8 ohms, 20-20,000 Hz at 0.015% THD; dynamic headroom 3 dB; THD MM/MC/tape and AUX 0.005%/0.01%/0.005%; IM distortion 0.01%; input sensitivity/impedance 2.5 mV/47k ohms, 100 or 220 pF MM, 100 μ V/100 ohms MC, 120 mV/47k ohms AUX, tape, 1 V/47k ohms main in; phono overload 250 mV MM, 11 mV MC; output level/impedance 120 mV/470 ohms rec out (phono), 1 V/430 ohms pre out; headphone output 780 mW; S/N ratio MM/MC/AUX, tape/main in 90/84/100/120 dB; residual noise 50 μ V; separation AUX and tape/MM 64/64 dB; FM 50-dB quieting sensitivity mono/stereo (DX) 14.2 dBf (2.8 μ V)/33.2 dBf (25 μ V); image/i-f/spurious-response ratios 70/100/100 dB; AM-suppression ratio 65 dB; capture ratio local/DX 1.2/2.5 dB; alternate-channel selectivity local/DX 30/82 dB; S/N ratio mono/stereo 85/81 dB; stereo separation 50/1k/10k Hz 50/50/45 dB; frequency response 30-15,000 Hz +0.3/-0.5 dB; AM sensitivity 200 μ V; power consumption 550 W (U.S. and Canada); 21 $\frac{1}{2}$ "W x 15 $\frac{1}{4}$ "D x 4 $\frac{3}{4}$ "H; 29 lb 5 oz..... \$900
R-1000. Similar to R-200 except 100 W/channel output power \$700

R-900 Stereo Receiver

Natural Sound AM/FM-stereo receiver with unique spatial expander, MC (moving-coil) cartridge input, station-locked synthesized tuning system. Features loudness control; ultralinear direct FM detector; dc NFB PLL MPX demodulator; dc power amplifier; fluorescent digital frequency display; 10-point signal-quality display; subsonic, high filters; pre/main coupler; 5 AM/5 FM station presets. Output power 70 W/channel rms into 8 ohms, 20-20,000 Hz at 0.015% THD; dynamic headroom 3 dB; THD MM/MC/AUX, tape/main in 0.005%/0.015%/0.005%/0.005%; damping factor 40; frequency response dc-100,000 Hz -1 dB main in; input impedance sensitivity 2.5 mV/47k ohms, 220 pF MM, 100 μ V/100 ohms MC, 120 mV/47k ohms AUX and tape; 1 V/100k ohms main in; phono overload 200 mV MM, 10 mV MC; S/N ratio MM/MC/AUX and tape/main in 90/76/100/110 dB; residual noise 115 μ V; FM 50-dB quieting sensitivity mono (DX)/stereo (DX, auto blend) 15.3 dBf (3.2 μ V)/33.2 dBf (25 μ V); image/i-f/spurious-response ratios 62/100/100 dB; AM-suppression ratio 65 dB; capture ratio 1.5 dB local/2.2 DX; alternate-channel selectivity 30 dB local, 82 dB DX; S/N ratio mono/stereo 84/80 dB; separation (local) at 1 kHz 50 dB; frequency response 30-15,000 Hz \pm 0.5 dB; AM sensitivity 200 μ V; power consumption 260 W (U.S. and Canada); 18 $\frac{1}{2}$ "W x 13 $\frac{1}{4}$ "D x 4 $\frac{3}{4}$ "H; 20 lb 15 oz..... \$550
R-700. Similar to R-900 except 50 W/channel output power \$450
R-700M. Same as R-700 but has 110/120/220/240 V ac capability \$460

R-500 Stereo Receiver

Natural Sound AM/FM-stereo receiver with optical balance tuning system. Features ultra-low distortion; continuously variable loudness control; dc NFB PLL MPX demodulator; slide-rule tuning dial with lighted pointer; low-noise phono equalizer; subsonic filter; switching for 2 pairs speaker systems; listen to one station, record from another capability; dc amplifier design; signal-quality meter; auto blend; tape dubbing. Output power 40 W/channel rms into 8 ohms, 20-20,000 Hz at 0.015% THD; IM distortion 0.01%; frequency response 10-100,000 Hz -1 dB; S/N ratio phono/AUX and tape 85/100 dB; input sensitivity/impedance 2.5 mV/47k ohms, 220 pF phono, 120 mV/47k ohms AUX and tape; FM 50-dB quieting sensitivity mono/stereo 14.8 dBf (3 μ V)/31.2 dBf (20 μ V); image/i-f/spurious-response ratio 50/90/70 dB; AM-suppression ratio 60 dB; alternate-channel selectivity 55 dB; S/N ratio mono/stereo 84/80 dB; separation at 1 kHz 40 dB; frequency response 30-15,000 Hz +0.5/-1.5 dB; AM sensitivity 300 μ V/m; selectivity 30 dB; S/N ratio 50 dB; power consumption 180 W (U.S. and Canada); 17 $\frac{1}{2}$ "W x 13 $\frac{1}{4}$ "D x 4 $\frac{3}{4}$ "H; 17 lb 6 oz.... \$330
R-300. Similar to R-500 except 30 W/channel output power; FM 50-dB quieting sensitivity 37.3 dBf (40 μ V) stereo; power consumption 130 W; 17 lb. \$260

Music is energy. A flash of power. A delicate detail. A world of contrasts.

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2

AMPLIFIERS

ACOUSTAT

Trans-Nova™ Twin-200 Power Amplifier

Full FET amplifier designed to obtain > 1000 damping factor in audio band with no first-order distortion in output stage. Features Complement Feedback (Pat. Pend.) circuit to eliminate negative-feedback problems. Output power 200 W/channel into 8 ohms at 0.02% THD; full-power frequency response 15-500,000 Hz +0/-3 dB; slew rate 175 V/μsec; 42 lb..... \$3750

ADCOM

GFA-1A Power Amplifier

Fully complementary stereo/bridged-mono power amplifier. Features toroidal transformer; dual power supplies; built-in protection relay and thermal-overload switch; peak power LEDs; high/low-speed fan switch. Output power 200 W/channel continuous both channels driven into 8 ohms, 20-20,000 Hz, 0.05%/0.1% THD/IM distortion; damping factor 200; slew rate 80 V/μsec; input sensitivity 1.5 V; cabinet vented on all sides; 10 1/2"W x 8 1/2"H x 6 1/2"D \$450
GFRP-1/2. Rack panel for 1/2 amplifiers \$36

GFA-2 Power Amplifier

Stereo power amplifier with dual-FET input stage, direct-coupled (dc) design, and separate power supplies for each channel. Features short-circuit and high-temperature protection; automatic reset on all protection circuits with LED indicator; peak LEDs for output power indication; dual outputs (4/channel) to allow use of low-impedance speakers. Output power 100 W/channel into 8 ohms, 20-20,000 Hz, 0.02% THD. Supplied with rack handles. 19"W x 13 1/2"D x 5 1/4"H..... \$360

AIWA

SA-P80U Power Amplifier

Stereo power amplifier with direct-coupled (dc) "Plus A Class" circuitry, 9-point LED power meters, self-resetting protection circuit, 2-speaker switch. Output power 50 W/channel into 8 ohms; THD 0.006%; frequency range 20-20,000 Hz \$220

AMBER

Series 70 Power Amplifier

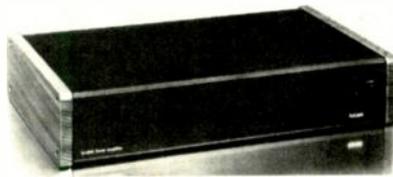
Modular class-AB stereo power amplifier with built-in bridging with rear-panel switch for mono operation; passive power supply with 2 massive filter capacitors; low- and high-pass filters; 6-sq-ft heatsinking capacity. Output power 70 W/ch continuous, both channels driven into 8 ohms 20-20,000 Hz at 0.09% THD, 0.03% IM distortion; frequency response 5-100,000 Hz -3 dB small signal; slew rate 25 V/μsec; noise -90 dB below 70 W; input sensitivity/impedance 1.15 V/100k ohms; 19"W x 11 1/2"D x 5 1/4"H..... \$549

ARCAM

SA 200 Power Amplifier

Stereo power amplifier with fully independent bipolar power supplies, unique waveform comparator circuit

that senses distortion and turns on front-panel LED to indicate overload. Features standard phono inputs; 5-way binding post outputs; low-profile toroid-wound transformer that minimizes hum fields. Output power



100 W/channel continuous into 8 ohms, 20-20,000 Hz at <0.08% THD; frequency linearity 20-20,000 Hz +0/-0.5 dB; overall gain 29 dB; S/N ratio >100 dB unweighted; power consumption 600 VA; 18 1/2"W x 13 1/4"D x 3 1/4"H; 23 lb..... \$895

AUDIONICS OF OREGON

CC-3 Power Amplifier

Basic power amplifier in rack-mount enclosure and with peak-indicating power meters. Output power 70 W/channel into 8 ohms (130 W/channel into 4 ohms), both channels driven 20-20,000 Hz; THD and IM distortion <0.1% at rated output, 8 ohms; mono bridged-output power 225 W into 8 ohms; slew rate 50 V/μsec stereo, 100 V/μsec mono; input sensitivity/impedance 1.0 V/22.9k ohms noninverting; 19"W x 11"D x 3 1/2"H..... \$743
275-A. Similar to CC-3 except no rack-mount ability, peak-indicating meters \$675

AUDIO RESEARCH

D-90B Power Amplifier

Vacuum-tube stereo power amplifier with direct-coupled push-pull input circuit servo coupled with IC error correction. Features individual bias controls for all output tubes; low-surge start relay to protect circuits from transients; input level controls on rear. Output power 80 W/channel minimum rms into 16 ohms, 25-20,000 Hz at <0.5% THD; THD 0.005% at 1 W; power bandwidth 12-50,000 Hz -3 dB IM distortion <0.3% at 1 dB below rated output; input sensitivity/impedance 1.2 V rms/75k ohms; slew rate 15 V/μsec. rise time 5 μsec; hum and noise >-90 dB; power consumption 800 W; maximum; 19"W x 16 1/2"D x 7"H; 64 lb..... \$2450

D-120 Power Amplifier

Solid-state stereo power amplifier with Analog Module™ technology, unique linear output circuit. Features internal bridging switch for mono operation; power supply fuse on front panel; fuse-failure LED indicator. Output power 120 W/channel into 8 ohms, 10-20,000 Hz at <0.25% THD; frequency response 10-20,000 Hz ±0.1 dB at 1 W into 8 ohms; power bandwidth 0.6-100,000 Hz -3 dB; input sensitivity/impedance 1.5 V rms/60k ohms; harmonic distortion <0.004% at 1 kHz, 1 W; IM distortion <0.035% at rated power; slew rate 40 V/μsec; rise time 2 μsec; damping factor 300, 10-20,000 Hz; power consumption 1000 W maximum; 19"W x 10 1/2"D x 5 1/4"H; 43 lb \$2195

D-40 Power Amplifier

Vacuum-tube stereo power amplifier with cross-coupled, fully balanced circuitry. Features electronically regulated power supplies; automatic self-compensating bias; high-technology output transformers. Output power 35 W/channel continuous minimum into 16 ohms, 25-20,000 Hz at <1% THD; power bandwidth 12-54,000 Hz -3 dB; IM distortion <0.5% at 1 dB below rated output; input sensitivity/impedance 0.75 V rms/75k ohms; slew rate 8 V/μsec; rise time 5 μsec; noise 90 dB below rated output unweighted; power consumption 300 W maximum; 19"W x 16 1/2"D x 7"H; 44 lb \$1695

BELLES RESEARCH

Belles-A-Power Amplifier

Class A stereo power amplifier with independent power supply/channel with heavy-duty transformer, full-wave rectifier, 2 computer-grade power supply capacitors. Features noninverting circuitry; complementary differential amplifiers; emitter follower push-pull output circuits; internally heatsinks; precision thermal sensors; rectangular LED power indicator. Output power 70 W/ch continuous into 8 ohms, 20-20,000 Hz at 0.04% THD; power bandwidth 1-100,000 Hz +0/-1.5 dB; slew rate 35 V/μsec for 86 V p-p; input sensitivity 1.577 V rms for 70 W, 8 ohms; 1/4" black anodized aluminum chassis with 1/4" front panel and black rack-mount handles; 19"W x 16"D x 11"H \$1695

A-Mod Power Amplifier

Single-channel (mono) power-MOSFET amplifier module designed for minimum distortion. Features common-mode biased complementary cascode differential inputs; controlled clipping; class-A design; multiple feedback loops; heavily biased complementary MOSFET output stage. THD + N 0.03% maximum, 20-20,000 Hz at 1 W output; output power 65 W at 8 ohms, 0.25% THD + N, 100 W at 4 ohms, 0.3% THD + N; damping factor >225; rise time 1.6 μsec p-p at 8 ohms; slew rate 30 V/μsec at 8 ohms; hum and noise -96 dB at 8 ohms; input impedance 45k ohms; voltage gain 26 dB noninverting; sensitivity 1.14 V rms for rated output into 8 ohms . \$490

BRYSTON

4B Power Amplifier

Fully complementary class-AB power amplifier with bridging switch, 1000-sq-in. heatsink area, regulated power supplies to all voltage gain stages, channel separation back to line cord, red LED clipping indicator. Output power 200 W/channel, 800 W bridged into 8 ohms, 20-20,000 Hz at 0.01% THD; IM distortion 0.01%, 10 mW-200 W; noise -100 dB; slew rate 60 V/μsec; power bandwidth 1-100,000 Hz; damping factor 500 at 20 Hz, 8 ohms; input sensitivity/impedance 1.25 V/50k ohms; 19"W x 13 1/2"D x 5 1/4"H \$1450
3B. Similar to 4B except 100 W/channel, 400 W bridged; input sensitivity/impedance 1 V/50k ohms; has 500-sq-in. heatsink area; 9"D..... \$925
2B. Similar to 3B except 50 W/channel, 200 W bridged; input sensitivity/impedance 0.75 V/50k ohms; has 250-sq-in. heatsink area; 19"W x 10"D

2 POWER AMPLIFIERS

x 3 1/2"H \$525

CARVER

M-1.5 Power Amplifier

Magnetic field stereo basic power amplifier with LED dual peak-responding power displays, infrasonic and ultrasonic filters. Output power 350 W/channel into



8 ohms at no more than 0.1% THD; dynamic headroom/channel 750 W at 4 and 8 ohms; noise > -100 dB A weighted; IM distortion 0.1%; bandwidth dc-250,000 Hz +0/-3 dB at 1 W; input impedance 150k ohms; 19"W x 10 1/2"D x 3 1/2"H; 16 lb \$799

M-500 Power Amplifier

Stereo power amplifier with super-efficient Magnetic Field circuitry in slim-line cabinet. Features peak-responding power meters; cool operation; no bulky power transformer, heat sinks, electrolytic capacitors; brushed-gold with brown trim or charcoal-gray finish. Output power 250 W/channel into 8 ohms, 20-20,000 Hz at 0.05%/0.06% THD/IM distortion; frequency response 1-250,000 Hz ±0.25 dB; S/N ratio 100 dB A weighted; slew rate 40 V/μsec . \$629

M400 Power Amplifier

Stereo power amplifier with Magnetic Field Circuitry that eliminates over-size heat sinks, power transformers, electrolytic capacitors. Features dual vertical LED peak-level display with VU-meter ballistics; brushed-gold with brown trim or charcoal-gray finish. Output power 200 W/channel into 8 ohms, 20-20,000 Hz at 0.05%/0.06% THD/IM distortion; frequency response 1-250,000 Hz ±0.25 dB; S/N ratio 100 dB A weighted; slew rate 40 V/μsec; 6 3/4"W x 6 3/4"H x 6 3/4" D \$449

CONRAD-JOHNSON

Premier One Power Amplifier

Vacuum-tube power amplifier with low-noise precision parts in audio circuitry; LED bias indicators. Output power 200 W/channel continuous into 4, 8, or 16 ohms 30-15,000 Hz at 1.0% THD and IM distortion; frequency response 20-20,000 Hz ±0.5 dB; S/N ratio 90 dB \$3850

MV75a Power Amplifier

Vacuum-tube stereo power amplifier with low-noise precision parts in audio circuitry; LED bias indicators. Output power 75 W/ch continuous into 4, 8, or 16 ohms, 30-15,000 Hz at 1.0% THD and IM distortion, 150 W mono; frequency response 20-20,000 Hz ±0.5% dB; S/N ratio 90 dB \$1345
MV45a. Similar to MV75-1 except 45 W/channel \$689

CROWN

SA-2 Power Amplifier

Features dual-LED input/output comparator display indicators; stereo/mono switch; remote mute; 4 on-board computers that analyze demand, immediate history of amplifier, load for maximum output power; 2-speed fan. Output power 220 W continuous into 8 ohms, 20-20,000 Hz at 0.05% THD, 0.01% IM distortion; frequency response 0-80,000 Hz +0/-1.5 dB; S/N ratio 110 dB A weighted; 19"W x 14 1/2"D x 7"H \$1899

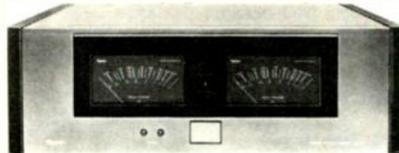
Power Line Two Amplifier

Features detented level controls; mono/stereo switch; Dynamic Analyzing Display, including IOC™ all-distortion, signal-present indicators; 3 bands reported for each channel; Multi-Mode™ circuit that uses 3-stage output design to eliminate distortion. Output power 50 W/channel into 8 ohms, 20-20,000 Hz, at no more than 0.04% THD; 1 1/2" front panel \$579
Power Line Three. Similar to Power Line Two except 90 W/channel. Features frequency analyzing display that provides information about spectral balance of amplifier output signal \$949
Power Line Four. Similar to Power Line Three except 165 W/channel \$1349

CYBERNET

Kyocera B-901 Power Amplifier

Stereo MOSFET power amplifier with direct coupling throughout. Features dc servocircuit monitoring in each stage; 2 separate power transformers; 2-pole phase compensation; large peak power meters with W/dB scales. Output power 150 W/channel into 8



ohms, 20-20,000 Hz at <0.01% THD; slew rate 120 V/μsec; rise time 0.9 μsec; frequency response 5-100,000 Hz +0/-1 dB; S/N ratio 120 dB \$1670

DB SYSTEMS

DB-6 Power Amplifier

Stereo power amplifier able to drive 1-ohm loads. Features 12 dB/octave subsonic filter; peak-clipping LEDs; electronic clamp. Output power 40 W/channel continuous into 8 ohms 20-20,000 Hz at 0.003% THD; THD 0.0008% at 1 kHz; IM distortion <0.002%; frequency response 20-40,000 Hz +0/-1 dB; input sensitivity/impedance 1 V/50k ohms; S/N ratio 112 dB at 1 V in A weighted; slew rate 15 V/μsec; damping factor > 400, 20-1000 Hz. 4.9"H x 16"W x 12.8"D x 4.9"H \$560
DB-6M. Similar to DB-6 except bridged mono amplifier at 140 W continuous with 0.008% THD; slew rate 30V/μsec \$560
Mono conversion of DB-6 to DB-6M \$35

DENON

POA-8000 Power Amplifier

Class-A monaural power amplifier with non-negative feedback circuit. Features high-constant output transistor bias; peak-indicating output metering system; polished bronze-gold end caps. Output power 200 W/channel continuous; THD 0.003%; power band-



width 5 Hz-100 kHz; S/N ratio 122 dB; 48.4 lb \$2600

POA-3000 Power Amplifier

Class-A stereo power amplifier with 5 power transistors/side. Features real bias circuitry; cascode emitter follower drive circuit; coupling-capacitorless direct-coupled servo control circuit; subsonic filter; power supply with large-capacity toroidal power transformer, low-impedance electrolytic capacitor; dual peak meters. Output power 180 W/channel continuous into 8 ohms, 20-20,000 Hz at 0.01% THD; HD and IM distortion 0.003%; frequency response 10-100,000 Hz ±3 dB; S/N ratio 122 dB A weighted; damping factor 200 into 8 ohms at 1 kHz; input sensitivity/impedance 1 V/50k ohms \$2300

FISHER

BA 6000B Power Amplifier

Stereo power amplifier with dc circuitry, dual illuminated power meters with LED peak-indicators. Features 0/-20 dB meter range selector; 4-position speaker selector; input level control. Output power 100 W/channel continuous into 8 ohms, 20-20,000 Hz at 0.01% THD, IM distortion; damping factor 50 \$550
BA 3000B. Similar to BA 6000 minus input level control; output power 60 W/channel \$380

GLI

SA-2130 Power Amplifier

Stereo power amplifier designed for professional applications. Features status indicators for each channel; calibrated input attenuators; fan; thermal overload protection, automatic reset; pure complementary-symmetry design; modular construction; rack-mountability. Output power 110 W/channel continuous sine wave into 8 ohms, 20-20,000 Hz at <0.001% THD; frequency response 20-40,000 Hz ±1 dB; IM distortion <0.08%; input sensitivity/impedance 1.25 V/30k ohms; damping factor 150; slew rate 60 V/μsec; power consumption full power/idle 400/15 W \$895

SA-2045 Power Amplifier

Stereo power amplifier designed for professional applications. Features fast-responding illuminated VU/watts meters; stereo headphone jack; accommodation for 2 sets of speaker systems; input level control; modular design; time-delay relay for speaker protection. Output power 45 W/channel into 8 ohms, 20-20,000 Hz at <0.05% THD; frequency response 20-20,000 Hz ±0.5 dB; input sensitivity/impedance 1 V/47k ohms; damping factor 35; power consumption 130 W \$299

DAVID HAFLER

DH-500 Power Amplifier

Stereo power amplifier designed to deliver >250 W/channel <0.025% distortion into 8 ohms; >400 W into 4 ohms (can be bridged, using optional bridg-



ing kit, to deliver >800 watts into 8 ohms). Employs MOSFETs on compact enclosed multi-speed fan-cooled 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.

Kit 600
Factory assembled \$750

DH-200 Power Amplifier Kit

Stereo power amplifier with class-A outputs, symmetrical mirror-image complementary push-pull input to output. Features 2 assembled, tested amplifier modules; mono bridging capability to 300-W conversion. Output power 100 W/channel continuous into 8 ohms, 20-20,000 Hz at 0.02% THD; frequency response 1-100,000 Hz -3 dB at 1 W; damping factor 150 at 1 kHz, 8 ohms; slew rate 30 V/μsec; input time 2.5 μsec; sensitivity/impedance 1/5 V rms/22k ohms.

Kit \$330
Factory assembled \$430

HARMAN/KARDON

700-Series High-Technology Separates

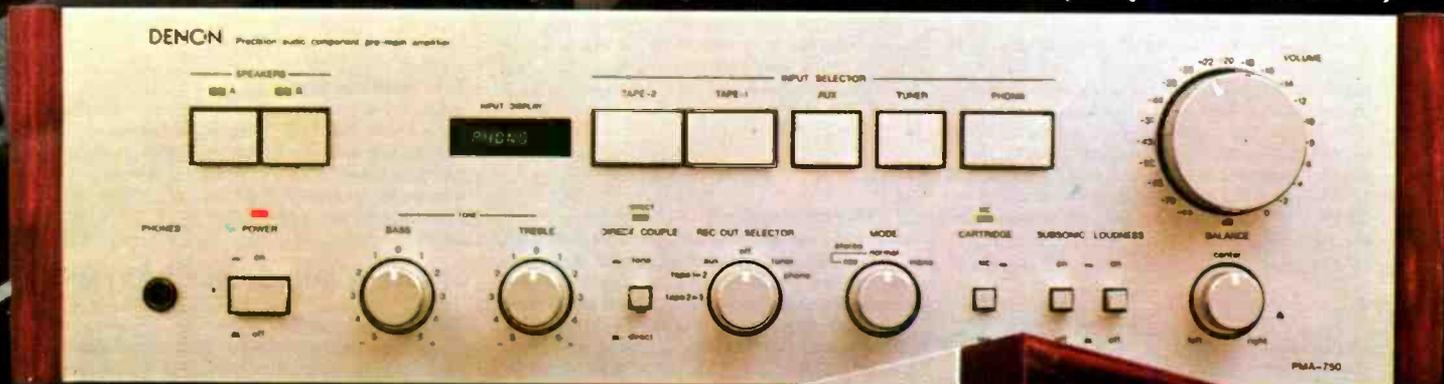
hk775 Power Amplifier

Stereo power amplifier with 130-W/channel rms output power/channel into 8 ohms, 20-20,000 Hz at <0.03% THD. THD 0.006% at 1 kHz, rated output; frequency response <1-300,000 Hz +0/-3 dB;

DESIGN INTEGRITY:

The performance that comes closest to our \$8000. Separate...
Pure Class-A, Non-NFB PRA-6000 Preamplifier and POA-8000 Amplifiers.

...comes in our \$450. PMA-750...
Direct-A Integrated Amp with Odb, Real-Drive, Super-EQ, and Real Time Circuitry.



...and our \$399. DRA-400.
Non-Switching-A AM/FM Receiver
with MC Head Amp and Digital FM.



The pure Class-A and Real Drive operation of the PRA-6000 and POA-8000's safely extracts the full performance potential of transistor technology. The elimination of Negative Feedback (Non-NFB) removes the principal cause of Transient Intermodulation and Time Delay Distortions and represents the very latest in contemporary audio design.

Virtually all of this technology is incorporated into the PMA-750. To keep its transistors operating optimally, yet safely, it employs Direct-A Odb circuitry (capacitorless, non-negative feedback and non-switching), Real-Drive (distortion measured at the speakers is reduced to 1/50!) and Real-Time (passive) tone control. The sound quality is only surpassed by Denon separates costing 13 times as much!

Non-switching A circuitry can also be heard in the DRA-400 AM/FM Receiver, in addition to its built-in Moving Coil Head Amp and Digitally Synthesized FM tuning. With the DRA-400, Denon has made a new standard of listening quality available to those demanding economy and operating convenience in a compact package.

Denon products share more than name alone.

Prices shown are for comparison purposes only.

Denon America, Inc., 27 Law Drive, Fairfield, N.J. 07006

CIRCLE NO. 20 ON READER SERVICE CARD

DENON

Imagine what we'll do next.

S/N ratio 123 dB IHF A weighted; input impedance 24k ohms; input sensitivity 1.2 V for rated output; 15.2"W x 12.6"D x 2.9"H; 22.2 lb \$850

hk770 Power Amplifier

Stereo dc power amplifier with discrete components in audio circuitry, twin toroidal power supplies with 2 toroidal transformers. Features massive heatsinks; LED peak power meters with 0.05-100-W (into 8 ohms) range with pushbutton display on/off, $\times 1/\times 0.1$ display sensitivity switches; 2-speaker switching. Output power 65 W/channel continuous into 8 ohms, 20-20,000 Hz at 0.03% THD; power bandwidth 8-100,000 Hz at 32.5 W/channel at 0.03% THD; frequency response 1-250,000 Hz -3 dB; THD 0.006% at kHz; IM distortion 0.01% at rated output; TIM 0.007% at rated output; damping factor 50; slew rate 150 V/ μ sec into 8 ohms; S/N ratio 123 dB; input sensitivity/impedance 1.2 V/35k ohms; 15.2"W x 12.6"D x 2.9"H \$420

HEATH

AA-1800 Power Amplifier

Stereo power amplifier with LED peak-power meters. Features individually fused power supply lines with rugged output devices; rear-panel input level controls, speaker outputs, line fuse; speaker turn-on delay; protection LED. Output power 250 W/channel continuous into 8 ohms, 20-20,000 Hz at 0.025% THD; dynamic headroom 2.5 dB; frequency response 20-20,000 Hz ± 0.1 dB; THD 0.025%, IM distortion 0.02%; TIM 0.03%; hum and noise 85 dB below 1 W (unweighted); damping factor 100; input sensitivity/impedance 110 mV/20k ohms; 19"W x 16"D x 7"H. Kit \$600

AA-1600 Power Amplifier

Stereo power amplifier with peak output, high temperature, power on LEDs. Output power 125 W/channel continuous into 8 ohms, 20-20,000 Hz at 0.05% THD, TIM, IM distortion; frequency response 7-50,000 Hz ± 1 dB; hum and noise -100 dB; 19"W x 13"D x 7"H. Kit \$360

HITACHI

HMA-7500MKII Power Amplifier

MOS FET power amplifier with pure complementary dc OCL, 2-stage differential circuitry systems. Features calibrated peak power meters with meter range switch; 2-speaker switching; protection relay for power resistors, connected speakers; subsonic filter. Out-



put power 75 W/channel continuous into 8 ohms, 20-20,000 Hz at 0.008% THD; THD and IM distortion 0.01% at rated output; power bandwidth 5-40,000 Hz at 0.01% THD; frequency response 0-200,000 Hz $\pm 0/-1$ dB; input sensitivity/impedance 1 V/50k ohms; load impedance 4-16 ohms; damping factor 60; S/N ratio 120 dB; separation 105 dB at 1 kHz; output terminal 4-16 ohms speaker A or B, 8-16 ohms speaker A + B; one ac outlet; soft gray finish; 18 $\frac{1}{2}$ "W x 14"D x 6 $\frac{1}{2}$ "H \$570

KENWOOD

Basic M1 Power Amplifier

Basic stereo power amplifier with DLD (Dynamic Linear Drive), exclusive SIGMA drive, 2 speaker selectors. Output power 105 W/channel rms into 8 ohms, 20-20,000 Hz at <0.005% THD \$330

LUXMAN

M-300 Power Amplifier

Power amplifier features Duo-Beta and Plus-X circuitry. Has 0.005% THD as Class A-amplifier, 0.008% THD as Class AB amplifier. In Class-A mode, produces 40 W/channel continuous power into 8 ohms, 20-20,000 Hz, 150 W in Class-AB mode; protection circuits for amplifier, speakers; 19.4"D x 19.1"W x 8.6"H; 70.4 lb \$1500

MQ-68C Power Amplifier

Zero feedback vacuum-tube stereo power amplifier with Duo-Beta circuitry. Output power 25 W/channel continuous into 8 ohms 50-15,000 Hz at <0.04% 0.04%; 16.1"W x 7.3"D x 6.3"H; 30 lb... \$800

M-120A Power Amplifier

Stereo power amplifier with LED peak power meters, duo-Alpha mono modes with full/ $\times 0.1$ power indicator switch. Features 2-way speaker switching; left and right/mono input level controls. Output power 120 W/channel continuous into 8 ohms, 20-20,000 Hz at 0.015% THD and 0.01% IM distortion, 300 W into 8 ohms at 0.03% THD (duo-Alpha mono output); frequency response 10-100,000 Hz -1 dB; S/N ratio 110 dB (IHF A weighted); damping factor 50; input sensitivity/impedance 900 mV/160k ohms; 17 $\frac{1}{2}$ "W x 13 $\frac{1}{2}$ "D x 5 $\frac{1}{8}$ "H \$700

MARANTZ

SM 500 Power Amplifier

Stereo dc power amplifier with left, right power meters. Features gold-plated input, output jacks; true power design; provisions for 2 pairs speakers; headphone jack. Output power 70 W/channel into 4 ohms, 20-20,000 Hz at 0.05% THD, 0.04% IM distortion; damping factor 80; frequency response 5-85,000 Hz ± 1 dB; S/N ratio 115 dB; input sensitivity/impedance 1500 mV (1.5 V)/30k ohms; power consumption full power/idling 210/28 W; 16 $\frac{1}{2}$ "W x 11 $\frac{1}{2}$ "D x 2 $\frac{1}{4}$ "H; 17 lb 3 oz \$300

MERIDIAN

Power Amplifier 105

Mono basic power amplifier (2 needed for stereo reproduction) designed for passive speaker systems. Rated at 100 W into 8 ohms, but can deliver bursts up to 150 W into 8 ohms, 450 W into 2 ohms \$495

Power Amplifier 103

Consists of 2 components: stereo power amplifier package, high-energy power supply package. Rated to deliver 35 W/channel into 8 ohms \$495
103 D. Same as 103 except includes additional power supply to raise output power to 45 W/channel \$760
103 P.S. Power supply to convert 103 into 103 D; includes interconnect Y cord \$275

METRON

A-4000 Power Amplifier

Features 2 illuminated peak power meters calibrated to 50 dB; level controls adjustable in 1-dB increments; 2 input switches with LED; A/B speaker selector switches with LED; dimmer switch; 2 headphone jacks. Output power 350 W continuous into 8 ohms (550 W into 4 ohms), 20-20,000 Hz at 0.02% THD and IM distortion; frequency response 5-100,000 Hz -1 dB; S/N ratio > 115 dB A weighted; slew rate 50 V/ μ sec; damping factor 200; input sensitivity/impedance 2.0 V/10k ohms; 18.9"W x 18.5"D x 7 $\frac{1}{2}$ "H \$1600

M-200 Power Amplifier

Features illuminated power averaging meters calibrated to +3 dB at clipping point; stepped 2-dB level con-

trols; protection indicator. Output power 125 W continuous into 8 ohms (240 W into 4 ohms), 20-20,000 Hz at 0.02% THD and IM distortion; frequency response 5-100,000 Hz -1 dB; S/N ratio > 105 dB unweighted; slew rate 70 V/ μ sec; damping factor 175 at 100 Hz, 8 ohms; input sensitivity/impedance 1.4 V/10k ohms; 19"W x 13"D x 5 $\frac{1}{8}$ "H \$650

MITSUBISHI

DA-A30 Power Amplifier

Dual-monaural dc amplifier with linear cross-bias, 4 power supply sections, comprehensive protection, indication, and ac or dc amplification. Power output 105 W/channel rms into 8 ohms, 20-20,000 Hz at 0.008% THD; dynamic headroom 2.0 dB; damping factor 100; slew rate 200 V/ μ sec at 100 V p-p; input 1 V (variable)/50k ohms; separation 100 dB at 1 kHz; S/N 122 dB (IHF-A, closed circuit); power consumption 400 watts; 18 $\frac{1}{2}$ " x 5 $\frac{1}{4}$ " x 14" .. \$550

M-A04 Micro Power Amplifier

Stereo power amplifier with 50 W/channel rms output power into 8 ohms, 20-20,000 Hz at 0.02% THD. Features double protection; A/B/A+B speaker operation. Dynamic headroom 1.0 dB; damping factor 55; slew rate 120 V/ μ sec; S/N ratio 118 dB (A weighted, closed circuit); 10 $\frac{1}{2}$ "W x 9 $\frac{1}{2}$ "D x 5 $\frac{1}{2}$ "H \$330

NAD

2150 Power Amplifier

Stereo/mono power amplifier with soft clipping" circuitry. Features speaker matching impedance switch; soft clipping, overload indicators; bridging capability for mono operation. Output power 50 W/channel into 8 ohms, 20-20,000 Hz at 0.02% THD, 125 W mono; damping factor 100; 16.5"W x 11.4"D x 3.8"H \$278

NAIM by AUDIOPHILE SYSTEMS

NAP300 Power Amplifier

Power amplifier intended for professional applications produces rated power into 2.5-ohm loads indefinitely. Features fan cooling; fully independent power supplies. Output power 70 watts continuous into 8 ohms, 20-20,000 Hz at 0.02% THD; transient power 400 VA; frequency response 5-40,000 Hz ± 3 dB; can drive reactive loads with -90° to 90° phase angles with no appreciable distortion change; dynamic headroom 4.6 dB; THD and IM distortion 0.02%; 17"W x 12"D x 7"H; 43 lb \$2250

NAP250 Power Amplifier

Features gain decoupling capacitor, passive single pole filter with no slew rate limit within bandwidth; heavy aluminum extruded heatsink; toroidal main transformers; 4 regulated power supplies. 70 W continuous into 8 ohms, 20-20,000 Hz at 0.02% THD and IM distortion; frequency response 5-40,000 Hz ± 3 dB; transient capability 400 VA; sensitivity 1.6 V; impedance 22k ohms; can drive reactive loads with phase angles from -90° to +9° with no appreciable distortion change; 17"W x 12"D x 5"H ... \$2000
NAP160. Similar to NAP 250 except has 24-V regulated power supply (powers Naim preamps); output power 50 W; transient capability 250 VA; sensitivity 1.4 V \$1070

NAP110 Power Amplifier

Power amplifier with 40-watt continuous output power into 8 ohms, 20-20,000 Hz at 0.02% THD. Transient power capability VA 150 VZ; dynamic headroom 4.5 dB; reactive-load response, distortion, response same as for NAP 300 \$750

NIKKO

Alpha VI Power Amplifier

Dc stereo power amplifier with mono bridging. Features pair of FETs coupled to cascode amp, current source; differential amp coupled to cascode amp, current mirror; triple Darlington configuration with 4 parallel SEPP output stages; separate power supplies;



A unique solution to a serious turntable problem: Technics introduces turntables with the P-Mount system.

Unfortunately, standard turntable design has left too much to chance in terms of cartridge mounting and performance.

Technics turntables with the patented P-Mount tonearm/cartridge system change all that. By providing complete compatibility between tonearm and cartridge to achieve the optimum tonearm resonant frequency: the level at which bass frequency interference is minimized. For the accuracy and fidelity conventional turntables can deny you.

In addition, P-Mount is a plug-in system. You'll get outstanding performance without struggling to install the cartridge. There's nothing to wire. There's no longer a headshell. There's no more fumbling to calibrate overhang or stylus position. In addition, tracking and anti-skating adjustments have been virtually eliminated.

Just plug any P-Mount cartridge into a Technics straight, low mass, high performance tonearm, and tighten one locking screw. With Technics, your records are now virtually immune to the groove wear, poor channel separation and distortion caused by improper cartridge-to-tonearm mounting.

And Technics standardized all key specifications with manufacturers of P-Mount cartridges: cartridge weight, external dimensions, connector shape, stylus position and more. So you have a wide range of cartridges to choose from.

The P-Mount plug-in cartridge system. Just one of the many advances you'll find in the new line of sophisticated Technics turntables. From belt-drive to direct-drive to quartz-locked.

The turntable revolution continues at Technics.

Technics
The science of sound

CIRCLE NO. 63 ON READER SERVICE CARD

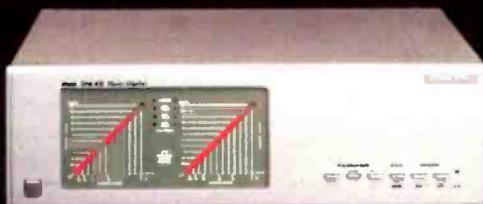
You'll be sold on our DRS 900 amplifier after just one peak.

Our new DRS™ 900 amplifier will bring you as close as you can get to concert hall sound without buying a ticket. How? Power and lots of it. And after all, who knows more about high power amplifiers than Phase Linear? We became known for them back in the days when everyone's idea of good stereo was loud stereo. If you could blow the windows out of your home, you had a good stereo. And nothing could blow out windows like an amplifier from Phase Linear. Well, the volume era is over. The quest for purity is on. The trouble is, you just can't

get pure sound reproduction out of a low power amplifier. You need lots of power... power for

purity. Advances in recording technology like direct-to-disc and digital audio disc recordings require enormous amounts of peak power. Without it, the amplifier simply clips the peaks leaving you without the full musical experience. For example, accurately reproducing the final cannon shot from a digitally recorded version of

Tchaikovsky's 1812 Overture can require 900 watts of peak power! And that's at reasonable volume levels. That much power is needed because the dynamic range (the ratio of the loudest note to the residual noise) of a digital audio disc is about four times that of a conventional record.



phase linear

Power for Purity™

CIRCLE NO. 52 ON READER SERVICE CARD

Our DRS 900 handled the previously mentioned cannon shot. No clipping, no distortion. Yet, the DRS 900 is conservatively rated at 150 watts per channel RMS (see specifications). You see, efficient power is the key. The DRS 900 has a dual voltage power supply. It operates at an efficient 150 watt capability. Then, when

the music approaches a peak requiring more dynamic headroom (more power to keep it from clipping), the

secondary supply kicks in, instantly providing up to 900 watts of peak power per channel. A conventional 150 watt amplifier has a peak power rating of just about 300 watts. Keep that in mind the next time you're comparing amplifiers. Don't go by RMS alone. You have to compare dynamic headroom, too. When you do, you'll be sold on our DRS 900.

See the entire line of Phase Linear audio components at your Phase Linear Dealer, today. For the address of the dealer nearest you, call us toll

free at (800) 323-4815. In Illinois call (800) 942-8833. Or write us at 4134 N. United Parkway, Schiller Park, IL 60176. Oh, and remember to give us your address so we can send you a copy of "The Phase Linear Report: Power for Purity." It's an exciting analysis of audio amplification in the eighties. We think it should be required reading for anyone serious about audio.

DRS 900 SPECIFICATIONS
150 Watts per channel continuous output power, minimum RMS into 8 ohms, with no more than .015% total harmonic distortion, 20-20kHz. 900 Watts peak per channel momentary output power into 8 ohms with no more than .02% THD, 20-20kHz.

regulated power supply for input, voltage translator stages; dual peak power meters; A-B speaker switching; 2-speed cooling fan; power limiters, wide-gap relay protection circuitry with LED overload and high-temperature indicators. Output power 300 W/channel continuous into 8 ohms, 20-20,000 Hz at 0.01% THD and IM distortion, 650 W bridged at 0.02% THD; damping factor 150 at 8 ohms, 1 kHz; S/N ratio 115 dB; input sensitivity 1 V; matte black finish; 19"W × 18½"D × 7½"H \$1400

Alpha 440 Power Amplifier

Stereo power amplifier with high-speed bipolar transistors with dc servo-feedback loop nonswitching output, dual FET input circuitry. Features LED bargraph power meters; separate input level controls; relay-controlled speaker selector; power, protection LEDs; headphone jack. Output power 220 W/channel continuous into 8 ohms, 20-20,000 Hz at 0.008% THD, 240 W into 4 ohms; S/N ratio 115 dB; matte black finish; 19"W × 18"D × 6.9"H \$1,000

Alpha 220 Power Amplifier

Stereo power amplifier with dc servo-feedback loop nonswitching output, dual-FET input circuitry. Features speaker selector switch; power, protection LEDs; headphone jack. Output power 120 W/channel continuous into 8 ohms, 20-20,000 Hz at 0.008% THD; S/N ratio 115 dB; slew rate 100 V/μsec; matte black finish; 19"W × 13.5"D × 5.4"H \$530

ONKYO

Esoteric Series

M-5090 Power Amplifier

Limited-edition dual Super-Servo stereo power amplifier with very large power supply. Features high headroom, dynamic stability; linear switching; auto-tracking bias; extra-large peak power meters. Output power 200 W/channel rms into 8 ohms, 20-20,000 Hz at 0.003% THD; S/N ratio 120 dB \$1800

M-5060 Power Amplifier

Features dual Super Servo, linear switching circuitry. Features independent mono amps on same chassis; 2 large power transformers; peak-hold 2-color power meters; stable protection circuitry with IC voltage, current sensing device; two-speaker switching; separate left/right gain controls. Output power 120 W/channel continuous into 8 ohms, 20-20,000 Hz at 0.005% THD \$796

PHASE LINEAR

DRS 900 Power Amplifier

Stereo power amplifier with average/peak-responding meters. Features separate input sensitivity controls for each channel; light brushed-silver anodized panel. Output power 150 W/channel continuous into 8 ohms, 20-20,000 Hz at no more than 0.015% THD; frequency range 10-40,000 Hz at 1 W output through direct-coupled inputs; sensitivity 0.8 V; S/N ratio 100 dB; load impedance 4-16 ohms; 17½"W × 13"D × 5½"H \$1095

DRS 400 Power Amplifier

Stereo power amplifier with power, clipping, DRS LEDs. Features light brushed-silver anodized panel. Output power 50 W/channel continuous into 8 ohms, 20-20,000 Hz at no more than 0.015% THD; frequency range 10-40,000 Hz at 1 W output through direct-coupled inputs; load impedance 4-16 ohms; 17½"W × 13"D × 3½"H \$695

QUAD by ACOUSTICAL MFG.

Quad 405 Power Amplifier

Voltage power amplifier with feed-forward error-correction current dumping output circuitry. Features fixed high-pass filter; clamp circuit that interrupts output to speaker in case of component failure; no controls. Output power 100 W continuous sine wave into 8 ohms, 100-1000 Hz at 0.01% THD, 0.05% THD at 10 kHz; frequency response 20-20,000 Hz -0.5 dB; slew rate 0.1 V/μsec; hum and noise -95 dB (A weighted); 340.5 mmW × 195 mmD × 115 mmH \$675

Quad 303 Power Amplifier

Employs symmetrical triple circuitry; no controls. Output power 45 W continuous sine wave into 8 ohms, 100-1000 Hz at 0.03% THD, 0.1% THD at 10 kHz; frequency response 30-35,000 Hz -1 dB, 8 ohms; hum and noise -100 dB A weighted; 324 mmD 159 mmH × 120 mmW\$395

RG DYNAMICS

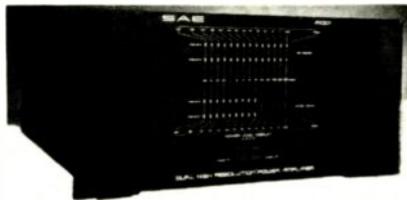
Model 5 Power Amplifier

High-current stereo amplifier with no current limitation. Features full protection; thermal, operating, protection indicators; 100,000-μF storage capacitance; heavy-duty rack-mount handles. Output power 100 W/channel into 8 ohms, 20-20,000 Hz at 0.04%/0.08% THD/IM distortion; output current 50 A/channel; input sensitivity/impedance 1.1 V/47k ohms; slew rate 40 V/μsec; S/N ratio 96 dB; 19"W × 13½"D × 7"H; 32 lb \$1050

SAE

A1001 Power Amplifier

Stereo power amplifier with 500-W/channel continuous output power into 8 ohms, 20-20,000 Hz at 0.25% THD and IM distortion, 750 W into 4 ohms at



0.025% THD. Features high current capability, fully complementary speaker circuitry. Frequency response 20-20,000 Hz +0/-0.3 dB; S/N ratio 125 dB A weighted; input sensitivity 2.5 V; 19"W × 17½"D × 8½"H \$1550

A501 Power Amplifier

Stereo power amplifier with 250-W/channel continuous output power into 8 ohms, 20-20,000 Hz at 0.025% THD and IM distortion. Features relay protection for speakers; volt/amp limiting; complementary series-connected output stages; LED level display; feedback level control. Frequency response 20-20,000 Hz +0/-0.5 dB; S/N ratio 125 dB A weighted; input sensitivity 2.24 V; damping factor 50; 19"W × 12½"D × 7"H; 47 lb \$1050

A301 Power Amplifier

Stereo power amplifier with 175-W/channel continuous output power into 8 ohms, 20-20,000 Hz at 0.025% IM and THD distortion. Features high current capability; fully complementary circuitry; toroidal power supply; full protection; LED displays for output monitoring. Frequency response 20-20,000 Hz +0/-0.3 dB; S/N ratio 120 dB A weighted; input sensitivity 1.87 V; 19"W × 12½"D × 5½"H; 35 lb \$850

A201 Power Amplifier

Stereo power amplifier with 100-W/channel continuous output power into 8 ohms, 20-20,000 Hz at 0.025% THD and IM distortion. Frequency response 20-20,000 Hz +0/-0.3 dB; S/N 110 dB A weighted; sensitivity 1.42 V rms for rated output power; fea-

tures LED output power display; 19"W × 12½"D × 3½"H; 28 lb \$650

SAE Two P10 Power Amplifier

Stereo power amplifier with 100-W/channel continuous output power into 8 ohms, 20-20,000 Hz at 0.025% THD and IM distortion. Features high current capability; individual peak-power indicators; speaker switching. Frequency response 20-20,000 Hz +0/-0.5 dB; S/N ratio 100 dB A weighted; input sensitivity 1.5 V; 18½"W × 14½"D × 5½"H; 28 lb \$399

SAE X Series

X-25A Power Amplifier

Stereo power amplifier with 250-W/channel continuous output power into 8 ohms at 0.025% THD and IM distortion. Features LED-type true power-level display; wide/narrow-band inputs; gray anodized aluminum finish. Class-A frequency response 20-20,000 Hz +0/-0.5 dB; S/N ratio 125 dB A weighted; input sensitivity 2.24 V; 19"W × 12½"D × 7"H; 47 lb \$1500

X-15A. Similar to X-25A except output power 150 W/channel; input sensitivity 1.87 V \$1100

X-10A. Similar to X-15A except output power 100 W/channel; input sensitivity 1.42 V \$900

SHERWOOD

S-6060 CP Power Amplifier

Individually tested and certified basic stereo power amplifier with MOSFET dc circuitry. Features full push-pull dc circuitry with complementary symmetry JFET input stage; cascode driver stage; second-order low-pass filter; complete relay protection; fuses in feedback circuit; minimum current limiting. Output power 100 W/channel into 8 ohms, 20-20,000 Hz at 0.03% THD and IM distortion; clipping/dynamic headroom 0.88/1.67 dB at 8 ohms; damping factor 90; frequency response dc-40,000 Hz with low-pass filter; S/N ratio 100 dB; input sensitivity 900 mV; power consumption 30-550 W; 17½"W × 15½"D × 4½"H. 30 lb \$350

SOUNDCRAFTSMEN

A5002 Power Amplifier

Class-H Vari-Proportional circuitry with patent-pending Autobuffer for continuous operation into 2 ohms. Features auto crowbar protection circuit for output protection without current limiting; 20 LED/channel 0-1000 W ±3 dB (4 ohms) meters; front-panel switching for 2 pairs speakers; true clipping indicators; input level controls. Output power 250 W/channel into 8 ohms, 375 W into 4 ohms continuous rms, 20-20,000 Hz at <0.09% THD; S/N ratio > 105 dB; slew rate >50 V/μsec; TIM <0.02%; dynamic headroom >2 dB \$899

A2502 Power Amplifier

MOSFET stereo power amplifier with 20-LED 0-500 W (4 ohms) power meters. Features switching for 2 pairs speakers; input level controls; true clipping indicators; brushed aluminum with charcoal finish rack-mount front panel. Output power 125 W/channel into 8 ohms, 190 W/channel into 4 ohms, continuous rms, 20-20,000 Hz at <0.05% THD; S/N ratio > 105 dB; damping factor 200 \$649

(Continued on next page.)

NOTICE TO READERS

Prices of items described are suggested prices only and are subject to change without notice. Actual selling prices are determined by the dealer.

2

POWER AMPLIFIERS

STUDER/REVOX

B740 Power Amplifier

Basic stereo power amplifier with peak power meters. Features fully complementary push-pull circuitry at every stage, low negative feedback; full electronic protection without relays; 3-dB stepped input level controls; front-panel headphone jacks; front-panel carrying handles; RCA and XLR input connectors; switchable subsonic filter. Output power 100 W/channel into 8 ohms, 20-20,000 Hz at 0.1% THD; frequency response 20-20,000 Hz +0/-0.75 dB; sensitivity 1 V for rated output; 17"W x 14"D x 6"H .. \$2299

TANDBERG

TPA-3003 Power Amplifier

Basic stereo power amplifier toroidal power transformer. Features large heat sink surfaces (top panel



of chassis used as heat sink); separate left/right LED peak clipping indicators. Output power 150 W/channel into 8 ohms at <0.02% THD; dynamic/clipping headroom 0.35/1.05 dB; frequency response 5-100,000 Hz +0/-1.5 dB; sensitivity 1 V; S/N ratio 120 dB A weighted at 150 W, 8 ohms; slew rate > 70 V/μsec; damping factor 100 wideband; separation > 75 dB .. \$895

THRESHOLD

Model S/1000 STASIS Power Amplifier

Single-channel noninverting power amplifier with patented STASIS constant-current/constant-voltage linear design. Features no feedback; 44 high-speed single-diffused transistors, rated 250 W each, in output stage; extensive fuse, circuit-breaker protection; -30 to +3 dB peak-indicating VU meters; 1000-W toroidal power transformer; 120,000 μF capacitance; gold-plated audio connectors; brushed pale gold, aluminum, pewter anodized finish; rack mountability. Maximum current dissipation 30 A; bandwidth 1-100,000 Hz -3 dB; damping factor 100, 20-20,000 Hz; slew rate 160 V/μsec; 19"W x 19"D x 8 3/4"H .. \$3300

Model S/500 STASIS. Similar to S/1000 except dual-channel. Output stages each have 22 of same type transistors; no output metering. Maximum current dissipation 22 A/channel; slew rate 80 V/μsec .. \$2970

Model S/300 STASIS. Similar to S/500 except only 14 same-type transistors in each output stage; has 700-W toroidal transformer, 60,000 μF capacitance; maximum current 10 A/channel; pale bronze, aluminum, pewter finish; 15"D .. \$1980

Model S/150 STASIS. Similar to S/300 except only 8 transistors per output; 400-W transformer; 30,000 μF capacitance; maximum current dissipation 7 A/channel; brushed aluminum, pewter finish; 11"D .. \$1320

YAMAHA

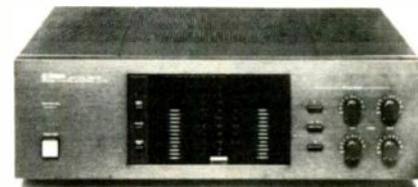
BX-1 Mono Power Amplifier

Single-channel high-power class-A power amplifier with fully regulated power supply, massive toroidal transformer, 40,000 μF chemical filter capacitance. Output power 100 W into 4 and 8 ohms, 20-20,000 Hz at 0.002% THD; power bandwidth 10-100,000

Hz at 50 W, 0.005% THD; IM distortion 0.001% at 4 and 8 ohms; S/N ratio 123 dB; rise time 0.3 μsec; slew rate 600 V/μsec; damping factor 160; 19 1/2" D x 10 1/8" W x 9 1/8" H; 40.5 lb .. \$2000

M-70 Power Amplifier

Zero Distortion Rule (ZDR) stereo power amplifier with X power supply. Features power sensor that controls amount of ac delivered to amplifier; A/B speaker selectors; independent left, right level controls for each stereo pair of speaker systems; 20-LED peak



power meters with switchable range, peak-hold feature; Output power 200 W/channel into 8 ohms, 20-20,000 Hz at 0.002% THD; power bandwidth 10-100,000 Hz at 8 ohms, 0.006% THD; input sensitivity/impedance 1.41 V/25k ohms; S/N ratio 124 dB; IM distortion 0.002%; separation 95 dB at 1 kHz; damping factor > 200; slew rate 200 V/μsec; power consumption 600 W (U.S.); 17 1/8" W x 15" D x 5 1/4" H; 30 lb 3 oz .. \$950

M-50. Similar to M-70 except has level control for each set of speakers. Output power 120 W/channel; power bandwidth at 0.01% THD; S/N ratio 122 dB; power consumption 350 W (U.S.); 15" D x 14 1/8" W; 26 lb .. \$650

B-6 Stereo Power Amplifier

Natural Sound stereo power amplifier with Yamaha "X" power-supply, power-amplifier design. X power supply eliminates distortion resulting from switching regulator. Output power 200 W/channel min rms into 8 ohms, 20-20,000 Hz at 0.003% THD and IM distortion; power bandwidth 10-100,000 Hz into 8 ohms at 100 W; damping factor > 200 at 8 ohms, 1 kHz; frequency response dc-100,000 Hz 0/-0.5 dB; input sensitivity/impedance 1.41 V/25k ohms; S/N ratio > 127 dB input shorted; separation at 1 kHz > 92/> 72 dB; power consumption 200 W (U.S.); 11 1/8" W x 11 1/8" D x 6 1/8" H (truncated-pyramid configuration enclosure; 19 lb 13 oz (U.S.) .. \$950

2

PREAMPLIFIERS

ACOUSTAT

Trans-Nova™ Preamp

Full FET preamplifier with single phono gain stage for all types of low- or high-output phono cartridges and new RIAA network that is neither passive or active. Features 4 high-level inputs; 2 tape monitors with dubbing in both directions; output switching; passive high filter and loudness compensation; headphones output; convenience outlets. Frequency response 3-750,000 Hz ± 3 dB; 10 lb .. \$750

ADCOM

GFP-1 "The Silent Partner™" Preamp

Features FET input phono stage; bass and treble controls with tone defeat; high and low filter selectors; loudness switch; -20-dB audio muting and mono selectors; 2-tape-deck monitor/dub; input selector for phono 1 and 2, tuner, aux. Input sensitivity 0.5 mV phono, 28.1 mV tape; phono overload 250 mV; gain 35 dB phono, 25 dB line; output 10 V; THD 0.009%, 20-20,000 Hz at 2.5 V; 3"H x 19"W .. \$350

M-1.5

At last, all the power you need for the accurate reproduction of music.

From CARVER, of course.

Pound-for-pound the most powerful high fidelity amplifier ever built.

Truly musical. Absolutely accurate.

When you hear how the M-1.5's vast power reserves eliminate clipping distortion and thus free the music for full dynamic range you'll understand CARVER's quest for Enough Power.

Stripping away the arcwelder bulk and searing heat of conventional amplifier technology, the M-1.5 is light, compact, cool, and affordable with impeccable sound quality.

350 watts RMS/chan. into 8 ohms, 20-20kHz with less than 0.1% THD. And most importantly, the rating that is musically significant: 600 watts/chan. Long-Time-Period Reserve Power with 750 watt/chan. Dynamic Headroom.

Weight: 16 lbs.

Carver Corporation
P.O. Box 664
14304 N.E. 193rd Place
Woodinville, WA 98072

In Canada distributed by
Evolution Audio.

CARVER

AIWA

SA-C80U Stereo Preamp

Stereo differential preamplifier with moving-coil (MC) cartridge head amplifier, 2-way D.S.L. Features low filter; -20-dB mute switch; loudness control; 2 tape loops for dubbing; 2 aux inputs; detented tone controls; soft-touch mode selectors \$140

AMBER

Control Center Preamp

Control center preamplifier available in Straight Line (SL-17) and Full Function (FF-17) versions. Features wide-bandwidth, ultra-low-noise IC circuitry; MM phono, tuner, tape, aux inputs; 2 buffered tape loops; external processor loop; switchable subsonic filter; loudness switch with subsonic filter; mute switch; stereo/mono mode switch; headphone jack; 2 sets output jacks; 4 switched, 1 unswitched ac outlets; phono capacitance loading on rear apron. FF-17 adds moving-coil (MC) cartridge head amplifier; bass, treble controls hinged at 300, 3k Hz with 6-dB boost/cut; tone-defeat switch. Phono S/N ratio 90 dB A weighted with high-level readings of 100 dB. SL-17 can be upgraded to FF-17 status at factory. Measures 17"W x 8 1/2"D x 2 1/4"H.

FF-17 \$725
SL-17 \$495

ARCAM

C 200 Preamp/Control Center

Upgradable preamplifier system with choice of moving-coil (MC), moving-magnet (MM), line-level inputs in any combination; includes card slots for self-contained 2- or 3-way active speaker crossover networks. Features 2 tape loops; tape-tape dubbing; noninverting tone controls; tone bypass switch; switchable high-pass filter; high-quality headphone amplifier; switchable 330/100/30/10 ohms resistance, 1/100 nF capacitance for MC input; switchable 47k/30k/8k ohms resistance, 50/150/270/370 pF capacitance for MM input. Frequency linearity 20-20,000 Hz +0/-0.5 dB; input sensitivity 1.5 or 3 mV; overload margin 40 dB; noise > -90 dB; distortion < 0.01%; maximum output 7.5 V; power consumption 25 VA; 17"W x 12"D x 1 1/4"H; 9 lb \$895

AUDIONICS OF OREGON

RS1 Preamp

Straight-line class-A dc-coupled stereo preamplifier. Features axial tilt circuitry with front-panel controls (electronically compensates for mechanical stylus misalignment errors of up to ±7° from vertical plane); infrasonic filter; selectable resistive, capacitive phono loading switches; 2 tape inputs with full record, dubbing, monitoring capability; stereo, mono, mute switches; ac switch; balance and volume controls. Input sensitivity/impedance 2 mV/47k or 100k ohms phono, 100 mV/25k ohms high-level; phono overload 165 mV; phono S/N 82 ratio dB A weighted; RIAA equalization ±0.2 dB, 20-20,000 Hz; tape output 0.2-0.45 V, output impedance 2.2k ohms, THD and IM distortion 0.01%; source impedance 500 ohms; black anodized aluminum front panel with rack-mount handles; 19"W x 7 1/2"D x 3 1/2"H..... \$895

RS-2 Preamp

Straight-line class-A preamplifier with built-in CX decoder, expander for video audio sources. Features aux/phono/tuner inputs; tape monitor; 2 line inputs; selectable phono resistive, capacitive loading. Input sensitivity/impedance 2mV/47k or 100k ohms phono, 100 mV/25k ohms high-level; phono overload 150 mV; phono S/N ratio 85 dB A weighted; phono equalization ±0.25 dB, 20-20,000 Hz; infrasonic filter characteristics 18 dB/octave below 20 Hz; THD and IM distortion < 0.015% at 5 V into 10k ohms; source impedance 500 ohms; black anodized rack mount; 19"W x 7 1/2"D x 3 1/2"H \$722

AUDIO RESEARCH

SP-8 Preamp

Vacuum-tube stereo preamplifier with 1.5-minute warm-up timer. Features continuous protection

against line-voltage dropouts; high-accuracy, close-tracking segmented gain control; front panel receptacle switch that operates 2 relay-controlled outlets with 1600-W capacity; isolated ground construction that floats all inputs and outputs; rejection filters for minimizing or eliminating CB, TVI, r-f interference. Frequency response 5-30,000 Hz ±0.25 dB high-level, to 40 kHz phono; harmonic/IM distortion < 0.01%/0.002% at 2 V rms; gain phono/high-level to main output 26/60 dB; input/output impedance 50k/1k ohms; phono overload 900 mV; output level 2 V rms; noise 250 μV rms maximum high-level; 5 μV phono; power consumption 60 W; 19"W x 10 1/4"D x 5 1/4"H; 22 lb \$1695

SP-7 Preamp

Solid-state stereo preamplifier with Analog Module™ technology. Features close-tolerance segmented gain control; front-panel receptacle switch that operates 3 relay-controlled outlets with 1600-W capacity; low-surge turn-on circuitry; isolated ground construction that floats all inputs and outputs; rejection filters for minimizing or eliminating RFI, TVI, CB interference. Frequency response 1-50,000 Hz ±0.25 dB high-level, 10-40,000 Hz phono; harmonic and IM distortion < 0.002% at 2 V rms; gain phono/high-level to main outputs 60/26 dB; input/output impedance 50k/250 ohms, phono overload 500 mV at 1 kHz; output level 2 V rms; noise high-level/phono 250/2 μV; 19"W x 8 1/2"D x 3 1/2"H; 16 lb \$1295

BRYSTON

1 B Preamp

Low-level, low-noise preamplifier designed for maximum musical accuracy. Features open-loop linearity circuit; noise-free, voltage-stabilized power supplies; defeatable 6 dB/octave at 30 Hz rumble filter; phono 1 and 2, tape 1 and 2, aux, tuner selector; stereo/mono switch; balance, volume controls. Gain 50 dB phono, 20 dB line; noise -80 dB at 5 mV input, 1 kHz unweighted; distortion 0.005%, 20-20,000 Hz through phono stage at 5 V output \$735

CARVER

C-4000 Preamp

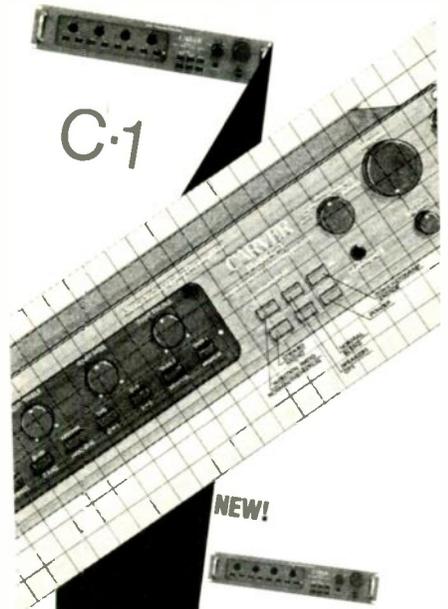
Features Sonic Hologram Generator™ designed to recreate vector sound field present during original recording and to locate musical instruments precisely in space (enlarged zone of coherence enables three people sitting side by side to experience the holographic effect—older units upgraded by dealer for modest charge); 3-channel time delay system with 40 W combined amplifier. user-selectable 35/50-msec initial delay with variable echo density; third-generation Audio-Correlator noise-reduction system, Peak Unlimiter; separate left and right bass and treble controls with turnover frequency switches, tone defeat; cartridge matching; 2-way tape dubbing, monitoring; ex-



ternal signal processor input; infrasonic filter. Frequency response ±0.25 dB 20-20,000 Hz phono RIAA, 5-200,000 Hz -1 dB high level; input sensitivity 0.85 mV phono, 50 mV high level; phono overload 150 mV at 1 kHz; phono gain 35 dB; noise reduction 20 dB (20-200 Hz), 10 dB (2000-20,000 Hz); Sonic Hologram™ image resolution 5° horizontally, 20° vertically; peak unlimiter total dynamic range recovery 6 dB; time delay 50 msec maximum; distortion 0.2%; bandwidth 20-10,000 Hz, feed forward to 19 kHz. 19"W x 8"D x 6 1/2"H \$1099

C-1 Preamp

Features Sonic Hologram Generator™ dimensional (Continues on next page.)



NEW!

The CARVER C-1 Sonic Holography Preamplifier.

Superlative performance. Meticulous engineering. High reliability. Finest sonic quality. The C-1 fulfills the requirements of the most demanding audiophile.

Highly acclaimed and far beyond what other manufacturers call state-of-the-art, the Carver C-1 is a wonderfully affordable way to experience the sheer musical pleasure of Sonic Holography.

A quality instrument replete with precision gold-band laser-trimmed resistors, life-time lubricated sealed switches, G-10 glass epoxy boards, machined solid metal parts and vapor deposited 24-Karat gold contacts, the C-1 provides moving coil input, soft touch controls, an infrasonic filter, a headphone amplifier, dual tape monitors, variable turnover tone controls, silent muting, and an external processor loop.

Its straight-wire engineering assures that a watt of input leaves with just 0.000000000251 watts of distortion. Or less.

If your goal is new levels of detail, openness and three-dimensionality in an audiophile preamplifier, you must hear the surprisingly affordable C-1.

Carver Corporation
P.O. Box 664
14304 N.E. 193rd Place
Woodinville, WA 98072
In Canada distributed by
Evolution Audio.

CARVER
CORPORATION

CIRCLE NO. 12 ON READER SERVICE CARD

2

PREAMPLIFIERS

sound imager; separate left and bass and treble tone controls with high, low turnover frequency controls, tone defeat; moving coil (MC) phono input; 18-dB/octave infrasonic filter; tape/source monitor with 2-way tape dubbing; provision for external processor; input selector. Frequency response ± 0.25 dB extended curve phono RIAA, 5-200,000 Hz high level; phono overload 150 mV at 1 kHz, 1500 mV at 20 kHz; image resolution 5° horizontally, 20° vertically \$549

CONRAD-JOHNSON

Premier Two Preamplifier

Vacuum-tube preamplifier with cascode circuitry. Constructed with low-noise precision metal-film resistors, polypropylene and polystyrene capacitors in audio circuitry. Features 800- μ F power-supply capacitance; facilities for 2 tape recorders, 2-way dubbing, phono, tuner, aux inputs, 2 amplifier outputs; front-panel mute control. Frequency response 20-20,000 Hz ± 0.25 dB phono; S/N ratio 70 dB below 10 mV phono, 84 dB below 2.5 V output high-level; THD and IM distortion 0.05%; gain 35 dB phono, 28 dB high level; maximum output 25 V; phono overload 500 mV at 1 kHz; 14"W \times 11 $\frac{1}{4}$ "D \times 4 $\frac{1}{4}$ "H \$1585

PV2a Preamplifier

Vacuum-tube stereo preamplifier features low-noise metal film resistors, polypropylene and polystyrene capacitors in audio circuitry, vacuum-tube design; 2-deck tape monitoring with one-way dubbing; input selector for phono, tuner, tape, aux; reverse/stereo/mono mode selector; 2 amplifier outputs. Frequency response ± 0.25 dB 20-20,000 Hz phono; S/N ratio 70 dB below 10 mV in phono, 84 dB below 2.5 V out high-level; THD and IM distortion 0.05%; gain 35 dB phono, 28 dB high-level; maximum output 25 V; phono overload 500 mV at 1 kHz; 14"W \times 11 $\frac{1}{4}$ "D \times 4 $\frac{1}{4}$ "H \$685

PV3 Preamplifier

Basic preamplifier with simple vacuum-tube circuitry. Frequency response 20-20,000 Hz ± 5 dB phono RIAA; S/N ratio 70 dB below 10 mV phono, 84 dB below 2.5 V high-level output; THD and IM distortion 0.05%; gain 34 dB phono, 24 dB high-level; maximum output 10 V; phono overload 400 mV at 1 kHz; 10 $\frac{1}{2}$ "W \times 7"D \times 3 $\frac{1}{4}$ "H \$399
PV3k. Kit version of PV3 \$299

CROWN

DL-2 Control Center/Preamplifier

Three-piece stereo control preamplifier: switching module with all controls, power supply, phono module A (phono preamp stage for placement at turntable). Switching Module features digital control-setting displays, digital interface for wireless remote control system, 8 dual-channel touch-button selectable inputs, 2 for external signal processors, mixable input. Frequency response 1-100,000 Hz ± 0.5 dB; maximum output 11 V rms before overload; hum and noise 97 dB below rated output, unweighted, 101 dB A weighted; maximum THD and IM distortion 0.0003% below 10-V output, 20-20,000 Hz; input gain/impedance 20 dB ± 0.2 dB/100k ohms; output impedance 50 ohms; headphone output level/impedance (3-circuit, $\frac{1}{4}$ " jack) 17 V rms maximum/1 ohm minimum, 10-50,000 Hz ± 0.1 dB at rated output; 63.5 dB dynamic range (displayed with 7-segment LEDs); frequency adjust controls set at 20, 40, 80, 400, 800, 1.6k, 5k, 10k, 20k Hz; 18 dB/octave roll-off; 31-position switched attenuators for ± 0.2 dB adjustment over 50-dB range; 17"W \times 14"D \times 7 $\frac{1}{2}$ "H. Power supply features 7 switched, 2 unswitched ac outlets; 2 dc outlets; measures 17"W \times 7 $\frac{1}{2}$ "D \times 3 $\frac{1}{2}$ "H. Phono Module A: frequency response 20-20,000 Hz ± 0.25 dB RIAA, 10-30,000 Hz ± 0.1 dB flat; hum and noise -88 dB RIAA unweighted, -94 dB RIAA A weighted, -84 dB flat unweighted, -89 dB flat A

weighted; IM/THD 0.0005%/0.02% minimum, 20-20,000 Hz at rated output; input gain 30-50 dB, 2.5 V, 1 kHz; input impedance 47k/100k ohms; output level/impedance 11 V rms maximum/600 ohms; 6 $\frac{1}{4}$ "D \times 3 $\frac{1}{2}$ "H \times 1 $\frac{1}{4}$ "D. Switching Module and power supply have satinized aluminum front panel with charcoal Lexan inlay, other surfaces black anodized; Phono Module A has black anodized steel finish \$2899

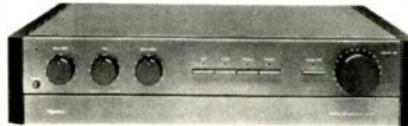
Straight-Line Two Preamplifier

Straight-wire-signal-path preamplifier with automatic muting. Features tuner, phono, aux 1, aux 2, tape 1, tape 2, processor signal-source selector; 6 outputs, including headphone monitor; detented level, loudness, ± 10 -dB boost/cut detented bass and treble, tape-copy, tape-monitor, balance, mode, low-frequency filter, phono-level controls; rumble, signal-present, overload, tone-activated indicators; 1 $\frac{1}{4}$ "H front panel \$549

CYBERNET

C-901 Control Preamplifier

Stereo control preamplifier with separate bass, midrange, treble controls with an adjustable parametric graphic equalizer for bass and treble controls. Features class-A circuitry throughout; 2-pole phase com-



pensation; MM and MC phono inputs; selectable 27k/47k/100k ohms MM impedance; 2-way tape monitor/dub; subsonic filter. Frequency response 20-20,000 Hz ± 0.2 dB all inputs; S/N ratio MM/MC 86/70 dB; MC preamp sensitivity 100 μ V at 1k ohm; MM sensitivity 2.2 mV \$1290

DB SYSTEMS

DB-1A Preamplifier

Stereo preamplifier with separate DB-2A regulated power supply. THD < 0.0008%, 20-20,000 Hz; IM distortion < 0.001%; frequency response phono 10-40,000 Hz ± 0.07 dB, high-level 2-50,000 Hz ± 0 , -1 dB; S/N ratio A weighted 89 dB phono, 90 dB line; filters: low-cut flat, 20 Hz, 36 Hz at 6 dB/octave phono only, high-cut flat, 5 kHz, 10 kHz at 6 dB/octave; output impedance 1k ohms; maximum output voltage 6 V into 10k ohms; maximum load for rated distortion 10k ohms/3000 pF; input sensitivity for 1 V output: phono 2 mV into 50k ohms/100 pF, high-level 120 mV into 50k ohms; 8.5" \times 7" \times 3.2" \$450
DB-1Au. Same as DB-1A except with gold jacks \$467
DBR-1A. Same as DB-1A except mounted on 19" rack; with DB-2 A power supply \$484

DBR-15A & 2 Preamplifier

Rack-mount precision preamplifier and tone control with power supply; combines DB-1A, DB-5 in a 19" rack unit. Auxiliary cable included \$780

DENON

PRA-6000 Preamplifier

All-direct-coupled stereo preamplifier with pure non-NFB circuitry from moving-coil head amplifier to high-



output amplifier section. Features electronic switching; super phono equalizer; DAD input; real-time tone controls with 5-stage turnover switch, center defeat. Designed as companion to Denon POA-8000 power amplifier \$3000

PRA-2000 Preamplifier

Real-time non-feedback stereo preamplifier with 2 direct-coupled linear amplifiers, direct dc servo circuitry, MC cartridge head amplifier. Features electronic operations switches, preset mechanism. Input sensitivity/impedance 2.5 mV/50k ohms phono MM, 0.125 mV/100 ohms phono MC, 150 mV/50k ohms aux, tuner, tape; phono overload at 1 kHz 380 mV MM, 19 mV MC; phono RIAA accuracy ± 0.2 dB, 20-100,000 Hz; THD 0.002% MM, 0.003% MC; S/N ratio, IHF A weighted 86 dB MM, 79 dB MC; 455 mmW \times 357 mmD \times 132 mmH \$1300

FISHER

CC 3000 Preamplifier

Stereo preamplifier with moving-coil (MC) phono preamp. Features 3-position phono impedance switch; defeatable bass, treble controls; subsonic filter; loudness switch; 2-way tape dubbing. Input sensitivity/impedance 2.5 mV/33k and 47k ohms MM, 60 μ V/22 ohms MC, 150 mV/100k tuner, aux, tape 1, 2; frequency response ± 0.2 dB phono, ± 0.5 dB aux; THD 0.007%; IM distortion 0.005%; S/N ratio 86 dB MM, 70 dB MC, 105 dB tuner, aux, tape \$250

HARMAN/KARDON

700 Series High Technology Separates

hk725 Preamplifier

Stereo preamplifier with direct-coupled, discrete amplifier circuits. Features FET front ends in 8-stage phono, high-level stages; ± 8 -dB fixed resistor pushbutton bass, treble controls in 2-dB steps with LED center defeat; subsonic, high-cut filters; loudness selector; 2-deck tape monitor; 2-way tape dubbing; tuner, aux, phono input selectors. Input sensitivity/impedance 2.3 mV/47k ohms phono, 145 mV/23k ohms high-level; phono overload 250 mV at 1000 Hz; frequency response 1-150,000 Hz ± 0 , $+0$, -1 dB high-level, RIAA phono deviation ± 0.2 dB 20-20,000 Hz; S/N ratio 90 dB phono, 106 dB high-level; THD 0.009% phono 0.005% high-level; IM distortion 0.009% at 2 V out; slew rate 200 V/ μ sec; 15.2"W \times 12.6"D \times 2.9"H \$330

HEATH

AP-1800 Preamplifier

Stereo preamplifier with moving-coil (MC) phono head amplifier. Features separate left/right bass, treble tone controls with bass, treble turnover frequency switches; low, high filters; loudness control; -20-dB audio muting; two-deck tape monitoring with 2-way dubbing; adaptor on/off switch; mode selector; input selector with switchable phono sensitivity/capacitance selectors; attenuator volume control. Output 1.5 V; THD and IM distortion 0.02%; switches up to 1500 W using ac; 19"W \times 11 $\frac{1}{4}$ "D \times 5 $\frac{1}{4}$ "H \$390

HITACHI

HCA-7500MKII Preamplifier

Stereo preamplifier with complementary push-pull, dc equalizer amplifier circuitry, dc push-pull FET differ-



ential tone control amplifier circuitry, moving-coil (MC) phono head amplifier. Features defeatable bass, treble controls with turnover frequency selectors; low, high filters; 2-way tape dubbing and monitoring; -20-dB muting; separate moving-magnet/moving-coil phono cartridge load selector. Input sensitivity/impedance 2 mV-6 mV/50k ohms phono 1, 2 mV/50k ohms phono 2, 100 mV/50k ohms tuner, aux, tape 1 and 2; maximum input level 350 mV at 1 kHz phono 1 and 2; output level/impedance 1 V/600 ohms preamp out, 100 mV/600 ohms tape out, PIN, DIN; maximum output level > 7 V preamp out; fre-

quency response 20-20,000 Hz ± 0.2 dB phono 1 and 2, 5-100,000 Hz $+0/-1$ dB tuner, aux, tape 1 and 2; THD 0.005% at 1 V phono 1 and 2, tuner, aux; S/N ratio 87 dB phono 1 and 2, 100 dB tuner, aux, tape 1 and 2; residual hum and noise preamp out 8 mV; soft gray finish; $18\frac{1}{2}'' \times 13\frac{1}{2}'' \times 6\frac{1}{2}''$ H \$370

KENWOOD

Audio Purist Group

Basic C1 Control Amplifier

Stereo preamplifier with moving-magnet (MM) and moving-coil (MC) capability. Features adjustable loudness control; subsonic filter \$225

KM LABORATORIES

MP 1 Mixing Preamplifier

Mixer preamplifier designed for home, disco, or studio use. Features 6 input level controls including turntable power switches (incorporated in Phono 1 and 2); prelistening input selector; bass, treble, balance controls with master fader control; dual output meters with normal/-20 dB meter range switch, adjustable preset microphone roll-off controls; headphones volume control; tape 1 and 2/source monitor switch; mono/stereo mode switch. Maximum input level/input impedance 90 mV at 1 kHz/47k ohms phono 1 and 2, 6 V rms/20k ohms tape and aux 1, 2, 25 mV rms/47k ohms mic; gain 37 dB at 1 kHz phono 1 and 2, 0 dB tape and aux 1 and 2, 48 dB mic; frequency response 40-10,000 Hz ± 0.2 dB phono, ± 2 dB phono, tape, aux; THD at 1 kHz 0.033% phono 1 and 2, 0.03% other inputs at 3.1 V rms out; maximum output level 1.8 V rms into 600 ohms, 7.75 V rms into high-impedance load, 10 mW continuous into 8 ohms, 40 mW continuous into 600 ohms headphones amp. Available in sloping console or 19" rack mount; console $19'' \times 10\frac{1}{2}'' \times 3\frac{1}{2}''$ H; chassis with handles $19'' \times 10.5'' \times 4\frac{1}{4}''$ H \$995

SP-100 Preamplifier

Straight-line preamplifier with cascode differential amplifier stages. Features gold-plated phono inputs; monolithic FET inputs to phono, main amplifiers; optional moving coil MC module; tape-to-tape dubbing; monitor/source facility; subsonic filter; automatic switch-on mute; mute facility button; optional drop-in processing boards; integral power supply with toroidal transformer; 3 switched outlets (10 A maximum). Phono section: input resistance 50k ohms $\pm 1\%$ MM, 100 ohms $\pm 1\%$ MC; RIAA accuracy ± 0.1 dB MM and MC; input sensitivity at 1 kHz 2.5 mV rms MM, 2.25 mV MC; separation 70 dB; THD at 0.5 V $\pm 0.001\%$ MM, $\pm 0.002\%$ MC; S/N ratio A weighted 87 dB MM, 84 dB MC; phono overload 420 mV rms MM, 42 mV rms MC. Amplifier section: gain 20 dB; frequency response 3.5-20,000 Hz $+0/-3$ dB; slew rate 110 V/ μ sec; S/N ratio 107 dB; $19'' \times 10\frac{1}{2}'' \times 2.38''$ H; $11\frac{1}{4}$ lb \$699
Moving coil modules (2) \$99
Moving magnet modules (2) \$75

LUXMAN

C-300 Preamplifier/Control Center

Preamp/control center with Duo-Beta circuitry in audio signal path with Plus-X circuitry in power supply. Features moving-coil (MC) phono head preamp; variable turnover-frequency control; MM/MC phono input selector; tone-control defeat switch; recorder-out/tone-control switch; dual tape-monitoring facilities; tape dubbing; gold-plated input connectors. S/N ratio 148 dB (MC), 80 dB (MM), 100 dB overall for high-level inputs; $19.1'' \times 15.4'' \times 6.5''$ H; 19.8 lb \$1000

CL-34 Preamplifier

Tube-type preamp with solid-state Duo-Beta circuitry, designed to accompany MQ-68C power amplifier but easily interfaces with any modern solid-state amp. Features gold-plated input connectors; tape monitor, dub capability; tone-control defeat; low-cut filter; attenuator. S/N ratio 80 dB phono 1/2, 100 dB aux; $17.3'' \times 12.7'' \times 3.1''$ H; 14 lb \$700

C-120A Preamplifier

Stereo preamplifier with moving-coil (MC) head amp. Features defeatable bass, treble controls with bass (150/300/600-Hz), treble (1500/3000/6000 Hz) turnover frequency selectors with low boost (70/off/150 Hz) selector; linear equalizer with up/down tilt positions; 6-dB/octave subsonic (15 and 30 Hz), high-cut (9 and 15 kHz) filter switches; tape/source monitor; 2-way tape dubbing. Input sensitivity/impedance 2.0 mV/50k ohms phono MM, 200 μ V/390 ohms MC, 130 mV/60k ohms aux, tuner, tape; phono overload 300 mV; frequency response ± 0.3 dB 20-20,000 Hz phono RIAA, 10-80,000 Hz ± 0.5 dB aux, tuner; THD 0.007% at 3 V, 20-20,000 Hz rec out to phono MM, pre out to aux, tuner; S/N ratio 88 dB MM 74 dB MC, 100 dB aux, tuner; output 1 V typical pre out, 130 mV rec out; $17\frac{1}{4}'' \times 11\frac{1}{8}'' \times 3\frac{1}{4}''$ H \$450

MERIDIAN

Control Unit 101

Stereo preamplifier with choice of tuner, tape, phono inputs. Has no tone controls to deteriorate sound. Power switch in volume control. Requires phono input module (specify moving-coil or moving-magnet). Matched to Meridian power amplifiers, speaker systems \$565
101 B. Balanced output version of 101 \$665

METRON

PR-1 Preamplifier

Features stepped attenuator volume control adjustable in 2-dB increments; separate ± 10 -dB stepped bass, treble controls; detented balance control; input selector switch with LED; tape monitor, dub, -20-dB mute switches; subsonic filter (-9 dB/octave at 10 Hz); headphone jack. Input sensitivity 0.5 mV phono 1 and 2, 55 mV aux and tuner, 62 mV tape, 0.45 mV at 1 kHz mic; phono input impedance 47k ohms; phono overload 230 mV at 1 kHz; THD and IM distortion 0.01% phono to main out, 0.005% aux, tuner, tape to main out; R'AA phono deviation ± 0.2 dB, 30-15,000 Hz, 5-200,000 Hz -3 dB aux, tuner, tape 1 and 2, 50-20,000 Hz -3 dB (mic); S/N ratio 84/73 dB weighted/unweighted phono, 92 dB unweighted aux, tuner, 77/70 dB weighted/unweighted mic; $18.9'' \times 14.2'' \times 2.8''$ H 500

MISSION

Model 776 Preamplifier

Stereo preamplifier with power derived from rechargeable, sealed heavy-duty batteries that eliminate line-induced hum, provide very low impedance, excellent interchannel power supply rejection. Designed around 2 identical channels consisting of phono and line sections. Input sensitivity 2 mV phono, 100 mV line for 1 V rms output; phono overload 150 mV at 1 kHz; output level nominal/maximum 1 V rms/10 V peak; input impedance 47k ohms/150 pF; output impedance 250 ohms/4.7 μ F; S/N ratio phono/line 80/95 dB; hum 100 dB below rated output; THD/IM/TIM <0.05%/<0.05%/0; frequency response 20-20,000 Hz ± 0.2 dB phono, -0.1 dB line \$997

MITSUBISHI

DA-P30 Preamplifier

Stereo preamplifier with dual-monaural construction. Features 4 power-supply voltage regulator circuits; wire operated remote switches; built-in head amp; MM equalizer amp with dc-optimized negative feedback; low-noise, high-capacity, rapid response power supply circuits; muting circuit; subsonic filter; tone-bypass switch; docking, speaker selection, protection-

circuit indication. Input sensitivity/impedance 0.13 mV/10 ohms MC, 2.8 mV/47k ohms MM, 150 mV/47k ohms tuner, aux, Play 1, 2; output level/impedance 1V/600 ohms; S/N ratio 92 dB phono, 81 dB MM, 97 dB tuner, aux, play 1, 2; THD 0.004% MC, 0.002% MM, 0.0015% tuner, aux, Play 1, 2; separation 75 dB at 20 kHz MC and MM, 80 dB tuner, aux, play 1, 2; frequency response 20 Hz-20 kHz ± 2 dB; $18\frac{1}{2}'' \times 9\frac{1}{2}'' \times 5\frac{1}{4}''$ H \$450

M-P04 Micro Preamplifier

Stereo preamplifier with head amplifier. Features phono inputs with MM/MC switching on front panel; tape-duplication, monitoring facilities; subsonic filter; loudness compensation; illuminated program selector switches; ultrawide dynamic range. Input sensitivity/impedance 2.5 mV/50k ohms (phono 1, 2, and MM, 0.1 mV/10 ohms phono 2 and MC, 150 mV/50k ohms tuner, aux, play 1, 2; output level/impedance 1V/600 ohms; S/N ratio 78 dB MM, 85 dB MC, 89 dB tuner, aux, play 1, 2; THD 0.005% MM, 0.01% MC, 0.005% tuner, aux, play 1, 2; frequency response 20 Hz-20,000 Hz ± 2 dB; $10\frac{1}{4}'' \times 9\frac{1}{4}'' \times 2\frac{1}{4}''$ H \$260

MRX

140 System Preamp

Control preamplifier combines functions of preamp, mixer, patch bay. Can process 2 independent programs simultaneously. Features A/B 6-position input selectors for instrument, tape 1 and 2, aux, tuner, phono; mix control; main-channel selector for monitoring input source, mixed output, or tape input with separate monitor, monitor level controls; switchable subsonic filter; 2 tape loops with 2-way dubbing; 2 processor loops; integral headphone amplifier with independent level, selection controls; left mono, right mono, stereo reverse switching; high/low gain switch. RIAA equalization ± 0.25 dB; phono S/N ratio 88 dB; phono gain 40 dB at 1 kHz; THD and IM distortion 0.005%; maximum output +19 dBV; rear-panel convenience outlet; black anodized extrusion with solid walnut end pieces; optional rack-mount ears available; $19'' \times 6'' \times 3\frac{1}{2}''$ H \$500
150 System Preamp II. Similar to System Preamp but with second RIAA phono preamp for independent selection of 2 turntables \$550

139 Linear Preamp

Straight line preamp with switchable subsonic filter (-31 dB at 5 Hz, -1 dB at 20 Hz). Features high/low gain switch; 2-deck tape monitor, 2-way dubbing; left-right mono/stereo reverse mode switch. Frequency response ± 0.25 dB 20-20,000 Hz phono, 10-40,000 Hz ± 0.25 dB line; THD 0.005% at 0 dBV, 20-20,000 Hz, any input to out; residual noise 88 dB below 10 mV in (phono, A weighted), 90 dB below 1 V in, 20-20,000 Hz (line); gain 40 dB at 1 kHz, 0/20 dB selectable (line); phono overload 120 mV peak at 1 kHz; maximum output +19 dBV at 9.0 V rms, 20-20,000 Hz; input impedance 47k ohms phono, 100k ohms line; black anodized extrusion with solid walnut end pieces; optional rack-mount kit available; $19'' \times 6'' \times 1\frac{1}{4}''$ H \$350

NAD

1020 Preamplifier

Stereo preamplifier with switch-selectable cartridge capacitance, bass and treble controls that do not add noise or distortion and have no effect on midrange



frequencies, supplementary 150-ohm output stage for driving any nonelectrostatic headphones, multiple amplifiers, 600-ohm professional equipment. RIAA equalization ± 0.3 dB; dynamic range >107 dB; S/N ratio phono/line 80/98 dB; input sensitivity for 2 V output phono/line 5/320 mV; phono overload 200 mV at 1 kHz; $16.5'' \times 9.5'' \times 3.8''$ H \$178

(Continued on next page.)

NEED MORE INFORMATION?

Write directly to the manufacturer or distributor. A list of names and addresses starts on page 188.

NAIM by AUDIOPHILE SYSTEMS

NAC 32 Preamplifier

Features input selector for moving-magnet, moving-coil phono cartridges, tuner, 2 tape; volume, balance controls; mode switch; normal, mute, tape monitor switch. Input sensitivity 2.0 mV MM, 0.1 mV MC, 75 mV high-level; phono overload 200 mV MM, 10 mV MC; frequency response 20-20,000 Hz ± 0.5 dB; THD and IM distortion 0.02%; 12"D \times 8"W \times 3"H..... \$920

NAC 42 Preamplifier

Features input selector for moving-magnet/moving-coil phono cartridges, tape, tuner. Frequency response 20 Hz-20 kHz ± 0.5 dB; THD and IM 0.02%, sensitivity 0.1 mV MC phono/2.0 mV MM phono, 75 mV high-level; phono overload 10 mV MC, 200 mV MM; 3"H \times 8"W \times 12"D; 6 lb..... \$560

PNAG Moving Coil Preamp

Frequency response 20 Hz-20 kHz ± 0.5 dB; sensitivity 0.1 mV; 3 lb..... \$320

NIKKO

Beta 40 Preamplifier

Stereo preamplifier with moving-coil (MC) phono stage. Features adjustable phono capacitance to match any phono cartridge; all FET signal stages; defeatable +8/-9-dB bass, treble controls; 12-dB/octave subsonic filter; loudness switch; input, record out selectors; full tape-dubbing facilities; headphone amp stage; toroidal power transformer; gold-plated phono input terminals; single-circuit-board construction. THD 0.005% MM and line, 0.01% MC; phono overload 330 mV MM, 33 mV MC; S/N ratio 83 dB MM, 72 dB MC, 100 dB line; rack-mountable matte black cabinet; 19"W \times 13"D \times 2 1/4"H..... \$470

Beta 20 Preamplifier

Stereo preamplifier with moving-coil (MC) phono stage. Features center-defeat ± 7.5 -dB bass, treble controls; 12-dB/octave subsonic filter; separate input, record out selectors; 2-way tape dubbing. THD 0.005% (phono MM and line), 0.01% MC; phono overload 250 mV MM, 25 mV MC; S/N ratio 86 dB MM, 72 dB MC, 100 dB line; rack mountable matte black cabinet; 19"W \times 13"D \times 2 1/4"H..... \$300

ONKYO

P-3090 Preamplifier

Limited-edition Super-Servo stereo preamplifier with variable-gain equalizer for compatibility with all moving-coil cartridges, selectable loading for moving-magnet cartridges. Features direct bus-bar feeder power supply for transient, dynamic distortion elimination; passive-element tone controls; outstanding headroom, dynamic range; subsonic filter; headphone amplifier; microprocessor "Waiting Monitor" that indicates optimum performance status. THD 0.002% MM and high-level, 0.008% MC; S/N ratio high-level/MC/MM 100/88/70 dB..... \$1250

P-3060R Preamplifier

Stereo preamplifier with dual Super-Servo, variable-gain equalizers for full compatibility with MM and MC phono cartridges. Features direct bus-bar feeder power supply for transient, dynamic distortion elimination; all passive tone controls. Frequency response 0.8-17,000 Hz ± 0.2 dB; THD high-level/MM/MC 0.003%/0.004%/0.018%; S/N ratio MM/MC82/76 dB..... \$559

PHASE LINEAR

P3800 Preamplifier

Stereo preamplifier with parametric controls, moving-coil (MC) phono input (requires no external transformer). Features moving-magnet (MM) phono input;

subsonic filter; dual tape deck copying; loudness contour switch; muting; stereo/mono switch; headphone amplifier with front-panel jack; boost/attenuate frequencies over 20-20,000-Hz range; light brushed-silver anodized front panel. Output 2.0 V rms; THD <0.003% at rated output; frequency response 20-20,000 Hz ± 0.1 dB RIAA MM and MC phono; S/N ratio MM/MC 97/94 dB; slew rate 10 V/ μ sec; separation 70 dB at 1 kHz; 17 1/2"W \times 13"D \times 3 1/2"H..... \$750

P3600 Preamplifier

Stereo preamplifier with separate moving-magnet (MM) and moving-coil (MC) phono inputs. Features bass and treble controls; cartridge loading capacitance selector; loudness contour switch; muting; stereo/mono switch; front-panel headphone jack; light brushed-silver anodized front panel. Output 2.0 V rms; THD <0.003% at rated output; frequency response 20-20,000 Hz ± 0.1 dB RIAA MM and MC phono; slew rate 10 V/ μ sec; separation 70 dB at 1 kHz; 17 1/2"W \times 13"D \times 3 1/2"H..... \$450

PICKERING

P-20 Preamplifier

Designed to amplify low-level signals from low-impedance cartridges to level of conventional magnetic cartridges. Flat response down to 5 Hz, insensitive to hum pick-up. Voltage gain 26 dB; frequency response 10-100,000 Hz -0.5 dB; THD <0.08% at 200-mV output; separation 60 dB min; overload 0.03 V rms at 1 kHz; maximum output 0.8 V rms; input impedance 1.2k ohms at 1 kHz; requires 3 C cells; 1.2 lb \$189

QUAD by ACOUSTICAL MFG.

Quad 44 Control Unit

Preamplifier/control system. Features lift/step bass control that boosts low frequency response of small speakers, attenuates bass output when operating as filter to give 5-dB drop at 2 frequencies; ± 2 -dB tilt control that shifts tonal balance; variable filter slope control at 5, 7, 10 kHz; all tone controls have defeat positions; balance/mono switch; radio, aux, disc, tape 1, tape 2 input selectors with optional microphone or moving-coil (MC) phono inputs available. Input sensitivity/impedance 1 mV at 35 mV in/47k ohms phono, 100 mV at 5 V in/39k ohms tape, 1M ohm radio and aux; frequency response ± 0.5 dB 30-20,000 Hz phono RIAA, 30-20,000 Hz $+0/-1$ dB high-level; distortion 0.02%; residual noise -104 dB A weighted; 321 mmW \times 207 mmD \times 103 mmH..... \$795

Quad 33 Control Unit

Preamplifier/control center. Features bass, treble controls with defeat; variable filter slope control at 5, 7, 10 kHz; 2-deck tape monitoring; stereo selector; radio 1, radio 2, tape, disc input selectors. Frequency response ± 0.5 dB 30-20,000 Hz; distortion 0.02% at 0.5 V rms out; residual noise -90 dB, controls level or cancelled; 260 mmW \times 165 mmD \times 92 mmH..... \$460

RG DYNAMICS

Model 4-1HG Preamplifier

Universal stereo preamplifier with new form of circuit that handles moving-coil (MC) and moving-magnet (MC) phono cartridges without extra head amplifier. Features 2 tape monitors with 2-way dubbing; 2 phono, 2 aux inputs; low filter; defeatable bass, treble controls; phase polarity switch; true step IC volume control; discrete circuitry throughout; plug-in modular construction; 30,000 μ F storage capacitance; available in black rack-mount or standard silver or black panel with walnut end pieces. Frequency response 20-20,000 Hz ± 0.1 dB phono, 0.5-300,000 Hz ± 3 dB other inputs; input sensitivity/impedance 0.9 mV/selectable 47k/1k/100 ohms phono, 220 mV/47k ohms high-level; phono overload 190 mV at 1 kHz; output level/impedance 2 V/180 ohms; S/N ratio 80 dB phono, 88 dB line; IM distortion <0.007% at 2 V output; maximum output level 10 V at 1k and 100k Hz; gain 20.5 dB high-level, 41 dB phono; 19"W \times 12"D \times 3 1/2"H rack mount, 17"W standard; 13 lb..... \$750

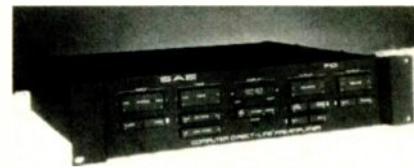
SAE

X-1P Direct-Line Preamplifier

Features touch switching with computer control, adjustable R and C; moving-coil input, external power supply. Frequency response 20-20,000 Hz ± 0.1 dB; maximum output 17 V; THD and IM distortion 0.01%; MM phono sensitivity 7 mV; MM phono overload 250 mV; 19"W \times 9"D \times 3"H; 12 lb. \$1200

SAE P101 Preamplifier

Computer direct-line preamplifier. Features touch switching with computer control; adjustable R and C;



phase switching; moving-coil input. Frequency response 20-20,000 Hz ± 0.1 dB; maximum output 11 V; 19"W \times 12 1/2"D \times 3 1/2"H..... \$650

SAE Two PA-10 Preamplifier

Preamplifier with moving-coil phono input with adjustable R and C, and 3-band tone controls. Frequency response 20-20,000 Hz ± 0.5 dB; THD and IM distortion 0.01%; S/N ratio 95 dB aux, 80 dB MC, 74 dB MM; 18.25"W \times 14.3"D \times 3.5"H; 12 lb... \$350

SHERWOOD

S-6020 CP Preamplifier

Individually tested, certified stereo preamplifier with FET differential input. Features FET differential tone-control amplifier; push-pull output; 2 tape monitors; 2-way tape dub; output for 2 main amps; feather-



touch up/down volume control with 10-segment LED level indicator; relay audio-mute circuit. Output 10 V maximum; THD and IM distortion 0.005% at 1 V output; frequency response dc-100,000 Hz; S/N ratio 100 dB; phono overload 250 mV at 1 kHz; RIAA phono equalization ± 0.5 dB; power consumption 14 W; 17 1/2"W \times 15 1/2"D \times 2 1/4"H; 11 lb..... \$350

SOUNDCRAFTSMEN

SP4002 Signal Processor/Preamp

Combination preamplifier. 10-band octave equalizer. Preamplifier section features 2 separate phono preamps with variable cartridge loading (0-750 pF) and variable impedance (100/47k ohms); variable ± 20 dB gain stage; S/N ratio 97 dB; 300 mV overload; will accept moving-coil, variable-reluctance, moving-magnet cartridges; 6 input sources; 2 external processing loops, equalizer, mono A+B mixing switchable to 2 tape or 2 line outputs; switchable tape monitoring/dubbing. Graphic equalizer: ± 15 dB control/octave; spectrum-level control and LEDs for input-to-output balancing; EQ S/N ratio 114 dB at full output; Tape 2 jack duplicated on front panel; click-stop stepped volume control; subsonic filter... \$699

SP4001 Signal Processor/Preamp

Combination preamplifier, 10-band stereo graphic equalizer. Preamp features 2-way tape monitor/dub; signal processing section with subsonic filter, 2 external loops, EQ defeat, mono switch (can be applied to line or tape outputs for recording); phono 1 and 2, tuner, and aux input selectors; phono S/N ratio 97 dB; THD 0.01%. Equalizer center frequencies 30, 60, 120, 240, 480, 960, 1920, 3840, 7680, 15,360 Hz; boost/cut range ± 12 dB; has dual zero-gain slide controls with LEDs for input/output balancing \$549
SP4000. Same as SP4001 minus graphic equalizer; has third external loop with front-panel access, head-

phone outputs..... \$399

SUMIKO

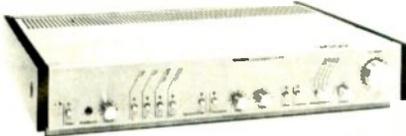
The PhonoAmp Preamplifier

Stereo phono preamplifier with RIAA equalization, enough gain for moving-coil (MC) and moving-magnet (MM) phono cartridges. Provides sufficient power to drive power amplifiers directly. Features active impedance synthesis; front-mounted cartridge damping control; bypass switch that allows input from external preamp through PhonoAmp; Mil-spec components; solid Koa cabinet..... \$600

TANDBERG

TCA-3002 Control Amplifier

Wireless control amplifier with moving-coil input designed as complete preamplifier stage employing 11 discrete semiconductor devices in each channel. Fea-



tures moving-magnet (MM) phono input with capacitance, resistance adjustments; bass, treble controls with tone defeat; Butterworth subsonic filter; mono, loudness switches; 2-deck tape monitor with 2-way dub; headphone amplifier with separate volume control..... \$795

THRESHOLD

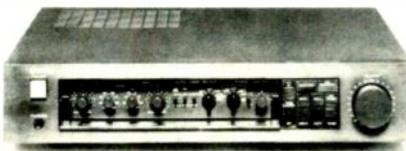
FET Two Preamplifier

Stereo preamp with noninverting cascode FET/bipolar circuitry. Features inputs for MM, high-output MC phono cartridges; cartridge loading switches; 3 high-level inputs; magnetically shielded toroidal-transformer power supply; brushed-aluminum, brushed-pewter anodized finish. Rack-mount adapter available \$1100
FET One. Similar to FET Two except uses STASIS technology that allows output FET to operate under constant current/voltage conditions, transformer for 40-ohm MC cartridges, 2 pairs outputs. Individually hand calibrated for exact phase, amplitude adherence to RIAA characteristic..... \$2200

YAMAHA

C-70 Preamplifier

Stereo preamplifier with 2-band parametric equalizer. Features Varigain volume control that reduces residual noise with volume reduction; Linear Transfer circuit; Extended Rolloff Equalizer (ERE); inverting preamp outputs; direct phono inputs; MM cartridge load capacitance selector; rec out selector; disc direct function; solenoid/relay function switching; switchable subsonic, high filters. Input sensitivity/impedance 100 μ V/100 ohms MC, 2.5 mV/100



ohms MM; 150 mV/47k ohms aux, tuner, tape; phono overload MC/MM 13/300 mV; maximum output 10 V; frequency response 5-100,000 Hz +0/-0.5 dB aux, tape, and tuner, 20-20,000 Hz \pm 0.2 dB MC, 10-100,000 Hz \pm 0.3 dB MM; THD 0.001%; IM distortion 0.002%; S/N ratio MC/MM/all others 90/94/105 dB; residual noise 1.8 μ V; EQ frequency control low/high 31.8-800 Hz/800-20,000 Hz \pm 12 dB; power consumption 50 W; 17 $\frac{1}{2}$ "W \times 14 $\frac{1}{2}$ "D \times 3 $\frac{1}{4}$ "H; 15 lb 13 oz..... \$780

C-50. Similar to C-70 except no equalizer; has continuously variable tone control turnover frequencies; 4-gang volume control. Phono overload MC/MM 8.5/220 mV; THD 0.002%; MM S/N ratio 93 dB; bass/treble turnover frequency range 100-500 Hz/1k-5k Hz \pm 10 dB; residual noise 2.5 μ V; 15 lb..... \$530

2 INTEGRATED AMPLIFIERS

AIWA

MX-100 Integrated Amplifier

Integrated dc stereo amplifier with 2-position D.S.L. (Dynamic Super Loudness) switch, Duo-Touch volume control. Features microphone mixer; mute switch; 10-LED peak-power indicator. Output power 55 W/channel; THD 0.01% at 1 kHz, 8 ohms..... \$330

AA-8500U Integrated Amplifier

Stereo integrated dc amplifier with D.S.L. (Dynamic Super Loudness) circuit for effective reproduction of low-range sound. Features moving-coil (MC) cartridge head amplifier; tone-defeat switch. Output power 50 W/channel into 8 ohms, 20-20,000 Hz at 0.008% THD..... \$295

SA-A60U Integrated Amplifier

Mini stereo integrated amplifier with D.S.L. (Dynamic Super Loudness) circuit; moving-coil cartridge head amplifier; -20-dB audio mute switch; low filter; peak-power LED display. Output power 30 W/channel into 8 ohms, 20-20,000 Hz at 0.05% THD..... \$140

AKAI

AM-U61 Integrated Amplifier

Stereo integrated amplifier with Zero Drive Circuit for reduced TIM, switching and crossover distortion. Fea-



tures dc servo main and EQ amplifiers; moving-coil (MC) cartridge capability; pure complementary circuitry; line straight function; high-speed circuit; cartridge impedance selector; electronic protection circuit. Output power 80 W/channel minimum rms into 8 ohms, 20-20,000 Hz at 0.005% THD.... \$400
AM-U41. Similar to AM-U61 except no dc servo EQ amplifier, MC cartridge capability, cartridge impedance selector, electronic protection circuitry. Features subsonic filter. Output power 55 W/channel... \$300

AMBER

Series 50A Integrated Amplifier

Stereo integrated amplifier incorporates circuitry of Amber Models 17 preamp and Series 70 power amp. Features very large passive power supply for amplifier section with 40,000- μ F filter capacitance, large custom transformer; phono/tuner/tape/aux inputs; switchable subsonic filter; loudness switch with subsonic filter; 2 tape loops; stereo/mono switch; mute switch; headphone jack; bass and treble controls; tone-defeat button; selectable phono loading; preamp output and power-amp input jacks, switch to disconnect internal power amplifier on rear panel. Measures 17"W \times 13"D \times 4 $\frac{1}{2}$ "H..... \$599

ARCAM

A 60 Integrated Amplifier

Stereo integrated amplifier with moving-magnet (MM), tuner, tape, aux inputs, plus moving-coil (MC) optional plug-in facility. Features bass and treble controls; outputs for tape, aux, headphones (8 ohms); toroid power transformer for minimum stray hum fields, low profile; switchable noise filter; silver switch contacts; electronic overload, short-circuit protection; selectable magnetic phono resistance and capacitance; choice of walnut, teak, rosewood, matte-black wood cabinet. Output power 35 W/channel continuous into 8 ohms, 20-20,000 Hz at <0.2% THD; frequency linearity 20-20,000 Hz \pm 0.75 dB; dynamic headroom 2 dB; damping factor > 45; input sensitivity 2 mV magnetic phono; hum and noise <-68 dB; overload margin > 36 dB; RIAA equalization matches

curves within 0.5 dB; power consumption 120 VA; 17 $\frac{3}{4}$ "W \times 10"D \times 2 $\frac{3}{8}$ "H; 11 lb..... \$595

DENON

PMA-970 Integrated Amplifier

Stereo class-A integrated amplifier with capacitorless direct-drive circuit, real-time tone controls. Features real drive; super phono equalizer; high-speed predriver section: moving-coil (MC) phono head amplifier; dual phono and tape inputs; subsonic filter; A/B speaker switch; headphone impedance switch; separate tape-source and rec out selector; wood cabinet. Output power 100 W/channel minimum rms into 8 ohms, 20-20,000 Hz at no more than 0.01% THD; slew rate 280 V/ μ sec; input sensitivity/impedance 2.5 mV/50k ohms MM, 200 μ V/100 ohms MC, 150 mV/40k ohms tuner, tape, aux; phono overload at 1 kHz 300 mV MM, 23 mV MC; RIAA accuracy \pm 0.2 dB, 20-20,000 Hz; S/N ratio 90 dB MM, 75 dB MC, 108 dB tuner, tape, aux; power consumption 350 W; 20.2"W \times 18"D \times 6.7"H; 51 lb..... \$1300

PMA-750 Integrated Amplifier

Stereo integrated amplifier with 0-dB power amplifier. Features Direct-A amplifier; zero cross linear bias cir-



cuit; real-drive to reduce distortion with varying loads; real-time tone controls; super phono equalizer; moving-coil (MC) phono head amplifier; separate tape-source and rec out selector for dubbing independent of program; A/B speaker switching; wood end panels optional. Output power 80 W/channel into 8 ohms, 20-20,000 Hz at no more than 0.02% THD; slew rate 200 V/ μ sec; damping factor 100; input sensitivity/impedance 2.5 mV/47k ohms MM, 125 μ V/100 ohms MC; 150 mV/47k ohms tuner, tape, aux; RIAA accuracy \pm 0.2 dB, 20-20,000 Hz; S/N ratio, A weighted 88 dB MM, 72 dB MC, 110 dB tuner, tape, aux; power consumption 230 W; 17.4"W \times 16.3"D \times 5.3"H; 26.4 lb..... \$450
PMA-770. Similar to PMA-750 except output power 100 W/channel; has dual phono inputs, massive toroidal transformer..... \$620

PMA-730 Integrated Amplifier

Stereo integrated amplifier with 0-dB power amplifier. Features real-drive that reduces distortion caused by varying loads; real-time tone controls; super phono equalizer; moving-coil phono head amplifier; dual tape source switching, rec out selector for dubbing independently of program; A/B speaker switching; wood panels optional. Output power 60 W/channel into 8 ohms, 20-20,000 Hz at no more than 0.05% THD; slew rate 150 V/ μ sec; damping factor 100; input sensitivity/impedance 2.5 mV/47k ohms MM, 200 μ V/100 ohms MC, 150 mV/47k ohms tuner, tape, aux; RIAA accuracy \pm 0.3 dB, 20-20,000 Hz; S/N ratio, A weighted 86 dB MM, 70 dB MC, 106 dB tuner, tape, aux; power consumption 150 W; 17.4"W \times 15.6"D \times 4.5"H..... \$299

FISHER

CA880 Stereo Integrated Amplifier

Stereo integrated amplifier with power meters supplemented by peak-level indicator. Panel Logic mode display. Features loudness switch; A/B/A + B speaker-systems selector; mic mixing control. Output power 100 W/channel rms into 8 ohms, 20-20,000 Hz at 0.09% THD and IM distortion; damping factor greater than 20; preamp frequency response 20-20,000 Hz \pm 0.5 dB; input sensitivity/impedance 2.5 mV/50k ohms, 150 mV/50k ohms aux, tape monitors, tuner; phono overload 150 mV; hum and noise 70 dB phono, 95 dB aux, tuner, tape monitor; power consumption 400 W; 17 $\frac{1}{2}$ "W \times 13"D \times 5 $\frac{1}{4}$ "H; 27 lb..... \$450

CA550 Integrated Amplifier

Stereo integrated amplifier with 9-LED power-level

2

INTEGRATED AMPLIFIERS

meters. Features class-A-II dc power amplifier, indicator; pushbutton function selectors with LED indicators; bass, treble controls; loudness, subsonic-filter, high-filter switches. Output power 70 W/channel rms into 8 ohms, 20-20,000 Hz at 0.009% THD and IM distortion; damping factor >50; preamp frequency response 20-20,000 Hz ± 0.5 dB; input sensitivity/impedance 250 μ V/22 ohms MC, 2.5 mV/50k ohms MM, 150 mV/50k ohms tape monitors, tuner, aux; phono overload MC/MM 6/180 mV; subsonic-filter response 12 dB/octave below 10 Hz; hum and noise MC/MM/tape monitor, tuner, aux 65/75/100 dB; preamp output 1000 mV/1.5k ohms; power consumption 320 W; 17 $\frac{1}{2}$ " \times 14 $\frac{1}{2}$ " \times 4 $\frac{1}{8}$ "H; 20 lb \$450

CA350 Integrated Amplifier

Stereo integrated amplifier with class-A-II dc power amplifier, indicator. Features 9-LED power-level meters; volume/balance, tone controls; 4-position speaker-systems selector; loudness, subsonic-filter switches. Output power 50 W/channel rms into 8 ohms, 20-20,000 Hz at 0.009% THD and IM distortion; damping factor >50; preamp frequency response 20-20,000 Hz ± 0.5 dB; input sensitivity/impedance 2.5 mV/50k ohms, 150 mV/50k ohms all others; phono overload 180 mV; hum and noise phono/all others 75/100 dB; preamp output 1000 mV/1.5k ohms; power consumption 230 W; 17 $\frac{1}{2}$ " \times 14 $\frac{1}{2}$ " \times 4 $\frac{1}{8}$ "H; 18 lb \$400

CA 660 Integrated Amplifier

Stereo power amplifier with dual power with 5-LED peak level indicators. Features bass, treble controls; loudness switch; source/mic mixing level/record control; input selector with illuminated indicators. Output power 40 W/channel continuous into 8 ohms from 20-20,000 Hz with 0.07% THD and IM distortion; input sensitivity 2.5 mV phono, 150 mV tuner, aux, tape 1, 2; S/N ratio 78 dB phono, 95 dB tuner, aux, tape \$300

CA250 Integrated Amplifier

Stereo integrated amplifier with 9-LED power meters. Features loudness switch; tape monitors 1 and 2; volume, balance, bass, treble, controls; panel logic display for tuner, phono, tape, aux inputs. Output power 30 W/channel rms into 8 ohms, 20-20,000 Hz at 0.09% THD and IM distortion; damping factor >20; preamp frequency response 20-20,000 Hz ± 0.5 dB; input sensitivity/impedance 2.5 mV/50k ohms phono, 150 mV/50k ohms all others; phono overload 150 mV; hum and noise 72 dB phono, 95 dB all others; power consumption 170 W; 17 $\frac{1}{2}$ " \times 13 $\frac{3}{4}$ " \times 4 $\frac{1}{8}$ "H; 15 lb \$300

CA 120 Integrated Amplifier

Stereo integrated amplifier with power meters. Features bass, treble controls; high filter; loudness switch; mode selector; 2-deck tape monitoring; input selectors with LEDs. Output power 30 W/channel continuous into 8 ohms, 20-20,000 Hz at 0.07% THD and IM distortion; input sensitivity/impedance 2.5 mV/50k ohms phono 150 mV/50k ohms tuner, aux, tape; S/N ratio 78 dB phono, 95 dB tuner, aux, tape \$250

GARRARD U.S.A.

166 Integrated Amplifier

Stereo integrated amplifier with Triple-A wireless nonswitching power amplifier. Features fluorescent power meters with sensitivity, ballistics adjustment; rec selector; midrange control; preamp out/power amp in; 2 tape monitors; 2 sets phono inputs; mute switch. Output power 120 W rms into 8 ohms, 20-20,000 Hz at 0.03% THD and IM distortion; S/N ratio 97 dB high-level; 420 mmW \times 300 mmD \times 132 mmH; 9.1 kg \$350

166 Integrated Amplifier

Slim-line stereo power amplifier with Triple-A non-switching power amplifier, LED power meters. Features wireless assembly; 2 tape monitors; low-, high-cut filters; mute switch. Output power 84 W rms into 8 ohms, 20-20,000 Hz at 0.05% THD and IM distortion; S/N ratio 90 dB high-level; 420 mmW \times 300 mmD \times 88 mmH; 6.5 kg \$280

126. Similar to 166 except has high-speed Ring-Emitter transistor output stage, VU meters instead of LED type, no low-, high-cut filters. Output power 60 W at 0.06% THD and IM distortion; 5.8 kg \$230

86. Similar to 126 except output power 40 W; 5.4 kg \$170

HARMAN/KARDON

PM660 Integrated Amplifier

Stereo integrated amplifier with high current capability, dc circuitry, switching for 2 pairs speakers. Features MC phono head amplifier; variable loudness; main direct; phono load capacitance trimmer; defeatable bass, treble controls; 2 tape monitors; 2-way tape copy; subsonic, high filters; stereo/mono/reverse switch. Output power 80 W/channel continuous into 8 ohms, 20-20,000 Hz at 0.02% THD; frequency range 4-140,000 Hz; slew rate 80 V/ μ sec; S/N ratio phono/aux 84/94 dB; phono overload 200 mV MM \$530

PM650. Similar to PM660 except output power 50 W/channel at 0.03% THD; S/N ratio phono/aux 80/92 dB \$370

PM640. Similar to PM 650 except single tape copy. Output power 35 W/channel at 0.05% THD; aux S/N ratio 90 dB; MM phono overload 120 mV \$270

HITACHI

HA-M44 Stereo Integrated Amplifier

Computer-controlled stereo integrated amplifier with Super-Linear circuit, 10-LED power meters. Features low-noise EQ amplifier; subsonic filter; rec out selector for taping one, listening to another source; 2 tape



monitors; feather-touch input/rec out switches; speaker protection; tone defeat; loudness controls; bass, treble, balance controls. Output power 60 W/channel rms into 8 ohms, 20-20,000 Hz at 0.02% THD and IM distortion; damping factor 30 at 30 W; frequency response 30-15,000 Hz ± 0.5 dB phono, 20-40,000 Hz ± 1 -3 dB aux/tv, tuner, tape 1, tape 2; S/N ratio MM/MC/all others 86/68/100 dB; phono overload MM/MC 110/11 mV; input sensitivity/impedance 2.5 mV/47k ohms MM, 0.25 mV/100 ohms MC, 160 mV/45k ohms all others; 17 $\frac{1}{2}$ " \times W \times 11 $\frac{1}{8}$ " \times D \times 3 $\frac{3}{4}$ " \times H; 12 lb 9 oz \$320

HA-M33. Similar to HA-M44 except no MC input amplifier, Super-Linear circuit. Output power 40 W/channel at 0.05% THD and IM distortion; S/N ratio phono/all others 72/93 dB; 12 lb 2 oz \$250

HA-22. Similar to HA-M33 except no computer control, tone-bypass switch, single-color LED power meters. Output power 30 W/channel at 0.1% THD and IM distortion; S/N ratio phono/all others 72/93 dB; input sensitivity/impedance 2.7 mV/47k ohms phono, 160 mV/40k ohms all others; 9 $\frac{1}{2}$ " \times D; 10 lb 9 oz \$190

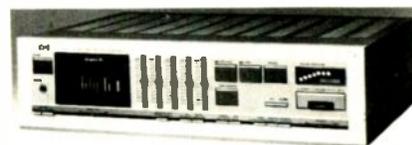
JVC

A-X77 Stereo Integrated Amplifier

Stereo integrated amplifier with Dynamic Super-A power amplifier. Features pure negative feedback; triple power protection; 3 tape deck connections; flip-down hinged panel; MM/MC high-gain phono equalizer amplifier. Output power 90 W/channel into 8 ohms, 20-20,000 Hz at 0.003% THD \$650

A-X50 Stereo Integrated Amplifier

Stereo integrated amplifier with 5-band SEA graphic equalizer, Super-A power amplifier. Features triple power protection; spectrum analyzer display; 2 tape deck connections; touch-button volume control;



MM/MC high-gain phono equalizer amplifier. Output power 65 W/channel rms into 8 ohms, 20-20,000 Hz at 0.007% THD \$430

A-X40 Stereo Integrated Amplifier

Stereo integrated amplifier with Super-A power amplifier, 5-band SEA graphic equalizer. Features 12-dot fluorescent power meters; 2 tape deck connections. Output power 50 W/channel into 8 ohms, 20-20,000 Hz at 0.007% THD \$280

A-X30 Stereo Integrated Amplifier

Stereo integrated amplifier with Super-A power amplifier. Features triple power protection; 12-dot fluorescent peak power meters; 2 tape deck connections. Output power 40 W/channel rms into 8 ohms, 20-20,000 Hz at 0.007% THD;

A-K20 Stereo Integrated Amplifier

Stereo integrated amplifier with triple power protection, 5-LED peak power meters. Output power 30 W/channel rms into 8 ohms, 20-20,000 Hz at 0.08% THD \$180

A-K10. Similar to A-K20 except output power 30 W/channel \$150

KENWOOD

L-02A Integrated Amplifier

Stereo integrated amplifier with high-speed Dynamic Linear Drive (DLD), exclusive Sigma drive circuitry. Features logic control function switches; nonmagnetic design; separate power transformers; MM and MC phono inputs via new EQ circuit. Output power 170 W/channel into 8 ohms, 20-20,000 Hz at <0.003% THD \$3000

KA-9XG Integrated Amplifier

Stereo integrated amplifier with high-speed Sigma drive circuitry. Features MM and MC phono cartridge inputs; dc power amplifier. Output power 120 W/channel into 8 ohms, 20-20,000 Hz at <0.008% THD \$495

KA-7X. Similar to KA-9XG except has Dynamic Linear Drive (DLD) instead of Sigma drive. Output power 100 W/channel \$400

KA-5X. Similar to KA-7X except no DLD. Output power 40 W/channel \$275

KVA-502 Audio Visual Amplifier

Stereo integrated amplifier with video/TV display options. Features tuner/phono/videodisc/2 videocassette inputs; 2 speaker system selectors; full protection; tone controls; picture control; antenna selector for use with other TV receivers; denoiser for low-noise hi-fi sound; audio enhancer circuit to upgrade mono sound; videotape dub, videodisc dub, simultaneous audio sound-track dub of hi-fi sources, voice-over after recording with microphone mixer facilities. Output power 55 W/channel into 8 ohms, 20-20,000 Hz at <0.05% THD \$399

A-9 Integrated Amplifier

Stereo integrated amplifier with 5-band graphic equalizer. Features motorized volume control; 10-point, 3-color LED peak power meters. Output power 40 W/channel into 8 ohms, 20-20,000 Hz at <0.05% THD \$235

A-7 Integrated Amplifier

Stereo integrated amplifier with 2 tape monitors, 2 speaker system selectors. Output power 22 W/channel into 8 ohms, 20-20,000 Hz at 0.09% THD \$235

KLH

A-601 Integrated Amplifier

Stereo integrated amplifier with discrete-LED power meters with switchable range. Features low, high fil-

ters; A, B, A + B speaker switching; defeatable bass, treble controls; 2-deck tape copy; 2 sets phono inputs; LED function indicators. Output power 60 W/channel into 8 ohms, 20-20,000 Hz at 0.02% THD; IM distortion < 0.02%; frequency response 20-20,000 Hz ± 0.5 dB; hum and noise phono/all other inputs -84/-100 dB. \$300

A-351 Integrated Amplifier

Stereo integrated amplifier with discrete-LED power displays with switchable ranges. Features low, high filters; A, B, A + B speaker switching; bass, treble controls. Output power 35 W/channel into 8 ohms, 20-20,000 Hz at 0.08% THD; IM distortion < 0.08%; frequency response 20-20,000 Hz ± 0.5 dB; hum and noise phono/other inputs -76/-95 dB. \$220

LUXMAN

L-580 Integrated Amplifier

Stereo integrated amplifier with LED power meters with switchable peak indication. Features moving-coil head amplifier; defeatable bass, treble controls with 150/300/600-Hz bass, 1500/3000/6000-Hz treble turnover frequency selectors, 70/150 Hz low boost switch; subsonic, high filters; tape/source monitor with 2-way dub. Output power 100 W/channel continuous into 8 ohms from 20-20,000 Hz at 0.03% THD and IM distortion; slew rate 150 V/ μ sec; rise time 0.6 μ sec; frequency response 10-100,000 Hz -1 dB; S/N ratio 105 dB; input sensitivity/impedance 1.8 mV/50k ohms MM, 0.06-0.18 mV/100 ohms MC, 240 mV/40k ohms tuner and aux; frequency response ± 0.3 dB 20-20,000 Hz phono, 10-100,000 Hz -1 dB tuner and aux; S/N ratio 90 dB phono, 100 dB tuner and aux; 18 $\frac{1}{2}$ "W \times 14 $\frac{1}{2}$ "D \times 7 $\frac{1}{8}$ "H. \$800

L-480. Similar to L-580 except no low boost switch, constant-voltage power supply. Output power 70 W/channel. \$500

L-450. Similar to L-480 except no gold-plated phono jacks; has low boost switch, recording selector switch. Output power 55 W/channel. \$400

MARANTZ

PM750 Integrated Amplifier

Stereo dc integrated amplifier with 5-band stereo graphic equalizer. Features gold-plated input, output jacks; 2-way tape dub; MC head amplifier; EQ output jacks; LED power level indicator; loudness control; subsonic filter; 9-kHz filter; FM muting; 2 tape monitors; independent record mode selector; fully complementary symmetry output. Output power 75 W/channel into 4 ohms, 20-20,000 Hz at 0.06% THD and 0.04% IM distortion; damping factor 50; frequency response 10-50,000 Hz ± 1 dB; S/N ratio MM/MC/high-level 85/60/94 dB; phono overload MC/MM 22/220 mV; input sensitivity MC/MM/high-level 0.28/2.8/150 mV; power consumption full power/idling 290/25 W; 16 $\frac{1}{2}$ "W \times 13"D \times 4 $\frac{1}{4}$ "H; 20 lb 15 oz. \$450

NAD (USA)

3150 Integrated Amplifier

High-performance stereo integrated amplifier with noninteractive phono preamp, selectable input capacitance. Features preamp-out/main-amp-in jacks; infrasonic filter; pushbutton mono bridgeable power amplifier; soft clipping circuitry; overload LED. Output power 50 W/channel into 8 ohms, 20-20,000 Hz at 0.02% THD and IM distortion; damping/slew factor 100/50; RIAA deviation $\pm 0.25\%$; phono S/N ratio 78 dB. \$398

3020 Integrated Amplifier

Stereo power amplifier with 5-LED peak-power meters. Features soft clipping circuit; bass, treble, balance controls; infrasonic filter; audio muting; loudness switch. Output power 20 W/channel continuous into 8 ohms, 20-20,000 Hz at 0.02% THD and IM distortion; slew rate 15 V/ μ sec; damping factor 50; input sensitivity/impedance 2.5 mV/47k ohms phono, 150 mV/20k ohms (high level); phono overload 270 mV at 1 kHz; frequency response ± 0.3 dB phono, 20-20,000 Hz ± 0.5 dB; S/N ratio 81 dB phono, 96 dB high-level. Power and preamp sections separa-

ble; 16.5"W \times 9.5"D \times 3.8"H. \$218

NIKKO

NA-2090 Integrated Amplifier

Stereo integrated amplifier with dc nonswitching circuitry. Features moving-magnet (MM), moving-coil (MC) phono preamps; 2 tape monitors and bidirectional tape dubbing; separate record-output selectors to permit listening to one source while taping from another; tone controls with bypass switch; loudness-contour, high-filter switches; 12-dB/octave subsonic filter to eliminate rumble, record-warp effects; self-illuminating pushbutton function switches; dual 11-LED, 2-color power meters that indicate 0.5-100 W; class-A ampifier circuitry; speaker, output transistors protection. Output power 85 W/channel rms into 8 ohms, 20-20,000 Hz at 0.015% THD; 16.5"W \times 13.5"D \times 4.7"H. \$430

NA-1090. Similar to NA-2090 except output power is 63 W/channel; 16.5"W \times 13.25"D \times 4.75"H \$350

NA-700II Integrated Amplifier

Stereo integrated amplifier with 10-LED power meters, moving-coil (MC) head amp. Features monitor switches that allow tape dubbing; subsonic, high filters; loudness-contour switch; A/B/A + B speaker switching. Output power 60 W/channel into 8 ohms, 20-20,000 Hz at 0.03% THD. \$300

NA-500II. Similar to NA-700II except no MC head amp, high filter; has circuit-breaker protection. Output power 40 W/channel at 0.06% THD. \$250

NA-500 Integrated Amplifier

Stereo integrated amplifier with 10-LED output power meters, 2 monitor switches to allow tape-to-tape dubbing. Features loudness-compensation switch; subsonic filter to eliminate low-frequency rumble, record-warp effects; speakers A/B/A + B switch; circuit-breaker speaker-protection system. Output power 40 W/channel rms into 8 ohms 20-20,000 Hz at 0.08% THD; 17.3"W \times 9.9"D \times 3.8"H. \$250

NA-700. Similar to NA-500 except output power 60 W/channel; 11.6"D. \$300

ONKYO

A-65 Integrated Amplifier

integrated amplifier with dual Super Servo circuitry. Features 2 moving-coil (MC), 1 moving-magnet (MM) modes; 32-click-stop volume control; 2 sets of phono input terminals; 4 heavy-duty 12,000- μ F electrolytic



capacitors; LED power meters; linear switching. Output power 100 W/channel rms into 8 ohms, 20-20,000 Hz at 0.015% THD; damping factor 50 at 8 ohms; 15 $\frac{1}{2}$ "W \times 15 $\frac{1}{8}$ "D \times 5 $\frac{1}{16}$ "H. \$650

A-45 Integrated Amplifier

Amplifier with dual Super Servo circuitry. Features LED power meters; linear switching; MC phono preamp; support of up to 2 turntables, 2 speaker systems simultaneously; 41-click-stop volume control. Output power 70 W/channel rms into 8 ohms, 20-20,000 Hz at 0.018% THD; damping factor 50 at 8 ohms; 16 $\frac{1}{2}$ "W \times H 15 $\frac{1}{8}$ "D \times 4 $\frac{1}{16}$ "H. \$450

A-35. Similar to A-45 except 55 W/channel. \$330

A-25 Integrated Amplifier

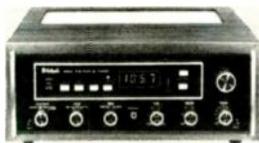
Stereo integrated amplifier with moving-coil phono head amp. Features dual super-servo circuitry; dual output-power meters. Output power 40 W/channel rms, 20-20,000 Hz at 0.04% THD; 16 $\frac{1}{2}$ "W \times 11"D \times 3 $\frac{1}{2}$ "H. \$235

(Continued on next page.)

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2

INTEGRATED AMPLIFIERS

A-15 Integrated Amplifier

Features dual Super Servo circuitry, dual power output meters, phono, tuner, tape 1 input selectors, 40-step volume control, power on/off on front panel with secondary controls behind concealed front-panel flip-down door; 30 W/channel continuous into 8 ohms, 20-20,000 Hz at 0.08% THD; 16½" W × 3"H \$180

OPTONICA

SM-9005 Integrated Amplifier

Class-A direct-coupled (dc) stereo integrated amplifier with no switching distortion. Features moving-coil phono amp; record-out selector. Output power 100 W/channel, 20-20,000 Hz into 8 ohms at 0.0095% THD; S/N ratio 106 dB aux; frequency response dc-70 kHz +0/-3 dB preamp out; IM distortion 0.0095% \$530

SM-4305 Integrated Amplifier

Stereo integrated amplifier with bass, treble controls; subsonic, high filters; 2-way tape dub, monitor; mono mode switch; loudness, 20-dB muting; input selector with LEDs. Output power 40 W/channel continuous into 8 ohms, 20-20,000 Hz at 0.02% THD; S/N ratio 75 dB phono low, 85 dB phono high, 90 dB aux; RIAA deviation ±0.4 dB, 20-20,000 Hz; phono overload 250 mV; 16.9" W × 15"D × 2.9"H \$270

SM-3300 Integrated Amplifier

Stereo integrated amplifier with ITL/OCL circuitry. Features 6-LED power meters; A/B/A + B speaker switching; 41-step volume control; subsonic filter; bass, treble, balance controls; loudness switch; phono/tuner/aux indicators; tape monitor. Output power 30 W/channel into 8 ohms, 20-20,000 Hz at 0.08% THD \$200

JC PENNEY

3860 Integrated Amplifier

Stereo integrated amplifier with LED power meters. Features subsonic, high filters; meter range selector; loudness control; treble, bass controls. Output power 60 W/channel rms into 8 ohms, 20-20,000 Hz at 0.05% THD \$300

3822 Integrated Amplifier

Stereo integrated amplifier with LED power indicators. Features treble, bass, microphone level, loudness controls. Output power 20 W/channel rms into 8 ohms, 20-20,000 Hz at 0.1% THD; 15¼" W × 8¼"D × 3"H \$150

PHASE LINEAR

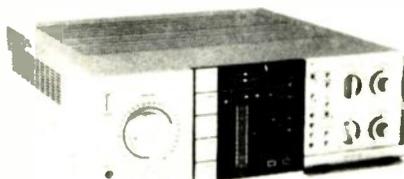
DRS 250 Integrated Amplifier

Stereo integrated amplifier with separate moving-coil (MC) and moving-magnet (MM) phono inputs. Features power, clipping, DRS LEDs; bass and treble controls; dual taping circuits; loudness contour switch; muting; light brushed-silver anodized front panel. Output power 50 W/channel into 8 ohms, 20-20,000 Hz at no more than 0.015% THD; 17½" W × 13"D × 3½"H \$975

PIONEER

A-9 Integrated Amplifier

Stereo integrated amplifier with nonswitching dc-servo amplifier with pictographic output-power display.



Features concentric treble level/turnover, bass level/turnover controls; rec out selector with tape-copy function; balance, calibrated volume controls; push-type phono, tuner, aux, tape-1, tape-2 switches; MM/MC phono, loudness, subsonic-filter, MC-load, straight-line on/off, MM-load, speakers A and B pushbutton switches; all controls except input selector, power, volume hidden behind hinged panel. Output power 110 W/channel continuous average into 8 ohms, 20-20,000 Hz at 0.003% THD; IM distortion 0.005% at continuous rated power; frequency response 20-20,000 Hz ±0.2 dB phono MM, RIAA EQ, 5-200,000 Hz +0/-3 dB power amp; damping factor 60; 16½" W × 17¼"D × 5¼"H; 35 lb 4 oz \$800
A-8. Similar to A-9 except output power 90 W/channel; no phono-load select; 30 lb 7 oz .. \$550
A-7. Similar to A-8 except 70 W/channel \$450

A-6 Integrated Amplifier

Stereo integrated amplifier with nonswitching amplifier, pictographic output-power display. Features separate bass, treble, volume controls; push-type input selector switches; front-panel headphones jack. Output power 60 W/channel continuous average into 8 ohms, 20-20,000 Hz at 0.008% THD; frequency response 20-20,000 Hz ±0.2 dB phono RIAA; 16½" W × 14¼"D × 3¼"H; 15 lb 7 oz .. \$325
A-5. Similar to A-6 except output power 35 W/channel at 0.009% THD; phono RIAA frequency response ±0.5 dB; 14 lb 5 oz \$225

SAE

A14 Integrated Amplifier

Features LED power, tape output bargraph meters; parametric equalization with tape EQ; moving-coil phono input; subsonic filter. Output power 140 W/channel continuous into 8 ohms, 20-20,000 Hz at 0.05% THD \$799

A7 Integrated Amplifier

Features LED power output bar graph display; bass, midrange, treble controls; external processor input; 2-way tape dub/monitor; subsonic filter. Output power 70 W/channel continuous into 8 ohms, 20-20,000 Hz at 0.05% THD \$499

SANSUI

AU-D11 Integrated Amplifier

Stereo integrated amplifier with DD/dc circuitry, plus Super Feedforward error correction amplifier. Features loop heat sinking; moving-coil head amp; defeatable bass, treble controls with 150/300-Hz bass, 3k/6k-Hz treble turnover frequencies; high, low filters; audio muting; 2-way tape dub; rec selector; input selector with separate MM/MC selector, high/low MC gain switch. Output power 120 W/channel continuous into 8 ohms, 10-20,000 Hz at 0.005% THD; frequency response 0-300,000 Hz -3 dB; slew rate 350 V/μsec; S/N ratio 90 dB MM, 110 dB aux, tuner, tape \$1000
AU-D9. Similar to AU-D11 except 95 W/channel; slew rate 300V/μsec; tubular heat sinking \$650

AU-D7 Integrated Amplifier

Stereo integrated amplifier with linear class-A output with DD/dc circuitry. Features LED peak power level meters with range, display switches; moving-coil head amp; defeatable super bass, bass, treble, presence controls; rec selector; 2-deck source/tape monitor/dub; loudness switch; input selector buttons with LEDs; S/N ratio 86 dB phono, 110 dB aux, tuner, tape. Output power 80 W/channel continuous into 8 ohms, 20-20,000 Hz at 0.02% THD; frequency response 0-300,000 Hz -0.5%; slew rate 220 V/μsec \$480
AU-D5. Similar to AU-D7 except output power 65 W/channel. AU-D5B has black finish, AU-D5S has silver finish \$420

AU-D33 Integrated Amplifier

Stereo integrated amplifier with Super Feedforward circuitry, dc coupling throughout. Features MM and MC inputs; defeatable bass, treble controls; direct-access inputs; high filter; 2-way tape dub; black finish. Output power 50 W/channel continuous into 8 ohms,



20-20,000 Hz at 0.004% THD; frequency range dc-300,000 Hz; slew rate 150 V/μsec; S/N ratio 84 dB MM \$350
AU-D22. Similar to AU-D33 except output power 35 W/channel at 0.006% THD. AU-D22B has black finish, AU-D33S has silver finish \$270

H.H. SCOTT

458A Integrated Amplifier

Stereo integrated amplifier with dual-range fluorescent power meter calibrated in watts using auto-ranging for accurate display from 0.001 W to full power. Features moving-magnet (MM), moving-coil (MC) phono preamps; center-detented tone, bass, midrange, treble controls; subsonic, high filters; protection LED. Output power 65 W/channel rms into 8 ohms, 20-20,000 Hz at 0.05% THD; input sensitivity 0.25 mV MC, 2.5 mV MM, 150 mV all others; S/N ratio 70 dB MC, 86 dB MM, 102 dB all others; frequency response 20-20,000 Hz ±0.5 dB; separation 65 dB MM, 70 dB all others at 1 kHz; damping factor 60; 3.5"H × 17"W × 8.7"D \$350

438A Integrated Amplifier

Stereo integrated amplifier with dual-range fluorescent power meters. Features subsonic, high filters; 2 tape monitors with 2-1 dubbing; center-detented balance, tone controls. Output power 45 W/channel rms into 8 ohms, 20-20,000 Hz at 0.05% THD; input sensitivity 2.5 mV MM, 150 mV all others; S/N ratio 80 dB phono, 100 dB all others; frequency response 20-20,000 Hz ±0.5 dB; separation 60 dB phono, 65 dB all others at 1 kHz; damping factor 50; 3.5"H × 17"W × 8.7"D \$265

428A Integrated Amplifier

Stereo integrated amplifier with dual-range fluorescent power meters. Features subsonic filter; center-detented tone, balance controls. Output power 35 W/channel rms into 8 ohms, 20-20,000 Hz at 0.05% THD; input sensitivity 2.5 mV phono, 150 mV all others; S/N ratio 80 dB phono, 100 dB all others; frequency response 20-20,000 Hz ±0.5 dB; separation 55 dB phono, 60 dB all others at 1 kHz; damping factor 40; 17"W × 8.7"D × 3.5"H \$225

418A Integrated Amplifier

Stereo integrated amplifier with subsonic filter, 2 switched, 1 unswitched accessory outlets. Output power 30 W/channel rms into 8 ohms, 20-20,000 Hz at 0.08% THD. Input sensitivity 2.5 mV phono, 150 mV all others; S/N ratio 80 dB phono, 100 dB all others; frequency response 20-20,000 Hz ±0.5 dB; separation 55 dB phono, 60 dB all others at 1 kHz; damping factor 40; 17"W × 8.7"D × 3.5"H \$165

SHERWOOD

S-620CP Integrated Amplifier

Stereo integrated amplifier with 5-stage, FET differential input phono preamp, 12-segment output-power displays. Features subsonic, high filters; 4-stage FET tone amplifier; tone-defeat switch; front-panel microphone jack; audio muting; detented volume, balance, bass, treble controls; mic mixing control; 2 tape deck monitoring, dub; support for 2 turntables; relay amplifier/speaker protection system. Output power 60 W/channel rms into 8 ohms, 20-20,000 Hz at 0.03% THD and IM distortion; clipping/dynamic headroom 1.30/1.88 dB; damping factor 50; input sensitivity 2.5 mV phono, 150 mV aux, tuner, tape; phono overload 220 mV; S/N ratio 96 dB phono, 105 dB all other inputs; frequency response dc-120,000 Hz -3 dB; RIAA phono EQ 30-20,000 Hz ±0.5 dB; audio mute -20 dB; power consumption 280 W; 17½" W × 13¼"D × 4¼"H; 24 lb \$300
S-302CP. Similar to S-602CP except has no muting, subsonic filter, mic-mixing capability. Output power 40 W/channel; clipping/dynamic headroom 1.48/

1.90 dB; phono overload 150 mV; frequency response 6-120,000 Hz -3 dB; power consumption 200 W; 23.5 lb \$230

S-202CP Integrated Amplifier

Stereo integrated amplifier with low-profile styling, complementary direct-coupled (dc) power amplifier, 6-point LED power meters. Features detented volume, balance, bass, treble controls; high-filter, stereo/mono, loudness, tape-monitor switches. Output power 25 W/channel rms into 8 ohms, 20-20,000 Hz at 0.08% THD and IM distortion; clipping/dynamic headroom 1.2/1.93 dB; damping factor 50; input sensitivity 2.5 mV/phono, 150 mV all others; S/N ratio 86/95 dB phono/all other inputs; frequency response 8-60,000 Hz -3 dB; RIAA phono equalization 30-20,000 Hz ± 0.5 dB; power consumption 150 W; $17\frac{1}{16}'' \times 11\frac{1}{16}'' \times 2\frac{1}{8}''$; 13.5 lb ... \$160

SONY

TA-AX6 Integrated Amplifier

Stereo integrated amplifier with noninteractive Audio Current Transfer (ACT) for greater stereo separation, musical resolution. Features Legato Linear nonswitching dc power amplifier; wide-response output transistors; pulse power supply (PPS); low-distortion linear gain control; ThermoDynamic Cooling (TDC) heatpipe system; moving-coil phono preamp; record/out selector; dual tape monitors with bidirectional copy. Output power 75 W/channel into 8 ohms, 20-20,000 Hz at 0.004% THD \$480

TA-AX5 Integrated Amplifier

Stereo integrated amplifier with Audio Signal Processor (ASP) IC that provides wide dynamic range, short signal path, feather-touch operation. Features 3-position Acoustic Memory tone/filter settings; Legato Linear nonswitching dc power amplifier; wide-response output transistors; ThermoDynamic Cooling (TDC) heatpipe; pulse power supply (PPS); subsonic, high filters; moving-coil phono preamp; 2-way tape monitor/copy. Output power 65 W/channel rms into 8 ohms, 20-20,000 Hz at 0.005% THD \$410

TA-AX44. Similar to TA-AX5 except no MC preamp, pulse power supply; has automatic muting, wireless



remote-control capability. Output power 40 W/channel into 8 ohms, 20-20,000 Hz at 0.008% THD \$280

TECHNICS

SU-V9 Integrated Amplifier

Integrated stereo amplifier with 120 W/channel rms into 8 ohms, 20 to 20,000 Hz at 0.003% THD. Features new class-A power amplifier with linear feedback circuit and straight direct coupling (dc) to output terminals; Super Bass control with 2-position turnover frequency selector \$650

SU-V7 Integrated Amplifier

Integrated stereo amplifier with 80 W/channel rms into 8 ohms, 20-20,000 Hz at 0.003% THD. Features direct coupling; class-A amplifier \$450

SU-V5 Integrated Amplifier

Slim-profile integrated stereo amplifier with 60 W/channel rms into 8 ohms, 20-20,000 Hz at 0.007% THD. Features fluorescent power meters with range selector; class-A power amplifier with linear feedback circuit; straight direct coupling. \$350

SU-V3. Similar to SU-V5 except 40 W/channel output power \$280

TEKNIKA

8851 Integrated Amplifier

Stereo integrated amplifier with fluorescent peak power display. Features subsonic, high filters; 2-way tape monitor/dub; tape record switch; MM and MC phono inputs; loudness switch; muting. Output power

50 W/channel into 8 ohms, 20-20,000 Hz at 0.04% THD; frequency response 20-20,000 Hz ± 2 dB aux, ± 0.5 dB MM; S/N ratio aux/MM 96/82 dB; phono overload 150 mV; $17\frac{1}{16}'' \times 12\frac{3}{4}'' \times 4\frac{1}{2}''$; \$250

8751. Similar to 8851 except has LED power meters, 2 tape inputs with no dub; no MC input. Output power 40 W/channel at 0.1% THD; frequency response 20-20,000 Hz ± 0.5 dB aux, ± 1 dB phono; S/N ratio aux/phono 80/70 dB; $15\frac{1}{4}'' \times 10\frac{1}{4}'' \times 3''$; \$190

8451. Similar to 8751 except no power meters, single tape monitor. Output power 20 W/channel at 0.5% THD; frequency response 20-20,000 Hz ± 0.5 dB aux, 20-35,000 Hz ± 1 dB phono; S/N ratio 75 dB phono; $14\frac{1}{8}'' \times 9\frac{1}{8}'' \times 2\frac{1}{4}''$; \$140

8351. Similar to 8451. Output power 12 W/channel at 1% THD; frequency response 10-20,000 Hz -3 dB aux, ± 2 dB phono; $14\frac{1}{8}'' \times 11\frac{1}{16}'' \times 3''$; \$120

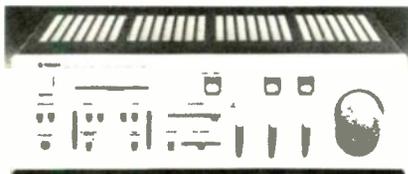
YAMAHA

A-1060 Integrated Amplifier

Stereo integrated amplifier with "X" power supply, high-gain dc main amplifier, pure-current-servo moving-coil (MC) head amplifier, equalizer. Features exclusive linear-transfer bias system; main direct and disc priority switches; continuously variable loudness control; rec-out selector; unique listening-level monitor that consists of slide-type control with LED in control-set bar, can be preset for desired output power level (LED flashes on when power level is reached by program); selectable tone-control turnover frequencies; slide-type listening-level, bass, treble, loudness, balance controls; gold-plated phono-input connectors; facilities for listening to one program while recording another; audio muting; switchable subsonic, high filters; LED function indicators; speakers A + B/A/B/off selector. Output power 140 W/channel rms into 8 ohms 20-20,000 Hz at 0.005% THD; damping factor 200 at 1 kHz, 8 ohms; THD MM/MC/aux, tape, tuner 0.003%/0.003%/0.005%; IM distortion at rated power/1 W into 8 ohms 0.002%/0.01% aux, tape, tuner; frequency response dc-100,000 Hz +0/-1 dB aux, tape, tuner; input sensitivity/impedance 2.5 mV/100, 33k, 47k, 100k ohms (selectable) MM, 100 μ V/100, 10k ohms (selectable) MC, 150 mV/47k ohms aux, tape, tuner; S/N ratio MM/MC/aux, tape, tuner 100/78/103 dB; residual noise main direct on/off 80/500 μ V; separation at 1 kHz, volume set to -30 dB, inputs shorted MM/MC/tuner 70 dB (all); slew rate 200 V/ μ sec; headphone output 115 mV into 8 ohms at 0.01% THD (U.S., Canada); power consumption 470 W (U.S., Canada); $17\frac{1}{8}'' \times 16\frac{1}{8}'' \times 5\frac{1}{4}''$; 27 lb 9 oz \$800

A-960II Integrated Amplifier

High-power integrated stereo amplifier with distortion-cancelling Zero Distortion Rule (ZDR) circuitry. Features unique "X" power supply; high-gain dc servo amplifier; pure current servo equalizer amplifier; main direct, disc priority switches; unique Listening Level monitor; loudness control; rec out selector. Output power 105 W/channel rms, 20-20,000 Hz at



0.003% THD; frequency response 1-100,000 Hz; output level/impedance 150 mV/270 ohms rec out; S/N ratio 93 dB phono; separation 70 dB; 435 mmW \times 365 mmD \times 132 mmH; 10.6 kg \$495

A-760 Integrated Amplifier

Stereo integrated amplifier with "X" power supply, pure current servo equalizer amplifier, unique listening-level monitor (see A-1060). Features high-gain dc main amplifier; direct MC cartridge input capability; main direct, disc priority switches; continuously vari-

able loudness control; rec-out selector; gold-plated phono connectors; switchable high filter; speakers A + B/A/B/off selector. Output power 80 W/channel into 8 ohms, 20-20,000 Hz at 0.01% THD; damping factor >55; frequency response dc-100,000 Hz +0/-2 dB; THD MM/MC/ other inputs 0.003%/0.006%/0.005%; IM distortion 0.002% aux, tuner, tape; input sensitivity/impedance 2.5 mV/47k ohms MM, 25C μ V/100 ohms MC, 150 mV/47k ohms aux, tape, tuner; phono overload MM/MC 180/18 mV rms; S/N ratio MM/MC/ others 98/76/103 dB A wtd; residual noise <165 μ V; power consumption 350 (U.S.); $17\frac{1}{8}'' \times 14\frac{1}{8}'' \times 4\frac{1}{8}''$; 20 lb 1 oz \$420

A-560 Integrated Amplifier

Stereo integrated amplifier with low-distortion power amplifier, direct MC cartridge input capability, loudness control. Features dc-configuration power amplifier; independent recording and listening selection; switchable subsonic and high filters; easy tape dubbing; center-defeat tone controls; gold-plated phono inputs; speakers A and B selectors. Output power 55 W/channel into 8 ohms, 20-20,000 Hz at 0.015% THD; damping factor 80; frequency response 20-20,000 Hz -0.2 dB; THD MM/MC/ other inputs 0.005%/0.01%/0.01%; input sensitivity/impedance 2.5 mV/47k ohms, 220 pF MM, 160 μ V/100 ohms MC, 150 mV/40k ohms others; phono overload MM/MC 150/8 mV rms; S/N ratio MM/MC/ others 98/76/100 dB; residual noise less than 120 μ V; separation 80 dB all inputs; power consumption 200 W (U.S., Canada); $17\frac{1}{8}'' \times 11\frac{1}{4}'' \times 4\frac{1}{8}''$; 15 lb 7 oz \$300

A-460. Similar to A-560 except has no MC facility; output power 35 W/channel; residual noise <160 μ V; power consumption 150 W; 12 lb 9 oz ... \$220

TUNERS

follows on next page.

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3

TUNERS

ADCOM

GFT-1 AM/FM-Stereo Tuner

AM/FM-stereo tuner with quartz-referenced, digitally synthesized tuning, automatic up/down scan and instant-recall preset tuning, LED digital frequency display. Features 6 AM/6 FM station presets; 5-LED signal-strength display; recording calibration tone (400 Hz at 50% FM modulation); high-blend, mono/mute switches; tuning accuracy 0.00025%; FM usable sensitivity 2 μ V; S/N ratio 75 dB mono, 70 dB stereo; THD 0.15% mono, 0.22% stereo at 1 kHz, 100% modulation; alternate-channel selectivity 70 dB; FM-stereo separation 40 dB at 1 kHz; 19" W \times 11 1/2" D \times 3" H \$375

AIWA

AT-9500U Stereo Tuner

Digital synthesizer AM/FM-stereo tuner with 6 AM/6 FM station presets. Features digital frequency display; auto/manual tuning; variable muting level control; pulse-swallow counter system in PLL prescaler; soft-touch controls \$270

TX-100 Digital Stereo Tuner

Quartz synthesized AM/FM-stereo tuner with auto/manual tuning, 6 AM/6 FM presets. Features multiple-function digital display with audio timer facility; 64-minute sleep function; adjustable automatic scan; FM muting; high-blend switch; 5-point LED signal-level meter \$250

ST-R80U Stereo Tuner

Quartz synthesized AM/FM-stereo tuner with digital tuning display, 6 AM/6 FM presets. Features pulse-swallow counter system; FM muting; 5-point LED signal-strength meter; high-blend switch \$230

ST-R50U Stereo Tuner

PLL quartz-synthesizer AM/FM-stereo tuner with 6 AM/6 FM station presets. Features auto/manual up/down scan tuning; LED digital frequency display; MF-mute, high-blend, mono/stereo, AM/FM switches; 5-LED signal-strength meter. FM usable sensitivity 1.9 μ V; S/N ratio mono/stereo 75/72 dB; frequency response 30-15,000 Hz \pm 0.5/-1.5 dB; THD mono/stereo 0.1%/0.2% at 1 kHz; capture ratio 1.5 dB; alternate-channel selectivity 70 dB at -400 kHz; image/spurious and i-f response ratio 80/90 dB; separation 45 dB at 1 kHz; 11 1/8" D \times 9 3/4" W \times 2 1/8" H \$190

ST-R30U Stereo Tuner

Mini Am/FM-stereo tuner with LED digital frequency display. Features 5-LED signal-strength meter; high-blend, mute/afc, AM/FM switches. FM usable sensitivity 1.9 μ V; S/N ratio 73 dB mono, 70 dB stereo; stereo distortion 0.025%; capture ratio 1.5 dB; alternate-channel selectivity 70 dB; i-f rejection 80 dB; stereo separation 45 dB at 1 kHz; 9" D \times 8 1/8" W \times 2 1/8" H \$105

ST-R10U Stereo Tuner

Mini AM/FM-stereo tuner with 117-V ac, 12-V dc power options. Features input noise-blanking system for suppressing vehicle ignition noise; auto-blend circuit; 3-LED bow-tie style tuning indicator; muting level

control. Car adaptor DC-123 optional \$90

AKAI

AT-S61 AM/FM-Stereo Tuner

Digital quartz synthesized AM/FM-stereo tuner with random and automatic tuning. Features 10 AM/10



FM presets; fluorescent digital tuning display; dc MPX circuit; automatic separation control; pilot tone canceller; level tracer type \$250

ARCAM

T21 FM-Stereo Tuner

Stereo tuner with LED tuning scale. Features LED signal-strength meter; LED TUNED indicator; conventional and 5-station-preset tuning; interstation muting; "birdie" filter; output level control; 75- and 300-ohm



connectors antenna connectors. Sensitivity 2 μ V; capture ratio 1.5 dB; alternate-channel selectivity 60 dB; i-f rejection > 80 dB; stereo S/N ratio > 68 dB; pilot-tone suppression > 50 dB; distortion < 0.25% stereo, < 0.15% mono; output 0.8 V at < 1k ohm; suggested load > 10k ohms; power consumption 6 VA; 17 1/4" W \times 9 1/2" D \times 2 1/4" H; 8 lb \$560

CARVER

TX-11 FM-Stereo Tuner

Quartz-synthesized FM-stereo tuner with Asymmetrical Charge Coupled FM detector that virtually eliminates multipath distortion, distant-station noise without reducing separation. Features charge-coupling delay (CCD); leading-edge detector; 16 station presets with last-station-tuned memory; digital tuning; wide/narrow bandwidth selector. Supplied with FM ribbon antenna, phono-type cables; rack-mount kit optional. Usable sensitivity 11.3 dBf mono, 34 dBf



stereo without CCD, 16.3 dBf stereo with CCD; 50-dB quieting sensitivity 16.4 dBf mono, 37 dBf stereo without CCD, 21 dBf stereo with CCD; S/N ratio at 85 dBf, 75/300 ohms 82 dB mono, 74 dB stereo without CCD, 85 dB stereo with CCD; frequency response 20-15,000 Hz \pm 1 dB; selectivity wide/narrow 35/90 dB; capture ratio 1.0 dB; AM suppression without/with CCD 65/50 dB; image, i-f, spurious-response ratio 110 dB; output level/impedance 700

mV/600 ohms; power consumption 15 W; 17 1/2" W \times 12 1/2" D \times 3 1/2" H; 11.25 lb \$549

CROWN

FM-1 FM Tuner

Features quartz-crystal IC frequency synthesizer tuning with auto continuous scan, auto search-and-stop operations. Features 5-station memory preset; LED digital frequency display; 20-LED analog tuning indicator dial; LED signal-strength, multipath meter displays; 25/75- μ sec deemphasis; carrier band filter, muting selectors. IHF usable sensitivity 10.8 dBf mono; 50-dB quieting sensitivity mono/stereo 2.75/35 μ V (stereo); S/N ratio mono/stereo 70/65 dB; THD mono/stereo 0.1%/0.09%; frequency response 30-15,000 Hz \pm 0.5 dB; capture ratio 2.0 dB; alternate-channel selectivity 75 dB; image and spurious rejection 114 dB; separation 45 dB at 1 kHz; 19" W \times 15" D \times 5 1/4" H \$995

FM Two Tuner

FM-stereo tuner with JFET front end, 6-station preset memory tuning. Features linear ceramic filters; pulse-counting digital circuit; crystal-controlled phase-locked-loop (PLL) tuning; digital frequency display; signal-strength display; stereo and mono indicators; scan/tune, dim/bright, stereo/mono, mute, high-blend filter, equalization, scan/lock switches . \$699

DENON

TU-900 FM-Stereo Tuner

Precision FM-stereo tuner with slide-rule dial, digital frequency display, automatic servo-lock touch tuning. Features high-sensitivity front end; wide/narrow bandwidth selector; MPX circuit with pilot canceller; 5-LED signal-strength meter; muting, mono/auto, record level switches; servo lock, tuning, stereo switches. Usable sensitivity 1.7 μ V (9.8 dBf); wide/narrow selectivity 50/90 dB; S/N ratio mono/stereo 88/85 dB; THD mono/stereo 0.025%/0.035%; wide/narrow capture ratio 1.0/1.5 dB; AM suppression/image rejection/i-f rejection 70/90/100 dB; frequency response 20-20,000 Hz \pm 0.2/-1.5 dB; wide/narrow separation 60/45 dB at 1 kHz; power consumption 14 W; 600 mmW \times 341 mmD \times 83 mmH; 6.1 kg \$590

TU-750 Synthesized Tuner

AM/FM-stereo quartz-locked frequency-synthesized tuner with automatic fine tuning (aft), 7 AM/7 FM station presets. Features digital tuning display; recording level check circuit; AM loop antenna; automatic station scanning; panel illumination dimmer switch; interstation muting. FM usable sensitivity 1.8 μ V; alternate-channel selectivity 60 dB; S/N ratio 76 dB stereo; THD 0.008% stereo; separation 55 dB; 17.1W" \times 9.8D" \times 2.95H"; 11 lb \$285

TU-530 AM/FM-Stereo Tuner

AM/FM-stereo tuner with dual-gate MOSFET front end, PLL multiplex circuits with pilot cancellers. Features servo-lock tuning with LED; 5-LED signal-strength, 3-LED tuning aids; high-blend and muting switches; FM/FM mono/auto FM mono/rec level selector; LED stereo indicator. FM usable sensitivity 1.7 μ V; S/N ratio 82/79 dB mono/stereo; frequency re-

sponse 20-15,000 Hz +0.2/-1.5 dB; THD 0.08%/0.1% mono/stereo; capture ratio 1.0 dB; image/spurious/i-f rejection 90/90/100 dB; alternate-channel selectivity 70 dB; AM usable sensitivity 300 μ V/m; THD 0.4%; 434 mm W \times 364 mm D \times 99 mmH \$250

TU-720 Stereo Tuner

AM/FM-stereo tuner with high-performance front end. Features 3-stage linear-phase ceramic filter; PLL MPX circuit; LED-assisted center tuning with servo lock; direct-coupled audio section; electronic switching; muting; record-calibration oscillator. FM usable sensitivity



0.85 μ V (9.8 dBf); selectivity 65 dB; S/N ratio mono/stereo 86/84 dB; THD mono/stereo 0.04%/0.06%; capture ratio 1.0 dB; AM suppression/image rejection/i-f rejection 55/56/95 dB; separation 55 dB at 1 kHz; AM usable sensitivity 15 μ V; AM THD 0.4%; power consumption 11 W; 17.4" W \times 12.3" D \times 2.6" H; 8.5 lb \$225

FISHER

FM2421B AM-FM Stereo Tuner

Features digital frequency-synthesized tuning with auto/manual search, scan; LED digital frequency display; 6-station memory preset for AM or FM with LEDs; wide/narrow i-f bandwidth selector; multiplex filter; FM muting; 5-LED signal-strength indicators. FM section: usable sensitivity 9.8 dBf (1.7 μ V) mono, 17.9 dBf (4.3 μ V) stereo; 50-dB quieting 13.2 dBf (2.5 μ V) mono, 35.9 dBf (34 μ V) stereo; S/N ratio 75 dB mono, 70 dB stereo; THD at 50-dB quieting 0.3% mono, 0.4% stereo; frequency response 20-15,000 Hz \pm 1 dB; capture ratio 0.8 dB; alternate-channel selectivity 75 dB; image rejection 80 dB; i-f and spurious rejection 100 dB; separation 46 dB at 1 kHz. AM section: usable sensitivity 280 μ V/m; selectivity 45 dB; S/N ratio 55 dB; 17 $\frac{1}{2}$ " W \times 13" D \times 3 $\frac{1}{2}$ " H \$400

FM660 Stereo Tuner

AM/FM-stereo synthesizer tuner with fluorescent digital frequency display, 5 AM/5 FM station presets. Features quartz PLL digital synthesizer; auto/manual scan tuning; 5-LED signal-strength meter; slim-line push-bar switches for all functions; touch-bar tuning; memory, stereo, manual indicators. FM usable sensitivity mono/stereo 10.77 dBf (1.9 μ V)/18.45 dBf (4.6 μ V); S/N ratio 72 dB mono, 68 dB stereo; capture ratio 1 dB; alternate-channel selectivity 70 dB; image/spurious/i-f-response ratio 70/85/100 dB; AM-suppression ratio 85 dB; THD at 50 dB quieting mono/stereo 0.3%/0.4%; separation at 100/1k/10k Hz 40/46/36 dB; frequency response 20-15,000 Hz \pm 1 dB; AM sensitivity 300 μ V/m; power consumption 20 W; 17 $\frac{1}{2}$ " W \times 11 $\frac{1}{8}$ " D \times 3 $\frac{1}{2}$ " H; 12 lb \$380

FM550 Stereo Tuner

AM/FM-stereo quartz PLL digital synthesizer tuner with fluorescent digital frequency display. Features 6 AM/6 FM station presets; auto/manual tuning; 5-LED signal-strength indicator; push switches for all functions; touch-bar tuning; memory, stereo, and manual indicators. FM usable sensitivity mono/stereo 10.77 dBf (1.9 μ V)/18.45 dBf (4.6 μ V); S/N ratio mono/stereo 75/70 dB; capture ratio 1 dB; alternate-channel selectivity 75 dB; image/spurious/i-f-response ratios 80/100/100 dB; AM-suppression ratio 65 dB; THD mono/stereo 0.3%/0.4%; stereo separation at 1 kHz 46 dB; frequency response 20-15,000 Hz \pm 1 dB; AM sensitivity 300 μ V/m; power consumption 13 W; 17 $\frac{1}{2}$ " W \times 13 $\frac{3}{4}$ " D \times 2 $\frac{1}{2}$ " H; 8 lb \$350

FM130 Stereo Tuner

AM/FM-stereo quartz PLL digital synthesizer tuner with 6 AM/6 FM presets, fluorescent digital frequency display. Features auto search tuning; LED signal-strength meter; MPX filter; FM muting. FM usable sensitivity 14.14 dBf (2.8 μ V) mono, 20 dBf (5.5 μ V)

stereo; S/N ratio mono/stereo 70/65 dB; capture ratio 1 dB; alternate-channel selectivity 60 dB; image/spurious/i-f-response ratios 60/70/100 dB; AM-suppression ratio 60 dB; THD mono/stereo 0.4%/0.5%; separation at 1 kHz 40 dB. frequency response 20-15,000 Hz \pm 1 dB; AM sensitivity 300 μ V/m; power consumption 10 W; 15 $\frac{1}{4}$ " W \times 7 $\frac{1}{2}$ " D \times 5" H; 8 lb \$300

FM350 Stereo Tuner

AM/FM-stereo tuner with servo-lock tuning. Features MPX filter; mode/FM muting switch; 5-LED signal-strength meter; 3-LED center-tuning indicator; illuminated slide-rule tuning dial; flywheel tuning. FM usable sensitivity mono/stereo 10.77 dBf (1.9 μ V)/18.45 dBf (4.6 μ V); S/N ratio mono/stereo 75/70 dB; capture ratio 1 dB; alternate-channel selectivity 60 dB; image/spurious/i-f-response ratio 60/85/110 dB; AM-suppression ratio 60 dB; THD mono/stereo 0.3%/0.4%; frequency response 20-15,000 Hz \pm 1 dB; AM sensitivity 300 μ V/m; power consumption 14 W; 17 $\frac{1}{2}$ " W \times 13 $\frac{3}{4}$ " D \times 2 $\frac{1}{2}$ " H; 8 lb \$200

FM440 AM-FM Stereo Tuner

Features 5-LED signal-strength, LED center tuning indicators; multiplex filter switch; mode selector switches. FM usable sensitivity 14.1 dBf (2.8 μ V) mono, 20 dBf (5.5 μ V) stereo; 50-dB quieting 20.76 dBf (6.0 μ V) mono, 38.26 dBf (45 μ V) stereo; S/N ratio mono/stereo 65/60 dB; THD mono/stereo 0.4%/0.5%; capture ratio 1.0 dB; separation 40 dB at 1 kHz \$180

GARRARD

Model 9 AM/FM Stereo Tuner

Wireless assembly slim-line AM/FM-stereo tuner with analog tuning dial. Features automatic frequency control (afc); FM mute switch; LED tuning, signal-strength indicators; MPX filter. FM usable sensitivity mono/stereo 1.8/3.0 μ V; alternate-channel selectivity 60 dB; 420 mm W \times 255 mm D \times 88 mm H; 4.8 kg \$230

Model 7. Similar to Model 9 except no afc, LED tuning, signal-strength indicators, MPX filter \$170

HARMAN/KARDON

700 Series High Technology Separates

hk715 AM-FM Stereo Tuner

Features digital-synthesis quartz-locked tuning with auto up/down scan tuning, LED digital frequency readout; 8-station AM/FM memory preset with LEDs; 7-LED signal-strength meter; pushbutton band, mode, FM mute selectors; high-blend filter; multiplex null circuit. FM usable sensitivity 1.7 μ V; 50-dB quieting mono/stereo 3.0/34 μ V; S/N ratio mono/stereo 79/77 dB; THD mono/stereo 0.07%/0.09%; frequency range 0.1-160,000 Hz; capture ratio 1.0 dB; alternate-channel selectivity 70 dB; image/i-f/spurious response ratio 80/105/105 dB; separation 50 dB at 1 kHz; 15.2" W \times 12.6" D \times 2.9" H; \$380

TU615 AM-FM Stereo Tuner

Digitally synthesized quartz-locked AM/FM-stereo tuner with auto/manual tuning. Features 6 AM/6 FM station presets; high-blend filter; MPX null filter; electronic scanning; memory back-up; 5-LED signal-strength meter; FM mute. FM usable sensitivity 1.8 μ V; 50-dB quieting sensitivity mono/stereo 3.2/38 μ V; S/N ratio mono/stereo 78/72 dB; THD mono/stereo 0.08%/0.1%; capture ratio 1.0 dB; alternate-channel selectivity 70 dB; image/i-f/spurious response ratio 75/90/95 dB; separation 50 dB 17 $\frac{1}{2}$ " W \times 14 $\frac{1}{2}$ " D \times 2 $\frac{1}{2}$ " H \$350

TU610. Similar to TU615 except has analog tuning

dial, no station presets; has tuning indicator in dial lights. FM usable sensitivity 1.9 μ V; 50-dB quieting sensitivity mono/stereo 3.8/44 μ V; S/N ratio mono/stereo 77/71 dB; THD mono/stereo 0.09%/0.15%; capture ratio 1.5 dB; alternate-channel selectivity 70 dB; image/i-f/spurious response ratio 55/75/70 dB; separation 45 dB \$220

HEATH

AJ-1600 AM/FM Stereo Tuner

Digitally synthesized AM/FM-stereo tuner with LED frequency display. Features wide/narrow i-f bandwidth selector; r-f attenuator; FM muting; blend, mono/stereo, AM switch switches; signal-strength/multipath tuning meters. FM usable sensitivity mono/stereo 1.8/3.5 μ V; S/N ratio mono/stereo 83/75 dB; frequency response 20-15,000 Hz \pm 0.5 dB; alternate-channel selectivity 40 dB wide, 80 dB narrow; separation 45 dB; 19" W \times 14" D \times 5 $\frac{1}{4}$ " H \$440 kit
AJA-1600-2. Optional Dolby FM noise-reduction module \$50

AJ-1200 FM Stereo Tuner

Digital FM-stereo tuner with green digital frequency display. Features 3-LED center-tune indicator; 5-LED signal-strength bargraph meter; mute-actuated afc (automatic frequency control); FM muting. FM usable sensitivity mono/stereo 1.9 μ V (10.8 dBf)/3.5 μ V (16.1 dBf); 50-dB quieting sensitivity mono/stereo 3 μ V (14.8 dBf)/38 μ V (36.8 dBf); S/N ratio stereo/mono 80/65 dB; frequency response 30-15,000 Hz \pm 1.5 dB; selectivity 52 dB; harmonic distortion 0.15%; hum and noise 70 dB; 16.9" W \times 13.75" D \times 4.2" H \$240
AJA-1200-2. Optional AM module \$40
AJA-1600-2. Optional Dolby FM noise-reduction module \$50

HITACHI

FT-M44 AM/FM Stereo Tuner

Microcomputer-controlled digital synthesizer slim-line AM/FM-stereo tuner with 6 AM/6 FM station presets. Features fluorescent digital frequency display; FM DX/local switch; automatic scanning; 5-step signal-strength display; new AM IC, high-gain loop antenna. FM usable sensitivity 11.2 dBf (1.0 V) mono; 50-dB quieting sensitivity mono/stereo 19.2/38.2 dBf; S/N ratio mono/stereo 80/75 dB; THD 0.1% mono and stereo at 1 kHz; frequency response 30-12,000 Hz +0.5/-1.0 dB; alternate-channel selectivity 70 dB; capture ratio 1.0 dB image/spurious response/AM/subcarrier suppression 75/80/56/50 dB; separation 50 dB; AM sensitivity 300 V/m; 17 $\frac{1}{4}$ " W \times 9 $\frac{1}{4}$ " D \times 3 $\frac{1}{2}$ " H; 6 lb 13 oz \$260

FT-M33 AM-FM Stereo Tuner

Slim-line analog-tune AM/FM-stereo tuner with Vector Tuning System, high-gain loop antenna. FM usable



sensitivity 10.8 dBf (1.9 μ V); 50-dB quieting sensitivity mono/stereo 19.2/38.2 dBf; S/N ratio mono/stereo 77/70 dB; THD mono/stereo 0.1%/0.25%; frequency response 30-12,000 Hz \pm 2 dB; capture ratio 1.0 dB; alternate-channel selectivity 50 dB; image rejection 50 dB; AM sensitivity 400 μ V/m; 17 $\frac{1}{4}$ " W \times 9 $\frac{1}{8}$ " D \times 3 $\frac{1}{4}$ " H; 7 lb 11 oz \$170

JVC

T-X55 Stereo Tuner

Quartz PLL digital synthesizer AM/FM-stereo tuner with computer-controlled tuning for sensitivity, i-f bandwidth, FM mode. Features QSC for optimum reception; 8 AM/8 FM station presets; digital frequency display; digital signal-strength display \$350
T-X30. Similar to T-X55 computer control. Features 7 AM/7 FM station presets; auto scan/stop tuning; color-change LED signal-strength meter; preset station, memory LEDs \$200

NEED MORE INFORMATION?

Write directly to the manufacturer or distributor. A list of names and addresses starts on page 188.

3 TUNERS

T-K20 AM/FM-Stereo Tuner

Quartz PLL synthesized AM/FM-stereo tuner with 6 AM/6 FM station presets. Features digital frequency



display; station identification tags \$180
T-K10. Similar to T-K20 except has illuminated analog tuning dial; PLL stereo demodulator; LED signal-strength meter \$130

KENWOOD

L-02T Stereo-FM Tuner

Quartz-lock FM-stereo tuner with nonspectrum i-f system for low distortion. Features nonstep sample-and-hold MPX system for high S/N ratio; pulse-count detector; digital frequency display; Sigma drive audio output \$3000

KT-9XG AM/FM-Stereo Tuner

Quartz PLL synthesizer AM/FM-stereo tuner with pulse-count FM detector. Features 8 AM/8 FM station presets; digital frequency display; selectable direct r-f conversion; selectable i-f bandwidth; dual power supply \$400
KT-7X. Similar to KT-9XG except no pulse-count FM detector. 6 AM/6 FM station presets, no selectable r-f conversion or i-f bandwidth. Has 3-way program timer \$250

T-9 AM/FM-Stereo Tuner

Quartz synthesizer AM/FM-stereo tuner with 6 AM/6 FM station presets. Features automatic, manual scan tuning; program timer \$235
T-7. Similar to T-9 except has high-performance analog tuning; 5-point LED signal-strength meter . \$129

KLH

T-210 AM/FM-Stereo Tuner

Digital-synthesized AM/FM-stereo tuner with fluoroscan digital frequency display. Features 7 AM/7 FM station presets; signal-strength, in-tune LEDs; auto/manual scan tuning; high-blend button. FM usable sensitivity 1.75 μ V; 50-dB quieting sensitivity mono/stereo 3.8/45 μ V; S/N ratio mono/stereo 70/65 dB; capture ratio 1.5 dB; alternate-channel selectivity 60 dB; image/i-f/spurious response ratio 60/90/90 dB; distortion mono/stereo 0.1%/0.2%; separation 45 dB at 1 kHz; AM sensitivity 300 μ V/m \$300

T-101 AM/FM-Stereo Tuner

Analog-dial AM/FM-stereo tuner with signal-strength, in-tune LEDs. Features high-blend switch; FM muting. FM usable sensitivity 2.0 μ V; 50-dB quieting sensitivity mono/stereo 4.0/48 μ V; S/N ratio mono/stereo 68/62 dB; alternate-channel selectivity 40 dB; image/i-f/spurious response ratio 45/80/70 dB; distortion 70 dB; separation 40 dB at 1 kHz; AM sensitivity 300 μ V/m \$180

LUXMAN

T-115 AM/FM-Stereo Tuner

Digital PLL frequency-synthesized AM/FM tuner with 12-station memory, dual-gate MOSFET amplifier, manual/automatic tuning. Features LED stereo, signal-strength indicators; test-tone control; mute level control; mono/muting-off, AM/FM mode selectors. Capture ratio 1.4 dB at 65 dBf; S/N ratio 75 dB at 65 dBf; distortion 0.12% mono, 0.3% stereo at 1 kHz; frequency response 30-15,000 Hz \pm 1 dB; FM spurious-response/image/i-f ratio 85/70/85 dB; 17.3" W \times 12.3" D \times 3.3" H \$500

T-400 AM-FM Stereo Tuner

Features flash tuning system; 440-Hz test tone oscillator; mono switch; FM muting switch; 5-LED signal-strength indicators. FM 50-dB quieting 3.1 μ V mono; frequency response 30-15,000 Hz \pm 1 dB; THD 0.1% at kHz mono; S/N ratio 75 dB; separation 62 dB; alternate-channel selectivity 65 dB; 18 $\frac{1}{2}$ " W \times 12 $\frac{1}{2}$ " D \times 4 $\frac{1}{2}$ " H \$300

MERIDIAN

THE TUNER 104

Top-quality FM-stereo tuner. Features a minimum of controls; 6 station presets accessible with rotary knob; front-panel meter that indicates frequency tuned or center-tune during preset stage; mono switch; FM mute switch \$555

MITSUBISHI

F30 Digital FM Stereo Tuner

Quartz crystal phase-locked-loop frequency synthesizer tuning system with pulse swallow counter, dual modulus prescaler. Features auto tuning; 8 preset stations; linear-phase ceramic filters; automatically switched selectivity; hi-blend function; multipath signal-level indicator. Usable sensitivity 10.3 dBf; alternate-channel selectivity wide/narrow 45/75 dB; S/N ratio 78 dB stereo; THD 0.08% stereo; separation 20 dB at 1 kHz with hi-blend on; frequency response 30-16,000 Hz \pm 0.5/-1 dB; image/i-f/spurious response ratios 100 dB; capture ratio 1.0 dB wide; output level/impedance 600 mV/1 k ohms; 18 $\frac{1}{2}$ " W \times 10 $\frac{1}{2}$ " D \times 5 $\frac{1}{2}$ " H; 11 lb \$400

M-F04 AM/FM Stereo Tuner

Micro-tuner with advanced front-end circuitry, touch-sensor tuning. Features 2-color tuning scale; interstation muting/mode selection; Usable sensitivity 11.2 dBf; alternate-channel selectivity 60 dB; S/N ratio 73 dB stereo; THD 0.4% at 1 kHz 65 dBf; separation 40 dB at 1 kHz; frequency response 40-15,000 Hz \pm 3 dB; capture ratio 1.5 dB; 10 $\frac{1}{2}$ " W \times 10 $\frac{1}{2}$ " D \times 2 $\frac{1}{2}$ " H \$270

NAD (USA)

4150 AM/FM-Stereo Tuner

Digitally synthesized AM/FM-stereo tuner with patented variable bandwidth. Features PLL detector; 5 AM/5 FM station presets; search; scan; mute; output level control. FM usable sensitivity $<$ 1.0 μ V (5 dBf) mono; 50-dB quieting sensitivity mono/stereo $<$ 2.3 μ V (12 dBf)/ $<$ 20 μ V (30 dBf); capture ratio 0.5 fB; AM rejection 70 dB; alternate-channel selectivity 70 dB; THD mono/stereo 0.05%/0.08%; S/N ratio mono/stereo 83/80 dB; separation 40 dB broadband; input overload 10 V \$318

4020A AM/FM-Stereo Tuner

Analog AM/FM-stereo tuner with junction-FET front end. Features PLL MPX demodulator; LED tuning indicators. FM usable sensitivity 1.9 μ V mono; 50-dB quieting sensitivity mono/stereo 3.5/40 μ V; S/N ratio mono/stereo 75/70 dB; frequency response 30-15,000 Hz \pm 0.5 dB; THD mono/stereo 0.2%/0.3%; capture ratio 1.5 dB; selectivity 65 dB; image rejection 50 dB; i-f rejection 75 dB; separation 42 dB at 1 kHz. AM sensitivity 250 μ V; 16.5" W \times 9.5" D \times 3.8" H \$218

NIKKO

Gamma 40 FM Tuner

Features T-lock servo auto fine tuning with LED digital frequency display, linear dial scale; wide/narrow i-f bandwidth selector; switchable high-blend; low-noise dual-gate MOSFET front end. Usable sensitivity 10.3 dBf (1.8 μ V); 50-dB quieting 33 μ V stereo; S/N ratio mono/stereo 86/78 dB; THD mono/stereo 0.02%/0.08%; rack-mountable with matte black finish; 19" W \times 13" D \times 2 $\frac{1}{4}$ " H \$450
Gamma 20 AM-FM Stereo Tuner

Features frequency-synthesis tuning with LED digital frequency/clock display; 6 AM/6 FM station presets; pilot-cancelling IC; record calibration signal; adjustable muting threshold; output level control. FM usable sensitivity 10.3 dBf (1.8 μ V); 50-dB quieting 33 μ V

stereo; S/N ratio mono/stereo 75/65 dB; THD 0.02% stereo; frequency response 50-15,000 Hz \pm 0.5 THD; capture ratio 1.5 dB; alternate-channel selectivity 70 dB; rack-mountable with matte black finish; 19" W \times 13" D \times 2 $\frac{1}{4}$ " H \$400

NT-990 Stereo Tuner

AM/FM-stereo tuner with digital frequency display. Features 6 AM/6 FM station presets; quartz synthesized tuning; up/down tuning buttons; AM/FM, stereo/mono switches; 5-LED signal-strength meter; high-blend switch. 16.5" W \times 12.75" D \times 3.6" H \$320

NT-700II Stereo Tuner

AM/FM-stereo tuner with digital quartz synthesizer tuning circuitry, digital frequency display, 6 AM/6 FM station presets. Features 3-LED signal-strength meter; AM/FM, stereo/mono switches; up/down scan tuning buttons. Size 17.3" W \times 11.6" D \times 3.8" D \$300

NT-500II Stereo Tuner

AM/FM-stereo tuner with slide-rule dial. Features LED signal-strength tuning indicators; 3-LED center-tune indicator; signal and stereo indicators; illuminated dial; lighted dial pointer; AM/FM, stereo/mono switches; 17.3" W \times 9.9" D \times 3.8" H \$180

ONKYO

T-9060 Stereo Tuner

Quartz digitally synthesized stereo tuner with 7 AM/7 FM station presets. Features selectable i-f bandwidth; auto high blend; LED signal and deviation indicators; switchable deemphasis; output level control. FM sensitivity 1.7 μ V; THD $<$ 0.15% stereo; black matte panel \$490

T-35 AM/FM-Stereo Tuner

Digital quartz synthesized AM/FM-stereo tuner with 7 AM/7 FM station presets. Features selectable i-f bandwidth; automatic high blend; LED signal-strength meter. FM usable sensitivity 1.7 μ V; THD 0.15% stereo \$379
T-25. Similar to T-35 except has 6 AM/6 FM station presets, no selectable i-f bandwidth or auto high blend. FM sensitivity 1.9 μ V; THD 0.25% stereo \$250
T-15. Similar to T-25 except has analog tuning dial with servo-locked tuning. FM sensitivity 2.0 μ V; THD 0.3% stereo \$140

OPTONICA

ST-4406 Tuner

AM/FM-stereo quartz PLL synthesizer tuner with quadrature detector. Features FM muting; auto tuning system; 10-station, 2-band presettable memory; microprocessor-controlled soft-push switches; air check calibrator; digital frequency display; 5-LED signal-strength meter; hi-blend switch; last station memory; LED function indicators; memory back up system. Frequency response 30-15,000 Hz \pm 2 dB; FM usable sensitivity 9.8 dBf (1.7 μ V); S/N ratio 70 dB stereo \$260

ST-3300 Tuner

AM/FM-stereo tuner with digital frequency display. Features flywheel tuning; 5-LED signal strength meter; FM center-tune indicator; FM stereo indicator; FM stereo muting; FM usable sensitivity 1.9 μ V .. \$200

JC PENNEY

MCS 3760 AM/FM-Stereo Tuner

AM/FM-stereo tuner with digital frequency display. Features 5-LED signal-strength, 3-LED center-tune meters; FM muting; flywheel tuning. FM 50-dB quieting sensitivity 18.3 dBf (4.5 μ V) mono; pilot rejection 35 dB; hum and noise -72 dB; i-f spurious response 75 dB; AM sensitivity 300 μ V/m ... \$200

PHASE LINEAR

T5200 Digital Synthesized Tuner

AM/FM-stereo digitally synthesized tuner with manual/auto up/down scan tuning, 6 station memory pre-

sets with LEDs. Features LED digital tuning display; FM mute, record-level switches; 5-LED signal-strength meter; LED stereo indicator; PLL MPX decoder with auto pilot cancelling; wide/narrow bandwidth selector for AM and FM; AM-stereo output for future adapter; brushed-silver anodized panel. FM usable sensitivity mono/stereo 0.95/19.5 μ V; S/N ratio mono/stereo 90/85 dB; frequency response 20-15,000 Hz \pm 0.2/-0.5 dB; distortion 1.0 dB at 1 kHz; alternate-channel selectivity 60 dB; image/i-f/spurious response ratio 70/100/80 dB; separation 40 dB at 1 kHz; AM usable sensitivity 300 μ V; S/N ratio 50 dB; 17 1/2"W \times 13"D \times 3 1/2"H \$495

PIONEER

F-9 Stereo Tuner

Digital quartz synthesizer AM/FM-stereo tuner with 6 AM/6 FM station presets. Features digital frequency display; drop-down hinged front panel that hides all controls except AM and FM push-type, preset-station selectors; LED signal-strength meter; up/down scan



tuning; rec-cal oscillator; wide/narrow bandwidth selector. FM usable sensitivity 10.8 dBf (0.95 μ V) mono; S/N ratio mono/stereo 90/85 dB; capture ratio wide/narrow 1.0/2.5 dB; alternate-channel selectivity wide/narrow 40/85 dB; separation 55 dB at 1 kHz wide, 48 dB 50-10,000 Hz wide; 16 1/8"W \times 14 1/8"D \times 2 1/8"H; 9 lb 15 oz \$425
F-7. Similar to F-9 but minus wide/narrow selector; FM S/N ratio mono/stereo 85/80 dB; capture ratio 1.0 dB; alternate-channel selectivity 60 dB; separation 50 dB at 1 kHz \$325

F-5 Stereo Tuner

Servo-locked digital AM/FM-stereo tuner with digital frequency display. Features up/down scan tuning; LED signal-strength meter; FM stereo LED indicator. FM usable sensitivity 10.8 dBf (0.95 μ V) mono; S/N ratio mono/stereo 75/70 dB; capture ratio 1.0 dB; alternate-channel selectivity 60 dB; separation 40 dB at 1 kHz, 30 dB; 16 1/8"W \times 14 1/8"D \times 2 1/8"H; 9 lb 15 oz \$225

QUAD by ACOUSTICAL MFG.

FM4 FM Tuner

FM-stereo tuner designed to be used with Quad 44 preamplifier. Features no controls except 8 pushbuttons to store/recall station presets, tuning knob, power switch; bargraph meter to indicate signal strength, center-channel tuning; dedicated microprocessor that



recalls desired station from memory, tunes it accurately, automatically sets muting, afc (automatic frequency control) levels. Stations stored in memory remain there for up to 5 years, even with power disconnected. Mono/stereo 50-dB quieting sensitivity 2.7/25 μ V; mono/stereo S/N ratio 76/70 dB at 1 kHz, 1 mV A weighted; mono/stereo distortion 0.05%/0.10% stereo; capture ratio 2.5 dB; selectivity 53 dB; image/i-f rejection 80/100 dB; frequency response 20-15,000 Hz \pm 0/-1 sB; crosstalk 40 dB at 1 kHz; pilot-tone suppression 60 dB; deemphasis switchable 50/75 μ sec; power consumption 6 VA; 321 mmW \times 207 mmD \times 64 mmH; 3 kg \$625

FM3 FM Tuner

FM-stereo tuner with dial scale with 5 preset markers controllable by turning knob. Features rear-panel noise-suppression preset control. All other controls provided by Quad 33 control unit. Distortion 0.3% at 1 kHz; capture ratio 3 dB; alternate-channel selectivity 46 dB; image rejection 56 dB; i-f rejection 80 dB; separation 40 dB at 1 kHz; frequency response 20-15,000 Hz \pm 1 dB; 260 mm W \times 165 mm D \times 92 mmH \$395

SAE

T14 AM-FM Stereo Tuner

Features varactor front end; LED digital frequency readout; quartz-lock, synthesized touch tuning; 5-station memory preset; LED signal-strength/multipath, output-level bargraph meters; variable i-f bandwidth selector; linear phase filters; PLL multiplex filter. 50-dB quieting 34.8 dBf (stereo); S/N ratio 76 dB; THD 0.15% (stereo) \$599

T7 AM-FM Stereo Tuner

Features digital frequency readout; quartz-lock tuning; LED signal-strength/multipath, output-level bargraph meters. 50-dB quieting 34.8 dBf (stereo); S/N ratio 67 dB; THD 0.22% (stereo), 0.11% (mono) \$429

T6 AM/FM Stereo Tuner

Features digital frequency display; bargraph signal-strength meter; 50 dB quieting 36.11 dBf (stereo) S/N ratio 67dB (stereo); THD 0.25% (stereo) 0.10% (mono) \$329

SANSUI

TU-S9 AM/FM-Stereo Tuner

Features quartz PLL digital synthesizer tuning with auto/manual up/down scan tuning, fluorescent digital frequency display. Features 5 AM/5 FM station presets with LED indicators; 5-LED signal/multipath indicators with meter selector switch; noise canceller, calibration tone, FM muting/auto or mono mode

switches; LED search, FM stereo, direct set indicators. FM usable sensitivity 10.5 dBf; S/N ratio 85 dB; THD 0.06%; capture ratio 1.0 dB \$420

TU-S7 AM/FM-Stereo Tuner

Features quartz PLL digital synthesizer tuning with auto/manual up/down scan tuning, fluorescent digital frequency display. Features 6-station AM/FM memory preset with lighted indicators; FM noise canceller, FM auto/mono mode, AM/FM selector switches; 5-LED signal, LED stereo and search indicators. FM usable sensitivity 10.5 dBf; S/N ratio 83 dB; THD 0.07%; capture ratio 1.0 dB. TU-S7S has silver finish; TU-S7B has black finish, rack-mount handles \$350

TU-S5 AM/FM-Stereo Tuner

Stereo tuner with pulse-count discriminator that uses digital pulses for high S/N ratio, low distortion. Features digital and analog (slide-rule) station-frequency displays with tuning pointer/LED tuning indicator in analog system; servo-lock tuning system. FM sensitivity 10.5 dBf (1.8 μ V); THD 0.07% stereo; S/N ratio 78 dB stereo; capture ratio 1.0 dB. TU-S5S has silver finish; TU-S5B has black finish, rack-mount handles. \$290

TU-S33 AM/FM-Stereo Tuner

AM/FM-stereo tuner with servo-locked tuning system, "Just Tuned" pointer. Features floating circuit system that improves AM performance. FM sensitivity 10.6



dBf (1.85 μ V); S/N ratio mono/stereo 81/76 dB; THD mono/stereo 0.08%/0.09%; capture ratio 1.0 dB; separation 50 dB at 1 kHz; frequency response 30-15,000 Hz \pm 0.3/-1.0 dB. TU-S33S has silver finish; TU-S33B has black finish, rack-mount handles \$200

Quality is the Principle.



Stereo Review says it for us.
"The GFP-1 can obviously be considered, for all practical purposes, distortionless... The preamplifier noise rating exceeded our measurement capability" (Sept. 1981)
They continue: "It's a no frills preamplifier, one without the unnecessary gimmicks. At its modest price, this is one of the better preamplifiers in today's market."
Adcom's GFA-2 stereo power amplifier is a worthy mate to the GFP-1 with 100 watts* per channel of power at no more than 0.05% THD and 0.1% IM distortion.
The GFA-2 also has separate power supplies, one for each channel, which permit complete power consistency without interference between channels—especially at maximum power output.
These excellent performers prove that going first class doesn't mean a high price.
Call or write for the name of an Adcom dealer near you.

*RMS, 20 Hz to 20 kHz, both channels driven into 8 ohms



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3 TUNERS

H.H. SCOTT

558T Tuner

Quartz PLL Synthesizer tuner with 7 AM/7 FM presets, touch-control memory, full-function fluorescent display. Features auto scan up/down tuning; active high-blend filter for minimum noise on FM-stereo; 4-gang electronic front end; 1.7- μ V IHF usable sensitivity; 0.8- μ V DIN sensitivity; S/N ratio 75 dB (mono) at 65 dBf; distortion 0.08% (mono) at 65 dBf; frequency response 30-15,000 Hz \pm 0.5 dB; capture ratio 1.2 dB; separation 55 dB at 1 kHz; 17"W \times 11.8"D \times 1.7"H \$280

528T Tuner

AM/FM-stereo tuner with 5-LED signal-strength, 3-LED center-tuning meters on dial pointer. Features heavy metal flywheel; linear FM dial; 1.8- μ V IHF usable sensitivity, 1.2- μ V DIN sensitivity; S/N ratio (mono) 72 dB at 65 dBf; distortion (mono) 0.15% at 65 dBf; frequency response 30-15,000 Hz \pm 0.5 dB; capture ratio 1.2 dB; separation 50 dB at 1 kHz; 17"W \times 8.7"D \times 3.5"H \$160

SHERWOOD

S-6010 AM/FM-Stereo Tuner

Digitally synthesized AM/FM-stereo tuner with dual-gate MOSFET front end. Features Varactor-diode front end; 3 pairs matched linear-phase ceramic i-f fil-



ters; fluorescent digital frequency display; 8 AM/8 FM station presets with battery memory backup. FM usable sensitivity 1.8 μ V (10.3 dBf); 50-dB quieting sensitivity mono/stereo 3.2 μ V (15.3 dBf)/35 μ V (36.1 dBf); capture ratio 1.0 dB; alternate-channel selectivity 80 dB; S/N ratio mono/stereo 80/75 dB; frequency response 20-15,000 Hz \pm 0.5 dB; power consumption 10-12 W; 17 $\frac{3}{8}$ "W \times 15 $\frac{1}{2}$ "D \times 2 $\frac{1}{8}$ "H; 10 lb \$250

SONY

ST-J75 Stereo Tuner

Reference standard quartz frequency-synthesis FM-stereo tuner with exclusive Direct Comparator low-noise tuning circuit. Features Uniphase i-f filters; non-volatile memory MNOS-IC/multiprocess memory; automatic, 8-station memory preset, memory-scan tuning; Station Call programming for 8 broadcast events; 400-Hz test tone; 2-position muting level switch. S/N ratio mono/stereo 92/87 dB; THD mono/stereo 0.05%/0.07% \$450

ST-JX5 AM/FM-Stereo Tuner

Quartz frequency-synthesized AM/FM-stereo tuner with Direct Comparator low-noise circuit. Features Uniphase i-f filters; nonvolatile MNOS-IC/multiprocess memory; automatic/manual 8-station memory preset/memory scan tuning; Station Call for 4 broadcast events; 400-Hz test tone; SENS reception switch. S/N ratio mono/stereo 85/80 dB; THD mono/stereo 0.06%/0.08% \$290

ST-JX44 AM/FM-Stereo Tuner

Quartz frequency-synthesis AM/FM-stereo receiver with Direct Comparator low-noise tuning circuit. Features Uniphase i-f filters; multiprocess memory; manual/8 AM or FM memory preset/memory scan tuning;



memory back-up; facility for optional RM-44 wireless remote controller. S/N ratio mono/stereo 82/77 dB; THD mono/stereo 0.08%/0.15% \$200

SOUNDCRAFTSMEN

T6001 AM/FM-Stereo Digital Tuner

Tuner with frequency-synthesized tuning system, quartz crystal oscillator. Features 14-station micro-computer memory system; 3-way automatic scan tuning; power back-up to hold preset stations in memory when power is off; LED signal-strength/multipath meter; walnut end panels. FM sensitivity 10.8 dBf (1.9 μ V); capture ratio 1.0 dB; separation 45 dB; T-D 0.1% mono; S/N ratio 75 dB; spurious rejection 100 dB; image rejection 86 dB; 19"W \times 12"D \times 3 $\frac{1}{2}$ "H \$469

STUDER/REVOX

Revox B739 FM Tuner/Preamplifier

Preamp section features line amplifiers for 2 different levels (A and B), with for XLR and RCA phono (2/4 V, 220 ohms, unbalanced) output connectors. Input sig-



nals reliably switched by a microprocessor with noncontacting FET switches that allow independent selection of recording circuits while listening to any other source; selected functions indicated on digital display. Frequency response 20-70,000 Hz \pm 0.7 dB; THD <0.02% at 1 kHz, 2 V output; 17 $\frac{1}{2}$ "W \times 13 $\frac{1}{4}$ "D \times 6"H \$2399

TANDBERG

TPT-3001 FM Tuner

Features computer-type logic servo tuning system; eight-ganged varactor tuning diodes in front end, dual-gate MOSFETs in r-f and mixer stages; 8-station memory preset with touchbutton recall and LED program readout; wide/normal/narrow i-f bandwidth selector; autorange signal-strength with \times 1000 meter



range LED, center tuning/preset frequency meters; mono, ANC, servo, mute switches with LEDs; 3-circuit muting; output level control; S/N ratio 90 dB; narrow selectivity 125 dB \$1095

TPT3011 Programmable Tuner

Computerized FM-stereo tuner with 8 programmable station presets, automatic servo tuning released by touch sensor in tuning knob. Features 5-ganged electronic tuning circuits; 12-bit microprocessor pretuning, memory system; high selectivity. FM sensitivity for 50 dB quieting mono/stereo 14.8 dBf (1.5 μ V)/37.3 dBf (20 μ V); S/N ratio at 65 dBf mono/stereo 78/75 dB; distortion at 50 dB quieting mono/stereo 0.3%/0.3%; capture ratio 0.9 dB; alternate-channel selectivity >100 dB; spurious-response >70 dB; AM-suppression ratio >70 dB; 43.5 cmW \times 35 cmD \times 8.3 cmH \$695

TECHNICS

ST-S8 AM/FM-Stereo Tuner

Quartz synthesizer AM/FM-stereo tuner with dc circuitry throughout. Features digital frequency display, analog tuning dial; 25-kHz reference frequency; 8 AM/8 FM station presets; 5-LED signal-strength me-

ter; auto/manual up/down scan tuning; received-frequency/preset-channel/up to 80 dB signal-strength modes for digital display; super narrow i-f bandwidth switch; batteryless memory back-up. FM usable sensitivity 10.8 dBf (0.95 μ V); 50-dB quieting sensitivity mono/stereo 16.3 dBf (1.8 μ V)/37.2 dBf (20 μ V); S/N ratio mono/stereo 80/74 dB; THD mono/stereo 0.04%/0.06%; alternate-channel selectivity 55 dB; AM sensitivity 250 μ V/m; 16 $\frac{1}{16}$ "W \times 15 $\frac{1}{32}$ "D \times 2 $\frac{1}{32}$ "H; 9 lb \$500

ST-S6 AM/FM Digital Tuner

Quartz synthesized AM/FM-stereo tuner. Features dc stereo tuner; dc peak/sampling/hold multiplex circuit; 16-station full random-access preset memory tuning; automatic station memory; digital display for signal strength indication; LED multipath/signal-strength indicator; normal/narrow i-f band width selector; slim body \$380

ST-C03 AM/FM-Stereo Tuner

Quartz synthesizer AM/FM-stereo tuner with Varactor/4-pole MOSFET front end. Features digital fre-



quency display; SAW filter in i-f stage; 2-color, 5-LED signal-strength meter; 8 AM/8 FM station presets; up/down scan tuning. FM usable sensitivity 10.8 dBf (1.9 μ V); 50-dB quieting sensitivity mono/stereo 17 dBf (3.9 μ V)/38.3 dBf (45 μ V); S/N ratio mono/stereo 77/72 dB; THD mono/stereo 0.08%/0.15%; alternate-channel selectivity 75 dB; capture ratio 1.0 dB; IM distortion 0.03%; image/i-f/spurious response rejection 65/85/90 dB; frequency response 20-15,000 Hz \pm 0.5/-1.5 dB; separation 55 dB \$370

ST-C01 AM/FM-Stereo Tuner

Analog-dial AM/FM-stereo tuner with bow-tie center-tune display on dial pointer. FM usable sensitivity 10.8 dBf (1.9 μ V); 50-dB quieting sensitivity mono/stereo 17 dBf (3.9 μ V)/38.3 dBf (45 μ V); S/N ratio mono/stereo 75/70 dB; THD 0.1%/0.15%; alternate-channel selectivity 75 dB; capture ratio 1.0 dB; image/i-f/spurious response ratio 50/85/80 dB; frequency response 20-15,000 Hz \pm 0.5/-1.5 dB; separation 45 dB at 1 kHz; AM sensitivity 250 μ V/m; power consumption 8 W; 11 $\frac{1}{16}$ "W \times 10 $\frac{1}{32}$ "D \times 1 $\frac{1}{16}$ "H; 2.9 lb \$290

ST-S4 AM/FM Digital Tuner

Quartz synthesizer AM/FM-stereo tuner with 16-station full random-access, automatic scanning tuning. Features automatic station memory; full digital display; digital display of signal strength; normal/narrow i-f bandwidth selector; slim body \$280

ST-C04 AM/FM-Stereo Tuner

Quartz-synthesizer AM/FM-stereo tuner with digital frequency display, 6 AM/6 FM station presets, auto/manual up/down scan tuning. FM usable sensitivity 11.2 dBf (2.0 μ V); 50-dB quieting sensitivity mono/stereo 17.5 dBf (4.1 μ V)/39 dBf (49 μ V); S/N ratio mono/stereo 78/73 dB; THD mono/stereo 0.1%/0.15%; alternate-channel selectivity 60 dB; capture ratio 1.0 dB; image/i-f/spurious response ratio 55/80/80 dB; frequency response 20-15,000 Hz \pm 0.5/-1.5 dB; separation 50 dB at 1 kHz; AM sensitivity 250 μ V/m; power consumption 8 W; 11 $\frac{1}{16}$ "W \times 9 $\frac{1}{16}$ "D \times 1 $\frac{1}{16}$ "H; 4 lb \$250

ST-5 AM/FM-Stereo Tuner

Quartz synthesizer digital/analog tuner with digital frequency display, analog tuning dial. Features 8 AM/8 FM station presets; auto/manual up/down scan tuning; 3-LED signal-strength meter; 1-week batteryless memory back-up. FM usable sensitivity 11.2 dBf (2.0 μ V); 50-dB quieting sensitivity mono/stereo 17.5 dBf (4.1 μ V)/39 dBf (49 μ V); S/N ratio mono/stereo 78/73 dB; THD mono/stereo 0.08%/0.15%; alternate-channel selectivity 60 dB; frequency response 20-15,000 Hz \pm 0.5/-1.5 dB; 12 $\frac{1}{32}$ "W \times 9 $\frac{1}{32}$ "D \times 1 $\frac{1}{32}$ "H; 4.2 lb \$230

TEKNIKA

8841 AM/FM-Stereo Tuner

Digital AM/FM-search quartz-locked PLL tuner with manual/auto-search/memory/direct-entry tuning. Features 5 AM/5 FM station presets; LED signal-strength meter; feather-touch controls; output level control. FM usable sensitivity 1.9 μ V stereo; S/N ratio 70 dB stereo; capture ratio 1.5 dB; alternate-channel selectivity 70 dB; i-f/spurious response rejection 90/90 dB; THD 0.5% stereo; separation 50 dB at 1 kHz; $17\frac{1}{8}''\text{W} \times 12\frac{1}{8}''\text{D} \times 4\frac{1}{4}''\text{H}$ \$300

8741 AM/FM-Stereo Tuner

Analog-dial AM/FM-stereo tuner with feather-touch controls. Features R/L LED signal-strength meter. FM usable sensitivity 1.2 μ V; 50 dB quieting sensitivity 25.7 μ V stereo; S/N ratio 62 dB stereo; capture ratio 2 dB; alternate-channel selectivity 70 dB; i-f/spurious response rejection 79/79 dB; THD 0.7% stereo; separation 40 dB at 1 kHz; $15\frac{1}{4}''\text{W} \times 11\frac{1}{8}''\text{D} \times 3''\text{H}$ \$150

8441 AM/FM-Stereo Tuner

Analog-dial AM/FM-stereo tuner with LED tuning direction indicator; feather-touch controls; FM muting. FM usable sensitivity 1.2 μ V; 50 dB quieting sensitivity 25.7 μ V stereo; S/N ratio 68 dB stereo; capture ratio 2 dB; alternate-channel selectivity 70 dB; i-f/spurious response rejection 83/83 dB; THD 0.6% stereo; separation 40 dB at 1 kHz; $14\frac{1}{4}''\text{W} \times 11\frac{1}{8}''\text{D} \times 2\frac{1}{4}''\text{H}$ \$140

8341. Similar to 8441 except no LED tuning direction indicator, feather-touch controls; has LED signal-strength meter. FM usable sensitivity 4 μ V; S/N ratio 64 dB; THD 0.8% stereo; $11\frac{1}{8}''\text{D} \times 3''\text{H}$.. \$100

YAMAHA

T-2 FM-Stereo Tuner

Features digital frequency display; r-f mode selector; i-f mode selector; automatic DX; digital display; slide-rule dial; 330-Hz record calibration; signal Q meter. FM usable sensitivity 8.8 dBf (1.5 μ V); 50-dB quieting sensitivity 13.2 dBf (2.5 μ V) mono, 34.2 dBf (28 μ V) stereo; THD 0.05% (mono, stereo); S/N ratio 88 dB (mono); frequency response 10-18,000 Hz +0.3/-3 dB; capture ratio 1 dB; alternate-channel selectivity 100 dB; image response -120 dBf; i-f response -120 dBf; AM suppression 60 dB; separation 55 dB at 1 kHz; output 0.5 V fixed, 1 V variable; $17\frac{1}{8}''\text{W} \times 13\frac{3}{4}''\text{D} \times 2\frac{1}{4}''\text{H}$ \$750

T-70 AM/FM-Stereo Tuner

Computer servo-locked synthesizer AM/FM-stereo tuner with 10 AM/FM station presets. Features manual, auto-search tuning modes; initial station set; automatic local/distant switching; low-impedance AM loop antenna; selectable AM selectivity; recording calibration oscillator; signal-quality indicator. FM usable sensitivity at 300/75 ohms in 1.2 μ V/0.6 μ V; 50-dB quieting sensitivity 32 μ V (35.2 dBf) stereo; capture ratio local/DX 1.2/2.5 dB; S/N ratio 83 dB; stereo distortion/IM local/DX 0.04%/0.6%; separation local/DX 60/28 dB at 1 kHz; frequency response 30-15,000 Hz +0.3/-0.5 dB; AM S/N ratio 50 dB; $17\frac{1}{8}''\text{W} \times 12\frac{1}{8}''\text{D} \times 2\frac{1}{4}''\text{H}$; 8 lb 13 oz.... \$370

T-1060 AM/FM-Stereo Tuner

Stereo tuner with computer servo-locked tuning system with 5 AM/5 FM station presets. Features r-f servo gain control; auto DX switching; ultralinear direct FM detector; real-time direct CMOS dc NFB PLL multiplex demodulator; anti-interference PLL system; digital fluorescent frequency display; signal-Q display; tracking-type pure-pilot canceller; initial-station set button; pushbutton auto-search tuning; manual single-step tuning; high-Q low-impedance AM loop antenna; selectable AM selectivity; recording calibration oscillator. FM 50-dB quieting sensitivity mono/stereo DX 14.7 dBf (3.0 μ V)/35.3 dBf (32 μ V); image/i-f/spurious-response ratios 85/100/100 dB; AM-suppression ratio 65 dB; capture ratio local/DX 1.2/2.5 dB; alternate-channel selectivity 25 dB local, 85 dB DX; S/N ratio mono/stereo 88/83 dB; IM distortion mono/stereo 0.03% local, 0.3% DX/0.04% local, 0.6% DX; separation at 1 kHz 28 dB DX, 60 dB

local; frequency response 30-15,000 Hz +0.3/-0.5 dB; AM sensitivity 10 μ V; selectivity 17 dB local, 27 dB DX; S/N ratio 50 dB; output level/impedance 500 mV/2.2k ohms FM, 150 mV/2.2k ohms AM; power consumption 12 W; $17\frac{1}{8}''\text{W} \times 12\frac{1}{8}''\text{D} \times 2\frac{1}{4}''\text{H}$; 8 lb 13 oz.... \$350

T-960II AM/FM-Stereo Tuner

Computer Servo Locked AM/FM-stereo tuner with 10-station random-access tuning. Features Ultra Linear FM Detector; DC NFB PLL MPX demodulator;



auto/manual FM mono/stereo switch; record calibration oscillator initial station feature; slim-line design; chrome-finish front panel. FM 50-dB quieting sensitivity mono/stereo DX 3.5 μ V (16.1 dBf)/40 μ V (37.2 dBf); S/N ratio mono/stereo 88/84 dB; distortion 0.05%; frequency response 30-15,000 Hz +0.3/-1.0 dB; 435 mmW \times 318.5 mmD \times 72 mmH; 3.8 kg.....285

T-760 AM/FM-Stereo Tuner

Stereo tuner with unique station-locked synthesizer tuning, 5 AM/5 FM station presets. Features ultralinear direct FM detector; digital fluorescent frequency display; auto DX and blend; pushbutton search tuning; rec-cal oscillator; station-locked indicator; high-Q low-impedance AM loop antenna. FM 50-dB quieting sensitivity mono/stereo DX 17.3 dBf (4 μ V)/33.9 dBf (27 μ V); image/i-f, spurious-response ratios 62/100 dB; AM-suppression ratio 65 dB; alternate-channel selectivity 25 dB local, 70 dB DX IHF; capture ratio 1.5 dB; S/N ratio mono/stereo 82/79

dB; IM distortion mono/stereo 0.05% local, 0.5% DX/0.08% local, 1.0 DX; stereo separation 45 dB local, 2k-1Ck Hz; frequency response 30-15,000 Hz \pm 0.5 dB; AM sensitivity 15 μ V; selectivity 26 dB; S/N ratio 46 dB; output level/impedance 500 mV/2.4k ohms FM, 150 mV/2.4k ohms AM; power consumption 11 W; $17\frac{1}{8}''\text{W} \times 10\frac{3}{8}''\text{D} \times 2\frac{1}{8}''\text{H}$; 6 lb 13 oz..... \$285

T-560 AM/FM-Stereo Tuner

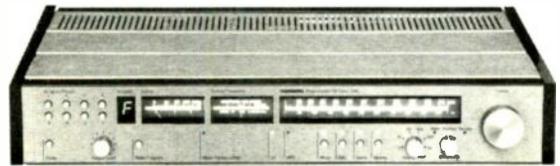
Stereo tuner with optical balance tuning, superior AM-reception quality. Features slide-rule tuning dial; dc NFB PLL multiplex decoder; tracking-type pilot pure canceller; high-Q AM loop antenna; improved ceramic filter; switchable AM/FM muting; FM auto-stereo/mono selection; signal-quality meter; rec-cal oscillator. FM 50-dB quieting sensitivity mono/stereo 14.8 dBf (3 μ V)/37.3 dBf (40 μ V); image/i-f/spurious-response ratios 65/100/90 dB; AM-suppression ratio 60 dB; capture ratio 1.5 dB; alternate-channel selectivity 65 dB; S/N ratio mono/stereo 86/84 dB; IM distortion mono/stereo 0.05%/0.1%; frequency response 30-15,000 Hz +0.5/-1.0 dB; AM sensitivity 10 μ V, selectivity 27 dB; S/N ratio 55 dB; output level/impedance 500 mV/5.2k ohms FM, 180 mV/5.2k ohms AM; power consumption 8 W; $17\frac{1}{8}''\text{W} \times 12''\text{D} \times 3\frac{3}{4}''\text{H}$; 8 lb 2 oz \$230

T-460. Similar to T-560 except no signal-quality meter, rec-cal oscillator, FM stereo indicator. FM 50-dB quieting sensitivity mono/stereo 15.1 dBf (3.1 μ V)/37.7 dBf (42 μ V); image/i-f/spurious-response ratios 50/100/80 dB; alternate-channel selectivity 55 dB; frequency response 30-15,000 Hz +0.5/-1.5 dB; output level/impedance 500 mV/5k ohms FM, 180 mV/5k ohms; power consumption 7 W; $17\frac{1}{8}''\text{W} \times 12''\text{D} \times 3\frac{3}{4}''\text{H}$; 8 lb 2 oz \$180

TURNTABLES

follows on next page.

TPT 3001
Programmable
FM Tuner



“... provided the lowest distortion and widest channel separation, as well as the highest S/N we have yet measured on an FM tuner.”

Stereo Review March, 1981

The above comment is from just one of the many rave reviews the Tandberg TPT 3001 has received from music lovers and equipment reviewers around the world.

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4

TURNTABLES

AIWA

AP-D80U Automatic Turntable

Fully automatic direct-drive turntable with unique front-load mechanism. Features automatic record-size selector; automatic repeat; manual tonearm operation; front-panel cue control; photoelectric automatic tonearm return mechanism; J-shaped static-balanced tonearm; rec-sync operation; dense anti-resonance resin-compound chassis \$370

LX-100 Linear-Tracking Turntable

Motorized automatic front-loading linear-tracking turntable with integrated low-mass tonearm. Features dual-speed cueing control; automatic record-size se-



lector; adjustable $\pm 3\%$ pitch control; lighted strobe indicator; tonearm-position indicator; pre-mounted Ortofon LMT-5 phono cartridge. Wow and flutter 0.028% wrms; S/N ratio 75 dB DIN-B \$330

AP-D50U Automatic Single-Play

Front-load $33\frac{1}{2}$ - and 45-rpm FG direct-drive turntable with automatic/manual tonearm; separately powered front-load/unload design; 4-phase 8-pole linear torque direct-drive Hall motor; 2 dc motors; 30-cm aluminum diecast platter; $8\frac{1}{2}$ " statically balanced J-shaped arm with moving-magnet cartridge, stylus cleaner; adjustable pitch control; rec-sync operation with Aiwa tape decks; continuous repeat; 3-size disc selector. Wow and flutter 0.028% wrms; S/N 75 dB (DIN B); cartridge weight range 3.5-8.5 g; $17\frac{1}{2}$ "W \times $14\frac{1}{2}$ "D \times $4\frac{1}{4}$ "H \$325

AP-D60U Automatic Single-Play

Fully automatic linear-motor direct-drive turntable. Features automatic record-size selector; $\pm 6\%$ speed pitch control; low profile ($2\frac{3}{4}$ "H); moving-magnet cartridge included \$240

AP-D35H Semiautomatic Turntable

Semiautomatic belt-driven turntable with ac synchronous motor. Features straight tonearm; front-mounted controls; moving-magnet cartridge included. Wow and flutter 0.04% wrms \$120

AKAI



AP-L95 Linear-Tracking Turntable

Microcomputer-programmable linear-tracking fully automatic turntable with quartz-lock direct drive, RPSS (Random Program Search System), SKIP search system. Features feather-touch controls; fast-forward/fast-reverse tonearm; dc brushless motor. Wow and flutter 0.025%; rumble -75 dB; 17.3 "W \times 16.1 "D \times 4.9 "H \$450

AP-L45 Linear-Tracking Turntable

Linear-tracking, quartz-locked direct-drive fully automatic turntable. Features feather-touch operation; fast-forward/fast-reverse tonearm; dc brushless motor. Wow and flutter 0.025% wrms; rumble -75 dB; 17.3 "W \times 16.1 "D \times 4.9 "H; 24.3 lb \$300

AP-Q41 Automatic Turntable

Quartz-locked direct-drive fully automatic turntable with automatic homing tonearm system. Features low-mass straight tonearm; servo-motor turntable drive; dc-motor tonearm drive; feather-touch controls; electronic inside-force canceller; automatic repeat; automatic speed/disc-size selector; quick tonearm return; electronic platter brake \$250

AP-Q310 Automatic Turntable

Quartz-locked direct-drive fully automatic turntable with low-mass straight tonearm. Features Discolith Coil dc servo motor; automatic repeat 0/1/2/3/4; quick tonearm return; electronic platter brake; non-resonant-compound base \$175

AP-D210 Semiautomatic Turntable

Direct-drive semiautomatic turntable with low-mass straight tonearm. Features fixed headshell; antiskate control; oil-damped cue; detachable dust cover; Discolith Coil dc servo motor; quick tonearm return; nonresonant-compound base; slim design. Wow and flutter DIN/JIS 0.045%/0.03%; rumble 73 dB, DIN-B; speed deviation $\pm 0.5\%$ \$135

AP-B110 Semiautomatic Turntable

Belt-driven semiautomatic turntable with automatic tonearm return. Features 4-pole synchronous motor; straight tonearm with antiskate control; removable headshell; front-panel controls; detachable dust cover; low-resonance-compound base. Wow and flutter 0.05%, JIS; rumble 65 dB, DIN-B \$100

BANG & OLUFSEN

Beogram 8000 Turntable

Tangential-drive $33\frac{1}{2}$ -, 45-rpm turntable with patented light/shutter tangential-tracking tonearm. Features low-mass tonearm, B&O MMC-20CL stereo phono cartridge with patented leaf-spring/pendulum suspension system. Wow and flutter $\pm 0.04\%$ DIN; rumble > 70 dB DIN \$895

Beogram 1700 Turntable

Electronically controlled belt-driven $33\frac{1}{2}$ -, 45-rpm turntable with low-mass tonearm with B&O MMC-20EN phono cartridge. Features one-touch automatic start, 3-point suspension system. Wow and flutter 0.045% DIN; rumble -65 dB \$345

Beogram 3404 Automatic Single-Play

Electronically-controlled $33\frac{1}{2}$ -, 45-rpm belt-drive turntable with low-mass automatic tonearm; servo-controlled dc motor; MMC 20EN phono cartridge with elliptical nude diamond stylus. Features illuminated one-touch automatic start, pause, stop controls; fine speed adjustment; left-side manual controls; automatic antiskate adjust; 3-point pendulum suspension system; dust cover that does not cover controls; rosewood-veneer base. Wow and flutter 0.03%; rumble -65 dB; tracking error 0.126%/cm; $17\frac{1}{2}$ "W \times $14\frac{1}{2}$ "D \times $3\frac{1}{2}$ "H \$495

Beogram 1602 Automatic Single-Play

Automatic servo-controlled belt-drive $33\frac{1}{2}$ -, 45-rpm turntable with straight tonearm, teak and rosewood sides, blond oak top, dust cover. Wow and flutter DIN/wrms $< 0.09\%/< 0.045\%$; rumble > 62 dB weighted, > 42 dB unweighted; speed pitch control range $\pm 3\%$; power consumption 8 W; $17\frac{1}{2}$ "W \times 13 "D \times $3\frac{1}{2}$ "H; 13.2 lb \$240

BENJAMIN ELECTROPRODUCTS

BE-41—Linear-Tracking Turntable

Fully automatic phase-locked-loop-controlled linear-tracking turntable with belt drive. Features photo-optical set-down detection; automatic record-absence detection; bidirectional cueing; photo-optical end-of-record detection with auto stop; dc PLL-controlled motor/tachometer; front-panel control keys; stylus cleaning brush; illuminated strobe; LED speed indicators; adjustable leveling feet; front loading; dynamically balanced linear-tracking interchangeable tonearm/headshell assembly. Rumble > -70 dB (DIN B); wow and flutter 0.02% wrms; tracking error within $\pm 0.05\%$; effective tonearm length $4\frac{1}{4}$ "; $18\frac{1}{4}$ "W \times 16 "D \times $5\frac{1}{4}$ "H; 20 lb \$450

CYBERNET

Kyocera PL-901 Ceramic-Platter Turntable

Belt-drive fully automatic turntable with antistatic, nonmagnetic $11\frac{1}{16}$ " turntable platter. Features adjustable insulation system that isolates transmission of vibration from base to chassis. Requires separate tonearm \$3500

DENON

DP-80 Single-Play

Quartz-PLL direct-drive $33\frac{1}{2}$ - and 45-rpm turntable without tonearm. Features 3-phase out-rotor ac servo-motor; 308-mm double aluminum alloy platter with lower platter mounted to motor shaft, connected to disc platter by spring, damper; quartz-crystal PLL variable/normal speed control with $\pm 6\%$ servo speed control; variable mode and magnetic record detection system. Wow and flutter 0.015% wrms; rumble -77 dB DIN B; 100 V, 50 VA ac output step-down transformer; optional cabinets available; 140 mm H \times 376 mm dia \times 140 mm H \$895
 DK-300. Compressed beechwood cabinet for DP-80, DP-6000 \$400
 DK-110. Compressed beechwood cabinet to fit DP-80, DP-75 \$260

DP-60L Semi-Automatic Single-Play

Quartz-locked direct-drive 33 $\frac{1}{3}$ - and 45-rpm turntable with auto lift/shut off tonearm. Features ac servomotor; one low-mass straight arm, one mid-mass S-shaped arm. Speed accuracy $\pm 0.002\%$; wow and flutter 0.015% wrms; rumble -76 dB DIN B \$585

DP-75 Single-Play

Quartz-locked direct-drive 33 $\frac{1}{3}$ - and 45-rpm turntable without tonearm. Features ac servomotor; double damped platter; quartz-controlled speed; electronic function controls. Wow and flutter 0.015% wrms; rumble -80 dB DIN B; speed accuracy $\pm 0.002\%$ \$550

DP-52F Automatic Single-Play

Automatic single-play turntable with Dynamic Servo Tracer non-contact microprocessor-controlled tonearm. Features automatic record-size, speed selection; quartz ac direct-drive motor with magnetic



speed detection, program scan feature; variable electronic stylus-force, antiskate, resonance damping; wood-veneer cabinet. Wow and flutter <0.01% wrms; S/N ratio 78 dB DIN-B; speed deviation <0.002%; 18.2"W x 17"D x 5.2"H \$525
DP-51F. Same as DP-52F except no program scan; wood-grain veneer finish \$425

DP-33F Automatic Turntable

Direct-drive fully automatic quartz-locked single-play turntable with ac servo motor. Features static-balanced S-shaped tonearm. Speed variation <0.002%; wow and flutter <0.015% wrms; rumble <-78 dB; effective tonearm length 220 mm; tracking range 0.2-5 g; power consumption 15 W; 450 mmW x 446 mmD x 140 mmH \$395

DP-32F Single-Play Turntable

Direct-drive automatic single-play turntable with quartz-locked dc servo system, spring-plate turntable suspension, static-balanced straight tube tonearm. Rumble -78 dB; wow and flutter 0.012% wrms; speed accuracy within 0.002%; 16.7"W x 15"D x 5.1"H; 13.2 lb \$325
DP-31L. Similar to DP-32F except semiautomatic \$225

DP-30L Semiautomatic Single-Play

Direct-drive 33 $\frac{1}{3}$ - and 45-rpm turntable with auto lift/shutoff tonearm. Features ac servomotor; 220-mm static-balanced S-shaped tonearm with touch-control cueing, separate motor; high-density resin-compound base; antivibration feet; brown finish cabinet. Wow and flutter 0.018% wrms \$275
DP-30L II. Same as DP-30L except has straight low-mass tonearm \$275

DP-11F Automatic Single-Play

Fully automatic direct-drive 33 $\frac{1}{3}$ - and 45-rpm turntable with magnetic speed detection, non-contact automatic functions. Features compact cabinet with Flat-Twin motor; low-mass electronically controlled tonearm for resonance damping, warp handling; quartz speed control; repeat function. Wow and flutter <0.02% wrms; S/N ratio 75 dB DIN-B; speed deviation <0.002%; 14.6"W x 13.4"D x 4"H \$200

DUAL

All Dual turntables feature ULM (ultra-low mass) straight-line tubular tonearm. Less than 8 grams total effective mass, with (optional) ULM cartridge. Tonearms dynamically balanced, require no chassis critical leveling. Tracking as low as 0.25 g. Vernier-adjustable counterbalance; tracking force applied

around vertical pivot; antiskate calibrated for all stylus types; 33 $\frac{1}{3}$ and 45 rpm speeds; illuminated strobe, variable-pitch control. Cue control damped in both directions to prevent bounce. All models (except 1258) also feature: 4 acoustic isolators instead of conventional feet to attenuate effects of acoustic feedback, external shock; Dust cover with retracting hinges; tonearms suspended in 4-point gyrosopic gimbal. Dimensions (except 1268, 1258) 17 $\frac{1}{2}$ " x 15 $\frac{1}{16}$ " x 5 $\frac{1}{12}$ ", including cover.

Single-Play, Direct-Drive Turntables

741Q. Fully automatic, featuring hydrodynamic suspension system that floats tonearm; motor, platter as



one unit on 4 accordion-like viscous-damped cylinders; antiresonance filter in counterbalance tunable to mass, compliance of any cartridge; quartz PLL brushless dc motor with Hall-effect feedback control and regulated power supply; heavy cast platter; pitch control with $\pm 6\%$ calibrated LED array. Rumble -80 dB; wow and flutter $\pm 0.015\%$ \$500
728Q. Fully automatic, quartz PLL turntable with antiresonance filter, hydrodynamic system; 11% pitch control. Rumble -78 dB; wow and flutter $\pm 0.025\%$ \$370
708Q. Semiautomatic quartz PLL turntable with antiresonance filter, hydrodynamic system; 11% pitch control; lead-in groove sensor. Rumble -78 dB; wow and flutter $\pm 0.025\%$ \$350
627Q. Fully automatic, quartz PLL turntable with antiresonance filter. Rumble -78 dB; wow and flutter $\pm 0.025\%$ \$260
607. Semiautomatic turntable with antiresonance filter. Rumble -75 dB; wow and flutter $\pm 0.03\%$ \$220

Vario-Belt Drive Models

528. Fully automatic, single play turntable. Rumble -70 dB; wow and flutter $\pm 0.04\%$ \$180
508. Semiautomatic, single play turntable. Rumble -70 dB; wow and flutter $\pm 0.04\%$ \$160

Single Play/Multiple Play

1268. Fully automatic multiple-play turntable with elevator-action changer spindle that holds up to 6 records, interchanges with rotating single play spindle. Rumble -70 dB; wow and flutter $\pm 0.04\%$; 17 $\frac{1}{2}$ " x 15 $\frac{1}{16}$ " x 7 $\frac{1}{4}$ " \$200
1258. Fully automatic, multiple play turntable with elevator-action changer spindle that holds up to 6 records, interchanges with rotating single play spindle; dynamically balanced ULM tonearm; vernier-adjustable counterbalance; tracking force applied around vertical pivot; antiskating calibrated for all stylus types; illuminated strobe; 6% pitch control; cueing damped in both directions. Rumble -68 dB; wow and flutter $\pm 0.05\%$; 16 $\frac{1}{4}$ " x 4 $\frac{1}{2}$ " x 7 $\frac{1}{4}$ " \$150

505-1 Semiautomatic Single Play

Semiautomatic single-play turntable with ULM dynamically balanced tonearm system, low-friction gyrosopic gimbal, Vario-belt drive. Rumble -70 dB; wow and flutter $\pm 0.04\%$ \$130

EPICURE

TD 226 Semiautomatic Turntable

Semiautomatic single-play 33 $\frac{1}{3}$ -, 45-, 78-rpm turntable that can accommodate 2 tonearms. Features end-of-play tonearm lift, return. Features motor-driven cueing for both tonearms; frictionless velocity sensing shutoff system; one auto-lift SME tonearm, one blank tonearm slot; magnetic antiskate system; availability of several tonearm configurations $\pm 6\%$ speed pitch

control. Wow and flutter <0.035%; rumble -72 dB weighted \$1600

TD 155 Mk II Manual Turntable

Manual 33 $\frac{1}{3}$ - and 45-rpm turntable with 16-pole synchronous motor, 9" straight low-mass (7.5-g) tonearm. Features low-friction pivot bearings; counterweight tracking force system; hanging-weight antiskate system. Wow and flutter 0.04%; rumble <70 dB weighted; 17"W x 14 $\frac{1}{4}$ "D x 6"H \$235

FISHER

MT6360 Automatic Single-Play

Remote-control programmable direct-drive 33 $\frac{1}{3}$ - and 45-rpm turntable with automatic tonearm. Features 120-pole linear ac servomotor; J-shaped tubular arm with viscous-damped cueing. Features infrared wireless remote control unit; programmable microcomputer for track selection; disc track sensor/counter; LED digital track display; strobe with speed control. Wow and flutter 0.035% wrms; rumble -70 dB; 17 $\frac{1}{2}$ "W x 14 $\frac{1}{2}$ "D x 6"H \$350

MT M301C Automatic Single-Play

Fully automatic dc servo direct-drive 33 $\frac{1}{3}$ - and 45-rpm turntable with straight Z-balanced tonearm, magnetic stereo cartridge. Features detachable headshell; strobe light; pitch control; motor-controlled cueing; record-jacket size. Wow and flutter 0.04% wrms; rumble -70 dB; speed control range $\pm 3\%$; 45-rpm adapter; 13 $\frac{1}{4}$ "W x 13 $\frac{1}{4}$ "D x 4 $\frac{1}{2}$ "H; 12 lb \$290
MT 300C. Similar to MT 301C except semiautomatic operation \$220

MT6455 Automatic Single-Play

Quartz-lock direct-drive 33 $\frac{1}{3}$ - and 45-rpm turntable with automatic arm. Features 120-pole linear ac servomotor; low-mass straight tonearm with viscous-damped cue, antiskate, stylus over-hang gauge; front-mounted controls; disc size selector; repeat function; strobe with speed control. Wow and flutter 0.035% wrms; rumble -70 dB; 6"H x 17 $\frac{1}{2}$ "W x 14 $\frac{1}{2}$ "D x 6"H \$230
MT6455C. 6455 with cartridge \$250
MT6435. Similar to 6455 except semiautomatic operation with automatic tonearm return/shutoff; 5 $\frac{1}{2}$ "H \$190
MT6435C. 6345 with cartridge \$200
MT6430. Similar to 6435 but minus quartz-lock \$170
MT6430C. 6430 with cartridge \$190

MT650 Automatic Turntable

Fully automatic quartz-locked direct-drive turntable with straight low-mass tonearm. Features direct-drive brushless-dc servo motor; detachable cartridge shell; heavy cast-aluminum platter; viscous-damped cueing mechanism; adjustable calibrated antiskate control; up-front controls. Wow and flutter 0.035% wrms; rumble -70 dB (DIN 45539B); tracking-force range 0.6-3.5 g; speeds 33 $\frac{1}{3}$ and 45 rpm; silver finish; 45-rpm adapter included; power consumption 7 W; 17 $\frac{1}{2}$ "W x 14 $\frac{1}{2}$ "D x 4 $\frac{1}{2}$ "H; 13.2 lb \$200
MT650C. 650 with cartridge \$220

MT640 Automatic Turntable

Fully automatic direct-drive turntable with straight low-mass tonearm. Features direct-drive brushless dc servo motor; pitch control; heavy cast-aluminum platter; viscous-damped cueing mechanism; adjustable calibrated antiskate control; removable cartridge shell. Wow and flutter 0.035% wrms; rumble -70 dB DIN B; speed variation/control range 0.5% $\pm 3\%$; tracking-force range 0.6-3.5 g; tonearm resonance <10 Hz; effective tonearm mass without cartridge 6.5 g; maximum tracking error ± 1.8 "; power consumption 6 W; silver finish; 45-rpm adaptor supplied; 17 $\frac{1}{2}$ "W x 14 $\frac{1}{2}$ "D x 4 $\frac{1}{2}$ "H; 13 lb \$180
MT640C. 640 with cartridge \$200

MT 125C Semiautomatic Single-Play

Semiautomatic 33 $\frac{1}{3}$ - and 45-rpm turntable with straight low-mass tonearm, magnetic stereo cartridge. Features dc servo direct drive; pitch control; front-panel operation; detachable headshell; antiskate control. Wow and flutter 0.035% wrms; rumble -68

4

TURNTABLES



dB; pitch control range $\pm 3\%$; 45-rpm adapter; power consumption 4 W; $15\frac{1}{4}''\text{W} \times 13\frac{3}{4}''\text{D} \times 4\frac{1}{4}''\text{H}$; 9 lb.....\$150

MT 101 Semiautomatic Single-Play

Belt-drive semiautomatic $33\frac{1}{3}$ - and 45-rpm turntable with straight low-mass tonearm, magnetic stereo cartridge. Features FG dc servo motor; detachable headshell; front-panel operation; viscous-damped cueing; stroboscope; pitch control. Wow and flutter 0.04% wrms; rumble -68 dB; 45-rpm adapter; power consumption 2 W; $15\frac{1}{4}''\text{W} \times 13\frac{3}{4}''\text{D} \times 4\frac{1}{4}''\text{H}$; 8 lb.....\$150
MT 100C. Similar to MT 101C except no pitch control, stroboscope.....\$120

MT6420 Semiautomatic Turntable

Semiautomatic direct-drive turntable with precision low-mass straight tonearm. Features direct-drive dc servo motor; detachable cartridge shell; strobe, $33\frac{1}{3}$ - and 45-rpm speed-adjust controls; viscous-damped cueing mechanism; auto tonearm return/shut-off. Wow and flutter 0.035% wrms; rumble -68 dB DIN B; speed variation/adjustment range $\pm 0.5\%/\pm 3\%$; tracking-force range 0.6-3.5 g; tonearm resonance < 10 Hz; effective tonearm mass without cartridge 6.5 g; max tracking error $\pm 1.8^\circ$; power consumption 6 W; silver finish; supplied with 45-rpm adaptor; $17\frac{1}{2}''\text{W} \times 14\frac{1}{2}''\text{D} \times 5\frac{1}{2}''\text{H}$; 12 lb.....\$150
MT6420C. 6420 with cartridge.....\$180
MT6410. Similar to 6420 except belt drive; wow and flutter 0.04% wrms; rumble -68 dB DIN B; maximum tracking error $\pm 2.0^\circ$; power consumption 4 W; 10.2 lb.....\$120
MT6410C. 6410 with cartridge.....\$150

GARRARD U.S.A.

Direct-Drive Series

D-35 Fully Automatic Turntable

Fully automatic direct-drive turntable with quartz-lock-controlled slotless, coreless dc servo motor. Features auto repeat; variable pitch control; illuminated strobe; 9.9-g ultra-low mass tonearm; single-plane-pivot system (SPPS); reduced tonearm pivot height; detachable headshell/tonearm-tube assembly; adjustable vertical tracking angle headshell; mineral-filled plastic-resin base; reduced-overhang dust cover; front-mounted feather-touch controls, including cue; low-silhouette design; deluxe platter mat; simplified automatic mechanism. Wow and flutter 0.025% wrms; rumble -75 dB DIN B; $17\frac{1}{4}''\text{W} \times 14\frac{1}{4}''\text{D} \times 5''\text{H}$\$260
D-30. Similar to D-35 except semiautomatic; fixed quartz lock; standard detachable headshell; no adjustable vertical tracking angle.....\$210
D-20. Similar to D-30 except no quartz lock, no variable-pitch control, no strobe.....\$180

Belt-Drive Series

B-35 Fully Automatic Turntable

Fully automatic belt-drive turntable with T.G., dc servo motor, auto repeat. Features variable pitch control; illuminated strobe; 9.5-g ultra-low mass tonearm; sin-

gle-plane-pivot system (SPPS); reduced tonearm-pivot height; detachable tonearm/headshell assembly; headshell vertical tracking angle adjustable; mineral-filled plastic-resin base; reduced-overhang dust cover; front-mounted feather-touch controls, including cue; low-silhouette design; deluxe platter mat; simplified automatic mechanism. Wow and flutter 0.045% wrms; rumble -70 dB DIN B; $17\frac{1}{4}''\text{W} \times 14\frac{1}{4}''\text{D} \times 5''\text{H}$\$195
B-30. Similar to B-35 except semiautomatic operation, detachable headshell, no adjustable vertical tracking angle.....\$165
B-20. Similar to B-30 except has ac synchronous motor, no pitch control.....\$130

GEM by SUMIKO

GEM Turntable

Belt-drive turntable integrated with Grace 707 II tonearm. Features 4-point suspension combined with mass loading for dynamic stability; inverted sapphire thrust bearing; platter mass concentration, belt contact at rim for best flywheel effect; low-resonance platter mat; vibration isolation.....\$725
 With Grace 747 tonearm with detachable headshell.....\$800

HARMAN/KARDON

T60 Semiautomatic Single-Play

Belt-drive $33\frac{1}{3}$ - and 45-rpm semiautomatic turntable with auto-lift tonearm. Features 3.3-lb platter; 3-point floating suspension with counterweighted subchassis; quartz-lock (defeatable) high-torque dc servo motor; $\pm 3\%$ speed pitch control; removable ultra-low-capacitance cables with gold-plated plugs; highly absorbent platter mat; disc stabilizer. Wow and flutter 0.035% wrms; rumble -67 dB DIN B; effective tonearm mass without cartridge 8 g; capacitance trim 100, 200, 300 pF.....\$400
T40. Similar to T60 except has 2.2-lb platter, speed-lock (defeatable) FG servo motor; no removable cables but gold-plated plugs. Wow and flutter 0.04% wrms; rumble -65 dB; capacitance trim 160, 250, 350 pF.....\$280
T20. Similar to T40 except nondefeatable FG servo motor, 1.1-lb platter. Wow and flutter 0.045% wrms.....\$200

HITACHI

HT-L70 Linear-Tracking Turntable

Fully automatic microcomputer-controlled linear-tracking $33\frac{1}{3}$ - and 45-rpm turntable with quartz lock PLL servo, Unitorque direct drive, digitally controlled track selection. Features low-mass dynamically balanced linear-tracking tonearm; specially developed MM phono cartridge; compact styling; muting switch; independent dc tonearm motor; timer start capability. Wow and flutter 0.025% wrms; S/N ratio 78 dB DIN B; speed accuracy 0.003%; tracking error $\pm 0.1^\circ$; tracking-force range 0-2 g; acceptable cartridge weight 6 g; MT-70 cartridge output 2.5 mV at 5



cm/sec, 1 kHz; frequency range 10-25,000 Hz; $12\frac{1}{2}''\text{W} \times 12\frac{1}{2}''\text{D} \times 3\frac{3}{4}''\text{H}$\$370

HT-68 Automatic Single-Play

Fully automatic direct-drive quartz-locked $33\frac{1}{3}$ - and 45-rpm turntable with Unitorque motor, straight tonearm. Features hi-tech damping; automatic size/

speed selector; feather-touch IC logic control; front-panel operation; HARC (Hitachi Anti-Resonance Compound) base material; antifeedback insulator feet; plug-in dual-magnet phono cartridge. Wow and flutter 0.025% wrms; S/N ratio 78 dB DIN B; speed accuracy 0.003%; tracking error $\pm 2^\circ$; cartridge weight range; MT-35 cartridge output 2.5 mV at 5 cm/sec, 1 kHz; $17\frac{1}{4}''\text{W} \times 14\frac{1}{4}''\text{D} \times 4\frac{1}{4}''\text{H}$; 13 lb 3 oz \$260
HT-67. Similar to HT-68 except no auto size/speed selector, no cartridge.....\$200
HT-51. Similar to HT-67 except semiautomatic design; has no IC logic control; 12 lb 2 oz.....\$170
HT-45. Similar to HT-51 except has no quartz lock, no high-tech damping; has MT-35 phono cartridge; $\pm 3\%/4\%$ $33\frac{1}{3}/45$ rpm speed-adjust control. Weight 11 lb.....\$140

HT-21 Semiautomatic Single-Play

Belt-drive semiautomatic $33\frac{1}{3}$ - and 45-rpm turntable with straight low-mass tonearm, dual-magnet MT-35 phono cartridge. Features viscous-damped cueing; dc servo motor; plug-in headshell; 45-rpm adaptor. Wow and flutter 0.05% wrms; S/N ratio 70 dB; tracking error $\pm 2^\circ$; cartridge weight range 4-9 g; cartridge output 2.5 mV at 5 cm/sec, 1 kHz; $17\frac{1}{8}''\text{W} \times 14\frac{1}{8}''\text{D} \times 4\frac{1}{8}''\text{H}$; 8 lb 13 oz.....\$100

JVC

QL-Y7 Automatic Single-Play

Fully automatic quartz turntable with electro dynamic tonearm. Features cog-free coreless dc servo motor; electronic Q-damping control; tracking-force, antiskate controls; computerized tonearm operation. Wow and flutter < 0.01% wrms; S/N ratio > 78 dB DIN B.....\$750

QL-Y5F Automatic Single-Play

Computer-controlled double-servo quartz direct-drive $33\frac{1}{3}$ - and 45-rpm turntable with auto/manual tonearm. Features coreless dc servomotor; 310-mm aluminum diecast platter; 245-mm dynamically-balanced electronic servo-controlled J-shaped arm with 2 motors for horizontal, vertical movements. Features electronically-controlled tonearm set down/return, cueing, Q-damping, antiskate, tracing force; soft-touch up/down, left/right manual-operation button controls; repeat button; arm height adjuster; LED quartz lock indicator for speed and disc size. Wow and flutter 0.025% wrms; S/N ratio 78 dB DIN B; tracking force range 0-3 g in 0.25-g steps; cartridge weight range 14.5-24 g (includes headshell); polished rosewood veneer base with hinged dustcover; $18\frac{1}{2}''\text{W} \times 17\frac{1}{8}''\text{D} \times 6\frac{1}{8}''\text{H}$\$450
QL-Y3F. Similar to QL-Y5F minus manual arm controls; arm is statically-balanced with single motor for horizontal movement.....\$360

L-E5 Automatic Single-Play

Fully automatic single-play linear-tracking turntable with short low-mass tonearm. Features linear tracking with no-contact optical sensor to keep tonearm 90° tangential to record groove.....\$350

L-F71 Automatic Single-Play

Fully automatic turntable with straight low-mass Music Scan tonearm for random cueing, magnetic cartridge. Features remote controllability; E-D Servo for horizontal tonearm movement; cog-free dc coreless servo motor; front-panel controls. Wow and flutter < 0.03% wrms; S/N ratio > 75 dB DIN B....\$350

LE-3 Automatic Single-Play

Linear-tracking fully automatic turntable with low-mass tonearm, integrated cartridge. Features automatic disc-size selector; coreless dc FG servo motor; pitch control. Wow and flutter < 0.03% wrms; S/N ratio > 75 dB DIN B.....\$290

QL-F61 Quartz-Locked Turntable

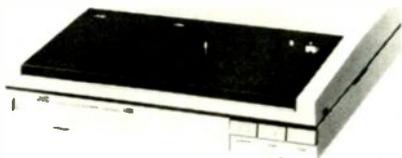
Quartz-locked direct-drive turntable with low-mass straight tonearm, double-servo control, cog-free coreless dc servo motor. Features fully automatic operation; 6% speed pitch control; auto repeat. Wow and flutter 0.025% wrms; S/N ratio > 75 dB DIN B.....\$240

QL-A51 Semiautomatic Single-Play

Quartz-locked direct-drive semiautomatic turntable with straight low-mass tonearm. Features auto return/shut-off of tonearm/player; repeat function. Wow and flutter 0.025% wrms; S/N ratio > 75 dB DIN B \$220

L-E600 Automatic Single-Play

Linear-tracking fully automatic single-play turntable with low-mass cartridge, belt drive, dc FG servo mo-



tor. Wow and flutter < 0.06% wrms; S/N ratio > 60 dB DIN B \$200

L-F41 Automatic Single-Play

Fully automatic direct-drive turntable with straight low-mass tonearm. Features cog-free coreless dc servo motor; speed pitch controls. Wow and flutter less than 0.03% wrms \$170
L-A31. Semiautomatic version of L-F41; includes cueing and auto return/shut-off \$150

LA-10 Semiautomatic Single-Play

Semiautomatic belt-drive turntable with low-mass straight tonearm. Features precision synchronous motor; up-front controls. Wow and flutter 0.045% wrms; S/N ratio > 66 dB DIN B \$105

KENWOOD

L-07D Direct-Drive Single-Play

Quartz PLL logic-controlled direct drive turntable with aluminum-carbon-boron laminated tonearm. Features high-rigidity triple layer base; low-resonance triple layer platter; isolated power supply \$2500

KD-9XG Linear-Tracking Turntable

Quartz PLL direct-drive turntable with linear-tracking, low-resonance tonearm, integrated photo-sensor cartridge. Features direct music search of up to 9 tracks; computerized fully automatic repeat, cut, disc-size selection; 10-pole 6-coil slotless, coreless uni-torque dc servo motor \$450

P-9 Linear-Tracking Turntable

Linear-tracking turntable with fully automatic tracking system (automatic lead-in/cut/return/repeat). Features automatic size, speed selector system; cueing device; synchro stop/start \$329

KD-7X Automatic Single-Play

Quartz PLL direct-drive fully automatic turntable with rigid low-mass, low-resonance straight tonearm \$220

KD-55F Automatic Single-Play

Quartz PLL direct-drive fully automatic turntable with low-mass straight tonearm. Wow and flutter 0.025% wrms; rumble > -75 dB \$199
KD-44R. Similar to KD-55F except no PLL; has antiskate, cue controls. Wow and flutter 0.03% wrms \$165

P-7 Automatic Single-Play

Fully automatic turntable features automatic lead-in/return/cut/repeat tonearm; oil-damped cueing device; antiskate control \$165

KD-22R Semiautomatic Single-Play

Semiautomatic turntable with low-mass straight tonearm. Features belt drive; antiskate, cue controls \$129

KM LABORATORIES

Transcriptor Turntable

Belt-drive 33 $\frac{1}{3}$ - and 45-rpm turntable without tonearm. Features 24-pole synchronous motor suspended in neoprene housing; 305-mm nonmagnetic forged aluminum platter; neoprene 4-point suspen-

sion system with integral height adjustment. Wow and flutter 0.08% weighted; rumble -70 dB weighted; includes hinged dustcover; 450 mmW x 365 mmD x 155 mmH \$339

LINN SONDEK by AUDIOPHILE SYSTEMS

LP12 Manual Single-Play

Belt-drive 33 $\frac{1}{3}$ rpm turntable with manual tonearm. Features 24-pole synchronous motor, 12" zinc-aluminum alloy diecast platter with felt mat, single-point oil-bath bearing, hardened tool steel spindle; adjustable 3-point spring-suspension subchassis; heavy gauge stainless-steel base plate; solid hardwood base. Wow and flutter 0.04% wrms; rumble -60 dB unweighted; speed accuracy $\pm 0.04\%$; optional 45-rpm adaptor available; 17 $\frac{1}{2}$ "W x 14"D x 5 $\frac{1}{2}$ "H \$995

LUXMAN

PD-555 Single-Player

Belt-drive 33 $\frac{1}{3}$ -, 45-, 78-rpm vacuum-stabilized turntable with provision for use of 2 tonearms simultaneously (arms not included). Features brushless slotless dc servomotor; built-in vacuum pump (exhausts air through platter which results in keeping discs as close to platter as possible) with vacuum meter, separate stabilizer unit; aluminum diecast platter; quartz-lock stroboscope; $\pm 2.5\%$ speed pitch control; feather-touch top-mounted operations switches. Wow and flutter 0.03% wrms; rumble -72 dB; solid diecast aluminum high-inertia cabinet \$2900

PD-300 Turntable

Belt-drive Disc Stabilizer System 33 $\frac{1}{3}$ - and 45-rpm turntable without tonearm. Features stroboscope; double insulation system with horizontal balance adjust facility; $\pm 3\%$ speed pitch control; high-inertia platter. Wow and flutter 0.03% wrms; S/N ratio 72 dB DIN B; 19.6"W x 15.6"D x 8"H; 39.6 lb \$1000

PD-375 Stabilizer Turntable

Quartz-lock dc-servo fully automatic vacuum disc stabilizer turntable that bonds record to heavy diecast aluminum platter. Features vacuum-pump system; integrated platter spindle receptacle, low-mass straight tonearm isolated from base. Wow and flutter 0.03%; S/N ratio > 60 dB; 19.3"W x 15.4"D x 7.9"H; 25 lb \$600

PX-101 Linear-Tracking Turntable

Fully automatic tangential tracking 33 $\frac{1}{3}$ - and 45-rpm turntable with optical sensing. Features direct drive; stroboscope; $\pm 3\%$ speed pitch control; up-front controls. Wow and flutter 0.045% wrms; S/N ratio 70 dB DIN B; 17.6"W x 16.2"D x 4.6"H; 16.3 lb. \$400

PD-289 Automatic Single-Play

Fully automatic direct-drive 33 $\frac{1}{3}$ - and 45-rpm turntable with straight low-mass tonearm. Features optical sensing; dual-motor system; stroboscope; $\pm 3\%$ speed pitch control. Wow and flutter 0.025% wrms; S/N ratio 70 dB DIN B; 17.5"W x 14.6"D x 6.4"H; 7.5 lb 400

PD-284 Semiautomatic Single-Play

Semiautomatic direct-drive 33 $\frac{1}{3}$ - and 45-rpm turntable with straight low-mass tonearm. Features $\pm 3\%$ speed pitch control; stroboscope. Wow and flutter 0.035% wrms; S/N ratio 70 dB DIN B; 17.5"W x 14"D x 5.1"H; 12 lb \$230

MARANTZ

TT 6200 Automatic Single-Play

Automatic single-play turntable with PLL/quartz-locked direct-drive system, automatic tonearm. Features repeat function; viscous-damped cueing system; front-panel control; stroboscope; speed pitch controls; platter and tonearm on subchassis suspension system; straight low-mass tonearm; die-cast-aluminum platters; removable hinged dust cover; gold-plated output plugs, headshell terminals. Wow and flutter 0.03%; rumble 74 dB DIN B; speeds 33 $\frac{1}{3}$ and 45 rpm; speed pitch control range $\pm 3\%$; 16 $\frac{1}{4}$ "W x 14 $\frac{1}{2}$ "D x 5 $\frac{1}{4}$ "H; 11.5 lb \$250

TT 4200 Automatic Single-Play

Automatic quartz-locked direct-drive turntable with dc servo motor. Features repeat function; strobe; speed pitch control; damped shock-absorbent feet. Wow and flutter 0.04%; rumble 72 dB DIN B; speed pitch control range $\pm 3\%$; 16 $\frac{1}{4}$ "W x 14 $\frac{1}{2}$ "D x 5 $\frac{1}{4}$ "H; 11.5 lb \$220

TT 2200 Semiautomatic Single-Play

Semiautomatic turntable with dc servo motor direct-drive platter system, tonearm. Features automatic tonearm return; strobe; speed pitch control. Wow and flutter 0.04%; rumble 70 dB DIN B; speed pitch control range $\pm 3\%$; dimensions and weight same as TT 6200 \$190

TT 120C Semiautomatic Single-Play

Semiautomatic belt-driven turntable with ac synchronous motor; tonearm; damped cueing mechanism. Wow and flutter 0.06%; rumble 68 dB DIN B; power consumption 10 W; 16 $\frac{1}{4}$ "W x 14 $\frac{1}{2}$ "D x 5"H; 10.9 lb \$135

MERIDIAN

DM101 Transcription Turntable

Transcription turntable without tonearm. Features 33 $\frac{1}{3}$ - and 45-rpm speeds. Adaptor plates available for most tonearms \$795
Logic Tonearm. \$225

MICRO SEIKI

RX 5000 Turntable

Aramid-fiber-belt-drive turntable with remote motor unit. Features 35-lb copper platter; oil-bath bearing system; resonance-absorbing metal base; adjustable height via brass feet; accommodates up to 4 tonearms simultaneously. Wow and flutter 0%; rumble -90 dB; 135 lb \$4000

BL-101 Manual Turntable

Belt-driven armless manual turntable. Features brushless servo-controlled motor; multilaminar natural-wood base; oil-bath bearing system; anti-feedback feet; brass tonearm mounting plate. Wow and flutter 0.02%; die-cast aluminum platter weight 8 lb; pitch control range $\pm 6\%$; 26 lb \$799

BL-51 Turntable

Belt-drive armless turntable. Features solid-wood base with ebony finish; oil-bath bearing system; anti-feedback feet; 5-lb die-cast aluminum platter; dc servo-controlled motor. Speed variable $\pm 3\%$. \$499

MB38 Fully Automatic Turntable

Belt-drive fully automatic turntable with repeat func-

NOTICE TO READERS

Prices of items described are suggested prices only and are subject to change without notice. Actual selling prices are determined by the dealer.

tion. Features separate motors for platter, tonearm; low-mass straight tonearm; exclusive Micro Seiki oil-ball bearing system; pitch control, strobe; ebony finish; FG servo motor. Wow and flutter 0.025%; rumble -72 dB; 16.5 lb \$469

MB18 Semiautomatic Turntable

Belt-drive semiautomatic turntable with low-mass tonearm, carbon-fiber headshell. Features FG servo motor; damped cue control; pitch control, strobe. Wow and flutter 0.025%; rumble -72 dB; control range $\pm 3.5\%$; 15.4 lb \$279

MB14ST Semiautomatic Turntable

Belt-drive semiautomatic turntable with dual-construction straight tonearm. Features precision synchronous motor; precision cast platter; molded rubber feet; damped cue control; ebony finish. Wow and flutter 0.05%; rumble -65 dB; 13.2 lb \$209

MB12ST Semiautomatic Turntable

Belt-drive turntable with low-mass straight tonearm. Features carbon-fiber headshell; decoupled counterweight; spring-mounted rubber antifeedback feet; damped cue control; 4-pole synchronous motor. Wow and flutter 0.055%; rumble -62 dB \$149

MISSION ELECTRONICS

775 SM Manual Turntable

Manual 33 $\frac{1}{2}$ - and 45-rpm belt-drive turntable with 24-pole synchronous motor. Features diecast aluminum platter with lead-lined circumference, medium-density fiberboard base with lead infill to minimize resonances, eradicate mechanical hum; sorbothane gasket motor isolation; sorbothane feet for turntable isolation; universal baseplate that accepts wide range of tonearms. Wow and flutter 0.5% DIN; rumble -80 dB DIN B weighted; speed accuracy and variation 0.1% \$997

MITSUBISHI

LT-30 Automatic Single-Play

Linear-tracking 33 $\frac{1}{2}$ - and 45-rpm PLL quartz crystal direct-drive turntable with automatic tonearm. Features slotless brushless servomotor, separate dc motors for arm/automatic operations; 12 $\frac{1}{4}$ " aluminum diecast platter with 14-oz SBR mat; 6 $\frac{1}{4}$ " statically-balanced linear-tracking straight stainless-steel tonearm with ultralightweight magnesium diecast shell, chuck-type headshell mount; LSI electronic push-button controls for stop, start, lift/cue, repeat, speed selector, platter on/off with LED indicators; auto disc size detector through photo-optical sensors; LED tracking error, arm movement indicators; ± 3 -mm arm height adjustment; counterweight with antiresonance filter. Wow and flutter 0.025% wrms; S/N ratio 78 dB DIN B; tracking force range 0-3 g; cartridge weight range 4-10 g with 6-g headshell, to 20 g with subweight; includes height-adjustable feet, detachable dustcover; 19 $\frac{1}{8}$ " \times 16 $\frac{1}{4}$ " \times 5 $\frac{1}{4}$ " \times H \$690

LT-5V Automatic Single-Play

Vertical-linear-tracking 33 $\frac{1}{2}$ - and 45-rpm PLL dc servo motor belt-drive turntable with automatic tonearm. Features dc motors for servo, arm drive, automatic functions; 12" aluminum diecast platter; 7 $\frac{1}{4}$ " statically-balanced linear-tracking straight stainless-steel arm with GFRP headshell. Features LSI electronic pushbutton controls (accessible with dustcover down) for stop, start, lift/cue, repeat, speed with photoelectric sensors detecting presence, size of disc; LED arm movement, tracking error indicators; stylus tracking force dial; spring-loaded record clamp, stabilizer, integrated arm position scale for vertical format; stroboscopic speed indication. Wow and flutter 0.045% wrms; S/N 76 dB DIN B; cartridge weight range 10-20 g; metallic-finish particleboard cabinet with detachable polystyrol dustcover and acoustic insulator feet; 17" \times 18 $\frac{1}{2}$ " \times 7 $\frac{1}{4}$ " \times D \$400

LT-20 Automatic Single Play

Linear-tracking PLL quartz crystal direct-drive 33 $\frac{1}{2}$ - and 45-rpm turntable with automatic tonearm. Features precision dc servo motor; 12" diecast aluminum platter; 6 $\frac{1}{4}$ " effective length straight, static balance tonearm; auto lead-in/auto return; free-access lead-in; auto repeat; free travel, quick response, stylus protection; speed selector switch; start, stop, lift/cue, repeat controls; light and rigid GFRP headshell for cartridges up to 18 grams. Wow and flutter 0.025% wrms; S/N 75 dB DIN B; effective tonearm mass 13.9 g without cartridge; overhang 0 mm; offset angle 0°; tracking angle error maximum 0.1°; 16 $\frac{1}{4}$ " \times 16 $\frac{1}{4}$ " \times 5 $\frac{1}{2}$ " \times H \$350

DP-EC8 Automatic Single Play

Electronically controlled fully automatic direct-drive 33 $\frac{1}{2}$ - and 45-rpm turntable with PLL quartz-controlled dc servo motor. Features 12" die-cast aluminum platter; balanced 8 $\frac{1}{2}$ " straight tonearm; photoelectric speed sensors; full stylus protection; push-button speed, repeat, start, stop, lift, cue controls; acoustic filter feet. Wow and flutter 0.025% wrms; S/N 75 dB DIN B; overhang 14 mm; offset angle 22°; tracking error angle $+3^\circ-1^\circ$; GFRP headshell 3.7 g; cartridge weight range 8.7-12.7 g with headshell; 16 $\frac{1}{4}$ " \times 14 $\frac{1}{4}$ " \times 5 $\frac{1}{4}$ " \times H \$300

DP-6 Semiautomatic Single Play

Direct-drive quartz-controlled semiautomatic 33 $\frac{1}{2}$ - and 45-rpm turntable with dc servomotor, straight statically balanced 8 $\frac{1}{2}$ " tonearm, 12" aluminum diecast platter. Wow and flutter 0.03% wrms; S/N ratio 70 dB; overhang 11 mm; offset angle 23°; tracking error $+3^\circ-1^\circ$; 3 g ABS headshell; cartridge weight range 7-11 g with headshell; 16 $\frac{1}{4}$ " \times 14 $\frac{1}{4}$ " \times 5 $\frac{1}{4}$ " \times H \$220

NAD (USA)

5025 Semiautomatic Single-Play

Belt-drive semiautomatic 33 $\frac{1}{2}$ - and 45-rpm turntable with tonearm. Features dense soft-rubber vibration-absorbing platter mat; nonresonant base; large pivoted feet; low effective-mass rigid low-resonant straight aluminum tonearm with molded fiberglass headshell. Wow and flutter 0.06% wrms; rumble -65 dB DIN B; effective tonearm mass 9.5 g; lateral tracking error $<0.15^\circ$; 16.5" \times 14.8" \times 5" \times H; 12.2 lb \$148

NIKKO

NP-800 Direct-Drive Turntable

Quartz-crystal-controlled direct-drive 33 $\frac{1}{2}$ - and 45-rpm turntable with tonearm. Features dc servo motor; straight low-mass tonearm; front-panel controls; direct-reading tracking-force gauge; calibrated antiskate control; viscous-damped cueing system; $\pm 4\%$ speed pitch control; illuminated strobe; hinged dust cover; matte-black base finish; 16.5" \times 15" \times 5.2" \times H \$200

NP-500 Belt-Drive Turntable

Belt-drive turntable with tonearm. Features 4-pole synchronous motor; straight low-mass tonearm; direct-reading tracking-force gauge; calibrated antiskating control; viscous-damped cueing; dust cover; matte-black base finish. Size 16.5" \times 15" \times 5" \times H \$120

ONKYO

CP-1280F Automatic Single-Play

PLL quartz-locked direct-drive 33 $\frac{1}{2}$ - and 45-rpm turntable with automatic tonearm. Features 20-pole 30-slot brushless dc motor, separate arm motor; 13" platter with thick antistatic neoprene mat; 9 $\frac{1}{4}$ " low-mass statically-balanced carbon-fiber straight angular-ply tubular tonearm with detachable ADC-type carbon-fiber headshell, antiskating, direct-reading tracking force adjustment, manual arm lifter; $\pm 5.9\%$ quartz-locked variable pitch control with LED indicator; disc size selector; auto repeat. Wow and flutter 0.025% wrms; rumble -78 dB DIN B; cartridge weight range 4-8.5 g; rosewood veneer base with coil-spring, rubber-damped feet plus 3-mm butyl rubber shock absorbers \$450

CP-1260F. Similar to CP-1280F except has $\pm 6\%$ pitch control; rumble -75 dB; cartridge weight range 4-11 g \$360

CP-1150F Automatic Single-Play

PLL quartz-locked direct-drive 33 $\frac{1}{2}$ - and 45-rpm turntable with automatic tonearm. Features servo, arm motors; low-mass angular-ply carbon-fiber straight tonearm with detachable ADC-type headshell; acrylic turntable mat. Features microcomputer-controlled arm functions with automatic scan (arm scans next selection to be played in either direction), optical sensing for auto shutoff at end of play; quartz PLL speed control with illuminated strobe; disc size selector; auto repeat; optional RC-6 remote control unit available. Wow and flutter 0.025% wrms; rumble -75 dB DIN B; isolated polymer base with triple insulated feet \$330

CP-1130F. Similar to CP-1150F minus quartz PLL servo system, carbon-fiber arm; has variable pitch, black anodized aluminum straight arm; rumble -72 dB (DIN B) \$250

CP-1028R Automatic Single-Play

Fully automatic direct-drive 33 $\frac{1}{2}$ - and 45-rpm turntable with programmable search, tonearm. Features programmability to randomly play up to 8 selections; infrared opto-sensing phono cartridge with user-replaceable stylus; 2 motors; soft-touch front-mounted controls; fluorescent microprocessor display; variable speed with LED indicator; detachable headshell; triple-insulated feet. Wow and flutter 0.025% wrms; rumble -72 dB DIN B \$260

CP-1027F Automatic Single Play

Direct drive automatic turntable with microcomputer controlled tonearm functions, soft-touch front-mounted controls. Features 2 motors; optical shutoff sensor; low-mass straight-line tonearm with detachable carbon-fiber headshell; high-density polymer chassis, insulated feet. Wow and flutter 0.028% wrms; rumble -72 dB DIN B \$190

CP-1017A Semiautomatic Single-Play

Direct-drive semiautomatic 33 $\frac{1}{2}$ - and 45-rpm turntable with low-mass straight static-balanced tonearm. Features dc servo motor; detachable carbon-fiber headshell; counterbalance with direct readout; variable pitch with LED indicator; triple-insulated feet; front cue control; high-density polymer cabinet. Wow and flutter 0.028% wrms; rumble -72 dB DIN B \$160

CP-1000A Semiautomatic Single-Play

Belt-driven semiautomatic turntable with straight-line low-mass tonearm with detachable headshell. Features adjustable antiskate; front-mounted controls; Wow and flutter 0.08% wrms; rumble 62 dB DIN B \$125

OPTONICA

RP-114VL Upright Linear-Tracking Turntable

Microprocessor-controlled upright linear-tracking 33 $\frac{1}{2}$ - and 45-rpm turntable that plays both sides of record without turning over. Features automatic program search system (APSS); twin linear-tracking tonearms; soft-function controls; automatic record size/speed selection; dc motor; belt drive. Wow and flutter 0.06% wrms; rumble -65 dB; cartridge output 2.5 mV; frequency range 20-20,000 Hz; separation 20 dB; load impedance 47k ohms; stylus pressure 2.5 g; power consumption 12 W; 14 $\frac{1}{4}$ " \times 14 $\frac{1}{4}$ " \times 6 $\frac{1}{4}$ " \times H \$300

RP-3300 Semiautomatic Single Play

Direct-drive turntable featuring stroboscope with variable pitch control; straight low-mass tonearm; antiskating control; front-panel control design; mounted cartridge \$170

JC PENNEY

MCS 6730 Linear-Tracking Turntable

Microprocessor/optoelectronic-controlled 33 $\frac{1}{2}$ - and 45-rpm linear-tracking turntable. Features dynamically balanced linear-tracking tonearm; Technica EPC-P23 phono cartridge; automatic record-size selector;

auto cue/mute control; automatic search forward/backward; auto repeat; front-panel control center; 45-rpm adaptor. Wow and flutter 0.035% wrms; rumble -78 dB DIN B; 16.9"W x 13"D x 3.5"H... \$280

MCS 6720 Quartz Lock Turntable

Direct-drive 33 1/2- and 45-rpm turntable with brushless dc motor, quartz phase lock speed control, single-play/fully-automatic operation. Features strobe; S-shaped tubular arm 9.06". Wow and flutter 0.02% wrms; rumble -78 dB; front-mounted controls; damped cue/pause; antiskate; adjustable stylus tracking force; universal cartridge head; removable dust cover; 16 1/4"W x 14 1/2"D x 5 1/4"H.... \$240

MCS 6710 Semiautomatic Single/Multi-Play

Direct-drive 33 1/2- and 45-rpm turntable with tonearm. Features dc servomotor; 12" aluminum diecast recessed platter with strobe; ±6% pitch control; S-shaped tubular arm with damped cue/pause. Features single/multi-play capability (up to 6 records); manual size selector for 7" and 12" discs; 6-program selector; repeat; electronic speed change. Wow and flutter 0.05% wrms JIS; rumble -65 dB (IEC A weighted); tracking force range 0-3 g; includes manual, umbrella spindles, 45-rpm adaptor, removable tinted plastic dustcover; 6 1/2"H x 16 1/8"W x 14"D x 6 1/2"H..... \$180

MCS 6502 Semiautomatic Single-Play

Belt-drive dc servo-controlled 33 1/2- and 45-rpm turntable with auto return/stop tonearm. Features 0.16% speed deviation; fine speed control; strobe; 8 1/2" S-shaped tubular tonearm with antiskate, cue/pause controls; wow and flutter 0.05% wrms JIS; rumble -65 dB DIN B; tracking error 3.5%; includes dust cover; woodgrain vinyl cabinet; 16 3/4"W x 13 3/4"D x 5 1/8"H..... \$140

PHASE LINEAR

8000 A Automatic Single-Play

PLL quartz-locked direct-drive 33 1/2- and 45-rpm turntable with manual/automatic tonearm. Features PLL Hall-effect motor; 12.2" aluminum die-cast platter; 7.5" linear-motor tangential-tracking statically-balanced straight tonearm; 3-diameter disc size selector; automatic repeat. Wow and flutter 0.013% wrms; rumble -78 dB DIN B; cartridge weight range 4-14.5 g; 19.4"W x 17.5"D x 6"H..... \$650

PIONEER

PL-L800 Automatic Single Play

Fully automatic quartz-PLL direct-drive tangential-tracking 33 1/2- and 45-rpm turntable. Features coreless dc-servo Stable Hanging Rotor™ Hall motor; direct-induction linear-motor-drive static-balanced tangential-tracking low-mass Polymer Graphite™ straight-pipe tonearm; PC-4MC moving-coil (MC) cartridge; metal-like resin cabinet; dust cover. Wow and flutter 0.025% wrms; S/N ratio 78 dB DIN B; usable cartridge weight 3-8 g; 16 1/8"W x 16 1/8"D x 4 1/4"H; 18 lb 5 oz..... \$450

PL-88F Automatic Single Play

Computerized front-loading 33 1/2- and 4-rpm automatic turntable with static-balanced low-mass straight tonearm, PC-41MC moving-coil cartridge with 0.3 x 0.7-mil elliptical diamond stylus. Features quartz-PLL



direct-drive Stable Hanging Rotor™ motor; index scan; repeat, program-search functions; double-eye sensor for accurate landing; deck synchro capability. Cartridge output 1.5 mV; 16 1/2"W x 13 1/4"D x 3 3/8"H..... \$400
PL-44F. Similar to PL-88F except no computerization,

quartz-PLL control, index scan, program search; has PC-3MC moving-coil cartridge (2.5-mV output, 0.5-mil stylus)..... \$250

PL-8 Automatic Single Play

Quartz-PLL fully automatic direct-drive 33 1/2- and 45-rpm turntable with static-balanced low-mass Polymer Graphite™ straight-pipe tonearm. Features coreless dc-servo Stable Hanging Rotor™ Hall motor; metal-like resin cabinet; dust cover; front-mounted controls. Wow and flutter 0.025% wrms; S/N ratio 78 dB DIN B; usable cartridge weight 3-8 g; 16 1/8"W x 15 1/8"D x 4 1/2"H; 13 lb 11 oz..... \$300
PL-7. Similar to PL-8 except no carbon-fiber headshell; 16 1/8"W x 14 1/8"D x 4 1/4"H; 13 lb... \$200
PL-5. Similar to PL-7 except has direct-drive dc servo Hall motor..... \$180
PL-4. Similar to PL-7 except semiautomatic operation, no auto repeat..... \$180
PL-2. Similar to PL-4 except has belt drive; dc servo motor; wow and flutter 0.05% wrms; S/N ratio 68 dB DIN B; 11 lb 4 oz..... \$130

REALISTIC

LAB-2000 Linear-Tracking Turntable

Direct-drive turntable with linear-tracking tonearm. Features logic-controlled tonearm; 2-speed bidirectional tonearm search function; neon stroboscope system; speed pitch control; front-mounted soft-touch controls; speed, record size, power LEDs. Wow and flutter <0.05%. rumble -65 dB; 15"W x 13 1/4"D x 4 1/2"H..... \$260

LAB-440 Semiautomatic Single Play

Direct-drive semiautomatic turntable with straight low-mass tonearm. Features selectable repeat; front-mounted controls; dc servo motor; damped cue control. Wow and flutter 0.035% wrms; rumble -70 dB; 16 1/2"W x 14 1/8"D x 5 1/4"H..... \$220

LAB-395 Semiautomatic Single Play

Direct-drive semiautomatic turntable with S-shaped tonearm. Features front-mounted controls; dc servo motor; stroboscope; pitch control; damped cue control. Wow and flutter 0.05% wrms; rumble -70 dB; 16 1/2"W x 15 1/8"D x 5 1/8"H..... \$160

LAB-290 Semiautomatic Single Play

Belt-drive semiautomatic turntable with straight tonearm. Features dc servo motor; damped cue control. Wow and flutter <0.05%; rumble -70 dB; 17 1/2"W x 14 1/8"D x 5 1/4"H..... \$140

LAB-77 Multiple-Play Turntable

Multiple-play turntable handles up to 4 records. Features electronically-controlled dc motor; neon stroboscope; straight tonearm; cue lever. Measures 15"W x 13"D x 5 1/4"H..... \$120
LAB-75. Budget version of LAB-77..... \$100

LAB-130 Semiautomatic Single Play

Semiautomatic turntable with straight tonearm. Features dc motor; cue lever; stroboscope; pitch control. Measures 15"W x 13"D x 4 1/4"H..... \$90

ROTEL

RP 820 Semiautomatic Turntable

Belt-drive semiautomatic turntable with magnetic cartridge. Measures 430 mmW x 388 mmD x 127 mmH..... \$115

RP 840 Semiautomatic Turntable

Direct drive semiautomatic turntable with strobe timing light, magnetic cartridge. Measures 430 mmW x 388 mmD x 129 mmH..... \$175

RP 860 Automatic Turntable

Belt-drive fully automatic remote-controllable turntable with FG servo motor, strobe timing light, magnetic cartridge. Measures 430 mmW x 388 mmD x 129 mmH..... \$175

SANSUI

XR-Q7 Automatic Single-Play

Fully automatic direct-drive turntable with vibration-

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David L. Chin

David L. Chin
President

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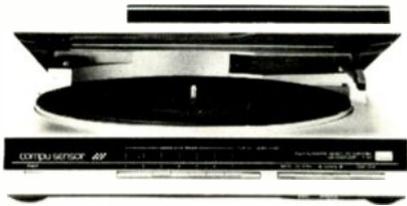
4

TURNTABLES

cancelling exclusive Silent Synchrotor System. Features coreless linear-drive motor; quartz servo system; straight Dyna Optimum Balanced (DOB) tonearm, separately motor operated; microprocessor automation via front-panel soft-touch buttons. Wow and flutter $< \pm 0.009\%$ wrms; rumble > -80 dB DIN B weighted; speed deviation $< 0.002\%$. \$500 XR-Q5. Similar to XR-Q7 except wow and flutter 0.019% wrms; rumble > -78 dB \$370

P-M7 Linear-Tracking Turntable

Quartz-servo direct-drive turntable with linear-tracking tonearm with dual-magnet cartridge. Features computerized operation with optical sensor for pro-



gramming up to 7 selections in random sequence; automatic record-size selection; Compu Edit for use with some Sansui cassette decks; front-panel controls. Wow and flutter 0.028% wrms; rumble -72 dB DIN D weighted \$370

P-L50 Linear-Tracking Turntable

Features 7-selection random programming; linear-tracking tonearm; FG-servo direct drive; speed-lock indicator; phono cartridge; Compu Edit for use with some Sansui amplifiers/receivers for one-touch operation. Wow and flutter 0.028% wrms; rumble -72 dB DIN B weighted. Available in black (P-L50B) or silver (P-L50S) finish \$340

P-L40 Linear-Tracking Turntable

Automatically selects record size. Features FG-servo direct drive; speed-lock indicator; Compu Selector System; linear-tracking tonearm; cartridge. Wow and flutter 0.028% wrms; rumble -72 dB DIN B weighted. Available in black (P-L40B) or silver (P-L40S) finish \$270

P-D30 Automatic Single-Play

Direct-drive FG-servo turntable with speed-lock indicator. Features Compu Selector System; straight tonearm. Wow and flutter 0.038% wrms; rumble -72 dB DIN B weighted. Available in black (P-D30B) or silver (P-D30S) finish \$200
P-D20. Semiautomatic version of P-D30 but without Compu Selector System. Available in black (P-D20B) or silver (P-D20S) finish \$160
P-D10. Similar to P-D20 except basic model. Available in black (P-D10B) or silver (P-D10S) finish \$120

SANYO

P33 Linear-Tracking Turntable

Direct-drive $33\frac{1}{2}$ - and 45-rpm turntable with dc-motor-controlled statically balanced low-mass linear-tracking tonearm. Features integral magnetic cartridge; motorized cueing; servo-controlled brushless dc direct-drive motor; top-mounted controls; fully automatic operation; auto repeat; electronic speed control with digital display; $\pm 3\%$ pitch control. Wow and flutter 0.04% wrms; rumble -78 dB; cartridge frequency range 20-20,000 Hz; $13\frac{3}{4}'' \times 13\frac{3}{4}'' \times 3\frac{3}{4}''$ H \$180

TPQ5 Automatic Single Play

Quartz-locked PLL servo direct-drive fully automatic $33\frac{1}{2}$ - and 45-rpm turntable with straight low-mass tonearm. Features double-isolated suspension; low-mass plug-in headshell; electronic speed control; viscous-damped cueing; auto repeat. Wow and flutter 0.04% wrms; rumble -67 dB; $17\frac{1}{2}'' \times 17\frac{1}{2}'' \times 5''$ H \$170



$\times 4\frac{3}{4}''$ H \$170

TPX-1 Semiautomatic Turntable

Dc-servo belt-drive semiautomatic single-play turntable with low-mass tonearm. Features self-damping; viscous-damped cue; adjustable antiskating; full-size platter; adjustable stylus tracking force. Comes with hinged dust cover, cables \$90
TPX-1C. TPX-1 with cartridge \$100
TPX-1S. Similar to TPX-1 but includes stroboscope, speed pitch control \$100
TPX-2. Fully automatic version of TPX-1. Features detachable headshell \$120
TPX-3. Similar to TPX-2 but with dc-servo direct-drive, fully automatic operation. Features detachable headshell, automatic continuous repeat. Wow and flutter 0.05% wrms; rumble -67 dB \$140

H.H. SCOTT

PS68A Semiautomatic Single-Play

Direct-drive semiautomatic $33\frac{1}{2}$ - and 45-rpm turntable with low-mass straight tonearm with removable headshell. Features one-touch reject/return/shut-off; direct-readout stylus-pressure, antiskate controls; $\pm 3\%$ speed pitch control; tonearm cueing; spare headshell receptacle; front-panel controls; dust cover. Wow and flutter 0.045%; S/N ratio 60 dB; stylus pressure range 1-3 g; $17\frac{1}{4}'' \times 14\frac{1}{4}'' \times 5\frac{1}{4}''$ H \$190

PS48A Semiautomatic Single-Play Turntable

Belt-drive semiautomatic $33\frac{1}{2}$ - and 45-rpm turntable with low-mass tonearm with removable headshell. Features $12''$ diecast platter with strobe pattern; $\pm 3\%$ speed pitch control; direct-readout stylus-pressure, antiskate controls; strobe light; one-touch reject/return/shut-off; tonearm cueing; spare headshell receptacle; low-capacitance phono cables. Wow and flutter 0.05%; S/N ratio 55 dB; stylus pressure range 1-3 g; $17\frac{1}{4}'' \times 14\frac{1}{4}'' \times 5\frac{1}{4}''$ H \$160

SHERWOOD

ST-905 Linear-Tracking Turntable

Linear-tracking turntable with LT phono cartridge. $\pm 6\%$ speed pitch control. Features lighted strobe; re-



peat functions; tangential tonearm; quartz-locked direct drive. Wow and flutter 0.05%; S/N ratio 70 dB DIN; tracking force 1.25 g; tracking error $\pm 0.5''$ \$280
ST-903. Similar to ST-905 except has FG servo-motor belt drive. Wow and flutter 0.05% \$200

ST-902 MTD Semiautomatic Single-Play

Single-play belt-drive $33\frac{1}{2}$ - and 45 rpm turntable with low-mass straight tonearm, frequency generator, dc-servo-controlled motor. Features auto return/cut; independent speed controls with $\pm 3\%$ trim adjust-

ment range; illuminated strobe; easy-access up-front controls; heavy cast-aluminum platter; detachable lightweight headshell with ADC-type connector; damped cueing in both directions; double-isolated spring-loaded rubber feet; antiskate control; hinged removable dust cover. Wow and flutter 0.05% wrms; rumble 70 dB DIN B; effective tonearm length 225 mm; offset angle 24.5° ; tracking error $3'' - 1''$; suitable cartridge weight 4-10 g; tracking-force adjustment range 4 g with 6-g cartridge; power consumption 3 W; $17\frac{1}{8}'' \times 14\frac{1}{8}'' \times 4\frac{3}{8}''$ H \$160
ST-901 MTD. Similar to ST-902 MTD but with synchronous motor; has no speed-trim controls or illuminated strobe; wow and flutter 0.075% wrms; rumble 66 dB DIN B \$130

SONY

PS-X800 Automatic Single Play

Quartz-locked fully automatic direct-drive turntable with Uni-Motion tangential Biotracer tonearm. Features BSL motor; Magnedisc servo control; total electronic-controlled tonearm tracking, damping operation; 4-way disc detection; SBMC nonresonant cabinet; electromagnetic braking; repeat option; 2-speed electronic tonearm indexing; height-adjustable gel-filled feet; optional synchronization with some Sony products. Wow and flutter 0.025% wrms; S/N ratio 78 dB DIN B \$850

PS-X600 Automatic Single Play

Quartz-locked fully automatic direct-drive turntable with Biotracer tonearm. Features brushless, slotless (BSL) motor; Magnedisc servo control; electronic-controlled tonearm tracking, damping; 4-way disc detection; SBMC nonresonant cabinet; electromagnetic braking; repeat option; variable-speed electronic tonearm indexing; height-adjustable gel-filled feet; optional synchronization with some Sony products. Wow and flutter 0.025% wrms; S/N ratio 78 dB DIN B \$400

PS-X500 Manual Single Play

Quartz-locked manual direct-drive turntable with Biotracer tonearm. Features BSL motor; Magnedisc servo control; electronic-controlled tonearm tracking, damping; end-of-play tonearm lift/shut-off; 2-way disc detection; SBMC nonresonant cabinet; electromagnetic braking; height-adjustable gel-filled feet. Wow and flutter 0.025%; S/N ratio \$350

PS-FL3 Automatic Single Play

Fully automatic servo-locked front-loading direct-drive turntable with BSL motor, straight low-mass



tonearm. Features microprocessor-controlled 3-motor front-loading operation with full-logic control; Magnedisc servo control; repeat option; 4-way automatic disc detector; SBMC nonresonant cabinet; internal isolation suspension; wireless remote control with some Sony products. Wow and flutter 0.025% wrms; S/N ratio 78 dB DIN B \$300
PS-FL1. Similar to PS-FL3 except no Magnedisc servo control. Wow and flutter 0.035% wrms; S/N ratio 75 dB \$230

PS-LX5 Automatic Single-Play

Quartz-locked direct-drive automatic turntable with BSL motor, straight low-mass tonearm. Features Magnedisc servo control; record setting guides; repeat option; 3-way disc detection; SBMC nonresonant cabinet; electromagnetic braking; remote control with some Sony products. Wow and flutter 0.025% wrms; S/N ratio 78 dB DIN B \$220
PS-LX3. Similar to PS-LX5 except has servo-locked motor \$210
PS-LX2. Similar to PS-LX3 except semiautomatic op-

eration. Has no repeat option, disc detection, remote-control option. S/N ratio 75 dB DIN B \$150

STUDER/REVOX

Revox B791 Tangential Tracking

Tangential-tracking direct-drive automatic turntable with quartz-accurate variable-speed control. Features front-panel controls; 5-digit LED display of nominal speed (33 or 45 rpm), exact deviation \pm percentage when vari-speed is activated; exclusive Linatrack® linear tracking system; 8-pole Hall Effect direct-drive motor with separate 200-pole tachogenerator; precision diecast chassis; Shure Tracer TXE-SR phono cartridge with carbon antistatic/antiresonance brush. Vari-speed control range \pm 9.9% in 0.1% steps; suspension resonance 3 Hz; tonearm/cartridge resonance 11 Hz \$749

Revox B795 Tangential Tracking

Quartz-controlled direct-drive 33 $\frac{1}{2}$ - and 45-rpm turntable with tangential-tracking arm; quartz-regulated Hall commutated dc motor with permanent magnet; platter start-up time <1 sec; speed accuracy \pm 0.01%. Arm section: 1.5" tonearm mounted in overhead tangential tracking trolley with opto-electronic LED sensing, servo guidance system; auto lift/return/shut off; servo-electronic, dc motor arm follow-up; cartridge output electronically muted except when stylus in groove; pneumatically-damped cartridge lowering. Front-panel controls operable with dustcover down; 4-digit quartz LED readout; automatically-activated run-out switch. Wow and flutter 0.05% (DIN weighted), 0.1% (DIN unweighted); rumble -68 dB (A weighted); includes cartridge; 17 $\frac{1}{2}$ "W x 15"D x 5 $\frac{1}{2}$ "H \$599

TECHNICS

SL-15 Programmable turntable

Linear-tracking turntable with automatic selection of program material, built-in optical infrared sensor for music selections, straight-line tracking. Features dynamic balanced tonearm gimbal suspension; ac/12-volt dc operation; auto repeat; speed auto cueing; auto speed selection; auto stop/return; phase-locked direct drive assembly. Replacement cartridge/stylus EPC-P205CMK3/EPC-P205ED3 \$875

SL-10 Turntable

Record-size turntable with straight-line tracking, built-in switchable moving-coil pre-preamp, MC-310 moving-coil cartridge. Features ac/12-volt dc operation; gimbal suspension; auto repeat/stop/return/cueing; quartz-controlled direct-drive motor system. Replacement stylus/cartridge EPS-310MC \$620

SL-QL1 Linear-Tracking Turntable

Quartz direct-drive 33 $\frac{1}{2}$ - and 45-rpm turntable with linear-tracking tonearm. Features fully automatic operation; high-performance plug-in MM cartridge; manual override; tonearm position scale with LED indicator. Wow and flutter 0.012% wrms; rumble -78 dB DIN B; cartridge output 2.5 mV at 1 kHz, 5 cm/sec; frequency response 20-35,000 Hz \pm 3 dB; separation >22 dB at 1 kHz; effective moving mass 0.29 mg; 16 $\frac{1}{16}$ "W x 13 $\frac{1}{32}$ "W x 3 $\frac{1}{2}$ "H; 16.3 lb \$470

SL-1200MKII Disco Turntable

Quartz-controlled, direct-drive disco-type 33 $\frac{1}{2}$ - and 45-rpm manual turntable with tonearm. Features \pm 8% quartz-locked pitch control; quick start-up/braking; pop-up stylus illuminator; gimbal-suspended tonearm with height adjustment; brushless dc motor; aluminum diecast cabinet; antiresonant visco-elastic main base. Wow and flutter 0.025% .. \$400

SL-DL1 Turntable

Fully automatic linear-tracking, direct-drive 33 $\frac{1}{2}$ - and 45-rpm turntable with full-size straight-line tracking. Features dynamic balanced tonearm/gimbal suspension; Technics premounted phono cartridge; dc motor; \pm 10% variable pitch control, strobe; auto speed selection; front-panel controls. Replacement cartridge/stylus EPC-P23/EPS-23ES (elliptical) or EPS-23CS (conical) \$360

SL-6 Linear-Tracking Turntable

Programmable fully automatic 33 $\frac{1}{2}$ - and 45-rpm turntable with linear-tracking tonearm. Features plug-in cartridge connector; 12" diecast aluminum platter; direct drive; full cycle detection FG servo mechanism; built-in 45-rpm adapter; tonearm position LED; front-panel controls; isolator feet; manual override; turntable/tape deck synchronization; programmable music select/jump/repeat/music search; automatic speed, disc-size select; automatic lead-in, disc detection, tonearm search. Wow and flutter 0.012% wrms; rumble -78 dB DIN B; power consumption 15 W; 12 $\frac{1}{2}$ "W x 12 $\frac{1}{2}$ "D x 3 $\frac{1}{2}$ "H; 9.9 lb \$300
SL-5. Similar to SL-6 except no programmability. Power consumption 10 W; 9.7 lb \$200

SL-D5 Automatic Changer/Turntable

Direct-drive automatic-change 33 $\frac{1}{2}$ - and 45-rpm turntable with integral rotor/platter for stable rotation, low-mass low-friction gimbal-suspension tonearm. Features B-FG servo speed control; front-panel controls; acoustic shield base material; automatic changer with Memo-Gram; stroboscope with pitch control; viscous-damped cueing. Wow and flutter 0.014% wrms; rumble -75 dB DIN B; offset angle 22"; tracking-force range 0-2.5 g; cartridge weight range 6-9.5 g (3-6.5 g with included weight); power consumption 5 W; 16 $\frac{1}{16}$ "W x 14 $\frac{1}{32}$ "D x 7 $\frac{1}{4}$ "H; 16.5 lb \$250
SL-B5. Similar to SL-D5 except belt drive via FG servo dc motor. Wow and flutter 0.045% wrms; rumble -70 dB DIN B; power consumption 3 W; 16 $\frac{1}{16}$ "W x 14 $\frac{1}{16}$ "D x 7 $\frac{1}{16}$ "H; 10.6 lb \$205

SL-DL5 Linear-Tracking Turntable

Fully automatic direct-drive 33 $\frac{1}{2}$ - and 45-rpm turntable with linear-tracking tonearm. Features micro-processor-controlled tonearm; integral rotor/platter direct-drive ultra-low-speed dc motor; 12" diecast aluminum platter; built-in 45-rpm adapter; front-panel controls; tonearm position indicator LED and scale. Wow and flutter 0.012% wrms; rumble -78 dB DIN B; power consumption 10 W; 16 $\frac{1}{16}$ "W x 12 $\frac{1}{32}$ "D x 3 $\frac{1}{2}$ "H; 11 lb \$220

SL-Q30 Automatic Single Play

Fully automatic quartz direct-drive 33 $\frac{1}{2}$ - and 45-rpm turntable with straight low-mass tonearm with plug-in connector. Features ultra-low-speed brushless dc mo-



tor; 12 $\frac{1}{32}$ " diecast aluminum platter; soft-touch front-panel controls; disc-size detector; single-row strobe; ultra-slim design. Wow and flutter 0.012% wrms; rumble -78 dB DIN B; power consumption 7 W; 16 $\frac{1}{16}$ "W x 14 $\frac{1}{4}$ "D x 4 $\frac{1}{16}$ "H; 13.7 lb . \$220
SL-Q20. Semiautomatic version of SL-Q30; has no disc-size detector. Weighs 13.4 lb \$200

SL-D30 Automatic Single Play

Fully automatic direct-drive 33 $\frac{1}{2}$ - and 45-rpm turntable with low-mass straight tonearm. Features plug-in cartridge connector; disc-size selector; pitch control with strobe; auto repeat; front-panel controls; ultra-slim design. Wow and flutter 0.012% wrms; rumble -78 dB DIN B; pitch control range \pm 5%; power consumption 6 W; 16 $\frac{1}{16}$ "W x 14 $\frac{1}{4}$ "D x 4 $\frac{1}{32}$ "H; 10.6 lb \$170
SL-D20. Similar to SL-D30 except semiautomatic op-

(continued on next page.)

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CIRCLE NO. 37 ON READER SERVICE CARD

4 TURNTABLES

eration; no disc-size selector; 10.4 lb \$150

SL-B30 Automatic Single Play

Fully automatic 33 $\frac{1}{2}$ - and 45-rpm turntable with low-mass straight tonearm. Features belt drive; plug-in cartridge connector; FG servo motor; front-panel controls; electronic speed switching; pitch control with strobe; disc-size selector. Wow and flutter 0.045% wrms; rumble -70 dB DIN B; pitch-control range $\pm 3\%$; power consumption 3 W; 16 $\frac{1}{2}$ "W \times 14 $\frac{1}{4}$ "D \times 4 $\frac{1}{2}$ "H; 9.3 lb \$140
SL-B20. Semiautomatic version of SL-B30; has no disc-size selector \$125
SL-B10. Manual version of SL-B20; 9 lb \$100

Turntables Without Tonearms

SP-10MK3 Direct-Drive Turntable

Quartz synthesizer direct-drive 33 $\frac{1}{2}$ -, 45-, 78-rpm turntable without tonearm. Features high torque to bring up to full speed in 30° of rotation; electronic, mechanical braking for speed change in 0.3 second; ultra-high precision integral rotor-platter quartz direct-drive motor; quartz synthesizer pitch control (0.1% steps to $\pm 9.9\%$ all speeds); separate power supply, remote-control unit. RC unit features numeric LED speed, pitch displays; soft-touch switches (start/stop duplicated on turntable). Wow and flutter 0.015% wrms $\pm 0.021\%$; rumble -92 dB DIN B; speed drift within $\pm 0.001\%$; 14 $\frac{1}{2}$ "W \times 14 $\frac{1}{2}$ "D \times 4 $\frac{1}{4}$ "H, 40 lb turntable; 16 $\frac{1}{2}$ "D \times 6 $\frac{1}{2}$ "W \times 3 $\frac{3}{4}$ "H, 13.2 lb power supply/control unit . \$1700
SH-10B5. Optional turntable base \$800

SP-15 Direct-Drive Turntable

Quartz-synthesized direct-drive 33 $\frac{1}{2}$ -, 45-, 78-rpm turntable without tonearm. Features full speed in 0.4 second (40° of rotation); brake to full stop in 0.4 second (40° of rotation) at 33 $\frac{1}{2}$ rpm; $\pm 9.9\%$ quartz-locked pitch control. Wow and flutter 0.025% wrms; rumble 56 dB DIN A, 78 dB DIN B weighted . \$700
SP-25. Similar to SP-15 except no 78-rpm speed, $\pm 6\%$ pitch control \$400

Turntable Bases

SH-15B2. Base for SP-25 and SP-15 turntables. Has heavy acoustic rubber base with simulated wood \$280
SH-15B3. Similar to SH-15B2 except heavy acoustic rubber base only \$280

THORENS

All thorens turntables are belt-driven, single-play units. Have straight tubular tonearms with interchangeable shafts instead of headshells for lower effective mass; gimbal suspension; antiskate control; 9" effective tonearm length; tracking error $< 0.18\%$ /cm (0.46"/in.).

TD 226 Dual-Tonearm Semiautomatic

Semiautomatic single-play 33 $\frac{1}{2}$ - and 45-rpm turntable that can accommodate 2 tonearms, has automatic end-of-record tonearm lift, platter-shutoff function for one tonearm. Features motor driven cueing for both tonearms; frictionless velocity-sensing system for shut-off actuation; electronic speed selection; magnetic antiskate system; $\pm 6\%$ speed pitch control. Comes with blank tonearm position, one auto-lift SME tonearm. Wow and flutter $< 0.035\%$; rumble -72 dB weighted, -52 dB unweighted \$1600

TD-126III C Semiautomatic Single-Play

Turntable with automatic tonearm lift, motor shutoff. Features 33 $\frac{1}{2}$ -, 45-, 78 rpm speeds; electronic speed selection; $\pm 6\%$ pitch control; stroboscope; electronic velocity sensor that actuates arm lift; frictionless magnetic antiskating; dust cover. Wow and flutter $< 0.04\%$; rumble -72 dB weighted, -51 dB unweighted; 19 $\frac{1}{4}$ "W \times 15 $\frac{1}{2}$ "D \times 6 $\frac{1}{4}$ "H. \$800
TD-126III B. Same as TD-126C MKIII but without

tonearm \$645
TD-126III SME. Same as TD-126 III C but with 3009 Series III tonearm incorporated into shut-off system \$1175

TD-115 3 MkII Semiautomatic Single-Play

Dual-servo 33 $\frac{1}{2}$ -, 45-, 78-rpm turntable with commutator-type pulse-modulated dc motor, automatic end-of-record shut-off tonearm. Features 72-pole tachogenerator for electronic speed selection; pitch control; fast start; current feedback that provides automatic pitch control to correct load variations; jeweled pivot bearings; magnetic antiskate device. Wow and flutter 0.05%; rumble -48 dB unweighted, -68 dB weighted; 11 $\frac{1}{4}$ " platter; arm length 8 $\frac{3}{4}$ "; tonearm mass 7.5 g; 17 $\frac{1}{2}$ "W \times 14 $\frac{1}{4}$ "D \times 5 $\frac{1}{4}$ "H \$435
TD-110. Same as TD-115C except no auto cue, shut-off \$350

TD160 Armless Turntable

Belt-drive 33 $\frac{1}{2}$ - and 45-rpm turntable without tonearm. Features 16-pole 2-phase synchronous motor; 12" dynamically-balanced nonferrous diecast platter. Wow and flutter 0.04% DIN 45507; rumble -52 dB unweighted; 17 $\frac{1}{2}$ "W \times 14 $\frac{1}{4}$ " \times 6 $\frac{1}{2}$ "HD \$395

TD105 Semiautomatic Single-Play

Servo-controlled electronic belt-drive 33 $\frac{1}{2}$ - and 45-rpm turntable with automatic tonearm return. Features dc motor with 72-pole tachogenerator; 8 $\frac{1}{2}$ " straight tonearm; 12" dynamically-balanced zinc-alloy platter with LED stroboscope, $\pm 6\%$ electronic pitch control; friction-free velocity-sensing electronic shutoff; feather-touch operations controls; frictionless magnetic antiskating. Wow and flutter 0.05% DIN 45507; rumble -72 dB weighted; 17 $\frac{1}{4}$ "W \times 15 $\frac{1}{2}$ "D \times 5"H \$335

TD 166 MkII Manual Turntable

Manual 33 $\frac{1}{2}$ - and 45-rpm turntable with 9" low-mass straight tonearm. Features 16-pole synchronous motor; low-friction pivot bearings; tracking force applied by variable-position counterweight; hanging-weight antiskate control. Wow and flutter 0.04%; rumble < 70 dB weighted; tonearm mass 7.5 g; 17" W \times 14 $\frac{1}{4}$ "D \times 6"H 235

TOSHIBA

SR-B2L Automatic Turntable

Belt-drive 33 $\frac{1}{2}$ - and 45-rpm turntable with auto return/shut off arm. Features straight statistically balanced tone arm; synchronous motor; front mounted controls; antifeedback cabinet. Wow and flutter 0.07% wrms; S/N ratio 60 dB; 16.5"W \times 14.8"D \times 4.9"H \$115
SR-B2. Similar to SR-B2L except has anodized magnet type cartridge \$140

VECTOR RESEARCH

VRX-9500 Automatic Single-Play Turntable

Synchro-belt drive automatic 33 $\frac{1}{2}$ - and 45-rpm turntable with minimum-resonance straight tonearm. Features auto return/reject/shutoff; viscous-damped cueing; antiskate control; front-panel controls; 12" diecast aluminum platter; low-mass headshell; direct stylus-force readout; removable dust cover. Wow and flutter 0.08% wrms; S/N ratio 55 dB; tonearm length 215 mm; overhang 16 mm; useable cartridge weight 3.5-6.5 g; power consumption 10 W; 16 $\frac{1}{4}$ "W \times 14 $\frac{1}{4}$ "D \times 5 $\frac{1}{4}$ "H; 9.5 lb \$120

YAMAHA

PX-2 Automatic Single-Play

Linear-tracking 33 $\frac{1}{2}$ - and 45-rpm dual-quartz PLL servo direct-drive turntable with automatic/manual tonearm; 4-phase 8-pole coreless dc Hall-effect motor; 12 $\frac{1}{2}$ " aluminum diecast platter with rubber mat; 7 $\frac{1}{2}$ " linear-tracking straight tubular tonearm with opto-electronic tracking error sensor, coreless dc servomotor, forged aluminum headshell. Features front-panel automatic electronic speed, auto repeat, cut, play, and 7", 10", 12" disc size selectors with LED record size and repeat indicators; manual up/down

cueing with 2-speed forward/reverse operations; LED quartz-lock indicator; $\pm \frac{1}{4}$ " arm height adjustment (accommodates most cartridges). Wow and flutter 0.01% wrms; S/N ratio 80 dB; tracking force range 0-2.5 g in 0.1-g increments, statically balanced; cartridge weight range 5-11 g (10-16 g with subweights); black-finish aluminum diecast base with removable free-stop hinged acrylic resin dustcover and spring/rubber insulators; 19 $\frac{1}{8}$ "W \times 16 $\frac{1}{8}$ " \times 6 $\frac{1}{4}$ "H \$900
PX-3. Similar to PX-2 except more compact. Wow and flutter 0.015%; S/N ratio 77 dB; 469 mmW \times 428 mmD \times 149 mmH; 12 kg \$670

P-850 Automatic Single-Play

Direct-drive quartz-lock PLL turntable with dc brushless, coreless 8-pole motor, independent tonearm motor to drive straight tubular tonearm. Features resin and 20% carbon-fiber headshell; microcomputer-controlled fully automatic operation; light-touch controls; front-panel operation; 2-speed tonearm cueing; replay muting; BMC vibration-damping base. Speeds 33 $\frac{1}{2}$ and 45 rpm; wow and flutter 0.015% wrms; effective tonearm length 8 $\frac{3}{4}$ "; overhang 16 mm; offset angle 23°; tracking-force range 0-3 g in 0.1-g steps; effective tonearm mass without cartridge 11 g; horizontal tracking error -1° to 3°; suitable cartridge weight 2.5-10 g; cable capacitance 100 pF; power consumption 10 W; 17 $\frac{1}{8}$ "W \times 14 $\frac{1}{4}$ "D \times 5 $\frac{1}{4}$ "H; 16.5 lb \$360

P-751 Automatic Single-Play

Quartz-lock PLL servo direct-drive 33 $\frac{1}{2}$ - and 45-rpm turntable with automatic tonearm. Features convenient front-panel operation; high-density, low-resonance base; antiskate control; resonance-absorbing turntable mat; oil-damped manual cueing; dc coreless slotless 8-pole Hall-effect motor; 12" aluminum diecast platter; 8 $\frac{1}{4}$ " straight tubular tonearm. Wow and flutter 0.015% wrms; S/N ratio > 77 dB; tracking force range 0-3 g in 0.1-g steps; cartridge weight range 2.5-10 g; cable resistance/capacitance 1 ohm/100 pF; 17 $\frac{1}{8}$ "W \times 14 $\frac{1}{4}$ "D \times 5 $\frac{1}{4}$ "H; 15 lb \$270

P-700 Automatic Single-Play Turntable

Quartz PLL-locked direct-drive 33 $\frac{1}{2}$ - and 45-rpm turntable with minimum resonance straight tonearm. Features light front-panel touch-controls; 2 light-weight resin headshells. Wow and flutter 0.015% wrms; S/N ratio 78 dB; 435 mmW \times 378 mmD \times 111 mmH; 6 kg \$270
P-500. Similar to P-700 except has direct servo drive, pitch control \$220
P-300. Similar to P-500 except semiautomatic operation. Weight 5.8 kg \$190
P-200. Similar to P-500 except belt-drive mechanism. Wow and flutter 0.04% wrms; S/N ratio 70 dB; 5 kg \$150

P-550 Automatic Single-Play Turntable

Automatic single-play 33 $\frac{1}{2}$ - and 45-rpm turntable with 12" diecast aluminum platter, 8 $\frac{3}{4}$ " straight tonearm. Features $\pm 3\%$ pitch control, 4-band stroboscope; front-panel controls; oil-damped manual cueing; antiskate control. Wow and flutter 0.015% wrms; rumble -77 dB; tracking-force range 0-3 g in 0.1-g steps; cartridge weight range 2.5-10 g; 17 $\frac{1}{4}$ "W \times 14 $\frac{1}{4}$ "D \times 5 $\frac{1}{4}$ "H \$220
P-450. Similar to P-550 except belt-drive system with FG dc servomotor; wow and flutter 0.04% wrms; rumble -70 dB (DIN B, IEC 98A weighted) . \$190
P-350. Similar to P-450 except semiautomatic operation with auto return/cut arm; minus pitch control with stroboscope, auto repeat and play, disc size selector \$150

NEED MORE INFORMATION?

Write directly to the manufacturer or distributor. A list of names and addresses starts on page 188.

5

PHONO CARTRIDGES (includes Tonearms)

ADC

Astrion Phono Cartridge

Handcrafted phono cartridge with 0.0015" × 0.00025" square nude modified elliptical diamond stylus tip and sapphire crystal cantilever. Output 0.9 mV/cm/sec; frequency response 20-20,000 Hz ±1 dB; channel balance/separation 1 dB/30 dB at 1 kHz; tracking force 1.2 g ±0.2 g; load capacitance 300 pF; load resistance 47k ohms; 5.7 g \$235

MC1.5 Phono Cartridge

Stereo moving-coil (MC) cartridge with 0.0002" × 0.0007" nude diamond stylus in titanium cantilever. Frequency response 20-20,000 Hz ±1.5 dB; stylus tip resonance 50 kHz; stylus force 1.5 g ±0.3 g; channel separation at 1/10/20 kHz 25/18/15 minimum; coil resistance 90 ohms/channel; sensitivity 0.2 mV/cm/s; load resistance 200 ohms or less resistive; weight 5 g \$235

ZLM Improved Phono Cartridge

Induced-magnet omni-pivotal phono cartridge. Output 1 mV at 1 cm/sec; frequency response 10-20,000 Hz ±1 dB; channel separation 30 dB at 1 kHz; tracking force 0.5-1.25 g; 0.0002" × 0.0015" nude Aliptic tapered cantilever stylus assembly. Supplied with stylus brush, screwdriver, signed frequency-response curve, mounting hardware \$150

XLM Mk III Improved Phono Cartridge

Induced-magnet omni-pivotal phono cartridge. Output 1 mV at 1 cm/sec; frequency response 10-20,000 Hz ±1 dB; channel separation 28 dB at 1 kHz; tracking force 0.3-1.2 g; nude 0.2 × 0.7 mil elliptical tapered cantilever stylus assembly. Supplied with stylus brush, screwdriver, signed specifications card, mounting hardware \$125

XLM Mk II Improved Phono Cartridge

Induced-magnet omni-pivotal phono cartridge. Output 1.1 mV at 1 cm/sec; frequency response 15-24,000 Hz ±2 dB; separation 26 dB at 1 kHz; tracking force range 0.3-1.2 g; 0.3 × 0.7-mil Diasa elliptical diamond tip stylus \$110

QLM 36 Mk III Improved Phono Cartridge

Induced-magnet omni-pivotal phono cartridge. Output 1.1 mV at 1 cm/sec; frequency response 15-20,000 Hz ±2 dB; channel separation 26 dB at 1 kHz; tracking force 0.3-1.2 g; Diasa (nude) 0.3 × 0.7 mil straight cantilever stylus assembly. Supplied with screwdriver, mounting hardware \$90

QLM 34 Mk III Phono Cartridge

Induced-magnet phono cartridge. Output 1.6 mV at 1 cm/sec; frequency response 20-20,000 Hz ±2 dB; channel separation 24 dB at 1 kHz; tracking force 1.5-3 g; bushed 0.3 × 0.7 mil elliptical straight cantilever stylus assembly. Supplied with mounting hardware \$70

QLM 33 Mk III Phono Cartridge

Induced-magnet phono cartridge. Output 1.2 mV at 1 cm/sec; frequency response 20-20,000 Hz ±2 dB; separation 24 dB at 1 kHz; tracking force range 1-2 g; 0.7-mil spherical diamond-tip stylus \$60

QLM 32 Mk III Phono Cartridge

Induced-magnet phono cartridge. Output 1.5 mV at 1 cm/sec; frequency response 20-18,000 Hz ±2 dB; channel separation 20 dB at 1 kHz; tracking force 2-4 g; bushed 0.4 × 0.7 mil elliptical straight cantilever stylus assembly. Supplied with mounting hardware \$55

QLM 30 Mk III Phono Cartridge

Induced-magnet phono cartridge. Output 1.5 mV at 1 cm/sec; frequency response 20-18,000 Hz ±3 dB; channel separation 20 dB at 1 kHz; tracking force 3-5 g; bushed 0.7 mil spherical straight cantilever stylus assembly \$50

Integra Series

Low-mass induced-magnet phono cartridge features integrated carbon-fiber headshell with cartridge, calibrated overhang adjustment, vertical tracking angle adjustment; omni-pivot system.

XLM III. 0.0002" × 0.0007" rectangular nude elliptical diamond stylus mounted to tapered cantilever; frequency response 10-20,000 Hz ±1 dB; channel separation 28 dB at 1 kHz; tracking force 1.2 ±0.3 g; 12 g \$135

XLM II. 0.0003" × 0.0007" nude Diasa elliptical stylus mounted to hollow cantilever. Frequency response 15-24,000 Hz ±2 dB; channel separation 26 dB at 1 kHz; tracking force 1.2 ±0.3 g; 12 g \$120

XLM I. 0.0004" × 0.0007" bushed elliptical diamond stylus mounted to hollow cantilever. Frequency response 20-20,000 Hz ±2 dB; channel separation 24 dB at 1 kHz; tracking force 1.5 ±0.4 g; 12 g \$80

ST Series

Same as Integra Series above except cartridges are mounted in low-mass nonresonant carbon-fiber headshells for ADC type straight tonearms. Cartridges have same specifications, features as above.

XLM III \$135

XLM II \$120

XLM I \$80

XT Series

Designed for use with turntables equipped with linear-tracking tonearms. Plug directly into any tonearm with 4-pin locking screw.



XT Series I. With spherical 0.007" diamond stylus mounted to hollow cantilever. Frequency response 20-20,000 Hz ±3 dB; separation 22 dB at 1 kHz; tracking force 1.5 g; 6 g \$135

XT Series II. With nude elliptical 0.0003" × 0.0007" diamond stylus mounted to hollow cantilever. Frequency response 20-20,000 Hz ±2 dB; separation

24 dB at 1 kHz; tracking force 1.25 g; 6 g .. \$110

XT Series III. With elliptical 0.0002" × 0.0007" diamond stylus mounted to hollow cantilever. Frequency response 20-24,000 Hz ±1.5 dB; separation 28 dB at 1 kHz; tracking force 1.25 g; 6 g \$90

XT Series IV. With rectangular nude aliptic diamond stylus mounted to tapered hollow cantilever. Frequency response 20-26,000 Hz ±1.5 dB; separation 30 dB at 1 kHz; tracking force 1.25 g; 6 g \$60

Integra SX Phono Cartridges

Designed for use with turntables equipped with linear-tracking tonearm. Cartridges plug directly into end of any tonearm with 4-pin locking screw.

Series IV \$135

Series III \$110

Series II \$90

Series I \$60

ALT-1 Tonearm

S.S. ball-bearing 12" straight tonearm with removable carbon-fiber headshell, slide base. Maximum tracking force 1.25" at 2.38, 3.69, 5.75 in; tracking force 0-4 g; total cable capacitance 220 pF; cartridge weight range 4-11 g; damped cueing, adjustable antiskating \$150

ADCOM

XC-van den Hul Phono Cartridge

High-output moving-coil (MC) stereo phono cartridge with closest practical approximation of cutter yet devised. Features 3.5-micron contact radius; vertical groove extended to 85 microns; thin-walled aluminum cantilever; crosscoil armature. Output 2.5 mV at 5 cm/sec; frequency response 20-20,000 Hz ±1 dB; channel balance within 1 dB; effective tip mass 0.27 mg; tracking force 1.8 g; square-wave rise time 10 msec; channel separation 20 dB 10-20 kHz; 4.7 g \$400

LC-van den Hul. Similar to XC version except output 0.3 mV at 5 cm/sec \$400

XC-LT Phono Cartridge

High-output moving-coil phono cartridge with Line-Trace stylus, large-diameter thin-wall aluminum cantilever, crosscoil armature; output 2.5 mV at 5 cm/sec; frequency response 20-20,000 Hz ±1 dB; channel separation 28 dB at 1 kHz; tracking force 1.8 g; effective tip mass 0.35 mg; weight 4.7 g \$260

XC-E. Same as XC-LT except has elliptical stylus \$220

LC-LT Phono Cartridge

Low-output moving-coil phono cartridge with Line-Trace stylus, large-diameter thin-wall aluminum cantilever, crosscoil armature; output 0.3 mV at 5 cm/sec; frequency response 20-20,000 Hz ±1 dB; channel separation 28 dB at 1 kHz; tracking force 1.8 g; 4.7 g \$220

LC-E. Same as LC-LT except has elliptical stylus \$180

HC-E Phono Cartridge

High-output moving-coil (MC) stereo phono cartridge with elliptical stylus. Features thin-wall aluminum cantilever; crosscoil armature. Output 2.5 mV at 5 cm/sec; frequency response 20-15,000 Hz +1.5/-1 dB, 20-20,000 Hz +2.5/-1 dB; channel balance within 1.5 dB; tracking force 2 g; effective tip

5 PHONO CARTRIDGES

mass 0.35 mg; 4.7 g \$130

AKG

P-25MD Phono Cartridge

Variable-reluctance, induced-magnet phono cartridge with patented diamond-technology transverse-suspension system, cylindrical/magnet design. Features frequency-response/crosstalk curve; universal adjustment gauge; carbon-fiber stylus brush; screwdriver; antiresonance compound. Output 2.7 mV at 3.54 cm/sec rms; frequency range 10-28,000 Hz; separation ± 1 dB; tracking-force range 0.75-1.25 g; diamond "Analog-Six" stylus mass 0.015 mg; 3.5 g \$250

P-15MD Phono Cartridge

Variable-reluctance, induced-magnet phono cartridge with patented diamond-technology transverse-suspension system, cylindrical magnet. Features frequency-response/crosstalk curve; adjustment mirror; carbon-fiber stylus brush; screwdriver; antiresonance compound. Output 3.4 V rms at 3.54 cm/sec; frequency range 10-23,000 Hz; separation ± 1.5 dB; tracking force 1.0-1.5 g; elliptical diamond stylus; stylus mass 0.018 mg; 3.5 g \$165

P-10ED Phono Cartridge

Variable-reluctance, induced-magnet phono 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; frequency range 20-20,000 Hz; separation ± 2 dB; 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 phono cartridge with patented transverse suspension, cylindrical magnet. Features compatibility with automatic turntables, record changers; elliptical diamond stylus. Output 5.8 mV rms at 3.54 cm/sec; frequency range 20-20,000 Hz; separation ± 2 dB; tracking force 1.5-2.0g .. \$80

ANDANTE by SUMIKO

FGV Phono Cartridge

Stereo phono cartridge with stylus configuration virtually identical to cutting stylus shape. Features extended line contact diamond stylus modified to prevent accidental recutting of grooves; nude diamond stylus mounted on aluminum-alloy tubular cantilever; micro-mass magnet; hand-wound coils. Output 5.0 mV; frequency range 10-35,000 Hz; separation 30 dB at 1 kHz; compliance 20×10^{-6} cm/dyne; tracking force range 0.75-1.5 g; input impedance 47k ohms; weight 6 g \$200

E Phono Cartridge

Micro-mass magnetic phono cartridge with aluminum-alloy tubular cantilever, 0.2×0.8 -mil polished bonded-diamond elliptical stylus; hand-wound coils; output 5.0 mV; frequency range 12-30,000 Hz; separation 30 dB at 1 kHz; compliance 20×10^{-6} cm/dyne; tracking force range 1-1.9 g; input impedance 47k ohms; 6 g \$100
S. Similar to E except uses 0.5-mil polished bonded-diamond spherical stylus; frequency range 18-27,000 Hz; separation 28 dB at 1 kHz; compliance 18×10^{-6} cm/dyne; tracking force range 1-2.5 g \$75
H. Similar to S except output 10 mV; frequency range 18-23,000 Hz; separation 27 dB at 1 kHz; compliance 15×10^{-6} cm/dyne \$50

ASTATIC

MF100 Phono Cartridge

Moving-flux phono cartridge has characteristics, sound of moving-coil cartridges, efficiency, low inductance, load impedance of moving-magnet, induced-

magnet cartridges. Uses Shibata-type parabolic stylus, tapered cantilever with single-point front-fulcrum pivot system. Output 3.5 mV at 5 cm/sec, 1 kHz; balance/separation 1/25 dB at 1 kHz; frequency range 10-40,000 Hz; compliance 50×10^{-6}



cm/dyne; tracking force 1.25 g ± 0.25 g; user-replaceable stylus; 5.5 g \$268
MF100H. Premounted in headshell \$290

MF200 Phono Cartridge

Moving-flux phono cartridge with Shibata-type parabolic stylus. Output 4.2 mV at 5 cm/sec, 1 kHz; balance/separation 1.5/23 dB at 1 kHz; frequency range 10-40,000 Hz; tracking force 1.75 g ± 0.25 g; user-replaceable stylus \$160
MF200H. Premounted in headshell \$183

MF300 Phono Cartridge

Moving-flux phono cartridge with 0.3×0.7 -mil elliptical diamond stylus. Output 42 mV at 5 cm/sec, 1 kHz; balance/separation 2/20 dB at 1 kHz; compliance 35×10^{-6} cm/dyne; tracking force 1.75 g ± 0.25 g; user-replaceable stylus \$100
MF300H. Premounted in headshell \$123

MF400 Phono Cartridge

Moving-flux phono cartridge with 0.5-mil spherical diamond stylus. Output 3.5 mV at 5 cm/sec, 1 kHz; balance/separation 2/20 dB at 1 kHz; frequency range 10-25,000 Hz; compliance 35×10^{-6} cm/dyne; tracking force 2 g ± 0.5 g; user-replaceable stylus \$80
MF400H. Premounted in headshell \$103

Induced Magnet Cartridges

IM10E. Output 4.2 mV at 1 kHz, 5 cm/sec; frequency response 10-20,000 Hz ± 2.5 dB; separation 20 dB at 1 kHz; compliance 35×10^{-6} cm/dyne; tracking force 2 g; load impedance 47k ohms; titanium bonded 0.3×0.7 -mil elliptical diamond stylus; user-replaceable N80-ed stylus \$52
IM10EH. Premounted in headshell \$65
IM10. Same as IM10E except response ± 3 dB; compliance 30×10^{-6} cm/dyne; tracking force 2.25 g; 0.5-mil spherical bonded diamond stylus; 7.5 g; user-replaceable stylus N80-5d \$40

AUDIO-TECHNICA

AT35E Phono Cartridge

Stereo phono cartridge with user-replaceable Moving MicroCoil™ stylus assembly. Features low-mass design; 0.2×0.7 -mil nude-mounted BiRadial square-shank diamond stylus. Output 0.4 mV at 5 cm/sec; frequency range 15-50,000 Hz; channel balance/separation 0.5/30 dB at 1 kHz; tracking force 1.2-1.8 g \$250

AT152LP Phono Cartridge

Direct-plug-in stereo phono cartridge for SL series turntables. Features extremely stiff but lightweight beryllium cantilever and nude-mounted square-shank Linear Contact™ diamond stylus \$225

AT31E Phono Cartridge

Stereo phono cartridge with user-replaceable Moving MicroCoil™ stylus assembly. Features square-shank-

0.2×0.7 -mil biradial diamond stylus. Output 0.4 mV at 5 cm/sec; frequency range 15-50,000 Hz; channel balance/separation 1/29 dB at 1 kHz; tracking force 1.2-1.8 g \$175



AT132EP Phono Cartridge

Direct plug-in stereo phono cartridge for SL series turntables. Features Vector-aligned™ dual-magnet system with tapered alloy cantilever; 0.2×0.7 -mil nude-mounted biradial diamond stylus \$135

AT30HE Phono Cartridge

Stereo phono cartridge with user-replaceable Moving MicroCoil™ stylus assembly. Features high output that eliminates need for transformer; 0.3×0.7 -mil nude-mounted diamond stylus. Output 2 mV; frequency range 15-30,000 Hz; separation 29 dB at 1 kHz; tracking-force 1.4-1.8 g \$135

AT55XE Phono Cartridge

Low-mass stereo phono cartridge that mounts in any standard headshell. Features 0.3×0.7 -mil nude-mounted diamond stylus. Output 3.5 mV at 5 cm/sec; frequency range 15-25,000 Hz; channel balance/separation 1/28 dB at 1 kHz; tracking force 1.2-1.8 g; weight 2.8 g \$125
AT57XE. Similar to AT55XE except integral headshell design to fit all universal bayonet tonearms .. \$145
AT59XE. Similar to AT57XE except designed for straight tonearms \$145

"Vector-Aligned" Series

AT155LC Phono Cartridge

Output 5.0 mV at 5 cm/sec at 1 kHz; frequency range 5-35,000 Hz with class I tolerance; channel balance/separation 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 magnet; para-toroidal coil; replacement stylus ATN155LC (\$100) \$225

AT140LC Phono Cartridge

Output 5.0 mV at 5 cm/sec; frequency range 5-32,000 Hz with class II tolerance; channel balance/separation 0.75/30 dB at 1 kHz; tracking force 0.8-1.8 g; nude-mounted square shank linear contact stylus; Vector-Aligned dual magnet; para-toroidal coil replacement stylus ATN140LC (\$75) \$175

AT125LC Phono Cartridge

Para-toroidal coil construction; output 5.0 mV at 5 cm/sec; frequency range 15-28,000 Hz with class III tolerance; channel balance/separation 1/29 dB at 1 kHz; linear contact titanium-bonded stylus; Vector-Aligned dual magnet; replacement stylus ATN125LC (\$60) \$130

AT130E Phono Cartridge

Output 5.0 mV at 5 cm/sec; frequency range 10-30,000 Hz with class II tolerance; channel balance/separation 0.75/30 dB at 1 kHz; tracking force 0.8-1.8 g; 0.2×0.7 -mil BiRadial nude mounted diamond stylus; Vector-Aligned dual magnet; para-toroidal coil; replacement stylus ATN130E (\$50) \$120

AT120E Phono Cartridge

Para-toroidal coil construction; output 5.0 mV at 5 cm/sec; frequency range 15-25,000 Hz with class III tolerance; channel balance/separation 1/29 dB at 1 kHz; tracking force 1-1.8 g; Vector-Aligned dual magnet; 0.3×0.7 -mil BiRadial nude mounted diamond stylus; replacement stylus ATN120E (\$45) \$90

AT110E Phono Cartridge

Output 4.5 mV at 5 cm/sec; frequency range 20-

22,000 Hz; channel balance/separation 26 dB at 1 kHz; tracking force 1-2 g; 0.4×0.7 -mil BiRadial bonded diamond stylus; replacement stylus ATN110E (\$35)\$65

AT105 Phono Cartridge

Output 4.5 mV at 1 kHz; frequency range 20-20,000 Hz; tracking force 1.5-2.5 g; channel separation 26 dB at 1 kHz; 0.7-mil UniRadial bonded diamond stylus; dual magnet; replacement stylus ATN105 (\$30)\$50

"The Professionals" Series

ATP-3 Phono Cartridge

For stereo operation; output 5.3 mV at 5 cm/sec; frequency range 15-25,000 Hz; channel balance/separation 1.5 dB/23 dB at 1 kHz; load impedance 47k ohms; tracking force 2-3 g; 0.3×0.7 -mil nude elliptical diamond stylus; replacement stylus ATP-N3; weight 7.2 g\$80

ATP-2 Phono Cartridge

For stereo operation; output 5.3 mV at 5 cm/sec; frequency range 15-22,000 Hz; channel balance/separation 1.5 dB/23 dB at 1 kHz; load impedance 47k ohms; tracking force 3-5 g; 0.4×0.7 -mil elliptical diamond stylus; replacement stylus ATP-N2; weight 7.2 g\$60
ATP-2XN. Same as ATP-2 with extra stylus\$90

ATP-1 Phono Cartridge

For stereo operation; output 5.3 mV at 5 cm/sec; frequency range 20-20,000 Hz; channel balance/separation 1.5 dB/21 dB at 1 kHz; load impedance 47k ohms; tracking force 3-5 g; 0.6 mil spherical diamond stylus; replacement stylus ATP-N1; weight 7.2 g\$45

AT1010 Tonearm

Features low-frequency resonance damping; silver wire used for all arm leads including AT-MS headshell; gold-plated contacts; lateral balance adjustment for tracking warped records; stylus pressure 0.2-5 g\$350

AT-1005 II Tonearm

Features calibrated adjustments to permit exact selection of desired tracking force, antiskating, with stylus overhang; perforated plug-in shell, sliding cartridge mounting, attaches by means of knurled locking ring and spring-loaded contacts; sliding main counterweight; tracking force selected by sliding ring weight along length of arm (calibrations permit adjustment to 0.5 g); one-hole installation of arm. Stylus force 0-3 g, calibrated to 0.5 g; cartridge weight 5-24 g; effective mass 20 g (set for AT14S cartridge)\$150
AT-S. Plug-in shell\$8

AT650 Moving-Coil Transformer

Passive transformer, no batteries or power supply required; variable impedance 3, 20, 40 ohms and pass; frequency range 10-100,000 Hz; THD 0.05% at 1 mV; output impedance 47k ohms\$250

AT630 Moving-Coil Transformer

Frequency range 15-100,000 Hz; input impedance 20 ohms; output impedance 47kohms; channel balance 0.5 dB; THD 0.01% at 0.5 mV input\$95

BANG & OLUFSEN

MMC Series Phono Cartridges

Low-inductance low-mass (4-g) phono cartridges with "Moving Micro Cross" armature.

MMC 20CL. Features single-crystal sapphire cantilever with nude multi-radial contact line diamond stylus; effective tip mass 0.3 mg; output 2.12 mV/47k ohms at 5 cm lateral rms; frequency response 20-20,000 Hz ± 1 dB; separation 30 dB at 1 kHz; dynamic compliance 30 $\mu\text{m/mN}$; sensitivity 0.6 mV/47k ohms; tracking force 10 mN/g\$240
MMC 20EN. Aluminum cantilever with 5×17 μm elliptical diamond stylus; effective tip mass 0.4 mg; output 2.12 mV/47k ohms at 5 cm lateral rms; frequency response 20-20,000 Hz ± 2 dB; separation 25 dB at 1 kHz; dynamic compliance 25 $\mu\text{m/mN}$;

sensitivity 0.6 mV/47k ohms; tracking force 12 mN/1.2g\$140
MMC 20E. Aluminum cantilever with 5×17 μm elliptical diamond stylus (0.5 mg effective tip mass); output 2.12 mV/47k ohms; frequency response 20-20,000 Hz ± 2.5 dB; separation 20 dB at 1 kHz; dynamic compliance 20 $\mu\text{m/mN}$; sensitivity 0.6 mV/47k ohms; tracking force 15 mN/1.5 g\$90
MMC 10E. Similar to MMC 20E except frequency response 20-20,000 Hz ± 3 dB\$55

SP14A Phono Cartridge

Moving-iron type, output 1 mV/cm/sec; frequency response 15-25,000 Hz ± 3 dB; has 0.2×0.7 -mil elliptical stylus; tracking force 1-1.5 g; tracking angle 15°; separation 25 dB at 1 kHz; compliance 25×10^{-6} cm/dyne; replacement stylus 5430\$110

CONRAD-JOHNSON

Argent MC110 Moving-Coil Cartridge

Phono cartridge with elliptical diamond stylus. Output 0.2 mV; impedance 3 ohms; tracking angle 20°; channel balance within 1 dB at 1 kHz; separation 25 dB at 1 kHz; tracking force 2.0 ± 0.2 g; 9 g\$385

DB SYSTEMS

DB-4A MC Pre-Preamp

Moving-coil cartridge pre-preamp has low-noise cascade amplifiers, diode-protected inputs; internal low, medium, high gain switch (set to medium when shipped). THD 0.0008%, 20-20,000 Hz at 1 V out; noise -84 dB at 1 mV, input shorted, A weighted; frequency response 10-100,000 Hz $+0/-0.1$ dB; input impedance 9k ohms/2000 pF; output impedance 220 ohms; maximum load 10k ohms/3000 pF; gain/sensitivity/overload (adjustable internally) 33 dB/40 $\mu\text{V}/45$ mV at high setting, 28 dB/80 $\mu\text{V}/80$ mV (medium setting), 22 dB/160 $\mu\text{V}/90$ mV (low setting); balance ± 0.2 dB\$175

DENON

DL-1000 Moving Coil Cartridge

Moving-coil (MC) cartridge with lowest effective mass. Features twin damper construction; amorphous boron tubular cantilever; nonresonant frame of aluminum alloy and fiberglass mix with hard plastic; special metal cross-shaped generating coil. Frequency range 20-110,000 Hz; output 0.12 mV at 1 kHz, 5 cm/sec horizontal; effective moving mass 0.007 mg; stylus pressure 0.8 g; channel balance < 1 dB at 1 kHz; separation > 30 dB at 1 kHz; compliance measured from record/static 20×10^{-6} cm/dyne at 100 Hz/ 50×10^{-6} cm/dyne; stylus 0.06 mm square shank with elliptical tip; optional load resistance > 100 ohms\$1000

DL-305 Moving-Coil Cartridge

Lightweight moving-coil phono cartridge with amorphous boron cantilever. Frequency range 20-75,000 Hz; separation 28 dB at 1 kHz; dynamic compliance 14×10^{-6} cm/dyne; 5.8 g\$595

DL-303 Moving-Coil Cartridge

Lightweight moving-coil phono cartridge with double-constructed aluminum tapered pipe cantilever, 0.1×0.05 -mm rectangular stylus with elliptical solid diamond tip. Output 0.2 mV at 1 kHz, 5 cm/sec; frequency range 20-70,000 Hz; separation 28 dB at 1 kHz; channel balance 1 dB at 1 kHz; output impedance 40 ohms, 20-20,000 Hz; load impedance 100 ohms (with optional AU-340 step-up transformer, 40 ohms); dynamic compliance 13×10^{-6} cm/dyne; stylus force 1.2 ± 0.2 g; 5.8 g\$385
AU-340. Audio step-up transformer with 3 ohms/40 ohms/pass switching; step-up ratio 1:10 at 40 ohms, 1:33 at 3 ohms; primary impedance 3 and 40 ohms, secondary 4k ohms; load impedance 50k ohms; frequency response 10-120,000 Hz $+0.5/-1$ dB; distortion 0.05%, 20-20,000 Hz, 40 ohms; channel balance 0.5 dB; 215 mmD \times 155 mmW \times 70 mmH\$395

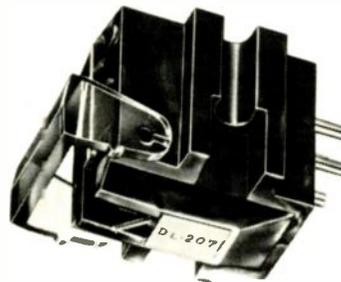
DL-103D Moving Coil Cartridge

Moving-coil stereo phono cartridge with cross-shaped armature. Output 0.25 mV at 50 mm/sec; frequency

range 20 65,000 Hz; separation 28 dB at 1 kHz; channel balance 1 dB at 1 kHz; load impedance 100 ohms; compliance 12×10^{-6} cm/dyne; tracking force $1.5 - 0.2$ g; elliptical diamond stylus; 7.5 g\$295

DL-207 Moving-Coil Cartridge

Moving-coil cartridge with amorphous boron cantilever. Features direct linear flux system; 2-way damping; samarium-cobalt magnets in lightweight body; integral stylus protector. Frequency range 20-60,000



Hz; output 0.2 mV at 1 kHz, 5 cm/sec; impedance 40 ohms; compliance 13×10^{-6} cm/dyne at 100 Hz; effective mass 0.25 mg; tracking force 1.4 ± 0.2 g; stylus tip 0.14×0.07 mm special elliptical diamond\$295

DL-103/T Moving-Coil Cartridge

Includes non-switchable 40-ohm cartridge transformer. Cartridge output 0.3 mV at 50 mm/sec; frequency range 20 45,000 Hz; separation over 25 dB at 1 kHz; channel balance 1 dB at 1 kHz; load impedance 100 ohms; compliance 5×10^{-6} cm/dyne; tracking force 2.5 ± 0.3 g; conical stylus; 8.5 g. Transformer step-up ratio 10:1; primary/secondary impedance 40/4k ohms; frequency response 20-40,000 Hz ± 1 dB; load impedance 50k ohms; 115 mmD \times 51 mmW \times 38 mmH\$200
DL-103. Same as DL-103/T minus cartridge transformer\$150

DL-103S Moving-Coil Cartridge

Output 0.3 mV at 50 mm/sec; frequency range 20-60,000 Hz; separation > 25 dB at 1 kHz; channel balance 1 dB at 1 kHz; load impedance 100 ohms; compliance 8×10^{-6} cm/dyne; tracking force 1.8 ± 0.3 g; modified Shibata stylus; 7.8 g\$195

DL-301 Moving-Coil Cartridge

Moving-coil phono cartridge with aluminum alloy tapered pipe cantilever, elliptical solid diamond stylus tip. Frequency range 20-60,000 Hz; separation 28 dB at 1 kHz; compliance 13×10^{-6} cm/dyne; 4.7 g\$175

AU-320 Cartridge Transformer

For moving-coil cartridges. Step-up ratio 10:1; primary/secondary impedance 30-40/4k ohms; frequency response 10-10,000 Hz ± 1 dB; 155 mmD \times 97 mmW \times 65 mmH\$160
AU-310. Similar to AU-320 except frequency response 20-40,000 Hz; 181 mmD \times 53 mmH \times 51 mmW\$95

DL-300 Moving-Coil Cartridge

Features double-construction aluminum cantilever with 2-way damping; cross-shaped armature; high magnetic field strength direct linear flux system; one-point suspension system; special elliptical stylus. Frequency range 20-40,000 Hz; impedance 40 ohms; separation 25 dB at 1 kHz; channel balance 1.5 dB; dynamic compliance 8×10^{-6} cm/dyne at 100 Hz; stylus force 1.8 ± 0.3 g; 4.2 g\$100
DL-300/T. Same as DL-300 except has AU-250 in-line MC step-up transformer\$160

Tonearms

DA-401 Tonearm

Lightweight 322-mm statically-balanced S-shaped tonearm with dynamically-damped system. Features 2 piece high-rigidity headshell; oil-damped cue, non-contact magnetic antiskate control; tracking error 2.5°; tracking force range 0-2 g in 0.1-g increments;

5 PHONO CARTRIDGES

height adjustment 42-70 mm; cartridge weight range 4-10 g; effective mass 7.5 g \$360

DA-307 Tonearm

Statically-balanced 332-mm dynamic S-shaped tonearm with magnesium-alloy diecast headshell. Features magnetic antiskate, oil-damped cue, vernier-dial direct-reading tracking force control; tracking error 2.5°; cartridge weight range 5-10 g; height adjustment 42-70 mm \$275

HA-1000 Cartridge Head Amplifier

MC-type cartridge head amplifier. Frequency response 8-600,000 Hz +0/-1 dB; input noise level -157 dB/V rms; input impedance 200 ohms; IM and HD 0.008%; crosstalk -70 dB; 292 mmD x 125 mmW x 68 mmH (power supply 68 mm H x 107 mmW x 141 mmD x 107 mmW x 68 mmH) \$440

HA-500 Cartridge Head Amplifier

Head amplifier designed for moving-coil (MC) cartridges. Frequency response 10-600,000 Hz +0/-1 dB; input noise level -157 dB/V rms; input impedance 100 ohms; IM and HD <0.008%; crosstalk <70 dB; 305 mmD x 126 mmW x 71 mmH \$250

DYNAVECTOR

DV 17D Phono Cartridge

Moving-coil stereo phono cartridge with diamond cantilever, improved super-elliptical diamond stylus. Output 0.2 mV at 1 kHz, 5 cm/sec; frequency response 20-20,000 Hz ±1 dB; crosstalk >20 dB at 1 kHz; compliance 20 x 10⁻⁶ cm/dyne; tracking force 1.2 g; 5.3 g \$615
DV 23R. Similar to DV 17D except has ruby cantilever. Compliance 15 compliance 20 x 10⁻⁶ cm/dyne; tracking force 1.5 g \$310

DV/20A Mark 2 Moving-Coil Cartridge

Moving-coil phono cartridge with 0.3 x 0.7-mil elliptical diamond stylus, tapered aluminum cantilever; step-up transformer or head amp not necessary; automatic coil winder wraps 11.5-micron-thick wire hair with moving coils wound on nonferrous core; output 3.6 mV at 5 cm/sec, 1 kHz; separation 20 dB at 1 kHz; frequency range 20-20,000 Hz; compliance 24 x 10⁻⁶ cm/dyne; tracking force 1.8 g; polyester-reinforced glass-fiber main frame; 5.3 g \$240
DV/20B Mark 2. Similar to DV/20A except has straight solid beryllium cantilever \$298

DV-50A Phono Cartridge

Stereo phono cartridge with short-length straight aluminum pipe cantilever, 0.3 x 0.7-mil elliptical nude block diamond stylus. Output 0.2 mV at 1 kHz, 5 cm/sec; frequency response 20-20,000 Hz ±1 dB; separation 20 dB at 1 kHz; compliance 20 x 10⁻⁶ cm/dyne; tracking force 1.5 g; 4.5 g \$198

10X2 Moving-Coil Cartridge

Output 2.3 mV (3.45 cm/sec); balance ±0.65 dB; separation 20 dB at 1 kHz; 85-ohm dc coil resistance; 0.6-mil spherical stylus on aluminum cantilever (not user-replaceable); tracking force 2.5 g; weight 9.5 g; 1/2" mounting center \$126

DV-505 Tonearm

Biaxis inertia-controlled dynamic balance-type tonearm with 2 pivots; dynamic damping system to eliminate arm resonance; electromagnetic damping system; free-standing type mounting; overall length 335 mm, effective length 241 mm; height 72-94 mm; offset angle 21.5°; lateral tracking error 0-2.2°; overhang 15 mm; height adjustable over 38-70 mm; suitable cartridge weights 9-35 g; supplied with 1.2-m cable \$700

EMPIRE

Plug-In Cartridges

Designed for all Technics-type linear-tracking straight tonearms.

1080LT. With antistatic stylus. Features micro gold-plated nude Para Linear diamond stylus mounted on gold-plated ultra-low-mass cantilever \$150

980LT. Similar to 1080LT except has 0.2 x 0.7-mil nude elliptical diamond stylus \$125

580LT. Similar to 980LT except no gold plating; has ultra-low-mass thin cantilever \$100

480LT. Similar to 580LT except standard cantilever \$90

380LT. Similar to 480LT except has 0.3 x 0.7-mil elliptical diamond stylus \$70

280LT. Similar to 380LT except has 0.4 x 0.7-mil elliptical diamond stylus \$50

Standard-Mount Cartridges

Designed for use in standard tonearms.

1000GT. With antistatic stylus. Features micro gold-plated nude Para Linear diamond stylus mounted on



micro gold-plated ultra-low-mass cantilever ... \$150

900GT. Similar to 1000GT except has 0.2 x 0.7-mil elliptical diamond stylus \$125

EDR.7. High-performance cartridge with Para Linear diamond stylus mounted on low-mass cantilever \$100

MC Plus 20. High-output moving-coil cartridge with user-replaceable stylus assembly. Requires no step-up transformer \$90

SLM44. Super-low-mass cartridge with 0.3 x 0.7-mil elliptical diamond stylus mounted on low-mass cantilever \$75

250E. Stereo phono cartridge with 0.3 x 0.7-mil elliptical diamond stylus \$50

150C. Similar to 250E except has 0.6-mil conical stylus \$40

GOLDRING by AUDIOSOURCE

G900/IGC Phono Cartridge

Low-mass moving-magnet phono cartridge with van den Hul fine-line diamond stylus. Output 4.5 mV at 5 cm/sec, 1 kHz; frequency response 20-20,000 Hz ±2 dB; balance/separation 2/25 dB at 1 kHz; static compliance 40 mm/N lateral, 20 mm/N vertical; tracking force range 0.75-1.5 g; load resistance 47k ohms; load capacitance 150-200 pF; 4 g \$240

910 IGC. Similar to G900/IGC except output 6.5 mV; static compliance 24 mm/N \$240

920/IGC Phono Cartridge

Low-mass moving-magnet phono cartridge with van den Hul fine-line diamond stylus. Output 6.5 mV rms ±2 dB at 1 kHz, 5 cm/sec; frequency response 20-20,000 Hz ±2 dB; channel balance within 2 dB; channel separation 20 dB; equivalent tip mass 0.45 mg; vertical tracking angle 24°; static compliance 24 mm/N lateral, 16 mm/N vertical; load resistance 47k ohms; load capacitance 150-200 pF; weight 4.25 g \$125

G900/E Phono Cartridge

Low-mass phono cartridge. Output 6.5 mV at 5 cm/sec; frequency response 20-20,000 Hz ±3 dB; separation 20 dB at 1 kHz; tracking force 1-3 g; 0.7 x 0.3-mil elliptical stylus \$65

G950E Phono Cartridge

Stereo phono cartridge with 0.0007" x 0.0003" elliptical diamond stylus. Output 6 mV rms at 1 kHz, 5 cm/sec; frequency response 10-20,000 Hz ±5 dB; separation >20 dB at 1 kHz; static compliance 25 mm/N lateral, vertical; load resistance/capacitance 47k ohms/200-400 pF; 5 g \$40

GRACE by SUMIKO

F-11L Phono Cartridge

Moving-coil stereo cartridge with hand-wound precision coils. Features extremely low mass boronized cantilever with Advanced Luminal Trace stylus with long contact line, reduced-mass Vital mounting. Compliance 20 x 10⁻⁶ cm/dyne; output 0.75 mV; vertical tracking force range 1.3-2.3 g; 8.6 g \$595

F-9E Phono Cartridge

Wide bandwidth stereo moving samarium-cobalt magnet cartridge with unique Omni Axial pivot for reduced longitudinal drag distortion. Features line-contact elliptical stylus shaped from reduced-mass Vital diamond for extremely low effective moving mass. Compliance 20 x 10⁻⁶ cm/dyne; output 3.5 mV; effective moving mass 0.35 mg; tracking force 1.2 g; 6 g \$200

F-9L. Similar to F-9E except has Advanced Luminal Trace stylus with long, narrow contact line similar to original cutter diamond; Vital mount for total effective moving mass of 0.3 mg; 5.5-mV output; load capacitance 350 pF \$180

F-9E Ruby. Similar to F-9E except ruby



cantilevered \$300

F-8L Phono Cartridge

Matrical-flux stereo moving micro-magnet with Advanced Luminal Trace stylus similar to that in F-9L. Tracking force range 0.75-2.5 g; output 5 mV; effective tip mass 0.4 mg; 6.5 g \$125

Tonearms

G-1040 Tonearm

Moderate-mass high-rigidity S-shaped tonearm with detachable carbon-fiber universal headshell. Features precision orthogonal gimbal bearings; antiskating.

NOTICE TO READERS

Prices of items described are suggested prices only and are subject to change without notice. Actual selling prices are determined by the dealer.

force control; oil-damped cueing mechanism. Effective length 237 mm; cartridge weight range 3-14 g \$330

747 Tonearm

Low-mass highly-rigid damped aluminum tubular straight tonearm with detachable headshell with wide-surface coupling mechanism; case-hardened orthogonal bearing system; decoupled counterweight isolated by damper; antiskate, cue; overall length 293-321 mm; stylus overhang 15 mm; cartridge weight range 4-10 g \$300

707II Tonearm

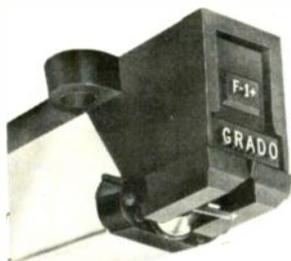
Low-mass highly-rigid aluminum tubular straight tonearm with acrylic headshell; orthogonal gimbal bearing system incorporates cone mechanism made of solid base material with case-hardened bearing cone tip; decoupled counterweight isolated by small rubber damper; antiskate, cue; overall length 288-313 mm; stylus overhang 15 mm; cartridge weight range 4.5-12 g; available in black or silver ... \$225

GRADO LABORATORIES

All Grado stereo phono cartridges come with diamond styli. Input load 47k ohms with 10k ohms optimal; inductance 55 mH; weight 4.5 g.

Super Fluxbridgeter Series

G2+. With Twin Tip stylus. Output 3 mV; frequency range 10-60,000 Hz; separation 25 dB, 10-30,000 Hz; tracking force 1.5 g \$250
 G1+. With true ellipsoid stylus. Specifications same as for G2+ \$150
 G+. Similar to G1+ \$100
 GF1+. With special Grado stylus, otherwise similar to



G1+ \$80
 GF2+. Similar to GF1+ \$65
 GF3E+. With elliptical stylus, otherwise similar to G1+ \$55

Fluxbridgeter Series

GCE+1. With elliptical diamond stylus. Output 3 mV; frequency range 10-50,000 Hz; separation 20 dB average, 20-20,000 Hz; tracking force 1.5g \$15
 GTE+1. Similar to GCE+1 \$45

Professional Series

GCE+. With elliptical diamond stylus. Output 5 mV; frequency range 10-35,000 Hz; separation 20 dB average, 20-20,000 Hz; tracking force range 1.5-3 g \$37.50
 GTE+. Similar to GTE+ \$25

INDUCED MAGNET SYSTEMS by NAGATRON

1400ER Universal-Mount Phono Cartridge

Stereo induced magnet cartridge with 0.6 x 0.6-mil cross-grain-crystal natural diamond stylus, AL5052 Aluminum alloy cantilever with special permalloy micro tubular armature and permalloy case. Frequency range 20-22,000 Hz; 0.52-mg effective mass; 1.75-2.25 g tracking force range \$55
 1440E. Similar to 1400ER except 0.4 x 0.7-mil elliptical cross-grain-crystal-natural diamond stylus, 0.48 mg effective mass \$65
 1466E. Similar to 1440E except has boron bonded stylus, 0.45-mg effective mass; UT-58 alloy cantilever with permalloy microtubular armature; 1.5-2.0-g tracking force range \$80
 1460IE. Similar to 1440E except cartridge in in-

grated headshell for low-mass tonearm \$90

JVC

MC-2E Phono Cartridge

Micro moving-coil cartridge with direct-coupled transducer, duralumin cantilever; 0.07 x 0.14-mm diamond tip elliptical stylus; output 0.2 mV at 5 cm/sec; balance/separation 1 dB/25 dB; impedance 30 ohms; dynamic compliance 8 x 10⁻⁶ cm/dyne at 1 kHz; optimum tracking force 1.5 ± 0.15 g; frequency response 10-25,000 Hz; 8.7 g \$200

LINN by AUDIOPHILE SYSTEMS

Asak DC2100K Moving-Coil Cartridge

Stereo moving-coil cartridge with 0.2 x 0.8-mil modified elliptical stylus. Frequency response 10-50,000 Hz ± 3 dB; separation 27 dB; output 0.2 mV; impedance 3.5 ohms; compliance 12 x 10⁻⁶ cm/dyne; tracking angle 20°; tracking force 1.5-1.9 g; 6 g \$495

Tonearms

Ittok LV-II Tonearm

Tonearm with 11 1/2" 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. \$650

Basik LV-X Tonearm

Tonearm with 11 1/4" overall length, 9" stylus-pivot distance. Features damped cueing; radial ball vertical, lateral bearings; magnetic phono cartridge; universal detachable headshell. Total cable capacitance 100 pF; cartridge weight range 3-11 g \$199

Basik LV-V Tonearm

Tonearm with 11 1/4" overall length, 9" stylus-pivot distance, damped cueing mechanism. Features radial ball bearings; magnetic cartridge. Total cable capacitance 100 pF; cartridge weight range 3-11 g. \$149

LUXMAN

Moving-Coil Phono Cartridges

8020. With silver coil, 20-dB step-up \$200
 8030. With silver coil, 30-dB step-up \$200

CX-1 DC Head Amplifier

Offers switchable gain (20 or 30 dB) for moving-coil cartridges of either middle- or low-output type; moving-magnet cartridge has bypass position. Equivalent input noise -150 dB V; THD 0.003%; frequency response 5-500,000 Hz -1 dB; input and output impedances 100 ohms; 5 1/8" W x 12" D x 3 1/2" H \$200

LUSTRE by SUMIKO

GST-801 Tonearm

Moderate-mass tonearm with dual gimbal bearings. Features magnetic application of vertical tracking force; adjustable tracking angle during play via precision helicoid mechanism; high-rigidity stainless-steel antiresonant-material-filled tonearm tube; pure silver with Teflon coating internal wiring; magnesium headshell with silver wiring \$500

MAGNEPAN

Unitrac I Tonearm

Low-mass universal tracking tonearm with unipivot design, detachable carbon fiber headshell. Features thin-walled carbon fiber tube; vertical tracking angle adjustment; optimum arm geometry; gold connectors; low-capacitance cable. Pivot/stylus distance 9 1/2"; effective mass 8 g; bearing friction < 5 mg; headshell offset 22.8"; cartridge weight range 7-12 g with auxiliary weight, 3-7 g without weight; stylus overhang 0.675"; maximum tracking error 1.77" \$295

MICRO-ACOUSTICS

System II Series

630 Phono Cartridge

Ultra-low-mass direct-coupled electret phono car-

Within 1 year, this arm was #3 in sales in the USA!

(Now we're shooting for #1)



UNITRAC I
by
MAGNEPAN

Circle No. 43 on the
Reader Service Card
to find out why.

5 PHONO CARTRIDGES

tridge with Micro-Point II diamond stylus, Micro-Fine beryllium cantilever, twin-pivot revolver, ultralight-weight carbon-fiber housing. Designed for wide dynamic range, digital recordings. Features internal warp stabilizer damping; microcircuit that matches output to any cable capacitance, preamp input resistance; Vari-Balance™ system; independent damping, suspension systems; dynamic feedback system; gold wiring. Output 3.5 mV; frequency response 5-20,000



Hz ± 1 dB (calibration curve supplied); separation 30 dB at 1 kHz; tracking-force range 0.7-1.4 g; rise time 4.5 μ sec; cable capacitance/load resistance 25-1500 pF/5k-100k ohms; 2.5-4 g, adjustable with Vari-Balance \$265
3002. Similar to 630 minus iridium-platinum axial damper, calibrated curve. Frequency response 5-20,000 Hz ± 1.25 dB; rise time 5 μ sec \$170
382. Similar to 3002 except has elliptical diamond stylus with beryllium cantilever; minus Vari-Balance. Tracking force 0.75-1.5g; rise time 6 μ sec; 4g \$140
309. Similar to 382 except has aluminum cantilever. Frequency response ± 2 dB; rise time 7 μ sec. \$120
100-e. Similar to 309 except standard elliptical stylus. Frequency response ± 2.5 dB; rise time 8 μ sec; tracking force 0.8-1.6 g \$99

309 Phono Cartridge

Direct-coupled electret stereo phono cartridge. Features universal-match microcircuit, dynamic feedback dampers. Rise time 7 μ sec \$120

Stratus Phono Cartridges

Stereo phono cartridges with direct scanning.
S-1 \$200
S-2 \$150
S-3 \$115

MICRO SEIKI by SAE

LC80W Phono Cartridge

Improved moving-coil stereo cartridge with hyperelliptical stylus, individual response curve. Frequency response 10-45,000 Hz ± 1 dB; separation 30 dB at 1 kHz, 25 dB at 10 kHz; output 0.09 mV at 1 kHz; tracking force 1.7 g; load resistance 3-100 ohms \$400

LF-7 Phono Cartridge

Stereo moving-flux phono cartridge with user-replaceable elliptical stylus \$100

Tonearms

MAX 282 Tonearm

Transcription-length dynamically balanced tonearm with interchangeable tubes. Features solid-brass bearing system, brass stabilizers; double-collet chuck system; gyroscopic mount; micro patented vertical and lateral bearings; fluid damping. Stylus-pivot distance 11.1"; tracking-force range 0.5-3 g; cartridge-weight range 4-33 g \$1000

MAX 505III Tonearm

S-shaped dynamically balanced tonearm with fluid damping, needle bearing, universal head shell, dual lateral bearing. Stylus-pivot distance 9.3"; tracking-

force range 0.5-3 g; cartridge-weight range 4 16 g \$425

CFX 1 Tonearm

Dynamically balanced carbon-fiber tonearm with needle vertical bearing, dual-radial lateral bearing, decoupled counterweight. Stylus-pivot distance 9.3"; tracking-force range 0.5-3 g; cartridge-weight range 4-12 g \$225

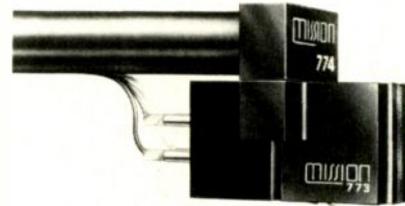
CFX 2 Tonearm

Carbon-fiber tonearm with decoupled counterweight, needle vertical bearing, dual-radial lateral tracking. Stylus-pivot distance 9"; tracking-force range 0.5-3 g; cartridge-weight range 4-12 g \$160

MISSION ELECTRONICS

733 SM Phono Cartridge

Low-output moving-coil cartridge with 0.3 x 0.7-mm nude block elliptical stylus. Output 0.2 mV at 1 kHz,



5 cm/sec; separation 20 dB at 1 kHz; balance ± 0.5 dB, 20-20,000 Hz; tracking force 2.0 g \$597
773 HC. Similar to 773 SM but high-output version. Output 1.7 mV \$397
773 LC. Similar to 773 SM except has 0.6 x 0.8-mm stylus. Specifications same as for 773 SM ... \$227

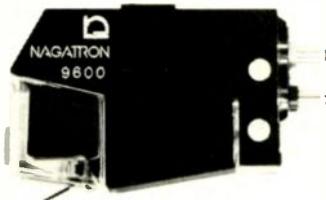
774 Tonearm

Designed to direct couple cartridge assembly to turntable mass. Features unique bearing design that eliminates conventional "flapping" headshells; low effective mass; minimal pivot friction; interchangeable tonearm tube/headshell assembly. Cartridge weight range 2-10 g; effective length 229 mm; effective mass < 5.5 g \$397

NAGATRON

9600 Super IM Phono Cartridge

Stereo induced-magnet aluminum magnesium alloy phono cartridge with tapered, tubular boron cantile-



ver, samarium-cobalt magnet; frequency range 20-30,000 Hz; output 2 mV at 50 mm/sec, 1 kHz; balance/separation 1 dB/27 dB at 1 kHz; recommended load 47k ohms; dynamic compliance 15 x 10⁻⁶ cm/dyne at 100 Hz; tracking force range 0.9-1.3 g; triangle-tip elliptical semi-line-contact stylus; effective mass 0.031 mg; JIS and EIA standard mount; weight 7.6 g \$275

300 Series Phono Cartridges

Features critically aligned samarium-cobalt alloy induced magnet structure; universal mount; frequency range 10-25,000 Hz; balance/separation 1.0/25 dB at 1 kHz; output 4.0 mV at 50 mm/sec at 1 kHz; recommended load 30k-100k ohms, 50k ohms nominal; dynamic compliance 9 x 10⁻⁶ cm/dyne; static compliance 20 x 10⁻⁶ cm/dyne.

360CEX. Hand-selected 0.3 x 0.7 mil shaped elliptical nude diamond stylus with tapered carbon-fiber cantilever; effective mass 0.60 mg \$215

344DE. 0.3 x 0.7-mil bonded elliptical diamond stylus with aluminum cantilever, permalloy micro tubular armature; super permalloy magnet structure; frequency range 20-25,000 Hz; dynamic compliance 8 x 10⁻⁶ cm/dyne/100 Hz; 6 g \$95
340S. 0.5 mil spherical diamond stylus; aluminum UT-58 cantilever; effective mass 0.85 mg \$75
300DJ. Designed for broadcasters, discos, other commercial users; features back cueing capability, low distortion, heavy-duty stylus, cantilever, suspension; tracking pressure 4-5 g; grain-oriented equi-radial stylus \$70

200 Series Phono Cartridges

Stereo cobalt-alloy magnet structure; universal mount; frequency range 10-25,000 Hz; balance/separation 1.0/25 dB at 1 kHz; output 4.0 mV at 50 mm/sec, 1 kHz; recommended load 30k-100k ohms, 50k ohms nominal; dynamic compliance 8 x 10⁻⁶ cm/dyne at 1 kHz; static compliance 20 x 10⁻⁶ cm/dyne.

220CE. 0.3 x 0.7 mil shaped elliptical nude diamond stylus with tapered carbon-fiber cantilever; effective mass 0.60 mg \$150

210E. 0.3 x 0.7 mil elliptical nude diamond stylus with aluminum UT-58 cantilever; effective mass, 0.65 mg \$110

100 Series Phono Cartridges

Stereo induced magnet with super-permalloy shield; frequency range 20-20,000 Hz; effective mass 0.85 mg; balance/separation 1.5/24 dB at 1 kHz; output 4.0 mV at 50 mm/sec (1 kHz); recommended load 30k-100k ohms, 50k ohms nominal; dynamic compliance more than 8 x 10⁻⁶ cm/dyne at 1 kHz; static compliance 20 x 10⁻⁶ cm/dyne; aluminum cantilever.

195IE. 0.3 x 0.7 Mil elliptical diamond stylus; integral head shell \$75

185E. 0.3 x 0.7 Mil elliptical diamond stylus; universal mount \$65

165S. 0.5 Mil spherical diamond stylus; universal mount \$55

Ag 9200 Z Coupler

Impedance, level coupling device designed for 3-ohm output impedance of Nagatron ribbon cartridge, most low-output moving-coil cartridges to 47k-ohm input impedance of magnetic input stage on most preamps. Features chemically pure silver windings, very short magnetic circuit; selector switch for balanced or unbalanced line hook-up. Input impedance 3 ohms; output impedance 33k ohms; load resistance 47k ohms minimum; load capacitance 200 pF; frequency response 12-35,000 Hz ± 0.5 dB; maximum input 300 mV at 50 Hz; distortion 0.0001% at 5 mV in, 1 kHz; crosstalk 75 dB; gain 40 dB \$425

NAKAMICHI

MB-150 Moving-Coil Booster Amplifier

Switchable gain 22 or 38 dB; equivalent input noise - 158 dB A weighted; THD < 0.005%, 20-20,000 Hz; frequency response 10-10,000 Hz +0/-0.5 dB, 22-dB gain setting; requires PS-100 Power Supply; 7 1/2"W x 4"D x 2 1/2"H \$140

ORTOFON

Moving-Coil Cartridges

MC30 Phono Cartridge

Moving-coil cartridge with fine-line diamond stylus. Features wide-range damping system. Output 0.08 mV at 5 cm/sec, 1 kHz; frequency response 20-20,000 Hz ± 1 dB; balance 1 dB; separation 25 dB at 1 kHz; dynamic compliance 13 μ m/mN vertical, horizontal; load impedance 47k ohms; tracking force 1.5 g; 6- μ m stylus tip radius; weight 7 g \$850

MC200 Phono Cartridge

Moving coil stereo cartridge with wide-range damping (WRD). Features samarium-cobalt ring magnet. frequency response 20-35,000 Hz ± 2 dB; vertical tracking angle 20"; balance/separation 1 kHz < 1.5 dB/> 25 dB; compliance 13/13 μ m/mN vertical, lateral; recommended tracking force 15mN/1.5 g; FIM distortion < 1%; 16.5 g \$420

MC20 MkII Phono Cartridge

Moving-coil cartridge with 0.14 x 0.07-mm nude fine-line diamond stylus. Features wide-range damping system, square magnetic pole. Output 0.09 mV at 5 cm/sec, 1 kHz; frequency response 20-20,000 Hz ± 1 dB; balance/separation 1.5 dB/25 dB at 1 kHz; dynamic compliance 12 μm/mN at 10 Hz; 8 x 40-μm stylus tip; tracking force 1.7 g; 7 g \$295

MC10 MkII Phono Cartridge

Moving-coil (MC) stereo phono cartridge with elliptical stylus. Vertical tracking angle 20°; output 0.09 mV at 1 kHz, 5 cm/sec; balance 1.5 dB at 1 kHz; frequency response 20-20,000 Hz ± 1 dB; tracking force 1.5 g; FIM distortion < 1%; 7 g \$195

Magnetic Cartridges

FF15XE MkII Phono Cartridge

Variable magnetic shunt phono cartridge with 8-μm elliptical diamond stylus tip. Output 1.2 mV at 1 kHz, 1 cm/sec; frequency range 20-20,000 Hz; balance/separation 2 dB/20 dB at 1 kHz; compliance 20 μm/mN horizontal, vertical; tracking force range 1.5-3 g; replacement stylus NF15XE Mk II; 5 g \$65

FF10XE Phono Cartridge

Cartridge features variable magnetic shunt (VMS). Output 1.2 V at 1 kHz; frequency range 20-20,000 Hz; separation 20 dB at 1 kHz; tracking angle 20°; 5 g \$48

Concorde Series

Concorde Pro

Integrated elliptical cartridge. Frequency range 20-20,000 Hz; output 5 mV at 1 kHz at 5 cm/sec; separation/balance at 1 kHz 20/2 dB; dynamic compliance horizontal/vertical 8/8 μm/mN; FIM distortion 1.8%; load resistance 47k ohms; 16 g \$95

Concorde STD Phono Cartridge

Variable magnetic shunt stereo phono cartridge with elliptical diamond stylus. Output 5 mV; equivalent stylus tip mass 0.6 mg; channel separation 20 dB at 1 kHz; tracking-force range 1.7-2.3 g; vertical tracking angle 20°; 15 g \$90

Concorde EC10 Phono Cartridge

Variable magnetic shunt stereo phono cartridge with elliptical diamond stylus. Output 5 mV; equivalent tip mass 0.7 mg; separation 20 dB at 1 kHz; tracking-force range 1.7-2.3 g; 15 g \$65

VMS Series

VMS 30 MkII Phono Cartridge

Variable magnetic shunt stereo phono cartridge with axially oriented fine-line diamond stylus. Output 5 mV at 1 kHz, 5 cm/sec; equivalent stylus tip mass 0.45 mg; separation 27 dB at 1 kHz; tracking-force range 1.0-1.6 g; vertical tracking angle 20°; 5 g \$185

VMS 20 E MkII. Similar to VMS 30 MkII except has elliptical diamond stylus. Equivalent tip mass 0.5 mg; separation 25 dB; tracking-force range 0.8-1.2 g \$155

VMS 10 E MkII. Similar to VMS 20 E MkII except equivalent tip mass 0.65 mg; tracking-force range 1.7-2.3 g \$130

VMS 5 E MkII. Similar to VMS 10 E MkII except equivalent tip mass 0.8 mg; output 6 mV; tracking-force range 1.5-3.0 g \$80

VMS3E Phono Cartridge

Stereo cartridge with variable magnetic shunt system. Frequency range 20-20,000 Hz; output 6 mV at 1 kHz, 5 cm/sec; separation 20 dB at 1 kHz; tracking force 20 mN (2.0 g); FIM distortion 1%; load resistance 47k ohms; 5 g \$60

LM Series

LM30 Phono Cartridge

Low-mass variable magnetic shunt moving-magnetic phono cartridge with lightweight aluminum-alloy cantilever, nude fine-line diamond stylus. Output 3.0 mV at 5 cm/sec, 1 kHz; frequency response 20-25,000 Hz; balance/separation 1.5/25 dB at 1 kHz; dynamic

compliance 25 μm/mN lateral; tracking force range 12-18 mN; 2.6 g \$195

LM20 Phono Cartridge

Low-mass variable magnetic shunt phono cartridge with axially-oriented fine-line diamond stylus. Output 3.5 mV at 5 cm/sec, 1 kHz; frequency range 20-20,000 Hz; balance/separation 2/25 dB at 1 kHz; dynamic compliance 20 μm/mN; 2.6 g \$155

LM15 Phono Cartridge

Low-mass variable magnetic shunt phono cartridge with elliptical stylus; designed for medium-weight tonearms. Output 4.0 mV at 5 cm/sec at 1 kHz; frequency range 20-20,000 Hz; balance/separation 2/25 dB at 1 kHz; dynamic compliance 20 m/mN; 2.6 g \$120

TMC200 Phono Cartridge

Moving-coil cartridge with wide range damping, pure boron cantilever. Output 0.9 mV at 1 kHz, 5 cm/sec; frequency response 20-35,000 Hz ± 2 dB; balance < 1.5 dB; separation 18 dB at 15 kHz; dynamic compliance 13/13 μ vertical, lateral; load impedance > 10 ohm; tracking force 1.25 g; equivalent stylus tip mass 0.5 mg; 6 g \$350

TM30H Phono Cartridge

Moving-coil cartridge with fine line diamond stylus.

Features variable magnetic shunt (VMS) system. Output 3.5 mV at 1 kHz, 5 cm/sec; frequency range 20-20,000; balance 1.5 dB; separation 25 dB at 1 kHz; compliance 40 μm/mN static vertical, 35 μm/mN dynamic lateral; load 47k ohms/200 pF; tracking force 1.25 g; equivalent stylus tip mass 0.35 mg .. \$175

TM20H Phono Cartridge

Moving-coil cartridge with fine line diamond stylus. Features variable magnetic shunt (VMS) system. Output 3.5 mV at 1 kHz, 5 cm/sec; frequency range 20-20,000 Hz balance/separation 1.5/25 dB; compliance 40 μm/mN static vertical, 3 μm/mN dynamic lateral; load 47k ohms/200 pF; tracking force 1.25 g; equivalent stylus tip mass 0.45 mg; 6 g \$115

TM14 Phono Cartridge

Stereo cartridge with elliptical diamond stylus. Frequency range 20-20,000 Hz; output 4.5 mV; separation/balance 25/1.5 dB at 1 kHz; equivalent stylus tip mass 0.5 mg; recommended load 47k ohms/200 pF; tracking force 1.25 g \$65

TM10H Phono Cartridge

Stereo phono cartridge with elliptical diamond stylus. Frequency range 20-20,000 Hz; output 5 mV at 1 kHz, 5 cm/sec; separation/balance 22/2 dB at 1 kHz; tracking force 1.25 g; equivalent tip mass 0.5 mg; recommended load 47k ohms/200 pF \$50

Tonearm/Cartridge Combination

Ortofon/SME 30 H Cartridge/Arm

Coupling of Ortofon's Concorde 30 low-mass cartridge/headshell with SME's Series III, IIS low-mass tonearms; uses solid nude fine-line diamond stylus and specially-hardened aluminum alloy cantilever in S-shaped arm. Output 3 mV at 5 cm/sec, 1 kHz; frequency range 20-20,000 Hz; balance/separation 1.5/25 dB at 1 kHz; dynamic compliance 35 μm/mN; tracking force range 0.8-1.2 g; tonearm res-

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C.O.D.

5 PHONO CARTRIDGES

onant frequency 13 Hz; 10.5 g \$260

Step-Up Devices

T-30 Moving-Coil Step-Up Device

Moving-coil transformer boosts MC30 signals to feed normal phono input. Features 2 toroidal cores, rotary switch with bypass (for magnetic cartridges), 3-, 6-, 12-, 24-, 48-ohm overlapping ranges. Output loading 47k ohms/150 pF; frequency response 8-90,000 Hz +0.3/-1 dB; gain 32 dB (3 ohms), 29 dB (6 ohms), 26 dB (12 ohms), 23 dB (24 ohms), 20 dB (48 ohms); channel balance 0.2 dB; separation 50 dB, 5-50,000 Hz; square-wave rise time 3 μsec; 142mmD × 80 mmW × 40 mmH \$725
T20. Transformer type. Frequency response 10-60,000 Hz +0.5/-3 dB; gain 32 dB; separation > 50 dB, 5-30,000 Hz; input impedance 2-4 ohms; output load 47k ohms/150 pF; 122 mmD × 80 mmW × 40 mmH \$250
T10. Similar to T20 except 90 mmD × 40 mmH × 20 mmW \$160

ORT2 Stereo Test Record

Designed to analyze performance of phono cartridges, interactions between tonearm and turntable. Tests include channel orientation, phasing; separation; white noise levels; different tone; tracking ability vertical/lateral; tonearm resonance vertical/lateral \$24

PICKERING

XLZ/7500S Phono Cartridge

Phono cartridge with nude stereohedron diamond stylus tip. Sensitivity 0.06 mV/cm/sec ± 2 dB; frequency range 10-50,000 Hz; separation 35 dB; tracking force range 0.5-1.5 g; includes Dustamatic brush; replacement stylus D7500 \$220

XLZ/4500S Phono Cartridge

Low-impedance cartridge with long contact line Stereohedron stylus. Output 0.06 mV/cm/sec ± 2 dB; frequency range 20-40,000 Hz; separation 35 dB; replacement stylus D4500S \$150
XLZ/3500E. Similar to XLZ/4500S except has 0.2 × 0.7-mil elliptical stylus. High-end response 30 kHz; separation 30dB; replacement stylus D3500E \$100

XSV/5000 Phono Cartridge

Phono cartridge with nude stereohedron diamond stylus tip. Output 5.5 mV at 5.5 cm/sec; frequency range 10-50,000 Hz; separation 35 dB; tracking force 1 g; includes Dustamatic brush; replacement stylus D5000 \$220
XSV/4000. Similar to XSV/5000 except frequency range 10-36,000 Hz; tracking force 1 g; replacement stylus D4000 \$180

XSV/3000 Phono Cartridge

Output 5 mV at 5.5 cm/sec; frequency range 10-30,000 Hz; Stereohedron stylus tip; tracking force 0.75-1.5 g; separation 35 dB; features Dustamatic brush; replacement stylus D3000 \$140



XV-15/1200E Phono Cartridge

Output 4.4 mV at 5.5 cm/sec; frequency range 10-30,000 Hz; 0.2 × 0.7-mil elliptical stylus; tracking force 0.5-1.25 g; separation 35 dB; features Dustamatic brush; replacement stylus D1200 \$110

XV-15/750E Phono Cartridge

Output 4.4 mV at 5.5 cm/sec; frequency range 10-25,000 Hz; 0.3 × 0.7-mil elliptical stylus; tracking force 0.5-1.5 g; channel separation 35 dB; features Dustamatic brush; replacement stylus D750 \$90

XV-15/625E Phono Cartridge

Output 4.4 mV at 5.5 cm/sec; frequency range 10-25,000 Hz; 0.3 × 0.7-mil elliptical diamond stylus; tracking force 0.75-1.5 g; separation 35 dB; features Dustamatic brush; replacement stylus D625 \$80

XV-15/625DJ Phono Cartridge

Designed for disco use. Output 0.8 mV/cm/sec; separation 30 dB; tracking force 1-4 g; 0.3 × 0.7-mil elliptical stylus \$75

XV-15/400E Phono Cartridge

Output 5.5 mV at 5.5 cm/sec; frequency range 10-25,000 Hz; 0.4 × 0.7-mil elliptical stylus; tracking force 1-1.5 g; separation 35 dB; features Dustamatic brush; replacement stylus D4000 \$70

XV-15/200E Phono Cartridge

Output 8 mV at 5.5 cm/sec; frequency range 10-25,000 Hz; 0.4 × 0.7-mil elliptical stylus; tracking force 2-4 g; separation 35 dB; features Dustamatic brush; replacement stylus D200 \$65

XV-15/350 Phono Cartridge

Output 6 mV at 5.5 cm/sec; frequency range 10-25,000 Hz; 0.7-mil spherical stylus; tracking force 1-3 g; separation 35 dB; features Dustamatic brush; replacement stylus D350 \$55

XV-15/140E Phono Cartridge

Output 8 mV at 5.5 cm/sec; frequency range 10-20,000 Hz; 0.5 × 0.7-mil elliptical stylus; tracking force 3-5 g; separation 35 dB; has Dustamatic brush; replacement stylus D140 \$50

XV-15/150 Phono Cartridge

Output 8 mV at 5.5 cm/sec; frequency range 10-25,000 Hz; 0.7-mil spherical stylus; tracking force 2-4 g; separation 35 dB; features Dustamatic brush; replacement stylus D150 \$50

XV-15/100 Phono Cartridge

Output 8 mV at 5.5 cm/sec; frequency range 10-20,000 Hz; 0.7-mil spherical stylus; tracking force 3-7 g; separation 35 dB; features Dustamatic brush; replacement stylus D100 \$45

Micro IV Series

V-15 Micro IV AME Phono Cartridge

Output 5.5 mV at 5.5 cm/sec; frequency range 20-20,000 Hz; 0.4 × 0.7-mil elliptical stylus; tracking force 1-2 g; separation 30 dB; features Dustamatic brush; replacement stylus DIV-AME \$65

V-15 Micro IV ATE Phono Cartridge

Output 6.5 mV at 5.5 cm/sec; frequency range 20-18,000 Hz; 0.4 × 0.7-mil elliptical stylus; tracking force 2-4 g; separation 28 dB; features Dustamatic brush; replacement stylus DIV-ATE \$50

V-15 Micro IV AM Phono Cartridge

Output 6 mV at 5.5 cm/sec; frequency range 20-20,000 Hz; 0.7-mil spherical stylus; tracking force 1-3 g; separation 30 dB; features Dustamatic brush; replacement stylus DIV-AM \$45

V-15 Micro IV ACE Phono Cartridge

Output 8 mV at 5.5 cm/sec; frequency range 20-17,000 Hz; 0.5 × 0.7-mil elliptical stylus; tracking force 3-5 g; separation 26 dB; features Dustamatic brush; replacement stylus DIV-ACE \$40

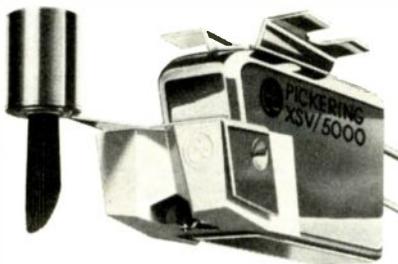
V-15 Micro IV AT Phono Cartridge

Output 8 mV at 5.5 cm/sec; frequency range 20-18,000 Hz; 0.7-mil spherical stylus; tracking force 2-

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XSV/5000



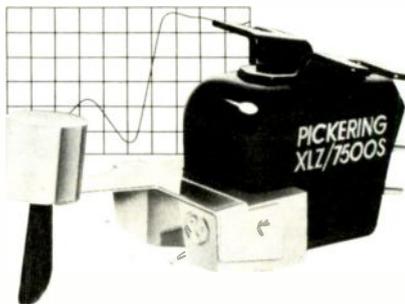
Now a cartridge that combines all the features of the famous Pickering Stereohedron™ design developed to a new plateau of performance. A new samarium cobalt magnet provides extremely high output with the lowest effective tip mass. The patented Stereohedron tip design and brush assembly work hand in hand for faithful reproduction of today's most sophisticated recording techniques. The XSV/5000—a new way to hear the difference.



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A fresh new breakthrough in cartridge development designed specifically as an answer for the low impedance moving coil cartridge—

XLZ/7500S



Now a moving magnet cartridge that offers characteristics exceeding the best of moving coil cartridges without any of the moving coil disadvantages (ringing, spurious harmonics, etc.). Its extremely fast rise time, less than 10μ, reflects a new openness and crispness of sound. The new Stereohedron stylus provides very high compliance for superb tracking. The low impedance XLZ/7500S—a new sound experience with moving magnet reliability.

from Pickering

CIRCLE NO. 53 ON READER SERVICE CARD

5 PHONO CARTRIDGES

4 g; separation 28 dB; features Dustamatic brush; replacement stylus DIV-AT \$40

V-15 Micro IV AC Phono Cartridge

Output 8 mV at 5.5 cm/sec; frequency range 20-17,000 Hz; 0.7-mil spherical stylus; tracking force 3-7 g; separation 26 dB; features Dustamatic brush; replacement stylus DIV-AC \$35

Plug-In Phono Cartridges

TL-3 Phono Cartridge

Features Stereohedron stylus. Output 4.4 mV; frequency range 10-25,000 Hz; separation 35 dB; tracking force 0.75-1.25 g; 5.7 g; replacement stylus DTL-3 \$110

TL-2 Phono Cartridge

Stereo phono cartridge with 0.0003" x 0.0007" elliptical diamond stylus. Output 4.4 mV; frequency range 10-22,000 Hz; separation 32 dB; tracking force 0.75-1.25 g; replacement stylus DTL-2... \$80
 TL-3. Similar to TL-2 except has 0.0004" x 0.0007" elliptical stylus. High-end response 25 kHz; replacement stylus DTL-1 \$60

4-Channel

PP-1 Stereo Pre-Preamp

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

PREMIER by SUMIKO

LMX Phono Cartridge

Low-mass moving-coil stereo phono cartridge with hand-wound coils, rare-earth Samarium-cobalt magnetic structure. Features Van Den Hul II diamond stylus with extremely long and narrow contact line for decreased high-frequency mistracking, reduced pickup of groove noise. Output 0.3 mV \$200
 LME. Similar to LMX except has 0.3 x 0.8-mil elliptical diamond stylus \$149
 LMS. Similar to LME except has 0.6-mil spherical stylus \$109

PIONEER

PC-70MC Phono Cartridge

Moving-coil phono cartridge with 0.2 x 0.8-mil elliptical diamond stylus (not user-replaceable), seamless tapered beryllium cantilever. Output 0.2 mV (requires step-up device); frequency range 10-80,000 Hz; tracking force 0.9-1.5 g; 4 g \$300
 PC-50MC. Similar to PC-70MC except has 0.3 x 0.7-mil stylus, tapered seamless aluminum cantilever. High-end response 60 kHz; tracking force 1.2-1.8 g \$200

PC-4MC Phono Cartridge

Low-mass, high-output moving-coil phono cartridge \$125

PC-145 Phono Cartridge

Induced-magnet phono cartridge with 0.3 x 0.7-mil elliptical diamond stylus. Output voltage 3 mV at 1 kHz, 5 cm/sec; frequency range 10-25,000 Hz; tracking force 1.5-2.3 g \$45
 PC-135. Similar to PC-145 except has 0.4-mil conical stylus \$40

SHURE

V15 Type V Phono Cartridge

Moving-magnet phono cartridge. Output 3.2 mV at 5 cm/sec peak velocity (1 kHz); frequency response 10-28,000 Hz; separation 25 dB at 1 kHz; tracking force 1.0 g; low-mass hyperelliptical stylus; microwall beryllium shank; features viscous damped dynamic

stabilizer; SIDE-GUARD stylus deflector; replacement stylus VN5HE \$250

MV30HE Cartridge/Tonearm Carrier

Phono cartridge integrated with SME carrier designed exclusively for use with SME 3009 Series III, IIIS tonearms. Similar in performance to Shure's V15 Type IV cartridge \$245

V15 LT Phono Cartridge

Moving-magnet cartridge made especially for use in turntables with direct plug-in connector systems. Output 4 mV at 5 cm/sec peak velocity (1 kHz); frequency response 10-25,000 Hz; separation 25 dB at 1000 Hz; tracking force 1.25 grams; hyperelliptical stylus; replacement stylus VN45LT \$190

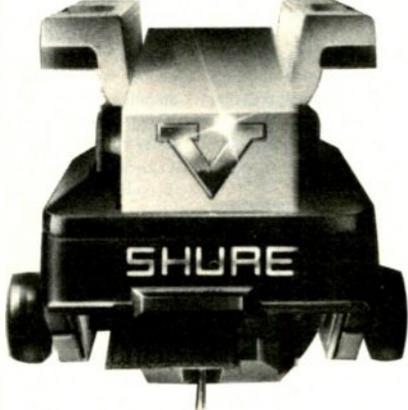
M97HE Phono Cartridge

Moving-magnet cartridge. Output 4 mV at 5 cm/sec peak velocity (1 kHz); frequency response 20-20,000 Hz; channel separation 25 dB at 1 kHz; tracking force 0.75-1.5 g; hyperelliptical stylus; features viscous-damped dynamic stabilizer, SIDE-GUARD stylus deflector; replacement stylus N97HE \$130

M97LT Phono Cartridge

Moving-magnet cartridge made especially for use in turntable with direct plug-in systems. Output 4 mV at 5 cm/sec peak velocity (1 kHz); frequency response 20-20,000 Hz; separation 25 dB at 1000 Hz; tracking force 1.25 grams; hyperelliptical stylus; replacement stylus N97LT \$115

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"Our tests show that the Shure V15 Type V not only lives up to the claims made for it, but in virtually every respect OUTPERFORMS the best cartridges we have previously tested....It is hard to imagine how the V15 Type V could be improved significantly. It offers the MOST PERFORMANCE in the most areas, plus the most convenience and safety in installation and operation." — **Julian Hirsch, Stereo Review, June, 1982**

"... (The V15 Type V) is definitely the FINEST pickup Shure has ever made, which makes it one of the finest ever made, period." — **High Fidelity, July, 1982**

"... In a world of audiophile discs with demanding tracking requirements, the Shure V15 Type V KEEPS AHEAD of the times." — **Rich Warren, Chicago Sun-Times, June 4, 1982**

"(The V15 Type V) REDEFINES its maker as a pioneer in cartridge design not only from the beginnings of micro-groove technology but well into the future of the LP disc." — **FM Guide (Canada), June, 1982**

"... It may be safe to say that this cartridge's excellent tracking ability is NUMBER ONE in the world. Provides exquisite and elaborate sound." — **Swing Journal (Japan), May, 1982**

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6

AUDIO TAPE MACHINES

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AD-3800U Stereo Cassette Deck

Stereo cassette deck with D.A.T.A. (Digital Automatic Tape Adaptation) microcomputer system, A.D.M.S. (Automatic De-Magnetizing System). Features exclusive tension-stabilized dual-capstan system; metal tape compatibility; Dolby B and C noise-reduction systems; AIWA DX-combination 3-head system; dc re-



recording amplifier; multiple-operation digital electronic display; auto repeat memory and LED; IC logic transport controls with cue-and-review operation; 3-color 16-LED peak signal displays with peak-hold. Wow and flutter 0.025% wrms; S/N ratio 68 dB \$595
AD-3700U. Similar to AD-3800U except no D.A.T.A. microcomputer system, dc recording amplifier. Includes automatic record mute, 12-LED displays. Wow and flutter 0.028% wrms \$495

AD-3500U Stereo Cassette Deck

Stereo cassette deck with 3-head, soft-touch-controlled transport with cue and review, Dolby B and C noise-reduction circuits. Features A.D.M.S. (Automatic De-Magnetizing System); new-style control panel display of function, mode settings; 3-color, 12-LED signal displays with peak hold; LH-bias fine adjust control. Wow and flutter 0.038% wrms \$395.

AD-3300U Stereo Cassette Deck

Slim-design, automatic front-loading stereo cassette deck with Dolby B and C noise-reduction systems. Features AIWA's unique LED remaining-tape time display; soft-touch IC logic transport controls; new auto-tune convenience (preset) record level for FM recording and 19-kHz MPX filter; LH-bias fine adjust control; 3-color 12-LED peak signal display. Wow and flutter 0.60% wrms; S/N ratio 74 dB with metal tape \$340

SD-L80U Stereo Cassette Deck

Metal-compatible stereo cassette deck with Dolby B and C noise-reduction systems, 12-point multi-color LED peak level displays. Features timer record/playback selector switch; oil-damped eject; front-panel headphone jack; servo-controlled dc motor; click-touch IC-logic transport controls. Wow and flutter 0.032% wrms \$340

SD-L60U Stereo Cassette Deck

Stereo cassette deck with new style automatic front-loading. Features feather-touch IC-logic transport controls; LED tape time-remaining display; 3-color LED signal-level displays; Dolby B noise-reduction system; metal-tape compatibility. Wow and flutter 0.06% wrms \$340

SD-L50U Stereo Cassette Deck

Metal-tape-compatible stereo cassette deck with

Dolby B noise-reduction system. Features timer standby; oil-damped eject; servo-controlled dc motor; 12-LED signal-level display; soft-touch IC-logic transport controls; rec-sync operation; automatic rewind/repeat; front panel microphone and headphone jacks. Wow and flutter 0.04% wrms \$340

FX-100 Synchro-Record Cassette Deck

One-touch synchro-record stereo cassette deck designed for use with system V-100. Features automatic record input level adjust; tape bias/EQ selector; Dolby B and C noise-reduction systems; music-sensor system; feather-touch logic controls with cue and review; record-mute edit; LH fine bias control; automatic replay. Wow and flutter 0.032% wrms \$330

AD-3200 Cassette Deck

Stereo cassette deck with Dolby B and C noise-reduction systems, "micrograin" capstan, DX record/play head. Features Stable Tape Transport Mechanism; multicolored LED peak level meters; LH bias fine control; soft-touch transport controls; cue and review; oil-damped cassette eject; LH/CrO₂/metal tape selector. Wow and flutter 0.038% wrms; frequency range 20-18,000 Hz metal, to 17 kHz CrO₂ tape; S/N ratio with metal tape Dolby B/C on 62/73 dB \$295

AD-3100 Cassette Deck

Stereo cassette deck with DX record/play head, Dolby B noise-reduction system, "micrograin" capstan. Features metal-tape capability; dc servo motors; 3-color peak level displays; soft-touch transport controls; 3-position tape selector; timer standby record/play; oil-damped cassette eject; MPX filter \$225

AKAI

GX-F95 Stereo Cassette Deck

Stereo cassette deck with concealed cassette well, Dolby B noise-reduction system, 4-digit tape counter, Super GX combination record/play tape head. Features tape/source monitoring; computerized Bias



Equalization and Sensitivity Tuning (B.E.S.T.) system for all tape formulations; built-in memory; full-logic feather-touch transport controls; 24-segment 2-color fluorescent switchable peak/VU meters with peak hold; electronic tape/real-time counter; standby blinker. Wow and flutter 0.025% wrms; frequency response 20-21,000 Hz ± 3 dB with metal tape; S/N ratio > 72 dB A weighted with Dolby on, metal tape; distortion $< 0.6\%$ at 1 kHz, 0 VU with metal tape; 17.3"W \times 14.2"D \times 6.4"H; 28.7 lb \$795

GX-F91 Stereo Cassette Deck

Computer-controlled stereo cassette deck with Dolby B and C noise-reduction systems. Features Super GX record/play heads; 3-head, 2-motor full-logic transport system; quartz-locked direct-drive, double-cap-

stan closed-loop system; Quiet and Quick mechanism; auto tape selector; auto tape tuning with adjustable bias; output and headphone level controls; dc servo amplifier; switchable peak/VU meters; digital real-time tape counter; automatic play; IPLS; Intro Scan; automatic fader; automatic record mute; automatic record cancel. Wow and flutter $< 0.025\%$ wrms; frequency response 15-21,000 Hz ± 3 dB with metal tape; S/N ratio no NR/Dolby B/Dolby C 60/70/80 dB; distortion $< 0.7\%$; \$750

GX-F66RC Stereo Cassette Deck

Computer-controlled auto-reverse stereo cassette deck with Dolby B and C noise-reduction systems. Features automatic reverse in record, play; quick-reverse mechanism; automatic play; continuous play; random program search; blank search; Intro-Scan; automatic tape selector; twin-field Super GX head; automatic record mute; 16-segment bargraph meters; electronic digital tape counter. Wow and flutter 0.035% wrms; frequency response 20-19,000 Hz ± 3 dB with metal tape; S/N ratio no NR/Dolby B/Dolby C 60/70/80 dB with metal tape; distortion $< 0.7\%$ \$575

GX-F44R Stereo Cassette Deck

Automatic record/play quick-reverse stereo cassette deck with Dolby B and C noise-reduction systems, metal-tape capability. Features continuous playback; random program search; intro scan; automatic tape selector; twin-field GX head; automatic mute; 16-segment signal-level bargraph displays; electronic digital tape counter. Wow and flutter 0.035% wrms; frequency response 25-19,000 Hz ± 3 dB with metal tape; S/N ratio no NR/Dolby B on/Dolby C on 60/70/80 dB; distortion $< 0.7\%$ \$457

GX-F71 Stereo Cassette Deck

Computer-controlled stereo cassette deck with Dolby B and C noise-reduction systems. Features Super GX heads; 3-head, 2-motor double-capstan-closed-loop system; quiet and quick mechanism; automatic tape tuning; automatic tape selector; dc amplifier; automatic monitor; direct-drive; time record with auto tape tuning; Intro Scan; IPLS; automatic fader; power eject/direct lead-in system; auto record cancel; 18-segment FLD bargraph meters; electronic digital time/tape counter. Wow and flutter 0.03% wrms; frequency response 20-21,000 Hz ± 3 dB with metal tape; S/N ratio no NR/Dolby B/Dolby C 60/70/80 dB; \$450

CS-F39R Stereo Cassette Deck

Bidirectional record/play stereo cassette deck with Dolby B and C noise-reduction systems. Features quick reverse; 2 motors; full-logic feather-touch transport controls; automatic play; IPLS; 12-segment FL meters; automatic continuous play; 3-position tape selector with metal capability; automatic record mute. Wow and flutter 0.04% wrms; frequency response 26-19,000 Hz ± 3 dB with metal tape; S/N ratio no NR/Dolby B/Dolby C 60/70/80 dB; distortion $< 0.7\%$ \$375

GX-F31 Stereo Cassette Deck

Computer-controlled stereo cassette deck with Dolby B and C noise-reduction systems. Features twin-field

DESIGN INTEGRITY:



The Tape Tension Servo technology on our 24-track recorders...

... can be found on our \$1350. DH-510 Open-Reel, Half-Track High Speed Tape Deck...



... and our \$500. DR-F7 Three-Head, Discrete Dolby-C Cassette Deck.



Many cassette manufacturers compare their sound quality to open reel. Rather than making such inflated claims, Denon chose to incorporate the transport technology developed for our studio and 1/4" mastering machines into our cassette decks.

Proper tape-to-head contact, absolutely critical for the highest quality tape recording and playback, is controlled by outboard tension sensing arms on studio machines. On the DR-F Series cassette decks, this is accomplished by Denon's Tape Tension Servo Sensor system. Working in concert with the DR-F Series' Non-Slip Reel Drive Motors, which eliminate belts and clutches (the principal source of maintenance problems on conventional cassette decks), Denon's decks offer a literal miniaturization of a studio-type transport.

An equally important example of Denon's design approach for the DR-F Series is the use of DC (capacitorless) electronics throughout, a principle developed for Denon's Advanced Engineering Series.

Denon products share more than name alone.

Prices shown are for comparison purposes only.

CIRCLE NO. 19 ON READER SERVICE CARD

DENON

Imagine what we'll do next.

Denon America, Inc., 27 Law Drive, Fairfield, N.J. 07006

Creating great music has never

Now recreating it is.

Audition the AD-3800 3-head cassette deck and you will witness a display of technical sophistication. In 16 seconds, the AD-3800 will automatically record test tones, check playback, then set bias, sensitivity and equalization. It's impressive! Mechanically, the AD-3800 is just as outstanding. AIWA's patented dual capstan tape transport has reduced wow and flutter to just 0.025% (WRMS)! Add to that Dolby C, auto-demagnetizing, 32 section tri-color bar meters, digital tape/time remaining display and the optional remote control. Now you know why it's the top-of-the-line. CIRCLE NO. 1 ON READER SERVICE CARD

*Dolby is a
AIWA Amer

The AIWA AD-3800's DATA microcomputer assures unsu

6

CASSETTE
TAPE MACHINES

Super GX head; automatic tape selector; dc amplifier; direct drive; quiet and quick mechanism; Intro Scan; IPLS; 2 motors; power eject/direct lead-in system; automatic record cancel; maximum input level indicators; electronic digital tape counter. Wow and flutter 0.035% wrms; frequency response 20-19,000 Hz ± 3 dB with metal tape; S/N ratio no NR/Dolby B/Dolby C 60/70/80 dB \$300

CS-F21 Stereo Cassette Deck

Stereo cassette deck with Dolby B and C noise-reduction systems. Features automatic play; HD head; metal-tape capability; feather-touch transport controls; record mute; 12-segment FLD bargraph meters; remote-control jack. Wow and flutter 0.04% wrms; frequency response 30-18,000 Hz ± 3 dB with metal tape; S/N ratio no NR/Dolby B/Dolby C 58/68/78 dB; distortion < 0.8% \$250

CS-F14 Stereo Cassette Deck

Stereo cassette deck with Dolby B and C noise-reduction systems. Features feather-touch transport controls; metal-tape capability; 12-segment FLD bargraph signal-level displays; oil-damped eject; timer start. Wow and flutter 0.04% wrms; frequency response 30-18,000 Hz ± 3 dB with metal tape; S/N ratio no NR/Dolby B on/Dolby C on 58/68/78 dB with metal tape; distortion < 0.8% \$200

BANG & OLUFSEN

Beocord 9000 Stereo Cassette Deck

Top-loading stereo cassette deck with automatic computer-controlled calibration that automatically adjusts for specific tape formulation used. Features Dolby B and C noise-reduction and Dolby MX (headroom,

er-controlled search; single-gap record/play head; automatic demagnetization; stop function that places 4-second noise-free pause between recordings; timer start/stop function in both record and playback. Wow and flutter < 0.045% wrms; frequency response 20-20,000 Hz ± 3 dB; S/N ratio Dolby on/off > 68/> 60 dB metal, > 66/> 58 dB CrO₂, > 64/> 56 dB normal tape; channel separation > 35 dB; power consumption 50 W maximum; fast-wind time 70 seconds with C60 cassette; 20 1/4" W x 11 1/4" D x 5 1/4" H; 16.5 lb \$1100

Beocord 8000 Cassette Recorder

Dual-microcomputer-controlled metal-compatible top-loading cassette recorder with Dolby B noise-reduction system and single Sendust combination. Features electronic time measurement of tape travel in all operating modes, shown on illuminated digital display—precise measurement accomplished by microcomputer calibration of inserted cassette tape based on varying tape lengths, types, thicknesses of magnetic coating (calibration data erased upon ejection); electronically-controlled automatic search locates any time-indexed selection through pushbutton operation—user can also instruct recorder to hold tape until otherwise specified and when to turn record or playback function on or off; automatic memory returns tape to beginning of last recorded segment; automatic 4-second pause effected from stop button; electronically-controlled dual 8-LED peak program meters monitor signal strength; built-in electronic timer shows correct time when TIME SET is pressed; automatic demagnetization of tape head. Fast-wind time 70 seconds with C60 cassette; wow and flutter $\pm 0.1\%$; frequency response 30-16,000 Hz ± 2.5 dB chrome, 63 dB ferro; input sensitivity/impedance 1 mV/10k ohms radio, 120 mV/1.2M ohms aux, 0.1 mV/2.2k ohms receiver, 9 V/56 ohms headphones; 20 1/4" W x 11 1/4" D x 5 1/4" H \$995

Beocord 2400 Stereo Cassette Deck

Top-loading stereo cassette deck with Dolby B noise-reduction system and single Sendust record/play

14,000 Hz; S/N ratio > 50 dB; 19.5" W x 8" D x 7" H; 18.7 lb \$850
RAC-10 Mark II DNR. Same as Mark II except has dynamic noise-reduction system for 60 dB S/N ratio \$900

CYBERNET

Kycocera D-801 Stereo Cassette Deck

Stereo cassette deck with Dolby B and C noise-reduction systems. Features normal, CrO₂, metal bias/equalization tape selectors; fine bias control; 400-Hz calibration tone; 3-motor, 2-capstan drive system; electromagnetic braking; direct-coupled FET input stages; Automatic Program Mute Recording (APMR);



Sendust-alloy record/play, ferrite-alloy erase heads; soft-touch transport controls; 3-function electronic digital counter (elapsed time/time remaining/stopwatch); bargraph level meters with peak hold; auto memory stop/replay/repeat. Wow and flutter 0.02% wrms; frequency response 30-20,000 Hz ± 3 dB with metal and CrO₂ tape; S/N ratio 78 dB with metal tape, Dolby C on \$590
D-601. Similar to D-801 except no auto search, mechanical tape counter. Wow and flutter 0.035% wrms \$520

Kycocera DD-701 Dubbing Cassette Deck

Stereo high-speed copy dubbing cassette deck with mic echo mixer, automatic tape select. Features 2-speed dubbing capability; adjustable echo effect; full automatic stop; Quick Start and Automatic Recording Stop (QSARS); timer standby with optional timer; Automatic Program Jump System (APJS); rec mute; cue and review; Dolby B noise-reduction system;

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CASSETTE
TAPE MACHINES

± 3 dB 30-15,000 Hz normal, to 17 kHz CrO₂, to 19 kHz metal tape; S/N ratio > 65 dB with Dolby on; fast-wind time 90 seconds with C60 cassette; 17.1" W x 11.8" D x 4.6" H; 15.4 lb \$350

DUAL

C844 Stereo Cassette Deck

Metal-compatible stereo cassette deck with Dolby B and C noise-reduction systems, 2-speed (1 1/4 and 3 1/4 ips), 2-motor, dual-capstan closed-loop drive system. Features Sendust record/play and ferrite erase heads; direct load-and-lock transport with photoelectric stop switches; automatic head shield; electronic



fade/edit with playback monitoring; electronic 4-digit tape counter with memory set, stop, play; automatic music finder; auto spacing; auto repeat; 6-position tape selector; equalized VU meters; mic/line mixing; switchable MPX filter; provision for optional extended timer and 12-command remote controller. Specifications at 1 1/4 ips: frequency response 20-19,500 Hz with ferrichrome tape, to 20 kHz with metal tape ± 3 dB; S/N ratio 76 dB with ferrichrome tape, Dolby C on; harmonic distortion 0.04%; wow and flutter 0.03% wrms. Specifications at 3 1/4 ips: frequency response 20-20,000 Hz with ferrichrome and metal tapes; S/N ratio 78 dB with ferrichrome and metal tapes. Dolby C on; harmonic distortion 0.3% \$700

C828 Stereo Cassette Deck

Metal-compatible slim-line stereo cassette deck with Dolby B noise-reduction system, automatic reverse in record and playback with friction-resistant 4/4-track M + X head and double-gap ferrite erase head, 2-motor dual-capstan drive system. Features direct load-and-lock transport with photoelectric stop switches; microcomputer-controlled drive function using solenoids, logic system; automatic head shield; switchable MPX filter; 4-position tape selector; one-control record-ready system; equalized peak-indicating record-level system; 3-digit tape counter with memory; illuminated cassette well. Frequency response ± 3 dB 30-19,000 Hz with metal tape; wow and flutter 0.04% wrms \$500
C822. Similar to C828 except no auto reverse \$375

C814 Stereo Cassette Deck

Slim-line stereo cassette deck with Dolby noise-reduction system, direct load-and-lock transport, electronic tape-motion sensor/protector. Features friction-resistant M + X record/playback head with automatic protective head guard; soft-touch drive control with direct-mode switching; switchable MPX filter; automatic tape-type switchover; automatic input selector; peak-indicating equalized meters with double scales \$300

FISHER

DD450 Stereo Cassette Deck

Direct-drive 3-head cassette deck with separate tape-hub motor, dual-process Dolby B noise-reduction system, full-logic IC solenoid transport controls. Features 3 Sendust heads; normal/CrO₂/FeCr/metal tape switching with separate fine bias control; memory/auto-repeat function; fluorescent peak-level auto-hold meters. Wow and flutter 0.04% wrms; frequency response ± 3 dB 30-14,000 Hz normal, to 16 kHz CrO₂ and FeCr, to 18 kHz metal tape; S/N ratio 62 dB with Dolby on; THD 1.5% at 0 VU; fast-wind time 90 seconds for C60 cassette; 17" W x 10 1/2" D x 4" H; 15.5 lb \$580

DD300 Stereo Cassette Deck

Metal-compatible stereo cassette deck with Dolby B noise-reduction system, direct-drive dc servo capstan motor, 2 MX/ferrite heads. Features normal/FeCr/CrO₂/metal tape selector; dual VU meters with 3-LED peak indicators; input level control with line/mic input selector; output level control; auto repeat memory; 3-digit tape counter with reset; record mute; electronic solenoid feather-touch controls with LEDs; timer standby with external audio timer. Wow and flutter 0.04%; frequency response 30-18,000 Hz ± 3 dB with metal tape; S/N ratio 62 dB with Dolby; 17 1/2" W x 9 1/2" D x 5 1/4" H \$350
DD280. Similar to DD300 but minus FeCr tape position, auto repeat memory, output level control; has separate left/right input level controls; metal tape frequency response 30-15,000 Hz ± 3 dB; optional RC 80 full-function remote control unit available; 17 1/2" W x 10 1/2" D x 4" H \$300

CR150 Stereo Cassette Deck

Stereo 3-head cassette deck with dual-process Dolby noise-reduction system, power-assisted soft-touch transport controls, bias fine control. Features MPX filter; independent left, right input level controls; output level control; normal/CrO₂/metal tape selectors; dual lighted VU meters plus peak-level LEDs; tape/source monitoring, MPX filter; Wow and flutter 0.06% wrms; frequency response ± 3 dB 40-14,000 Hz normal, to 16 kHz CrO₂, to 18 kHz metal tape; S/N ratio 62 dB, Dolby on; THD 1.5% at 0 VU; fast-wind time 90 seconds with C60 cassette; 17 1/2" W x 10 1/2" D x 4 1/4" H; 13 lb \$350

DD350 Stereo Cassette Deck

Direct-drive cassette deck with full-logic transport controls, metal-tape compatibility, Dolby B noise-reduction system, peak indicators, timer standby. Features separate motor for tape reels; normal/CrO₂/metal bias/EQ switches; MX/ferrite heads; 2 large dual-scale VU meters; 3 peak-level LED indicators; timer standby switch; low-impedance microphone inputs. Wow and flutter 0.04% wrms; frequency response ± 3 dB 40-14,000 Hz normal, to 15 kHz CrO₂ and metal tapes; S/N ratio 62 dB with Dolby on; THD 1.5% at 0 VU; fast-wind time 90 seconds with C60 cassette; 17 1/2" W x 10 1/4" D x 4" H; 13 lb \$300

CR130 Stereo Cassette Deck

Cassette deck with power-assisted transport controls, Dolby noise-reduction system, dc governor-controlled motor. Features Auto Search Function (ASF); normal/CrO₂/metal tape bias/EQ selectors; 2 large VU meters with 3 peak-level LEDs; hard Permalloy record/playback head; separate input level, single output level controls; full automatic stop. Wow and flutter 0.06% wrms; frequency response ± 3 dB 30-14,000 Hz normal, to 15 kHz CrO₂ and metal tape; S/N ratio 62 dB, Dolby on; THD 1.5% at 0 VU; fast-wind time 90 seconds with C60 cassette; 17 1/2" W x 10 1/2" D x 4 1/4" H; 11 lb \$250
CR125. Similar to CR130 but less ASF, peak LEDs, output level control \$230

CR155 Double Stereo Cassette Deck

Stereo cassette deck designed for high-quality tape duplication. Features ASF (Auto Search Function) on playback-only compartment; Dolby B noise-reduction system; dc governor-controlled motors; metal-tape capability; LED bargraph meters; separate tape selectors for each cassette compartment; timer standby function; hard Permalloy record/playback head; separate drive motors for each compartment; record mute; dual-concentric input level controls. Wow and flutter 0.06% wrms; frequency response ± 3 dB 30-14,000 Hz normal, to 15 kHz CrO₂ and metal tapes; S/N ratio Dolby off/on 52/60 dB; THD 1.5%; input sensitivity/impedance 70 mV/50k ohms line; output level/impedance 500 mV/5k ohms line at 0 VU; separation/crosstalk 40/70 dB; fast-wind time with C60 cassette 100 sec; power consumption 12 W; 15 1/4" W x 8 3/4" D x 4 1/4" H; 10 lb \$230

CR77 Stereo Cassette Deck

Metal-compatible stereo cassette deck with Dolby B and C noise-reduction systems, dual 7-LED level meters, powered mechanism. Features input level con-

trol; metal/CrO₂/normal tape selector; record mute switch; microphone/line input selector; low-impedance microphone inputs; dc governor-controlled motor; hard Permalloy record/playback head; full auto stop; LED function indicators. Wow and flutter 0.06% wrms; frequency response ± 3 dB 30-14,000 Hz normal, to 15 kHz CrO₂ and metal tapes; S/N ratio Dolby off/B on/C on 52/60/70 dB; THD 1.5% at 0 VU; input sensitivity/impedance 1 mV/10k ohms mic, 100 mV/50k ohms line; output level/impedance 700 mV/2.2k ohms line; channel separation 40 dB; crosstalk 70 dB; fast-wind time 110 seconds with C60 cassette; power consumption 8 W; 15 1/4" W x 8 3/4" D x 4 1/4" H; 9 lb \$200

CR116 Stereo Cassette Deck

Metal-compatible stereo cassette deck with soft-touch transport controls, powered mechanism, LED bargraph displays, Dolby B noise-reduction system. Features 3-position tape selector; microphone/line input selector; hard Permalloy record/play head; dc governor-controlled motor; timer standby function; dual concentric input level controls; 3-digit tape counter. Wow and flutter 0.06% wrms; frequency response ± 3 dB 30-14,000 Hz normal, to 15 kHz CrO₂ and metal tapes; S/N ratio Dolby off/on 52/60 dB; THD 1.5% at 0 VU; input sensitivity/impedance 1 mV/10k ohms microphone, 70 mV/50k ohms line; output level/impedance 500 mV/5k ohms line; fast-wind time 100 seconds with C60 cassette; power consumption 8 W; 15 1/4" W x 8 3/4" D x 4 1/4" H; 9 lb \$180

CR140 Stereo Cassette Deck

Metal-compatible stereo cassette deck with powered mechanism, Dolby B noise-reduction system, 7-LED bargraph meters. Features normal/CrO₂/metal tape selector; dc governor-controlled motor; hard Permalloy record/playback head; record mute switch; slide-type input-level, balance controls; full automatic stop; soft-eject cassette door. Wow and flutter 0.06% wrms; frequency response ± 3 dB 30-14,000 Hz normal, to 15 kHz CrO₂ and metal tapes; S/N ratio Dolby off/on 52/62 dB; THD 1.2% at 0 VU; input sensitivity/impedance 0.5 mV/10k ohms microphone, 90 mV/10k ohms line; output level/impedance 450 mV/5k ohms line; separation 40 dB; crosstalk 70 dB; fast-wind time 120 seconds with C60 cassette; power consumption 13 W; 15 1/4" W x 11 1/4" D x 4 1/4" H; 9.9 lb \$160

CR113 Stereo Cassette Deck

Metal-compatible stereo cassette deck with Dolby B noise-reduction system, 2-color LED bargraph meters. Features 2-position tape selector; hard Permalloy record/playback head; dc governor-controlled motor; full automatic stop; separate input level controls for each channel. Wow and flutter 0.1% wrms; frequency response ± 3 dB 40-11,000 Hz normal, to 12 kHz metal tape; S/N ratio Dolby off/on 48/58 dB; THD 1.8% at 0 VU; input sensitivity/impedance 0.2 mV/10k ohms mic, 100 mV/50k ohms line; output level/impedance 1 V/5k ohms; separation 40 dB; crosstalk 68 dB; fast-wind time 100 seconds with C60 cassette; power consumption 11 W; 15 1/4" W x 9" D x 5 1/2" H; 7.9 lb \$120

GARRARD

CD-5000 Stereo Cassette Deck

Metal-compatible stereo cassette deck with Dolby B and C noise-reduction systems. Features IC logic light-touch transport controls; bias fine control; fluorescent peak VU meters; MPX filter; record mute; output level control. Wow and flutter 0.045% JIS; frequency range 40-17,000 Hz metal; harmonic distortion 1.8%; separation 40 dB; 420 mm W x 254 mm D x 106 mm H; 6 kg \$300

CD-3000 Stereo Cassette Deck

Metal-compatible stereo cassette deck with Dolby B noise-reduction system. Features mechanical light-touch transport controls; bias fine control; MPX filter. Wow and flutter 0.05% JIS; frequency range 40-16,000 Hz metal; harmonic distortion 2%; separation 40 dB; 420 mm W x 254 mm D x 106 mm H; 5 kg \$180

HARMAN/KARDON

CD401 Stereo Cassette Deck

Metal-compatible stereo cassette deck with Dolby HX professional headroom-extension, Dolby B and C noise-reduction systems, switchable multiplex filter, 3 heads. Features ultrawideband frequency response with any tape formulation; solenoid-controlled transport; fader; automatic rewind; automatic replay; tape monitor switch; LED digital tape counter; timer; memory stop; record mute; Dolby B and C record calibration tones; mic/line mixing; electronic Auto Search; bias fine trim; output level controls; automatic repeat. Wow and flutter 0.04% wrms (NAB); frequency response 20-24,000 Hz \pm 3 dB, any tape formulation; 17 $\frac{1}{8}$ " \times 13 $\frac{1}{2}$ " \times 4 $\frac{1}{16}$ "H \$750

CD301 Stereo Cassette Deck

Metal-compatible stereo cassette deck with Dolby HX professional headroom-extension, Dolby B and C noise-reduction systems, switchable multiplex filter, 2 heads. Features ultrawideband frequency response with any tape formulation; solenoid-controlled transport; memory stop; record mute; Dolby B and C record and bias calibration tones; microphone/line mixing; electronic auto search; Sendust record/play head; dual 12-LED peak-indicating meters; bias/equalization selectors; bias fine trim; output level controls; automatic repeat. Wow and flutter 0.04% wrms (NAB); frequency response 20-22,000 Hz \pm 3 dB, any tape formulation; 17 $\frac{1}{8}$ " \times 13 $\frac{1}{2}$ " \times 4 $\frac{1}{16}$ "H \$530

CD201 Stereo Cassette Deck

Metal-compatible stereo cassette deck with Dolby B and C noise-reduction systems, switchable multiplex filter, 2 heads. Features ultrawideband frequency response with any tape formulation; solenoid-controlled transport; Sendust record/play head; memory stop; record mute; 12-LED peak-indicating meters; bias and equalization selectors; bias fine trim; output level controls; automatic repeat. Wow and flutter 0.05% wrms (NAB); frequency response 20-21,000 Hz \pm 3 dB, any tape formulation; 17 $\frac{1}{8}$ " \times 13 $\frac{1}{2}$ " \times 4 $\frac{1}{16}$ "H \$400

CD101 Stereo Cassette Deck

Metal-compatible stereo cassette deck with Dolby B noise-reduction system, switchable multiplex filter, 2 heads. Features ultrawideband frequency response with any tape formulation; solenoid-controlled transport; Sendust record/play head; dual 12-LED peak-indicating meters; bias/equalization selectors; bias fine trim control; output level controls; automatic repeat. Wow and flutter 0.05% wrms (NAB); frequency response 20-21,000 Hz \pm 3 dB, any tape formulation; 17 $\frac{1}{8}$ " \times 13 $\frac{1}{2}$ " \times 4 $\frac{1}{16}$ "H \$300

CD91 Stereo Cassette Deck

Metal-compatible stereo cassette deck with Dolby B noise-reduction system, switchable multiplex filter, 2 heads. Features ultrawideband frequency response with any tape formulation; solenoid-controlled transport; Sendust record/play head; dual 12-LED peak-indicating meters; bias/equalization selectors. Wow and flutter 0.05% wrms (NAB); frequency response 20-20,000 Hz \pm 3 dB, any tape formulation; 17 $\frac{1}{8}$ " \times 13 $\frac{1}{2}$ " \times 4 $\frac{1}{16}$ "H \$250

HITACHI

DE99 Stereo Cassette Deck

Dual-capstan 2-motor stereo cassette deck with ATRS, 3 heads, Dolby B and C noise-reduction systems. Features IC logic feather-touch transport controls; metal-tape capability; electronic counter with elapsed time; automatic reset memory rewind; 2-color fluorescent meters with peak hold; automatic record mute; facility for optional remote control. Wow and flutter 0.03%; S/N ratio 75 dB with Dolby C on; 17 $\frac{1}{8}$ " \times 11 $\frac{1}{8}$ " \times 4 $\frac{1}{16}$ "H; 13 lb 14 oz \$570

DE66 Stereo Cassette Deck

Stereo cassette deck with 3 heads, Dolby B and C noise-reduction systems, IC logic feather-touch transport controls, metal-tape capability. Features electronic digital tape counter with elapsed-time display; automatic reset memory rewind; 2-color 32-LED me-

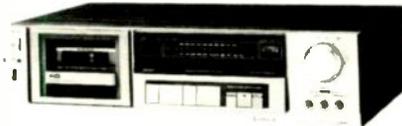
ter with peak hold; automatic record mute; facility for optional remote control. Wow and flutter 0.038%; S/N ratio 78 dB with Dolby C on; 17 $\frac{1}{8}$ " \times 11 $\frac{1}{8}$ " \times 4 $\frac{1}{16}$ "H; 11 lb 14 oz \$400

DE57 Stereo Cassette Deck

Stereo cassette deck with Dolby B and C noise-reduction systems, Scanplay, DRPS. Features computer memory; metal-tape capability; 32-LED meters with peak hold; IC logic transport control; electronic digital tape counter; automatic reset memory rewind; automatic record mute; facility for optional remote control. Wow and flutter 0.04%; S/N ratio 73 dB with Dolby C on; 17 $\frac{1}{8}$ " \times 11 $\frac{1}{8}$ " \times 4 $\frac{1}{16}$ "H; 10 lb 2 oz \$350

DE44 Stereo Cassette Deck

Metal-tape-capable stereo cassette deck with Dolby B and C noise-reduction systems. Features feather-



touch transport control mechanism; 24-LED meters; automatic record mute; facility for optional remote control. Wow and flutter 0.04% wrms; S/N ratio 72 dB with Dolby C on; 17 $\frac{1}{8}$ " \times 11 $\frac{1}{8}$ " \times 4 $\frac{1}{16}$ "H; 10 lb 3 oz \$260

DE33 Stereo Cassette Deck

Metal-capable stereo cassette deck with Dolby B and C noise-reduction systems. Features soft-touch transport mechanism; LED level meters; record mute. Wow and flutter 0.05% wrms; S/N ratio 72 dB with Dolby C on; 17 $\frac{1}{8}$ " \times 11 $\frac{1}{8}$ " \times 4 $\frac{1}{16}$ "H; 7 lb 8 oz \$200
DE22. Similar to DE33 except no Dolby B/C \$170

DE11 Stereo Cassette Deck

Metal-compatible stereo cassette deck with Dolby B noise-reduction system. Features 3-position bias/EQ switch; air-damped cassette-well door; full automatic stop. S/N ratio 64 dB with Dolby on; 17 $\frac{1}{8}$ " \times 8" \times 4 $\frac{1}{16}$ "H; 7 lb 1 oz \$150

DW700 Double Stereo Cassette Deck

Double stereo cassette deck designed for duplicating programs from one cassette to another. Features Dolby B and C noise-reduction systems; IC logic feather-touch transport controls; random programming; dubbing/playback; repeat play; 2 dc motors; facility for optional remote control; 17 $\frac{1}{8}$ " \times 11 $\frac{1}{8}$ " \times 4 $\frac{1}{16}$ "H; 13 lb \$390

JVC

DD-9 Stereo Cassette Deck

Stereo cassette deck with 3 heads, quartz-locked direct-drive pulse servo motor. Features metal-tape capability; computer B.E.S.T. tuning; Dolby B and C noise-reduction systems; electronic fluorescent tape counter; 2-motor, full-logic transport; touch input volume control; memory/auto rewind; lockable timer standby; output level control; record mute. Wow and flutter 0.019% wrms; frequency range 25-18,000 Hz \$900

DD-7. Similar to DD-9 except no computer B.E.S.T. tuning; has ANRS/Dolby B noise-reduction system; Super ANRS; single motor. Wow and flutter 0.021% wrms; high-end response 15 kHz \$600

DD-5. Similar to DD-7 except no quartz lock. Frequency range 30-16,000 Hz \$390

KD-D55 Stereo Cassette Deck

Metal-capable, front-loading stereo cassette deck with Dolby B and C (ANRS) noise-reduction systems, 3 heads, electronic digital counter. Features full-logic transport controls; digital multifunction counter that counts tape, shows elapsed/remaining tape time, Music Scan countdown; Multiple Music Scan system that allows up to 20 selections to be skipped; 7-LED multi-peak indicators; record mute; output volume control; timer function; gear/oil-damped cassette door. Wow and flutter 0.05% wrms; frequency response \pm 3 dB 30-16,000 Hz metal and CrO₂, to 15 kHz normal

tape; S/N ratio Dolby C off/on 58/78 dB with metal tape; THD 1.0% with metal tape at 0 VU, 1 kHz; input sensitivity/impedance 0.2 mV/600-10k ohms mic, 80 mV/100k ohms line; output level/impedance 500 mV/5k ohms line, 0.6 mW/matching impedance 8-1k ohms; power consumption 20 W; fast-wind time 110 seconds with C60 cassette; 17 $\frac{1}{8}$ " \times 11" \times 4 $\frac{1}{16}$ "H; 12.1 lb \$380

DE-3 Stereo Cassette Deck

Compact stereo cassette deck with motor-driven drawer cassette compartment. Features full-logic transport; single music scan; 7-LED multi peak signal level meters; Metaperm record/play head; metal-tape capability; 2 $\frac{1}{8}$ "H \$300

KD-D50 Stereo Cassette Deck

Metal-capable stereo cassette deck with Dolby B and C (ANRS) noise-reduction systems, soft-touch logic control transport, electronic digital counter. Features SA combination record/play head; Multiple Music Scan system; digital multi-function counter; 2-color fluorescent Spectro-Peak Indicator signal-level meters. Wow and flutter 0.05% wrms; frequency re-



sponse \pm 3 dB 30-16,000 Hz metal and CrO₂, to 15 kHz normal tape; S/N ratio Dolby C off/on 58/78 dB with metal tape; THD 1.0% with metal tape at 0 VU, 1 kHz; input sensitivity/impedance 0.2 mV/600-10k ohms mic, 80 mV/100k ohms line; output level/impedance 300 mV/5k ohms line, 0.3 mW/matching 8-1k ohms; power consumption 20 W; fast-wind time 105 seconds with C60 cassette; 17 $\frac{1}{8}$ " \times 10 $\frac{1}{16}$ " \times 4 $\frac{1}{16}$ "H; 13.2 lb \$340
KD-D40. Similar to KD-D50 except mechanical tape counter instead of electronic digital counter; power consumption 18 W \$280

KD-D30 Stereo Cassette Deck

Economy-priced front-loading stereo cassette deck with Dolby B and C (ANRS) noise-reduction systems. Features metal-tape capability; Metaperm record/play head; soft-logic transport controls; record mute; gear/oil-damped cassette door; Single Music Scan system; 7-LED multi-peak signal-level meters; mechanical tape counter; cue and review. Wow and flutter 0.05% wrms; frequency response \pm 3 dB 30-15,000 Hz metal and CrO₂, to 14 kHz normal tape; S/N ratio Dolby C off/on 58/78 dB; THD 1.0% with metal tape at 0 VU, 1 kHz; input sensitivity/impedance 0.2 mV/600-10k ohms mic, 80 mV/100k ohms line; output level/impedance 300 mV/5k ohms line, 0.3 mW/matching 8-1k ohms headphones; power consumption 17 W; fast-wind time 102 seconds with C60 cassette; 17 $\frac{1}{8}$ " \times 10 $\frac{1}{16}$ " \times 4 $\frac{1}{16}$ "H; 13.2 lb \$215
KD-D20. Similar to KD-D30 except no Dolby C NR system; S/N ratio Dolby B off/on 58/68 dB; power consumption 13 W \$185
KD-D10. Similar to KD-D20 except with meters instead of fluorescent bargraph displays; piano-key transport controls; no headphone output; wow and flutter 0.075%; power consumption 11 W; 10 $\frac{1}{16}$ " \times 4 $\frac{1}{16}$ "H; 8.6 lb \$160

KD-W7 Dubbing Cassette Deck

Double-transport stereo cassette deck for dubbing, mixing, continuous-play, etc., operation. Features metal-tape compatibility; Dolby B (ANRS) noise-reduction system; SA record/play heads; full-logic transport controls; dub at normal or double-speed capability, tape/mic and line/mic mixing facilities; single Music Scan system; 7-LED multi-peak signal-level displays; record mute; timer standby facility; continuous play between decks; gear/oil-damped cassette door. Wow and flutter 0.05% wrms; frequency response \pm 3 dB 40-15,000 Hz metal and CrO₂, to 14 kHz normal tape; S/N ratio Dolby off/on 58/68 dB with metal tape; THD 1.0% with metal tape at 0 VU, 1 kHz; input sensitivity/impedance 0.2 mV/600-10k

6 CASSETTE TAPE MACHINES

ohms mic, 55 mV/100k ohms line; output level/impedance 300 mV/5k ohms line, 0.3 mW/matching 8-1k ohms headphones; power consumption 22 W; fast-wind time 110 seconds with C60 cassette; 17 1/8" W x 10 1/4" D x 5 3/8" H; 15.4 lb \$450

D-M3 Stereo Microcassette Deck

Two-speed (2.4 and 1.2 cm/second) stereo micro-cassette deck with 2-motor, full-logic transport, Dolby B (ANRS) noise-reduction system, compact cabinet design. Features 7-LED multi-peak signal-level displays; music scan; record mute; timer standby; gear/oil-damped cassette door; headphone jack. Wow and flutter 0.08% wrms; frequency response ±3 dB at 2.4 cm/sec 40-12,500 Hz metal, to 10 kHz normal tape; S/N ratio Dolby off/on 52/62 dB with metal tape; input sensitivity/impedance 0.2 mV/600-10k ohms mic, 80 mV/100k ohms line; output level/impedance 300 mV/5k ohms line, 0.3 mW/matching 8-1k ohms headphones; power consumption 19 W; fast-wind time 120 seconds with MC60 microcassette; 13 1/4" W x 10 1/4" H x 2 1/8" H; 8.8 lb \$330

KENWOOD

KX-7XCG Stereo Cassette Deck

Dual-motor drive, full electronic logic control stereo cassette deck with Dolby B and C noise-reduction systems. Features amorphous alloy tape head; Direct Program Search System for up to 15 selections; one-cut indefinite repeat and full-side repeat; rerecording standby facility; timer standby facility. Wow and flutter 0.04% wrms; frequency response ±3 dB 20-21,000 Hz metal tape; S/N ratio with metal tape, Dolby C on/off 74/57 dB, Dolby B on/off 67/57 dB; input sensitivity/impedance 77.5 mV/50k ohms line, 0.3 mV/10k ohms mic; output level/impedance 390 mV at 0 VU/100k ohms line, 50 mV/8 ohms headphones; power consumption 25 W; 17 1/8" W x 13" D x 4 1/16" H; 12.8 lb \$400

KX-5XC Stereo Cassette Deck

Stereo cassette deck with full logic controls, Dolby B and C noise-reduction systems, Direct Program Search Systems for up to 15 selections. Features one-cut indefinite repeat and full-side repeat; rerecording standby facility; and timer standby facility. Wow and flutter 0.04% wrms; frequency response ±3 dB 20-17,000 Hz metal; S/N ratio with metal tape Dolby C on/off 72/57 dB, Dolby B on/off 67/57 dB; input sensitivity/impedance 77.5 mV/50k ohms; output level/impedance 390 mV at 0 VU/100k ohms line, 50 mV/8 ohms headphones; power consumption 18 W; 17 1/8" W x 12 1/4" D x 4 1/16" H; 12.1 lb \$330

KX-77C Stereo Cassette Deck

Full logic control stereo cassette deck with Dolby B and C noise-reduction systems, Direct Program Search System for up to 15 programs. Features one-cut indefinite repeat and full-side repeat; rerecording standby facility; timer standby facility. Wow and flutter 0.04% wrms; frequency response ±3 dB 20-17,000 Hz with metal tape; S/N ratio with metal tape, Dolby B on/off 67/57 dB; input sensitivity/impedance 77.5 mV/50k ohms line, 0.55 mV/10k ohms mic; output level/impedance 390 mV at 0 VU/100k ohms line, 50 mV/8 ohms headphones; power consumption 15 W; 17 1/8" W x 10 1/4" D x 4 3/4" H; 10.4 lb \$315

X-9C Stereo Cassette Deck

Stereo cassette deck with Dolby B and C noise-reduction systems. Features amorphous alloy record/play head; synchro recording from turntable; feather-touch full-logic transport controls; automatic tape selector; direct program search; full repeat \$309

KX-55C Stereo Cassette Deck

Deck has full logic controls, Dolby B and C noise-reduction systems, and Direct Program Search System

for up to 15 selections. Features full-side repeat; rerecording standby facility; timer standby facility. Wow and flutter 0.04% wrms; frequency response ±3 dB 20-17,000 Hz with metal tape; S/N ratio with metal tape, Dolby C on/off 72/57 dB, Dolby B on/off 67/57 dB; input sensitivity/impedance 77.5 mV/50k ohms line, 0.55 mV/10k ohms mic; output level/impedance 390 mV at 0 VU/100k ohms line, 50 mV/8 ohms headphones; power consumption 15 W; 17 1/8" W x 9 1/4" D x 4 3/4" H; 9.3 lb \$265

KX-40 Stereo Cassette Deck

Front-loading stereo cassette deck with Dolby B noise-reduction system, metal-tape capability. Features hard Permalloy record/play and ferrite erase heads; electronically controlled dc motor; full automatic off mechanism in all modes; 7-LED peak level meters (-20 to +6 dB); timer standby mechanism; 3-digit tape counter. Wow and flutter 0.06% wrms; frequency response ±3 dB 40-13,000 Hz normal, to 15 kHz metal tape; S/N ratio with Dolby on 60 dB normal, 62 dB metal; fast-wind time 85 seconds with C60 cassette; 17 1/8" W x 9 1/4" D x 4 3/4" H; 9.5 lb. Comes with head-cleaning set \$184
KX-50II. Similar to KX-40 except has Permalloy record/play head; CrO₂ capability; -15 to +5 dB LED peak meters; frequency response ±3 dB 35-15,000 Hz with all tape formulations; wow and flutter 0.05% wrms; S/N ratio 67 dB normal and CrO₂ and 68 dB with metal tape, Dolby on; fast-wind time 105 sec \$199

KLH

CD-101 Stereo Cassette Deck

Stereo cassette deck with Dolby B noise-reduction system. Features soft-touch transport controls; standard/CrO₂/metal tape bias/equalization selectors; LED signal-level meters; permalloy, ferrite heads; dc governor capstan motor. Wow and flutter 0.08% wrms; frequency response ±3 dB 30-15,000 Hz normal, to 17 kHz metal tape; S/N ratio 60 dB Dolby on; THD 1.5%; fast-wind time 100 seconds with C60 cassette \$200

LUX

KX-102 Stereo Cassette Deck

Computerized ServoFace stereo cassette deck with dbx* noise-reduction system. Features 3-head design; double dbx circuitry for both tape and disc playback; Duo Beta circuitry for minimum negative feedback, elimination of transient intermodulation distortion (TIM); 15% bias control; peak level fluorescent meters; Dolby B noise-reduction system; computerized tuning system that selects best bias level for tape used; automatic repeat, rewind, play; facility for using wireless remote controller. Wow and flutter 0.04% wrms; frequency response ±3 dB 20-22,000 Hz with metal tape; S/N ratio Dolby B/dbx 68/94 dB; THD 0.7% with LH tape at 400 Hz, 0 dB test level \$1000

KX-101 Stereo Cassette Deck

Full-logic, solenoid-controlled stereo cassette deck with Dolby B and C noise-reduction systems. Features fluorescent indicators; Duo Beta circuitry; 2 Sendust



heads; metal-tape capability; ServoFace design. Wow and flutter 0.04% wrms; frequency response 20-20,000 Hz ±3 dB with metal tape; S/N ratio with Dolby C on, metal tape 73 dB; THD 0.7% with LH tape at 400 Hz, 0 dB test level \$500

K-118 Stereo Cassette Deck

Stereo cassette deck with Duo Beta circuitry, dbx* noise-reduction and disc-decoder systems, Dolby B noise-reduction system. Features fluorescent tape counter; normal/CrO₂/metal tape selector; full-logic solenoid-controlled transport with remote-control ca-

pability; fluorescent peak level indicators; automatic rewind/play/repeat; switchable MPX filter. Wow and flutter 0.04% wrms; frequency response ±3 dB 20-17,000 Hz normal, to 18 kHz CrO₂, to 20 kHz metal tape; S/N ratio with metal tape, no NR/Dolby/dbx 58/67/93 dB; overall distortion 0.6% with LH tape at 1 kHz, 0 dB; input sensitivity 60 mV line, 0.3 mV mic; power consumption 33 W; 18 1/4" W x 10 1/2" D x 5 1/4" H; 13.2 lb \$500

K-117 Stereo Cassette Deck

Metal-compatible stereo cassette deck with Dolby B noise-reduction system. Features automatic repeat; bias fine control; full-logic solenoid transport controls with remote-control capability; direct change from play to record mode; fluorescent peak level indicators; record mute; normal/CrO₂/metal tape selector; switchable MPX filter. Wow and flutter 0.04% wrms; frequency response ±3 dB 20-16,000 Hz normal, to 18 kHz CrO₂, to 20 kHz metal tape; S/N ratio with metal tape Dolby off/on 61/70 dB; overall distortion 0.7% with LH tape at 1 kHz, 0 dB; input sensitivity 100 mV line, 0.3 mV mic; output level 500 mV; power consumption 25 W; 18 1/4" W x 10 1/2" D x 5 1/4" H; 13.2 lb \$400

K-113 Stereo Cassette Deck

Metal-capable stereo cassette deck with Dolby B noise-reduction system. Features soft-touch transport controls; skew adjustment; fluorescent peak level indicators; metal/CrO₂/normal tape selector. Wow and flutter 0.06% wrms; frequency response ±3 dB 20-16,000 Hz normal, to 18 kHz CrO₂, to 19 kHz metal tape; S/N ratio with metal tape Dolby off/on 57/72 dB; overall distortion 0.7% with LH tape at 1 kHz 0 dB; input sensitivity 80 mV line, 0.3 mV mic; output level 500 mV; power consumption 20 W; 17.5" W x 11" D x 4.4" H; 9.24 lb \$300

MARANTZ

SD9000 Stereo Cassette Deck

Two-speed (1 1/2 and 3 1/4 ips), 3-head Compudeck stereo cassette deck with total programmability. Features Sendust-alloy tape heads; double-Dolby noise-reduction system; metal-tape capability; 24-karat gold plated input and output jacks; LED peak level display meters; soft-touch electronic transport controls. Electronic tape-mode controls; automatic bias, EQ control; fine bias control; digital timer/tape counter/time-of-day display; MPX filter; microprocessor programming, selection circuitry for direct keyboard entry of up to 19 music selections; tape/source monitor switch; separate mic and line controls for each channel; timer-set/counter/program/clock/clock-set switch; repeat/single/off program mode switch; timer rec/off/play switch. Wow and flutter 0.03 wrms at 3 1/4 ips; 0.05% at 1 1/2 ips; frequency response at 3 1/4 ips ±3 dB 25-23,000 Hz metal, to 22 kHz FeCr, to 20 kHz CrO₂, to 20 kHz normal; frequency response at 1 1/2 ips 25-23,000 Hz metal, to 18 kHz FeCr, to 17 kHz CrO₂, to 16 kHz normal; S/N ratio at 3 1/4 ips 62 dB Dolby off, 72 dB Dolby on; S/N ratio at 1 1/2 ips 59 dB Dolby off, 72 dB on; 16 3/8" W x 11 1/8" D x 5 1/4" H; 22 lb 1 oz \$650

SD5010 Stereo Cassette Deck

Slim-line front-loading cassette deck with motorized linear-skating cassette drawer mechanism. Features metal-tape capability; 24-karat gold plated input, output connectors; LED peak level meters; Dolby B noise-reduction system; soft-touch electronic control transport system; electronic tape mode controls; super-hard metal-alloy heads. Wow and flutter 0.05% wrms; frequency response ±3 dB 35-18,000 Hz metal to 16 kHz FeCr, to 17 kHz CrO₂, to 15 kHz normal tape; S/N ratio 54 dB Dolby off, 64 dB Dolby on; 16 3/8" W x 12 1/2" D x 2 1/8" H; 13 lb 4 oz \$495

SD-420 Stereo Cassette Deck

Stereo cassette deck with Dolby B and C noise-reduction systems. Features soft-touch transport controls; gold-plated input and output connectors; multiple program Compuskip forward and backward; repeat playback; fine bias control; LED indicators for all transport controls, as well as for tape type, Dolby; timer standby; LED peak signal-level displays; metal/CrO₂/normal tape selector; record mute; tape

counter. Wow and flutter 0.05% wrms; frequency response ± 3 dB 40-12,500 Hz normal, to 15 kHz CrO₂, to 16 kHz metal tape; S/N ratio no NR/Dolby B/Dolby C 52/62/72 dB; input sensitivity/impedance -24 dBV/50k ohms line, -70 dBV/10k ohms mic; output level/impedance 600 mV/5k ohms line. 35 mV/240 ohms headphones; 16 $\frac{1}{2}$ "W \times 11 $\frac{1}{4}$ "D \times 3 $\frac{3}{4}$ "H \$340

SD 3510 Stereo Cassette Deck

Stereo cassette deck with Dolby B noise-reduction system, normal/CrO₂/FeCr/metal tape capability. Wow and flutter 0.07% wrms; frequency response ± 3 dB 35-14,000 Hz normal, to 15 kHz FeCr, to 16 kHz CrO₂, to 17 kHz metal tape; S/N ratio Dolby off/on 54/64 dB; input sensitivity/impedance -26 dBV/50k ohms line, -72 dBV/600 ohms mic; output level/impedance 500 mV/6k ohms line, 50 mV/8 ohms headphones; 16 $\frac{1}{2}$ "W \times 12"D \times 2 $\frac{1}{4}$ "H; 13 lb 1 oz \$325

SD-320 Stereo Cassette Deck

Stereo cassette deck with Dolby B and C noise-reduction systems. Features soft-touch transport controls;



gold-plated input and output connectors; LED peak signal level displays; normal/CrO₂/metal tape selector; record mute; timer standby; tape counter. Wow and flutter 0.07% wrms; frequency response ± 3 dB 40-12,500 Hz normal, to 14 kHz CrO₂, to 15 kHz metal tape; S/N ratio no NR/Dolby B/Dolby C 52/62/72 dB; input sensitivity/impedance -24 dBV/50k ohms line, -70 dBV/10k ohms mic; output level/impedance 600 mV/5k ohms line, 35 mV/100 ohms headphones; 16 $\frac{1}{2}$ "W \times 7 $\frac{1}{2}$ "D \times 3 $\frac{3}{4}$ "H \$250

SD-225 Stereo Cassette Deck

Stereo cassette deck with Dolby B noise-reduction system. Features soft-touch transport controls; timer standby; LED peak signal level meters; normal/CrO₂/metal tape selector; record mute; tape counter. Wow and flutter 0.08% wrms; frequency response ± 3 dB 40-12,500 Hz normal, to 14 kHz CrO₂, to 15 kHz metal tape; S/N ratio Dolby off/on 52/62 dB; input sensitivity/impedance -24 dBV/50k ohms, -70 dBV/10k ohms mic; line output level/impedance 600 mV/5k ohms; 16 $\frac{1}{2}$ "W \times 7 $\frac{1}{2}$ "D \times 3 $\frac{3}{4}$ "H \$198

MITSUBISHI

DT-35 Stereo Cassette Deck

Metal-tape-compatible stereo cassette deck with Dolby B and C noise-reduction systems. Features FeCr/normal/special/metal tape selector; bias test oscillator; slide-type bias-adjust control with LED bias indicators; fluorescent peak level meters; digital tape counter; feather-touch transport controls with logical interlock; record mute; memory play; read in/read out buttons for special counter memory operations; record/play timer function; output level control; MPX filter; lighted cassette compartment; pneumatically damped cassette eject. Wow and flutter 0.035% wrms; frequency response 30-20,000 Hz ± 3 dB with metal tape; S/N ratio Dolby B/C on 66/74 dB; harmonic distortion 0.9%/1.0%/0.8%/0.9% metal/FeCr/special/normal tape; input sensitivity/impedance 0.3 mV/2.2k ohms mic, 70 mV/47k ohms line; 18 $\frac{1}{2}$ "W \times 11 $\frac{1}{8}$ "D \times 5 $\frac{1}{2}$ "H \$490

Microcomponents Series

M-T04 Stereo Cassette Deck

Compact metal-compatible stereo cassette deck with feather-touch transport controls, Dolby B noise-reduction system. Features metal/special/normal/FeCr tape selector; multielement LED peak level meters; 2-motor transport; Automatic Spacing Pause System (ASPS); record/play timer standby function. Wow and flutter 0.05% wrms; frequency response ± 3 dB 35-15,000 Hz normal, to 16 kHz all other tapes; S/N ratio Dolby off/on 56/64 dB; crosstalk between

channels/tracks 30/60 dB; THD 0.9% normal/metal/FeCr, 1.2% special; input sensitivity/impedance 0.3 mV/2.2k ohms mic, 90 mV/50k ohms line; output level/impedance 440 mV/22k ohms line, 0.8 mW/8 ohms headphones; power consumption 30 W; 10 $\frac{1}{8}$ "W \times 9 $\frac{1}{8}$ "D \times 5 $\frac{1}{2}$ "H; 14 lb \$460

NAD (USA)

6150C Cassette Deck

Metal-compatible stereo cassette deck with Dolby B and C noise-reduction systems, dc servo capstan mo-



tor, Sendust record/play, ferrite erase heads. Features dual LED peak level bargraph display; bias and EQ for normal, CrO₂, metal tapes; fine bias control; record and playback level controls; full-logic feather-touch transport controls; timer-start and remote-control provisions; 3-digit tape counter with memory rewind. Fast-wind time 70 seconds with C60 cassette; wow and flutter 0.045% wrms; frequency response ± 3 dB 35-16,000 Hz with normal, to 17 kHz with CrO₂, to 19 kHz with metal tape; S/N ratio 72 dB with Dolby C, metal tape; input sensitivity/impedance 0.5 mV/10k ohms mic, 35 mV/50k ohms line, 6 mV/25k ohms DIN; 16 $\frac{1}{2}$ "W \times 11"D \times 4 $\frac{1}{2}$ "H \$398

6050C Stereo Cassette Deck

Metal-compatible stereo cassette deck with Dolby B and C noise-reduction systems, dc servo capstan motor, direct-load cassette mechanism. Features dual LED peak-level bargraph displays; bias, equalization, fine bias trim for normal, CrO₂, metal tapes; soft-touch tape transport controls; 3-digit tape counter. Wow and flutter 0.06% weighted peak; frequency response ± 3 dB 40-16,000 Hz normal, to 17 kHz CrO₂, to 19 kHz metal tape; S/N ratio 70 dB with Dolby C and metal tape; input sensitivity/impedance 0.6 mV/10k ohms mic, 90 mV/50k ohms line; 16.5"W \times 9.5"D \times 4"H \$298

6040A Cassette Deck

Metal-compatible stereo cassette deck with Dolby HX headroom-extension, Dolby B noise-reduction systems, dc servo capstan motor, Sendust record/play, ferrite erase heads. Features illuminated peak-indicating VU meters; bias, equalization pushbuttons for normal, CrO₂, metal tapes; 3-digit tape counter with memory rewind. Fast-wind time 100 seconds with C60 cassette; wow and flutter 0.07% wrms; frequency response ± 3 dB 40-16,000 Hz normal, to 17 kHz CrO₂, to 18 kHz metal tape; S/N ratio 68 dB with Dolby, metal tape; input sensitivity/impedance 0.6 mV/2k ohms mic, 60 mV/50k ohms line 16.5"W \times 9.5"D \times 4.7"H \$279

NAKAMICHI

1000ZXL Computing Cassette Deck

Front-loading computer-controlled discrete stereo cassette deck with Dolby B noise-reduction system, double-capstan transport, 3 heads. Microcomputer automatically calibrates azimuth, bias, level, equalization of any quality tape; features 4 tape memories for recording conditions obtained by computer; 15 program RAMM with 30 command memories via high-speed bi-directional search; LED status indicators. Additional features include 70/120 μ sec equalization selector; under/normal/over bias set selector; 400-Hz test tone oscillator; quartz-controlled bias oscillator; multiplex and subsonic filter switches; dual fluorescent recording level bargraph displays with peak hold, VU/peak switch; 2-channel mic, line input, and output level vertical slide controls; tape/source-monitoring; LED 4-digit tape counter with memory stop/play; pitch control; timer record/play with external audio timer; C-MOS logic function controls powered by motor-driven cam; direct-coupled recording and playback amplifiers, double NF equalizer circuitry; 3 microphone inputs for tri-mic recording,

mic/line mixing; provision for external noise-reduction system. Wow and flutter 0.04% wrms; frequency response 10-25,000 Hz ± 3 dB; EIA rack-mounting; 20 $\frac{1}{4}$ "W \times 12 $\frac{1}{16}$ "D \times 10 $\frac{1}{8}$ "H \$3800

700ZXL Stereo Cassette Deck

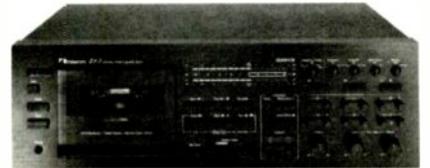
Front-loading stereo cassette deck with RAMM (automated playback) system that counts silent sections between programs. Features 3-head, dual-capstan, CMOS-logic-controlled transport; 4-digit LED digital tape counter; LED bargraph signal-level meters (-40 to +10 dB) with peak-hold function; 3 microphone inputs (left, right, center blend) that can be mixed with line inputs; subsonic filter; 400-Hz, 0-dB test tone to calibrate noise-reduction system; direct-coupled record, playback amplifiers; timer record/play function; high-output headphone jack; Dolby B noise-reduction system plus facilities for switching in/out external NR system; alarm indicator; 70/120- μ sec; EQ selector; fine bias adjust control; pitch control; memory stop/play, MPS on/off switches; sealed secondary-control panel. Wow and flutter less than 0.08% wrms; frequency response 20-20,000 Hz ± 2 dB with Nakamichi EX, EXII, SX, ZX tapes; S/N ratio better than 66 dB at 3% THD, Dolby on; THD less than 0.8% ZX tape, 1.0% SX, EXII tape; separation > 37 dB at 1 kHz, 0 dB; crosstalk > 60 dB at 1 kHz, 0 dB; power consumption 50 W; 19 $\frac{1}{16}$ "W \times 10 $\frac{1}{16}$ "H \times 9 $\frac{3}{32}$ "D; 30 lb 4 oz \$3000

682ZX Stereo Cassette Deck

Discrete 3-head stereo cassette deck with Dolby B and C noise-reduction systems, Auto-Azimuth Alignment system for extended frequency response, 9-program Random Access Music Memory (RAMM) system. Features auto azimuth alignment/automatic record-level calibration; bias calibration controls with 2-tone oscillator; dual-gap ferrite/Sendust erase head; separate tape, equalization switches for ZX, SX, EX cassettes; dc recording amplifiers with double NF circuitry; asymmetrical dual-capstan, diffused-resonance transport with motor-driven cam, dual-slot guides, tape-pad lifter; PLL capstan motor; CMOS logic controls with 2-speed cueing, high-speed shutoff, slack takeup; peak-responding fluorescent meters; master, separate-channel input level controls; output level control; record mute; high-output headphone jack; tape-start memory with 3-digit counter; timer record/play capability with optional RM-200 controller. Wow and flutter <0.08% weighted peak; frequency response ± 3 dB 20-22,000 Hz ZX, to 20 kHz SX and EXII tape; S/N ratio Dolby B/C on > 66/72 dB at 400 Hz, 3% THD A weighted with ZX tape; THD 0.8% with ZX, 0.1.0% SX and EXII tape at 400 Hz, 0 dB; separation/crosstalk 37/60 dB at 1 kHz, 0 dB; input sensitivity/impedance 50 mV/50k ohms line; output level/impedance 1 V/2.2k ohms line, 48 mW/8 ohms headphones; power consumption 36 W; 19"W \times 13 $\frac{3}{8}$ "D \times 5 $\frac{1}{8}$ "H; 19 lb 13 oz \$1550

ZX-7 Stereo Cassette Deck

Microprocessor-controlled discrete 3-head, double-capstan stereo cassette deck with Dolby B and C noise-reduction systems. Features microprocessor-



controlled transport; master fader; diffused-resonance transport; asymmetrical dual capstan; LED peak level meters with -40 to +10-dB range; 4-digit LED tape counter; high-quality amplification with special equalizer and double-NF monitor; record mute; defeatable MPX filter; facility for optional RM-200 remote controller; timer record/play capability. Wow and flutter > 0.08% weighted peak, > 0.04% wrms; frequency response ± 3 dB 20-20,000 Hz SX and EXII, to 21 kHz ZX tape; S/N ratio Dolby B/C on > 66/72 dB; THD <1% with SX and EXII tape, <0.8% with ZX tape; 17 $\frac{1}{4}$ "W \times 11 $\frac{1}{16}$ "D \times 5 $\frac{1}{8}$ "H; 21 lb \$1250

LX-5 Stereo Cassette Deck

Discrete 3-head stereo cassette deck with Dolby B and C noise-reduction systems. Features micro-processor-controlled transport; master fader; diffused-resonance transport; asymmetrical capstans; 50-dB LED peak-indicating meters; 4-digit electronic LED tape counter; bias tune control; defeatable MPX filter; record mute; facility for optional RM-200 remote controller; timer record/play capability. Wow and flutter <0.11% weighted peak, <0.06% wrms; frequency response ± 3 dB 20-20,000 Hz with ZX, SX, EXII tapes; S/N ratio Dolby B/C on >64/>70 dB; THD <0.9% ZX, <0.1% SX and EXII tape; $17\frac{3}{4}$ "W \times $12\frac{1}{16}$ "D \times $5\frac{3}{16}$ "H; 18 lb 12 oz. \$850

LX-3. Similar to LX-5 except 2-head design; S/N ratio Dolby B/C on >62/>68 dB; THD <1.0% ZX, <1.2% SX and EXII tape. \$595

480B Stereo Cassette Deck

Two-head stereo cassette deck with Dolby B noise-reduction system. Features new record/play head with metal-tape capability; direct flux erase head; diffused-resonance transport; IC logic transport controls with high-speed automatic shutoff; wide-range (47-dB) peak-responding meters; automatic takeup of slack tape; defeatable MPX filter; separate tape and equalization selectors; slide-type record level controls; facility for optional remote controller; timer operation; tape start memory; black front panel. Wow and flutter 0.11% weighted peak, 0.06% wrms; frequency response ± 3 dB 20-20,000 Hz; S/N ratio Dolby off/on 52/62 dB; THD <1.0% ZX and EXII, <1.2% SX tape; separation/crosstalk >36/>60 dB; input sensitivity/impedance 50 mV/30k ohms line; output level/impedance 600 mV/2.2k ohms line, 10 mW/8 ohms headphone; power consumption 23 W; $17\frac{3}{16}$ "W \times $11\frac{1}{16}$ "D \times $5\frac{1}{16}$ "H; 14 lb 2 oz. \$425

480S. Same as 480B except silver finish front panel. \$425

Remote Controllers

RM-730. Wireless remote controller for 730 cassette deck. \$245

RM-300. Wired remote controller for 1000ZXL, 700ZXL cassette decks. \$190

RM-200. Wired remote controller for LX-3, LX-5, LX-7, 580Z Series, 680, ZX Series, 700ZXE cassette decks. \$45

RM-100. Wired remote controller for 480, 480Z Series cassette decks. \$45

NEAL-FERROGRAPH**312 Stereo Cassette Deck**

Front/top-loading metal-compatible stereo cassette deck with Dolby B noise-reduction and HX headroom-extension systems. Features 3 motors; Sen-alloy heads; vertical or horizontal operation; normal/CrO₂/metal tape selector; peak level meters; bias, 500-Hz tone calibration switches; logic-controlled solenoid transport with LEDs in controls; stop sensor; record level control with separate mic, DIN, line switches; mono-record switch; balance control; output level control; provision for full-function remote control. Wow and flutter 0.09% wrms DIN; frequency response +1-3 dB 35-14,000 Hz normal, to 15 kHz FeCr, CrO₂, metal tape; S/N ratio 66 dB with normal, special tape, Dolby HX and B on; input sensitivity/impedance 300 μ V/2k ohms mic; 80 mV/200k ohms line; fast-wind time 50 seconds with C60 cassette; silver or matte black finish; 17.5 "W \times 8.9 "H \times 6.1 "D. \$1195

NIKKO**ND-1000 Stereo Cassette Deck**

Three-head, 2-motor stereo cassette deck with computerized tape-evaluation system. Features source/tape monitoring; full-logic transport controls; facility for optional remote-control unit; normal/CrO₂/metal tape selector; dual 12-section LED peak

level displays; output level control; Dolby B noise-reduction system; MPX filter; automatic memory stop/play function; timer record/play capability; Compu-Tecs automatic bias and sensitivity adjustment circuit; 17.3 "W \times 9.9 "D \times 4.7 "H. \$580

ND-800 Stereo Cassette Deck

Stereo cassette deck with 2-motor, direct-drive transport operated by IC-logic controls. Features facility for optional remote-control unit; dual 12-section LED peak-level displays; output level control; Dolby B noise-reduction system; MPX filter; bias/EQ switch for normal/CrO₂/metal tape; automatic rewind; automatic memory stop/play at preselected points on tape; timer record/play facility; 17.3 "W \times 9.9 "D \times 4.7 "H. \$400

ND-700 Stereo Cassette Deck

Stereo cassette deck with dbx® and Dolby B noise-reduction systems. Features memory rewind; dual 9-section LED peak-level signal displays; power-assisted soft-touch tape-function buttons; one-button recording system; output level control; cue and review for fast location of recordings; MPX filter; 2-way dbx NR system that also features expanded dynamic range; removable cassette-compartment door; 17.3 "W \times 9.9 "D \times 4.7 "H. \$320

ND-500 Stereo Cassette Deck

Stereo cassette deck with dual 7-section LED peak signal displays, output level control, power-assisted transport controls. Features one-button recording; cue and review for fast location of recordings; Dolby B noise-reduction system; removable cassette-compartment door; 17.3 "W \times 9.9 "D \times 4.7 "H. \$240

ND-520 Stereo Cassette Deck

Stereo cassette deck with Dolby B noise-reduction system. Features LED peak signal-level meters; cue and review; power-assisted transport controls. \$240

ONKYO**TA-2070 Stereo Cassette Deck**

Metal-compatible 3-head stereo cassette deck with Dolby B and C noise-reduction systems. Features tape/source monitoring; Sendust heads; brushless direct-drive 3-motor tape transport; digital tape counter that indicates consumed or remaining time; automatic Accubias; feather-touch transport controls; 2-color fluorescent signal meters; automatic space button; memory stop/play; facility for optional remote-control unit. Wow and flutter 0.021% wrms; frequency response ± 3 dB 20-16,000 Hz normal, to 18 kHz CrO₂, to 19 kHz metal tape; S/N ratio no NR/Dolby B/Dolby C 60/70/80 dB with metal tape; input sensitivity/impedance 0.3 mV/400-50k ohms mic, 50 mV/50k ohms line; output level/impedance 775 mV/>50k ohms line; 1 V/8-200 ohms headphones; power consumption 45 W; fast-wind time 90 seconds with C60 cassette; $17\frac{1}{16}$ "W \times $15\frac{1}{16}$ "D \times $3\frac{1}{16}$ "H; 20.9 lb. \$700

TA-2060 Cassette Deck

Metal-compatible stereo cassette deck with Dolby HX and Dolby B noise-reduction systems, 2 direct-drive motors, Sendust alloy record/play, double-gap ferrite erase heads. Features normal, high, metal tape selectors with LED indicators, Accubias adjust for any tape type; Dolby NR/HX selector with LED HX indicator; peak-hold meters; fader control; tape/source monitoring; input, output level controls; record mute; full logic tape function controls; 3-digit tape counter with memory play/stop; timer record/play with external audio timer. Wow and flutter 0.04% wrms, frequency response 20-19,000 Hz ± 3 dB with metal tape; S/N 60 dB without Dolby. \$470

TA-2055 Stereo Cassette Deck

Metal-compatible stereo cassette deck with 3-motor direct-drive system, C90/C60/C46 tape-length selectors, digital real-time counter. Features display of remaining or consumed tape time; 5-second automatic space on record; hard Permalloy record/play head; Accubias to fine tune recording bias for any type of tape; Dolby B and C noise-reduction systems; feather-touch transport controls; memory stop/play; 2-color LED peak level meters; timer record/play; facility for

optional remote controller. Wow and flutter 0.035% wrms; frequency response ± 3 dB 20-15,000 Hz normal, to 18 kHz CrO₂, to 19 kHz metal tape; S/N ratio no NR/Dolby B/Dolby C 60/70/80 dB; input sensitivity/impedance 0.3 mV/5k ohms mic, 50 mV/50k ohms line; output level/impedance 1100 mV/>50k ohms line; headphone output impedance 8-200 ohms; power consumption 28 W; fast-wind time 90 seconds with C60 cassette; $16\frac{1}{2}$ "W \times $14\frac{1}{16}$ "D \times $3\frac{1}{16}$ "H; 14.8 lb. \$360

TA-2035 Stereo Cassette Deck

Microcomputer-controlled 3-motor stereo cassette deck with Dolby B and C noise-reduction systems. Features automatic music search; automatic space on record; automatic tape selection; hard Permalloy record/play head; Accubias fine bias tuning; timer switch; full automatic stop; 2-color LED peak level displays; feather-touch transport controls; facility for optional remote controller. Wow and flutter 0.045%



wrms; frequency response ± 3 dB 30-14,000 Hz normal, to 16 kHz CrO₂, to 17 kHz metal tape; S/N ratio no NR/Dolby B/Dolby C 60/70/80 dB; input sensitivity/impedance 0.3 mV/5k ohms mic, 50 mV/50k ohms line; output level/impedance 350 mV/>50k ohms line; headphone output impedance 8-200 ohms; power consumption 20 W; fast-wind time 90 seconds with C60 cassette; $16\frac{1}{2}$ "W \times $10\frac{1}{16}$ "D \times $3\frac{1}{16}$ "H; 9.9 lb. \$300

TA-2025 Stereo Cassette Deck

Metal-capable stereo cassette deck with metal-tape compatibility Dolby B noise-reduction system. Features automatic music search system; 5-second auto space on record; microcomputer-controlled 3-motor transport; hard Permalloy record/play head; 2-color LED peak level meters; timer standby; full automatic stop; feather-touch transport controls; 3 tape selectors; facility for optional remote controller. Wow and flutter 0.045% wrms; frequency response ± 3 dB 30-14,000 Hz normal, to 15 kHz CrO₂, to 16 kHz metal tape; S/N ratio Dolby off/on 60/70 dB; input sensitivity/impedance 0.3 mV/5k ohms mic, 50 mV/50k ohms line; output level/impedance 500 mV/>50k ohms line; headphone output impedance 8-200 ohms; power consumption 18 W; fast-wind time 90 seconds with C60 cassette; $16\frac{1}{2}$ "W \times $10\frac{1}{16}$ "D \times $3\frac{1}{16}$ "H; 9.9 lb. \$255

TA-2015 Stereo Cassette Deck

Computer-controlled 3-motor stereo cassette deck with Dolby B and C noise-reduction systems. Features automatic music search system; automatic space button in record; automatic tape (type) detection system; hard Permalloy record/play head; Accubias fine bias tuning; timer switch; full automatic stop; 2-color LED peak level meters; feather-touch transport controls; facility for optional remote control. Wow and flutter 0.06%; frequency response ± 3 dB 30-14,000 Hz normal, to 15 kHz CrO₂, to 16 kHz metal tape; S/N ratio no NR/Dolby B/Dolby C 58/68/78 dB; input sensitivity/impedance 0.4 mV/5k ohms mic, 50 mV/50k ohms line; output level/impedance 350 mV/>50k ohms line; headphone output impedance 8-200 ohms; power consumption 18 W; fast-wind time 90 seconds with C60 cassette; $16\frac{1}{2}$ "W \times $10\frac{1}{16}$ "D \times $4\frac{1}{16}$ "H; 10.1 lb. \$210

TA-1500 Stereo Cassette Deck

Metal-capable stereo cassette deck with Dolby B noise-reduction system. Features dc servo-controlled motor; hard Permalloy record/play head; feather-touch transport controls; timer standby; slide-type input balance control; 3 tape-selector switches; large illuminated VU meters; full automatic stop; facility for optional remote controller. Wow and flutter 0.06% wrms; frequency response ± 3 dB 30-14,000 Hz normal, to 15 kHz CrO₂ and metal tape; S/N ratio Dolby off/on 58/68 dB; input sensitivity/impedance 0.3 mV/5k ohms mic, 50 mV/50k ohms line; output

EVEN AT FACE VALUE, THERE'S NOT ANOTHER DECK LIKE IT.



AKAI flies in the face of convention.

Again. This time with the incomparable GX-F91. A bold new design that looks—and performs—like no other cassette deck in the world.

It is literally the face of the future. No knobs. No keys. And no clutter. Instead, a polite presentation of just the basics.

But press the “door” button and, almost by magic, the faceplate automatically lowers to reveal the main control panel.

Now, insert a cassette. Two microcomputers take charge, first automatically setting the bias. Then, executing a 64-step

“tape tuning” analysis that makes sure the GX-F91 gets the maximum from any tape.

For superior frequency response and dynamic range, the GX-F91 is also endowed with a 3-head design,

record-cancel that virtually guarantee professional quality recordings.

In short, it's the proud flagship of our entire 10-deck AKAI family. A family that now includes three outstanding auto-reversing record/play-back designs.



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And come

face-to-face-to-face with the future.

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Super GX
Heads and
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Plus operational features like auto-fade, auto-mute and auto-

*TM Dol by Labs, Inc.

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CIRCLE NO. 4 ON READER SERVICE CARD

6 CASSETTE TAPE MACHINES

level/impedance 350 mV/>50k ohms line; head-
phone output impedance 8-200 ohms; power con-
sumption 13 W; fast-wind time 90 seconds with C60
cassette; 16 1/2" W x 10 3/4" D x 4 3/8" H; 9.7 lb \$195

TA-W88 Dubbing Stereo Cassette Deck

High-speed dubbing stereo cassette deck with Dolby
B noise-reduction system. Features one-touch record-
ing; continuous/simultaneous playback modes; micro-
phone mixer; dc servo-controlled motors; hard Permalloy
record/play heads; feather-touch transport
controls; record mute; LED level meters; timer stand-
by mode; full automatic stop; facility for remote con-
troller. Wow and flutter 0.06% wrms; frequency re-
sponse ±3 dB 30-14,000 Hz normal, to 15 kHz
CrO₂, to 16 kHz metal tape; S/N ratio 68 dB with
Dolby on, metal tape; input sensitivity/impedance 0.3
mV/5k ohms mic, 50 mV/50k ohms line; output
level/impedance 350 mV/>50k ohms line; head-
phone output impedance 8-200 ohms; power con-
sumption 18 W; fast-wind time 90 seconds with C60
cassette; 16 1/2" W x 10 3/4" D x 4 3/8" H; 14.3 lb \$380

OPTONICA

RT-6405 Stereo Cassette Deck

Direct-drive, 2-motor stereo cassette deck with Dolby
B noise-reduction system, microprocessor full-logic
solenoid transport controls, and peak level displays
with peak hold. Features FeCr/CrO₂/normal/metal
bias and EQ selector; APSS (Automatic Program
Search System); automatic spacing pause control;
soft eject cassette holder with detachable cover; timer
recording standby system; output level control; LED
indicators for record, playback, pause/auto-spacing,
Dolby on; MPX filter; Sendust record/play head, dou-
ble-gap ferrite head. Wow and flutter 0.038% wrms;
frequency response ±3 dB 30-15,000 Hz normal, to
17 kHz CrO₂, to 18 kHz FeCr and metal tapes; S/N
ratio 67 dB with CrO₂ tape, Dolby on; 17" W x
12 3/4" D x 3 3/4" H; 13.2 lb \$280
RT-6207, Similar to RT-6405 except no direct drive.
Wow and flutter 0.055% wrms; frequency response
to 14 kHz normal, to 16 kHz CrO₂, to 17 kHz FeCr
and metal; hard Permalloy head \$330

RT-3400 Stereo Cassette Deck

Stereo cassette deck with Dolby B and C noise-reduc-
tion systems. Features solenoid full-logic feather-
touch transport controls; metal-tape capability; APSS;
low profile; normal/CrO₂/metal tape selector; 2-color
8-LED peak level meters; soft eject; full automatic
stop. Wow and flutter 0.05% wrms; frequency re-
sponse ±3 dB 30-13,000 Hz normal, to 14 kHz
CrO₂, to 16 kHz metal tape; 16 1/8" W x 9 3/4" D x
4 1/8" H; 10.4 lb \$220

RT-5050 Double Stereo Cassette Deck

Metal-capable dual stereo cassette deck designed for
high-speed dubbing. Features Dolby B noise-reduction
system; Automatic Program Search System (APSS);



dubbing level scales; metal/CrO₂/normal tape selec-
tors; record mute; red and green indicators to inform
of mode position of transports; timer record/play
standby; mic mixing in dubbing mode; separate fre-
quency generator servo motor in each transport; soft-
touch logic transport controls; one-touch dubbing
control; VU meters switchable between play, record
decks. Wow and flutter 0.04% wrms; frequency re-
sponse ±3 dB 30-16,000 Hz normal, to 17 kHz
CrO₂, to 18 kHz metal tape; S/N ratio Dolby off/on
57/67 dB; input sensitivity/impedance 0.2 mV

(-74 dB)/6.8k ohms mic, 50 mV (-26 dB)/50k
ohms line; output level/impedance 550 mV/50k
ohms line, 46 mV/8 ohms headphones; power con-
sumption 18 W; 17" W x 11 1/4" D x 4 3/8" H; 11.9
lb \$380

JC PENNEY

3575 Cassette Deck

Stereo cassette deck with front-loading cassette well,
Dolby noise-reduction system, metal-tape capability.
Features hard permalloy record/play head with
Sendust guard; MPX filter; peak signal level LED in-
dicators (-30 to +6 dB). Wow and flutter 0.04%
wrms; frequency response 40-18,000 Hz ±3 dB;
THD 1.2% at 200 nWb; fast-wind time 90 seconds
with C60 cassette \$300

3588 Stereo Cassette Deck

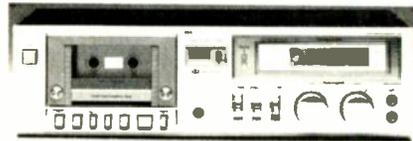
Auto-reverse stereo cassette deck with Dolby B noise-
reduction system. Features continuous automatic-re-
verse control; quick reverse control; mechanical soft-
touch transport controls; timer standby; LED record
level meters; record mute; metal tape capability. Wow
and flutter 0.08%; S/N ratio Dolby off/on 51/60 dB;
separation/adjacent-track crosstalk 57/57 dB; pow-
er consumption 11.2 W; 16.5" W x 10.6" D x
4.3" H; 9.5 lb \$300

3549 Stereo Cassette Deck

Stereo cassette deck with Dolby B and C noise-reduc-
tion systems. Features automatic shut-off; soft-touch
transport controls; record mute; 14-segment fluo-
rescent record level meters; metal-tape capability; MPX
filter; record, pause indicators; normal/CrO₂/metal
tape selector. Wow and flutter 0.08% wrms; power
consumption 15.1 W; 16 3/4" W x 8 1/2" D x
4 1/4" H; \$250

3555 Stereo Cassette Deck

Stereo cassette with Dolby B noise-reduction system.
Features automatic shut-off; 18-segment fluorescent



record level meters; LED record indicator; damped
cassette door; normal/CrO₂/metal tape selector. Wow
and flutter 0.06% wrms; frequency response ±3 dB
50-13,000 Hz normal, to 14 kHz CrO₂, to 15 kHz
metal tape; S/N ratio Dolby off/on 50/60 dB; power
consumption 11 W; 16 1/2" W x 8 1/2" D x 4 1/8" H; 9
lb \$220

3554 Stereo Cassette Deck

Stereo cassette deck with Dolby B noise-reduc-
tion system. Features hard Permalloy record/play
tape head with Sendust guard; soft-touch transport con-
trols; soft cassette eject; direct function change; large
VU meters; metal tape capability. Wow and flutter
0.05% wrms; frequency response ±3 dB 40-
14,000 Hz; S/N ratio Dolby off/on 57/63 dB; THD
1.2% at 200 nWb; fast-wind time 95 seconds with
C60 cassette \$190

3543 Stereo Cassette Deck

Soft-touch transport stereo cassette deck with Dolby
B noise-reduction system. Features automatic shut-
off; VU record meters; metal-tape capability; LED
record indicator. Wow and flutter 0.06% wrms; fre-
quency response ±3 dB 50-13,000 Hz normal, to
14 kHz CrO₂, to 15 kHz metal tape; S/N ratio Dolby
off/on 60/60 dB; input sensitivity 100 mV line, 0.45
mV mic; power consumption 10 W; 16 3/4" W x 7 1/2" D
x 4 3/4" H \$160

PIONEER

CT-9R Stereo Cassette Deck

Computer-controlled stereo cassette deck with 3-mo-
tor direct-drive transport, Dolby B/C/automatic
noise-reduction system. Features digital electronic
real-time tape counter that indicates minutes, sec-
onds even in fast forward and rewind; automatic bias,

level, equalization adjustment; Blank Search/Index
Scan system; Music Search/Repeat; Blank Skip. Wow
and flutter 0.04% wrms; frequency response ±3 dB



20-19,000 Hz with metal tape; S/N ratio no
NR/Dolby B/Dolby C 60/70/80 dB; 16 1/8" W x
12 3/4" D x 5 1/8" H; 14 lb 5 oz \$675
CT-8R. Similar to CT-9R except standard mechanical
index counter; wow and flutter 0.045% \$575
CT-7R. Similar to CT-8R except auto-reverse oper-
ates in record and playback; no auto Dolby; frequency re-
sponse to 18 kHz; S/N 79 dB; 3 3/4" H; 12 lb 2
oz \$450
CT-6R. Similar to CT-7R except auto-reverse in play-
back only \$350

CT-5 Stereo Cassette Deck

Stereo cassette deck with Dolby B and C noise-reduc-
tion systems, IC full-logic transport controls, dc servo
motor. Wow and flutter 0.05% wrms; frequency re-
sponse ±3 dB 25-18,000 Hz with metal tape at
-20 dB; S/N ratio 78 dB at 5 kHz, Dolby C on;
16 1/8" W x 9 1/8" D x 3 1/8" H; 9 lb 11 oz .. \$280
CT-4. Similar to CT-5 except no full-logic control sys-
tem; frequency response to 16 kHz; 9 3/4" D x
4 3/4" H \$200

JT-216 Wired Remote Controller

Wired remote controller for CT-9R, CT-8R, CT-7R,
CT-6R computer-controlled cassette decks \$50

REALISTIC

SC-33 Stereo Cassette Deck

Stereo cassette deck with double Dolby B and C noise-
reduction systems, 3 heads, bias fine tune control.
Features normal/CrO₂/metal tape selectors; automa-
tic rewind/replay; 2-color, 14-segment fluorescent
peak-hold meters; record mute; full-logic solenoid-acti-
vated transport controls; automatic-rewind switch
for automatic rewind/replay or rewind/shutoff at end
of play; output level control; switchable MPX
filter \$400

SC-28 Stereo Dubbing Deck

High-speed dubbing dual stereo cassette deck with
Dolby B noise-reduction system. Features automatic
music search; soft-touch transport controls; deck 1
optimized for playback and has automatic equaliza-
tion selection; deck 2 has full record/play facilities
with pushbutton selectors for normal/CrO₂/metal
tape; record mute; dual concentric level controls; 2-
color, 5-segment LED peak level meters; switchable
MPX filter; high/normal-speed selector \$340

SC-27 Stereo Cassette Deck

Solenoid-operated stereo cassette deck with Dolby B
and C noise-reduction systems. Features normal/
CrO₂/metal tape selectors; adjustable bias con-
trol; record mute; dual concentric record level control
with memory ring; output level control; record, pause,
play, Dolby LED indicators; switchable MPX filter; tim-
er-standby switch \$300

SC-500 Stereo Cassette Deck

Stereo cassette deck with soft-touch transport con-
trols and Dolby B noise-reduction system. Features
Automatic Search Music System (ASMS); normal/
CrO₂/metal tape selector; 2-color, 8-segment LED
level indicators; record and search mode
indicators \$200

SC-29 Stereo Cassette Deck

Stereo cassette deck with Dolby B noise-reduc-
tion system, automatic music search. Features 2-color, 8-
LED peak level meters; normal/CrO₂/metal tape se-
lectors; switchable MPX filter; soft-touch transport
controls; damped cassette door; output level control.

Wow and flutter < 0.15% wrms; frequency response ± 3 dB 30-14,000 Hz metal, to 12 kHz CrO₂/normal tape; S/N ratio 64 dB Dolby on; THD 1.3%; output level 0.7 V maximum; 15 $\frac{1}{4}$ "W \times 9"D \times 4 $\frac{1}{4}$ "H \$130

SCT-24 Cassette Deck

Front-loading metal-compatible stereo cassette deck with Dolby noise-reduction system, switchable multiplex filter. Features LED peak meters; auto stop; tape selector buttons for ferric, CrO₂, metal tapes; tape counter. Wow and flutter 0.15% wrms; frequency response ± 3 dB 30-12,000 Hz (ferric and CrO₂), to 14 kHz (metal); S/N ratio 64 dB with metal tape, Dolby on; THD 0.3%, CCIR weighted \$130

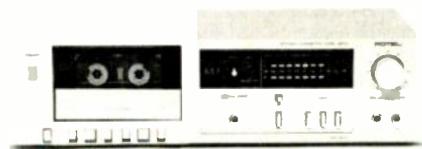
ROTEL

RD 860 Stereo Cassette Deck

Remote-controllable, 2-motor stereo cassette deck with Dolby B and C noise-reduction systems. Features full-logic transport controls; metal/special/normal tape selector; fluorescent VU meters; play, record, pause LEDs. Wow and flutter 0.04%; frequency response 30-16,000 Hz ± 3 dB; 430 mmW \times 290 mmD \times 109 mmH \$28C

RD 840 Stereo Cassette Deck

Stereo cassette deck with Dolby B and C noise-reduction systems. Features high-flux Permalloy head; 10-LED signal-level meters; metal/special/normal tape



selector; soft-touch transport controls; play, record, pause LEDs. Wow and flutter 0.05%; frequency response 30-15,000 Hz ± 3 dB; 430 mmW \times 290 mmD \times 109 mmH \$210

RD 820 Stereo Cassette Deck

Stereo cassette deck with Dolby B noise-reduction system. Features hard Permalloy head, soft-touch transport controls; metal/special/normal tape selector; 10-LED signal-level meters; record, pause LEDs. Frequency response 30-15,000 Hz ± 3 dB; wow and flutter 0.05%; 430 mmW \times 250 mmD \times 109 mmH \$170

SAE

SAE Two Line

C4 Cassette Deck

Front-loading metal-compatible stereo cassette deck with Dolby B noise-reduction system, FG servo motor. Features logic solenoid tape function controls; 3-position bias/equalization for normal/FeCr/high-output



(includes metal) tapes with variable bias; automatic stop; LED peak level bargraph meters; mic, line, and record mute switches; tape counter with reset; timer switch; optional remote control. Wow and flutter 0.06%; frequency response 30-18,000 Hz ± 2.5 dB \$599

Remote One. Remote control unit for C4 \$50

C2 Stereo Cassette Deck

Stereo cassette deck with Dolby B and C noise-reduction systems. Features full-logic transport controls; Cam-Actuated Transport for smooth engagement of all functions; automatic program search (APS); fluorescent level meters; memory, repeat functions; remote timer play/record; facility for optional full-function remote controller \$299

SANSUI

D-970B Stereo Cassette Deck

Microprocessor-controlled 3-head cassette deck with automatic Compu-Trec bias, equalization, sensitivity



adjustments, Dolby B and C noise-reduction systems. Features direct-drive capstan; Dyna-Scrape filter with hold-back servo tension mechanism; DD/DC (diamond-differential dc) equalizer, dc amplifier; high Bs ferrite heads with separate record and play gaps; normal/real-time digital counter; LED peak level meters; automatic muting; timer-controlled functions; automatic tape lead-in. Wow and flutter 0.025% wrms; frequency response 30-22,000 Hz ± 3 dB with metal tape; S/N ratio 81 dB with metal tape, Dolby C on \$680

D-770R Stereo Cassette Deck

Auto-reverse 3-motor cassette deck with dual capstan drive, AMPS (Automatic Music Program Search) for up to 15 selections. Features 4-digit normal/real-time electronic counter; Dolby B and C noise-reduction systems; 4-second auto rec mute; dual memory function; available in black (D-770RB) or silver (D-770RS) finish. Wow and flutter 0.048% wrms; frequency response 35-18,000 Hz ± 3 dB with metal tape; S/N ratio 80 dB with metal tape, Dolby C on \$600

D-570 Stereo Cassette Deck

Direct-drive, full-logic 3-head stereo cassette deck with Dolby B and C noise-reduction systems. Features automatic music program search; tape lead-in facility that automatically bypasses leader; roller-coupled holdback tension that takes up tape slack; Compu-Edit capability; dual memory function; 4-digit fluorescent tape/real-time counter; 12-segment peak-indicating signal meters; timer record/play capability; semiautomatic bias control. Wow and flutter 0.03% wrms; frequency response 30-21,000 Hz ± 3 dB with metal tape; S/N ratio no NR/Dolby B/Dolby C 60/70/80 dB; 16 $\frac{1}{4}$ "W \times 12 $\frac{1}{2}$ "D \times 4 $\frac{1}{4}$ "H; 14.3 lb \$540
D-370. Similar to D-570 except has 2 heads available in black (D-370B) or silver (D-570S) finish. Frequency response 30-18,000 Hz ± 3 dB \$420

D-77R Auto-Reverse Cassette Deck

Bidirectional record/play stereo cassette deck with Compu Edit to facilitate LP recording when used with some Sansui turntables. Features alc (automatic level control); AMPS (Automatic Music Program Search); IC-controlled transport; Compu Selector system; Dolby B noise reduction system; available in black (D-77RB) or silver (D-77RS) finish. Wow and flutter 0.05% wrms; frequency response 30-17,000 Hz ± 3 dB; S/N ratio 68 dB with Dolby on \$320

D-77F. Single-direction version of D77R. Available in black (D-77FB) or silver (D-77FS) finish \$230

D-55M Stereo Cassette Deck

Stereo cassette deck with Soft-Touch transport controls; alc (automatic level control). Features Dolby B noise-reduction system; available in matte-black (D-55MB) or silver (D-55MS) finish. Wow and flutter 0.07% wrms; frequency response 30-15,000 Hz ± 3 dB \$190

D-99D Dubbing Cassette Deck

Dual-transport stereo cassette deck with Compu Edit for synchronization with some Sansui turntables. Features separate record/play and play-only transports; AMPS (Automatic Music Program Search); play one transport while recording on other; full IC-logic transport controls; ALC (automatic level control); Compu Selector for one-touch operation with some Sansui amplifiers/receivers; provision for external timer operation; available in black (D-99DB) or silver (D-99DS) finish \$350

SANYO

RD S35 Stereo Cassette Deck

Metal-capable stereo cassette deck with Dolby B and C noise-reduction systems. Features Automatic Music Select System (AMSS); logic-interlock, power-assisted transport controls; illuminated VU meters; one-touch recording; superhard Permalloy tape head; function indicators; full automatic stop; soft cassette eject. Wow and flutter 0.05% wrms; frequency response ± 3 dB 30-16,000 Hz CrO₂, to 18 kHz metal tape; S/N ratio Dolby B/C 67/77 dB; 16 $\frac{1}{8}$ "W \times 9 $\frac{1}{8}$ "D \times 4 $\frac{1}{8}$ "H \$170
RD S24. Similar to RD S35 except no Dolby C noise-reduction system \$150

RD S21 Stereo Cassette Deck

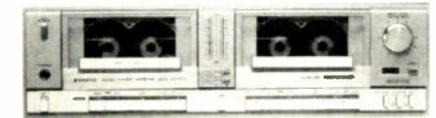
Metal-compatible stereo cassette deck with Automatic Music Select System (AMSS), Dolby B noise-reduction system. Features power-assisted transport controls with logic interlock; single-motor dc servo drive system; illuminated VU meters; air-damped cassette door. Wow and flutter 0.05% wrms; frequency response ± 3 dB 30-15,000 Hz CrO₂, to 16 kHz metal tape; S/N ratio 64 dB, Dolby on; 15"W \times 9 $\frac{1}{4}$ "D \times 5 $\frac{1}{8}$ "H \$130

RD 10 Stereo Cassette Deck

Metal-compatible stereo cassette deck with Dolby B noise-reduction system. Features dc governor motor; automatic stop; 2-color LED signal meters. Wow and flutter 0.09% wrms; frequency response ± 3 dB 30-14,000 Hz normal, to 15 kHz metal tape; S/N ratio 62 dB, Dolby on; 15 $\frac{1}{8}$ "W \times 7 $\frac{1}{2}$ "D \times 5 $\frac{1}{8}$ "H \$100

RD W50 Dubbing Stereo Cassette Deck

Dual-transport dubbing stereo cassette deck with Automatic Music Select System (AMSS) and Dolby B



noise-reduction system. Features metal-tape capability; LED peak signal meters; record mute; full automatic stop; air-damped cassette doors; LED indicators. Wow and flutter 0.06%; frequency response ± 3 dB 30-15,000 Hz CrO₂, to 16 kHz metal; S/N ratio 60

NOTICE TO READERS

Prices of items described are suggested prices only and are subject to change without notice. Actual selling prices are determined by the dealer.

6 CASSETTE TAPE MACHINES

dB, Dolby on; 15 3/8" W x 7 1/2" D x 4 1/16" H .. \$220

Plus Series

D90 Stereo Cassette Deck

Stereo cassette deck with Sanyo Super D tape-hiss reduction system, 15-program Automatic Music Select System (AMSS). Features Dolby B noise-reduction system; metal-tape compatibility; wide-range peak level meters; switchable MPX filter; output level controls; full-logic transport controls; 2-motor transport; record mute; timer record/play standby. Wow and flutter 0.04% wrms; frequency response ±3 dB 30-14,000 Hz normal, to 17 kHz CrO₂, to 19 kHz metal tape; S/N ratio Dolby off/on 55/65 dB normal, 57/67 dB CrO₂, 59/68 dB metal tape; S/N with Super D, metal tape 100 dB weighted peak; THD 0.06%; separation 40 dB; input sensitivity/impedance 0.3 mV/400-10k ohms mic, 50 mV/50k ohms line; output level/impedance 400 mV/2k line, 40 mV/8 ohms headphones; 17 3/8" W x 10 3/8" D x 4 3/8" H \$380

D58 Stereo Cassette Deck

Full-logic IC transport control stereo cassette deck with Sanyo Super D tape-hiss reduction system, 15-program Automatic Music Select System (AMSS). Features metal-tape compatibility; Dolby B noise-reduction system; 12-segment LED peak level meters; record mute; timer standby; automatic stop. Wow and flutter 0.05% wrms; frequency response ±3 dB 30-14,000 Hz normal, to 17 kHz CrO₂, to 19 kHz metal tape; S/N ratio Dolby off/on 55/65 dB normal, 57/67 dB CrO₂, 59/69 dB metal tape; S/N with Super D, metal tape 100 dB weighted peak; THD 0.06%; input sensitivity/impedance 0.3 mV/400-10k ohms mic, 50 mV/50k ohms line; output level/impedance 400 mV/2k ohms line, 40 mV/8 ohms headphones; separation 40 dB; 17 3/8" W x 10 3/8" D x 4" H \$300
D57. Similar to D58 except no Super D circuit; THD metal/CrO₂ tape 0.8%/1.5% \$230

D56 Stereo Cassette Deck

Stereo cassette deck with Dolby B noise-reduction system. Features metal-tape capability; Automatic Music Select System (AMSS); 12-segment, 2-color LED peak signal level meters; full-logic feather-touch transport controls; record mute; timer standby; automatic stop. Wow and flutter 0.05% wrms; frequency response ±3 dB 30-14,000 Hz normal, to 17 kHz CrO₂, to 19 kHz metal tape; S/N ratio Dolby off/on 55/63 dB normal, 57/65 dB CrO₂, 59/67 dB metal tape; THD metal/CrO₂ tape 0.8%/1.5%; input sensitivity/impedance 0.3mV/400-10k ohms mic, 50 mV/50k ohms line; output level/impedance 400 mV/2k ohms line, 50 mV/8 ohms headphones; separation 40 dB; 17 3/8" W x 10 3/8" D x 4" H \$200

H.H. SCOTT

658DM Stereo Cassette Deck

Slimline full-logic stereo cassette deck with feather-touch controls. Features separate pushbutton selectors for normal/CrO₂/FeCr/metal tape formulations; tape memory rewind/replay; timer record/play standby; Dolby B and C noise-reduction systems; separate



level, record-balance controls; Sendust record/play, dual-gap ferrite erase heads; fluorescent peak-hold signal-level meters; soft-eject front loading. Wow and flutter 0.04% wrms; frequency response ±3 dB 30-16,000 Hz normal, to 17 kHz CrO₂, to 18 kHz metal tape; S/N ratio 64 dB normal, 66 dB CrO₂ and metal

tape, Dolby on; THD normal/CrO₂/metal tape 1.5%/2.5%/1.2%; input sensitivity line/mic 100 mV/0.3 mV; output level 550 mV; fast-wind time 80 seconds with C60 cassette; 17" W x 8 1/16" D x 3 1/8" H \$300

638DM Stereo Cassette Deck

Slimline stereo cassette deck with soft-touch transport controls. Features LED function indicators; fluorescent peak-hold signal-level displays; record mute; separate level, record/balance controls; super B Permalloy record/play, dual-gap ferrite erase heads; Dolby B noise-reduction system; soft-eject mechanism; metal/CrO₂/FeCr/metal tape bias/equalization selector; timer record/play standby. Wow and flutter 0.045% wrms; frequency response ±3 dB 30-16,000 Hz metal, to 17 kHz CrO₂ and FeCr, to 18 kHz metal tape; S/N ratio Dolby on/off 66/58 dB with normal tape; separation 40 dB; input sensitivity/impedance 100 mV/47k ohms line, 3 mV/15k ohms mic; output level 550 mV maximum; 430 mmW x 220 mmD x 110 mmH \$250

628DM Stereo Cassette Deck

Slimline stereo cassette deck with Dolby B noise-reduction system. Features normal/CrO₂/FeCr/metal tape bias/equalization selector; wide-range VU meters; soft-touch mechanical transport controls; record mute; separate level, record/balance controls; super B Permalloy record/play, dual-gap ferrite erase heads; soft-eject cassette mechanism. Wow and flutter 0.045% wrms; frequency response ±3 dB 30-16,000 Hz normal, to 17 kHz CrO₂ and FeCr, to 18 kHz metal tape; S/N ratio Dolby on/off 66/58 dB with normal tape; separation 40 dB; input sensitivity/impedance 110 mV/47k ohms line, 3 mV/15k ohms mic; output level 550 mV maximum; 430mmW x 220 mmD x 110mmH \$215

SHARP

RT-300 Stereo Cassette Deck

Solenoid full-logic feather-touch transport stereo cassette deck with Dolby B and C noise-reduction systems. Features slim design; APSS; metal-tape capability; normal/CrO₂/metal tape selector; 2-color 8-LED peak signal level displays; soft eject; full automatic stop; 17" W x 9 1/4" D x 4" H \$220

RT-32 Stereo Cassette Deck

Stereo cassette deck with Dolby B noise-reduction system, soft-touch transport controls, 9-position Auto Program Locate Device (APLD) and indicators. Features normal/CrO₂/metal tape capability; Sharpscan 16-LED, 2-color peak level displays; dual-concentric record-level controls; full automatic stop; damped eject; hard Permalloy record and triple-gap erase heads; digital tape counter; 16 1/8" W x 8 3/8" D x 4 1/2" H \$190
RT-31. Similar to RT-32 but with Auto Program Search System instead of APLD \$170

RT-200 Stereo Cassette Deck

Solenoid full-logic feather-touch transport stereo cassette deck with APSS, Dolby B noise-reduction system. Features metal-tape capability; 2-color LED peak signal level meters; soft eject; normal/CrO₂/metal tape selector; electronically controlled dc motor. Wow and flutter 0.07% wrms; frequency response ±3 dB 40-14,000 Hz metal, to 13 kHz CrO₂, to 12.5 kHz normal tape; S/N ratio Dolby off/on 52/62 dB; input sensitivity/impedance 0.2 mV (-74 dB)/6.8k ohms mic, 50 mV (-26 dB)/50k ohms line; output level/impedance 550 mV/50k ohms line, 0.2 mW/8 ohms headphones; 15 3/8" W x 9" D x 4" H; 6.9 lb \$180

RT-20 Cassette Deck

Metal-compatible stereo cassette deck with Dolby B noise-reduction system, electronically-controlled dc motor, hard Permalloy record/play, triple-gap ferrite erase heads. Features computer-controlled multi-display showing Sharpscan peak level meters, time, AM/PM, electronic tape counter counter; bias, equalization for normal, CrO₂, metal tapes; pushbutton tape time remaining counter for C90, C60, C46 tapes with 3-minute warning; timer alarm; 50/60-Hz ac frequency selector; automatic stop. Wow and flutter

0.09% wrms; frequency range 30-14,000 Hz normal, to 17 kHz metal; S/N ratio 64 dB, Dolby on; 15 3/8" D x 8 3/8" D x 5" H \$190

RT-12 Stereo Cassette Deck

Stereo cassette deck with Dolby noise-reduction system, metal-tape capability, Auto Program Search System (APSS). Features soft-touch transport controls; Sharpscan 10-LED peak level indicator; independent left/right record level controls; full automatic stop; hard Permalloy record and triple-gap ferrite erase heads; damped eject; tape counter; 15 3/8" W x 8" D x 4 1/2" H \$150

RT-10 Cassette Deck

Metal-compatible stereo cassette deck with Dolby B noise-reduction system, electronically-controlled dc motor, hard Permalloy record/play, ferrite erase heads. Features LED peak level display; normal/CrO₂/metal tape selector; separate left/right record level controls; soft-eject cassette holder; automatic stop. Wow and flutter 0.09% wrms; frequency range 30-14,000 Hz normal, to 16 kHz metal tape; S/N ratio 62 dB, Dolby on; silver finish; 15 3/8" W x 8 3/8" D x 5" H \$130

RT-100 Stereo Cassette Deck

Low-profile stereo cassette deck with metal-tape capability, Dolby B noise-reduction system. Features 10-LED peak signal level displays; electronically controlled dc motor; normal/CrO₂/metal tape selector; soft eject; hard Permalloy record/play head. Wow and flutter 0.1% wrms; frequency response ±3 dB 40-13,000 Hz metal, to 12 kHz CrO₂, to 11 kHz normal tape; S/N ratio Dolby off/on 52/62 dB; input sensitivity/impedance 0.2 mV (-74 dB)/6.8k ohms mic, 50 mV (-26 dB)/50k ohms line; output level/impedance 550 mV/50k ohms line, 0.2 mW/8 ohms headphones; 15 3/8" W x 8 3/8" D x 4 3/8" H; 5.5 lb \$120

SHERWOOD

S-6000 CP Stereo Cassette Deck

Stereo cassette deck with 3 heads, Dolby B and C noise-reduction systems. Features Sendust tape



heads; normal/CrO₂/metal tape capability; fine bias adjust control; switchable MPX filter; microprocessor-controlled soft-touch transport. Wow and flutter 0.05% wrms; frequency response 30-21,000 Hz ±3 dB with metal tape; S/N ratio > 77 dB with Dolby C; THD 3%; 17 3/8" W x 15 1/2" D x 4 3/8" H \$400

S-5000CP Cassette Deck

Microprocessor-controlled front-loading stereo cassette deck with Dolby B noise-reduction system, super-hard alloy Sendust heads, and record/play timer function. Features soft-touch controls; air-dampened cassette door with backlighting; electronically governed dc motor; LED indicators for play, record, pause; dual-function, 2-color fluorescent displays with peak-hold/average signal level indication; metal/chrome/ferrichrome/normal tape EQ selector with separate bias fine adjust control; MPX filter; separate line output and headphone controls. Wow and flutter 0.05% wrms; frequency response +1/-3 dB at -20-dB record level 25-16,500 Hz normal, to 17.5 kHz chrome, to 19 kHz metal tape, 30-13,000 Hz ±3 dB at 0-dB rec level with metal tape; S/N ratio with chrome tape Dolby on/off 63/56 dB; THD 1% at 1 kHz with metal tape \$350

S-250 CP Stereo Cassette Deck

Metal-capable stereo cassette deck with Dolby B and C noise-reduction systems. Features Dynalloy tape heads; normal/CrO₂/metal tape selector; soft-touch transport controls; 12-segment LED level meters. Wow and flutter < 0.06% wrms; frequency response 30-19,000 Hz +1/-3 dB; S/N ratio > 76 dB with

Dolby C; THD 3%; $17\frac{1}{4}''\text{W} \times 15\frac{1}{2}''\text{D} \times 4\frac{3}{4}''\text{H}$ \$230

S-100 CP Cassette Deck

Front-loading, metal-compatible stereo cassette deck with Dolby B noise-reduction system, super-hard Dynalloy record/play head, memory rewind. Features fully automatic tape transport; automatic shutoff; metal/chrome/normal tape selector; record, Dolby LEDs; cassette backlighting; pause control. Wow and flutter 0.06% wrms; frequency response $+1/-3$ dB at -20 -dB rec level 25-15,000 Hz normal, to 15.5 kHz chrome, to 17 kHz metal tapes, 30-10,000 Hz ± 3 dB at 0-dB rec level with metal tape; S/N ratio Dolby on/off 63/54 dB; THD 1% at 1 kHz with metal tape..... \$200

SONY

TC-K777 Stereo Cassette Deck

Reference Standard 3-head deck with Sendust and ferrite Independent Suspension record, play heads, ferrite erase head. Metal-tape capable; quartz-locked direct-drive closed-loop dual-capstan transport with Magnedisc servo control, 2 Sony BSL motors, and solenoid feather-touch transport controls; 4-position tape selector switch, including metal position; Dolby B noise-reduction system; variable bias, record sensitivity, Dolby calibration with test-tone generator; total tape information display center that includes 30-element peak program meters with hold capability, linear real-time tape counter, bias/record sensitivity indicators, record level guides; all-stage dc construction; memory play/stop; automatic-space record mute; facility for optional remote-control accessories. Wow and flutter 0.025% wrms; frequency response ± 3 dB 20-20,000 Hz with Type IV tape; S/N ratio 60 dB A weighted with Dolby off \$950
RM-50. Wired remote control \$55
RM-80. Wireless infrared remote control \$120
RM-44. Full system wireless remote control for use with selected Sony RC-capable products \$150
RM-65. Recording synchronizer for use with selected Sony turntables \$25

TC-FX1010 Stereo Cassette Deck

Self-monitoring, 3-head, computerized stereo cassette deck with audio signal processor (ASP) IC for feather-touch control of all functions, settings. Features self-monitoring head that adjusts bias, tape sensitivity for each tape used, monitors record level and adjusts for minimum distortion; multifunction memo-



ry that allows storage of tape settings, calibration of up to 4 different types of tape; Dolby B and C noise-reduction systems; independent-suspension Sendust and ferrite record, play/monitor head; closed-loop dual-capstan drive system with BSL capstan and dc reel motors; concentrated display that includes electronic peak program meters, linear real-time tape counter, record level setting guides; automatic tape selection system for all types of tape, including metal; automatic play; memory play/stop; automatic-space record mute; memory backup system; dc amplifier, direct-coupled play head amplifier; facility for optional remote controller. Wow and flutter 0.04% wrms; frequency response 25-18,000 Hz ± 3 dB; S/N ratio 60 dB A weighted, Dolby off \$650

TC-K555 Stereo Cassette Deck

Three-head, 2-motor stereo cassette deck with independent suspension Sendust and ferrite record and playback heads. Features closed-loop dual-capstan dc servo belt-drive transport system; BSL capstan, dc reel motors with solenoid logic feather-touch transport controls; fine tuning bias control for Type I tape, plus positions for Types II, III, and IV tapes; Dolby B and C noise-reduction systems; automatic-space

record mute; automatic play; memory stop/play; concentrated display that includes electronic peak program meter, linear real-time tape counter, record level setting guides; provision for optional remote control. Wow and flutter 0.04% wrms; frequency response 30-18,000 Hz ± 3 dB with Type IV tape; S/N ratio 60 dB A weighted, Dolby off \$450

TC-FX77 Stereo Cassette Deck

Stereo cassette deck with Dolby B and C noise-reduction systems, 2 motors. Features dc servo belt-drive system; noncrystalline LaserAmorphous record/play head for greater dynamic range; feather-touch full-logic solenoid transport controls; concentrated display that includes electronic peak program meters, linear real-time tape counter, 9-selection Automatic Music Sensor (AMS)/automatic repeat feature, record level guides; 4-position tape selector (includes metal); automatic play; memory play/stop; automatic-space record mute; dc amplifier and direct-coupled play head amplifier; facility for optional remote controller. Wow and flutter 0.04% wrms; frequency response 30-17,000 Hz ± 3 dB with Type IV tape; S/N ratio 59 dB A weighted, Dolby off \$400
TC-FX66. Similar to TC-FX77 except no AMS/repeat feature or record level guides \$320

TC-FX44 Stereo Cassette Deck

Stereo cassette deck with Dolby B and C noise-reduction systems, SD record/play head. Features dc servo belt-drive system; full-logic feather-touch transport controls; automatic tape selection system for all tape formulations, including metal; Automatic Music Sensor (AMS) with automatic-space record mute; automatic play; LED peak meters; facility for optional remote controller. Wow and flutter 0.05% wrms; frequency response 30-16,000 Hz ± 3 dB with Type IV tape; S/N ratio 59 dB A weighted, Dolby off \$210
TC-FX33. Similar to TC-FX44 except Dolby B only NR system, no automatic play, no remote-control capability \$180

TC-PB5 Playback-Only Stereo Cassette Deck

Features Sendust and ferrite head; 2-motor dc servo transport; Dolby B noise-reduction system; solenoid logic feather-touch transport controls; 2-position tape selector switch, including metal; random music sensor; headphone level control; dubbing capability with selected Sony tape decks, using optional RM-65 accessory \$220

STUDER/REVOX

Revox B710 MKII Stereo Cassette Deck

Microprocessor-controlled stereo cassette deck with Dolby B and C noise-reduction systems. Features peak-level bargraph meters with up to $+8$ -dB indication; 2 quartz-controlled DD capstan motors; 2 servo-controlled reel motors; unique hinged headblock for absolute stability in azimuth plane; diecast aluminum-alloy transport chassis; mic/line mixing; internal programmable 24-hour clock for stop/start record/play timing; headphone volume control; auto tape-type sensing; automatic start-of-oxide cueing; MPX filter.



Wow and flutter 0.035% wrms; frequency response 30-20,000 Hz $+2/-3$ dB; S/N ratio > 72 dB IEC A weighted at 3% distortion, Dolby C on \$1995

Revox B710 Stereo Cassette Deck

Front-loading 3-head, 4-motor stereo cassette deck with microprocessor-activated controls, counter display. Features dual direct-drive, crystal-controlled capstan, separate servo-controlled reel motors; constant-speed fast-wind with electrical braking; pneumatically damped solenoid-controlled head assembly; 4-digit electronic counter with run-up button, real-

time clock with external timer switching for B710 and external equipment; automatic bias/equalization sensing for metal, CrO₂, ferrichrome, ferric tapes, with manual override; mic/line mixing; playback level control; LED peak record/play signal level meters with 1 dB resolution from -10 to $+6$ dB, 2-dB intervals from -30 to -10 dB; plug-in modular construction; optional rack mounting adapters. Wow and flutter 0.08% DIN, 0.035% wrms; frequency response $+2/-3$ dB 22-22,000 Hz metal, to 16 kHz ferric tape; S/N ratio 68 dB A weighted at 3% THD, 1 kHz, Dolby on, 60 dB at 0 VU, 1 kHz, Dolby on; $17.8''\text{W} \times 13.85''\text{D} \times 6''\text{H}$ \$1899

TANDBERG

TCD 3004 Cassette Deck

Microprocessor-controlled metal-compatible vertical front-loading stereo cassette deck with dual Dolby B noise-reduction system, 4 motors, 3 tape heads. Features PROM brain logic microprocessor function controls with LED indicators; recording preset; Dyneq® record equalization, Actilinear® headroom-extension system; 4-position bias/record, 70/120- μ sec playback equalization controls with bias fine adjust; calibration selector for off, azimuth, bias fine adjust, left/right record levels with calibration meter; separate left/right record, mic level controls with master control; source/tape monitor switch; headphones volume control; resettable LED digital counter display with memory; dual peak-indicating meters; error-detection digital display; winding speed control; azimuth control. Frequency response 20-20,000 Hz ± 3 dB; S/N ratio 70 dB \$2195

TCD 440A Cassette Deck

Metal-compatible stereo cassette deck with dual Dolby B noise-reduction system, separate record, play, Tandberg erase heads (80 dB erasure at 1 kHz and 60 dB erasure at 100 Hz), 3 motors in dual-capstan transport system. Features Dyneq® record equal-



ization circuitry designed to automatically adjust record preemphasis of deck to maximize potential treble response while simultaneously minimizing treble distortion; Actilinear® recording system; peak-indicating meters with second scale reflecting metal-particle signal levels; 10-kHz test oscillator; bias adjust controls for ferric, CrO₂, and metal tapes with set of left/right LEDs; separate left, right slider input/output level controls with LEDs; LED Dolby, tape I and II/metal, source/tape, record preset on/off, power indicators; optional PCM infrared wireless remote control available. Frequency response 20-20,000 Hz ± 3 dB; S/N 70 dB A weighted; anodized matte black finish; $18\frac{1}{8}''\text{W} \times 8\frac{7}{8}''\text{D} \times 4''\text{H}$ \$995

TCD 420A Stereo Cassette Deck

Front-loading metal-compatible stereo cassette deck with Dolby B noise-reduction system, 3 motors in dual-capstan transport system, diamond-cut Senalloy record/play and Tandberg erase (80-dB erasure at 1 kHz, 60-dB at 100 Hz) heads. Features Dyneq® dynamic equalization amplifier circuitry; Actilinear® recording system; tape and bias selectors for tape I (ferric), II (chrome), and metal with left-, right-channel bias-adjust selectors for each tape; separate left, right input/output level controls; equalized peak-indicating VU meters; 3-digit tape counter with reset. Wow and flutter 0.13% wrms; frequency response 30-18,000 Hz ± 3 dB; THD 3.0% metal, 2.0% ferric and chrome; S/N with metal tape 68 dB (IEC A weighted; input sensitivity/impedance 8 mV/47k ohms radio,

6 CASSETTE TAPE MACHINES

40 mV/220k ohms line; microphone input sensitivity 0.15-20 mV (mic input matched to dynamic microphone); 18 $\frac{1}{16}$ "W \times 8 $\frac{3}{4}$ "D \times 4"H \$649

TCD 3034 Stereo Cassette Deck

Soft-touch, logic-controlled stereo cassette transport. Features cue, record mute; peak-indicating equalized meters; Dyneq[®] and Actilinear[®] headroom-extension system; instant-access loading. Dust cover for cassette compartment optional. Accommodates metal tape. Frequency response 10-20,000 Hz \pm 3dB \$499

TEAC

C-1A/BA Stereo Cassette Deck

Stereo cassette deck with Dolby B noise-reduction system, 3 motors, 3 heads, dual capstans with PLL dc servo capstan, 2 dc coreless reel motors. Features LSI logic tape function operation controls; pitch control to vary tape speed up to 4%; double-action input controls; 2 peak program VU meters; 3-position bias and equalization switch; optional interchangeable bias/equalization card, CX-8; 3-position monitor switch; switchable Dolby/dbx[®] noise reduction system with optional dbx II Interface; input selector switch for mic/mic-with-attenuation/line; memory function for automatic stop/repeat; timer control switch; provision for optional remote control unit. Wow and flutter 0.04% NAB weighted; frequency response 31.5-18,000 Hz \pm 3 dB CrO₂, to 16 kHz \pm 3 dB normal tape; S/N ratio Dolby off/on 60/70 dB; fast-wind time 100 seconds with C60 cassette; mic input sensitivity/impedance -72 dB (0.25 mV)/600 ohms; line input sensitivity/impedance 60 mV/50k ohms; available in champagne or brown; 19"W \times 13 $\frac{3}{8}$ "D \times 6 $\frac{1}{2}$ "H \$1350

C-3RX Stereo Cassette Deck

Stereo cassette deck with dbx[®] noise-reduction system, 3 heads, 2 motors. Features double dbx NR; tape/source monitoring; Dolby B noise-reduction system; 3-step independent bias, equalization selectors; timer function; memory play/stop; independent input level controls; output level control; adjustable bias/record calibration; optional rack-mount kit, remote controller, test-tone oscillator. Wow and flutter 0.04% NAB weighted; frequency response \pm 3 dB 20-20,000 Hz metal, to 19 kHz CrO₂ and CO, to 16 kHz normal tape; S/N ratio no NR/dbx 60/91 dB; fast-wind time 80 seconds with C60 cassette; 15.7"W \times 15.7"D \times 5.8"H; 20.9 lb \$690

V-95RX Stereo Cassette Deck

Bidirectional record/play stereo cassette deck with 3-head, 2-motor transport, dbx[®] noise-reduction system. Features quick-reverse transport; Computational Program System; block repeat; 4-digit LED tape counter; LED bargraph level meters; electronic-control output level (up/down, 2-step, slow/fast); L/R balanced output level control; remote-control capability (CPS, start/stop memory capability); timer function. Optional accessories include remote controller, timer \$625
V-90R. Same as V-95RX except no Computational Program System; weight 13 $\frac{1}{4}$ lb \$490

V-1RX Stereo Cassette Deck

Electroload motorized head loading stereo cassette deck with 3-motor, 3-head transport, dbx[®] noise-re-



duction system. Features dynamic-range-expansion system; direct-drive capstan motor; block repeat; vertical peak level meters; timer record/play; output lev-

el control; fine bias adjust control; double Dolby B noise-reduction system; normal/CrO₂(Co)/metal tape selectors; 4-digit electronic tape counter; soft-touch transport controls. Wow and flutter 0.025% wrms; frequency response \pm 3 dB 20-18,000 Hz normal, to 19 kHz CrO₂/Co, to 20 kHz metal tape; S/N ratio no NR/Dolby/dbx 63/73/92 dB; input sensitivity/impedance 60 mV/50k ohms line; microphone input 0.25 mV/-72 dB; output level/impedance 0.3 V/50k ohms line; headphone output impedance 8 ohms; power consumption 25 W; fast-wind time 90 seconds with C60 cassette; 17 $\frac{13}{16}$ "W \times 10 $\frac{1}{4}$ "D \times 4 $\frac{1}{16}$ "H; 13 lb 4 oz \$590

M-124 Syncaset Stereo Cassette Deck

Front-loading Simul-Sync stereo cassette deck with Dolby B noise-reduction system, FG dc servo-controlled motor. Features Simul-Sync that permits monitoring on one track while simultaneously recording on another through same head; crossfield switch for Simul-Sync for slight blending of left and right channels; independent bias, equalization selectors for normal/CrO₂ tapes; separate left, right record level controls; mic/DIN, line input selector; 3-digit tape counter with memory rewind; 2 VU meters; fast-wind time 90 seconds with C60 cassette. Wow and flutter 0.07% wrms; frequency response \pm 3 dB 30-16,000 Hz with CrO₂ tape; S/N ratio Dolby off/on 55/65 dB; input sensitivity/impedance 60 mV/50k ohms line, 0.25 mV/600 ohms mic; 16 $\frac{1}{8}$ "W \times 11 $\frac{1}{2}$ "D \times 6 $\frac{1}{4}$ "H \$450

V-80 Stereo Cassette Deck

Professional Series stereo cassette deck with Positouch controlled 3-head, 2-motor transport, TRT-mode tape counter. Features color-coded fluorescent peak level meters; double Dolby B noise-reduction system; multifunction tape counter with real-time display; memory stop; record mute; timer record/play capability; source/tape monitor switch; separate left and right record level controls and single output level control; normal/CrO₂/metal bias selectors. Wow and flutter 0.035% wrms; frequency response \pm 3 dB 20-17,000 Hz normal, to 19 kHz CrO₂ and metal tape; S/N ratio Dolby off/on 59/69 dB; input sensitivity/impedance 60 mV/50k ohms line; mic input 0.25 mV/-70 dB at 200 ohms or more; output level/impedance 0.3 V/50k ohms or more; mic output impedance 8 ohms; power consumption 30 W; fast-wind time 90 seconds with C60 cassette; 17"W \times 10 $\frac{1}{4}$ "D \times 4 $\frac{1}{8}$ "H; 13 lb 3 oz \$420

V-70C Stereo Cassette Deck

Standard Audio Series stereo cassette deck with Dolby B and C noise-reduction systems, multi-function real-time display tape counter, fluorescent peak program meters. Features IC logic transport controls; 2-head, 2-motor transport; record mute; memory stop; normal/CrO₂/metal tape selectors; timer record/play; facility for optional remote controller. Wow and flutter 0.035% wrms; frequency response \pm 3 dB 20-17,000 Hz normal, to 18 kHz CrO₂, to 19 kHz metal tape; S/N ratio no NR/Dolby B/Dolby C 59/69/74 dB; input sensitivity/impedance 60 mV/50k ohms line; mic input sensitivity 0.25 mV/-72 dB at 200 ohms or greater; output level/impedance 0.3 V/50k ohms; headphone output impedance 8 ohms; power consumption 30 W; fast-wind time 90 seconds with C60 cassette; 17"W \times 10 $\frac{3}{8}$ "D \times 4 $\frac{1}{8}$ "H; 13 lb 3 oz \$390

V-50 Stereo Cassette Deck

Stereo cassette deck with Dolby B noise-reduction system, built-in condenser microphone, metal-tape capability. Features 3-step bias/equalization selector; LED bargraph signal-level meters; output level control; input level controls; line/mic/built-in mic selector; record mute; timer standby record/play. Wow and flutter 0.06% NAB weighted; frequency response \pm 3 dB 30-17,000 Hz metal and CrO₂, to 15 kHz normal tape; S/N ratio Dolby off/on 57/67 dB; distortion 1.0% at 400 Hz; fast-wind time 110 seconds with C60 cassette; 17"W \times 10"D \times 4.3"H; 12 lb \$270
V-40. Similar to V-50, including microswitch soft-touch transport controls but less built-in microphone, output level control \$240

V-30 Stereo Cassette Deck

Stereo cassette deck with Dolby B noise-reduction system. Features BRILLIANT switch for improving frequency response; LED bargraph signal level meters; 3-step bias/equalization selectors; timer record/play. Wow and flutter 0.06% wrms; frequency response \pm 3 dB 30-17,000 Hz metal and CrO₂, to 15 kHz normal tape; S/N ratio Dolby off/on 57/67 dB; distortion 1.0% at 400 Hz; fast-wind time 110 seconds with C60 cassette; 17"W \times 10"D \times 4.3"H; 12 lb \$210

TECHNICS

RS-M258R Stereo Cassette Deck

Auto-reverse stereo cassette deck with Dolby B noise-reduction system. Features quick-reverse tape mechanism; mode and direction selectors; fixed SX heads; dual flywheel; soft-touch transport controls; music select; record mute; single-touch recording; timer record/play; automatic normal/CrO₂/metal tape selection; dot-pattern FL meters; output level control; automatic input selector. Wow and flutter 0.07% wrms; frequency response \pm 3 dB 30-15,000 Hz normal, to 16 kHz CrO₂ and metal tape; S/N ratio Dolby off/on 57/67 dB; input sensitivity/impedance 0.25 mV/400-10k ohms mic, 60 mV/>36k ohms; output level/impedance 700 mV/2.6k ohms line, 125 mV/8-125 ohms headphones; fast-wind time 90 seconds with C60 cassette; power consumption 20 W; 16 $\frac{1}{8}$ "W \times 13 $\frac{3}{8}$ "D \times 4 $\frac{1}{16}$ "H; 12 lb 13 oz \$400

RS-M222 Stereo Cassette Deck

High-speed dubbing double stereo cassette deck with Dolby B noise-reduction system. Features synchro start; microphone mixing; series playback; automatic normal/CrO₂/metal tape select; music selector; dub/mix switch; peak-hold FL meters; playback level control; single-touch recording; record mute; soft-touch transport controls; rewind automatic play; metal-compatible MX heads; cue and review; dual pause controls; automatic input selector. Wow and flutter 0.048% wrms; frequency response \pm 3 dB 20-17,000 Hz normal, to 18 kHz CrO₂, to 19 kHz metal tape; S/N ratio Dolby off/on 57/67 dB; input sensitivity/impedance 1.0 mV/400-10k ohms mic, 60 mV/>47k ohms line; output level/impedance 400 mV/2.5k ohms line, 800 mV (at 8 ohms)/8-600 ohms; power consumption 15 W; fast-wind time 90 seconds for C60 cassette; 16 $\frac{1}{8}$ "W \times 10 $\frac{1}{16}$ "D \times 4 $\frac{1}{16}$ "H; 12 lb 7 oz \$300

RS-M226 Stereo Cassette Deck

Stereo cassette deck with Dolby B and C noise-reduction systems, soft-touch transport controls. Features single-touch recording; rewind automatic play; cue and review; timer record/play; peak-hold FL meters; metal-compatible MX head; oil-damped cassette door. Wow and flutter 0.048% wrms; frequency response \pm 3 dB 20-27,000 Hz normal, to 18 kHz CrO₂ and metal tape; S/N ratio no NR/Dolby B/Dolby C 57/67/75 dB; input sensitivity/impedance 0.25 mV/400-10k ohms mic, 60 mV/>47k ohms line; output level/impedance 400 mV/<2.3k ohms line, 80 (at 8 ohms)/8-600 ohms headphones; fast-wind time 90 seconds with C60 cassette; power consumption 12 W; 16 $\frac{1}{8}$ "W \times 9 $\frac{1}{16}$ "D \times 4 $\frac{1}{16}$ "H; 8 lb 13 oz \$220
RS-M224. Similar to RS-M226 except illuminated meters instead of FL displays \$180

RS-M218 Stereo Cassette Deck

Stereo cassette deck with Dolby B noise-reduction system, peak-hold metering, auto tape select. Features soft-touch transport controls; fluorescent level meters; MX record/play, double-gap erase heads; left, right input level controls; single-touch recording; timer-assisted record/play; full automatic stop; oil-dampened cassette load/unload; removable cassette-well door. Wow and flutter 0.05% wrms; frequency response \pm 3 dB 20-17,000 Hz metal, to 16 kHz CrO₂, to 15 kHz normal tape; S/N ratio Dolby off/on 56/66 dB; fast-wind time 90 seconds with C60 cassette; power consumption 12 W; 16 $\frac{1}{8}$ "W \times 8 $\frac{3}{8}$ "D \times 4 $\frac{1}{16}$ "H; 8 lb 13 oz \$170

RS-M205 Stereo Cassette Deck

Stereo cassette deck with metal-tape compatibility, soft-touch transport controls, and dual analog VU me-

ters. Features Dolby noise-reduction system; left, right input level controls; oil-dampened soft load, eject; removable cassette-well door; MX record/play, double-gap ferrite erase heads. Wow and flutter 0.05% wrms; frequency response ± 3 dB 20-17,000 Hz metal, to 16 kHz CrO₂, to 15 kHz normal tape; S/N ratio Dolby off/on 56/66 dB; fast-wind time 90 seconds with C60 cassette; power consumption 10 W; 16 $\frac{1}{8}$ "W \times 8 $\frac{1}{8}$ "D \times 4 $\frac{13}{16}$ "H.... \$150

Three-Head Cassette Decks

RS-M280 Stereo Cassette Deck

Direct-drive 3-head, 3-motor stereo cassette deck with quartz lock. Features double-capstan drive; microprocessor logic control; electronic tape counter with digital display; FL signal-level meters with peak hold; auto/manual tape selection; bias fine adjust control; Dolby B noise-reduction system; SX record and play, double-gap ferrite erase heads; lighted cassette well. Wow and flutter 0.024% wrms; frequency range 18-20,000 Hz normal, to 21 kHz CrO₂, to 22 kHz metal tape; S/N ratio Dolby on/off 70/60 dB; input sensitivity/impedance 0.25 mV/9k ohms mic, 60 mV/42k ohms line; output level/impedance 700 mV/2.5k ohms; 16 $\frac{1}{8}$ "W \times 13 $\frac{3}{8}$ "D \times 3 $\frac{1}{8}$ "H; 13 lb 15 oz \$800

RS-M273 Stereo Cassette Deck

Two-motor, dual-capstan, 3-head stereo cassette deck. Features dual-capstan closed-loop transport; microprocessor feather-touch transport controls; electronic tape counter with memory; FL meters; automatic tape selector; fine bias adjust control; double Dolby B noise-reduction system; LED function display; timer record/play; record mute; output level control. Wow and flutter 0.037% wrms; frequency response ± 3 dB 30-15,000 Hz normal, to 18 kHz CrO₂, to 19 kHz metal tape; S/N ratio Dolby off/on 59/69 dB; input sensitivity/impedance 0.25 mV/400-10k ohms mic, 60 mV/40k ohms line; output level/impedance 700 mV/3.5k ohms line, 125 mV/8 ohms headphones; power consumption 25 W; fast-wind time 80 seconds with C60 cassette; 16 $\frac{1}{8}$ "W \times 13 $\frac{3}{8}$ "D \times 4 $\frac{1}{8}$ "H; 14 lb 5 oz \$550

RS-M263 Stereo Cassette Deck

Three-head stereo cassette deck with automatic tape selector, Dolby B noise-reduction system. Features SX heads; bias fine adjust control; soft-touch transport controls; rewind automatic play; FL meters; record mute; output level control; automatic input selector; full automatic stop; illuminated cassette compartment. Wow and flutter 0.048% wrms; frequency response ± 3 dB 30-15,000 Hz normal, to 17 kHz CrO₂, to 18 kHz metal tape; S/N ratio Dolby off/on 58/68 dB; input sensitivity/impedance 0.25 mV/400-10k ohms mic, 60 mV/40k ohms line; output level/impedance 700 mV/22k ohms line, 125 mV/8 ohms headphones; power consumption 17 W; fast-wind time 90 seconds with C60 cassette; 16 $\frac{1}{8}$ "W \times 11 $\frac{1}{8}$ "D \times 4 $\frac{3}{8}$ "H; 10 lb 13 oz \$350

dbx® Cassette Decks

RS-M275X Stereo Cassette Deck

Direct-drive stereo cassette deck with Dolby B and C, dbx® noise-reduction systems. Features 3-motor direct-drive transport; Intro-Search; AX (amorphous) head; multi-function FL digital counter; wide-scale, 3-color FL meter (-40 to +18 dB) with peak-hold; dbx® disc decoder; automatic normal/CrO₂/metal tape selector; microprocessor feather-touch transport controls; bias fine adjust control. Wow and flutter 0.03% wrms; frequency response ± 3 dB 30-16,000 Hz normal, to 17 kHz CrO₂, to 18 kHz metal tape; S/N ratio no NR/Dolby B/Dolby C/dbx 58/68/76/92 dB; dynamic range 110 dB at 1 kHz with CrO₂ tape; 16 $\frac{1}{8}$ "W \times 12 $\frac{1}{8}$ "D \times 3 $\frac{1}{8}$ "H \$600

RS-M255X Stereo Cassette Deck

Stereo cassette deck with Dolby B and dbx® noise-reduction systems. Features dbx® disc decoder; multi-function FL display; 4-digit real-time counter; 3-digit tape counter; music select display; wide-range FL meters (-40 to +18 dB) with peak-hold feature; automatic tape selector; microprocessor feather-touch transport controls; 2-motor drive; metal-compatible

MX head; output level control; timer record/play; illuminated cassette compartment. Wow and flutter 0.038% wrms; frequency response ± 3 dB 30-15,000 Hz normal, to 16 kHz CrO₂, to 18 kHz metal tape; dynamic range 110 dB at 1 kHz with dbx® in; S/N ratio no NR/Dolby/dbx® 58/68/92 dB; input sensitivity/impedance 0.25 mV/400-10k ohms mic,



60 mV/47k ohms line; output level/impedance 700 mV/22k ohms line, 125 mV/8 ohms headphones; power consumption 28 W; fast-wind time 90 seconds with C60 cassette; 16 $\frac{1}{8}$ "W \times 13"D \times 4 $\frac{1}{8}$ "H; 13 lb \$380
RS-M228X. Similar to RS-M255X except no multi-function FL display; wow and flutter 0.048% wrms; S/N ratio Dolby off/on 57/67 dB; power consumption 20 W; 11"D \times 4 $\frac{1}{8}$ "H; 11 lb \$250

Professional Series

RS-M95 Stereo Cassette Deck

Quartz-locked metal-compatible stereo cassette deck with Dolby noise-reduction system, quartz-locked direct-drive motor, hot-pressed ferrite record/play, erase heads in 3-head system. Features dual-color fluorescent VU/instant peak/peak hold bargraph display; 4-position bias and equalization for normal, FeCr, CrO₂, metal tapes with bias fine adjust; microprocessor tape counter with memory play/rewind/stop; optional RP-9690-P or RP-070 remote control unit available; black and metal cabinet \$1400

RS-M85MkII Stereo Cassette Deck

Metal-compatible stereo cassette deck with Dolby B noise-reduction system; vertical hold, flat component style; quartz-locked-planet-opposed dc brushless, coreless, slotless direct-drive capstan motor with servo-controlled circuit; separate coreless reel motor; full IC-logic control; laminated Sendust head; low-noise equalizer and high linearity amplifier; MPX filter. Features fluorescent electronic bargraph peak displays; dim/bright and VU/peak switches; 4-position tape selector with fine bias-adjust control; electronic full automatic stop; record mute; mic/line mixing; output level control; 3-digit tape counter with memory rewind; timer record with external timer; electronic muting circuit. Wow and flutter 0.035% wrms; frequency response ± 3 dB 30-14,000 Hz normal, to 16 kHz CrO₂ and FeCr tape; S/N ratio Dolby off/on 59/69 dB; microphone input sensitivity/impedance 0.25 mV/400-10k ohms; fast-wind time 90 seconds with C60 cassette; 19"W \times 15 $\frac{1}{8}$ "D \times 3 $\frac{1}{8}$ "H.... \$750

Micro Series

RS-M02 Stereo Cassette Deck

Metal-compatible stereo cassette deck with Dolby noise-reduction system, FG servo direct-drive dc capstan, dc coreless reel motors, SX record/play, double-gap Sendust/ferrite erase heads. Features 2-color fluorescent peak-indicating bargraph display; tape selector buttons for normal, FeCr, CrO₂, and metal tapes; IC logic tape function controls; record/record mute button with LED; input level control with rear-panel mic/line switch, front-panel LED mic indicator; timer record/play with external timer; 3-digit tape counter with reset; fast-wind time 80 seconds with C60 cassette. Wow and flutter 0.035% wrms; frequency response ± 3 dB 30-17,000 Hz metal, to 16 kHz CrO₂ and FeCr; to 14 kHz normal; S/N ratio 68 dB with Dolby; input sensitivity/impedance 0.25 mV/400-10,000 ohms mic, 60 mV/47k ohms line; 3 $\frac{1}{8}$ "H \times 11 $\frac{1}{8}$ "W \times 9"D \$400

RS-M04 Stereo Cassette Deck

Metal-compatible stereo cassette deck with Dolby B noise-reduction system, MX record/play head. Features automatic tape selector buttons for normal, CrO₂, FeCr, metal tapes; 2-color 18-segment fluorescent bargraph display with automatic-reset peak-hold memory circuit; music selector system; rewind auto-

matic play; automatic stop; input, output level controls; record mute; timer standby; 3-digit tape counter with reset. Wow and flutter 0.05% wrms; frequency response ± 3 dB 30-16,000 Hz metal, CrO₂, FeCr, to 14 kHz normal tape; S/N ratio 67 dB with Dolby; 12.2 cmH \times 29.7 cmW \times 23.2 cmD \$330
RS-M04A. Same as RS-M04 except 110, 125, 220, 240 V operation \$335

RS-M07 Stereo Cassette Deck

Soft-touch, automatic tape-select stereo cassette deck with Dolby B noise-reduction system, analog type signal-level meters. Features MX record/play, double-gap ferrite erase heads; automatic mic/line selection; precision-calibrated VU meters; left, right input-level controls; single-touch recording; full automatic stop; oil-dampened soft loading and eject; removable cassette-well door. Wow and flutter 0.048% wrms; frequency response ± 3 dB 20-18,000 Hz metal and CrO₂, to 17 kHz normal tape; S/N ratio Dolby off/on 57/67 dB; fast-wind time 90 seconds with C90 cassette; power consumption 10 W; 11 $\frac{1}{16}$ "W \times 9 $\frac{1}{16}$ "D \times 4 $\frac{1}{8}$ "H; 7 lb 11 oz ... \$250

Digital Audio Cassette Deck

SV-P100 Digital Cassette Deck

Stereo digital cassette deck uses pulse-code modulation (PCM) to record on, play back from standard VHS videocassette. Features LSI IC-chip digital signal processing; versatile editing capabilities; liquid-crystal display (LCD) tape counter, level display meters (includes peak hold); input, output terminals for direct dub from second SV-P100; recessed power switch to prevent accidental power off; headphone, microphone jacks on front panel; fade-in/out control; motor-driven cassette holder; dew lamp; soft-touch transport controls; automatic recording possible with audio timer. Frequency response 2-20,000 Hz ± 0.5 dB; harmonic distortion < 0.01% at 1 kHz, 0 dB; dynamic range > 86 dB; mpnt sensitivity/impedance 30 mV/10k ohms line, 0.7 mV/600 ohms microphone, 1 V p-p/75 ohms digital; output level/impedance 400 mV/600 ohms line, 1 V p-p/75 ohms (video format); record/play time 2 hours maximum; power consumption 85 W; 16 $\frac{1}{16}$ "W \times 13 $\frac{3}{8}$ "H \times 10 $\frac{1}{16}$ "D; 46.3 lb \$3000

TEKNIKA

8861 Stereo Cassette Deck

Stereo cassette deck with hard Permalloy record/play, dual-gap ferrite erase heads. Features solenoid-operated 2-motor, direct-drive transport with FG servo dc capstan motor; soft-touch IC-logic transport controls; Cassette Program Quick Sensor (CPQS) to locate beginnings of programs; separate input and



output level controls; Dolby B noise-reduction system; 24-segment peak-hold fluorescent meters; 4-position tape selector (includes metal); automatic stop at end of play. Wow and flutter 0.03% wrms; frequency response 30-17,000 Hz ± 3 dB with metal tape; S/N ratio 63 dB, Dolby on; THD < 1.5% at 0 VU; 17 $\frac{1}{16}$ "W \times 12 $\frac{1}{16}$ "D \times 4 $\frac{1}{8}$ "H \$300

8761 Stereo Cassette Deck

Stereo cassette deck with hard Permalloy record/play, dual-gap ferrite erase heads. Features dc capstan motor; CPQS; separate input, output level controls; 10-segment LED peak meters; Dolby B noise-reduction system; normal/CrO₂/metal tape selector; automatic stop. Wow and flutter 0.07% wrms; frequency response 40-14,000 Hz ± 3 dB with metal tape; S/N ratio 63 dB, Dolby on; THD < 1.5%; 15 $\frac{1}{8}$ "W \times 10 $\frac{1}{8}$ "D \times 6 $\frac{1}{8}$ "H \$200

4861 Stereo Cassette Deck

Stereo cassette deck with hard Dynalloy record/play, dual-gap ferrite erase heads. Features dc capstan mo-

6 CASSETTE TAPE MACHINES

tor; soft-touch IC-logic controlled transport; Dolby B noise-reduction system; LED recording-level displays; normal/CrO₂/metal tape selector; automatic stop. Wow and flutter 0.06% wrms; frequency response 40-16,500 Hz ±3 dB; S/N ratio 61 dB. Dolby on; THD <1.5%; 14 $\frac{1}{16}$ "W × 9 $\frac{1}{16}$ "D × 5 $\frac{1}{16}$ "H . \$200

8361 Stereo Cassette Deck

Stereo cassette deck with hard Permalloy record/play, ferrite erase heads. Features Dolby B noise-reduction system; 3-position tape selector; LED meters. Wow and flutter 0.16% wrms; frequency range 40-15,000 Hz CrO₂, to 16 kHz metal tape; separation 30 dB; S/N ratio Dolby off/on 50/60 dB; THD 2.2%; 14 $\frac{1}{16}$ "W × 9 $\frac{1}{16}$ "D × 5 $\frac{1}{16}$ "H \$170

TOSHIBA

PC-G6R Stereo Cassette Deck

Solenoid-operated, 2-motor stereo cassette deck with automatic reverse and metal-tape capability. Features quick reverse; single-side, one-cycle, continuous-play modes; Dolby B noise-reduction system; 3-way tape selector; peak-indicating signal-level meters; timer record/play function; optional remote-control capability. Wow and flutter 0.045% wrms; frequency range 25-18,000 Hz; S/N ratio 57 dB. Dolby off; 16 $\frac{1}{16}$ "W × 10 $\frac{1}{16}$ "D × 4 $\frac{1}{16}$ "H \$300

PC-G4C Stereo Cassette Deck

Solenoid-operated, 2-motor stereo cassette deck with Dolby B and C noise-reduction systems, metal-tape capability. Features peak-indicating LED signal-level meters; timer record/play function; 3-way tape selector; optional remote-control capability. Wow and flutter 0.045% wrms; frequency range 20-19,000 Hz; S/N ratio 59 dB. Dolby off; 16 $\frac{1}{16}$ "W × 10 $\frac{1}{16}$ "D × 4 $\frac{1}{16}$ "H \$220

PC-G1 Stereo Cassette Deck

Metal-compatible stereo cassette deck with Dolby B noise-reduction system; peak-indicating LED signal-level meters; soft-touch transport controls. Wow and flutter 0.055% wrms; frequency range 35-17,000 Hz; S/N ratio 57 dB. Dolby off; 16 $\frac{1}{16}$ "W × 10 $\frac{1}{16}$ "D × 4 $\frac{1}{16}$ "H \$160

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CR-240 Portable Cassette Deck

Compact front-loading portable cassette deck with Dolby noise-reduction system, low-wear motor with electronic control, 2 contrarotating flywheels, loudspeaker for mono monitoring. Features automatic start after fast-forward or rewind; automatic end-of-tape shut-off; switchable alc (automatic level control); remote control accessory; clock timer operation; separate or tandem (mechanical coupling) record level controls; twin peak-reading level meters for record, playback with meter illumination, 3 LED function indicators; battery check with quick-action switch; built-in condenser microphone; linear stereo power amplifier; stereo headphone jack socket; joystick control for selection of 3 tape transport functions. Wow and flutter 0.2% (DIN); frequency range 30-16,000 Hz; S/N ratio 58 dB Dolby off with FeCr, 66 dB Dolby on with CrO₂ and FeCr, 65 dB Dolby on with normal tape; crosstalk -70 dB at 1 kHz, reverse track, -45 dB stereo; mic input 0.2 mV at 500 ohms source impedance; power ac line, dry cells, rechargeable, or car battery; 9 $\frac{1}{16}$ "W × 7 $\frac{1}{16}$ "D × 2 $\frac{1}{16}$ "H \$1389
CR-240AV. Audio-visual version of CR-240 . . . \$1427

VECTOR RESEARCH

VCX-800 Stereo Cassette Deck

Front-loading stereo cassette deck with 3 heads, 2 motors, dual capstans. Features Dolby B/C tape, Dolby FM noise-reduction, HX headroom-extension systems; microprocessor-controlled Compu-counter that automatically selects tape length, displays re-

maining time in minutes and seconds, searches for any location on a tape; sweep oscillator that allows adjustment for flattest response; 2 memory circuits; automatic rewind/play; record mute; feather touch transport controls. Wow and flutter 0.03%; frequency response ±3 dB 25-19,000 Hz normal, to 20 kHz CrO₂, to 21 kHz metal tape; S/N ratio no NR/Dolby



B/Dolby C 56/66/76 dB; 17 $\frac{1}{16}$ "W × 14 $\frac{1}{2}$ "D × 5 $\frac{1}{16}$ "H \$1000

VCX-600 Stereo Cassette Deck

Front-loading metal-compatible stereo cassette deck with Dolby B noise-reduction system containing 4 Dolby processors, FG servo dc capstan and servo reel motors, separate Sendust record, Sendust playback, ferrite erase heads. Features computerized programmable music search (8 program buttons with LEDs represent 8 selections on tape side, of which one or several chosen pieces are sought out, played); programmable search that automatically seeks next selection; separate bias and equalization for Fe, Co, and metal tapes with bias adjust; dual LED peak level bargraph meters; separate automatic play, rewind buttons; memory stop IC logic tape function controls with LEDs; record mute; cue and review; input and output level controls; tape/source monitor switch; 3-digit tape counter with reset; optional remote control capability. Fast-wind time 90 seconds with C60 cassette; wow and flutter 0.06% wrms; frequency response ±3 dB 30-16,000 Hz normal, to 18 kHz Co/CrO₂, to 20 kHz metal tape; S/N ratio (A weighted, 3.0% THD) 65 dB. Dolby on; input sensitivity/impedance 60 mV/50,000 ohms line, 0.25 mV/600 ohms mic; output level/impedance 580 mV/1000 ohms line; headphone impedance 8 ohms; 5 $\frac{1}{8}$ "H × 17 $\frac{1}{16}$ "W × 14 $\frac{1}{16}$ "D \$550

VCX-500. Similar to VCX-600 less 8-selection programmable music search, automatic play, rewind, tape/source monitor switch; has combination Sendust record/play, ferrite erase heads; line output level/impedance 500 mV/1k ohms \$475

VCX-510 Stereo Cassette Deck

Stereo cassette deck with Dolby B/C noise-reduction systems, IC-logic 2-motor transport, Music Search[®]. Features Duralloy head; 4-position tape selector; automatic rewind/play; repeat play memory function; LED peak level meters; record mute; output level control; MPX filter; provision for optional VRC-22 remote-control unit. Wow and flutter 0.04% wrms; frequency range 25-19,000 Hz metal, to 18 kHz CrO₂, to 16 kHz normal; S/N ratio no NR/Dolby B/Dolby C 56/66/76 dB A weighted, referred to 3% THD; input sensitivity/impedance 60 mV/50k ohms line, 0.25 mV/-72 dB 600 ohms or more mic; output level/impedance 650 mV/1k ohm line, 120 mV/8 ohms headphones; fast-wind time 100 seconds with C60 cassette; power consumption 35 W; 17 $\frac{1}{16}$ "W × 14 $\frac{1}{2}$ "D × 5 $\frac{1}{16}$ "H; 15.7 lb \$500

VCX-400 Stereo Cassette Deck

Stereo cassette deck with Dolby B/C noise-reduction systems, full-logic solenoid-controlled transport, memory rewind. Features Duralloy head; 4-position tape selector; fine bias adjust control; LED peak-level meters; record mute; MPX filter; provision for optional VCR-22 remote controller. Wow and flutter 0.05% wrms; frequency range 25-18,000 Hz metal, to 17 kHz CrO₂, to 15 kHz normal tape; S/N ratio no NR/Dolby B/Dolby C 56/66/76 dB A weighted referred to 3% THD; input sensitivity/impedance 60 mV/50k ohms line, 0.25 mV/-72 dB (600 ohms or more) mic; output level/impedance 650 mV/1k ohm line, 120 mV/8 ohms mic; fast-wind time 100 seconds with C60 cassette; power consumption 30 W; 17 $\frac{1}{16}$ "W × 14 $\frac{1}{2}$ "D × 5 $\frac{1}{16}$ "H; 14.6 lb \$350

YAMAHA

K-960B Stereo Cassette Deck

High-end deck contains Dolby and dbx[®] noise-reduction systems (providing up to 30 dB of noise suppression with dbx system). Features Sendust record/play, double-gap ferrite erase heads; 2-motor transport with IC logic control; fluorescent bargraph meters; continuously adjustable bias control; timer recording switch; subsonic and MPX filters; low-noise equalizer preamp; focus switch to extend high-end frequency response; black front panel. Wow and flutter <0.028% wrms, <0.1% DIN; frequency response ±3 dB 30-17,000 Hz normal, to 19 kHz CrO₂, to 22 kHz metal tape; S/N ratio no NR/dbx on >60/>100 dB with metal tape; overall distortion <1.0% normal and metal tape, <1.5% CrO₂ tape; input sensitivity/impedance 0.3 mV/5k ohms mic, 50 mV/100k ohms line; output level/impedance 340 mV/1.6k ohms line, 1 mW/8 ohms (5 mW/150 ohms); power consumption 35 W U.S. and Canada; fast-wind time 70 seconds with C60 cassette; 17 $\frac{1}{16}$ "W × 12 $\frac{1}{16}$ "D × 5 $\frac{1}{16}$ "H; 17 lb 10 oz \$495
K-960S. Same as K-960B but with silver front panel \$495

K-850 Stereo Cassette Deck

Direct front-loading metal-compatible stereo cassette deck with Dolby B noise-reduction system, electronic governor dc servomotor; pure Sendust record/play, double-gap ferrite erase heads, dc EQ amplifier circuitry. Features auto repeat, auto rewind, auto record standby, timer record (with external timer), manual (defeats all automatic functions) on selector; LH/CrO₂/metal tape selection with automatic switching between LH/CrO₂ tapes; sharp/soft focus switch for sound imaging; peak-level meters; IC logic tape function controls that include auto rec/pause, rec mute; automatic shutoff; record, output level controls; roller-coupled cassette holder grip with hinged cover when no tape is loaded; silver front panel; wood cabinet. Wow and flutter 0.04% wrms (JIS); frequency response ±3 dB 30-16,000 Hz LH, to 18 kHz CrO₂, to 19 kHz metal tape; S/N ratio 60 dB with CrO₂ tape, Dolby off; input sensitivity/impedance 0.3 mV/5k ohms mic, 50 mV/100k ohms line; fast-wind time 75 seconds with C60 cassette; 17 $\frac{1}{16}$ "W × 12 $\frac{1}{16}$ "D × 5 $\frac{1}{16}$ "H \$370

K-500 Stereo Cassette Deck

Full-logic transport controls stereo cassette deck with 2 motors and Dolby B and C noise-reduction systems. Features Sendust record/play and double-gap ferrite erase heads; 2-color bargraph meters; automatic tape selector; timer record/play function; memory stop with repeat function; dc servo capstan and dc reel motors; facility for optional remote controller. Wow



and flutter <0.05% wrms, <0.08% DIN; frequency response ±3 dB 40-16,000 Hz normal, to 18 kHz CrO₂, to 20 kHz metal tape; S/N ratio no NR/Dolby B/Dolby C 60/68/76 dB EIAJ with CrO₂ tape; overall distortion <1% EIAJ at 315 Hz; input sensitivity/impedance 0.4 mV/3.9k ohms mic, 60 mV/60k ohms line; output level/impedance 350 mV/24k ohms line; 0.6 mV/8 ohms headphones; power consumption 20 W; 17 $\frac{1}{16}$ "W × 11 $\frac{1}{16}$ "D × 4 $\frac{1}{16}$ "H; 9 lb 14 oz \$340

K-300. Similar to K-500 except no memory stop with repeat or remote-control capability; has hard Permalloy record/play head. Frequency response to 16 kHz normal, to 16 kHz CrO₂, to 17 kHz metal tape \$270

K-200 Stereo Cassette Deck

Two-motor stereo cassette deck with Dolby B noise-reduction system. Features soft-touch transport controls; true meter-type signal-level meters with VU characteristics; timer record function; dc servo cap-

The Kyocera D-801 Cassette Deck with 3 motors and a direct driven dual capstan...

With only 0.02% WRMS wow and flutter.

If you think 3 motors impress you, think of what they can do for tape performance. One drives our dual capstans to insure constant and highly accurate speed with remarkable low wow & flutter of 0.02%. A second motor drives both the take-up and feed reels while the third motor gently positions the record/playback head against the tape surface. An innovative approach resulting in accurate head-to-tape positioning and optimal head azimuth alignment.

But motors alone do not insure top

performance. That's where both Dolby* B and C noise reduction circuits come in, along with a Sendust alloy tape head; electromagnetic braking on both take-up and feed reels; selectable bias and equalization for all types of tapes; 30-20,000 Hz response range; full LED function indication; feather-touch controls; APMR for automatic program search; auto stop; auto repeat, memory and a full bank of operational controls concealed behind a flip-down access panel; plus the convenience of a

4-digit LED electronic timer/counter for precise elapsed time, remaining time, stopwatch and memory stop and registering time and/or counter reference of recorded programs... and more.

But our most impressive feature awaits at your local audio retailer... a demonstration of the D-801...it's just one of a very impressive list of distinguished audio components and systems from Kyocera...where the future is now!



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CIRCLE NO. 14 ON READER SERVICE CARD

stan, flat-torque dc reel motors; hard Permalloy record/play, double-gap ferrite erase heads. Wow and flutter 0.05% wrms, 0.08% DIN; frequency response 40-15,000 Hz ± 3 dB all tape formulations, including metal; S/N ratio Dolby off/on $>50/ >60$ dB with CrO₂ tape; overall distortion 1.0% at 315 Hz; separation >35 dB at 1 kHz; crosstalk >60 dB at 125 Hz; input sensitivity/impedance 0.3 mV/5k ohms mic, 60 mV/80k ohms line; output level/impedance 350 mV/2.2k ohms line; power consumption 14 W; fast-wind time 80 seconds with C60 cassette; 17 $\frac{1}{8}$ "W \times 11"D \times 4 $\frac{1}{2}$ "H; 9 lb \$220

OPEN REEL TAPE MACHINES

AKAI

GX-747 Open-Reel Deck

Open-reel 4-track, 2-channel auto-reverse record/play stereo/mono deck with 10 $\frac{1}{2}$ " reel capacity, EE tape capability. Features 2-color LED peak-hold meters; full-logic feather-touch transport controls; tape/source monitoring; automatic tension-arm lock sys-



tem; electronic digital real-time counter with memory function; cue and review; remote-control capability. Wow and flutter $<0.03\%$ wrms; frequency response 25-33,000 Hz ± 3 dB at 7 $\frac{1}{2}$ ips; S/N ratio >65 dB at 7 $\frac{1}{2}$ ips; distortion 0.4% at 7 $\frac{1}{2}$ ips; 19.4"H \times 17.3"W \times 10.1"D; 51.2 lb \$1250

GX-625 Stereo Tape Deck

Open-reel 3 $\frac{3}{4}$ - and 7 $\frac{1}{2}$ -ips $\frac{1}{4}$ -track 2-channel stereo deck with ac servo direct-drive capstan, 2 eddy-current reel motors. Features 2 GX record/play, one erase head; reel capacity 10 $\frac{1}{2}$ "; automatic repeat, play, stop; illuminated logic solenoid tape function controls with LED standby indicator; LED digital timer/tape counter; 2-deck tape monitoring; mic/line mixing; output level control; variable pitch control; mono/stereo recording; timer record/play with external timer; computerized electronic braking. Wow and flutter 0.03% rms at 7 $\frac{1}{2}$ ips; frequency response 30-26,000 Hz ± 3 dB at 7 $\frac{1}{2}$ ips; S/N ratio 62 dB weighted, with low-noise tape, peak recording level at 3% THD; 17.6"H \times 17.3"W \times 9.5"D \$850

GX-77D Open-Reel Tape Deck

Open-reel 4-track, 2-channel, automatic-reverse record/play stereo/mono 7" deck with EE tape capability. Features 2-color LED peak-hold meters;

tape/source; power loading system; digital electronic real-time counter; fine bias-adjust control; cue and review; timer record/play capability; remote-control capability. Tape speeds 7 $\frac{1}{2}$, 3 $\frac{3}{4}$ ips; wow and flutter $<0.03\%$ wrms at 7 $\frac{1}{2}$ ips; S/N ratio >63 dB at 7 $\frac{1}{2}$ ips, DIN 45500 standard; frequency response 25-33,000 Hz ± 3 dB at 7 $\frac{1}{2}$ ips; distortion $<0.5\%$ at 7 $\frac{1}{2}$ ips; 17.2"W \times 9.6"H \times 8.9"D; 37.5 lb. \$795

GX-4000 Compact Tape Deck

Contains GX record and playback and separate erase heads, accommodates up to 7" reels. Features tape/source monitoring; mic/line mixing; sound-on-sound, sound-with-sound; track selector; automatic-stop; output level control; VU meters. Tape speeds 7 $\frac{1}{2}$ and 3 $\frac{3}{4}$ ips; wow and flutter $<0.08\%$ rms at 7 $\frac{1}{2}$ ips; frequency response 30-24,000 Hz ± 3 dB at 7 $\frac{1}{2}$ ips; S/N ratio >60 dB weighted at wide range tape setting with peak level at 3% THD; distortion $<1\%$ at 1 kHz, 0 VU; 17.3"W \times 12.4"H \times 9.1"D; 29 lb \$400

DENON

DH-510 2-track Tape Deck

Direct-drive 3-motor, 2-speed open-reel deck with 10 $\frac{1}{2}$ " reel capacity. Features Direct Tension Servo to



maintain tape tension constant at specified level; 2-track stereo record/play; rationalized transport system with rapid response; all-aluminum diecast frame; hard Permalloy record and play, ferrite erase head; wide dynamic range amplifier; continuously variable bias/EQ; IC logic control transport; record mute/pause mechanism; automatic safety switch; timer record/play; remote-control capability; compatibility with low-to-high-impedance headphones; horizontal or vertical operation. Wow and flutter $<0.025\%$ wrms at 38 cm/sec, 0.03% at 19 cm/sec; frequency response 30-30,000 Hz ± 3 dB at 38 cm/sec, 20-25,000 Hz at 19 cm/sec; S/N ratio >66 dB referred to maximum recording level (514 nWb/m), >58 dB referred to operating level (200 nWb/m); THD $<0.5\%$ at 1 kHz; third-harmonic distortion $<0.1\%$ at 1 kHz, using Scotch 250 tape; separation >50 dB at 1 kHz; input impedance/level 50k ohms unbalanced/0.2 mV minimum (-72 dB) mic, 100k ohms unbalanced/62 mV minimum (-22 dB); output impedance/level 100 ohms unbalanced (600 ohms optimum)/775 mV line, >8 ohms headphones; power consumption 85 W; 475mmH \times 255mmW \times 210mmD; 22 kg \$1350

PIONEER

RT-909 Stereo Tape Deck

Open-reel 3 $\frac{3}{4}$ - and 7 $\frac{1}{2}$ -ips, $\frac{1}{4}$ -track, 3-motor, 4-head stereo tape deck; FG dc servo dual-capstan motor, two 6-pole inner rotor reel motors; accepts up to 10 $\frac{1}{2}$ " reels. Features 2-step bias/equalization selector with variable bias; fluorocan level indicators with peak/average functions; 4-digit electronic counter; reel and speed selector; pitch control; repeat switch; timer start with external timer; automatic reverse;

tape/monitor switch; separate mic/line, left/right input level controls; output level control. Wow and flutter 0.04% at 7 $\frac{1}{2}$ ips, 0.08% at 3 $\frac{3}{4}$ ips; frequency response 20-28,000 Hz ± 3 dB (7 $\frac{1}{2}$ ips), 20-



18,000 Hz ± 3 dB (3 $\frac{3}{4}$ ips); S/N ratio 60 dB (7 $\frac{1}{2}$ ips), 55 dB (3 $\frac{3}{4}$ ips); 13 $\frac{3}{8}$ "H \times 18 $\frac{1}{8}$ "W \times 12 $\frac{1}{2}$ "D \$895

RT-707 Stereo Tape Deck

Automatic-reverse open-reel stereo tape deck. Features 3 $\frac{3}{4}$ - and 7 $\frac{1}{2}$ -ips speeds; speed accuracy $\pm 0.5\%$; 3 motors; 4 heads; $\frac{1}{4}$ -track, 2-channel design; handles 7" reels; FG servo ac direct drive motor for capstan drive, 2 6-pole inner-rotor induction motors for reel drive; solenoid-operated, direct-switchable function buttons. preset function buttons for timer record/play; automatic/manual reverse play; automatic repeat play; independent L/R recording mode selectors; 2 bias/2 equalization tape selection; full complement of inputs/outputs. Wow and flutter 0.05% wrms; (7 $\frac{1}{2}$ ips), 0.08% wrms (3 $\frac{3}{4}$ ips); S/N ratio 58 dB; distortion 1% maximum at 7 $\frac{1}{2}$ ips; fast rewind 100 seconds with 7" reel; frequency response 30-24,000 Hz ± 3 dB at 7 $\frac{1}{2}$, to 16 kHz at 3 $\frac{3}{4}$ ips; crosstalk -50 dB; separation 50 dB; pitch control $\pm 6\%$ (playback only); 9 $\frac{1}{8}$ "H \times 18 $\frac{1}{2}$ "W \times 14 $\frac{1}{2}$ "D \$695

SONY

TC-766-2 Open-Reel Deck

Half-track open-reel stereo record/play deck with $\frac{1}{4}$ -track playback option. Features Ferrite-and-Ferrite discrete 4-head design; patented dc head/play FET amplifier; 3-motor ac servo closed-loop, dual-capstan tape drive system; 15 and 7 $\frac{1}{2}$ ips tape speeds with electronic speed change and tension regulation system; feather-touch IC logic transport controls; punch-in recording; 10 $\frac{1}{2}$ " reel capacity; RM-30 remote-control unit. 20 $\frac{1}{4}$ "H \times 17 $\frac{1}{2}$ "W \times 9 $\frac{1}{4}$ "D; 85 lb 7 oz \$1350

TC-765 Open-Reel Deck

Quarter-track stereo record playback deck with Ferrite-and-Ferrite tape heads, 7 $\frac{1}{2}$ - and 3 $\frac{3}{4}$ -ips speeds. Features discrete 3-motor ac servo closed-loop, dual-capstan tape drive system; electronic speed change and tension regulation system; feather-touch IC logic transport controls; punch-in recording; 10 $\frac{1}{2}$ " reel capacity. RM-30 remote-control unit optional. 20 $\frac{1}{4}$ "H \times 17 $\frac{1}{2}$ "W \times 9 $\frac{1}{4}$ "D; 58 lb 7 oz \$1250

TC-399 Open-Reel Deck

Quarter-track stereo record/play deck with Ferrite-and-Ferrite heads in 3-head design, head/play amplifier. Features ac induction motor drive system; 7 $\frac{1}{2}$, 3 $\frac{3}{4}$, and 1 $\frac{1}{2}$ ips tape speeds; servo back-tension device; scrape flutter filter; all-mode automatic stop; 7" reel capacity. 17 $\frac{1}{4}$ "H \times 16 $\frac{3}{8}$ "W \times 7 $\frac{1}{2}$ "D; 27 lb 13 oz \$520

STUDER/REVOX

B77 MKII Stereo Tape Recorder

Stereo 2-speed (choice of 3 $\frac{3}{4}$ and 7 $\frac{1}{2}$ ips, and 15 ips, $\frac{1}{8}$ and 1 $\frac{1}{8}$ and 3 $\frac{3}{4}$ ips) stereo tape recorder with 3 motors; 10 $\frac{1}{2}$ " reel capacity. Features front-panel vari-speed control (± 2 semitones); 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. Wow and flutter (DIN 45507/IEE 193-1971) 0.06% at 15 ips, 0.08% at 7½ ips, 0.1% at 3¾ ips; frequency response +2/-3 dB 30-22,000 Hz at 15 ips, to 20 kHz at 7½ ips, to 16 kHz at 3¾ ips; S/N ratio on ¼-track 63 dB at 15 and 7½ ips, 60 dB at 3¾ ips; on ½-track 67 dB at 15 and 7½ ips, 64 dB at 3¾ ips; mic input level/impedance 0.15 mV/2.2k ohms (lo position, 50-to-6000-ohm mics), 2.8 mV/110k ohms (hi, 20k-ohm mics); 16.3"H x 17.8"W x 8.14"D.....\$1799

B77 Self Sync. Same as B77; available in 3¾ and 7½ ips or 7½ and 15 ips speeds with playback possibility from record head.....\$1749

B77 Autosart. Same as B77 except with VOX control.....\$2049

B77 Slide Sync. Same as B77 except with additional head for slide projector control.....\$1899

PR99 Stereo Tape Deck

Stereo 15- and 7½- or 7½- and 3¾-ips half-track recorder with direct-drive, servo-controlled capstan, electrically-controlled reel motors, 10½" reel capacity. Features balanced (XLR) line-in/out and switched cal/uncal level settings; high- or low-impedance microphone 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; 4-digit tape counter; manual/remote-control/fader-start operation. Wow and flutter (DIN) 0.06% at 15 ips, 0.08% at 7½ ips, 0.1% at 3¾ ips; frequency response +2/-3 dB 30-22,000 Hz at 15 ips, to 20 kHz at 7½ ips, to 16 kHz at 3¾ ips; S/N ratio 66 dB at 15 and 7½ ips, 63 dB at 3¾ ips; case or 19" rack mount; 19"W x 15.7"H x 7.9"D.....\$2095

Console.....\$330

Carrying case.....\$225

TANDBERG

TD 20 A "Baron" Open-Reel Deck

Features Actilinear record system; active trans-conductance circuit for lower intermodulation distortion;



tion; Sel Sync; 4-motor solenoid-less operation; phase linearity network; pushbutton operation with LED indicators, including FREE position for easy tape editing and threading; stand-by position with LED when one or both record buttons are engaged; electronically-governed speed; optional wireless infrared remote control or conventional cord remote control; 4 line inputs and master control for fading in/out; 2-step front panel switch for mic attenuation by 25 dB; very wide scale, peak-reading VU meters; front panel accessible bias adjustment. 7½ and 3¾ ips; ¼-track.....\$1395

TD20A SE. Similar to TD20A except black-on-black styling; new record equalization curves allow 80-dB or better S/N ratio without noise-reduction system (EQ switchable to NAB standard); Dyneq® and Actilinear® headroom extension systems; phase-corrected circuitry for pinpoint imaging.

¼-track, 15 and 7½ ips.....\$1595

½-track, 15 and 7½ ips.....\$1595

¼-track, 7½ and 3¾ ips.....\$1595

Series 15 Open-Reel Recorder

Mono 7½-, 3¾-, 1¾-ips open-reel recorder. Wow and flutter 0.1% at 7½ ips; frequency response 40-18,000 Hz ±2 dB at 7½ ips; S + N/N 55 dB at maximum record level; 5 W/channel continuous, both channels driven; preamp output 0.75 V; low-impedance mic; high- and low-level inputs; 13¾"W x 11¾"D x 6¾"H.

1521F. ¼-track or ½-track; includes foot control.....\$885

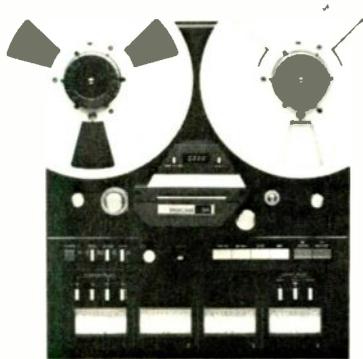
1521. 1521F without foot control.....\$715

TASCAM by TEAC

Series 30 Recorder/Reproducers

Feature high-torque slotless dc reel motors; FG dc servo capstan motor; pitch control; logic-operated transport controls; computer-controlled sensing logic; photo-optical end-of-tape detector; 10½" reel capacity; full sync functions; full frequency response in sync reproduce mode; FET switching in function and output select sections; zero return function; optional full dual-process dbx® noise-reduction system; circuit-driven 4-digit FL index counter; flip-up head cover; Sync head shield; cue lever; dump edit logic; facility for optional remote transport control; optional remote punch-in/out foot pedal. Can be used vertically or horizontally or mounted in standard 19" EIA rack with optional hardware.

Model 34. 4-track ¼" recorder/reproducer operates at 15 and 7½ ips and features illuminated VU meters



and 4 phono-jack unbalanced high-impedance line inputs and outputs (nominal level -10 dBV or 0.3 V). Wow and flutter 0.06% peak at 15, 0.09% peak at 7½ ips; frequency response (Sync & reproduce 3 dB at 0 VU) 40-22,000 Hz at 15 ips, to 16 kHz at 7½ ips; THD (at 1 kHz) 0.08% at 0 VU (250 nWb/m), 3% at 13 dB above 0 VU (1116 nWb/m). S/N ratio 68 dB NAB A weighted at 15 ips, 66 dB at 7½ ips; crosstalk >50 dB down at 1 kHz, 0 VU; 17.5"H x 16"W x 8.43"D; 44 lb.....\$1700

Model 32. Half-track ¼" recorder/reproducer operates at 15 and 7½ ips and features dual concentric input and output level controls; stereo headphone jack with independent level control; 2 illuminated VU meters; 2 unbalanced high-impedance phono-type line input jacks; 2 unbalanced high-impedance phono-type mic input jacks. Nominal line/mic input level -10 dBV (0.03 V)/-60 dBV (1 mV); wow and flutter at 15 and 7½ ips 0.06%/0.09% weighted peak; frequency response (sync and repro. 3 dB at 0 VU) 40-22,000 Hz at 15 ips, to 15 kHz at 7½ ips; THD (at 1 kHz) 0.08% at 0 VU (250 nWb/m), 3% at 13 dB above 0 VU (1116 nWb/m); S/N ratio 68 dB NAB A weighted at 15 ips, 66 dB at 7½ ips; crosstalk >50 dB down at 1 kHz, 0 VU; 17.5"H x 16"W x 8.43"D; 44 lb.....\$1300

22-4 Recorder/Reproducer

Four-channel system with 7" reel capacity and 15 and 7½ ips record/play capability. Features mixer interface; function and output select; punch-in recording; removable head housing; logic-controlled transport functions; headphone monitor selectors; expanded-

scale VU meters; independent level controls; memory stop function ±6% pitch; manual cueing. dbx® Type I interface optional. Tape format ¼"; tape speeds 15 and 7½ ips ±0.5%; frequency response 40-22,000 Hz at 15 ips, to 16 kHz at 7½ ips, both ±3 dB at 0 VU; THD 1.0% at 0 VU, 1 kHz, 185 nWb/m; S/N ratio 67 dB at 15 ips, 60 dB at 7½ ips A weighted (NAB) (increases to 88 dB in both cases with dbx); record/play amplifier headroom 23 dB above 0 VU; 16¾"W x 16¾"H x 10¼"D; 40 lb.....\$1425

22-2 Half-Track Recorder/Reproducer

Three-motor/three-head ¼" tape recorder/reproducer that accepts 7½" reels and operates at 15 or 7½ ips. Features expanded-scale -2 to +5 dB VU meters; independent monitor and record ready controls for each channel; mic/line mixing; detachable head housing; precision molded reel tables, spring-loaded reel holders. Fully independent electronics permit source or tape monitoring, record for reproduce mode to be selected independently for either track. Wow and flutter 0.07% peak DIN/IEC/ANSI weighted at 15 ips, -0.04% rms JIS/NAB weighted at 15 ips (0.09% and 0.05%, respectively, at 7½ ips); frequency response 40-22,000 Hz ±3 dB at 0 VU, 1 kHz 185 nWb/m; S/N ratio 66 dB NAB A weighted at 15 ips, 64 dB at 7½ ips; headroom >26 dB above 0 VU at 1 kHz for record, 38 dB for play amplifiers; 16¾"W x 12¾"H x 9¾"D; 30.8 lb.....\$775

TEAC

X-1000R Bidirectional Stereo Deck

Computer-controlled dual-capstan stereo open-reel deck with bidirectional record/play, dbx® decilinear noise-reduction/dynamic range-expansion system, EE-tape compatibility. Features 5-digit LED multi-function digital tape counter/timer; dual-capstan closed-loop transport with tension servo control; Magneflo tape bearings; STZ (search to zero), STC (search to cue); automatic spacing in record; block repeat; Dupli-Sync for dubbing to cassette; automatic reverse/repeat; real-time pause; electrically assisted reel braking; 6% pitch control; motion sensing; timer record/play; 3 dc motors; 6 heads (3 each forward and reverse); facility for optional remote controller. Speeds 7½ and 3¾ ips; reel size up to 10½"; wow and flutter at 7½ and 3¾ ips 0.03%/0.04%; frequency response ±3 dB 40-30,000 Hz at 7½, to 24 kHz at 3¾ ips; S/N ratio dbx® off/on 65/100 dB; harmonic distortion 0.8% at 1 kHz, normal operating level; separation 50 dB at 1 kHz; input sensitivity/impedance 60 mV/50k ohms line, 0.25 mV (-72 dB)/200 ohms or more mic; output level/impedance 0.45 V/10k ohms or more line; headphone output impedance 8 ohms; power consumption 80 W; fast-wind time 100 seconds with 1800-ft tape; 17¼"H x 17"W x 10¼"D; 48 lb 6 oz.....\$1400

X-10MKII Stereo Tape Deck

Dual-capstan closed-loop stereo open-reel tape deck with EE tape compatibility. Features IC-logic transport



controls; motion sensing; electric braking; real-time pause in record; electrical pause; cue; ±6% pitch control in record and play; record mute; mic/line mix-

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AUDIO
TAPE MACHINES

ing; VU meters; timer capability; facility for optional dbx® noise-reduction system. Speeds 7½ and 3¾ ips; reel size up to 10½"; wow and flutter at 7½ and 3¾ ips 0.03%/0.04%; frequency response ±3 dB 40-30,000 Hz at 7½ ips, to 22 kHz at 3¾ ips; S/N ratio 65 dB at 3% THD, no NR; harmonic distortion 0.8% at 1 kHz normal operating level; separation 50 dB at 1 kHz; input sensitivity/impedance 60 mV/50k ohms line, 0.25 mV (-72 dB)/200 ohms or more; output level/impedance 0.45 V/10k ohms line; headphone output impedance 8 ohms; power consumption 75 W; fast-wind time 100 seconds with 1800-ft tape; 17½"H × 17"W × 10½"D; 44 lb 1 oz. \$1090

X-7RMKII Stereo Deck

Bidirectional record/play stereo open-reel deck with EE tape capability. Features IC-logic transport controls; automatic repeat; electrical pause; ±6% pitch control for record and play; record mute; mic/line mixing; facility for remote controller. Speeds 7½ and 3¾ ips; reel size up to 7"; remaining specifications same as for X-10MKII except power consumption 77 W; fast-wind time 150 seconds; 14¾"H; 39 lb 11 oz. \$890

X-7MKII. Similar to X-7RMKII except no automatic reverse/repeat, no reverse record \$790

X-3R Bidirectional Stereo Deck

Bidirectional-playback stereo open-reel deck with 3-motor/3-head transport, light-touch transport controls, EE (Extra Efficiency) tape compatibility. Features mic/line mixing; silent transport solenoids; left and right channel VU meters; independent left, right channel output controls; independent left, right channel line, microphone input level controls; tape/source monitor switch; 4-digit tape counter; removable head housing; one-touch reel clamps; EL/LH/LHII tape selectors. Dust cover, EIA rack-mount kit optional. Speeds 7½ and 3¾ ips; reel size 7" and 5"; wow and flutter at 7½ and 3¾ ips 0.04%/0.06%; frequency response ±3 dB 40-30,000 Hz at 7½ ips, to 24 kHz at 3¾ ips; S/N ratio 75 dB at 3% THD, weighted; harmonic distortion 0.8% at nominal operating level; separation 50 dB at 1 kHz; input sensitivity/impedance 60 mV/50k ohms line, 0.25 mV (-72 dB)/200 ohms or more; output level/impedance 0.45 V/10k ohms line; headphone output impedance 8 ohms; power consumption 85 W; fast-wind time 140 seconds with 1800-ft tape; 16½"W × 12½"H × 9½"D; 33 lb 2 oz. \$650

X-3MKII. Same as X-3R except no bidirectional play; weight 30 lb 4 oz. \$590

TECHNICS

RS-1520US Open-Reel Deck

Compact professional tape deck; ½-track, 2-channel record/play and ¼-track, 2-channel record/play and ¼-track, 2-channel play; 4 head system; 15-, 7½-, 3¾-ips speeds; quartz control phase-locked dc brushless servo direct-drive capstan motor; reel tables; 2-tape tension controlled dc brushless direct drive motors; isolated loop direct-drive transport system. Features full IC-logic tape transport functions; direct switching from mode-to-mode without tape strain; separate left, right bias/equalization controls; left and right VU meters; built-in stroboscope. Wow and flutter 0.018% wrms at 15 ips, 0.3% wrms at 7½ ips; fast-wind time 150 seconds with 2500-ft tape; frequency response 30-30,000 Hz ±3 dB at 15 ips, to 25 kHz at 7½ ips; S/N ratio 60 dB; 0.8% distortion; 50 dB separation; mic input sensitivity 0.25 mV (-72 dB); microphone impedance 200-10,000 ohms; 17½"H × 18"W × 10½"D. \$2100

RS-1500US Open-Reel Deck

Three-speed (15, 7½, and 3¾ ips) ½-track 2-channel record, playback, erase, and ¼-track 2-channel playback stereo tape recorder with quartz-controlled 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, ½- and ¼-track playback, erasure; mixing; reel capacity 10½". Features IC logic-plus-transistor tape transport controls with LED indicators, mode-to-mode switching with automatic pause between modes; 3-position bias and equalization 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; left, right tape/source monitor switches; left/right rec mode switches; 4-digit tape counter showing elapsed time in minutes, sec-



onds; timer start with external audio timer; edit dial; fast-wind time 150 seconds (2500-ft, 1.5-mil tape). Wow and flutter 0.018% wrms at 15 ips, 0.03% at 7½ ips; frequency response ±3 dB 30-30,000 Hz at 15 ips, 20-25,000 Hz at 7½ ips, 20-15,000 Hz at 3¾ ips; S/N ratio 60 dB NAB weighted at 7½ ips, 58 dB at 3¾ ips; THD at 400 Hz, 0 VU 0.08%; separation 50 dB; input sensitivity/impedance 0.25 mV/4.7k ohms (mic, unbalanced), 60 mV/150k ohms (line, phono jack); rosewood veneer side panels; 19¾"W × 17½"H × 10½"D \$1600

RS-1506US. Similar to RS-1500US except 4-track 2-channel play/record, 2-track 2-channel play. \$1600

RS-1700. Similar to RS-1506US except automatic reversing 4-track 2-channel record/play, no 2-track 2-channel play \$2100

TELEX

Telex/Magnecord 1400 Series

Three-speed (15, 7½, 3¾, 1¾ ips) open-reel tape recorder. Accepts reel sizes up to 8½". Available with variety of head configurations for 1-, 2-, or 4-track operation. Features brushless dc servo ball-bearing drive system. Wow and flutter 0.35% at 3¾ ips, 0.24% at 7½ ips, 0.17% at 15 ips, all DIN weighted, or 0.25% at 3¾ ips, 0.17% at 7½ ips, 0.12% at 15 ips, all unweighted rms; S/N ratio 60 dB NAB weighted; frequency response 30-10,000 Hz ±3 dB at 3¾ ips, to 18 kHz at 7½ ips; 35-22,000 Hz at 15 ips (2-track); crosstalk 50 dB at kHz (2-track head); inputs 150-ohm microphone, balanced bridge, unbalanced bridge, mixing bridge, aux bridge; outputs 150/600 ohms balanced, +4 dBm aux A and B unbalanced. Features VU meters; separate microphone, line-input controls; master gain control; catenary head block design; hyperbolic heads to ensure intimate tape-head contact; 110/130 V ac, 50/60 Hz; power consumption 180 W \$2500

Telex/Magnecord 3000 Series

Professional-style 3-motor ¼" system that offers option of purchasing transport, electronics package, accessories separately or as a package, choice of speeds, head formats. Accepts up to 10½" reels with NAB Type A or B hubs and fits 19" racks. Features transformer-isolated CMOS-logic transport controls; automation capability; Automatic Cue Release (AQR) switch; interchangeable head blocks for variety of head configurations; snap-on head cover with mu-metal shield; heavy-gauge head assembly plate that accommodates up to 4 heads, contains tape guides, head selector switch, and optical infrared sensor. Wow and flutter 0.22% DIN, 0.15% wrms at 3¾ ips to 0.15% DIN, 0.1% wrms at 15 ips; speeds 3¾ ips and 7½ ips or 7½ and 15 ips; record/play frequency response ±3 dB 50-20,000 Hz at 15 ips, 30-18,000 Hz at 7½ ips, 20-12,000 Hz 3¾ ips with adjustments optimized for 3M 176 tape; S/N ratio 60 dB or better NAB weighted with half-track head, 3M 176 tape; record/play THD at 1 kHz 1% or less at 0 dB with 600-ohm line output termination; equalization adjustable for most standard or high-output, low-noise tapes; crosstalk rejection 50 dB or better at 1 kHz; fast-wind times 90 seconds or less for 10½" 2400-ft tape, 80 seconds for 7" 1200-ft tape. Transport: 19"W × 12½"H × 10"D; 46 lb. Record/play electronics: 19"W × 5½"D × 3½"H; 5.5 lb \$1990-\$2470

UHER by WALTER ODEMER

SG-631 Logic Open-Reel Deck

Open-reel 7½-, 3¾-, 1¾-ips 2- or 4-track stereo record/play deck. Features Omega looping system eliminates pinch roller, drive couplings, springs, function wheels; 4-motor drive system with 2 dc hub motors, electronically regulated capstan drive, servomotor to form Omega loop. Wow and flutter 0.05%; frequency response 20-25,000 Hz at 7½ ips, to 16 kHz at 3¾ ips, to 12 kHz at 1¾ ips; S/N ratio 65 dB, 2-track at 7½ ips. Features strobe disc; speed control; peak-reading meter; Dia-Pilot for recording signal impulses, automatic slide-projector control; switchable peak-level limiter; separate stereo headphone power with volume, bass, treble controls; A/B monitoring; remote-control facility; 10½" reel, maximum \$1936

SG561 Royal Open-Reel Deck

Open-reel 7½-, 3¾-, 1¾-, ¼-ips 2- or 4-track mono/stereo record/play deck with interchangeable 2- or 4-track tape head mount with Recovac longlife heads, stereo amplifier with mixing facility; 7" reel capacity. Features Synchro-Play sound-with-sound, Multi-Play sound-on-sound, reverb effect, echo; Dia-Pilot for record/play of cueing signals for automatic slide projectors, also synchronizes sound, picture in 8- and 16-mm film-making; separate mic/radio and phone input controls; mic in/out switch; dual peak meters tape/source monitor switch; separate continuous tandem tone control; 4-digit tape counter with zero reset; tape tension comparator; electronic end-of-tape shutoff. Wow and flutter (DIN 45507) 0.05% at 7½ ips, 0.1% at 3¾ ips, 0.2% at 1¾ ips; frequency response 20-20,000 Hz at 7½ ips, to 15 kHz at 3¾ ips, to 9 kHz at 1¾ ips; S/N ratio (DIN 45500) on 2-track 67 dB at 7½ ips, 66 dB at 3¾ ips, 65 dB at 1¾ ips, on 4-track 65 dB at 7½ ips, 64 dB at 3¾ ips, 61 dB at 1¾ ips; crosstalk -60 dB mono, -45 dB stereo; 18"W × 13.9"H × 7.5"D \$1711

NOTICE TO READERS

Prices of items described are suggested prices only and are subject to change without notice. Actual selling prices are determined by the dealer.

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BLANK TAPE

AMP, INC

Studio EC Premium Economy Series

Premium low-noise AGFA 619 or 819 ferric-oxide extended-range cassettes designed for normal bias.

EC30. 30 min	\$2.19
EC60. 60 min	\$2.39
EC90. 90 min	\$3.19

Studio-SCF Ferric-Oxide Series

Extremely low-noise/high-output AGFA 611 or 811 ferric-oxide cassettes for superior high-end response and super low distortion; designed for normal bias.

SCF30. 30 min	\$2.49
SFC60. 60 min	\$2.89
SCF90. 90 min	\$3.49

Studio-SCR Superchrom Series

Extremely low-noise/high-output AGFA 613 or 813 cassettes with double coating to yield superior high-end response and dynamic range; designed for chrome (CrO₂) bias.

SCR60. 60 min	\$4.49
SCR90. 90 min	\$5.89

Spoken Word Dictation Cassettes

Premium low-noise AGFA 619 or 819 ferric-oxide leaderless cassettes for instant-start dictation use.

DC30. 30 min	\$2.19
DC60. 60 min	\$2.39
DC90. 90 min	\$3.19

AUDIOMAGNETICS

Tracs[®] Metal Audio Cassettes

Audio cassettes designed for metal bias/EQ. In Phillips box or Phillips box/blister pack.

90 min	\$9.98
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Tracs[®] TRXII High-Bias Cassettes

Audio cassettes in Phillips box or in Phillips box/blister card.

60 min	\$2.79
90 min	\$3.49
In Phillips box, 2 per polybag.	
90 min	\$4.99

Tracs[®] TRXI Audio Cassettes

Designed for normal bias; in Phillips box or Phillips box/blister pack.

60 min	\$2.49
90 min	\$3.09
In Phillips box, packed 2 per poly bag.	
90 min	\$4.99

Tracs[®] Audio Cassettes.

In poly box or on blister card.

45 min	\$1.29
60 min	\$1.39
90 min	\$1.95
120 min	\$2.39
In Phillips box or Phillips box/blister card.	
45 min	\$1.49
60 min	\$1.59
90 min	\$2.19
120 min	\$2.69

Tracs[®] D Series Audio Cassettes

In Phillips box or Phillips box/blister card.

60 min	\$2.09
90 min	\$2.69

Packed 2 per poly bag.

60 min	\$3.09
90 min	\$3.99

High Performance I Audio Cassettes

Audio cassettes designed for normal bias. in Phillips box or Phillips box/blister card.

60 min	\$2.49
90 min	\$3.09

In Phillips box, packed 2 per poly bag.

60 min	\$3.89
90 min	\$4.99

High Performance II Audio Cassettes

Designed for high bias; in Phillips box or Phillips box/blister card.

60 min	\$2.79
90 min	\$3.49

In Phillips box, packed 2 per poly bag.

60 min	\$4.09
90 min	\$4.99

Tracs[®] 8-Track Cartridges

Packed in sleeves or on blister cards.

45 min	\$2.19
90 min	\$2.79

Packed 2 per poly bag.

45 min	\$3.29
90 min	\$4.19

Accessories

Empty Phillips cassette boxes, 6 per pack . . . \$0.99
8-track cartridge player head cleaner . . . \$1.59

AVANTI PRODUCTS

Hi Energy Alpha Cassettes

Normal bias, 120- μ sec equalization; 5-screw housing with silicon-coated "bubble-type" liners; stainless-steel axle pins and large windows. Packed in hard Phillips box. Available on blister display card (B designated) and in multiples in polybags.

HE 60. 60 min	\$1.49
HE 90. 90 min	\$1.89
HE 60B. 60 min	\$1.59
HE 90B. 90 min	\$1.99
HE 2/90. Two 90 min	\$3.49
HE 3/60. Three 60-min	\$3.99
HE 3/90. Three 90 min	\$4.99

Ultra Low Noise Cassettes

Ultra-low-noise normal-bias cassettes packed in hard Phillips box. Feature 5-screw shell; precision pins and lubricated rollers; bronze spring and pressure pad; reversible index card. Available on blister card (B designated) and in multiples in polybag.

ULN 40. 40 min	\$0.89
ULN 60. 60 min	\$0.99
ULN 90. 90 min	\$1.19
ULN 120. 120 min	\$1.89
ULN 40B. 40 min	\$0.99
ULN 60B. 60 min	\$1.19

ULN 90B. 90 min	\$1.39
JLN 120B. 120 min	\$1.99
JLN 2/90. Two 90 min	\$1.99
ULN 3/60. Three 60 min	\$1.99
ULN 3/90. Three 90 min	\$2.99

BASF

Metal IV Cassettes

Metal-pigment tape for Type IV/metal settings.

60 min	\$8.65
90 min	\$11.50

Professional I Series Cassettes

Ferric-oxide formulation matched for Type I/normal/ferric positions.

60 min	\$3.99
90 min	\$5.49

Professional I Super Series Cassettes

Uses latest in ferric-oxide technology to produce Type I tape.

60 min	\$4.69
90 min	\$6.29

Professional II Series Cassettes

Pure chromium-dioxide formulation for Type II/chrome, high-bias position.

60 min	\$4.69
90 min	\$6.29

Professional III Series Cassettes

Double-layer formulation of chromium dioxide and ferric oxide; recommended for car stereos.

60 min	\$4.49
90 min	\$5.99

Performance Series Cassettes

Normal/Type I/ferric position.

60 min	\$2.99
90 min	\$4.19
120 min	\$5.19

Ferro Series Open-Reel Tape

Low-noise/high-output formulation exceeds professional recording studio requirements. Complete with sleeve and dust-proof box.

1800-ft, 7" reel	\$12.99
2400-ft, 7" reel	\$16.99

Chrome EE Open-Reel Tape

Extra-efficiency chrome tape for recorders with EE bias and EQ position.

1800-ft, 7" reel	\$19.99
3600-ft, 10 1/2" metal reel	\$49.99

CERTRON

Ferex I Cassettes

Premium tape.

F-60 FE. 60 min	\$3.00
F-90 FE. 90 min	\$3.99

Ferex II Cassettes

High-bias cassettes

FEII 60 min	\$3.00
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FEII 90 min \$3.99

High Energy Gamma Cassettes

Oxide formulation; durable binder system.

C-60 HE. 60 min \$1.99
 C-90 HE. 90 min \$2.59
 C-120 HE. 120 min \$2.99

Low Noise Cassettes

C-30 LN. 30 min \$0.99
 C-45 LN. 34 min \$1.09
 C-60 LN. 60 min \$1.19
 C-90 LN. 90 min \$1.59
 C-120 LN. 120 min \$1.89

High Density Cassettes

C-30 HD. 30 min \$1.29
 C-45 HD. 45 min \$1.39
 C-60 HD. 60 min \$1.59
 C-90 HD. 120 min \$2.09
 C-120 HD. 120 min \$2.49

Memotape for Minicassette

MT30. 30 min \$3.99

Micro Cassette

For Lanier, Olympus, and Panasonic capstan-drive machines.

M60. 60 min \$3.99

Dictation Cassettes

D30. 30 min \$1.79
 D45. 45 min \$1.89
 D60. 60 min \$1.99
 D90. 90 min \$2.59
 D120. 120 min \$2.99

8-Track Cartridges

8T-45. 45 min \$1.69
 8T-90. 90 min \$2.49

Tape Accessories

CHC. Cassette head cleaner \$0.99
 8T-HC. 8-track head cleaner \$1.19

DENON

DXM Metal Cassette

Designed exclusively for music; features improved MOL in low and medium frequency range and SOL in high frequency range, wide dynamic range at high-frequency end, and stable and smooth magnetic coating with low drop-out; high-precision cassette shells and matrix sheets; 70- μ sec equalization.

C60. 60 min \$8.60
 C90. 90 min \$12.00

DX-7 Series Cassettes

Improved chrome-position double-coated cobalt-doped tape for music programs; 70- μ sec equalization; high saturation output level in high frequencies and wide dynamic range; precision shell half.

C60. 60 min \$5.00
 C90. 90 min \$7.00

DX-5 Series Cassettes

Double-coated FeCr-type music tape; broad bias curve and +8-dB increase in maximum output level/bias setting of 70- μ sec; compatible with variety of cassette decks and program sources; ferri-chrome position.

FC-60. 60 min \$5.00
 FC-90. 90 min \$7.00

DX-3 Series Cassettes

Double-coated magnetic FeCr-type tape accommodates all types of cassette decks; normal bias setting; normal position.

NC-60. 60 min \$3.99
 NC-90. 90 min \$5.60

FUJI

FR Series Metal Cassettes

Metal coating with tensilized polyester base; designed for metal bias, 70- μ sec equalization; packaged in hinged plastic box.

FR (C-46). 46 min \$7.15
 FR (C-60). 60 min \$7.95
 FR (C-90). 90 min \$10.25

FR-II Series Cassettes

Chromium-dioxide cassettes with tensilized polyester base; designed for Type II/CrO₂ bias, 70- μ sec equalization; packaged in hinged plastic box.

FR-II (C-46). 46 min \$4.90
 FR-II (C-60). 60 min \$5.45
 FR-II (C-90). 90 min \$7.50

FR-I Series Cassettes

Ferric formulation with tensilized polyester base; designed for ferric/normal/Type I bias, 120- μ sec equalization; packaged in hinged plastic box.

FR-I (C-46). 46 min \$4.90
 FR-I (C-60). 60 min \$5.45
 FR-I (C-90). 90 min \$7.50

ER Series Cassettes

Ferric formulation with tensilized polyester base; designed for normal/Type I bias, 120 μ sec equalization; packaged in hinged plastic box.

ER (C-46). 46 min \$3.60
 ER (C-60). 60 min \$4.10
 ER (C-90). 90 min \$5.75

DR Series Cassettes

DR (C-46). 46 min \$2.95
 DR (C-60). 60 min \$3.40
 DR (C-90). 90 min \$4.75

HITACHI

ME Cassettes

Metal-tape bias current for metal-tape position.

ME-46. 46 min \$8.45
 ME-60. 60 min \$9.45
 ME-90. 90 min \$12.45

UD-ER Cassettes

Epitaxial magnetic substance; high output and energy, low distortion; normal bias; includes replaceable self-index label and leader tape.

60ER. 60 min \$4.00
 90ER. 90 min \$5.50

UD-EX Cassettes

Epitaxial magnetic substance for chrome position.

60EX. 60 min \$4.00
 90EX. 90 min \$5.50

IRISH

Professional-Series Cassettes

In polybag.
 261-C60-3PA-HK. 60 min, 3/bag \$3.30
 261-C90-3PA-HK. 90 min, 3/bag \$4.50
 In flip-top plastic box.
 2000-C30. 30 min \$1.50
 2000-C60. 60 min \$1.75
 2000-C90. 90 min \$2.15
 In flip-top plastic box and polybag.
 2000-C60B. 60 min \$1.90
 2000-C90B. 90 min \$2.30

Low-Noise, Extended-Range Cassettes

Flip-top plastic box.
 7000 C-60. 60 min \$2.10
 7000 C-90. 90 min \$2.70

8-Track Cartridges

In dustcover.
 8T45 DC. 45 min \$3.40
 8T60 DC. 60 min \$3/65
 8T90 DC. 90 min \$4.70

270 Series Professional Tape

277-151. 1800-ft, 7" reel \$15.25

200 Series Professional Tape

Standard, 1 1/2-mil, polyester base, 1/4".
 231-151. 1200-ft., 7" reel \$8.95
 Extra-length, 1-mil, polyester base, 1/4".
 241-151. 1800-ft., 7" reel \$11.25
 Double-length, 1/2-mil, polyester tensilized base.
 251-151. 2400-ft., 7" reel \$17.40

JVC

ME Metal Tape

Metal-particle-formulation cassette designed for the serious amateur recordist requires high bias and 70- μ sec EQ and delivers 4500-gauss flux density.

ME-46. 46 min \$9.50
 ME-60. 60 min \$11.00

ME-P Metal Cassette

Metal-particle-formulation cassette designed for the advanced audiophile requires high bias and 70- μ sec EQ and delivers 4800-gauss flux density.

ME-P-46. 46 min \$11.50
 ME-P-60. 60 min \$13.00

KENWOOD

MD Series Cassettes

Designed for metal bias/70- μ sec equalization.

C-90. 90 min \$11.55
 C-60. 60 min \$9.25

CD Series Cassettes

Cobalt-absorbed gamma ferric oxide formulation designed for high bias/70- μ sec equalization.

C-90. 90 min \$5.75
 C-60. 60 min \$4.25

ND Series Cassettes

Premium ferric-oxide formulation designed for normal bias/120- μ sec equalization. Particle shape, size, uniformity, and dispersion are controlled to yield maximum output level and low noise across frequency spectrum. High frequency response is 4 to 7 dB over conventional normal-bias tapes. Recommended for portable and car-stereo tape players.

C-90. 90 min \$5.00
 C-60. 60 min \$3.45

N Series Cassettes

High-grained ferric-oxide formulation with a high-frequency sensitivity of up to 4 dB over conventional low-noise/high-output tapes; designed or low-noise and low distortion on equipment with or without bias/equalization controls.

C-90. 90 min \$3.45
 C-60. 60 min \$2.70

LORANGER

Loran Normal-Bias Cassettes

Designed for normal bias, 120- μ sec equalization settings.

C-46. 46 min \$4.45
 C-60. 60 min \$5.55
 C-90. 90 min \$7.65

Loran High-Bias, Type II Cassettes

Ferri-cobalt tape designed for use with CrO₂ settings.

C-60. 60 min \$5.75
 C-90. 90 min \$7.95

Loran Metal Cassettes

Metal-particle formulation cassettes designed for type IV bias, 70- μ sec equalization.

C-60. 60 min \$12.70
 C-90. 90 min \$15.75

LUX

XM-IV Metal-Particle Tape

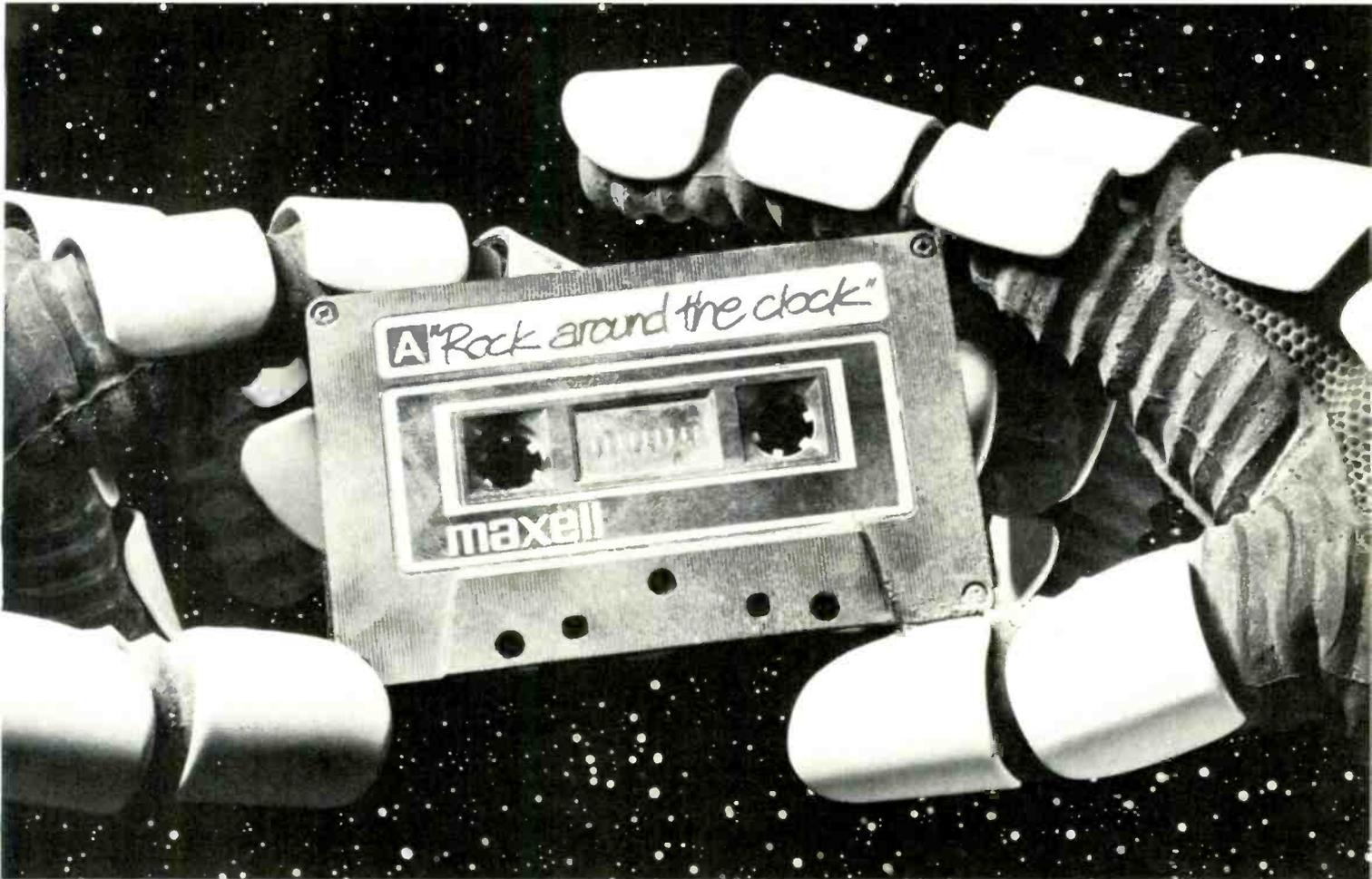
Premium tape for metal bias, 70- μ sec equalization.
 C-90. 90 min \$14.95

MAXELL

MX Metal Cassettes

Metal bias/equalization.
 MX-46. 46 min \$8.99
 MX-60. 60 min \$9.99

ON MAXELL, ROCK 'N' ROLL IS REALLY HERE TO STAY.



Every Maxell cassette is destined to become a golden oldie. Because at Maxell we build cassettes to standards that are 60% higher than the industry calls for.

Durable cassettes you can shake, rattle yet they keep on rolling.

Precision engineered tape that even after 500 plays still delivers high fidelity.

So when we say, on Maxell, rock 'n' roll is really here to stay... Be-Bop-A-Lu-La... we don't mean maybe.



IT'S WORTH IT.

Maxell Corporation of America • 60 Oxford Drive • Montclair, N.J. 07042

CIRCLE NO. 45 ON READER SERVICE CARD



MX-90. 90 min. \$11.99

XL II-S Epitaxial Cassettes

High-level bias; 70- μ sec equalization.

XL II-S 60. 60 min. \$5.29
 XL II-S 90. 90 min. \$8.20

XL I-S Epitaxial Cassettes

Normal bias; 120- μ sec equalization.

XL I-S 60. 60 min. \$5.29
 XL I-S 90. 90 min. \$7.29

UD-XL-I Epitaxial Cassettes

Normal bias; 120- μ sec equalization.

C-60. 60 min. \$5.29
 C-90. 90 min. \$6.39

UD-XL-II Epitaxial Cassettes

Chrome type; high-level bias; 70- μ sec equalization.

C-60. 60 min. \$4.59
 C-90. 90 min. \$6.39

Ultra-Dynamic Cassettes

Normal bias.

UD-46. 46 min. \$3.19
 UD-60. 60 min. \$3.49
 UD-90. 90 min. \$5.19
 UD-120. 120 min. \$6.99

Low-Noise Cassettes

Normal bias.

LN-46. 46 min. \$2.19
 LN-60. 60 min. \$2.39
 LN-90. 90 min. \$3.59
 LN-120. 120 min. \$4.69

8-Track Cartridges

Normal bias; low noise.

LN8T-46. 46 min. \$3.39
 LN8T-60. 60 min. \$3.79
 LN8T-90. 90 min. \$4.29

Microcassettes

MC-46MX (1 per card) \$8.09
 MC-60MX (1 per card) \$8.99
 MC-46UD2PK (2 per card) \$8.39
 MC-60UD2PK (2 per card) \$9.29

Open-Reel Tapes

XLII Open-Reel Tapes

Designed for use with EE-capable decks.

XLII 35-90. 1800 ft. \$19.99
 XLII 35-180. 3600 ft. \$54.59

XLI Back-Coated Open-Reel Tapes

XLI 50-60B. 1200 ft. 7" reel. \$11.29
 XLI 50-120B. 2500 ft. 10 1/2" reel. \$30.59
 XLI 35-90B. 1800 ft. 7" reel. \$12.69
 XLI 35-180B. 3600 ft. 10 1/2" reel. \$34.99

Ultra-Dynamic Open-Reel Tapes

UD50-60. 1200 ft. 7" reel. \$18.99
 UD50-120. 2500 ft. 10 1/2" reel. \$25.69
 UD35-90. 1800 ft. 7" reel. \$10.39
 UD35-180. 3600 ft. 10 1/2" reel. \$28.89

Tape Accessories

7" plastic reel (PR-7) \$4.09
 7" precision metal reel (MR-7M) \$9.19
 10 1/2" precision metal reel (MR-10) \$14.59
 Wand demagnetizer (WMD-110) \$14.99
 Cassette demagnetizer (HE-44) \$25.99
 Tape winder (CW-340) \$25.99
 12-cassette plastic storage box \$4.99

MEMOREX

METAL IV Cassettes

State-of-the-art metal formulation for metal bias (Type IV) and 70- μ sec equalization settings; low and midrange S/N ratio at +6 dB above conventional premium tapes; unique dustproof Memorex album locks open or closed, accepts cassettes in either direction.

METAL IV C-60. 60 min. \$4.59
 METAL IV C-90. 90 min. \$6.29

HIGH BIAS II Cassettes

Exclusive superfine uniform ferrite crystal oxide formulation for high-bias (CrO₂, Type II) setting and 70- μ sec equalization; delivers flat frequency response at preferred record levels (0 dB) and 4 to 5 dB lower noise; unique dustproof Memorex album locks open or closed, accepts cassettes in either direction.

HIGH BIAS II C-60. 60 min. \$3.19
 HIGH BIAS II C-90. 90 min. \$4.79

MRX I Cassettes

Unique ferric-oxide formulation for normal bias. 120- μ sec equalization settings; improved dynamic range across full sound spectrum; unique dustproof Memorex album locks open or closed, accepts cassettes in either direction.

MRX I C-30. 30 min. \$2.79
 MRX I C-45. 45 min. \$2.99
 MRX I C-60. 60 min. \$3.19
 MRX I C-90. 90 min. \$4.79
 MRX IC-120. 120 min. \$6.39

8-Track Cartridges

45 min. \$3.49
 60 min. \$3.89
 90 min. \$4.09

Accessories

cassette cleaning kit \$2.99
 Cassette head cleaner \$1.99
 8-track head/capstan cleaner \$3.29
 8-track head cleaner \$1.89

NAKAMICHI

ZX Cassette Tape

Metalloy (metal-particle) formulation for use with metal-compatible decks only; features ultra-high coercivity and retentivity for improved distortion and MOL; 70- μ sec equalization.

ZX-C60. 60 min. \$6.50
 ZX-C90. 90 min. \$9.00

SX Cassette Tapes

Single-coated; ionized cobalt and ferric oxide formulation; high coercivity permits use of CrO₂ bias and equalization (70- μ sec) for 4-5 dB better S/N ratio.

SX-C60. 60 min. \$4.00
 SX-C90. 90 min. \$5.85

EX II Cassette Tapes

Single-coated; ferricobalt formulation; same bias and equalization (120 μ sec) as EX tape; extra-low noise, high output.

EXII-C60. 60 min. \$3.70
 EXII-C90. 90 min. \$5.40

PD MAGNETICS

1100 Metal Audio Cassettes

Designed to produce flat response over entire 30-20,000-Hz range for critical recording applications; metal bias.

C-60. 60 min. \$8.99
 C-90. 90 min. \$11.99

500 Crolyn Audio Cassettes

Chromium-dioxide cassettes in precision housings and with laminated double-layer foil construction for superior winding quality, controlled friction, and no jamming; designed for CrO₂ bias.

C-60. 60 min. \$4.99
 C-90. 90 min. \$6.49

Tri-Oxide FERRO Audio Cassettes

Premium-quality ferric-oxide audio cassettes designed for normal bias.

C-60. 60 min. \$3.49
 C-90. 90 min. \$4.99

QUASAR

MT602 Microcassettes

60-minute microcassette designed for normal bias; twin pack. \$4.45

MT462M Microcassettes

46-minute microcassette designed for metal bias; twin pack. \$9.95

MT90A Microcassettes

Angrom tape microcassette. \$9.95 ea.

REALISTIC

Supertape Metal Cassette

44-960. 60 min. \$8.99
 44-961. 90 min. \$8.99

Supertape Hi-Bias Cassettes

44-940. 60 min. \$3.99
 44-941. 90 min. \$4.99

Supertape Gold Cassettes

44-920. 45 min. \$2.69
 44-921. 60 min. \$2.99
 44-922. 90 min. \$3.99
 44-923. 120 min. \$4.99

RECOTON

Rainbow 5-Packs

Audio cassettes supplied 5/pack in see-through molded plastic boxes. Cassette shells come in 5 different colors for easy identification.

RC5 x 60. 60 min each. \$3.99
 RC5 x 90. 90 min each. \$5.79

High-Bias Cassettes

Studio Standard Series high-bias cassettes in rigid Norelco case. Features Teflon-treated tape reels for trouble-free operation.

SH-60. 60 min. \$2.79
 SH-60RJ. 60 min, blister packed. \$2.79

Deluxe Ultra Flow Cassettes

RU60. 60 min. \$1.19
 RU90. 90 min. \$1.49
 RU60-2RJ. Pkg of 2 60 min. \$2.49
 RU90-2RJ. Pkg of 2 90 min. \$3.29
 RU4 x 60. Four 60 min in Magic-Stak module. \$5.39
 RU4-90. Four 90 min in Magic-Stak module. \$6.79

Ultra Flow High-Energy Cassettes

Available individually boxed or on blister cards.

HE60. 60 min. \$1.75
 HE90. 90 min. \$2.25
 HE60-2RJ. Pkg of 2 60 min, blister packed. \$3.49

NOTICE TO READERS

Prices of items described are suggested prices only and are subject to change without notice. Actual selling prices are determined by the dealer.

(Continued on page 106.)

BASF Chrome. The world's quietest tape is like no tape at all.

Today, only one high bias tape is able to combine outstanding sensitivity in the critical high frequency range with the lowest background noise of any oxide tape in the world.

That tape is BASF's Professional II.

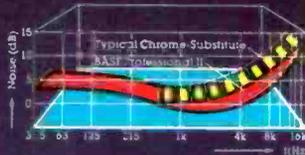
Professional II is like no other tape because it's made like no other tape. While ordinary high bias tapes are made from modi-

fied particles of ferric oxide, Professional II is made of pure chromium dioxide. These perfectly shaped and uniformly sized particles provide a magnetic medium that not only delivers an absolute minimum of background noise, but outstanding high frequencies as well.

Like all BASF tapes, Professional II comes encased in the new ultra-precision cassette shell for perfect alignment, smooth, even

movement and consistent high fidelity reproduction.

With Professional II, you'll hear all of the music and none of the tape. And isn't that what you want in a tape?



The difference in noise level between PRO II and ordinary high bias tape is greatest where the human ear is most sensitive (2-6 kHz).

GUARANTEE OF A LIFETIME

All BASF tape cassettes come with a lifetime guarantee. Should any BASF cassette ever fail—except for abuse or mishandling—simply return it to BASF for a free replacement.

Mobile Fidelity Sound Lab

BASF Professional II is so superior it was chosen by Mobile Fidelity Sound Lab for their Original Master Recording™ High Fidelity Cassettes. These state-of-the-art prerecorded cassettes are duplicated in real time (1:1) from the original recording studio master tapes of some of the most prominent recording artists of our time.



CHROME



BASF

For the best recordings you'll ever make.



HE90-2RJ. Pkg of 2 90 min, blister packed \$3.49

Budget-Priced Cassettes

Available individually wrapped or in poly bags.

RC60. 60 min	\$0.89
RC90. 90 min	\$1.19
RC3x60. Pkg of 3 60 min, poly bag	\$1.79
RC2x90. Pkg of 2 90 min, poly bag	\$2.49
RC3x90. Pkg of 3 90 min, poly bag	\$3.49

8-Track Cartridges

Available in shrink wrap or blister pack.

8T40. 40 min	\$2.49
8T45. 45 min	\$2.59
8T80. 80 min	\$3.19
8T90. 90 min	\$3.69
8T100. 100 min	\$3.99
8T40-4. Pkg of 4 40 min	\$10.95
8T80-4. Pkg of 4 80 min	\$12.95

RKO

Ultrachrome Cassettes

Chromium dioxide formulation; chrome (high) bias; 70- μ sec equalization; housed in 5-screw polystyrene shell with chrome notch.

C-60. 60 min	\$4.49
C-90. 90 min	\$5.99

Broadcast I Cassettes

Ferric formulation; normal bias; 120 μ sec equalization; housed in 5 screw polystyrene shell.

C-60. 60 min	\$3.99
C-90. 90 min	\$45.49

Xtra Dynamic Cassettes

Ferric bias; for home recording.

C-45. 45 min	\$2.49
C-60. 60 min	\$2.99
C-90. 90 min	\$3.99

SCOTCH

Metafine 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.

46 min	\$7.19
60 min	\$7.99
90 min	\$10.29

Master I Cassettes

Features premium grade, low-noise ferric oxide; for use with recorders in the normal or 120 μ sec equalization position; album packaging; improved shell for critical mechanical permanence and 3-head equipment.

60 min	\$4.49
90 min	\$5.79

Master II Cassettes

Features premium grade, low-noise ferric oxide; for use with recorders in the normal or 120 μ sec equalization position; album packaging; improved shell for critical mechanical permanence and 3-head equipment.

60 min	\$4.79
90 min	\$5.99

Dynarange Cassettes

High-output, low-noise ferric oxide cassette featuring full dynamic range throughout audible sound spectrum; 5-screw impact polymer shell houses an inner assembly that features specially made low-friction roller guides; album package.

45 min	\$2.99
60 min	\$3.29
90 min	\$4.79
120 min	\$6.59

Highlander Cassettes

Low-noise oxide formulation for all-purpose cassette use; polyester base.

45 min	\$1.89
60 min	\$2.19
90 min	\$3.29
120 min	\$4.79

Dynarange 8-Track Cartridges

Features low-noise ferric oxide; fidelity uniform throughout audible frequency range; heavy-duty binder; lubricant system; precise tape-to-head alignment.

S-8TR-45. 45 min	\$3.19
S-8-TR-90. 90 min	\$3.99

206-207 Open-Reel Tapes

Polyester base tape with "Posi-Trak" backing, leader, trailer. Designed for critical stereo mastering.

206. 7" reel, 60 min at 7 1/2 ips, 1.5 mil	\$7.99
207. 7" reel, 90 min at 7 1/2 ips, 1.0 mil	\$9.99

Dynarange Open-Reel Tapes

Provides high-fidelity recording even at 3 3/4 ips; multi-purpose tape providing full dynamic range throughout audible spectrum; S/N is 4 to 6 dB better than standard tapes.

211. Polyester backing, white yellow trailer, 5" reel, 30 min at 7 1/2 ips, 1.5 mil	\$4.09
7" reel, 60 min	\$6.29
212. 5" reel, 45 min at 7 1/2 ips, 1.0 mil	\$4.89
90 min, 7" reel	\$8.39
213. 7" reel, 120 min at 7 1/2 ips, 0.5 mil tensilized	\$12.59
214. 5" reel, 90 min at 7 1/2 ips, 0.5 mil tensilized	\$8.39
180 min, 7" reel	\$16.59

SONY

Metal Series Cassettes

70- μ sec metal equalization.

Metallic 46. 46 min	\$7.00
Metallic 60. 60 min	\$8.45
Metallic 90. 90 min	\$11.50

FeCr Series Cassettes

Normal or FeCr bias; 70- μ sec FeCr equalization.

FeCr-46. 46 min	\$3.90
FeCr-60. 60 min	\$4.40
FeCr-90. 90 min	\$6.10

UCX-S Series Cassettes

Ferric-oxide magnetic tape; high bias, Type II. 70- μ sec equalization.

UCX-S 60. 60 min	\$5.00
UCX-S 90. 90 min	\$7.00

EHF Series Cassettes

Cobalt-absorbed magnetic tape; high bias; 70- μ sec equalization.

EHF-46. 46 min	\$3.70
EHF-60. 60 min	\$4.15
EHF-90. 90 min	\$5.75

SHF Series Cassettes

Ferric oxide magnetic tape; normal bias; 120- μ sec equalization.

SHF-46. 46 min	\$3.35
SHF-60. 60 min	\$3.80
SHF-90. 90 min	\$5.20

HFX Series Cassettes

Normal bias; normal or 120- μ sec equalization.

HFX-46. 46 min	\$2.75
HFX-60. 60 min	\$3.10
HFX-90. 90 min	\$4.25
HFX-120. 120 min	\$5.45

LNX Series Cassettes

Normal bias; normal or 120- μ sec equalization.

LNX-46. 46 min	\$2.05
LNX-60. 60 min	\$2.25
LNX-90. 90 min	\$3.15
LNX-120. 120 min	\$4.05

Microcassettes

Popular Series; ferric oxide; 3 to a package.

3MC. 60 min	\$11.40
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Popular Series; blister pack.

MC-60. 60/120 min	\$3.80
MC-90. 90/180 min	\$8.00

High Fidelity Series.

MC46 HF. 46/92 min	\$4.10
MC60 HF. 60/120 min	\$4.50

Metallic Series.

MC46 Metallic. 46/92 min	\$5.55
MC60 Metallic. 60/120 min	\$6.10

Elcasetts

Type I: SLH tape.

LC-60. 60 min	\$8.00
LC-90. 90 min	\$10.60

Type II: FeCr Tape.

LC-60. 60 min	\$10.60
LC-90. 90 min	\$12.80

8-Track Cartridges

8T-46HF. 46 min	\$3.30
8T-46HF-C. 46 min	\$3.30
8T-90HF. 90 min	\$4.20
8T-90HF-C. 90 min	\$4.20

Open-Reel Tapes

FeCr Series.

FeCr 7-55OBL. 90 min	\$14.00
FeCr 11-110OBL. 180 min	\$39.00

ULH Series.

ULH 72-370BL. 60 min	\$9.00
ULH 7-55OBL. 90 min	\$11.50
ULH 11-110OBL. 180 min	\$31.00

STUDER/REVOX

631 Magnetic Tape

New Revox tape with improved maximum output level at low frequencies. For 3% distortion, flux on tape reaches 1200 nWb/m, representing an S/N ratio of 78 dB. Bias adjustment compatible with 621 tape.

621 tape	\$40
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TAPE 5

Wide-Latitude Cassettes

Small-particle highly-polished gamma ferric oxide mastering cassette tape; normal bias and equalization; wide tolerance for differing bias settings of various cassette decks; S/N ratio 64.4 dB; 5-stainless-steel-screw cassette shell; Norelco-type outer case with overlapping lid.

C-46. 46 min	\$2.99
C-60. 60 min	\$3.49
C-90. 90 min	\$4.49
C-120. 120 min	\$5.99

TDK

Professional Reference Series

MA-R (Metal Allow-Reference) Cassettes

Metal bias; 70- μ sec equalization; housed in reference standard diecast metal shell; excellent high-frequency MOL and high coercivity for improved sensitivity and extra recording headroom.

MA-R 60. 60 min	\$8.99
MA-R 90. 90 min	\$11.99

SA-X (Super Avilyn-Extended) Cassettes

Double-coated Super-Avilyn-particle tape; high bias; 70- μ sec equalization; high output and wide dynamic range; housed in precision shell and laboratory standard mechanism.

SA-X 60. 60 min	\$4.99
SA-X 90. 90 min	\$6.99

AD-X (Acoustic Dynamic-Extended) Cassettes

Avilyn-particle technology in a normal-bias cassette. High output, wide dynamic range, excellent sensitivity. Laboratory standard mechanism. 120- μ sec equalization.

AD-X60. 60 min	\$3.89
AD-X90. 90 min	\$5.49

Reference Standard Series

MA (Metal Alloy) Cassettes

Metal bias; 70- μ sec equalization; housed in precision

There's More to Noise Reduction Than Silence.

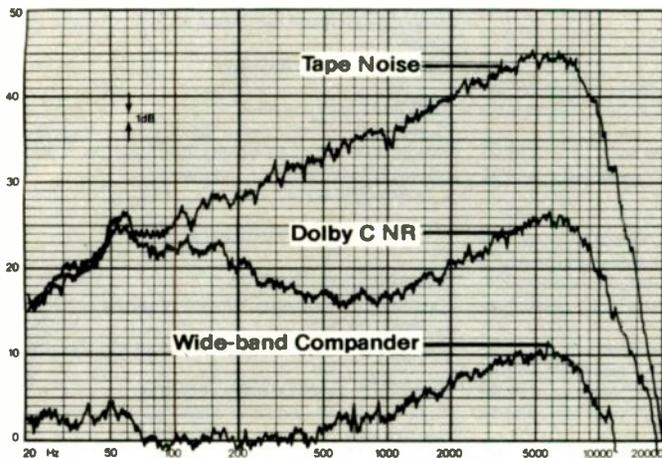


FIGURE 1: NOISE AND NOISE REDUCTION IN THE ABSENCE OF MUSIC. Noise from biased cassette tape without noise reduction, the effects of Dolby C-type noise reduction, and the effects of a wide-band compander are shown in the absence of any signal*. Dolby C's noise reduction effect results in an overall perceived noise level below the ambient noise of many listening rooms, even at high playback levels. In the absence of signals, the conventional wide-band compander provides still more electrical noise reduction (but usually no more audible noise reduction).

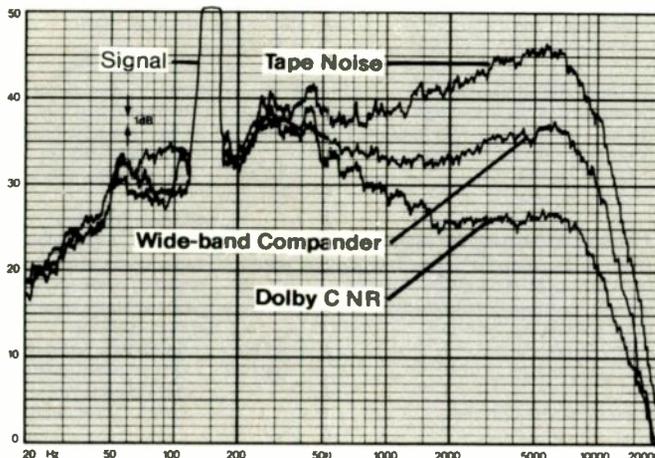


FIGURE 2: NOISE AND NOISE REDUCTION IN THE PRESENCE OF MUSIC. In the presence of a signal (148 Hz, D below middle C on the piano, recorded at Dolby level), in all cases noise in the region of the signal will be masked by it. However, at higher frequencies, especially between 2 kHz and 10 kHz where tape hiss is clearly audible, Dolby noise reduction provides almost as much noise reduction as if the signal weren't there, while the compander allows the noise to increase to a considerably higher level than with Dolby C.

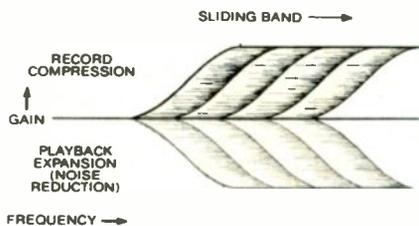


FIGURE 3: THE SLIDING BAND PRINCIPLE. Dolby noise reduction operates over a band of frequencies which slides up out of the way of the music, resulting in noise reduction just where there is no musical signal to hide the noise. Thus the perceived noise level is consistently low at all times.

Providing noise reduction on silence is not all that difficult. For years, conventional wide-band compressors have been available which dramatically reduce noise — between selections on a tape or record.

Yet it is just as important to have noise reduction when there is music playing. While music will mask noise part of the time, there are times when it won't. A bass drum note, for example, cannot hide tape hiss, no matter how loud the drum is: the ear can detect both simultaneously.

Conventional noise reduction systems effect noise reduction at the time of playback by turning down the volume when there is little or no music present. This turns down the noise as well. But they also turn the volume back up again on louder music, and so turn the noise back up at the same time. Thus the bass drum note is accompanied by a burst of tape hiss — hiss which is audible if there is no music at higher frequencies to hide it.

This problem is called noise modulation. It means that with a conventional NR system, the noise level is constantly shifting up and down with changes in the level of the music. But Dolby noise reduction, on the other hand, is free of noise modulation on virtually any type of music (Figures 1 and 2).

Unlike conventional compressors, Dolby noise reduction operates over a constantly changing, or sliding band of frequencies (Figure 3). The band extends low enough to provide very effective noise reduction on silence. But in the presence of music, the band slides up just out of the way of the music, so that noise at frequencies above the music is almost as effectively reduced as if the music weren't there.

Both Dolby B-type and Dolby C-type noise reduction are sliding-band systems. With the standard B-type system, noise reduction begins at 500 Hz and increases to 10 dB at 4 kHz and above, while with the new C-type system, noise reduction begins at 100 Hz and increases to 20 dB at 1 kHz and above. With either system, the presence of music does not prevent noise reduction from occurring where it is still needed.

*70µs equalization, measured with a constant-bandwidth wave analyzer, and weighted (CCIR/ARM) to reflect the ear's sensitivity to noise and noise reduction effects.

DD Dolby®

Dolby Laboratories Licensing Corp.,
731 Sansome St., San Francisco, CA 94111,
Telephone (415) 392-0300. Telex 34409.

"Dolby" and the double-D symbol are the registered trademarks of Dolby Laboratories Licensing Corporation for its A-type, B-type, and C-type noise reduction systems. S81/3307/3403.

7 BLANK TAPE

molded plastic shell housing and laboratory standard mechanism.

MA-60. 60 min	\$6.69
MA-90. 90 min	\$8.99

SA (Super Avilyn) Cassettes

Cobalt-ferric formulation; high bias; 70- μ sec equalization; extended frequency response and low noise; laboratory standard mechanism.

SA-60. 60 min	\$4.39
SA-90. 90 min	\$6.19

AD (Acoustic Dynamic) Cassettes

Linear ferric oxide particle formulation for normal bias; 120- μ sec equalization; superior high-end response and output level; laboratory standard mechanism; for home and car decks.

AD-60. 60 min	\$3.29
AD-90. 90 min	\$4.79

General-Purpose Cassettes

D (Dynamic) Cassettes

Normal bias; 120- μ sec equalization; precision mechanism.

D-30. 30 min	\$2.09
D-46. 46 min	\$2.29
D-60. 60 min	\$2.49
D-90. 90 min	\$3.39
D-120. 120 min	\$3.99
D-180. 180 min	\$5.59

Endless Cassettes

EC (Endless) Cassettes

Endless-loop design permits continuous repeating of

recorded material; back coated; available with or without foil strip for machines with automatic shutoff sensor.

EC-20S(F). 20 sec	\$4.19
EC-30S(F). 30 sec	\$4.29
EC-1M(F). 1 min	\$4.39
EC-3M(F). 3 min	\$4.49
EC-6M(F). 6 min	\$4.99
EC-12M(F). 12 min	\$5.99

Open-Reel Tapes

SA Open-Reel Tape

Extra-efficiency Super Avilyn open-reel tape for use with new EE tape decks. High coercivity, low noise for full performance at half speed.

SA35-90. 1800-ft, 7" plastic reel	\$15.95
SA35-180M. 3600-ft, 10 1/2" metal reel ..	\$41.95

GX Open-Reel Tape

Extremely high output level, extended range, low noise, low distortion tape for mastering and all critical recording applications. Back treated for smooth running and stable winding. Available in 35- and 50-micron thicknesses.

GX35-90B. 1800 ft, 7" plastic reel	\$12.95
GX35-180BM. 3600 ft, 10 1/2" metal reel ..	\$34.95
GX50-60B. 1200 ft, 7" plastic reel	\$10.95
GX50-120BN. 2500 ft, 10 1/2" metal reel ..	\$29.95

LX Open-Reel Tape

High output level, extended range, low noise, low distortion tape for professional and all critical recording applications. Available in 35- and 50-micron thicknesses. Back treated (except for LX 35-90 and LX35-180M).

LX35-90. 1800 ft, 7" plastic reel	\$9.95
LX35-90B. 1800 ft, 7" plastic reel	\$10.95
LX35-180M. 3600 ft, 10 1/2" metal reel ..	\$27.95
LX35-180BM. 3600 ft, 10 1/2" metal reel ..	\$30.95
LX50-60B. 1200 ft, 7" plastic reel	\$9.95
LX50-120BM. 2500 ft, 10 1/2" metal reel ..	\$27.95

Microcassettes

MA-MC60B Microcassettes

Same metal-alloy tape formulation as standard-size cassettes. High-MOL, high-coercivity tape for critical music recording in metal-compatible microcassette recorders.

MA-MC60. 60 min	\$8.99
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AD-MC60B2 Microcassettes

Same acoustical dynamic formulation as standard-size cassettes. High-output, extended-range, low-noise tape for music and speech recording. Packed in twos.

AD-MC60B3. 60 min each	\$9.99
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D-MC60B3 Microcassettes

Dance dynamic formulation as standard-size cassettes. Has flat response and low noise figure for speech recording. Packed in threes.

D-MC60B3. 60 min each	\$11.99
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YAMAHA

Metal-Alloy Audio Cassettes

Designed for metal bias, 70- μ sec equalization.

MR-60. 60 min	\$8.39
MR-90. 90 min	\$11.29

Super Ferric Oxide Extended Cassettes

Super ferric-oxide extended audio cassettes designed for high bias, 70- μ sec equalization.

CRX-60. 60 min	\$6.29
CRX-90. 90 min	\$8.69

Super Ferric Oxide Audio Cassettes

Super ferric-oxide audio cassettes designed for high bias, 70- μ sec equalization.

CR-60. 60 min	\$5.49
CR-90. 90 min	\$7.79

Ferric Oxide Audio Cassettes

Standard ferric-oxide audio cassettes designed for normal bias, 120- μ sec equalization.

NR-60. 60 min	\$4.29
NR-90. 90 min	\$6.19

9 SPEAKER SYSTEMS

(Continued from page 157)

near finish; matched left, right pairs. Frequency range 30-18,500 Hz; maximum power 140 W; sensitivity 95 dB SPL/W/m; impedance 8 ohms; 44 1/2"H x 15"W x 14 3/8"D

E-70. Similar to E-90 except has only one woofer. Low-end response 35 Hz; maximum power 150 W; 32"H x 14 3/8"D x 13 1/8"W

E-50. Similar to E-70 except only one midrange driver. Low-end response 40 Hz; maximum power 70 W; 26 3/8"H x 13 1/8"W x 13 1/8"D

E-30. Similar to E-50 except has 2 6 1/8" woofers, no midrange driver or control. Low-end response 45 Hz; maximum power 75 W; sensitivity 94 dB; 22 3/8"H x 13 1/8"W x 10 3/8"D

E-20. Similar to E-30 except has single 7 1/4" woofer. Maximum power 65 W; sensitivity 95 dB; 22 1/4"H x 12"W x 9 3/4"D

MACH Series Speaker Systems

MACH 9. Bass-reflex 3-way speaker system with 9 7/8" woofer, 2 3 1/8" midranges, 1" horn-loaded compression tweeter. Features automatic-reset thermal overload protection; 6-LED power indicator; midrange, tweeter controls; 4th-order Butterworth crossovers; walnut-veneer finish. Frequency range 50-17,000 Hz; maximum power 200 W; sensitivity 94 dB SPL/W/m; impedance 8 ohms; 32 1/2"H x 13 3/8"W x 12 13/16"D

MACH 7. Similar to MACH 9 except has single midrange driver. Low-end response 55 Hz; maximum power 150 W; 26 13/16"H

MACH 5. Similar to MACH 7 except has no midrange

driver or control; has only 2-LED power indicator. Low-end response 62 Hz; maximum power 125 W; 22 3/8"H x 11 7/8"D

MACH 3. Similar to MACH 5 except low-end response 65 Hz; maximum power 100 W; 9 1/8"D

S Series Speaker Systems

S-77. Bass-reflex speaker system with 9 1/2" woofer, 2 3 1/8" midranges, 1" horn-loaded compression tweeter, tweeter level control. Maximum power 150 W program; sensitivity 95 dB SPL/W/m; impedance 8 ohms; 32"H x 14 1/4"D x 13 1/2"W

S-55. Similar to S-77 except has single midrange driver. Frequency range 50-19,000 Hz; maximum power 110 W; 26 3/8"H x 11 3/4"D

S-33. Similar to S-55 except has 2 6 1/8" woofers, no midrange driver. Low-end response 52 Hz; maximum power 94 dB; 22 3/8"H 12"W x 9 3/4"D

ABR Speaker System

Auxiliary bass radiator 2-way speaker system with 9 7/8" woofer, 1 3/4" tweeter. Frequency range 40-20,000 Hz; maximum power 70 W; sensitivity 90 dB SPL/W/m; impedance 6 ohms; 24 3/8"H x 11"W x 9 3/8"D

YAMAHA

All Yamaha speaker systems are sold only in mirror-image pairs.

NS-1000 Speaker System

Speaker system with 11.8" woofer, 3.46" midrange, 1.18" tweeter. Features vapor-deposition beryllium-dome drivers; midrange, tweeter level controls; ebony cabinet with polyurethane finish; sold in mirror-image pairs only. Frequency range 40-20,000 Hz; crossovers 500 and 6k Hz; sensitivity 90 dB SPL/W/m; maximum power 100 W; impedance 8 ohms;

..... \$650/pr
NS-1000M. Same as NS-1000 except has semigloss black finish, detachable black grille; 26 1/2"H x 14 3/8"W x 12 3/4"D

Natural Sound Series Speaker Systems

NS-70T. Acoustic-suspension 3-way bookshelf speaker system with 25-cm woofer, 6-cm midrange, 3.5-cm tweeter. Features midrange, tweeter level controls; American walnut finish. Frequency range 25-20,000 Hz; crossovers 800 and 5k Hz; maximum power 140 W music; sensitivity 88 dB SPL/W/m; impedance 6 ohms

NS-50T. Similar to NS-70T except has no midrange driver, control. Crossover 1.5 kHz; maximum power 120 W; artificial walnut finish

NS-30T. Similar to NS-50T except has 20-cm woofer. Low-end response 40 Hz; crossover 1.5 kHz; maximum power 100 W

NS-20T. Similar to NS-30T except has 20-cm woofer. Maximum power 80 W

NS-344 Speaker System

Acoustic-suspension 3-way bookshelf speaker system with 10" woofer, 4 1/2" midrange, 1 1/2" soft-dome tweeter. Features midrange, tweeter level controls; black grille. Frequency range 50-38,000 Hz; crossovers 700 and 6k Hz; sensitivity 90 dB SPL/W/m; maximum power 70 W; impedance 8 ohms; 22"H x 13"W x 12"D

NS-244. Similar to NS-344 except only 2-way

NS-10M Speaker System

Acoustic-suspension 2-way bookshelf speaker system with 7" woofer, 1 3/8" soft-dome tweeter. Features black wood finish. Frequency range 60-20,000 Hz; crossover 2 kHz; efficiency 90 dB/W/m; maximum power 50 W peak; impedance 8 ohms; 15"H x 8 1/2"W x 7 3/4"D

8

ACCESSORIES

ACE AUDIO

4100-X24b Infrasonic/Ultrasonic Filter

Active filter designed to eliminate subsonic (turntable and record) deficiencies and ultrasonic (rfi, power-amplifier overdrive with high-frequency noise, etc.) interference. Subsonic section rate 24 dB/octave below 20 Hz; ultrasonic section rate 12 dB/octave beyond 20 kHz; distortion 0.002% at 2 V output. \$142.50

4100-X24 Infrasonic/Ultrasonic Filter

Active filter for eliminating subsonic (infrasonic) and ultrasonic interference. Subsonic filter section rates 24 dB/octave below 20 Hz; ultrasonic section rate 12 dB/octave beyond 20 kHz. \$142

4000-X24 Super Infrasonic Filter

Combined active Bessel and passive filter sections provide low phase shift and an ultra-sharp cutoff (-24 dB/octave); removes all subsonic disturbances; individually hand-calibrated; distortion 0.002%; response -3 dB at 20 Hz (24 dB/octave). \$132

4100 Infrasonic/Ultrasonic Filter

Active filter. Subsonic section rate 18 dB/octave below 20 Hz; ultrasonic section rate 12 dB/octave beyond 20 kHz; IM distortion 0.002% typical, 20-20,000 Hz. \$108.50

4000b Subsonic Filter

Low-frequency filter with 4 rear-panel connectors providing 18 dB/octave rolloff at 20 Hz or below, -3 dB; IM distortion 0.01% at 1 V output; input impedance 47k ohms; output impedance 150 ohms; minimum output load 10k ohms; hum and noise -86 dB; 6"W x 4 1/4"D x 2 1/4"H. Recommended for use with direct-coupled (dc) amplifiers, receivers, and/or subwoofers. \$98.50

3900 Ground Liminator

Designed to break up ground loop faults in connecting cables and improve hum; employs passive circuitry. \$20.75
Kit. \$16.25

ADC

PRO-GRIP® Disc-Stabilizer

Designed to minimize disc warp on records; fits all fixed-spindle turntables; counter display mounting capability. \$24.95

PRO/TRAC® Protractor

Sets proper overhang dimension, eliminates tracking angle error, and minimizes distortion; ±0.005° accuracy; durable ABS construction; reusable simulated leather holder. \$9.95

PRO/GRAM® Stylus-Force Gauge

Digital stylus-force gauge that accurately measures tracking force of tonearms in 1/16-gram increments. Battery operated with LED display. \$29.95

ADCOM

GFS-1 Speaker Selector

Can switch speaker systems with amplifiers rated at up to 200 W/channel; usable with conventional or bridged amplifiers; handles up to 3 pairs of speakers with built-in load protection for low-impedance loads; headphone output; 7"W x 5 1/4"D x 2 1/4"H. \$89

Record Care System

Record cleaning system contains 2 weighted unidirectional brushes, one to damp clean record surface and one dry brush to remove excess fluid. \$19.95

Carbon Fiber Headshell

Low-resonance low-mass carbon fiber headshell with nontarnishing gold-plated terminal pins. \$14.95

AIWA

MT-80U Digital Audio Timer

Ultraslim timer with wake-up alarm, sleep timer, digital time display with dimmer capability. Features on/off electronic beeper; power-interruption compensation; remaining-tape timer; 5 AM/5 FM time presets; programmable for up to 6 automatic changes between tuner preset channels. \$160

RC-R200U Remote-Control System

Infrared wireless remote-control system for Aiwa AD-3800, AD-3700, AD-R600, AD-R500, AD-3600, AD-3300, SD-L80, SD-L60, SD-L50 solenoid-controlled cassette decks. \$95

MT-3H Audio Timer

Digital audio timer with on/off electronic beeper, display brightness control. Can be set in 1-minute intervals. Can be used with Aiwa mini systems M-301, M-302, M-162. \$100

AKAI

AH-15. Demagnetizer for GX tape heads. \$39.95
CHR-1. Head-cleaning fluid. \$3.50
D-100. DIN/DIN cable. \$8.50
DC-77. Dust cover for GX-77. \$49.95
DC-255. Dust cover for GX-255. \$45.50
DC-266. Dust cover for GX-267D. \$45.50
DC-620. Dust cover for GX-620/GX-625. \$51.95
DC-630. Dust cover for GX-630D/DB/GX-270DSS. \$51.95
DC-630S. Dust cover for GX-630DSS. \$51.95
DC-635. Dust cover for GX-635D/DB/GX-747. \$57.50
DC-4000. Dust cover for GX-4000DB. \$45.50
DR-110. DIN/RCA cable. \$10.50
DT-120S. 24-hour digital display timer. \$85.00
FP-210. Felt-pad tape cleaners. \$3.00
HS-20. Headshell for AP-B20 turntable. \$11.95
HS-60. Headshell for AP-D30/D40/Q50/Q60 turntables. \$17.50
HS-80. Headshell for AP-Q80 turntable. \$17.50
R-7M. Empty 7" aluminum reel. \$10.50

R-10M. Empty 10 1/2" aluminum reel. \$17.50
RC-5. Wireless remote for UC-5 Series. \$325.00
RC-21. Remote control for GX-F60R/77/747/F44R/F33R/F25/F35/F95/CS-F21/F11. \$39.95
RC-31. Full-function remote control for GX-F31/51/71. \$34.95
RC-90. Full-function wireless remote control for GX-77/747/F95/F60/F35/F25/F11/F66RC/F39R/F33R/F21/F44R/UC-F5. \$115.00
RC-91. Full-function wireless remote control for GX-F91/F71/F51/F31. \$115.00
RH-12. NAB 10 1/2" reel holders. \$34.50
ST-20. Sensing tape (6"). \$5.95
3R-100. Rubber reel retainers. \$2.50

ALLSOP

Orbitrack® Record Cleaning System

Wet cleaning system that tracks each record groove to remove impurities. Includes Orbitrack cleaner, so-



lution and sprayer, record cleaning pad, dirt remover brush, storage case. \$29.95
Orbitrack record cleaning solution refill in 8-oz dispenser bottle. \$8.95

Allsop 3 Ultraine Audio Cassette Deck Cleaner

Auto-reverse cassette deck cleaner featuring wet cleaning system. Includes dual cleaning pads; replacement cleaning cartridges in smoked plastic storage box; cleaning solution; leather-like case. \$15.95
Without case. \$9.95

R.B. ANNIS

Magnetmeters & Demagnetizers

Model 25/S5. Deluxe jeweled pocket magnetometer with 5-0-5 gauss range; 2 1/2" diameter. \$43.00
Model 20/B5. Similar to 25/S5 except no jewels. \$11.60
Model K20/S5. Deluxe Han-D-Kit bulk tape eraser for 117-V ac, 50/60 Hz operation. \$75.80
Model K20/B5. Standard version of K20/S5. \$45.20
Model 115. Han-D-Mag audiophile demagnetizer for 117-V ac, 50/60 Hz operation. \$29.70
Long Probe Han-D-Mag. For 117-V ac, 50/60 Hz operation. \$37.70

8 ACCESSORIES

APRES AUDIO

L'Original Audio Cabinet

Radial-corner, oak-finished audio cabinet on casters (concealed by chrome apron) features smoked acrylic, oak-framed door with bolt-and-cylinder lock; 2 vented rear panels that remove; 2 adjustable-height shelves; fully extended tape drawer. Available in choice of finishes. 53"H x 23 3/4"W x 19 1/4"D \$598

Le Starr Audio Equipment Rack

Art-studio-designed furniture made of high-grade polished acrylic with 4 shelves for audio equipment and compartment for record storage. S-shaped cabinet accented with chrome supports. 28 1/4"H x 46 1/2"W x 15 1/2"D \$298

L'Etagere Audio/Video Rack

Open-on-all-sides shelf arrangement for TV receiver, VCR, video-disc player, audio components, accessories. Features 2" solid oak railings; brass accents; 5 Formica shelves. Available in natural oak or walnut finish with chocolate-brown Formica shelves. 72"H x 31"W x 20"D \$298

Le Cart Video Cart

Roll-around cart designed to accommodate TV receiver on top shelf, VCR or disc player on second shelf, and tapes, discs, and accessories on bottom shelf. Features 2" wide solid oak railings; heavy-duty casters; natural-oak or walnut finish with chocolate-brown Formica shelves. 34"H x 31"W x 20"D.... \$189

Easy Living Series

This series of audio and video home-entertainment equipment racks are from Elite Industries. All cabinets styled with hardwood veneers and solids in oak, walnut, teak, or rosewood; 2 bronze tempered-glass safety doors; finished back panel.

EL-3. Home-entertainment equipment cabinet. Features 3 adjustable shelves; solid wood radial corners; brass hardware, casters; room for audio and video equipment; cutouts for wires. Measures 49"W x 32"H x 18"D \$319

EL-4. Vertical audio-equipment cabinet. Features solid wood round corners; 2 adjustable, 2 stationary shelves; wood record dividers (includes additional dividers for more records storage); finished back cutouts for wires; heavy-duty brass hooded casters. Measures 45"H x 24"W x 18"D \$289

EL-5. Vertical audio cabinet with glass lid top. Features



2 adjustable, 2 stationary shelves; wood record dividers; cutouts for wires; heavy-duty brass hooded casters. Measures 48"H x 24"W x 18"D .. \$289

EL-1. Vertical audi-equipment cabinet. Features 2 adjustable, 2 stationary shelves; wood record dividers (includes extra dividers for additional records storage); cutouts for wires; heavy-duty brass hooded casters. Measures 44"H x 24"W x 18"D \$259

EL-2G. Cabinet designed for video or compact audio equipment. Features adjustable shelf; heavy-duty casters. Measures 28"W x 23"H x 18"D .. \$129

AUDIO CONTROL

C-50A LED Realtime Analyzer

LED spectrum analyzer with built-in pink noise generator and subminiature electret condenser FET measurement microphone with 20-ft cord, carrying case. Features 101-LED spectrum display that shows fast or slow peak-reading modes, sound-pressure level with external mic or VU meter readings, and pink noise and microphone analyses with switchable calibration levels from 2- to 4-dB/LED; has active display of 90 red and 11 green LEDs. Other features include continuously variable input level sensitivity with calibration; auto mic/line input switching. Oak end panels; 9 1/2"W x 6 1/2"D x 3 1/2"H \$399.00

AUDIO GROOME by EMPIRE SCIENTIFIC

Dry System

Complete record-care kit contains double-barrel static eliminator, cleaning brush, stylus cleaning fluid, brush; lightweight universal headshell; screwdriver; mounting hardware; mahogany base, black vinyl top storage case \$79.95

Static eliminator \$39.95

Cleaning brush dust eliminator \$19.95

Universal Headshell \$6.95

Carbon-fiber headshell \$14.95

Stylus cleaning fluid and brush; 1.25 fluid oz. \$3.95

Anti-Static Mat

Cushioned carbon-fiber-impregnated platter mat designed to dissipate static build-up and absorb platter resonance; has printed strobe ring for speed calibration \$8.95

Anti-Static Record Sleeves

Antistatic, antidust, tear-proof record sleeve constructed of paper on outside, high-density polyvinyl on inside with transparent polyvinyl covering center hole; 10 sleeves/package \$2.50

Cables and Connectors

1/2-meter gold-ended cables \$8.95

1-meter gold-ended cables \$10.95

High-definition cartridge connectors \$7.95

AUDIONICS of OREGON

FT-1 Electronic Transformer

Head amplifier for moving-coil (MC) phono cartridges. Features class-A, direct-coupled design; separate on-board power supply; provisions for cartridge loading. Input sensitivity 0.2 mV for 6-mV output; S/N ratio 90 dB wideband \$250.00

AUDIO-TECHNICA

PDQII Record Cleaning System

Kit including AT6002 brush, AT6012 cleaner, AT607 stylus cleaner, AT608 solution \$29.95

AT605 Audio Insulator System

Vibration-damping feet for use under speakers, turntables or both to prevent acoustic feedback; height individually adjustable. Supplied in set of 4, with bubble level \$27.95

AT6015 TechniClean™

Audiophile record maintenance system cleans record surface, reduces static at same time \$24.95

AT618 Disc Stabilizer

Solid brass disc with rubber coating designed to damp out sound-coloring resonances. Fits over turntable spindle \$22.95

AT6006a Safety Raiser™

Automatic pneumatic tonearm lift at end of play; height adjustable \$22.95

AT6012 Sonic Broom™

Record-cleaning system with controlled-density fibers 6 microns in diameter; cleaning fluid can be applied to reservoir or directly to pad. Includes holder with cleaning surface, AT608 fluid \$12.95

LS-1 Lifesaver™ System

Lubricating, antistatic agent. Consists of 2-oz fluid spray bottle and velvet buffer. Treats up to 30 records \$12.95

LSR-6. 6-oz refill \$14.95

AT6002 Autocleanica™

Double-action disc cleaning system combines soft carbon-conductive brush and plush pad to loosen and remove groove dirt. Small arm on weighted base can be placed on motorboard; can be used with most manual turntables or automatic when in manual mode. Replacement pad and brush kit available \$12.95

AT6002. Replacement of conductive brush, pad kit for AT6002 \$2.95

AT6003 Tri-Capsule

Holds up to 3 spare cartridges in standard plug-in shells (used in most European and Japanese tone arms); smoked-plastic domes ward off accidents, dust \$9.95

AT6010a Disc Whisk™

Consists of drop-on, antistatic cleaning fluid (applied from back for streaker-free use), pad holder, cleaning edge, adhesive for mounting holder, AT-608 fluid \$7.95

AT617 Sonic Tonic

Fluid damping compound with applicator bottle. Dries to clear, resilient gel \$6.95

AT607 Stylus Cleaning Formula

Cleaning solution dissolves foreign material on stylus without harming known stylus adhesives; in bottle with stylus brush \$3.95

AT608 Record Care Formula

Dissolves fingerprints, loosens stubborn particles, reduces static bond of micro-dust, airborne material. Nonalcoholic; use directly on fibers of conventional brushes; 2 oz \$2.95

Universal Headshells

AT-CF3. Low mass, carbon fiber headshell for straight tonearms; grid pattern helps in alignment .. \$15.95

AT-N. Basic Type \$12.95

AT-S. Similar to AT-N 'except with improved rigidity and lower mass \$8.00

AT-D. Professional quality; low mass; cast aluminum alloy \$12.00

AT-MS. Extra lightweight, low-resonance magnesium headshell with built-in damping. Includes AT609 cartridge wires, built-in stylus overhang adjustment screw \$24.95

Vital Link™ Cable Series

AT620 Super Conductivity Cable Set

Litz wire construction with double shielding and gold-plated connectors; for low impedance and maximum rejection of r-f interference; set of 2 \$29.95

AT622 Universal Tonearm Cable

Low-resistance cable for manual turntables; 51" braided copper shield; color-coded molded phono plugs; gold-plated connectors \$24.95

AT610a Cable Set

Low-capacitance cables for connecting turntable and amplifier; 4-ft shielded cable with molded pair phono plugs each end; gold-plated connectors and separate ground wire; single set needed per turntable \$10.95

AT641 Cable Connectors

Two gold-plated female phono feed-through cable connectors; extends length of other Vital Link cables \$7.95

AT609 Headshell Wire Set

Replaces original headshell wiring; set of 4 color-coded connectors made of silver litz wire and gold-plated \$7.95
 AT643. 1/2" to mini stereo plug adaptor \$3.95
 AT644. 1/4" to mini stereo 6 1/2-ft extension cord \$8.95
 AT648. Mini mono to mini stereo 6 1/2-ft extension cord \$6.95

AUDIO TECHNOLOGY

510 Series Peak-Responding LED Display

Combines functions of peak power indicator and peak line level monitor. Features 16 LED/ch display of peak value of complex waveforms within ± 0.25 dB; dynamic range 45 dB; responds to peak power output 0.003-400 W; rear panel switches set 0-dB reference to 25, 50, or 100 W, match speaker impedances of 4, 8, 16 ohms; line level inputs continuously variable 50 mV-5 V with calibrator that balances channels and returns line level mode to 0 VU reference; frequency response 20-20,000 Hz; input impedance 10k ohms line, 20k ohms power; display attack time 750 μ sec; display decay time 650 msec; 7 1/2"W \times 5 1/2"D \times 1 3/4"H \$149.95
 510B. Multi-color display with green LEDs; range -39 to -1 dB, yellow LED at 0 dB, red LEDs covering +1 to +6 dB \$159.95
 510B-12. Same as 510B but for mobile use; operates on 12 V dc \$169.95
 511. Same as 510B but includes peak-hold \$199.95

BIB

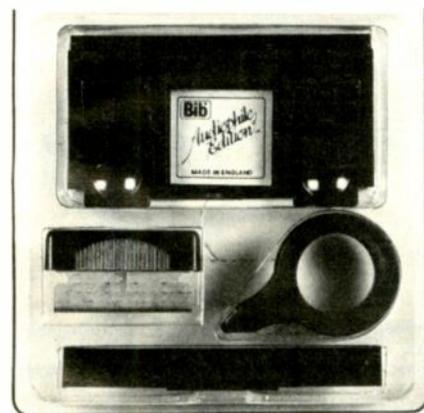
Audiophile Edition

AE-309 Tape Head Demagnetizer

Designed to remove harmful build-up from tape recorder head, guides. Use every 10-20 hours. Comes with 2 different-length removable probes .. \$21.95

AE-306 Tape Mending & Editing Kit

Designed for easy, accurate editing, repairing of 1/4" and 1/2" tapes. Tape splicer is fitted with specially de-



signed clamps to hold tape securely in place while diagonal or butt splices are being made. Comes with nonmagnetic razor cutter; high-quality tape dispenser \$9.95

AE-308 Cassette Spray'N'Clean

Special combination of materials for effective cleaning of cassette heads, tape path. Contains nonabrasive cleaning cloth, tape head cleaning fluid. Cleans in 15 seconds \$5.95

AE-307 Fast Cassette Hand Winder

Enables rewinding of cassettes in as little as 45 seconds, saving wear and tear on tape transports and heads and conserves battery power in portable decks \$5.95

CANTON

Connect Series Switchboxes

Speaker system switchboxes designed to install be-

tween amplifier outputs, speaker systems to allow routing as desired.

Combi 80. Switchbox for 1-8 pairs speaker systems.

Has DIN jacks for speaker, amplifier, receiver outputs \$100.00

Connect 60. Switchbox for 1-4 tape decks or up to 3 decks, 1 high-level source. Features regulators in left, right channels to reduce signal during recording; connection in tape-monitor loop; 5-pole DIN jacks \$100.00

Connect 50. Similar to Connect 60 except for speaker switching. Handles 1-4 pairs speaker systems, has DIN and phono jack headphones outputs. Features volume controls for adjusting channels 2 and 4; connection to output of amplifiers, receivers; standard DIN speaker jacks \$100.00

Connect 20. Switchbox for 1-3 tape decks or 2 decks, 1 high-level signal source. Features left, right regulators to reduce signal levels before recording; 5-pole DIN jacks \$60.00

Connect 10. Similar to Connect 20 except designed for 1-3 pairs speaker switching. Features standard DIN speaker jacks \$60.00

Record-Care Products

Discostat. Dry record-care kit containing Discostat tonearm-type cleaner; Styloclean stylus-cleaning fluid; Statex-cloth metallized record-care cloth . . \$30.00

Cantosweep. Record-care brush with antistatic carbon bristles. Removes static charges, dirt particles from grooves before play \$25.00

CROWN

RTA-2 Real-Time Audio Analyzer

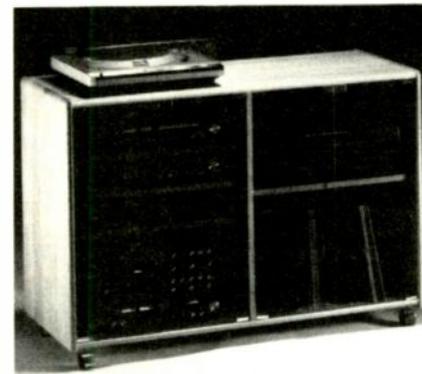
Real-time spectrum analyzer in 1/2- and full-octave bands, switch selectable; consists of 32 single-pole-pair 1/2-octave bandpass filters centered on 1/2-octave intervals. Features 5" scope; lighted graticule; pink-noise generator; 800-20,000 Hz and 16-630 Hz fast/ slow integration rate select controls; 5 or 10

dB/division select control; 0-70 dB input level control in 10-dB steps, 40-dB range vernier; internal balanced-input gain control. Frequency response 16-20,000 Hz; sensitivity at full-scale indication 15.2 mV-150 V, maximum in (unbalanced), 0.76 mV-3 V, maximum in (balanced); scans 32 channels in 16.6 msec; maximum output 1.1 V rms minimum; balanced output 600 ohms/50 ohms (male XLR front connector), unbalanced output 300/25 ohms (1/4" phone jack front and rear panel connector); 19"W \times 15"D \times 7"H \$2250

CUSTOM WOODWORKING

Lowboy Audio Cabinet

Roll-around lowboy cabinet with left, right compartments each behind pair of tinted safety glass. Left compartment has shelves for up to 4 components;



right compartment has shelf for another component, records storage area below; availability in choice of solid woods; capability for stacking with optional ac-

An uncommon blend of fine hardwoods, bronze glass, superior design and exceptional craftsmanship.



CUSTOM WOODWORK & DESIGN

INSIST ON EXCELLENCE IN AUDIO VIDEO FURNITURE

CIRCLE NO. 13 ON READER SERVICE CARD

8 ACCESSORIES

cessories; hand-rubbed oil and wax finishes; chromed hardware, casters. Measures 47 $\frac{1}{4}$ "W x 30"H x 19"D overall, 27 $\frac{1}{4}$ "H x 22 $\frac{1}{2}$ "W x 18 $\frac{1}{2}$ "D each compartment.

- KD600. Oak with natural oil finish \$475
- KD700. Oak with dark walnut oil finish \$475
- KD800. Walnut with natural oil finish \$585
- ST6. Natural oak stacking accessory \$60
- ST7. Dark oak finish stacking accessory \$60
- ST8. Natural walnut stacking accessory \$80

Glass Lid Audio Cabinet

Roll-around upright audio cabinet with glass lid for access to turntable; shelves for 3 audio components, records storage area behind pair of tinted safety glass doors. Features 2 adjustable shelves; choice of solid woods; chromed hardware, casters. Measures 42"H x 24"W x 17"D.

- GL211. Oak with natural oil finish \$445
- GL311. Oak with dark walnut finish \$445
- GL411. Walnut with natural oil finish \$555
- CD2. Optional natural oak cassette drawer; holds 100 cassettes; has removable dividers; 3 $\frac{1}{4}$ "H \$70
- CD3. Same as CD2 except dark oak \$70
- CD4. Same as CD2 except natural walnut \$70

Upright Audio Cabinet

Roll-around audio cabinet with adjustable shelves for up to 3 audio components, records storage area below. Features 2 tinted safety-glass doors; chromes hardware, casters; availability in choice of solid woods, finishes. 42"H x 24"W x 17"D.

- KD200. Oak with natural oil finish \$375
- KD300. Oak with dark walnut oil finish \$375
- KD400. Walnut with natural oil finish \$450

Cabinet Accessories

Entertainment Center Base

Leveling system designed to group up to 5 cabinets.

- ECB2. Oak with natural oil finish \$95
- ECB3. Oak with dark walnut oil finish \$95
- ECB4. Walnut with natural oil finish \$110

DB SYSTEMS

DB-3-24 In-Phase Crossover

Has 24-dB/octave characteristic that minimizes irregularity in radiation pattern through crossover region. Features in-phase high- and low-pass outputs that are 6 dB down at crossover frequency. Requires DB-2 power supply or DBP-1 cable \$420

DB-3-24-100. Similar to DB-3-24 except set at 100 Hz with additional common bass \$350

DB-4A MC Pre-Preamp

Moving-coil (MC) cartridge pre-preamp with low-noise cascode amplifiers, diode-protected inputs. Features internal low/medium/high gain switch. THD 0.0008%, 20-20,000 Hz at 1 V; noise -84 dB at 1 mV; frequency response 10-100,000 Hz +0/-0.1 dB; input/output impedance 9k ohms, 2000 pF/220 ohms; maximum load 10k ohms, 3000 pF; internally adjustable gain/sensitivity/overload 33 dB/40 μ V/45 mV high, 28 dB/80 μ V/80 mV medium, 22 dB/160 μ V/90 mV low; channel balance \pm 0.2 dB \$175

With DBP-4 coupler, DB-2A power supply \$227

DBP-11 Phono Capacitance Switch Box

Features front panel switchable 100-400-pF loading for 2 moving-magnet (MM) phono cartridges. Open position is provided. Phono jacks, plugs are gold plated \$79.95

DBP-11MC. Similar to DBP-11 but with resistive instead of capacitive values. Includes 5-ohm load \$79.95

DBP-2J Passive Switch Box

Switching module with 8 input, 2 output jacks. Can be used for switching 4 turntables, tape recorders, am-

plifiers, signal processors, etc. Shorted test position included. Allows for selectable cartridge loading when used with DBP-6 or 6MC. A-B comparisons possible with 2 Y adaptors \$43.95

DBP-2JAU. Same as DBP-2J except jacks are gold plated \$52.95

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 polystyrene capacitors wired to give 100, 150, 200, 300, 400 pF. Resistive load (1%) included for experimenting with moving-coil (MC) cartridges plus pair of empty plugs for making custom values \$32.95

DBP-6MC. Similar to DBP-6 except for moving-coil (MC) cartridges. Loads are 1% 10-, 20-, 50-, 100-, 200-, metal-film resistors. Two empty plugs included \$32.95

DBP-10 Phono Alignment Protractor

Accurately measures lateral tracking error of mounted phono cartridges to within 0.25°. Instructions pro-



vided to optimize geometry, set correct overhang for minimum error and distortion, useful when checking vertical tracking angle (VTA). Comes with carrying case \$21.95

DISCWASHER

Disc & Stylus Care Products

DiscKit® Record Care

Contains D4 record-cleaning system, Zerostat anti-static instrument, SC-2 stylus-care system housed in DiscOrganizer \$55.00

Discset

Provides essentials of record, stylus care; includes D4 Record Care System, SC-2 Stylus Care System in milled walnut base \$29.95

Zerostat®

Anti-Static instrument neutralizes static charges on virtually any surface; works without coating or showering surface with millions of positive, negative ions \$23.00

D4 Record Care System

Safe record-cleaning system designed to remove contaminants without reducing record fidelity. Consists of D4 fluid that lifts, suspends contaminants; 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 \$10.00

16 oz replacement fluid \$17.00

DC-1 brush \$0.69

Discorganizer

Milled walnut tray with dust cover designed to house D4 Record Care System, SC-2 Stylus Care System, Zerostat Anti-Static Instrument, provide space for reserve spindles, stylus guards, cartridges, other phono accessories \$15.00

Dischandler

Record handling device that picks up, removes, flips, returns records to their sleeves without hand contact; totally eliminates fingerprints, hand contamination \$9.95

D'Stat II Mat

Turntable mat reduces static charges on contact, provides cushion to reduce sonic, mechanical feedback between record and turntable 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 stylus-inspection magnifying mirror, is housed in walnut handle \$8.50

V.R.P. Record Sleeves

Scratch-free record liner sleeves that prevent static charge buildup during record storage, removal from sleeve. Super smooth surface will not ooze plastic additives onto record; package of 10 \$3.50

Cable Products

Smoglifters II® Speaker Cables

Low-resistance, low-inductance speaker cable utilizes single body construction for low capacitance.

- 10-meter cable \$30.00 ea
- 6-meter cable \$36.00/pr
- 3-meter cable \$20.00/pr

Gold-ens® Audio Cables

Perfectionist cables for audio, video; provide ultra-low capacitance with heavy gold-plated connections with molded nylon insulating sleeves.

- $\frac{1}{2}$ -meter \$10.00
- 1-meter \$11.00
- 2-meter \$12.50

Audio Tape Care Products

C.P.R.® Capstan/Pinch-Roller Cleaner

"Positive Drive" cleaning system safely scrubs pinch rollers, capstans with advancable cleaning fabric matrix, scientifically safe fluid \$10.95

10-cc C.P.R. fluid refill \$1.25

Perfect Path® Cassette Head Cleaner

Nonabrasive dry system for audio cassette decks de-



signed to remove oxides, gummy residues along tape path, on tape heads; preserves fidelity and life of car, home cassette decks \$9.00

DUBIE

CD-10 Sound Control System

Integrates up to 6 recorders and receiver/amplifier through 1-time patchcord hookup; dubs, records, plays back; mixes sound-on-sound, monitors, fades. Features 6 solid-state 4-position recorder controls; 8-position monitor select switch; 2 fade controls. Maximum input 10 V at 1 kHz; frequency range 0-100,000 Hz on all functions; 13 $\frac{1}{8}$ "W x 5 $\frac{1}{4}$ "D x 4"H \$150

CD-5. Similar to CD-10 except 3-recorder capacity; 9 $\frac{1}{2}$ "W x 4 $\frac{1}{4}$ "D x 4"H \$100

EVENTIDE

THS224 Real-Time Spectrum Analyzer

Real-time audio spectrum analyzer designed to interface with 8K, 16K, 32K Commodore PET computers; also compatible with PME-1, Big Mem add-on memory boards; responds to various addresses in \$B000-\$BFFF range. Functions: prints display axes and frequencies on screen; displays bar graph of data deter-

mined during analysis; performs statistically independent real-time analysis for each call; sets and resets fast/slow decay mode; sets and resets averaging mode; sets, resets logarithmic display mode; analyzer gain adjustable 0-48 dB; error message. Input level -14 to -20 dBV; input impedance 10k ohms balanced; 31 two-pole filters from 20-20,000 Hz on ISO center frequencies; resolution 7mV (linear display mode). specify 8K, 16K, or 32K PET \$595.00
VTU02. As above but interfaces with Radio Shack TRS-8C computer with Level 2 BASIC and disk \$595.00
AIB232. As above but interfaces with Apple computers; plugs into any I/O connector \$545.00

AIB232 Spectrum Analyzer

Real-time spectrum analyzer for use with Apple II, II Plus computers. Uses high-resolution video screen of computer to perform reverberation time measurements at 31 1/3-octave frequencies, plot data as 3-dimensional spectral surfaces. Features real-time analysis menu; bargraph display of dynamic range, resolution on-screen; display axes, legends for displaying analyzer status, data; variable period averaging, range switching. Installs in any Apple II, II Plus computer slot except zero. Requires AppleSoft BASIC or Integer Basic or Apple BASIC Language Card; 48K bytes RAM, Apple Disk II running under Apple DOS; TV or video monitor, preferably color \$545
 SpecSystem software \$199

GUSDORF

2980 Status Pro II Cabinet

Roll-around credenza-style video/audio cabinet. Left side has shelf for up to 19" TV receiver, storage area behind pair of doors; right side has area for VCR or turntable under flip-up safety glass top, 3 shelf spaces for audio or other video equipment/accessories on adjustable shelves behind pair of safety-glass doors. Features walnut-tone finish; burlled-walnut-tone finish on storage cabinet doors, flip-up lid trim; tough Rendura coating; hooded double-wheel casters. Left side measures 27"W x 26 1/2"H x 19"D; right cabinet measures 34"H x 21"W x 19"D \$372

1945 Audio/Video Cabinet

Roll-around cabinet segmented into audio section on left, video section on right. Audio section has accommodation for up to 3 components on adjustable shelves, bottom records storage behind pair of safety-glass doors, video section has area for up to 19" TV receiver and, behind solid doors, pull-out shelf for VCR or videodisc player, bottom storage for videocassettes. Features paradise hickory finish with tough Rendura coating; black hooded double-wheel casters. Measures 49 1/4"W x 45 1/2"H x 19"D ... \$349.95

2995 Audio Cabinet

Roll-around upright audio cabinet with area at top for turntable under flip-up tempered-glass lid; 2 pieces audio equipment on open center shelves; storage area



at bottom behind pair of doors. Features paradise hickory finish; tough Rendura coating, hooded double-wheel casters. Record dividers optional. Measures 45 1/4"H x 21 1/2"W x 19"D \$290

1785 Vistrak Audio Cabinet

Roll-around upright cabinet designed to accommodate turntable under flip-up safety-glass top, 2 audio components on shelves and records storage at bottom behind 2 safety-glass doors. Features pecan veneer finish with chrome side moldings; double-wheel chrome-hooded casters. Measures 44"H x 23 1/4"W x 19 1/4"D (17 1/2" behind doors) \$280

HEATH

AD-1701A Graphic Output Indicator

Monitors peak amplifier output power levels on dual 15-LED bargraph like meters. Features 6-position range switch; peak-hold, average display buttons. Dynamic range 50 dB \$174.95 kit

HERVIC

PRO Stylus Cleaner. \$35.00
Decca Record Brush. \$20.00

JVC

Remote-Control Units

Remote controllers for selected JVC products.
RM-80. Wired controller for RX-80 receiver \$50.00
RM-71. Wired controller for L-F71 turntable \$50.00
RM-50E. Wired controller for KD-D55, DD-5, DD-7 DD-9, KD-A66 cassette decks \$50.00

KENWOOD

AT-50 Audio Timer

Audio timer with large nonglare fluorescent digital display. Features 24-hour digital clock with MDS IC accuracy; fast, slow speeds for time setting; present-time hold during timer reset \$115.00

New Life Audio Cabinets

SRM-7. Tall-boy audio cabinet on casters; features glass door. Measures 29 7/32"H 15 1/32"W x 14 1/2"D \$165.00
SRM-9. Similar to SRM-7 except no glass door. Measures 37 1/16"H x 16 1/32"W 13 1/8"D \$149.00
R-9. Low-boy audio cabinet on casters. Measures 30 1/16"W x 19 1/2"H x 9 7/32"D \$125.00
CCA-9. Cassette tray for New Life cabinets. Measures 15 1/2"W x 10 1/16"D x 5 7/32"H \$42.00

Turntable Accessories

TS-10. Turntable sheet \$160.00
DS-20. Disc stabilizer \$150.00
DS-21. Inner disc stabilizer \$40.00

RC-7 Remote-Control Unit

Wired remote controller for KX-7XCG, KX-5XC cassette decks \$25.00

SR-7 Speaker Stands

Stands for S-2, S-4 speaker systems ... \$75.00/pr

KINETIC AUDIO INT'L

Three-Point Crossover/Level Control

Passive crossover/level control system that keeps low frequencies from entering miniature monitor, satellite speaker systems. Features crossover level control and mid-high-pass filter. Crossovers 65, 90, 180 Hz; converts 4- to 8-ohm load.
 Mono version \$85
 Stereo version \$165

Stereo Amplifier/Line-Level Control

Unit devised for bi-/multi-amping, other amplifier level adjustments. Features 10k-, 25k-, 50k-ohm impedance; phono jacks; connectors; mounting hardware.
 Open-rack chassis \$85
 Cabinet rack \$125

Speaker Level Control

Speaker level control that converts 4- to 8-ohm load. Features 8 ohms constant impedance (noninductive); high power-handling capability; mounting hardware; knob indicator; red, black 5-way binding posts.
 Mono version \$45
 Stereo version \$85

Amplifier/Speaker Selector

Switches 2 stereo amplifiers into single pair of speaker systems or 2 pairs of speaker systems from single stereo amplifier.
 Open-rack chassis \$99
 Cabinet rack \$135

Amplifier Stabilizer Network

Anti-oscillation filter with black, red banana plugs \$15/pr
 With tinned leads \$10/pr

Speaker Stands

Straight or tilt speaker stands with dual angle up/down capability and flat black satin finish.
S-S. Small \$59/pr
S-M. Medium \$69/pr
S-L. Large \$79/pr

Cabinets

Furniture styled equipment/record/tape cabinets. Feature stackability with adjustable-height shelves or rack rails; walnut veneer over particleboard side panels.
EC-20. 20"H x 21"W x 15"D \$139
EC-40. 40"H x 21"W x 15"D \$239
EC-48. 48"H x 21"W x 18"D \$339
EC-48X. 48"H x 21"W x 18"D. Deluxe unit with Plexiglass door, black dual-wheel casters \$439

KOSS

Audio Tape Line

KCT 4000. Illuminated demagnetizer for cassette, open-reel, 8-track, VCR machines. Features soft guard tip; pinpoint light \$14.99
KCT 3010. Total cassette machine care kit designed for automatic, manual decks. Includes inspection mirror; cleaning probes; tape fluid \$5.99
KCT 3000. Cassette, open-reel, 8-track machine cleaning kit. Includes brush; cleaning probes; cleaning fluid; inspection mirror \$3.99
KCT 2020. Nonabrasive automatic-format 8-track machine care kit. Includes tape care fluid; housing brush \$3.29
KCT 2010. Automatic-format cassette machine care kit. Includes cleaning fluid; housing brush \$2.99
KCT 1020. Nonabrasive automatic-format 8-track head cleaner \$1.99
KCT 1010. Similar to KCT-1020 except for cassette decks \$1.69

Record & Stylus Care Line

KMR-400. Antistatic disc cleaner designed to eliminate static, remove fine dust. Requires no cleaning solutions; stores in own case \$5.69
KCS-303. Total record, stylus care kit. Includes

NOTICE TO READERS

Prices of items described are suggested prices only and are subject to change without notice. Actual selling prices are determined by the dealer.

8 ACCESSORIES

record purifier; record, stylus fluid; stylus cleaning brush; inspection mirror \$4.99
KCS-100. Clean Sweep record purifier designed to prolong record life. Contains 2000 cleaning bristles/sq in. Includes dust-free storage box \$2.39
KCS-2000. No-residue record, stylus cleaning fluid in 2-oz bottle \$1.69

Headphone Add-Ons

KEC-25. 25-ft coiled extension cord \$7.99
KMA-200. 1/4" to 1/8" mono plug adaptor \$1.99
KSA-100. 1/8" to 1/4" stereo plug adaptor \$1.99

THE LAST FACTORY

Last RCM Fluid

Record-cleaning machine fluid with formulation optimized for vacuum removal of used cleaner. Safe for all vinyl discs. Available only in gallon size. . \$28.00

Last Record Preservative

Archival preservative for phonograph records provides minimum of 200 plays without discernible distortion per application. Safe for all records, it eliminates record wear, reduces distortion and static electricity, increases stylus life. Requires no buffing, rubbing, or waiting. Contains enough to treat 60 records. \$23.95

Stylast Stylus Treatment

Molecularly engineered thermodynamic phono stylus treatment designed to greatly lower stylus friction, increase cantilever suspension life. One bottle contains enough material for thousands of applications \$20.00

M&K

LP-1 Passive Electronic Crossover

Line-level passive electronic crossover designed for bi-amplification system features quasi-second-order filter; available in 75- or 100-Hz version, with or without bypass switch; 8"W x 4 1/2"D x 1 1/2"H (19 1/2" rack-mount available); 3 lb \$185-\$275

MAGNESONICS

"Erase-Sure" Cassette Eraser

Battery-powered (4 AA cells included) rapidly erases audio cassettes with powerful rotating magnets. Designed for intermittent duty. Measures 4"W x 3 1/2"D x 2 3/4"H; weighs 1 lb. \$24.50
 117-V ac adapter \$9.95

"Rapid Rewind" Cassette Rewinder

Battery-powered (4 AA cells included) audio cassette rewriter. Rewinds C60 cassette in about 30 seconds. Designed for intermittent duty. Measures 4"W x 3 1/2"D x 2 3/4"H; weighs 1 lb \$24.50
 117-V ac adapter \$9.50

MISSION ELECTRONICS

ISOPLAT Isolation Platform

Ensures that vibrations, resonances are isolated from equipment mounted on it. Design based on critical application of vertical sandwich of highly inert fiberglass and Sorbothane feet. Capable of controlling, damping vibrations in all 6 rotational, translational axes. \$59

SORBOMAT Turntable Mat

Made from impregnated Sorbothane polymers; design optimized to isolate rumble, motor vibrations, bearing noise, platter ringing, etc., from cartridge \$39

MITSUBISHI

DA-M30 Power-Level Meter

Designed for docking with the A30 power amplifier. Features fluorescent display, advanced digital logic circuitry; risetime typically 300 μ sec, (maximum 1

msec); recovery time 1.5 sec; bargraph display format; each channel has 24, 5-bar groups of fluorescent elements, every fifth blanked; calibrated in W/dB; 48 driver circuits; circuitry is outside signal path; remote-control cable \$250

DR-730 Audio Equipment Rack

Vertical or horizontal format; twin glass double doors; generous record storage; 4 shelves \$225

MURA

AMP-618 Stereo Power Meter

Measures left/right stereo channels for accurate adjustment of balance control or left/right channel level controls; lighted peak/average response meters with peak/average switch, power range 0.005-100 W; frequency response 20-20,000 Hz; black and brushed aluminum finish; 7"W x 3"D x 3"H \$24.95

MXR

Rack-Mount Kits

Each kit contains 2 "ears" for mounting MXR products indicated in standard 19" racks.

141. For Models 127, 128, 132, 147 \$18.00
145. For Model 139 \$18.00
146. For Models 139, 140 \$18.00

135 Cover

Tamper-proof cover for MXR products \$16.50

154 Patchcord

15-ft audio extension patchcord \$12.00

NAKAMICHI

T-100 Audio Analyzer

Measures and verifies performance of audio equipment; combines functions of oscillator, VTVM, distortion analyzer, wow/flutter meter. Oscillator has 21 discrete frequencies from 20 to 20,000 Hz, wideband pink noise; measures distortion from 0.01% to 3% at 400 Hz; measures level with peak or average ballistics; measures speed accuracy, wow/flutter (weighted or unweighted); measures noise inputs down to 10 μ V. Features non-mechanical bargraph display, logic-controlled FET switching; 9.5 lbs. Includes carrying case; 13 1/2"W x 9 1/2"D x 3"H \$850.00

PS-100 Power Supply

\pm 10 Volts dc for MX-100, other Nakamichi BlackBox Series components; can power up to 6 components. \$100.00

SF-100 Subsonic Filter

Filters out unwanted subsonic components; maximum 50-dB attenuation at 10 Hz, no attenuating frequencies above 30 Hz; switchable 5-dB boost at 30 Hz, filter bypass; requires PS-100 power supply; 7 1/2"W x 4"D x 2 1/2"H \$95.00

BA-150 Bridging Adaptor

Inserts between preamp, 2 stereo power amps to provide bridged stereo operational designed specifically for use with Nakamichi 620 and 420 power amps to take advantage of Complete Mirror design \$85.00

DM-10 Head Demagnetizer

Slim-line, easy-to-use recorder head demagnetizer, specially designed for company's cassette decks \$30.00

RS-730 Speaker Selector

Speaker-selector box for 730 receiver \$45.00

NORTRONICS/RECORDER CARE

Professional Alignment Tapes

AT-120. For 1/2" open-reel decks; 7 1/2"-ips, first-generation full-track master recording. Contains all tests, tones required to adjust recorders to NAB standards. Supplied with instruction booklet, individual response curve. \$76.00
AT-200. First-generation master recording for cassette decks. Provides zero reference, azimuth alignment, frequency-response tests to DIN standards; 3 kHz tone for speed, flutter tests. Individual response

graph supplied \$69.00
AT-320. Designed for use with NAB-type endless-loop mono, stereo cartridge recorders, players. First-generation full-track master recording at 7 1/2 ips. For adjusting head azimuth, frequency response, record level, stereo head phasing, cue tone sensitivity, tape speed \$68.20

QM-211 Professional Bulk Eraser

Generates powerful 60-Hz erasure field for open-reel, cassette, 8-track cartridge tapes. Features micro-switch turn-on, put-down turn-off; hand-contoured Cyclocac[®] case. For 110-120 V ac, 50-60 Hz \$59.20
QM-212. Same as QM-211 except for 230-250 V ac \$61.40

QM-230 Cassette Bulk Eraser

Self-powered hand-held bulk eraser for cassettes. Features Cyclocac[®] case \$35.20

QM-202 Professional Head Demagnetizer

For use with all open-reel, cassette, 8-track cartridge decks. Features flexible probe tip with soft, no-scratch coating; leaf-switch turn-on/put-down turn-off; Cyclocac[®] case. For 110-120 V ac, 50-60 Hz \$26.60

QM-203. Same as QM-202 except for 230-250 V ac \$31.20

QM-206. Same as QM-202 except for 12 V dc \$32.00

QM-Series Tape Splicing Blocks

Specially grooved to firmly hold tape during splicing. Features 2 deep slits for straight, diagonal cuts. Supplied with double-backed adhesive for mounting without drilling; stainless-steel cutter. Measures 5 3/4"W x 1"D x 3/4"H.

QM-311. For 1/4" tapes \$25.60

QM-312. For cassette tapes \$25.60

QM-333 Tape Splicer

The Splicer[™] for use with 1/4", cassette, 8-track cartridge tapes. \$22.60

QM-280 8-Track Cleaner/Demagnetizer

Removes residual magnetism from 8-track heads; provides endless cleaning belt for oxide, dirt removal from heads. Supplied with ac cord for 110-120 V ac, 50-60 Hz. \$24.00

PF-601 Magnetic Tape Developer

Makes magnetic recording visible for determining proper track location, head/track positioning, etc. Fine powder aerosol that will not harm tape, tape coating, recording; wipes off after use. 4-oz can \$12.40

QM-85 All-Purpose Cleaning Kit

Designed for all-purpose cleaning of tape decks. Includes QM-107 liquid head cleaner, QM-505 foam swabs (20 supplied) \$11.40

QM-506 Inspection Mirror

Inspection mirror with light for all recorders. Supplied with AA cells \$8.00

QM-505 Cellular Foam Swabs

Package of 25 swabs, for cleaning audio, video tape decks \$7.80

QM-116 Tape & Head Cleaner

Aerosol spray cleaner with extension tube to reach recessed parts. Safe for audio, video decks. 16-oz can \$7.70

QM-9 Head Cleaning Kit

Designed for cleaning heads in all tape decks. Contains QM-103 spray tape/head cleaner, QM-502 cotton swabs (100 supplied) \$6.80

QM-103 Tape/Head Cleaner

Aerosol tape and head cleaner blasts loose oxides, dirt. Supplied with extension tube \$5.00

QM-108 Tape/Head Cleaner

Liquid tape and head cleaner in 8-oz can \$4.70

QM-102 Tape Head Cleaner

Liquid tape head cleaner in 2-oz bottle. Leaves no res-

idue; can be used on capstans, pinch rollers... \$4.20
QM-122. Same as QM-102 but in 1.7-oz spill-proof bottle \$3.40

QM-104 Tape/Head Lubricant

Formulated for use on older prerecorded tapes, head to reduce friction. Supplied in 2-oz (net weight) bottle \$4.20

QM-502 Cotton Swabs

Package of 100 6" cotton swabs for cleaning tape decks. Can be used with liquid or spray head cleaner, head and guide lubricant \$4.00

QM-181 Cartridge Life Extender

For use with 8-track cartridge machines. Supplied with liquid cleaner to dissolve heavy oxide, dirt deposits \$4.00

QM-180. Similar to QM-181 except has nonabrasive nonwoven polyester cleaning belt, no liquid head cleaner. Sensing tab assures proper indexing to clean entire tape head \$3.20

QM-141 Cassette Life Extender

Has special nonabrasive belt that safely removes oxide, dirt from cassette tape heads. Includes liquid cleaner for removing heavier deposits \$3.40

QM-140. Similar to QM-141 except does not include liquid cleaner \$3.00

Reel Tabs

Precut adhesive-backed Mylar or metal tabs for tape splicing, editing. Designed for use with Nortronics splicing equipment.

- 1/4" Mylar:
- QM-521.** 50/pkg \$6.00
- QM-526.** 200/pkg \$13.00
- QM-531.** 1000/pkg \$50.60
- Cassette Mylar:
- QM-522.** 50/pkg \$6.00
- QM-527.** 200/pkg \$13.00
- QM-532.** 1000/pkg \$50.60
- 1/2" Metal sensing:
- QM-524.** 50/pkg \$6.00
- QM-529.** 200/pkg \$13.00
- QM-534.** 1000/pkg \$50.60

NUMARK ELECTRONICS

EC2800 Electronic Crossover

Multi-amplification 3-way crossover with gold-plated input, output connectors. Distortion < 0.008%, center channel - 24 dB/octave slope; low and high channels - 12 dB/octave slope \$469

SD2950 Electronic Display Unit

Stereo frequency spectrum, peak level/tone computer display designed to be used with any equalizer. Features 2 10-channel fluorescent displays; VU mode to display output level; peak level fluorescent meters with peak hold, reset. Provides accurate display of each left, right equalizer channel or all channels simultaneously \$349

SD2900. Similar to SD2950 except no peak level capability \$299

PX2626 Generator/Measurement Amplifier

Pink noise generator/measurement microphone amplifier for properly setting up stereo systems. Designed to be used with calibrated microphone, Numark SD2900 or SD2950 (above) \$89

O'SULLIVAN INDUSTRIES

DC940 Audio/Video Center Cabinet

Bartonwood vinyl-laminate finished cabinet features shelf for VCR or videodisc player with pull-down glass front, flip-up glass top, compartment for up to 19" color TV receiver, door-protected tape storage area with pull-out drawer and shelf on left side; flip-up glass top for access to record player, glass door for access to 3 adjustable audio-equipment shelves, compartmented records storage area on right side. All doors bronzed tempered glass except for tape storage area door. 50 1/4"W x 43 1/8"W x 18 1/4"D overall; right shelves 21 1/2"W x 14 1/2"D; VCR/VDP shelf 26 1/2"W x 16 1/2"D x 7 1/2"H; TV shelf 26 1/2"W x 18"D x 18"H; turntable area 21 1/2"W x 16"D x

6 1/2"H \$449.95

DC930 Audio/Video Center Cabinet

Honey elm vinyl-laminate finished cabinet features accommodation for up to 4 audio components on adjustable shelves behind tempered-glass doors on left side; accommodation for up to 19" TV receiver, VCR or VDP on pull-out shelf on right side; 2 separate storage compartments behind wood-look doors along bottom. 51 1/2"H x 51 1/2"W x 19 1/2"D overall; left shelves 21 1/2"W x 16"D; VCR/VDP shelf 27"W x 16"D; tv shelf 27"W x 19 1/4"H x 18 1/4"D; 2 storage areas 24"W x 17 1/2"D x 13"H \$349.95

AR184 Low-Boy Audio Cabinet

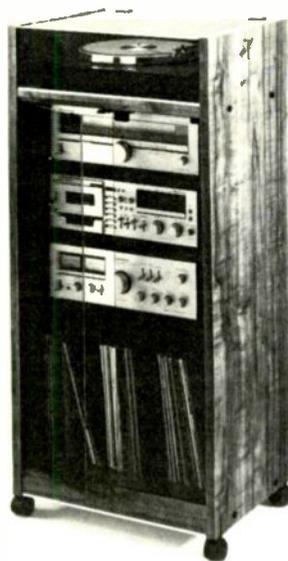
Bartonwood vinyl-laminate finished roll-around cabinet with 2 each clear tempered glass front, top doors. Left side has storage area under flip-up top for 36 cassettes, 3 audio components on adjustable shelves; right side has shelf for turntable under flip-up door, storage area for records. Deluxe chrome-finish dual-wheel casters. 41 1/4"W x 28 3/4"H x 18 1/2"D overall; turntable area 19 1/8"W x 16 1/4"D x 6 1/2"H; general storage area 19 1/8"W x 14 1/2"D x 4 1/2"H \$319.95
AR184. Same as AR183 but rosewood vinyl finish \$319.95

AR170 Low-Boy Audio Cabinet

Warm honey elm vinyl-laminate finished cabinet with rounded corners with 2 tempered-glass audio equipment storage area for up to 3 components on shelves on left side; records storage and 2 equipment shelves on right side with single glass door. 45 1/2"W x 34 3/4"H x 19 1/4"D overall; left shelves 23 1/2"W x 16 1/4"D; right shelves 19 1/4"W x 16 1/4"D. \$259.95

AR177 Audio Cabinet

Roll-around bartonwood vinyl-laminate finished cabinet with L-shaped flip-up tempered-glass top door for access to turntable; twin tempered-glass doors for access to up to 3 audio components on adjustable



shelves, pull-out cassette drawer, record storage area. 49 3/4"H x 23"W x 17 1/4"D overall; turntable area 21 1/2"W x 16 1/4"D x 6"H; shelves 21 1/2"W x 14 1/4"D \$249.95

AR175 Audio Cabinet

Roll-around honey elm vinyl-laminate finish audio cabinet with area for up to 3 audio components on adjustable shelves, behind 2 tempered-glass doors at top; central open turntable area; storage area behind twin doors at bottom. Deluxe black dual-wheel casters. 69 1/4"H x 23 3/4"W x 17 3/4"D overall; turntable area 21 1/4"W x 17 1/4"H x 17 1/4"D; top shelves 21 1/4"W x 14 1/4"D \$239.95

stylast®

THE ULTIMATE INTERFACE
 A New and Unique Stylus Treatment



- ◊ increases stylus life up to 10 times
- ◊ improved tracking ability
- ◊ better sound reproduction
- ◊ preserves stylus suspension system
- ◊ economical-fraction of a cent per application
- ◊ ultimate performance with LAST® treated records

STYLAST is the result of two years of molecular engineering using the LAST model of record wear.

There Has Never Been A Product Of This Type Before!

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 Livermore, CA 94550

for more information write or call
 CIRCLE NO. 42 ON READER SERVICE CARD

8 ACCESSORIES

AR165 Audio Cabinet

Roll-around honey elm finished cabinet with rounded corners. Has area for up to 3 audio components, records storage behind dual bronzed tempered-glass doors. Deluxe chrome-hooded dual-wheel casters. 43 $\frac{3}{8}$ "H x 23 $\frac{3}{8}$ "W x 19 $\frac{3}{8}$ "D overall; shelves 21 $\frac{1}{2}$ "W x 16 $\frac{1}{8}$ "D. \$199.95

AR179 Audio Cabinet

Roll-around bartonwood vinyl-laminate finished audio cabinet with areas for up to 3 audio components, records storage behind flip-up top, single front bronzed tempered-glass doors. Features adjustable shelves; black hooded dual-wheel casters. 44 $\frac{1}{8}$ "H x 23"W x 17 $\frac{1}{2}$ "D overall; turntable area (below flip top) 21 $\frac{1}{2}$ "W x 15 $\frac{1}{8}$ "D x 6 $\frac{1}{2}$ "H; shelves 21 $\frac{1}{2}$ "W x 14 $\frac{1}{8}$ "D. \$199.95
AR182. Same as AR179 except ranch oak vinyl finish. \$199.95

DC928 Audio Cabinet

Bartonwood vinyl-laminate finished audio cabinet with step shelf for up to 19" TV receiver, rounded corners. Left side has storage for records behind twin doors; right side has areas for up to 3 audio components on adjustable shelves behind twin clear tempered-glass doors. 49 $\frac{1}{2}$ "W x 31 $\frac{1}{2}$ "H x 17"D overall; TV shelf 26"W x 15 $\frac{1}{8}$ "D; right shelves 21 $\frac{1}{2}$ "W x 14 $\frac{1}{8}$ "D. \$179.95

AR160 Audio Cabinet

Hickory-grain vinyl finished cabinet with accommodation for up to 3 audio components and records storage behind single bronzed tempered-glass door. 41 $\frac{1}{8}$ "H x 22 $\frac{1}{8}$ "W x 16"D overall; shelves 21 $\frac{3}{8}$ "W x 14 $\frac{1}{8}$ "W. \$139.95

OMNISONIX

801 Omnisonic Imager

Designed to reproduce mono or stereo signals to create dimensional or three-dimensional sound (volume level, stereo separation, surround sound imagery) respectively; connects to internal tape loop of any system; features tape monitor, in/out buttons. Input impedance 25k ohms; maximum output 8.5 V; output impedance 200 ohms; frequency response 10-100,000 Hz ± 0.5 dB; THD 0.005%, 10-20,000 Hz; 10"W x 6"D x 4 $\frac{1}{4}$ "H. \$199
801A. Similar to The Imager 801 except for car-stereo systems. Operates from 12-v dc, negative-ground power sources; can be bracket or Velcro mounted under most dashboards or inside glove compartment; maximum output level 2 V; THD <0.03%, 10-20,000 Hz; 5 $\frac{1}{2}$ "D x 4 $\frac{1}{4}$ "W x 1 $\frac{1}{16}$ "H; 12.5 oz. \$150

ONKYO

CB7U Custom Rack

Dual wood-grain cabinets, each with transparent glass doors, adjustable shelves; designed for vertical or horizontal layout; 29 $\frac{1}{16}$ "H x 43 $\frac{1}{16}$ "W x 15 $\frac{1}{8}$ "D (horizontal), 58 $\frac{3}{16}$ "H x 21 $\frac{3}{16}$ "W x 15 $\frac{1}{8}$ "D (vertical). \$349.95
CB7A. Upper-cabinet unit with 4 adjustable shelves (from CB-7U) \$210.00
CB7R. Lower unit record rack (from CB-7U) \$140

MT-2 Transfoemer

Designed for use with MC-100 phono cartridge. \$98.00

SR4 Rack System

Rack system with adjustable shelf, glass-door record compartment, roll-about casters, black matte finish. \$139.95

RC-5T Remote Controller

Remote-control unit designed for Onkyo TA-2040, TA-2050, TA-2060 cassette decks, CP-1130F, CP-

1150F turntables \$49.95

SH-21 Replacement Headshell

Carbon-fiber, low-mass black-anodized-trim headshell for CP-1030F turntable \$12.00
SH-21B. With aluminum trim for Onkyo CP-1010A, CP-1020F \$12.00
SH-21D. Black without trim for Onkyo CP-1280F, CP-1260F \$12.00
SH-21E. Black without trim for Onkyo CP-1011A, CP-1011F, CP-1012A, CP-1012F, CP-1015A, CP-1017A, CP-1130F, CP-1150F \$12.00
SH-21F. Black without trim for Onkyo CP-1000A \$12.00

AT-80 Timer

Slim-line digital system timer with multimode operation \$129.95

CK-50 Storage Cabinet

Storage cabinet for records, cassettes \$49.95
RL-1. Accessory system lamp \$24.95

OCH-55V Replacement Cartridge

Replacement moving-magnet phono cartridge for Onkyo CP-1028R; includes headshell \$49.95
DN 55ST. Replacement stylus for OCH-55V \$30.00

PAISLEY RESEARCH

Infrasonic Filter MK. I

Intended primarily for vented cabinets. Reduces low frequency driver excursions caused by record warp and/or off-center holes. Increases power handling capability due to excursion limits of low frequency driver. Reduces doppler induced and non-linear distortion produced by high amplitude infrasonic cone motion. Frequency response 40-40,000 Hz ± 0.1 dB; gain 0.99; THD <0.05% \$69.95

PHASE LINEAR

190 Speaker Switching Module

Module permits selection of separate or combination of up to 3 sets of speaker systems, handles switching of amplifiers rated at up to 500 W. Features silver contacts for peak power-handling capacity of 50,000 W. Switch rating 5 A rms continuous current (200 W into 8 ohms); pulsed peak current 80.0 A (51.2 kW into 8 ohms); handles 250 V rms, 707 V p-p; 8.1"W x 5.75"D x 2.25"H. \$120

PICKERING

PST-2 Stylus Timer

Measures stylus wear time from 0-1000 hrs in 100-hr increments; resettable for long-time use; can be reversed 180° to start over again; mounting time 1 min ute. \$15.95

RC4" Record Cleaner

Includes 2-fl-oz liquid record cleaning formula, brush for noiseless operation \$14.95
 16-oz Record Care refill \$14.95
 8-oz refill \$8.95
 2-oz refill \$3.95

Stylus Cleaning & Inspection Kit

Designed to remove caked-on debris, build-up from stylus and maintain general stylus care; includes 2 fl-oz stylus cleaner, nylon brush, long-handled mirror, magnifying glass \$10.95
 1-Oz stylus cleaner refill \$2.50

CFB-80 Carbon-Fibre Record Brush

Manufactured from aerospace quality carbon fibers



to eliminate shedding. Contains 500,000 filaments/side, each filament 0.0003" diameter to follow exactly record groove as it removes all dust

particles; <1-ohm natural electrical resistance of each fiber easily conducts away electrical charges to keep records static-free \$14.95

SC4 Stylus Cleaning System

Kit combines specially formulated stylus cleaning fluid safe for delicate stylus parts, unique cleaning brush with controlled-penetration bristles to dissolve and remove stylus contaminants; 5x magnifier included for examining stylus, cartridge mounting, headshell electrical connections \$7.95
RC4. Replacement applicator pad (pad & brush) \$8.95

PRC-82 Record Stabilizer

Provides constant, even pressure, reducing warps. Features 2 sizes locking buttons to accommodate various size turntable spindles \$10.95

PIONEER

DT-510 Digital Timer/Clock

Digital timer/clock for use with hi-fi audio equipment. Can turn on/off tape deck for unattended recording



and playback. Features wake-up preprogrammability; Fluorescan™ digital time display, including AM/PM indication. 16 $\frac{1}{16}$ "W x 5 $\frac{1}{16}$ "D x 2"H; 3 lb 12 oz \$120

JT-216 Remote-Control Unit

Wired remote controller for Pioneer CT-9R, CT-8R, CT-7R, CT-6R cassette decks \$50.00

Tape Accessories

PR-101. Empty 10 $\frac{1}{2}$ " metal tape reel with NAB hub \$18.00
PR-100. Empty 10 $\frac{1}{2}$ " metal tape reel with NAB hub, boxed \$18.00
PR-85. Empty 7" metal tape reel, boxed \$15.00
PP-220A. 10 $\frac{1}{2}$ " Reel adaptor \$11.00
JC-9. DIN connector \$10.00

PLATTER PAD

Platter Pad

Turntable mat that sonically isolates record from various turntable noises, vibrations. Lets you hear sounds normally missed, adds evasive "presence" quality to imaging of reproduced sound \$40.00

RECOTON

Record Care Products

RBM-64 "The Brush" Clean Sound II

Record cleaning brush with carbon-fiber brush to remove static charge, clean grooves with any suitable fluid. \$15.00

RBM-52 Clean Sound II

Record cleaning system with wooden-handle cleaning brush. Clean Sound cleaning fluid, pad cleaning brush in hard plastic container. \$15.00

RBM-50 Clean Sound Cleaning System

Consists of cleaning brush, Clean Sound cleaning fluid housed on cylindrical plastic container \$10.99

3131P Record Conditioner

Unique unidirectional pile pad brush with cherry wood handle. Comes with purifier solution that fits into handle. \$15.00

C100RJ Musiclean™

Deluxe record maintenance system with wooden-handle applicator brush, Musiclean solution \$9.99
C101RJ. 1.5 oz Musiclean solution \$1.79
C102RJ. 4 oz Musiclean solution \$2.99
C103RJ. Package of 2 Musiclean replacement pads \$500

Black Magic™ Record Care Products

RBM-62 Static Eliminator

Pistol-like destaticizer uses piezoelectric module to remove static charges from records \$17.49

RBM-1 Dust Wand

Tonearm-like automatic record cleaner. Supplied with antistatic fluid \$7.99

RBM-60 Clean Sound

Record protection system with dry lubricant that protects record grooves. Can be applied repeatedly without build-up on record or stylus. Includes applicator, pump sprayer, 2 oz fluid \$7.99

RBM-61. 2 oz replacement for RBM-60 \$3.99

RBM-8 Record Cleaning Kit

Consists of Magic Touch record cleaning pad, 9 oz Magic Giant antistatic record cleaning fluid ... \$7.49

RBM-63 Clean Stat Disc

Antistatic turntable pad with stroboscope markings \$7.49

RBM-10 Record Cleaning System

Professional cleaning system with Magic Roller, antistatic cleaning solution, stylus/roller cleaning brush. Comes with antistatic indicator bar that shows ionization via color change \$6.49

RBM-11. 1.25 oz bottle cleaning fluid \$1.79

RBM-12. 4 oz bottle cleaning fluid \$2.99

RBM-4 Record Cleaning Pad

Made of nylon plush pile impregnated with nonionic compound. Comes in plastic storage case ... \$3.99

RBM-5 Cleaning Fluid

Antistatic record cleaning fluid in 9-oz plastic bottle \$3.99

RBM-7 Magic Roller

Super soft nylon plush pile roller for precleaning records \$3.49

RBM-3 Stylus Sweep

Brush for cleaning phono cartridge stylus \$2.99

Tape Care Products

106TC Cassette Head Demagnetizer

Plugs into cigar lighter. For demagnetizing cassette tape heads \$13.95

105TC. Similar to 106TC except designed for home use, ac line power \$10.95

87TC Cartridge Head Demagnetizer

Plugs into cigar lighter. For demagnetizing 8-track cartridge player heads \$10.95

88TC. Similar to 87TC except designed for home use, ac line power \$9.95

61TR Tape Head Demagnetizer

Ac line powered tape head demagnetizer designed for use in cassette, open-reel, cartridge decks ... \$9.94

83TC Cassette Tape Splicer

Designed for use with all audio cassettes \$6.49

50TR. Similar to 83TC except designed for use with 1/4" tapes \$6.49

53TC Cartridge/Cassette Maintenance Kit

Contains head cleaner, lubricant, brush \$4.99

131TC Total Maintenance Cartridge

Contains cartridge, capstan/head cleaner, track switch test, demagnetizer with pinball action \$3.59

144TC. Similar to 131TC except for cassette decks \$3.59

140TC Cassette Tape Maintenance Kit

Includes 2 brushes with replacement pads, mirror, cleaning solution \$3.49

51TR Protek-Tape Kit

Spiral brush buffer for removing oxide deposits \$3.49

145TC Cassette Tune-Up

Professional test tape with nonabrasive cleaner, stereo balance test, head alignment test \$2.99

111TC Cartridge Care Kit

Nonabrasive head cleaner with liquid cleaning solution \$2.89

112TC. Similar to 111TC except designed for cassette decks \$2.89

124TC Super Cleaner

Nonabrasive tape-head/capstan cleaner for 8-track cartridge machines \$2.89

90TC Sensing Tape

For use with all tape decks with electronic controls for cueing, programming, reversing, track changing. 150"L x 7/32"W \$2.79

139TC Cassette Salvage Kit

Includes empty cassette shell with screws, label, splicing tabs, plastic block for repairing defective cassettes \$2.49

75TC Cassette Mailers

Includes 12 cassette mailer cartons \$2.29

53TR Audio Klean Stix

Package of 100 6" cotton applicators in storage bag \$2.19

94TC Cassette Storage Boxes

Package of 4 plastic storage boxes with built-in stops \$1.99

68TC Cartridge Tape Head Cleaner

Designed for 9-track cartridge players. Has built-in timer \$1.89

71TC Cassette Head Cleaner

Cassette cleaner removes dirt, oxides \$1.69

54TR Tape Head Cleaner

Removes dirt, oxides from all tape deck heads \$1.59

55TR Tape Recorder Lubricant

Lubricant has silicone \$1.59

58TR Splicing Tape

Designed for all formats tape splicers. 108"L x 1/2"W \$1.19

65TC-8 Cartridge Dust Shields

Package of 8 snap-on shields for 4- and 8-track cartridges \$0.99

Black Magic™ Tape Care Products

RBM-37 Cassette Demagnetizer

Solid-state cassette demagnetizer with in use LED. Inserts directly into cassette compartment of deck \$22.99

RBM-43 Tape Editing Kit

Designed for cassette, open-reel formats; includes aluminum splicing block, leader tape, splicing tabs, 12 blank cassette labels, razor blade \$12.99

RBM-44 Cartridge Demagnetizer

Comes with tape head cleaner, operates on ac line power \$12.99

RBM-45. Similar to RBM-44 except for cassette decks; has no tape head cleaner \$12.99

RBM-41 Cartridge Kit

Five-function device that acts as head cleaner, capstan cleaner, track selector test, speaker phasing test, channel balance test. Includes Magic Dew cleaning fluid, Magic Wand applicator with 6 replaceable pads \$8.49

RBM-40 Cassette Kit

Maintenance kit with 10-ft nonabrasive cassette head cleaner in plastic storage case, Magic Dew cleaning solution, Magic Wand applicator with 6 replaceable pads \$6.99

RBM-48 Magic Stix™ Maintenance Kit

Deluxe cassette kit includes applicator brushes with replacement pads, deluxe cleaning solution ... \$3.99

RBM-42 Tape Cleaning Kit

Includes Magic Tape Dew cleaning fluid, Magic Applicator with 6 interchangeable pads \$3.59

RBM-41 Tape Cleaning Solution

Specially formulated tape cleaning solution with applicator swabs \$2.99

ROBINS

42-110 Vac-O-Rec Record Cleaner

Dry filtered vacuum record-cleaning system with vacuum motor, removable washable filter in woodgrain container. Uses 3-conductor grounding cord for improved static discharge; UL, CSA approved. \$69.85

42-100. Similar to 42-105 except no filter, woodgrain case; uses 2-conductor cable ... \$43.65

24-001 Video Cassette Eraser

Heavy-duty video cassette eraser erases videocassettes, audio tapes; erases in seconds; reduces tape to low-noise level; no tape contact or wear during erasure; has built-in momentary contact switch, 110-120 V ac intermittent duty (1 minute on, 20 minutes off); 6 A; 4 lbs; UL approved; 5" x 5" x 3.5" \$53.60

24-016 Audio Tape Eraser

Erases cassettes, cartridges, open-reel, digital cassettes, magnetic stripe film; erases in seconds; reduces tape to low-noise level; no tape contact or wear; has built-in momentary contact switch; 117 V ac intermittent duty (1 minute on, 20 minutes off), 220-V model also available; 5 A; 2 lbs; UL approved; 4" x 2.5" x 4.5" \$39.75

25-005 Whistle Stop Head Demagnetizer

Automatic electronic cassette head demagnetizer in cassette format; removes accumulation of residual magnetism from heads of home, car cassette tape machines; whistling tone indicates erasing action; powered by two 1.5-V batteries (included) ... 27.50

41-043 ROB-O-STAT Static Neutralizer

Complete with static sensor; removes static charge from records, film, etc.; static sensor checks for presence of static charge on records, indicates proper functioning of neutralizer; requires no outside power source or batteries \$22.90

40-000 Robolite Turntable Light

Three-watt light turns on/off automatically when dust-cover is raised/lowered; installs on standard turntable dustcovers; built-in switch; includes 6-ft cord (no batteries needed); 120 V ac \$22.00

40-002 Robolite. Battery-operated version of 40-000; uses 2 D cells (not included) \$19.15

25-023 Tape Head Demagnetizer

Reduces residual magnetism which causes noise build-up; interchangeable tips accommodate open-reel, cassette, cartridge equipment; built-in switch; 110-120 V ac; UL listed \$17.35

25-013 Economy Model. Features plastic-shielded probe; UL listed \$13.15

25-004 Cassette Tape Eraser

Cordless cassette tape eraser for all micro/mini cassettes. Erases in 2 seconds; no outside power or batteries needed; has built-in alnico magnets ... \$17.35

25-032 8-Track Demagnetizer and Cleaner

Cordless cleaner for operation with home, auto units; 4-pole rotary magnet; magnetic window; nonabrasive cleaning tape \$6.85

34-000 Cassette Attache Case

High-impact plastic attache-style case holds up to 16 cassettes and/or home and business computer cassettes. snap-lock carrying handle \$6.25

41-045 Cleaner and Anti-Static System

Unique patented vapor pressure cleaning system uses velvet-covered roller to remove dust, dirt; sliding partition stores water or anti-static fluid which moistens roller \$5.45

25-007 Cassette Maintenance Kit

Demagnetizes tape heads of home, auto cassette

8 ACCESSORIES

decks; cordless design; employs 4-pole rotary magnet; includes nonabrasive head-cleaning tape; designed to be used after every 15-20 hours of player/recorder use; cordless. #25-007.....\$5.30

41-073 Stylus Pressure Gauge

Measures phono stylus pressure to within 1/10 g \$3.90

41-195 "Disc Cleaner" Record Cleaner

Stops static and removes dust, grime; soft velvet-cushioned cylinder; comes with storage tube, cleaning brush\$2.75

RTR INDUSTRIES

P5206/C Speaker Stand

Deluxe universal Varitilt speaker stand with 55-lb load-bearing capacity. Features 0°-13° tilt facility; black epoxy finish; neoprene strips for acoustic bonding to enclosure; castors. Measures 10"W x 10"D x 7 3/4"H (with castors)\$99/pr

P5200/C Speaker Stand

Deluxe AC MK-IV speaker stand with 77-lb load-bearing capacity. Finished in black epoxy, fitted with neoprene strips for acoustic bonding to speaker system. Comes with castors. Measures 11 1/4"H (with castors) - 10 1/2"W x 10"D\$89/pr

P5210/C. Deluxe FT MK-III speaker stand with 40-lb load-bearing capacity. Same features as P5200/C except 7 1/4"H (with castors)\$89/pr

P5213/C. Deluxe AC MK-III speaker stand with 40-lb load-bearing capacity. Features same as for P5200/C.....\$89/pr

P5237 Speaker Stand

Adjustable speaker stand with 38-lb load-bearing capacity, telescopic depth from 5 1/2" to 10", height adjustable from 3" to 17". Features 15° up/down tilt; accommodates any height, width speaker system; nipping pins to clamp speaker securely; nonslip neoprene strips\$79/pr

P4963 Wall Bracket

Deluxe wall bracket with 35-lb load-bearing capacity. Features tilt angle adjustment; telescopic depth from 5 1/2" to 10"; vertical-axis swivel; accommodation of any height, width speaker system; nipping pins to clamp speaker securely; nonslip neoprene strips\$79/pr

P5230. Similar to P4963 except no thumbscrew tilt angle adjustment. depth adjustable from 6" to 10"\$49/pr

RUSSOUND/FMP

TMS-3 Tape-Recorder Selector

Connects any combination of 3 tape recorders or other line sources to be used single or simultaneously in any combination of functions. All switches silver plated, self-cleaning. Measures 6 3/4"W x 3 1/2"D x 3"H\$55.95

TMS-3W. With walnut side panels\$65.95

TMS-5. Same as TMS-3 except handles 5 sources\$89.95

TMS-5W. With walnut side panels\$99.95

TMS-10. Same as TMS-5 except handles up to 10 inputs. Provides facilities for tape-to-tape duplication without going through preamp or mixer. Measures 16 1/2"W x 3 1/2"D x 3"H\$149.95

TMS-10W/R. With walnut end panels or rack-mount ears\$159.95

SWB-3 Speaker Selector Switch

Connects up to 3 sets stereo speaker systems to any amplifier; will play any or all simultaneously. Internal design assures that load on amplifier never falls below 4 ohms. Measures 6 3/4"W x 3 1/2"D x 3"H\$39.95

SWB-3W. With walnut end panels\$49.95

SWB-4. Same as SWB-3 except handles 4 pairs of speaker systems\$54.95

SWB-4W. With walnut end panels\$64.95

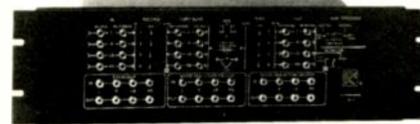
HP-1 High-Power Selection Center

High-power speaker system/amplifier selector connects 1 or 2 stereo amplifiers to up to 4 sets of speaker systems. Maintains no less than 4 ohms amplifier load. Can handle amplifiers rated at up to 100 W. Includes 2 headphone jacks, each with normal/high power switch. Measures 8"W x 4 1/2"D x 4 3/8"H\$99.95

HP-2W. With walnut side panels\$109.95

QT-1 Quad Patching/Control Center

Passive switching center expands tape monitor loop of audio system to accept 2- or 4-channel noise-reduction systems, graphic equalizers, matrix decoders, up to 4 mono, stereo, or quad tape recorders, with switching functions handled through front-panel switches or patch cords; supplied with 16 shielded



patch cords. Front panel switches include record, mix, 2-/4-channel, play, monitor, aux. input, output modes; front-panel patching jacks for source/recorders in, recorders/source copy buss, recorder/monitor out, equalizer in/out, noise reduction encode in/out, noise-reduction decode in/out Rear panel connects all recorders, accessories with 72 RCA type phono pin jacks. Insertion loss <0.5 dB when operating recorders or decoders singly, 6 dB when mixing 2 channels or 2 recorder outputs; walnut vinyl finish; 13 3/4"W x 5"D x 4 1/8"H\$289.95

QT-1 R. Rack-mount version of QT-1; semigloss black metal cabinet; 19"W x 5"D x 5 3/32"H\$289.95

SP-1. Same as QT-1 except for 2-channel systems; switching capacity for up to 4 stereo tape recorders 5 stereo accessories in any combination of recording, playback, monitoring, or dubbing; supplied with 12 shielded patch cords; walnut vinyl finish with semigloss black front panel; 7 3/4"W x 5"H x 4 7/8"D\$189.95

SP-1R. Rack-mount version of SP-1; 7"W x 5"D x 4 1/4"H\$199.95

SD-4 Sound Distribution Center

Accommodates 4 sets of stereo speakers with volume control, independent program selector for each pair; permits precise speaker level balancing for A-B testing. Features individual auto transformer; 10-position amp-output switch for delivery to speakers; all metal case with black front panel; 9 3/4"W x 7 1/2"D x 3"H\$279.95

SD-4W/R. Same as SD-4 except has walnut side panels or rack-mount ears\$289.95

MP-3. Similar to SD-4 except has constant-impedance L-pad controls rated for 35 W audio power or 70 W peak music power; can be used with high-power amps, low-efficiency speaker systems. No individual auto transformer or 10-position amp-output switch\$149.95

FP-36R Patchbay

Features 18 inputs and 18 outputs on front panel; connects any combination of components in any sequence; can be used independently in tape monitor loop or to augment patching capability of QT-1 or SP-1; includes 12 patch cords; semigloss black metal cabinet; rack-mountable; 19"W x 5"D x 1 23/32"H\$149.95

FP-36. FP-36R without rack mounting; walnut wood sides; 13 3/8"W\$139.95

VS-1 Speaker Headphone Volume Control

Switchable speakers/headphones volume control with heavy-duty L pad control; accepts up to 150-W/channel amp outputs; LED power warning indicator; metal case with semigloss black finish; 4 1/8"W x 4 1/2"D x 3"H\$89.95

SANSUI

GX-155 Audio Cabinet

Free-standing cabinet for audio component system has oak-grain vinyl finish; 2 glass doors; record storage area; caster rollers. Measures 36 3/4"H x 18 3/8"W x 16 1/8"D\$220

GX-95 Audio Cabinet

Features 2 glass doors; glass top; caster rollers; headphone output jack. Measures 46 1/16"H x 20 1/8"W x 16 1/4"D\$200

SCOTCH

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\$3.39

Pre-Cut Tabs

SPT-7/32-36. 36 pre-cut 1.0-mil polyester splicing tabs\$1.39

SST-7/32-18. 18 pre-cut aluminized sensing tabs\$1.39

SK-7/32. 12.5 ft of 1.9 mil polyester splicing tape in dispenser kit\$2.29

Head Cleaners

S-C-HC. Cassette head cleaner\$1.79

S-8TR-HC. 8-track head cleaner\$2.99

Record Care System

Applicator with pad, special fluid meters controlled amount of anti-stats, oil removers, friction reducers onto disc to clean, protect records. Applicator attaches to turntable spindle.

Total System\$27.99

Sound Life Fluid/pad\$9.99

Sound Life Fluid\$8.19

H.H. SCOTT

830Z Audio Analyzer

Audio analyzer indicates acoustical changes in speaker system location, optimizes tape deck bias, equalization, record levels, tape compatibility; measures peak sound pressure level, dynamic range of program material; hooks into amplifier, receiver, tape deck input. Features 110-LED visual display grid covering 32-16,000 Hz in 2, 3, or 4 dB range switch; 10-octave band oscillator level control; SPL, flat, A weighting, C weighting mode switch; external mic/internal mic/aux/calibration input select switch; independent mic, line level controls; LED dimmer; includes remote condenser microphone; optional 19" rack-mount handle\$600.00

SIGNET

SK301. Liquid stylus cleaning formula\$3.95

SK305. Electronic stylus cleaner\$29.95



SK306. Replacement liquid cleaner for SK305 \$3.95

NEED MORE INFORMATION?

Write directly to the manufacturer or distributor. A list of names and addresses starts on page 188.

- SK303. Vibration Damping compound \$6.95
- SK401. Maximum transfer high-conductivity cable assembly \$24.95
- SK402. Litz wire interconnector in 1-meter lengths; low capacitance \$36
- SK405. Maximum transfer head shell wire set \$7.95
- SK501. Automatic tonearm lift \$22.95
- SK503. Disc stabilizer \$22.95
- SK505. Straight-arm headshell \$15.95

SONY

MX-100 Microphone Amplifier

Four-channel microphone amplifier with input selector, pan pots, low-cut filter. Designed for use with Sony TC-K777 cassette deck but can be used with all Sony home decks \$300.00

RM-65 Recording Synchronizer

Automatically cues select Sony turntables with select Sony tape decks. For use with PS-X800, PS-X600, PS-X55S, LX-5, LX-3 turntables, some Sony cassette decks \$25.00

PT-77 Programmable Timer

8-event/7-day programmable timer with 60-minute sleep function. Features 2 switched ac outlets rated 1000 W maximum; 10-min backup battery; designed to complement Sony ST-J75 programmable tuner but can be used as control center for entire hi-fi system \$195.00

PT-55 Programmable Timer

1-event/1-day programmable timer with 60-min sleep function. Features 2 switched ac outlets rated at 500 W maximum \$95.00

BE-100 Cassette Eraser/Winder

Silently removes all magnetic recordings from all cassettes, including metal with > 65 dB erasure. Wind time within 170 seconds with C60 cassette \$70.00

AN-300 Outboard FM Antenna

Highly sensitive tuneable outboard FM antenna with 90° rotation flexibility. Accepts automatic control signal from Sony STR-VX6, STR-VX5, STR-VX4 receivers, while manual override allows usage with other separate tuners receivers \$80.00

WS-300 Speaker Stands

Deluxe speaker stands designed for Sony SSU-60, SSU-50 speaker systems \$70.00/pr

SB-5335 Control Center

Control center for multiple-component hi-fi systems. Features connection for selection of turntables, tuners, auxiliary units (total 3 amperes); sources: tape recorders, 2 external adaptors, 5 speaker systems \$300.00

SB-500 Tape Deck Switcher

Tape deck switching unit with copying facility for up to 3 decks \$75.00

SB-300. Tape deck switcher/copier for up to 3 decks \$75.00

SOUNDAIDS

Cassette Storage Cabinet

Wood cabinet with lock-jointed corners, 4 hand-fitted 68-cassettes capacity drawers with recessed sides for easy removal of cassettes; designed to fit standard record shelves, to function as record dividers, support shelves (with more than one cabinet); 12 $\frac{3}{4}$ "H - 12 $\frac{1}{16}$ "D x 5 $\frac{1}{16}$ "W \$48.00

Record Storage Cabinet Blueprints

Plans, instructions, order forms for building vertical, horizontal record storage units from pre-cut plywood; each element braces, is braced by, 2 others; no tools required; white glue, masking tape needed for assembly; vertical unit 6'6"H x 21 $\frac{3}{4}$ "W x 13 $\frac{3}{4}$ "D; horizontal unit 2'10 $\frac{1}{4}$ "H x 8'1 $\frac{1}{2}$ "W x 14"D \$5.00

SOUND GUARD

Total Record Care System

Includes Record Preservation Kit and Record Cleaner

Kit \$21.95

Record Preservation Kit

Dry lubricant spray containing antistatic materials; provides record surfaces with a strong protective coating without impairing record fidelity; kit includes 2-oz special-formulation liquid pump spray, buffing pad, and grooming pad; one kit treats about 30 LPs both sides \$12.95

2-oz Record Preservation refill \$6.50

6-oz refill \$15.95

Record Cleaner Kit

For both heavy duty record cleaning and light touchup work; kit includes 2-oz cleaning-solution pump spray, cellulose contaminant-extractor pad, velvet cleaning pad, foam grooming pad and instruction booklet \$11.95

2-oz Record Cleaner refill \$5.50

6-oz Record Cleaner refill \$13.50

Stylus Care Kit

Stylus maintenance system includes cleaning solution and all necessary tools: 1-oz bottle of Stylus Cleaner with applicator, dry brush, bulb air blower, and 3x and 10x Bausch and Lomb magnifier; components housed in storage unit \$9.99

Record Care Work Pad

Rubberized neoprene lint-and-static-free work pad for record cleaning and preservation without interference from contaminants; high friction coefficient for holding records, fluid receptacle area for excess cleaner, easily washable; hands-free operation \$7.99

Record Buffer

High-density velvet pile designed for wet cleaning and dry preening of discs; inverted mushroom handle \$3.99

STANTON

310 Professional Phono Preamp/Equalizer

Designed to correctly interface all Stanton, selected magnetic cartridges for optimum playback of records, calibration of audio systems. Features universal mounting brackets; selection of flat or NAB postemphasis curves; switchable rumble filter; individual gain adjust, high-frequency responses; capacitive cartridge loading trim; 117-230 V ac 50/60 Hz operation; immunity to external ac fields. Output 20 dBm maximum; frequency response 20-20,000 Hz \pm 0.5 dB flat and NAB modes; THD <0.05% at 20 dBm; output source impedance 5 ohms; designed for loads of 150 ohms or greater; gain 30-60 dB, adjustable; maximum input level 120 mV at 1 kHz; input resistance 47k ohms; separation 60 dB minimum, 20-20,000 Hz; 7 $\frac{1}{2}$ "W x 5"D x 2 $\frac{1}{4}$ "H \$240

BA-26 Phono Head Amplifier

Designed to amplify signals from any low-output, low-impedance cartridge to level of conventional magnetic cartridges. Flat response down to 5 Hz; insensitive to hum pickup; voltage gain 26 dB; frequency response 10-100,000 Hz \pm 5 dB; THD <0.08% at 200 mV output; separation 60 dB; maximum input level 0.03 V rms; input/output impedance 6k/1.2k ohms; powered by 3 C cells; 1.2 lb \$189

RC5PLUS Record Cleaner

Kit contains cleaning fluid that safely dissolves oily film, loosens microduct, other debris, leaves no residue. Contains antistatic ingredient. Comes with "Polarized" brush, conductive handle. Cleans 300 record sides \$16.95

2-oz refill \$5.95

8-oz refill \$9.50

RC4 2-oz refill \$3.95

RC4 8-oz refill \$8.95

NEW! **RC5 PLUS™**

**CLEANS RECORDS
ELIMINATES STATIC
REDUCES
NOISE**

THE ALL-IN-ONE CLEANER



Terminal Drive, Plainview,
New York 11803

STANTON
THE CHOICE OF THE PROFESSIONALS

CIRCLE NO. 59 ON READER SERVICE CARD

8

ACCESSORIES



RC4 16-oz refill	\$14.95
RC4 replacement applicator pad	\$8.95
1-Oz stylus cleaning fluid	\$2.50

Stylus Cleaning & Inspection Kit

Consists of 2-fl-oz liquid stylus cleaning fluid, nylon brush, long-handed mirror, magnifying glass; cartridge does not have to be removed during stylus cleaning

SC4 Mini Stylus Cleaning Kit	\$7.95
7.5 solution refill	\$1.50

SUPEREX

PLM-1 Power Level LED Display

Features separate 12-LED bargraphs per channel calibrated for power output from 0.12-256, 0.03-64 W with switchable peak/average display, 4/8 ohms, high low listening sensitivity selectors; accuracy >95%; response tracking linear 10 Hz-10MHz

TSB-3 Graphic Tape Switching Console

Stereoc tape switching console features color-coded tape duplication processes graphically illustrated on front-panel; 3-deck capability; functions include duplicating recordings or broadcasting on 3 tape decks, mixing 2 sources for documentary effect, transfer of program material from one tape deck to another while monitoring, recording additional different program source; inputs, outputs include stereo, one amplifier, 3 tape decks or auxiliary components; dubbing bank for use with any stereo amplifier or receiver with monitoring facilities; controls include 3 input, 3 output; 1 output line selector switch; rear-panel phone jacks; 6 1/4" W x 4 3/4" D x 2 1/4" H

SWITCHCRAFT

645 PL. Control switching center allows use of any combination of up to 6 speaker systems. Equipped with pushbutton/depression locking system

310 PL. 2-conductor phone jack input with 2-conductor phone plug output fitting standard non-recessed jacks

311 PL. Similar to 310 PL except has long plug for recorders with recessed jacks

670 PL. Control switch to select either or both main, 2 remote speaker systems

668 PL. Control switch to select both channels of 1 of 3 sources to drive one pair outputs

TDK

CP-36 Cassette Cabinet

Holds up to 36 audio cassettes in 3 separate drawers that hold 12 cassettes each

HD-11 Tape Head Demagnetizer

Portable hand-held universal tape head demagnetizer designed for open-reel or cassette tape decks; operating time < 1 second; red ON, green READY to USE LEDs; side-mounted activator switch; plastic-covered metal tips; includes 2 1.5-V cells

HD-01 Head Demagnetizer

Automatic head demagnetizer with < 1 second operating time; housed in transparent cassette shell with



LED to show demagnetization is taking place; self-contained battery

HC-1 Head Cleaner

Nonabrasive cassette tape machine head cleaner

Empty Tape Reels

AR-7M. 7" Metal reel	\$8.99
AR-10M. 10 1/2" Metal reel	\$13.99

TEAC

E-2 Bulk Eraser

Handles 7" and 10 1/2" reels. Features pilot light, circuit breaker

E-3 Tape-Head Demagnetizer

Removes residual magnetism from tape heads, guides

RMK Recorder Maintenance Kit

Kit includes 3 oz HC-1 tape-head cleaner, 3 oz rubber cleaner, 3 oz stainless polish, cotton swabs, cleaning cloth

Flight Cases

Tough vinyl-covered wooden trunk-type flight cases for recorder transports (Teac 2340 Series) meet Air-line Transport Association specifications.

FC-24. For 2340 series decks	\$170.00
FC-34. For A-3440 tape deck	\$170.00
RC-3. For Tascam Model 3 mixer	\$180.00
FC-5. For Tascam Model 5A mixer	\$225.00
FC-8. For Tascam 80-8 and 40-4 decks ..	\$225.00

PB-64 Patch Bay

Has 64 RCA phono connectors on front, rear panels. Compatible with low-loss cables

Metal Reels and Hubs

RE-1002. 10 1/2" NAB metal reel for 1/4" tape \$15.00
TZ-612B. 1/4" NAB hub adaptors; quick lock

TECHNICS

SH-4060 Audio Timer

Programmable 24-hour timer with day-of-week indi-

cator. Features digital FL time display; preset channel indicator; outlet power/timer operation indicator; timer cancel key; quartz-locked clock, programmable for 1 time in 24-hour, 2 times in 7-day periods; power ca-



capacity 600 W maximum; power consumption 7 W; 16 1/16" W x 6 1/32" D x 2 1/16" H; 3.75 lb. \$150.00

SH-4020 Audio Timer

Timer features digital 24-hour time display; outlet indicator; auto/manual switch; seconds capability. Power capacity 600 W maximum; power consumption 7 W; 16 1/16" W x 6 1/32" D x 2 1/32" H; 3.75 lb. \$100.00

Component Racks

SH-940A. Home audio-system component cabinet with 3 equipment compartments and 2 adjustable shelves. Features bottom record storage compartment with full-length glass door, simulated walnut-grain finish

Universal Headshells

SH-90S. Combination headshell/adaptor for direct plug-in "universal" headshell tonearms

SH-100. Diecast aluminum universal plug-in headshell with calibrated overhang cursor, gold-plated contacts. For Technics turntables

SH-98D. Similar to SH-100 except no calibrated overhang cursor

VECTOR RESEARCH

VCC-10 Floor Cabinet

Equipment cabinet with 2 glass doors

Remote-Control Units

VRC-1. Wired unit for VRX-9000 receiver .. \$75.00
VRC-2. Wired unit for VCX-500/600 cassette decks .. \$75.00
VRC-11. Wired unit for VRX-9500 receiver .. \$85.00
VRC-12. Wired unit for VRX-8000 receiver .. \$85.00
VRC-21. Wired unit for VCX-800 cassette deck .. \$85.00
VRC-22. Wired unit for VCX-400/510 cassette decks .. \$85.00

Cabinets

VKD-1A. For all Vector receivers .. \$35.00
VKD-2A. For all Vector cassette decks .. \$35.00
VKD-3. For Vector equalizer .. \$35.00

Miscellaneous

VMA-1. Rack mount adapter for all Vector receivers, cassette decks .. \$35.00
VMA-1A. Rack mount adapter for Vector equalizer .. \$35.00
VMS-1. Rack mount spacer for all Vector models .. \$15.00

YAMAHA

DT-2 Digital Clock/Timer

Can be used to preset any predetermined turn on/off time. Includes sleep function

NOTICE TO READERS

Prices of items described are suggested prices only and are subject to change without notice. Actual selling prices are determined by the dealer.

DIRECTORY of MANUFACTURERS

(Continued from page 226.)

- NIKKO ELECTRIC CORP. OF AMERICA
320 Oser Ave., Hauppauge, NY 11787
- NORTRONICS CO., INC. (Recorder Care Div.)
8101 10 Ave. N., Minneapolis, MN 55427
- NUMARK ELECTRONICS
503 Rantan Center, Edison, NJ 08817
- O'SULLIVAN INDUSTRIES, INC.
19th & Gulf Sts., Lamar, MO 64759
- OHM ACOUSTICS CORPORATION
241 Taaffe Pl., Brooklyn, NY 11205
- OMNISONIX, LTD.
P.O. Box 430, Middletown Ave., Northford, CT 06472
- ONKYO U.S.A. CORP.
42-07 20 Ave., Long Island City, NY 11105
- OPTONICA, Sharp Electronics
10 Keystone Pl., Paramus, NJ 07652
- ORTOFON (Tannoy-Ortoton, Inc.)
122 Dupont St., Plainview, NY 11803
- PANASONIC (Div. Matsushita Electric Corp. of America)
One Panasonic Way, Secaucus, NJ 07094
- PD MAGNETICS
Madison Bldg., 604 W 10 St., Wilmington, DE 19081
- PAISLEY RESEARCH LTD.
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1301 Ave. of Americas, New York, NY 10019
- PHASE LINEAR (Div. Int'l. Jensen Inc., an Esmark Co.)
20121 48 Ave. W., Lynnwood, WA 98036
- PHASE TECHNOLOGY
14 Vanderveer Ave., Suite 200A, Port Washington, NY 11050
- PHILIPS (AKG Acoustics Inc.)
77 Sellick St., Stamford, CT 06902
- PICKERING & COMPANY, INC.
101 Sunnyside Blvd., Plainview, NY 11803
- PIONEER, U.S. Pioneer Electronics Corp.
85 Oxford Dr., Moonachie, NJ 07074
- PIONEER ELECTRONICS OF AMERICA
1925 E. Dominguez St., Long Beach, CA 90810
- PLATTER PAD
8929 William, Omaha, NB 68124
- PML (Ercona Corporation)
125 Wilbur Pl., P.O. Box 161, Bohemia, NY 11716
- POLK AUDIO
1205 South Carey St., Baltimore, MD 21230
- POLY/POWER
1791 Whittier Ave., Costa Mesa, CA 92627
- PREMIER (Sumko)
P.O. Box 5046, Berkeley, CA 94705
- PYLE INDUSTRIES, INC.
501 Center St., Huntington, IN 46750
- QUAD (Acoustical Manufacturing Co., Ltd.)
8 E. Erie St., Chicago, IL 60611
- REALISTIC (Div. Tandy Corp.)
1300 One Tandy Center, Fort Worth, TX 76102
- RECOTON CORPORATION
46-23 Crane St., Long Island City, NY 11101
- RG DYNAMICS, INC.
4448 W. Howard St., Skokie, IL 60076
- RKO TAPE CORP.
3 Fairfield Crescent, W. Caldwell, NJ 07006
- ROBINS DIVISION (Benjamin Electroproducts, Inc.)
75 Austin Blvd., Commack, NY 11725
- ROTEL OF AMERICA INC.
1055 Saw Mill River Rd., Ardsley, NY 10502
- RTR INDUSTRIES, INC.
8116 Deenng Ave., Canoga Park, CA 91304
- RUSSOUND/FMP, INC.
P.O. Box 2369, Woburn, MA 01888
- SAE (Scientific Audio Electronics, Inc.)
701 E. Macy St., Los Angeles, CA 90012
- SANSUI ELECTRONICS CORP.
1250 Valley Brook Ave., Lyndhurst, NJ 07071
- SANYO ELECTRIC INC.
1200 W. Artesia Blvd., Compton, CA 90220
- SCHOEPS (Posthum Recordings)
142 W. 26 St., 10 Floor, New York, NY 10001
- SCOTCH (3M Company)
3M Center, St. Paul, MN 55101
- S.H. SCOTT, INC.
20 Commerce Way, Woburn, MA 01888
- SENNHEISER ELECTRONICS CORP.
10 West 37 St., New York, NY 10018
- SHAHNIAN ACOUSTICS LTD.
4 Selden Court, Selden, NY 11784
- SHARP ELECTRONICS CORP.
10 Keystone Pl., Paramus, NJ 07652
- SHERWOOD TRADING CORPORATION
500 E. Carson Plaza Dr., Suite 221, Carson, CA 90745
- SHURE BROTHERS, INC.
222 Hartrey Ave., Evanston, IL 60204
- S.I.A.R.E. LOUDSPEAKERS CORP. (c/c Benjamin Electroproducts, Inc.)
75 Austin Blvd., Commack, NY 11725
- SIGNET DIVISION, Audio-Technica U.S., Inc.
1221 Commerce Dr., Stow, OH 44224
- SNELL ACOUSTICS
10 Prince Place, Newburyport, MA 01950
- SONUS by SONIC RESEARCH, INC.
27 Sugar Hollow Rd., Danbury, CT 06810
- SONY INDUSTRIES
9 W. 57th St., New York, NY 10019
- SOUNDAIDS
395 Riverside Dr., New York, NY 10025
- SOUND CONCEPTS INC.
P.O. Box 135, Brookline, MA 02146
- SOUNDCRAFTSMEN
2200 S. Ritchey, Santa Ana, CA 92705
- SOUND DYNAMICS (AUDIO PRODUCTS INT'L)
161 Don Park Rd., Markham, Ontario, Canada L3R 1C2
- SOUND GUARD CORPORATION
348 SW 13 Ave., Pompano Beach, FL 33060
- SPARKOMATIC CORP.
Millford, PA 18337
- SPEAKERLAB, INC.
735 N. Northlake Way, Seattle, WA 98103
- STANTON MAGNETICS, INC.
Terminal Dr., Plainview, NY 11803
- STUDER REVOX AMERICA, INC.
1425 Elm Hill Pk., Nashville, TN 37210
- SUMIKO
P.O. Box 5046, Berkeley, CA 94705
- SUPEREX ELECTRONICS CORP.
151 Ludlow St., Yonkers, NY 10705
- SUPEX by SUMIKO, INC.
P.O. Box 5046, Berkeley, CA 94705
- SUPERSCOPE by MARANTZ (Superscope, Inc.)
20525 Nordhoff St., Chatsworth, CA 91311
- SWITCHCRAFT, INC.
5555 North Elston Ave., Chicago, IL 60630
- SYNERGISTICS (RTR Industries, Inc.)
8116 Deenng Ave., Canoga Park, CA 91304

(Continued on page 165.)



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9

SPEAKER SYSTEMS

AAL

Equation Series

EQ7 Speaker System

Two-way speaker system with 6½" foam surround woofer with 1" voice coil and 2" cone-type phenolic-ringing tweeter. Features vinyl-laminated cabinet. Frequency range 50-22,000 Hz; impedance 8 ohms nominal; crossover 4 kHz; sensitivity 87 dB at 1 kHz, 1 W; input power 5-25 W rms; 12½"H × 7¼"W × 7"D; 20 lb. \$150/pr

EQ9 Speaker System

Two-way speaker system with 8" foam-surround woofer with 1" voice coil and 2" cone-type tweeter. Features vinyl-laminated cabinet. Frequency range 35-22,000 Hz; impedance 8 ohms nominal; crossover 4 kHz; input power 5-25 W; 21"H × 12"W × 8½"D; 24 lb. \$178/pr

EQ11 Speaker System

Two-way speaker system with 10" foam-surround woofer with 1½" voice coil and 2" cone-type tweeter. Features vinyl-laminated cabinet. Frequency range 27-22,000 Hz; impedance 8 ohms nominal; crossovers 1 and 5 kHz; sensitivity 92 dB at 1 kHz, 1 W; input power 5-50 W; 23"H × 14½"W × 11"D; 34 lb. \$270/pr

EQ13 Speaker System

Three-way acoustic-suspension speaker system with 12" foam-surround woofer with 1½" voice coil, 5¼" cone-type midrange driver with 1" voice coil, 2" cone-type double tweeter. Frequency range 25-22,000 Hz; impedance 8 ohms nominal; crossovers 1 and 5 kHz; sensitivity 93 dB at 1 W, 1 kHz; input power 5-50 W; 24"H × 18¼"W × 11"D; 42 lb. \$350/pr

EQ15 Speaker System

Three-way speaker system with 15" foam-surround woofer with 1½" voice coil, 5¼" cone-type midrange driver with 1" voice coil, 2" cone-type double tweeter. Frequency range 20-20,000 Hz; impedance 8 ohms nominal; crossovers 1 kHz and 5 kHz; sensitivity 95 dB at 1 W, 1 kHz; input power 5-65 W; 28"H × 19"W × 11"D; 47 lb. \$398/pr

EQ17 Speaker System

Three-way speaker system with dual 8" foam-surround woofers with 1" voice coils, 5½" cone-type midrange driver with 1" voice coil, 2" cone-type tweeter. Frequency range 25-22,000 Hz; impedance 4 ohms nominal; crossovers 1 kHz and 5 kHz; sensitivity 96 dB at 1 W, 1 kHz; input power 5-65 W; 32¼"H × 14"W × 11"D; 42 lb. \$370/pr

EQ21 Speaker System

Three-way acoustic-suspension speaker system with dual 10" foam-surround woofers with 1½" voice coils, 5¼" cone-type midrange driver, 2" cone-type tweeter. Frequency range 25-22,000 Hz; impedance 4 ohms nominal; sensitivity 96 dB at 1 W, 1 kHz; power input 5-75 W; 34½"H × 15¼"W × 11"D; 50 lb. \$438/pr

EQ25 Subwoofer

Dual 8" foam-surround woofers with 1½" voice coil in a subwoofer system. Frequency range 10-250 Hz; impedance 8 ohms nominal; sensitivity 87 dB at 1 W, 200 Hz; input power 5-100 W; 16½"H × 16"W × 16"D; 50 lb. \$249

Digital Ready Series

dr/S 6000 Speaker System

High-performance speaker system housed in canted cabinet to achieve optimal acoustic projection in 4-



way design containing 15" woofer with 1½" voice coil, 5" sealed-back, ferro-fluid midrange driver, 3½" cone and 3" piezoelectric tweeters. Frequency range 20-22,000 Hz; crossovers 1.5 and 5 kHz; power range 10-110 W rms; impedance 8 ohms; 29"H × 18½"W × 15"D; 61 lb. \$279

dr/S 5000 Speaker System

Vented bass-reflex 4-way speaker system with 12" woofer with 1½" voice coil, 5" sealed-back, ferro-fluid midrange, 3½" cone and 3" piezoelectric tweeters in vented bass reflex design. Frequency range 25-22,000 Hz; crossovers 1.5 and 5 kHz; power range 10-100 W rms; impedance 8 ohms; 27"H × 16"W × 11"D; 37 lb. \$219

dr/S 4000 Speaker System

Air-suspension speaker system with 12" woofer with 1½" voice coil, 5" sealed-back midrange, 3½" cone tweeter. Frequency range 30-20,000 Hz; crossovers 2.5 and 5 kHz; power range 5-75 W rms; impedance 8 ohms; 27"H × 16"W × 11"D; 36 lb. \$189

dr/S 2000 Speaker System

Air-suspension speaker system with 10" woofer with 1½" voice coil, 5" sealed-back midrange, 3½" cone tweeter. Frequency range 35-20,000 Hz; crossovers 2.5 and 5 kHz; power range 5-75 W; impedance 8 ohms. 24"H × 15"W × 10½"D; 28 lb. \$139

dr/S 3000 Speaker System

Air-suspension speaker system with 12" woofer with 1" voice coil, 5" sealed-back midrange, 3½" cone tweeter. Frequency range 40-20,000 Hz; crossovers 2.5 and 5 kHz; power range 5-40 W rms; impedance 8 ohms; 24"H × 15"W × 10"D; 26 lb. \$99

dr/S 1000 Speaker System

Air-suspension speaker system with 8" woofer with 1" voice coil, 3½" cone tweeter. Frequency range 45-20,000 Hz; crossover 5 kHz; power range 5-30 W rms; impedance 8 ohms; 23"H × 11½"W × 8"D; 32 lb. \$99

dr/S 800 Speaker System

Air-suspension speaker system with 8" woofer with 1" voice coil, 3½" cone tweeter. Frequency range 50-20,000 Hz; crossover 5 kHz; power range 5-25 W rms; impedance 8 ohms; 18½"H × 11¼"W × 8"D; 30 lb. \$89

ACCULAB by RTR INDUSTRIES

480A Speaker System

Passive-radiator 4-way speaker system with 12" woofer, 12" passive radiator, 3¼" midrange, 2¼" tweeter, piezoelectric supertweeter. Housed in vinyl tower enclosure. Power range 5-60 W; impedance 8 ohms; 15"W × 38"H × 10¼"D. \$325

440A Speaker System

Acoustic-suspension 4-way speaker system with 12" woofer, 3¼" cone midrange, 2¼" cone tweeter, 3½" solid-state supertweeter. Features controlled dispersion pattern; vinyl finish; brown cloth grille. Frequency response 33-30,000 Hz ± 4 dB; crossovers 1.5, 7.5, and 10 kHz; efficiency 91 dB SPL/W/m; power range 5-60 W continuous; impedance 8 ohms; 25½"H × 14¼"W × 11"D. \$275

340A Speaker System

Acoustic-suspension 3-way speaker system with 12" woofer, 3¼" cone midrange, 2¼" cone tweeter. Features controlled dispersion pattern; vinyl finish; brown cloth grille. Frequency response 33-18,500 Hz ± 4 dB; crossovers 1.5 and 7.5 kHz; efficiency 91 dB SPL/W/m; power range 5-50 W continuous; impedance 8 ohms. 25½"H × 14¼"W × 11"D. \$225

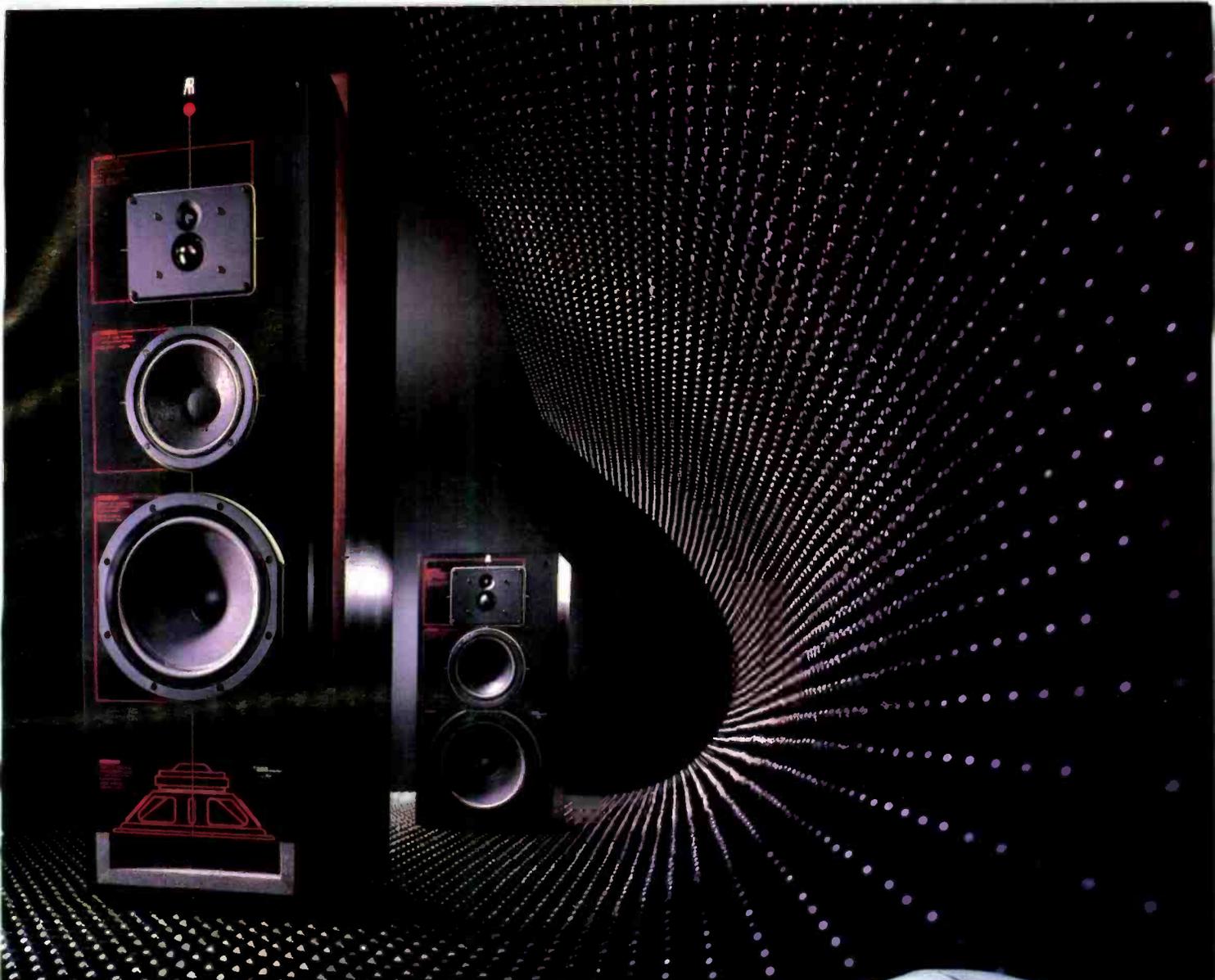
320A Speaker System

Acoustic-suspension 3-way speaker system with 10" woofer, 3¼" cone midrange, 2¼" cone tweeter. Features controlled dispersion pattern; vinyl finish; brown cloth grille. Frequency response 40-18,500 Hz ± 4 dB; crossovers 2 and 7.5 kHz; efficiency 91 dB SPL/W/m; power range 5-40 W continuous; impedance 8 ohms. 22½"H × 13"W × 10½"D. \$150

220A. Similar to 320A except 2-way system minus midrange driver; crossover 2 kHz; efficiency 89.9 dB SPL/W/m; power range 5-30 W. \$125

ACOUSTAT

Professional Series

The image features two tall, dark-colored speakers on the left. The leftmost speaker is shown in a cutaway view, revealing its internal components: a small tweeter at the top, a midrange driver in the middle, and a large woofer at the bottom. A red wireframe diagram of a speaker's internal structure is shown below the cutaway. To the right, a smaller speaker is visible. The background is a dark space filled with a grid of small, glowing dots. From the speakers, a series of lines radiate outwards, creating a fan-like pattern that suggests sound waves or a sound field. In the bottom right corner, a white silhouette of a human head is shown in profile, facing left, as if listening to the speakers.

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Model Eight Speaker System

Similar to Model Two+Two below except utilizes 2 MK-121 drive units and requires 2 stereo amplifiers. Can produce concert-hall levels in very large rooms and commercial usage. Frequency response 24-20,000 Hz ± 2 dB; minimum power 50 W $\times 4$; nominal impedance 6 ohms; 96"H \times 36"W \times 4"D; 210 lb \$4750/pr

Model Six. Similar to Model 8 except frequency response 26-20,000 Hz; 28"W \times 3 $\frac{1}{2}$ "D; 150 lb \$3750/pr

Model Two+Two Speaker System

Full-range-element electrostatic speaker systems with patented MK-121 drive system in floor-ceiling vertical line-source design. Frequency response 28-20,000 Hz ± 2 dB; maximum output 115 dB SPL at 22 ft; minimum power 50 W; nominal impedance 4 ohms; 96"H \times 20"W \times 3 $\frac{1}{2}$ "D; 105 lb \$1195/pr
Model Four. Similar to Model Two+Two except 59"H \times 36"W \times 4"D; 86 lb \$1995/pr
Model Three. Similar to Model Four except frequency response 30-20,000 Hz; sensitivity 110 dB SPL at 18 ft; 59"H \times 28"W \times 3 $\frac{1}{2}$ "D; 75 lb... \$1595/pr

ACOUSTIC DESIGN GROUP**Triad Speaker System**

System consists of miniaturized bass unit with 8 $\frac{1}{2}$ " subwoofer and pair of bookshelf-size miniature full-



range satellite speaker systems for response down to 24 Hz. Features Time-Alignment® and Extended Low Frequency (ELF)* design. Frequency response 24-21,000 Hz ± 1 -3 dB at nominal levels; crossovers 160 and 6k Hz; power range 10-250 W; impedance 8 ohms; 13 $\frac{1}{2}$ "W \times 8 $\frac{1}{2}$ "H \times 8"D. 9 lb subwoofer; 8 $\frac{1}{2}$ "H \times 5 $\frac{1}{2}$ "W \times 5"D \$450

ACOUSTIC INTERFACE**Sound Prism Speaker System**

Vented-horn speaker system with 18" woofer, 18 $\frac{1}{2}$ " \times 7 $\frac{1}{2}$ " horn midrange, 7 $\frac{1}{4}$ " \times 3" horn tweeter, built-in 1000-W amplifier. Features midrange, tweeter level controls; oiled teak cabinet; black cloth grille. Frequency response 10-20,000 Hz ± 2.5 dB; sensitivity 105 dB SPL/W/m; crossovers 600 and 4.7k Hz; impedance 8 ohms; 78"H \times 36"W \times 21"D; 400 lb \$7500

Sound Portal Speaker System

Vented-horn speaker system with 15" woofer, 16" \times 6" horn midrange, 6" \times 5" horn tweeter. Features midrange, tweeter level controls; oiled oak cabinet; black cloth grille. Frequency response 15-20,000 Hz ± 2.5 dB; crossovers 800 and 4.7k Hz; sensitivity 101 dB SPL/W/m; minimum power 15 W; impedance 8 ohms; 48"H \times 25 $\frac{1}{2}$ "W \times 17"; 175 lb... 1500

Studio Reference Speaker System

Vented speaker system with 12" woofer, 15" \times 4" horn midrange, 5 $\frac{1}{4}$ " \times 2" horn tweeter. Features midrange, tweeter level controls; oiled walnut cabinet; black cloth grille. Frequency response 22-20,000 Hz ± 2.5 dB; crossovers 880 and 4.7k Hz; sensitivity 96 dB SPL/W/m; minimum power 15 W; impedance 8 ohms; 48"H \times 18 $\frac{1}{2}$ "W \times 16"D; 102 lb 790

Professional Series II Speaker System

Vented speaker system with 12" woofer, 2" dome

midrange, 1" dome tweeter. Features midrange, tweeter level controls; oiled walnut cabinet; black cloth grille. Frequency response 29-20,000 Hz ± 2.5 dB; crossovers 800 and 6.6k Hz; sensitivity 95 dB SPL/W/m; minimum power 15 W; impedance 8 ohms; 36"H \times 18 $\frac{1}{2}$ "W \times 16"D; 80 lb \$550

Tremor Subwoofer

Vented subwoofer with 2 12" woofers. Features oiled oak cabinet; black cloth grille. Frequency range 29-200 Hz ± 2.5 dB; sensitivity 96 dB SPL/W/m; minimum power 15 W; impedance 8 ohms; 62"H \times 26"W \times 16"D; 150 lb \$690/pr

Transcendent Speaker System

Vented speaker system with 12" woofer, 1 $\frac{1}{4}$ " dome midrange, 1 $\frac{1}{4}$ " dome tweeter. Features midrange, tweeter level controls; oiled oak cabinet; black cloth grille. Frequency response 38-20,000 Hz ± 2.5 dB; crossover 1.9 kHz; sensitivity 94 dB SPL/W/m; minimum power 15 W; impedance 8 ohms; 24"H \times 16"W \times 14 $\frac{1}{2}$ "D; 51 lb \$325

Intimate Speaker System

Acoustic-suspension speaker system with 10" woofer, 1" dome tweeter. Features tweeter level control; oiled walnut cabinet; black cloth grille. Frequency response 49-20,000 Hz ± 2.5 dB; crossover 4.5 kHz; sensitivity 93 dB SPL/W/m; minimum power 15 W; impedance 8 ohms; 19"H \times 12"W \times 12"D; 29 lb \$220

Shadow Speaker System

Acoustic-suspension speaker system with 8" woofer, 1" dome tweeter. Features black enamel cabinet; black cloth grille. Frequency response 69-20,000 Hz ± 2.5 dB; crossover 4.6 kHz; sensitivity 91 dB SPL/W/m; minimum power 15 W; impedance 8 ohms; 24 $\frac{1}{2}$ "H \times 8 $\frac{3}{4}$ "W \times 8 $\frac{3}{4}$ "D; 18 lb... \$125

Angstrom Speaker System

Acoustic-suspension speaker system with 6 $\frac{1}{2}$ " woofer, 1" dome tweeter. Features black enamel cabinet; black cloth grille. Frequency response 78-20,000 Hz ± 2.5 dB; crossover 5 kHz; sensitivity 90 dB SPL/W/m; minimum power 15 W; impedance 8 ohms; 12 $\frac{1}{4}$ "H \times 6 $\frac{1}{4}$ "W \times 6 $\frac{1}{2}$ "D; 9 lb \$110

ACOUSTIC RESEARCH**Lambda Systems****AR-9LS Speaker System**

Floor-standing columnar acoustic-suspension 4 way speaker system with 5 drivers in vertical array. Fea-



tures 12" forward-firing woofer; 10" downward-firing woofer loaded by bass contour chamber; 8" lower-midrange in subenclosure; 1 $\frac{1}{2}$ " dome upper-midrange and $\frac{1}{4}$ " dome high-range drivers combined in single-magnet structure Lambda driver; oiled-wal-

nut veneer cabinet. Frequency response 28-32,000 Hz -3 dB; efficiency 87 dB SPL/W/m; power range 15-400 W; crossovers 200, 1.1k, 5.5k Hz; impedance 4 ohms; 51 $\frac{1}{2}$ "H \times 16 $\frac{1}{2}$ "W \times 14 $\frac{1}{2}$ "D; 118 lb \$750

AR-98LS Speaker System

Bookshelf/floor-standing acoustic-suspension 4-way speaker system in vertical array design. Features 12" woofer; 8" lower-midrange driver in subenclosure; 1 $\frac{1}{2}$ " dome upper-midrange and $\frac{1}{4}$ " dome tweeter combined in single-magnet structure Lambda driver; 2-position switch to adjust frequency response for floor/shelf placement; oiled-walnut veneer cabinet. Frequency response 39-32,000 Hz -3 dB; crossovers 200, 1.1k, 5.5k Hz; efficiency 87 dB SPL/W/m; power range 15-250 W; impedance 4 ohms; 29 $\frac{1}{2}$ "H \times 15 $\frac{1}{2}$ "W \times 10 $\frac{1}{2}$ "D; 63 lb. \$450

High-Tech Series**AR-58S Speaker System**

Floor-standing 4-way speaker system with 12" woofer, 1 $\frac{1}{2}$ " dome midrange, $\frac{1}{4}$ " cone tweeter. Crossovers 700 and 7.5k Hz; sensitivity 90 dB SPL/W/m; power range 15-200 W; 27"H \times 13 $\frac{3}{16}$ "W \times 10 $\frac{1}{2}$ "D \$325

AR93S Speaker System

Floor-standing 3-way acoustic-suspension speaker system with 4 drivers: 2 8" side-firing woofers, 8" acoustic-suspension midrange driver in subenclosure, 1 $\frac{1}{4}$ " liquid-cooled cone tweeter in vertical array. Low frequency response -3 dB at 44 Hz; crossovers 350 and 2k Hz; efficiency 87 dB SPL/W/m; maximum recommended power 125 W continuous; impedance 6 ohms; Acoustic Blanket™ behind front grille; black molded cap and base; 30 $\frac{3}{4}$ "H \times 14"W \times 10 $\frac{3}{4}$ "D \$260
AR94S. Similar to AR93 except has 3 vertically-aligned drivers consisting of one 8" front-firing woofer, 8" woofer/midrange driver, 1 $\frac{1}{4}$ " liquid-cooled cone tweeter \$220

AR48S Speaker System

Acoustic-suspension 3-way bookshelf/floor-standing speaker system with 10" woofer, 4" cone midrange driver in subenclosure, 1" liquid-cooled dome tweeter in vertical array. Low frequency response -3 dB at 45 Hz; crossovers 400 and 2.5k Hz; efficiency 87 dB SPL/W/m; maximum power 100 W continuous; impedance 6 ohms; walnut grain vinyl veneer finish, brown cloth grille; 25"H \times 13 $\frac{3}{16}$ "W \times 10 $\frac{1}{2}$ "D \$200

AR38S Speaker System

Acoustic-suspension speaker system with 10" woofer, 1 $\frac{1}{4}$ " liquid-cooled cone tweeter in vertical array. Low frequency response -3 dB at 45 Hz; crossover 2 kHz; efficiency 88 dB SPL/W/m; maximum power 100 W continuous; impedance 8 ohms; walnut grain vinyl veneer finish, brown cloth grille; 24"H \times 13 $\frac{1}{2}$ "W \times 10 $\frac{1}{2}$ "D \$150

AR28S Speaker System

Acoustic-suspension bookshelf/floor standing speaker system with 8" woofer, 1" liquid-cooled dome tweeter in vertical array. Low frequency response -3 dB at 50 Hz; crossover 2 kHz; efficiency 87 dB SPL/W/m; maximum power 100 W continuous; impedance 6 ohms; walnut-grain veneer finish, brown cloth grille; 21 $\frac{1}{16}$ "H \times 11 $\frac{1}{4}$ "W \times 7 $\frac{7}{32}$ "D... \$125

AR18S Speaker System

Acoustic-suspension bookshelf speaker system with 8" woofer and 1 $\frac{1}{4}$ " liquid cooled cone tweeter in vertical array. Low frequency response -3 dB at 62 Hz; crossover 2 kHz; efficiency 88 dB SPL/W/m; maximum power 100 W continuous; impedance 8 ohms; walnut-grain vinyl veneer finish, brown cloth grille; 16 $\frac{1}{2}$ "H \times 9 $\frac{3}{4}$ "W \times 6 $\frac{1}{16}$ "D \$90

Miniature Speaker**AR1MS Mini Speaker System**

Acoustic-suspension 2-way miniature speaker system with 3 $\frac{1}{4}$ " magnetic-fluid-treated hemispheric dome tweeter, 4" long-throw woofer. Features textured grey

The number one selling audiophile loudspeaker in Japan isn't Japanese.

Over the years, Japan has introduced some of the most innovative audio products in the world. So it's not surprising that the Japanese are highly critical when it comes to selecting components for their own homes. What might surprise you, however, is that the number one selling audiophile loudspeaker in Japan isn't Japanese. It's made in the U.S.A. by JBL.

In fact, in a recent survey conducted by one of that country's most highly regarded audio magazines,* JBL was voted the most desired loudspeaker by an amazing 44% of those surveyed. The closest competitor received only 11.9%. Even more importantly, over 25% indicated that they already owned JBL speakers.

To find out a few more surprising facts about JBL, visit the audio specialists at your local JBL dealer.

**Stereo Sound*, Summer 1981 Speaker Systems Market Research



First with the pros.

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9 SPEAKER SYSTEMS

aluminum cabinet, black grille. Power capacity 75 W; 7 $\frac{1}{8}$ "H x 4 $\frac{1}{4}$ "W x 4 $\frac{1}{32}$ "D.....110

ADS

L2030 Monitor Speaker

Acoustic-suspension floor-standing professional 3-way monitor speaker system with 2 14" high-compliance Stiffite cone woofers in separate chambers, 2" soft-dome midrange, 2" auxiliary soft-dome midrange drivers, 1" samarium-cobalt soft-dome tweeter. Features single-switch biamp conversion; front-panel tweeter, midrange level controls; midrange configuration switchself-resetting circuit breakers for tweeter, midrange protection; mirror-symmetrical angled midrange/high-frequency baffles for minimum diffraction; high-grade walnut finish with solid walnut edge inserts and removable black cloth grille. Optional bargraph power level indicators available. Frequency response 22-20,000 Hz \pm 3 dB; crossovers 450 and 4k Hz; efficiency 95 dB SPL/W/m; power range 300 W nominal, 1200 W peak program; impedance 6 ohms; 55 $\frac{1}{8}$ "H x 27 $\frac{1}{4}$ "W x 13 $\frac{1}{4}$ "D. Available in mirror-symmetrical matched pairs only \$2095

L1530 Monitor Speaker System

Acoustic-suspension 3-way floor-standing professional monitor speaker system with 2 10" high-compliance Stiffite woofers in separate chambers, 2" soft-dome midrange, 1" samarium-cobalt soft-dome tweeter. Features single-switch biamp conversion; tweeter level switch; tweeter, midrange protection fuses; mirror symmetrical angled midrange/high-frequency baffles for minimum diffraction; walnut-veneer finish with radius-edged solid walnut corner inserts, removable black cloth grille. Frequency response 25-20,000 Hz \pm 3 dB; crossovers 500 and 4k Hz; sensitivity 95 dB SPL/W/m; power rating 150 W nominal, 300 W peak program; impedance 6 ohms; 50 $\frac{1}{8}$ "H x 23 $\frac{1}{4}$ "W x 12 $\frac{1}{4}$ "D \$1250

L1230 Monitor Speaker

Floor-standing three-way professional acoustic-suspension monitor speaker system with 2 8" high-compliance Stiffite cone woofers in separate chambers, 2" soft-dome midrange, $\frac{3}{4}$ " soft dome tweeter. Features tweeter level control; biamp conversion switch; tweeter protection fuse with built-in spare; mirror-symmetrical angled mid/high-frequency baffles for minimum diffraction; high-grade walnut finish with solid walnut edge inserts and removable black cloth grille. Frequency response 30-20,000 Hz \pm 3 dB; crossovers 550 and 4k Hz; sensitivity 94 dB SPL/W/m; power rating 100 W nominal, 200 W peak program; nominal impedance 6 ohms; 40 $\frac{1}{4}$ "H x 19 $\frac{1}{4}$ "W x 9 $\frac{3}{4}$ "D. Available in mirror-symmetrical matched pairs only \$750

SubSat 2300 Subwoofer/Satellite

Modular system consisting of 2 ADS 400 miniature speaker systems (see listing), PB-1500 powered bass module, C-1500 bass system control. PB-1500: end-table-designed subwoofer with 2 10" high-compliance Stiffite cone woofers in separate acoustic-suspension chambers and 2 100-W continuous power amplifiers; frequency response (dependent on C-1500 settings) -3 dB at 35 Hz without dynamic bass extender, -3 dB at 25 Hz at maximum bass extension; efficiency 94 dB SPL/W/m; maximum output 114 dB SPL; amplifier output 100 W/ch continuous sine wave into 4 ohms, both channels driven 20-200 Hz at 0.08% THD and IM distortion; amplifier S/N ratio 94 dB, A weighted; input sensitivity 500mV; damping factor 50 at 50 Hz, 4 ohms; high-grade walnut or oak finish with solid walnut/oak edge inserts and removable black cloth grille. C-1500: bass system control connects between preamp and power amp or in tape monitor loop of integrated amp or receiver (existing amp drives ADS 400 satellite speakers); incorporates electronic crossover with 4 crossover frequencies, continuously variable high-pass Q

(0.7-1.4); optoelectronic dynamic bass extender circuitry; master volume control; tape monitor circuit; frequency response 20-20,000 Hz \pm 0.2 dB (bypass mode); crossovers 72, 90, 115, 144 Hz; slope 12 dB/octave; distortion 0.005%; S/N ratio 95 dB, A weighted; input sensitivity 100 mV; output impedance 600 ohms; brushed anodized satin-black front panel; optional rack-mount adaptors. For information on ADS 400 mini speakers, see separate listing. PB-1500: 23 $\frac{1}{2}$ "D x 22 $\frac{1}{2}$ "W x 16"H; C-1500: 17"W x 10"D x 2"H; 400: 11 $\frac{1}{4}$ "H x 7 $\frac{1}{4}$ "W x 6 $\frac{1}{4}$ "D. SubSat 2300 System. Includes one pair of ADS 400 minispeakers \$1695 PB-1500/C-1500. Powered bass module and bass system control only \$1345 F400. Floor stand for ADS 400 minispeakers... \$38

L810 Speaker System

Acoustic-suspension 3-way speaker system with 2 8" high-compliance Stiffite cone woofers in separate chambers, 2" soft-dome midrange, $\frac{3}{4}$ " soft-dome tweeter. Features diffraction-corrected, flush mounted drivers; quick-access tweeter fuse with built-in spare; high-grade walnut radius-edged cabinet with solid walnut edge inserts and removable acoustically transparent bronze frameless grille. Frequency response 35-23,000 Hz \pm 3 dB; crossovers 550 and 4k Hz; sensitivity 94 dB SPL/W/m; power rating 100 W nominal, 200 W peak program; impedance 6 ohms; 25 $\frac{1}{2}$ "H x 14 $\frac{1}{4}$ "W x 11 $\frac{1}{4}$ "D \$490 F800. Black metal base for L810 \$45 L710. Similar to L810 except has 2 7" Stiffite woofers. Frequency response 40-23,000 Hz \pm 3 dB; sensitivity 93 dB SPL/W/m; power rating 75 W nominal, 150 W peak program; 21 $\frac{1}{4}$ "H x 12 $\frac{1}{4}$ "W x 10 $\frac{1}{2}$ "D \$380 F700. Black metal base for L710 \$43

L730 Speaker System

Acoustic-suspension 3-way speaker system with 10" high-compliance long-exursion Stiffite cone woofer, 1 $\frac{1}{2}$ " soft-dome midrange, $\frac{3}{4}$ " soft-dome tweeter; drivers are diffraction-corrected flush-mounted. Features quick-access tweeter fuse with built-in spare; oak or walnut radius-edged cabinet with solid oak/walnut edged inserts and acoustically-transparent complementary-finish frameless grille. Frequency response 30-23,000 Hz \pm 3 dB; crossovers 650 and 4k Hz; sensitivity 93 dB SPL/W/m; power rating 100 W nominal, 175 W peak program; nominal impedance 6 ohms; 25 $\frac{1}{2}$ "H x 14 $\frac{1}{4}$ "W x 11 $\frac{1}{4}$ "D \$430 F800. Black metal base for L730 \$45

L620 Speaker System

Acoustic-suspension 3-way speaker system with 10" high-compliance long-exursion Stiffite cone woofer and 1" soft-dome tweeter. Features user-accessible tweeter fuse with built-in spare; high-grade walnut finish with removable acoustically-transparent bronze frameless grille. Frequency response 30-20,000 Hz \pm 3 dB; crossover at 1.5 kHz; sensitivity 92 dB SPL/W/m; power rating 75 W nominal, 150 W peak program; nominal impedance 6 ohms; 25 $\frac{1}{2}$ "H x 14 $\frac{1}{8}$ "W x 11 $\frac{1}{4}$ "D \$280 F800. Black metal case for L620 \$45 L520. Similar to L620 but has 8" Stiffite woofer. Frequency response 35-20,000 Hz \pm 3 dB; power rating 50 W nominal, 100 W peak program; 21 $\frac{1}{4}$ "H x 12 $\frac{1}{4}$ "W x 10 $\frac{1}{2}$ "D \$225 F700. Black metal base for L520 \$43 L420. Similar to L520 but has 7" Stiffite woofer. Frequency response 48-20,000 Hz \pm 3 dB; available in pairs only; 17 $\frac{1}{2}$ "H x 11 $\frac{1}{4}$ "W x 7"D \$175

400 Miniature Speaker System

Two-way acoustic-suspension speaker system with 7" high-compliance ultra-long-exursion Stiffite cone woofer, 1" soft-dome tweeter; drivers are diffraction-corrected flush-mounted. Features high-grade oak or walnut finish with radius-edged oak/walnut inserts, acoustically transparent metal grille in complementary finish. Frequency response 65-20,000 Hz \pm 3 dB; crossover at 1.5k Hz; sensitivity 93 dB SPL/W/m; power rating 50 W nominal, 75 W peak program; nominal impedance 6 ohms; 11 $\frac{1}{4}$ "H x 7 $\frac{1}{4}$ "W x 6 $\frac{1}{4}$ "D. Available in pairs only \$200 F400. Floor stand for 400 (and 300, 200); elevates speaker about 28" above floor; flat black finish. \$40

WB400. Wall bracket for 400, 300W, 300, 200 speaker systems. Mounts to wall, ceiling, single-gang outlet box. Speaker can swivel for proper aiming. Flat black finish. Supplied 2/box \$25/pr

300W Miniature Speaker System

Acoustic-suspension 2-way speaker system with 5 $\frac{1}{4}$ " high-compliance, long-exursion Stiffite woofer, 1" soft-dome tweeter; drivers diffraction-corrected flush mounted. Features walnut-veneer cabinet with radius-edged solid walnut corner inserts, acoustically transparent metal grille in complementary finish. Frequency response 68-20,000 Hz \pm 3 dB; crossover 2.5 kHz with 12-dB/octave slope; sensitivity 90 dB SPL/W/m; power rating 50 W nominal, 75 W peak program; impedance 4 ohms; 8 $\frac{1}{2}$ "H x 6 $\frac{1}{4}$ "D x 5 $\frac{1}{4}$ "W. Available in pairs only \$175 F400. Floor stand for 300W speaker system ... \$40

300 Miniature Speaker System

Miniature 2-way acoustic-suspension speaker system with 5 $\frac{1}{4}$ " high-compliance ultra-long excursion woofer, 1" soft-dome tweeter. Features brushed satin finish; aluminum enclosure (black or silver anodized) with aluminum grille. Frequency response 68-20,000 Hz \pm 3 dB; crossover 2.5 Hz with 12-dB/octave slope; sensitivity 90-dB SPL/W/m; rated input 50 W continuous, minimum input 5 W continuous; impedance 4 ohms; 8.67"H x 5.9"W x 5.7"D \$170 300C. Same as 300; includes swivel bracket. All hardware for surface mounting in cars; black finish; 8 $\frac{1}{2}$ "H x 5 $\frac{1}{4}$ "W x 5 $\frac{1}{4}$ "D \$175

200 Miniature Speaker System

Miniature 2-way acoustic-suspension speaker system with 4" high-compliance ultra-long excursion woofer, 1" soft-dome tweeter. Features brushed aluminum enclosure (black or silver anodized) with anodized aluminum grille. Frequency response 85-20,000 Hz \pm 3 dB; crossover 2.5 kHz with 12-dB/octave slope; sensitivity 90-dB SPL/W/m; rated input 30 W continuous, minimum input 5 W; impedance 4 ohms; 6 $\frac{1}{4}$ "H x 4 $\frac{1}{4}$ "W x 4 $\frac{1}{2}$ "D \$130 200C. Same as 200 except includes swivel bracket and all accessories for car installation surface mounting; black finish \$135

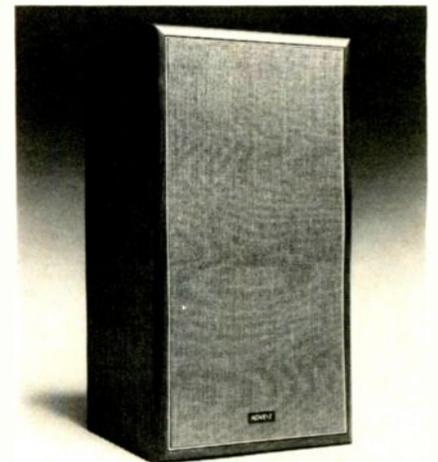
ADVENT

5012 Speaker System

Acoustic-suspension 2-way bookshelf speaker system with Advent woofer, 1" dome tweeter. Cabinet finish available in genuine walnut or oak veneer, solid wood front moldings. Frequency response 40-23,000 Hz \pm 2.5 dB on-axis; crossover 1.8 kHz; sensitivity 87 dB/W/m; impedance 8 ohms; 26 $\frac{1}{2}$ "H x 14 $\frac{1}{4}$ "W x 11 $\frac{1}{4}$ "D \$250

5002 Speaker System

Acoustic-suspension bookshelf speaker system with Advent woofer, 1" dome tweeter. Features 2-position



crossover switch; walnut grain vinyl finish. Frequency response 42-23,000 Hz \pm 2.5 dB; crossover 1.8 kHz; sensitivity 87 dB/W/m; impedance 8 ohms;

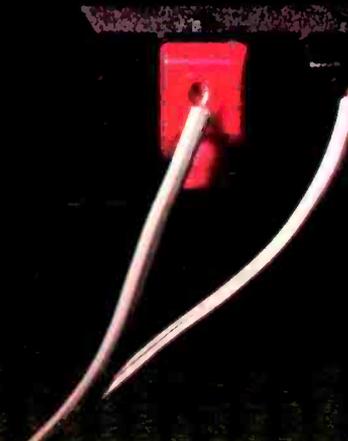


BACK TALK.

Part of the pleasure you enjoy seated in front of Jensen System Series 500 Speakers actually comes from the back of the speakers. A rear-firing high frequency driver augments the already full sound of these System Series Speakers. This multi-directional tweeter system is one of the many concepts that reflect our commitment to reproduce a pure, uncensored virgin sound. Listen to the Jensen System Series Speakers at finer audio shops. For more information and dealer locations, call 800-323-0707.



JENSEN





SPEAKER SYSTEMS

26"H x 14 1/4"W x 11 1/2"D \$220
4002. Similar to 5002 minus switchable crossover; frequency response 46-23,000 Hz; has fixed crossover; 21 1/4"H x 13 1/4"W x 9 3/4"D..... \$190

3002 Speaker System

Acoustic-suspension 2-way bookshelf speaker system with woofer, 1" dome tweeter. Features walnut-grain vinyl finish. Frequency response 48-23,000 Hz \pm 3 dB; crossover 2.8 kHz; sensitivity 88 dB/W/m; impedance 8 ohms; 20"H x 12"W x 8 1/2"D... \$140

2002 Speaker System

Acoustic-suspension 2-way bookshelf speaker system with woofer, 1 1/2" direct-radiator tweeter. Features walnut-grain vinyl finish. Frequency response 50-23,000 Hz \pm 3 dB; crossover 3.2 kHz; sensitivity 88 dB/W/m; impedance 8 ohms; 18 1/2"H x 11"W x 8"D..... \$110

AIWA

SC-E300 Speaker System

Acoustic-suspension 3-way speaker system with midrange, tweeter level controls. Maximum power 60



W..... \$350/pr

SX-15 Speaker System

Acoustic-suspension 3-way speaker system with Lamina ribbon tweeter. Frequency range 40-50,000 Hz \$250/pr

SX-5Y Speaker System

Acoustic-suspension 2-way speaker system with square passive radiator \$150/pr

Personal Stereo Micro Speakers

SC-A2Y Speaker System

Dynamic Super Loudness (D.S.L.) internal amplification speaker systems with independent power supply and internal on/off switching. Designed for use with any personal stereo system. Comes with connection cord \$80/pr
SC-A1Y. Similar to SC-A2Y \$65/pr

Mini Speaker Systems

SC-E80Y Speaker System

Bass-reflex 3-way speaker system with midrange, tweeter level controls. Frequency range 45-40,000 Hz \$330/pr

SC-E60Y Speaker System

Bookshelf bass-reflex speaker system with 7" woofer, 2-layer dome tweeter. Features tweeter level control; removable grille. Maximum power 60 W. Can be used with Aiwa mini systems M-301, M-302, M-502, M-505, M-606 \$250/pr

SC-E35Y Speaker System

Two-way speaker system with 6 1/2" woofer, 2" cone tweeter. Maximum power 35 W. Can be used

with Aiwa mini systems M-301, M-302, M-502, M-505, M-606 \$170/pr

SC-E11-A Speaker System

Two-way compact speaker system with power-overload/warning LED. Frequency range 60-20,000 Hz; impedance 8 ohms; 7 1/4"H x 5 1/4"D x 4 3/4"W; 6.4 lb. Can be used with Aiwa mini systems M-301, M-302, M-502, M-505 \$165/pr

SC-E1Y Speaker System

Carry Compo speaker system designed to be used with Aiwa mini system M-101 \$95/pr

AKAI

CW-T77 Speaker System

Three-way speaker system with 12" woofer, 4" midrange, 1 1/2" tweeter. Features tweeter, midrange controls; walnut-grain vinyl cabinet. Impedance 8 ohms; maximum power 120 W; frequency range 30-20,000 Hz; crossovers 1.5k and 9k Hz; 29.5"H x 15.5"W x 11.2"D; 40 lb \$270

CW-T55 Speaker System

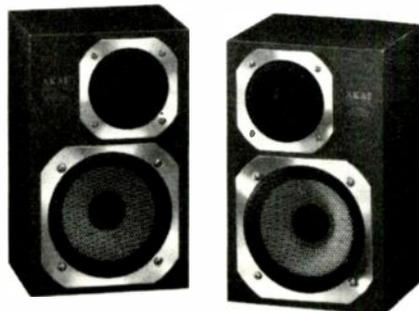
Three-way speaker system with 10" woofer, 4" midrange, 1 1/2" tweeter. Features midrange control, walnut-grain vinyl cabinet. Impedance 8 ohms; maximum power 70 W; frequency range 40-20,000 Hz; crossovers 1.5k and 8k Hz; 26.4"H x 13.4"W x 8.9"D; 28 lb \$200

CW-T33 Speaker System

Two-way speaker system with 10" woofer, 1 1/2" tweeter, walnut-grain vinyl cabinet. Impedance 8 ohms; maximum power 50 W; frequency range 45-20,000 Hz; crossover 5 kHz; 22.8"H x 11.8"W x 8.5"D; 40 lb/pr \$270/pr

SW-7II Miniature Speaker System

Two-way miniature speaker system with 5" woofer, 1 1/2" dome-type tweeter. Impedance 8 ohms; maxi-



mum power 40 W; frequency range 55-22,000 Hz; crossover 5 kHz; 8.9"H x 5.5"W x 4.9"D; 24 lb/pr \$195/pr

ALLISON

Model One Speaker System

Stabilized radiation loading design with 2 10" woofers, 2 3 1/2" convex midranges, 2 1" convex tweeters. Features LC half-section crossover network; air-core chokes; nonpolarized computer-grade capacitors; features switches for selecting system acoustic power response (flat to concert-hall balance slope); biamplification capability using internal crossover; sealed oiled-walnut enclosure. Crossovers 350 and 3750 Hz; impedance 8 ohms; efficiency 0.7% at floor-wall intersection; minimum power 30 W/ch for 100-dB SPL in reverberant field; acoustic power output 0.5 acoustic watt minimum over full frequency range with 70-W input; system resonance 45 Hz nominal; 40"H x 19"W x 10 3/4"D \$590

Model Two. Same as Model One except has 2 8" woofers, 2 3 1/2" convex midrange, 2 1" convex tweeters. System resonance 52 Hz; sealed oiled walnut enclosure; 36"H x 16"W x 9 3/4"D \$510

Model Three. Stabilized radiation-loading system with 10" woofer, 3 1/2" convex midrange, 1" convex tweeter. Features corner-mount design; LC half-section; crossover network switches for selecting system acoustic power response; walnut-veneer, oil-finished

enclosure. Crossovers at 350 and 3750 Hz; minimum power 30 W/ch for 100-dB reverberant SPL; resonance 45 Hz; impedance 4 ohms; 40"H x 15 1/4"W x 10"D..... \$395

Model Nine Speaker System

Three-way stabilized-radiation-loading speaker system with 10" woofer, 3 1/2" convex-diaphragm midrange, 1" convex-diaphragm tweeter, designed for placement on floor, against single wall. Features LC half-section crossover network; switches to select system acoustic power response (flat to concert-hall balance slope); biamplification capability; oak-veneer cabinet with hand-rubbed lacquer finish; brushed steel nickel-plated base. Crossovers 350 and 3750 Hz; impedance 4 ohms; efficiency 0.7% at floor/wall intersection; power range 30-200 W; resonance 45 Hz; 37 1/2"H x 12 1/2"W x 10 3/4"D \$490

Model Eight. Similar to Model Nine except has 8" woofer. Crossovers 450 and 3750 Hz; system resonance 52 Hz; no bases; 20"H x 12 1/4"W x 10"D..... \$345

Model Four Speaker System

Two-way stabilized radiation-loading system with 8" woofer, 2 1" Convex Diaphragm tweeters. Designed to be used against or hung on wall with included hardware. Features walnut-veneer oiled-finished enclosure; LC quarter-section network with 3-position switch to adjust response from nominally flat to "concert-hall" balance slope. Crossover 2 kHz; resonance 52 Hz; impedance 8 ohms; minimum power 30 W/ch for 100 dB SPL in reverberant field; 19 1/2"W x 11"W x 10"D..... \$280

Oak-veneer finish \$290

Model Seven Speaker System

Two-way stabilized-radiation-loading speaker system with 8" woofer, 1" convex-diaphragm tweeter, designed for placement against single wall. Features quarter-section LC network that uses air-core chokes, computer-grade capacitor; oak-veneer cabinet with hand-rubbed lacquer finish. Crossover 2 kHz; resonance 52 Hz; impedance 4 ohms; power range 15-150 W; 26 1/2"H x 9 3/4"W x 9 3/4"D \$225

Model Five Speaker System

Two-way stabilized radiation-loading speaker system with 8" woofer, 1" convex tweeter, designed for placement against single wall. Features LC quarter-section network with switch to adjust response to flat or HF slope; oil-finished walnut-veneer enclosure. Crossover 2 kHz; resonance 52 Hz; impedance ohms; minimum power 15 W for 97-dB SPL in reverberant field; 18 1/2"H x 11"W x 10"D \$195

Model Six. Same as Model Five except has walnut-grain vinyl finish. Resonance 59 Hz; 11 1/4"H x 11 1/4"W x 11 1/4"D \$160

White or black lacquer \$172

ALTEC LANSING

19 Speaker System

Vented 2-way floor-standing speaker system with 15" woofer, Tangerine radial phase plug tweeter mounted to 811B sectoral horn. Features removable acoustically transparent knit fabric grille. Frequency response 36-20,000 Hz \pm 5 dB; crossover 1.2 kHz; sensitivity 100.5 dB SPL with shelving controls at optimum; power range 10 to 350 W; impedance 8 ohms; dispersion 105° at -6 dB vertical and horizontal; 39"H x 30"W x 21"D.

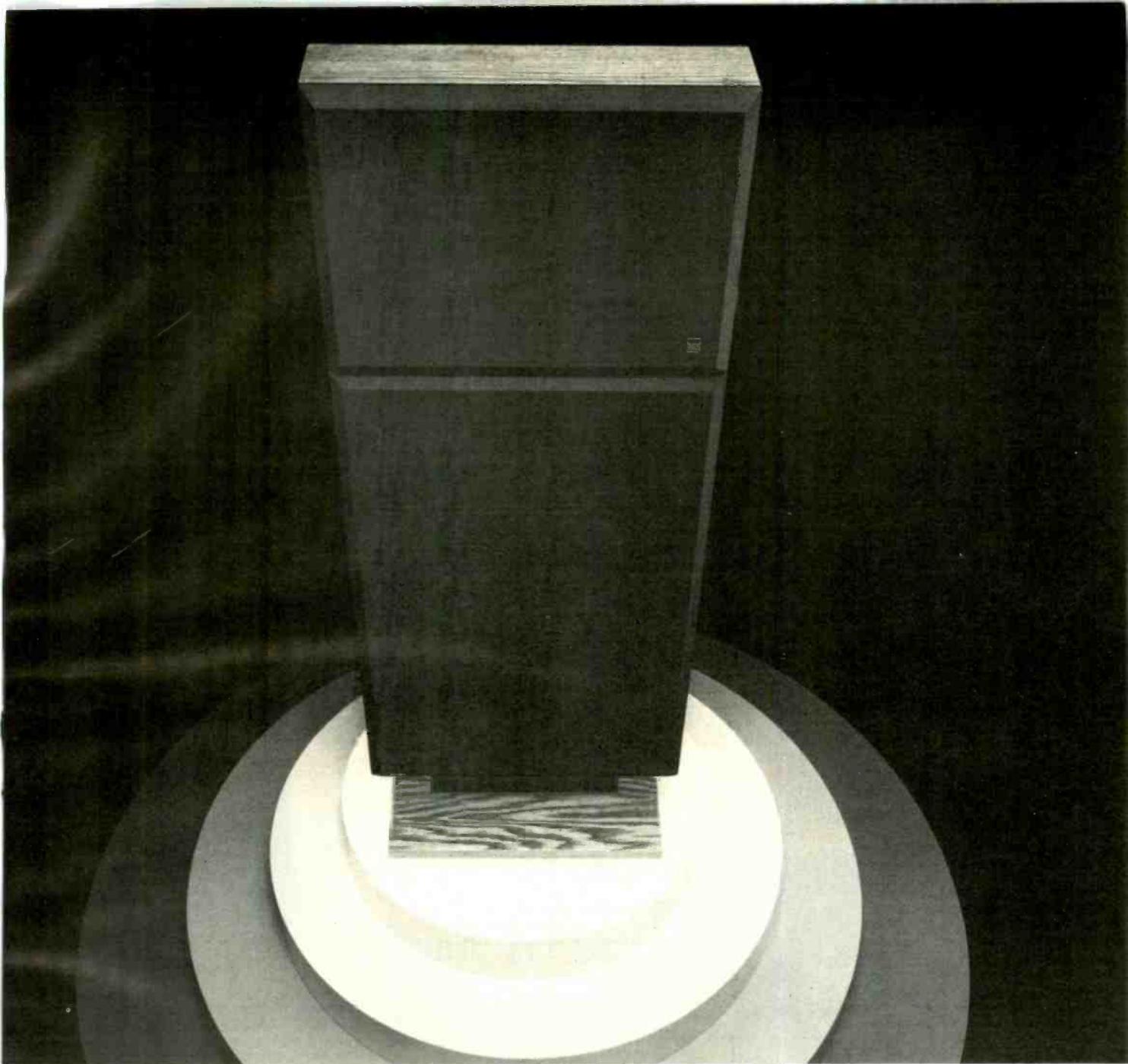
Nineteen-Wal. With black grille \$1000

Nineteen-Oak. With brown grille \$1000

LF2 Subwoofer

Vented subwoofer speaker system with 12" bass driver, built-in 85-W power amplifier. Features hand-rubbed diamond-matched Endriana, sheen lacquered cabinet. Frequency response 35-80 Hz \pm 3 dB; crossover selectable 40/60/80 Hz; sensitivity 95.5 dB SPL; dynamic range 52 dB; input impedance 47k ohms; 36"W x 36"D x 16"H; 122 lb \$950

LF1. Similar to LF2 except has dual-voice coil 12" driver, no built-in power amplifier. Frequency response 20-80 Hz \pm 5 dB; sensitivity 95.5 dB SPL; power range 10-350 W; crossover 80 Hz; dynamic range 52 dB; impedance 8 ohms; same size as LF2;



Music in the round. With BES speakers, center stage is everywhere.

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CIRCLE NO. 11 ON READER SERVICE CARD

106 lb \$700

Model 14 Speaker System

Floor-standing vented speaker system with 12" woofer, Tangerine radial phase plug compression tweeter mounted to Mantaray™ constant directivity horn. Features hand-rubbed oiled walnut cabinet; removable acoustically transparent black knit fabric grille; midrange, tweeter level controls; Automatic Power control. Frequency response 40-20,000 Hz ± 5 dB; crossover 1.5 kHz; power range 10-350 W; sensitivity 96.5 dB SPL; dynamic range 54 dB; dispersion vertical/horizontal 40°/90° at -6 dB; impedance 8 ohms; 30"H \times 21"W \times 16½"D \$630

Model 8 Series II Speaker System

Vented 3-way speaker system with 12" woofer, 5" midrange, LZT compression tweeter with Tangerine radial phase plug mounted to Mantaray constant-directivity horn. Features walnut-stained oiled hardwood cabinet; removable acoustically transparent black knit fabric grille. Frequency response 60-20,000 Hz ± 2.5 dB; crossovers 700 and 5k Hz; sensitivity 94 dB SPL; power range 20-200 W; impedance 8 ohms; 29½"H \times 16½"W \times 14"D; 51 lb \$450

Model 6 Series II. Similar to Model 8 Series II except has 10" woofer; sensitivity 92 dB SPL; dynamic range 47 dB; 25½"H \times 15½"W \times 13½"D; 37 lb \$350

Model 4 Series II. Similar to Model 6 Series II except no midrange driver; frequency response 60-20,000 Hz ± 3 dB; crossover 2 kHz; sensitivity 90 dB SPL; dynamic range 45 dB; 23"H \times 14½"W \times 12½"D; 30 lb \$250

Santana II Speaker System

Floor-standing vented speaker system with 12" woofer, 5" cone tweeter. Features hand-rubbed oiled walnut cabinet with composition slate top; removable



acoustically transparent black knit fabric grille. Frequency response 40-20,000 Hz ± 5 dB; crossover 2.5 kHz; power range 12 to 150 W; long-term maximum output 107.5-dB SPL at 45 W; impedance 8 ohms; 25½"H \times 19"W \times 16"D \$330

Model 1012 Speaker System

Vented 3-way speaker system with 12" woofer, 5" cone midrange, liquid-cooled energy-refracting tweeter. Features walnut-grain vinyl cabinet; removable black knit fabric grille. Frequency response 60-20,000 Hz ± 4 dB; crossovers 1 and 8 kHz; sensitivity 93 dB SPL; power range 15-150 W; dynamic range 49 dB; impedance 8 ohms; 29½"H \times 16½"W \times 14"D; 41 lb \$300

Model 1010. Similar to Model 1012 except has 10" woofer, no midrange driver; crossover 3 kHz; sensitiv-

ity 92 dB SPL; dynamic range 48 dB; 23"H \times 14½"W \times 12½"D; 30 lb \$200

Model 312 Speaker System

Vented 3-way speaker system with 12" woofer, 5" midrange, 2½" tweeter. Features oak-grain vinyl cabinet; removable acoustically transparent knit fabric grille. Frequency response 55-20,000 Hz ± 4 dB; crossovers 1.2 and 7 kHz; sensitivity 93 dB SPL; power range 10-100 W; dynamic range 48 dB; impedance 4-8 ohms; 28½"H \times 16½"W \times 12½"D; 41 lb \$250

Model 310. Similar to Model 312 except has 10" woofer, 4" midrange driver; low-end response 65 Hz; crossovers 3 and 10 kHz; sensitivity 92 dB SPL; power range 10-75 W; dynamic range 46 dB; 23"H \times 14½"W \times 12½"D; 30 lb \$200

AUDIO PRO by INTERSEARCH**A4-14 Bi-amplified Speaker System**

Bi-amplified 3-way bass-reflex bookshelf speaker system incorporates Ace-Bass subwoofer with 2 5" down-firing rear-mount woofers and own amplifier, flush-mounted 4½" cone midrange, 1" soft dome tweeter with separate amplifier. Features room-matching bass control, tweeter control, sensitivity control (100 mV-50 V range), left/right signal pushbutton, bass-blend pushbutton control, power on/off signal-actuated in automatic mode; walnut or black-ash finish. Frequency response 30-20,000 Hz ± 2 dB; crossovers 300 and 2.5k Hz; distortion 2% at 96 dB SPL/half-space/m at 30 Hz; 20½"H \times 21½"W \times 10½"D \$1750/pr

B2-50 Amplified Subwoofer

Bass-reflex port design incorporates 2 long-throw 6½" cone drivers in push-pull arrangement with built-in power amplifier (affects oscillating mass, damping, compliance of drivers), flexible electronic crossover filter (subwoofer interfaces with any satellites). Features separate volume, crossover controls for subwoofer, satellite speakers; subwoofer sensitivity control; power on/off signal-actuated in automatic mode; 2" casters; walnut or black-ash finish. Frequency response 20-200 Hz ± 1.5 dB; distortion 1% beyond 50 Hz at 100-dB SPL/half space/m; sensitivity adjustable 0-100% (96-dB SPL at 50 mV); 21½"H \times 18½"W \times 17½"D \$995

B2-40 Amplified Subwoofer

Bass-reflex port system with 2 long-throw 5½" cone woofers in push-pull arrangement with built-in amplifier (affects oscillating mass, damping, compliance of drivers), crossover filters. Features loudness, crossover controls for subwoofer and satellite speakers; subwoofer sensitivity control; walnut or black-ash finish. Frequency response 30-200 Hz ± 1.5 dB; distortion 1% beyond 60 Hz at 100 dB SPL/half space/m; 20½"H \times 14½"W \times 14½"D \$695

AUDIOSOURCE**SW-1A Subwoofer System**

Designed to interface with the complete LS line of compact speakers. Nondirectional acoustic-suspension subwoofer with 6½" driver. Frequency range 47-200 Hz; power range 12-70 W; impedance 6 ohms; sensitivity 82 dB SPL/W/m; cast-aluminum enclosure with metal grille; 12"H \times 7½"W \times 8"D; 16 lb \$180

LS-Three Speaker System

Acoustic-suspension 3-way speaker system with 5" woofer, 1½" midrange, 1" tweeter. Frequency

range 80-20,000 Hz; power range 10-70 W; impedance 8 ohms; sensitivity 85 dB SPL/W/m; crossovers 1.2 and 5 kHz; cast-aluminum enclosure with metal grille; 10½"H \times 6½"W \times 5½"D; 9.25 lb.. \$160

LS-One Speaker System

Acoustic-suspension 2-way speaker system with 4" woofer, 1" tweeter. Frequency range 100-20,000 Hz; power range 12-40 W; impedance 8 ohms; sensitivity 83 dB SPL/W m; crossover 2.5 kHz; cast-aluminum enclosure with metal grille; 7½"H \times 4½"W \times 4½"D; 5.5 lb \$100

AUDIO STATIC**ES 380 MD Speaker System**

Line-source 3-panel electrostatic speaker system with central full-range panel, 2 outer-panel electrostatic subwoofers, mirror-drive interface transformer. Outer panels operate from 200 Hz on down. Bandwidth 35-22,000 Hz; power range 45-200 W; sensitivity 88 dB SPL/W/m; impedance 4-40 ohms, 8 ohms nominal; wheat or charcoal finish; 56"H \times 29"W \times 1½"D \$3195/pr

ES 240 MD Speaker System

Full-range 2-panel electrostatic speaker system with mirror drive transformer. Bandwidth 40-20,000 Hz; power range 45-200 W; sensitivity 88 dB SPL/W/m; impedance 4-40 ohms, 8 ohms nominal; wheat or charcoal finish; 54"H \times 26"W \times 1½"D \$2195/pr

AVID**Model 232ab Speaker System**

Bass-reflex 3-way speaker system with polypropylene 10" woofer, polypropylene 4½" I.E.M. (Integral Edge



Midrange) in subenclosure, 1" soft-dome tweeter with ferrofluid. Features walnut vinyl finish, dark brown grille. Frequency response 40-20,000 Hz -3 dB; crossovers 650 and 5k Hz; power range 15-150 W continuous; impedance 8 ohms; 28"H \times 15"W \times 10½"D \$550/pr

Model 102ab Speaker System

Acoustic-suspension 2-way bookshelf speaker system with polypropylene 10" woofer, 1" soft-dome tweeter with ferrofluid. Features walnut vinyl finish, dark brown solid grille. Frequency response 43-20,000 Hz -3 dB; crossover 2.5 kHz; power range 15-100 W continuous; impedance 8 ohms; 25"H \times 15"W \times 10½"D \$378/pr

Model 80ab Speaker System

Acoustic-suspension speaker system with polypropyl-

NOTICE TO READERS

Prices of items described are suggested prices only and are subject to change without notice. Actual selling prices are determined by the dealer.

ene 8" woofer, 1" soft-dome tweeter with ferrofluid. Features walnut-grain vinyl finished enclosure, dark brown grille. Frequency response 53-20,000 Hz -3.5 dB; power range 15-70 W continuous; impedance 8 ohms; crossover 3 kHz; 19 1/2"H x 12"W x 8 3/4"D \$270/pr

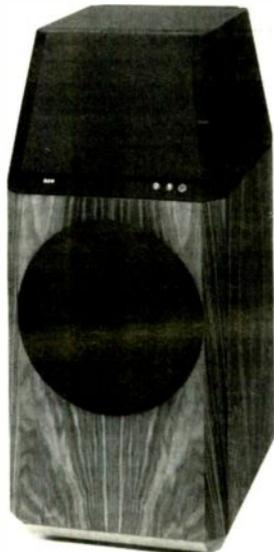
Model 60ab Speaker System

Acoustic-suspension 2-way speaker system with polypropylene 6 1/2" woofer, 1" soft-dome tweeter with ferrofluid. Features walnut vinyl finished enclosure, dark brown grille. Frequency response 70-20,000 Hz -3 dB; impedance 8 ohms; power range 15-60 W; crossover 3.5 kHz; 14"H x 8 3/4"W x 8"D \$210/pr

B&W LOUDSPEAKERS LTD

801F Speaker System

Floor-standing 3-way acoustic-suspension speaker system with vertically aligned drivers to minimize



time delays. Features crossover system; Audio Powered Overload Circuit (APOC) to prevent driver damage; choice of cabinet finishes. Frequency response 45-20,000 Hz ±2 dB; power range 50 W-no upper limit due to APOC; impedance 8 ohms; 37.3"H x 22"D x 17"W; 97 lb. Walnut, teak, or black ash finish \$1750 Rosewood finish \$1975

802F Speaker System

Acoustic-suspension floor-standing speaker system with 2 165-mm woofers, 100-mm midrange, 26-mm tweeter. Features Butterworth Squared crossovers; APOC; choice of cabinet finishes. Frequency response 55-20,000 Hz ±2 dB; power range 50 W-no upper limit due to APOC; 2nd- and 3rd-harmonic distortion <1%, 100-20,000 Hz for 90 dB SPL; sensitivity 85 dB SPL/W/m; 41"H x 14 1/2"W x 11 3/4"D; 70 lb. Walnut, teak, or black ash finish \$1250 Rosewood finish \$1475

DM-16 Speaker System

Floor-standing acoustic-suspension speaker system with 220-mm ultra-long-throw woofer, 100-mm midrange, 26-mm tweeter. Features Butterworth Squared crossovers; APOC; choice of cabinet finishes. Frequency response 65-20,000 Hz ±2 dB; power range 15 W-no upper limit due to APOC; 2nd- and 3rd-harmonic distortion <2%; sensitivity 87 dB SPL/W/m; impedance 8 ohms; 37.5"H x 16.3"W x 13.2"D; 77 lb. Walnut, teak, or black ash finish \$985 Rosewood finish \$1085

DM7/II Speaker System

Floor-standing acoustic-suspension speaker system with 160-mm midwoofer, 26-mm tweeter. Features 14-element crossover; APOC; choice of cabinet finishes. Frequency response 80-20,000 Hz ±2 dB; power range 40 W-no upper limit due to APOC; 2nd- and 3rd-harmonic distortion 3%; sensitivity 86 dB SPL/W/m; impedance 8 ohms; 35 3/4"H x 15"D x

10 1/4"W; 64 lb. Walnut, teak, or black ash finish \$720 Rosewood finish \$795

DM14 Speaker System

Acoustic-suspension speaker system with 150-mm midwoofer, 26-mm tweeter. Features overload protection; choice of cabinet finishes. Frequency response 80-20,000 Hz ±2 dB; power range 15 W-no upper limit due to overload protection; 2nd/3rd-harmonic distortion <1% / <3%; sensitivity 85 dB SPL/W/m; impedance 8 ohms; 22 1/2"H x 11 1/2"D x 10"H; 35 lb. Walnut, teak, or black ash finish \$525 Rosewood finish \$595

DM12 Speaker System

Compact acoustic-suspension speaker system with 150-mm midwoofer, 26-mm tweeter. Features overload protection; choice of cabinet finishes. Frequency response 85-20,000 Hz ±2 dB; power range 15 W-no upper limit due to overload protection; 2nd/3rd-harmonic distortion <1% / <0.5%; sensitivity 85 dB SPL/W/m; impedance 8 ohms; 14"H x 10 1/2"D x 8 3/4"W; 21 lb. Walnut, teak, or black ash finish \$335 Rosewood finish \$375

DM23 Speaker System

Vented speaker system with 160-mm woofer, 80-mm midrange, 26-mm tweeter. Features multi-element second-order Butterworth crossovers; choice of cabinet finishes. Frequency range 75-20,000 Hz; power range 10-100 W; sensitivity 88 dB SPL/W/m; impedance 8 ohms; 19 1/2"H x 10"W x 9 1/2"D; 21.6 lb. Walnut, teak, black ash, or simulated rosewood finish \$295

DM22 Speaker System

Acoustic-suspension speaker system with 160-mm midwoofer, 26-mm tweeter. Features 5-element crossover; choice of cabinet finishes. Frequency response 70-20,000 Hz ±2 dB; power range 10-100 W; sensitivity 87 dB SPL/W/m; impedance 8 ohms; 19 1/4"H x 10"W x 10"D; 21.5 lb. Walnut, teak, black ash finish \$249

DM10 Speaker System

Compact vented speaker system with 160-mm midwoofer, 26-mm tweeter. Features true 3rd-order Butterworth crossover; choice of cabinet finishes. Frequency response 75-20,000 Hz ±3 dB; power range 10-75 W; sensitivity 87 dB SPL/W/m; impedance 8 ohms; 19"H x 10"W x 9 1/4"D; 14.5 lb. Walnut, teak, simulated rosewood, or simulated black ash finish \$179

BANG & OLUFSEN

Beovox MS-150 Speaker System

Four-way speaker system with subwoofer to handle frequencies below 150 Hz and ported reflex cabinet tuned to Bessel function for optimum room matching. Features 10" subwoofer, 8" woofer, 3" dome-type midrange, 1" tweeter; baffle moldings, speaker mount designed for minimum diffraction; acoustic centers of drivers aligned on common axis to eliminate phase distortion; crossover network with minimum phase shift; automatic protection for drivers; rosewood-veneer cabinet finish (other finishes available). Frequency range 30-22,000 Hz; maximum power 150 W rms; impedance 8 ohms; distortion 0.5%; dispersion 100°. Supplied with speaker stands \$1995/pr

Beovox M-150 Speaker System

Three-way speaker system in ported cabinet tuned to Bessel function for optimum room matching. Has 8" woofer, 3" dome-type phase-link midrange driver, 1" tweeter. Features baffle moldings, speaker mount designed for minimum diffraction; acoustic centers of drivers aligned on common axis to eliminate phase distortion; crossover network with minimum phase shift; automatic protection for drivers; rosewood-veneer cabinet finish (other finishes available). Frequency range 40-22,000 Hz; distortion 0.5%; dispersion 100°. Supplied with speaker stands \$1500/pr

Beovox S-120 Speaker System

Three-way speaker system in ported cabinet tuned to Bessel function for optimum room matching with 8" woofer, 3" dome-type midrange driver, 1" tweeter. Features baffle moldings, speaker mount designed for minimum diffraction; acoustic centers of drivers aligned on common axis for minimum phase distortion; crossover network with minimum phase shift; automatic protection for drivers; rosewood-veneer cabinet finish (other finishes available). Frequency range 42-22,000 Hz; maximum power 120 W rms; distortion 0.5%; dispersion 100° \$995/pr

Beovox S-80 Speaker System

Three-way speaker system in infinite-baffle cabinet with 8" woofer, 3" dome-type phase-link midrange, 1" tweeter. Features baffle moldings, speaker mounting designed for minimum diffraction; acoustic centers of drivers aligned on common axis to eliminate phase distortion; crossover network with minimum phase shift automatic protection for drivers; rosewood-veneer cabinet finish (other finishes available). Frequency range 50-22,000 Hz; maximum power 80 W rms; distortion 0.7%; dispersion 100° \$795/pr

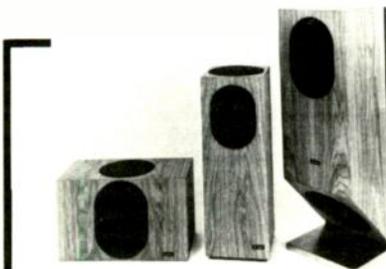
Beovox Phase-Link P-45 System

Two-way pressure chamber wall-mount panel speaker system with 2 5" woofers, 3 1/2" Phase-Link filler driver, 1" dome tweeter. Frequency range 55-20,000 Hz ±4 dB; crossover 2 kHz; harmonic distortion 1% maximum; maximum power 45 W continuous; impedance 4-8 ohms; dispersion 120°; 25 1/4"H x 13 1/4"W x 5 1/2"D \$575

Beovox Phase-Link C-75 System

Two-way rear-radiating log-line bookshelf speaker system with 2 4" woofers and 1" tweeter. Frequency response 75-20,000 Hz ±4 dB; crossover 2.5 kHz; dist. 1.0% maximum power 75 W continuous; impedance 6 ohms; dispersion 90°; anodized black or brushed extruded aluminum finish; 12 1/4"H x 7 1/4"W x 4 1/4"D \$525

Striking



Allison Models Seven, Eight, and Nine are strikingly contemporary in appearance. Their simple geometric shapes are beautifully executed in fine oak veneers and finished in hand-rubbed lacquer. One critic has called the Allison Nine the best-looking loudspeaker system ever produced in America.

For literature and information call (800) 225-4791 [in MA (617) 237-2670] or send coupon

ALLISON ACOUSTICS
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Beovox S 55 Speaker System

Speaker system designed to eliminate time distortion. Features 8 1/2" woofer, 4 1/2" midrange, 2 1/2" dome tweeter; baffle and cabinet designed to minimize resonance; no sharp cabinet corners to introduce diffraction effects; common acoustical axis mounting of drivers; rosewood, teak, oak, or white cabinet finish with aluminum accents. Frequency response 60-17,000 Hz \pm 4 dB; crossovers 800 and 3k Hz; sensitivity 4 W; dispersion 100°; maximum power 55 W rms; impedance 8 ohms; 52.5 cmH \times 26.5 cmW \times 23 cmD; 8 kg \$495/pr

Beovox Phase-Link P-30 System

Two-way pressure chamber wall-mount panel speaker system with 6 1/2" woofer, 1" dome tweeter. Frequency response 58-20,000 Hz \pm 4 dB; crossover 3 kHz; harmonic distortion 2%; maximum power 30 W continuous; impedance 4-8 ohms; dispersion 120°; 21 1/2"H \times 11 1/2"W \times 4 1/2" \$375

Beovox Phase-Link C-30 System

Two-way rear-radiating log-line bookshelf speaker system with 4" woofer, 1" tweeter. Frequency response 100-20,000 Hz \pm 4 dB; crossover 2.5 kHz; distortion 1.0%; maximum power 40 W music; impedance 6 ohms; dispersion 90°; brushed aluminum finish; 12 1/8"H \times 4 1/8"W \times 4 1/4" \$250

B.E.S.**SM300 Speaker System**

Floor-standing 4-way speaker system with 3 dynamic, 1 piezoelectric driver activating 1750-sq-in. polymer diaphragm pulsating plane. Features midrange, tweeter level controls; bi-amplification capability; wood cabinet. Frequency range 30-22,000 Hz; crossovers 500, 5k, 10k Hz; sensitivity 93 dB/W/m; power range 25-250 W continuous; impedance 8 ohms; 53.5"H \times 22"W \times 6.75"D \$749

SM270 Speaker System

Floor-standing 3-way speaker system with 2 dynamic, 1 piezoelectric driver activating 850-sq-in. polymer diaphragm pulsating plane. Features tweeter, midrange level controls; wood cabinet. Frequency range 32-22,000 Hz; crossovers 800 and 10k Hz; efficiency 92 dB/W/m; power range 10-200 W continuous; impedance 8 ohms; 32.5"H \times 22"W \times 6.75"D \$450

SM255 MKII Speaker System

Floor-standing 3-way speaker system with 2 dynamic, 1 piezoelectric drivers activating 850-sq-in. polymer diaphragm pulsating plane. Features tweeter level control; wood cabinet. Frequency range 32-22,000 Hz; crossovers 800 and 10k Hz; efficiency 91 dB SPL/W/m; power range 10-200 W continuous; impedance 8 ohms; 30.5"H \times 20" W \times 5.75"D \$389
SM250 MK II. Similar to SM255 except low-end response 38 Hz; sensitivity 88 dB; power range 5-150 W; 28.5"H \times 19"W \times 4.25"D \$279
SM100. Similar to SM250 except only 2-way system; frequency range 40-19,000 Hz; crossover 800 Hz; efficiency 88 dB SPL/W/m; power range 5-125 W; wood-grain vinyl finish; 27.75"H \times 19"W \times 4.25"D \$229

BLACK ACOUSTICS**The Black Night Speaker System**

Floor-standing 3-way phase-coherent speaker system with internal ducting to eliminate standing waves. Rounded edges to reduce diffraction effects. Features 2 6 1/2" woofer/midrange drivers treated with magnetic damping fluid, aluminum voice coil bobbins to increase power-handling ability, different thermoplastic coatings to give different responses; 1" soft-dome tweeter. Frequency response 41-19,500 Hz \pm 3 dB; sensitivity 87 dB SPL/W/m; power range 20-200 W; crossover 2.5 kHz with variable slope; impedance 4.5

ohms minimum; 40"H \times 10"W \times 8"D; 35 lb \$750/pr

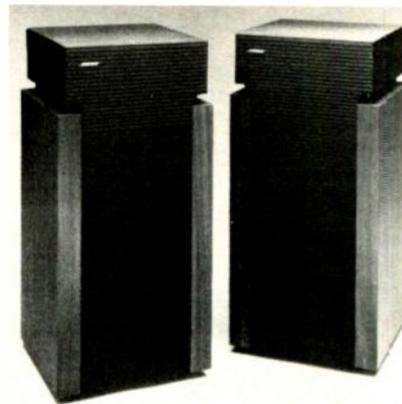
BOSE**901 Direct/Reflecting Speaker System**

Direct/reflecting acoustic-matrix floor-standing speaker system with Active Equalizer, 8 rear-facing, 1 front-facing 4 1/2" full-range drivers. Power range 10 W to unlimited; impedance 8 ohms; Features pentagon-shaped cabinet with multi-cell injection-molded core with particle board external panels and walnut veneer finish; Active Equalizer with continuously adjustable high-frequency contour control with center detent to provide shelving with range of \pm 3 dB beyond 4 kHz; continuously adjustable mid-bass contour control with center detent to provide +3/-5 dB adjustment over 80-260-Hz band; "Below 40" contour control with positions for 8-dB decrease at 40 Hz; tape monitor switch; input impedance 60k ohms; minimum load impedance 5k ohms; noise 85 dB below 1 V, A weighted; equalizer 11"W \times 5"D \times 2 1/2"H; speaker 21"W \times 13"D \times 12 1/4"H. Sold only in stereo pairs (equalizer supplied with each pair) \$667
 Without equalizer \$565

901 Speaker Pedestals. Slim, contemporary speaker stands designed for 901 Series IV speakers. Black \$60/pr
 Chrome \$80/pr

601 Series II Speaker System

Two-way direct/reflecting floor-standing speaker system with 4 3" tweeters, 2 8" long-exursion woofers. Tweeters, one woofer mounted above main enclosure



in Free Space™ array configuration for lifelike stereo imaging. Features subport enclosure system; dual frequency™ crossover; automatic tweeter protection; walnut-grain vinyl finish. Crossovers 1.5 and 2.5 kHz; impedance 8 ohms; power range 20-150 W; 29 1/2"H \times 14"W \times 13"D. Sold only in matched pairs . \$445

501 Series III Speaker System

Direct/reflecting 2-way acoustic-suspension floor-standing speaker system with 10" long-exursion woofer, 2 3 1/2" tweeters. Features direct energy control (adjustable vane in front of outward-facing tweeter matches spatial characteristics to tastes, room); tweeter protection circuit; walnut-grain vinyl finish. Crossover 1.5 kHz; power range 20-100 W; impedance 8 ohms; 24"H \times 14 1/2"W \times 14 1/2"D. Sold only in stereo pairs \$340

301 Speaker System

Direct/reflecting ported 2-way bookshelf speaker system with 8" woofer, 3" tweeter. Features direct energy control; tweeter protection circuit; particle board cabinet with walnut-grain vinyl veneer finish. Transition frequencies 3 kHz woofer, 1.2 kHz tweeter; power range 10/60 W/ch continuous; impedance 8 ohms; 17"W \times 10 1/2"H \times 9 1/2"D. Sold only in stereo pairs \$180

210 Speaker System

Direct/reflecting speaker system with high-density polystyrene enclosure with contoured vent surface to reduce low-frequency distortion, direct energy control

that adjusts radiation pattern of outward-firing tweeter beyond 2 kHz. Features Dual Frequency™ crossover network that allows woofer and tweeter to simultaneously operate over nearly full octave range; 6" woofer; 2" tweeter; asymmetrical driver array; direct energy control; ducted-vent enclosure; automatic tweeter protection. Crossover transition frequencies 1.5 and 2.5 kHz; power range 10-60 W rms; impedance 8 ohms; 14 1/4"W \times 7 1/4"H \times 6 1/4"D; 6.2 lb \$131 ea

BOSTON ACOUSTICS**A200 Speaker System**

Acoustic-suspension floor-standing 3-way speaker system with 10" woofer mounted close to floor, 4 1/2" flush-mount cone midrange in sealed subenclosure, 1" flush-mount polyamide dome tweeter with ferrofluid. Features walnut veneer cabinet with removable black cloth grille; integral black pedestal base. Frequency response 32-20,000 Hz \pm 2.5 dB; crossovers 450 and 3k Hz; sensitivity 90 dB/W/m; minimum power 15 W; impedance 8 ohms; 41"H \times 21"W \times 6 1/2"D \$375
 Oak veneer cabinet with wheat-colored grille. . \$375

A150 Speaker System

Acoustic-suspension 3-way speaker system with 10" woofer, 4 1/2" flush-mount cone midrange with ferrofluid in sealed enclosure, 1" flush-mount polyamide soft-dome tweeter with ferrofluid. Features oak veneer cabinet with removable wheat colored grille; integral black pedestal base. Crossovers 550 and 3k Hz; sensitivity 90 dB/W/m; minimum power 15 W; impedance 6 ohms; 32"H \times 16 1/2"W \times 8"D... \$275

A100 Speaker System

Acoustic-suspension floor-standing 2-way speaker system with 10" woofer, 1" polyamide soft-dome tweeter with ferrofluid. Features woodgrain-vinyl finish; removable black cloth grille. Frequency response 35-20,000 Hz \pm 3 dB; crossover 1.6 kHz; sensitivity 89 dB/W/m; minimum power 15 W; impedance 8 ohms; 30 1/2"H \times 16 1/2"W \times 8 1/4"D \$195

A70 Speaker System

Acoustic-suspension 2-way speaker system with 8" woofer, 1" polyamide soft-dome tweeter with ferrofluid. Features woodgrain-vinyl finish; removable black cloth grille. Frequency response 40-20,000 Hz \pm 3 dB; crossover 2 kHz; sensitivity 90 dB/W/m; minimum power 15 W; impedance 6 ohms nominal; 24" \times 14" \times 7 1/2"D \$135

A60 Speaker System

Acoustic-suspension 2-way speaker system with 8" woofer, 1 1/2" cone tweeter with ferrofluid. Features woodgrain-vinyl finish with removable black cloth grille. Frequency response 55-20,000 Hz \pm 3 dB; crossover 3 kHz; sensitivity 90 dB/W/m; minimum power 10 W; impedance 8 ohms; 18" \times 11 1/2" \times 7 1/2"D \$100

A40 Speaker System

Acoustic-suspension 2-way speaker system with 6 1/2" woofer, 3/4" dome tweeter with ferrofluid. Features woodgrain-vinyl finish; removable black cloth grille. Frequency response 68-20,000 Hz \pm 3 dB; crossover 3.5 kHz; sensitivity 88.5 dB SPL/W/m; minimum power 5 W; impedance 8 ohms; 13 1/2"H \times 8 1/4"W \times 7 1/4"D \$75

BOZAK**CS-310B Concert Grand Contemporary**

Speaker system with 4 B-199B woofers, 2 B-209B midranges, 8 tweeters in vertical column. Frequency range 28-20,000 Hz; impedance 8 ohms; power range 60-150 W; matte walnut enclosure; 52"H \times 36"W \times 19"D \$1650
CS-410CL. Same as CS-310B except Classic cabinet \$1750
CS-410M. Same as CS-310B except Moorish styling \$1850

Symphony No. 1 CS-4000A Modern

Infinite-baffle. 3-way floor-standing speaker system with 2 12" woofers, 6 1/2" midrange, 8 2" tweeters in

DANGER: OmniVector™ Radiation

SYSTEM ——— OVERLOAD ——— TWEETER

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There's no way to escape the high-frequency sound radiation from our new OmniVector™ tweeter lens. It disperses treble energy into the corners of your listening room that ordinary tweeter systems can't reach. So you experience the natural clarity and detail of your music almost anywhere you sit.

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Expose your ears to the dangerously potent sound of Interaudio Alpha Series Loudspeakers with OmniVector™ lens technology. For the name of your authorized dealer, write Interaudio Systems, 100 Mountain Road, Framingham, MA 01701.



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by **BOSE**

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array. Frequency range 35-20,000 Hz; crossovers 400 and 2.5k Hz at 6 dB/octave; impedance 8 ohms; maximum power 150 W program; walnut enclosure; 44½"H × 26½"W × 15¼"D \$1050
CS-4000 CL. Same as CS-4000A with Classic styling \$1150
CS-4000M. Same as CS-4000A with Moorish styling \$1225
CS-4005A. Same as CS-4000A except low-boy enclosure; 27¼"H × 36"W × 20"D \$1050

Concerto VII CS-501A Speaker System

Floor-standing 3-way speaker system with 12" high-compliance woofer, 6½" midrange, 3 tweeters mounted in arc array for improved dispersion. Frequency range 40-20,000 Hz; crossovers 800 and 2.5k Hz at 6 dB/octave; impedance 8 ohms; maximum power 150 W program; walnut cabinet; 30"H × 20½"W × 16"D \$625

LS-330A Speaker System

Infinite-baffle 3-way speaker system with 12" woofer, 6" midrange, 1" soft-dome tweeter. Frequency range 40-20,000 Hz; crossovers 500 and 2.5k Hz; maximum power 200 W continuous music; impedance 8 ohms; walnut cabinet; 34½"H × 15½"W × 12½"D \$399
LS-250A. Similar to LS-330A except uses 4½" midrange driver; frequency range 45-20,000 Hz; crossovers 500 and 2k Hz; 23½"H × 14½"W × 12¼"D \$259

LS-400 Speaker System

Infinite-baffle 3-way speaker system with 12" variable-density woofer, 6" aluminum midrange, 2 aluminum "Z" tweeters. Frequency range 40-20,000 Hz; crossovers 800 and 2.5 kHz; maximum power 100 W continuous; impedance 8 ohms; walnut cabinet; 25½"H × 18"W × 13¼"D \$379

MB-80 Speaker System

Miniature two-way high-performance acoustic-suspension speaker system designed for home, office, car, van, boat. Features 6" aluminum cone woofer, 1" soft-dome tweeter; failsafe tweeter protection circuit; oak veneer cabinet. Frequency response 80-20,000 Hz; crossover 1.6 kHz; maximum power 250 W continuous music; impedance 8 ohms; 12½"H × 7¾"W × 7¼"D \$450/pr

LS-220A Speaker System

Tower 2-way speaker system with 8" aluminum woofer, 1" soft-dome tweeter. Frequency range 60-20,000 Hz; crossover 3 kHz at 18 dB/octave; maximum power 100 W continuous; 36"H × 11½"W × 9½"D \$209

B-1002 Bard Outdoor Speaker

All-weather 2-way speaker system with 8" aluminum midrange/woofer, 2" aluminum tweeter. Frequency range 50-20,000 Hz; maximum power 60 W continuous music; impedance 8 ohms; uses jack and plug connector; 18" dia. × 21" × 12" \$199
B1000. Same as B-1002 except without tweeter \$169

LS-200A Speaker System

Tuned-port 2-way bookshelf speaker system with 8" aluminum midrange/woofer, 1" soft-dome tweeter. Frequency range 60-20,000 Hz; crossover 2.5 kHz; maximum power 150 W continuous music; impedance 8 ohms; 20¼"H × 11¼"W × 10¼"D \$159

Professional Series

CM-109-23AW Speaker System

Columnar 3-way, 3-line speaker system with 8" woofers in bass array with drivers over inverse tapered slot, 9 4½" midrange drivers, 8 2" tweeters. Frequency range 30-16,000 Hz; crossovers 800 and 2.5k Hz; efficiency 126 dB at 150 W, 4-ft on-axis;

impedance 8 ohms; maximum power 150 W continuous; marine plywood enclosure with beige enamel finish; 57"H × 22¼"W × 15¼"D \$1615
CM-109-23W. Same as CM-109-23AW except for biampifier operation \$1475

CM-450-4 Speaker System

Columnar speaker system designed for voice/speech, outdoor low-level music, classrooms, lecture halls, auditoriums. Features 4 4" aluminum-cone full-range drivers; weather-proof cabinet; mounting brackets. Measures 20¼"H × 6¾"W × 4¼"D \$202
CM-450-6. Same as CM-450-4 except includes 6 drivers. Measures 30½"H \$260

BRAUN by ADCOM

L300 Speaker System

Bookshelf 3-way speaker system with 5¼" woofer, 2" hemispherical dome midrange, ¾" hemispherical dome tweeter. Crossovers 600 and 3k Hz; impedance 8 ohms; frequency range 35-25,000 Hz; power range 10-50 W; black matte finish; 10"H × 6¼"W × 6¼"D \$479/pr

IC-1002 Speaker System

Bookshelf 3-way speaker system with 6.9" woofer, 2" dome midrange, 0.75" dome tweeter. Crossovers 500 and 4 kHz; impedance 8 ohms; frequency range 33-25,000 Hz; power range 60/100 W continuous; black matte finish, black aluminum grille; 13.6"H × 8.86"W × 7.09"D \$360/pr

L200 Speaker System

Miniature two-way air-suspension speaker system with 5¼" dynamic woofer, 1" hemispherical dome tweeter. Frequency range 40-25,000 Hz; crossover 1.5 kHz; power range 10-50 W; impedance 8 ohms; curved; perforated aluminum grille; 10"H × 6¼"W × 5¼"D \$359/pr

Output C Miniature Speaker System

Speaker system with 4" woofer, 1" dome tweeter. Frequency range 50-25,000 Hz DIN; crossover 1.5 kHz; power range 35/50 W rms; impedance 8 ohms; black matte finish; black aluminum grille; 4¼" × 6¼" × 4¼"D \$299/pr

CANTON

Ergo Speaker System

Amplified 3-way floor-standing speaker system with 2 250-mm woofers, 125-mm midrange, 20-20-mm tweeter, separate bass, midrange, treble hybrid amplifiers. Features signal correction circuit; thermal overload, short-circuit protection; bass level control; switchability for left/right configuration; oak, black, or white finish; perforated steel grille. Frequency range 20-30,000 Hz; crossovers 130 and 2.2k Hz; maximum amplifier power 100 W each; THD/IM distortion < 0.05%/ < 0.05%; S/N ratio > 80 dB woofer amplifier, > 90 dB midrange, tweeter amplifiers; 39"H × 15"W × 15"D \$3500/pr

Quinto Series Speaker Systems

Speaker systems in this series feature dome-type drivers; highly sealed plywood cabinets; 4-ohm impedance, perforated low-resonance metal grilles; walnut-veneer finish with bronze-brown grille, textured black lacquer finish with black grille, or textured white lacquer with white grille.

Quinto 540. Floor-standing 3-way system with 310-mm woofer, 38-mm midrange, 20-mm tweeter. Frequency range 22-30,000 Hz; crossovers 800 and 3.5k Hz; power range 40-140 W; sensitivity 5.1 W; distortion < 0.3%; 22.5"H × 13.4"W × 12.4"D \$1000/pr
FG 100. Stand for Quinto 540 \$150/pr

Quinto 530. Similar to Quinto 540 except bookshelf design with 260-mm woofer, 28-mm midrange, 20-mm tweeter. Low-end response 25 Hz; crossovers 1k and 5k Hz; power range 30-100 W; sensitivity 6.2 W; distortion < 0.6%; 18¼"H × 12¼"W × 10¼"D \$750/pr
Quinto 520. Similar to Quinto 530 except has 220-mm woofer. Low-end response 28 Hz; crossovers 800 and 5k Hz; power range 25-80 W; sensitivity 6.5 W; distortion < 0.8%; 15¼"H × 9¼"W ×

9½"D \$600/pr
Quinto 510. Similar to Quinto 520 except has 200-mm woofer. Low-end response 36 Hz; power range 25-80 W; sensitivity 7 W; 13¼"H × 8¼"W × 8¼"D \$500/pr

Mini-Speaker Systems

Plus L Speaker System

Designed as satellite for Plus B subwoofer (below), 2-way speaker system has 110-mm woofer, 20-mm tweeter. Features flush, wall mounting; walnut or black/white finish; removable grille. Frequency range 45-30,000 Hz; crossover 2.2 kHz; power range 10-60 W; distortion < 1%; sensitivity 11 W; impedance 4 ohms; 7¼"H × 4¼"W × 3¼"D \$350/pr
Plus Set. Full-range system consisting of 1 Plus B subwoofer/amplifier, 2 Plus L satellites \$1400

GL-250 Speaker System

Low-profile 2-way speaker system with 160-mm woofer, 20-mm tweeter. Features wall mounting suitability; black, white, or brown finish; perforated metal grille. Frequency range 42-30,000 Hz; crossover 1.7 kHz; power range 10-60 W; sensitivity 7.5 W; distortion < 1%; impedance 4 ohms; 10½"H × 7¼"W × 4¼"D \$350/pr
GL 210. Similar to GL 260 except has 110-mm woofer. Designed as satellite for GLS 50 subwoofer (below). Low-end response 48 Hz; crossover 2.1 kHz; power range 5-35 W; sensitivity 9 W; 7¾"H × 4¼"W × 4¼"D \$250/pr

Subwoofers

Plus B Subwoofer

Amplified subwoofer with 310-mm long-throw woofer, separate bass, midrange, treble hybrid amplifiers. Features signal correction circuit; thermal overload, short-circuit protection; bass level control; automatic/manual switching with time-delay relay; terminals, switching controls for up to 4 satellite speakers; walnut, black, or bronze-brown finish; removable perforated steel grille. Frequency range 20-130 Hz; crossover 130 Hz; maximum amplifier output power 100 W each; THD and IM distortion < 0.05% all amplifiers; 15¼"H × 15"D × 13¼"W \$1100

GLS 50 Subwoofer

Passive subwoofer with 310-mm long-throw woofer. Features black or walnut-veneer finish; perforated steel grille. Frequency range 22-120 Hz; crossover 120 Hz; power range 20-70 W; sensitivity 9 W; distortion < 0.4%; 13.4" cube \$400

CELESTION

SL6 Speaker System

Acoustic-suspension 2-way speaker system with 1¼" copper-alloy dome tweeter, VHP woofer. Features unique system design for minimum vibration distortion. American walnut cabinet \$400
 With rosewood finish \$500

Ditton 300 Speaker System

Acoustic-suspension 3-way speaker system with ULTRA™ dome tweeter, 5" midrange, 10" long-throw PVC-surround woofer. Features vertically aligned, flush-mounted drivers; walnut cabinet; 24¼"H × 13¼"W × 10¼"D \$400

Ditton 200 Speaker System

Unique 3-way passive-radiator speaker system with ULTRA™ 1" dome tweeter, 8" passive radiator/midrange, 8" PVC-surround woofer. Features flush-mounted, vertically aligned drivers; walnut cabinet; 23½"H × 13"W × 10½"D \$325

Ditton 150 Speaker System

Passive-radiator 2½-way speaker system with ULTRA™ 1" dome tweeter, 8" passive radiator, 6½" midbass woofer. Features vertically aligned, flush-mounted drivers; walnut vinyl cabinet; 21½"H × 11"W × 8¼"D \$270

Ditton 130 Speaker System

Acoustic-suspension speaker system with ULTRA™

dome tweeter, 8" long-throw PVC-surround woofer. Features vertically aligned, flush-mounted drivers; walnut vinyl cabinet; 19"H x 10"W x 9 1/2"D \$215

Ditton 110 Speaker System

Acoustic-suspension speaker system with ULTRA™ dome tweeter, 8" woofer. Features high efficiency design; vertically aligned, flush-mounted drivers; walnut vinyl cabinet; 16 1/4"H x 9 1/2"W x 8 3/4"D.... \$175

Ditton 100 Speaker System

Compact 2-way acoustic-suspension speaker system with 1" ULTRA™ tweeter, 6 1/2" PVC-surround woofer. Features vertically aligned, flush-mounted drivers; walnut vinyl cabinet; 13"H x 8 1/4"W x 7 3/4"D \$130

Ditton 100 Speaker System

Acoustic-suspension 2-way speaker system with 6 1/2" PVC-surround woofer, 1" dome tweeter. Features ver-



tically aligned, flush-mounted drivers; walnut-grain vinyl finish; black grille cloth. Frequency range 78-20,000 Hz; crossover 2.3 kHz; power range 10-40 W; sensitivity 87 dB SPL/W/m; impedance 8 ohms; 13"H x 8 1/4"W x 7 3/4"D; 9.75 lb \$260/pr

CERWIN-VEGA

Hed Series U-351 Speaker System

Floor-standing 3-way speaker system with 15" cast aluminum frame woofer, 6" cone midrange, 1" horn tweeter. Features midrange, tweeter level controls. Frequency response 32-17,000 Hz ± 4 dB; crossovers 700 and 4k Hz; sensitivity 103 dB SPL/W/m; power range 5-100 W continuous; impedance 8 ohms..... \$432
U-321. Similar to U-351 except uses 12" woofer; frequency response 38-17,000 Hz; sensitivity 98 dB SPL/W/m; power range 5-60 W..... \$305

U-123 Speaker System

Rear-ported tuned 3-way bookshelf speaker system with 12" cast aluminum frame woofer, 5" cone midrange, 1" horn tweeter. Features midrange, tweeter level controls. Frequency response 45-17,000 Hz ± 4 dB; crossovers 700 and 4k Hz; sensitivity 96 dB SPL/W/m; power range 5-60 W continuous .. \$248
U-12. Similar to U-123 except no midrange driver; crossover 2 kHz; no midrange level control... \$224

U-10 Speaker System

Rear-ported 2-way tuned bookshelf speaker system with 10" cast aluminum frame woofer, 1" tweeter. Features tweeter level control. Frequency response 42-20,000 Hz ± 4 dB; crossover 2 kHz; sensitivity 94 dB SPL/W/m; power range 5-40 W continuous; impedance 8 ohms \$196

SW-12 Subwoofer

Incorporates 12" cast-aluminum frame floor-facing woofer with 7-lb magnet, 2" tweeter with dual voice coil. Frequency response 38-150 Hz ± 4 dB; crossover 150 Hz; sensitivity 90 dB SPL/W/m; power range 5-100 W continuous; impedance 8 x 2 ohms..... \$322

Digital Series Speaker Systems

D-7 Speaker System

Tower-type 3-way speaker system with 12" woofer, dual 6" cone distributed midrange driver in large chamber, 1" horn tweeter. Features circuit protection; midrange, tweeter level controls; choice of finishes. Frequency response 25-17,000 Hz ± 3 dB; cross-

overs 700 and 3.5k Hz; sensitivity 98 dB SPL/W/m; maximum power 125 W; impedance 8 ohms . \$400

D-5 Speaker System

Floor/shelf 3-way speaker system with 12" woofer, 6" cone midrange, 1" horn tweeter. Features circuit protection; midrange, tweeter level controls; choice of finishes. Frequency response 32-17,000 Hz ± 3 dB; crossovers 700 and 3.5k Hz; sensitivity 86 dB SPL/W/m; maximum power 100 W; impedance 8 ohms..... \$300

D-3 Speaker System

Shelf-type 3-way speaker system with 10" woofer, 6" cone midrange, 1" horn tweeter. Features circuit protection; midrange, tweeter level controls; choice of finishes. Frequency response 30-17,000 Hz ± 3 dB; crossovers 700 and 3.5k Hz; sensitivity 92 dB SPL/W/m; impedance 8 ohms \$250

SAT I Speaker Systems

Full-spectrum speaker system consisting of pair of satellites, single subwoofer. Satellites feature 6" woofer, 1" horn tweeter; frequency response 100-17,000 Hz ± 3 dB; crossover 3 kHz; sensitivity 9C dB SPL/W/m; maximum power 90 W; impedance 8 ohms; circuit protection; midrange, tweeter level controls; choice of finishes.

SW-12. Subwoofer features dual voice coil floor-facing 12" woofer; frequency response 30-110 Hz ± 4 dB; built-in crossover to satellites at 110 Hz; sensitivity 95 dB SPL/W/m; maximum power 100 W; impedance 8 ohms x 2; choice of finishes.

2 Sat I satellites, SW-12 subwoofer..... \$500
 SW-12 subwoofer alone \$300

CLARKE SYSTEMS

Precedent Speaker System

Infinite-baffle 3-way floor-standing speaker system with 12" plastic-coated woofer, 5" line-loaded

midrange, 1" ferrofluid Mylar dome tweeter. Features computer-grade Mylar-film crossover network; rosewood cabinet; black fabric grille. Frequency range 30-20,000 Hz; power range 10-100 W continuous; efficiency 89 dB/W/m; crossovers 500 and 4.2k Hz; 31"H x 15"W x 14"D; 70 lb \$329

Premiere Speaker System

Infinite-baffle 3-way speaker system with 10" plastic-coated woofer, 5" line-loaded midrange, 1" ferrofluid Mylar dome tweeter. Features computer-grade Mylar-film crossover network; rosewood cabinet; black fabric grille. Frequency range 35-20,000 Hz; 26"H x 13"W x 11"D; 45 lb..... \$249

Encore II Speaker System

Bass-reflex 2-way bookshelf speaker system with 8" polypropylene woofer with 2-lb magnet, 1" ferrofluid Mylar dome tweeter. Features computer-grade Mylar film crossover with air-core inductors; rosewood cabinet; black fabric grille. Frequency range 40-20,000 Hz; power range 10-60 watts continuous; efficiency 89 dB/W/m at 1 kHz; 22"H x 12"W x 11"D; 40 lb \$199

Prestige Speaker System

Bass-reflex 2-way bookshelf speaker system with 8" polypropylene woofer, 3/4" dome tweeter. Features computer-grade Mylar-film crossover network with air-core inductors; rosewood cabinet; black fabric grille. Crossover at 5 kHz 12 dB/octave; frequency range 45-20,000 Hz; efficiency 91 dB/W/m at 1 kHz; power range 10-45 W continuous; 18"H x 10"W x 9.5"D; 26 lb \$125

Satellite/Subwoofer Speaker System

Satellite Speaker. 2-way transmission line with 4" long-throw woofer, ribbon tweeter. Features computer grade Mylar-film crossover network with air-core inductors; rosewood cabinet. Frequency range 85-35,000 Hz; 13"H x 6"W x 7.5"D; 15 lb... \$175

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Is the lower-priced QED® Loudspeaker as good as the Time Window®?

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CIRCLE NO. 17 ON READER SERVICE CARD

Subwoofer. 2 10" plastic treated woofers firing downward in single, dual-chambered cabinet on casters. Frequency range 30-150 Hz; rosewood cabinet; 31"D x 13"H x 15"W; 75 lb \$300

DAHLQUIST

DQ-10 Speaker System

Air-suspension phased array moving-coil 5-way speaker system with 10" woofer, 5" midbass, 2" soft-dome midrange, 7/8" dome tweeter, piezoelectric ceramic supertweeter. Features low-diffraction time-delay correction; treble-slope control; solid walnut or oak trim with black or white grille cloth; manufactured in mirror-imaged pairs. Frequency range 37-27,000 Hz; crossovers 400, 1k, 6k, 12.5k Hz; power range 60-200 W; impedance 8 ohms; 31 1/2"H x 30 3/4"W x 9"D \$500
ST-10 stand \$80/pr

DQ-1 W Subwoofer

Subwoofer with 13" driver in heavy cast frame in walnut enclosure. For bi-amplified systems but can be used with passive crossovers. Features walnut or oak finish with black or white grille cloth; 28"H x 18"W x 14"D \$350

Dynamic Tracking Studio Monitors

DQM-9 Speaker System

Dual rear-firing tuned-port speaker system with 11" cone woofer with wound-ribbon voice coil, 5" cone midrange with wound-ribbon voice coil, 1" dome tweeter. Frequency range 28-22,000 Hz; power range 25-200 W; sensitivity 95 dB at 1 kHz; crossovers 450 and 3.5k Hz; impedance 8 ohms; 25"H x 13 1/2"D x 14 1/2"W; 65 lb. \$600

DQM-7 Speaker System

Dual rear-firing tuned-port speaker system with 9" cone woofer with wound ribbon voice coil, 4" cone midrange, 1" dome tweeter. Frequency range 35-22,000 Hz; power range 25-140; sensitivity 94.5 dB at 1 kHz; crossovers 550 and 4k Hz; impedance 8 ohms; 25"H x 13 1/2"W x 11 1/2"D; 55 lb ... \$400

DQM-5 Speaker System

Dual rear-firing-port 2-way speaker system. Frequency range 37-22,000 Hz; power range 25-120 W; sensitivity 94 dB at 1 kHz; crossovers 550 and 3.2k Hz; impedance 8 ohms; 21 1/2"H x 12 1/2"W x 11 1/2"D; 35 lb \$289
ST-9. Accessory Stand \$79.50/pr

DCM

Time Bass Woofer System

Phase-coherent subwoofer system features phase-compensated crossover to accommodate satellite speakers of various efficiencies without bi-amplification; bypass switch for biamping with electronic crossover if desired. Minimum impedance 4 ohms; 31"H x 18"W x 18"D \$792/pr

Time Window® Speaker System

Floor-standing 3-way speaker system with variable-dispersion time-coherent point source to permit separate adjustment of high and middle frequencies in ambient sound field without changing total frequency/energy balance. Power range 40-1000 W; impedance 8 ohms; accurately reproduces 30-µsec impulse over entire listening area; 44"H x 17"W x 15 1/2"D \$1998/pr

Time Window Speaker System

Floor-standing 2-way speaker system with cylindrical back and triangular prism front. Optimized for minimum time-dispersion error. Incorporates 2 proprietary 6 1/2" low/mid-frequency drivers, 2 dome tweeters symmetrically placed on 2 angled front faces of prism. Frequency range 25-20,000 Hz; power range 10-200 W continuous; impedance 6-8 ohms; dispersion 180° horizontal, 60° vertical; 36"H x 14 1/4"W x 11 1/4"D \$720/pr

QED Speaker System

Floor-standing 2-way speaker system with woofer and tweeter. Frequency range 30-18,000 Hz; sensitivity

91 dB/W/m; power range 10-100 W continuous; impedance 8 ohms; 36"H x 11 1/4"W x 9 1/4"D \$504/pr

Macrophone Speaker System

Unique-shape 2-way bookshelf speaker system that makes efficient use of shelf space. System resonance 30 Hz; sensitivity 84 dB/W/m; power range 10-100 W; impedance 8 ohms; 13"H x 12 1/2"D x 9"H. Walnut cabinet \$396/pr
Rosewood or zebrawood cabinet \$450/pr

DENON

SC-101 Speaker System

Sealed 2-way bookshelf speaker system with 20-cm cone woofer, 3.2-cm soft-dome tweeter. Frequency



range 45-20,000 Hz; crossover 3 kHz; sensitivity 91 dB/W/m; maximum power 80 W music; impedance 8 ohms; 410 mm H x 242 mm D x 240 mm H \$350/pr
IS-80. Tubular steel speaker stands for SC-101; 302 mm D x 299 mm H x 265 mm H \$60/pr

DESIGN ACOUSTICS

DA-30 Three-Piece Speaker System

Consists of 2 DA-10 satellites, DA-20LF 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; impedance 8 ohms \$595

DA-20LF 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 DA-10 satellites (below); bi-amplifier inputs for use with other satellites. Response to below 40 Hz; oiled-walnut cabinet; black cloth grille; power range 15-250 W; 21"H x 16"W x 16"D \$295

DA-10 Speaker System

Acoustic-suspension 2-way miniature bookshelf speaker system with 5" woofer, 1" dome tweeter. Features midrange, tweeter level controls; oiled-walnut cabinet; solid walnut beveled baffle; black cloth grille. /frequency response 80-16,000 Hz ±1.5 dB; crossover 2.5 kHz; sensitivity 85 dB SPL/W/m; power range 15-50 W; impedance 4 ohms; 11 1/4"H x 7 1/4"W x 5 1/2"D \$180

Point Source Series

PS-10 Speaker System

Acoustic-suspension 3-way speaker system with down-firing 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. Frequency range 40-22,000 Hz; crossovers 190 and 2k Hz; sensitivity 90 dB SPL/W/m; power range 15-200 W; impedance 8 ohms; 14"H x 13 3/4"D x 11"W \$250
PS-8. Similar to PS-10 except 2-way design with 8" woofer, 1 1/2" dome tweeter; frequency range 55-21,000 Hz; crossover 800 Hz; 13 3/4"D x 11"H 9"W \$180

ELECTRO-VOICE

Interface: D Series II Speaker System

Floor-standing vented 3-way speaker system with 12" down-firing woofer, 6 1/2" vented midrange, radial horn tweeter. Features tweeter protection; woofer environmental control; active equalizer that extends

bass response, eliminates subsonic noise, has high-frequency control; walnut veneer cabinet. Frequency 28-18,000 Hz ± 2.5 dB; crossovers 40 Hz acoustic, 350 and 3 kHz electrical; sensitivity 97 dB SPL/W/m; power range 1.5/500 W; impedance 8 ohms; 32"H \times 21 $\frac{1}{4}$ "W \times 15 $\frac{1}{2}$ "D \$2500

Interface: C Series II Speaker System

Vented 3-way floor-standing speaker system with 10" woofer, 6 $\frac{1}{2}$ " vented midrange, 1 $\frac{1}{2}$ " dome supertweeter with acoustic lens. Features active equalizer; tweeter protection; walnut veneer finish. Frequency response 30-18,000 Hz ± 2.5 dB; crossovers 42 Hz acoustic, 400 and 2.5k Hz electrical; sensitivity 93 dB SPL/W/m; power range 2.8-350 W; impedance 6 ohms; 31 $\frac{1}{2}$ "H \times 20"W \times 12 $\frac{1}{2}$ "D \$1400

Interface: B Series III

Vented 2-way speaker system with 12" woofer, 8" midwoofer, 1 $\frac{1}{2}$ " dome supertweeter with acoustic lens. Features tweeter protection; active equalizer; walnut veneer cabinet. Frequency response 30-18,000 Hz ± 2.5 dB; crossovers 42 Hz acoustic, 1.5 kHz electrical; sensitivity 92 dB SPL/W/m; power range 3.6-250 W; impedance 8 ohms; 29 $\frac{1}{2}$ "H \times 16"W \times 11"D \$1000

Interface: A Series III

Vented 2-way bookshelf speaker system with 12" woofer, 8" midwoofer, 1 $\frac{1}{2}$ " dome supertweeter with acoustic lens. Features tweeter protection; active equalizer; walnut veneer cabinet. Frequency response 35-18,000 Hz ± 2.5 dB; crossovers 49 Hz acoustic, 1.5 kHz electrical; sensitivity 92 dB SPL/W/m; power range 90-250 W; impedance 8 ohms; 24 $\frac{1}{2}$ "H \times 15 $\frac{1}{2}$ "W \times 8 $\frac{1}{2}$ "D \$840

Sentry V Monitor Speaker System

Ported floor-standing 2-way monitor speaker system with high-efficiency 10" woofer, ST350A neckless radial horn tweeter. Frequency response 45-18,000 Hz

± 3 dB; crossover 2 kHz; sensitivity 96 dB SPL/W/m; power range 30-300 W; impedance 4 ohms minimum; 28 $\frac{1}{2}$ "H \times 20"W \times 11 $\frac{1}{4}$ "D \$400
SEQ. Stereo active equalizer for Sentry V for system frequency response 32-18,000 Hz; has high-frequency slope, tape/source input controls; THD 0.01% at 1 V rms in; IM distortion 0.005% at 1.5 V rms in; maximum input 7 V rms sine wave; noise -80 dB below 200 mV; 2"H \times 8"W \times 8"D \times 2"H \$429

Interface: 3 Series II Speaker System

Speaker system with 12" woofer, 8" midwoofer, 1 $\frac{1}{2}$ " dome supertweeter with acoustic lens. Frequency response 40-18,000 Hz ± 4 dB; crossover 1.5 kHz; sensitivity 92 dB SPL/W/m; power range 3.6-250 W; impedance 8 ohms; walnut-grain vinyl finish; 25 $\frac{1}{4}$ "H \times 14 $\frac{1}{4}$ "W \times 13 $\frac{1}{4}$ "D \$300

Interface: 2 Series II Speaker System

Speaker system with 10" woofer, 8" midwoofer, 1 $\frac{1}{2}$ " dome supertweeter with acoustic lens. Frequency response 47-18,000 Hz ± 4 dB; crossover 1.5 kHz; sensitivity 92 dB SPL/W/m; power range 3.6-250 W; impedance 8 ohms; walnut-grain vinyl finish; 24 $\frac{1}{4}$ "H \times 13 $\frac{1}{4}$ "W \times 10 $\frac{1}{4}$ "D \$260

Sentry 100A Professional Monitor System

Vented 2-way studio monitor with 8" woofer with optimally vented Butterworth tuning, dome supertweeter. Crossover 2 kHz, frequency response 45-18,000 Hz ± 3 dB; impedance 6 ohms; SPL/W/m 91 dB; sensitivity 41.8 dB; maximum power 30 W continuous; black matte vinyl cabinet gray cloth grille; 17.25"H \times 12"W \times 11"D; 28 lb \$219

Interface: 1 Series II Speaker System

Speaker system with 8" midwoofer, 1 $\frac{1}{2}$ " dome supertweeter with acoustic lens. Frequency response 56-18,000 Hz ± 4 dB; power range 3.6-250 W; impedance 8 ohms; walnut-grain vinyl finish; 21 $\frac{1}{4}$ "H \times 11 $\frac{1}{4}$ "W \times 9 $\frac{1}{4}$ "D \$200

EPI

A500 Speaker System

Floor-standing 3-way speaker system with 10" "Focused Field" woofer, 2 12" passive radiators, 4" midrange with aluminum voice coil and ferrofluid damping, 1" air-spring tweeter. Features oiled-walnut and ebony vinyl finish; black cloth grille. Frequency response 45-20,000 Hz ± 3 dB; crossovers 750 and 3k Hz; power range 20-250 W continuous; impedance 4 ohms; 36"H \times 14"D \times 12"W \$450

A300 Speaker System

Bookshelf/floor-standing 3-way speaker system with 10" "Focused Field" woofer, 4" midrange with aluminum voice coil and ferrofluid damping, 1" air-spring tweeter. Features 3-position tweeter level switch; oiled-walnut finish; black cloth grille. Frequency response 36-20,000 Hz ± 3 dB; crossover 1.8 kHz; power range 20-100 W continuous; impedance 8 ohms; 24"H \times 13 $\frac{1}{2}$ "W \times 9"D \$300

A140 Speaker System

Bookshelf, floor-standing 2-way speaker system with 6" long-traverse woofer, 8" passive radiator, 1" air-spring tweeter. Features 3-position tweeter level control; oiled-walnut finish; black cloth grille. Frequency response 38-20,000 Hz ± 3 dB; crossover 1.8 kHz; power range 20-100 W; impedance 8 ohms; 24"H \times 13 $\frac{1}{2}$ "W \times 9"D \$220

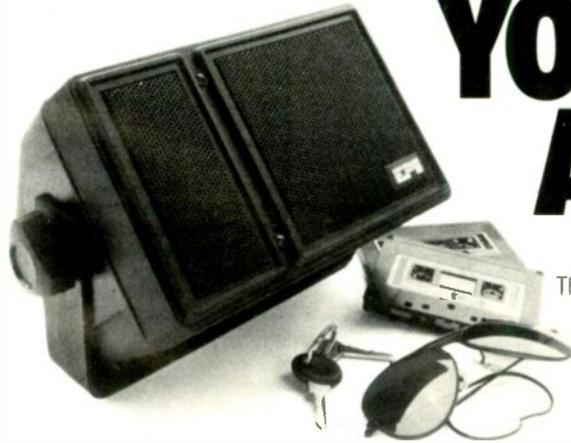
A120 Speaker System

Speaker system with 10" long-traverse woofer, 1" air-spring tweeter. Features 3-position tweeter level switch; wood-grain vinyl finish; black cloth grille. Frequency response 38-20,000 Hz ± 3 dB; crossover 1.8 kHz; power range 15-90 W continuous; impedance 8 ohms; 25"H \times 15"W \times 11"D \$180

100 Speaker System

Bookshelf 2-way speaker system with 8" long-

THE BIG SOUND YOU CAN MOVE AROUND.



The big freeway sound



The big living room sound

For people who have to economize in space there is a tiny, moveable speaker that doesn't economize in sound. Not only can the EPI LS81C be mounted almost anywhere at virtually any angle and any position in your car and deliver a big, rich sound, it can be snapped out and used in your living room.

The reason this little speaker delivers such a huge sound is that it's built with virtually the same components we use in our famous EPI home hi-fi speakers: The celebrated one-inch "Air Spring" tweeter, a specially designed four-and-one-half inch bass driver.

Maybe the times are making you sacrifice space. That doesn't mean you have to sacrifice sound.



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CIRCLE NO. 26 ON READER SERVICE CARD

9 SPEAKER SYSTEMS

traverse woofer, 1" air-spring tweeter. Features wood-grain vinyl finish; black cloth grille. Frequency response 48-20,000 Hz ± 3 dB; crossover 1.8 kHz; power range 15-90 W; impedance 8 ohms; 21"H \times 11"W \times 9"D \$125

81 Mini Speaker System

Mini bookshelf 2-way speaker system with 4½" long-throw woofer, 1" air-spring tweeter. Features pebbled-surface cabinet; perforated plastic grille. Frequency response 95-20,000 Hz ± 3 dB; crossover 2.6 kHz; power range 15-70 W continuous; impedance 4 ohms; 7¼"H \times 5¼"W \times 5¼"D \$115

A 70 Speaker System

Bookshelf 2-way speaker system with 6" long-throw woofer, 1" air-spring tweeter. Features wood-grain vinyl finish; black cloth grille. Frequency response 58-20,000 Hz ± 3 dB; crossover 1.8 kHz; power range 15-80 W continuous; impedance 8 ohms; 16"H \times 10½"W \times 7¼"D \$89

EPICURE

3.0 Series II Speaker System

Floor-standing 3-way speaker system with 10" woofer, 6" midrange, 1" acoustic-loading spherical tweeter in truncated-pyramid cabinet. Frequency response 32-20,000 Hz ± 3 dB; crossovers 475 and 2k Hz; impedance 4 ohms; 41¼"H \times 17½" bottom \times 8½" top \$585

2.0 Speaker System

Floor-standing 2-way speaker system with 6" woofer, 8" passive radiator, 1" acoustic-loading spherical tweeter. Comes with integral stand. Frequency response 38-20,000 Hz ± 3 dB; crossover 2 kHz; impedance 6 ohms; 34"H \times 10¼"W \times 12¼"D \$355

1.0 Speaker System

Miniature 2-way speaker system with 6" woofer, 1" acoustic-loading spherical tweeter, diffraction-controlling foam cabinet front. Frequency response 50-20,000 Hz ± 3 dB; crossover 2 kHz; impedance 6 ohms; 14½"H \times 10¼"W \times 8"D \$199

ESS

AMT Series

Transar II Speaker System

System consists of midrange/tweeters, separate subwoofer commode. Features passive crossover between woofer and tweeter; electronic crossover with 100-Hz crossover point and mono/stereo low-frequency outputs and 200-W/channel power amplifier for subwoofer, 20-W/channel power amplifier for midrange/tweeters; System frequency response 20.6-20,000 Hz ± 3 dB; subwoofer 21"H \times 24"W \times 24"D; satellites 45"H \times 27½"W \times 15"D \$3495

AMT Monitor Speaker System

Floor-standing passive-radiator speaker system with 12" Bextrene rubber-surround woofer, 12" passive radiator, 21.5-sq-in. Heil air-motion transformer with polyester articulated silicon-edged diaphragm. Features presence/brilliance control; oiled walnut finish; black-brown grille. Frequency response 30-23,000 Hz ± 3 dB; crossover 800 Hz; maximum power 400 W music; impedance 6 ohms; horizontal/vertical dispersion 120°/30°; sensitivity 91-dB SPL/W/m; 39.25"H \times 15.63"W \times 15.88"D \$750

AMT 1C Speaker System

Floor-standing passive-radiator 2-way speaker system with 12" Bextrene rubber-surround woofer, 12" passive radiator, 21.5-sq-in. Heil air-motion-transformer with polyester articulated silicon-edged diaphragm. Features midrange presence, brilliance controls; oiled walnut finish; black-brown grille. Frequency response 35-23,000 Hz ± 3 dB; crossover 800 Hz; maximum



power 400 W music; impedance 6 ohms; horizontal/vertical dispersion 120°/30° vertical; sensitivity 91 dB SPL/W/m; 35.25"H \times 16.25"W \times 16.25"D \$635

AMT Bookshelf Speaker System

Passive-radiator 2-way bookshelf speaker system with 12" woofer, 12" passive radiator, 21.5 in² Heil air motion transformer with polyester articulated silicon-edged diaphragm. Features presence/brilliance control; oiled-walnut finish; black-brown grille. Frequency response 40-23,000 Hz ± 3 dB; crossover 800 Hz; maximum 400 W music power; impedance 6 ohms; horizontal/vertical dispersion 120°/30°; sensitivity 91-dB SPL/W/m; 24"H \times 14"W \times 14"D \$550

Performance Series

PS-4B Speaker System

Passive-radiator speaker system with 10" woofer, Heil air-motion transformer with 10.4-sq-in. radiating area. Features birch vinyl finish. Frequency response 25-24,000 Hz ± 3 dB; crossover 1.8 kHz; power range 15-160 W; sensitivity 93 dB SPL/W/m; impedance 6 ohms; 35"H \times 12.5"W \times 12.12"D; 48 lb \$359

PS-5B Speaker System

Passive-radiator speaker system with 10" woofer, Heil tweeter/midrange driver. Features walnut-grain cabinet with dark-brown cloth grille. Frequency response 40-22,000 Hz ± 3 dB; power range 15-140 W; impedance 4 ohms; crossover 2.4 kHz; sensitivity 93 dB SPL/W/m; 24.12"H \times 14"W \times 14"D; 36 lb \$299

PS-8B Speaker System

Passive-radiator speaker system with 8" woofer, Heil tweeter/midrange driver. Features tweeter level control; walnut-grain finished; dark-brown cloth grille. Frequency response 50-22,000 Hz ± 3 dB; power range 15-100 W; impedance 6 ohms; crossover 2.4 kHz; sensitivity 93 dB SPL/W/m; 22"H \times 12.25"W \times 10.62"D; 30 lb \$249

Targa Series Speaker Systems

All Targa Series speaker systems are bookshelf designs.

Targa 312A \$299
Targa 310A \$249
Targa 210A \$199

FISHER

STE2000 Speaker System

Floor-standing bass-reflex speaker system with 15" woofer, 8" midbass midrange, 5" midrange driver, 2 tweeters. Features lower-midrange, midrange, tweeter controls; walnut-veneer finish; removable grille. Frequency range 30-40,000 Hz; impedance 8 ohms; power range 25-150 W; crossovers 600 1.5k, 6k Hz; sensitivity 92 dB SPL/W/m; 42¼"W \times 31½"H \times 19¼"D; 176 lb \$4500

STE1200 Speaker System

Floor-standing bass-reflex speaker system with 12" woofer; 2¼" midrange, 1½" metal-ring tweeter. Features tweeter, midrange level controls; walnut-veneer finish; removable grille. Frequency range 30-30,000

Hz; impedance 8 ohms; crossovers 500 and 5k Hz; power range 20-100 W; sensitivity 92 dB SPL/W/m; 35¼"H \times 17¼"W \times 16"D; 112 lb \$895

STE1150 Speaker System

Bass-reflex speaker system with 12" woofer, 1½" midrange driver, 1½" dome tweeter. Features tweeter, midrange level controls; walnut veneer finish; removable grille. Frequency range 40-20,000 Hz; impedance 8 ohms; power range 15-75 W; crossovers 500 and 5k Hz; sensitivity 92 dB SPL/W/m; 30¼"H \times 16½"W \times 14¼"D; 66 lb \$695

ST925 Speaker System

Bass-reflex speaker system with 15" woofer, 6" midrange driver, 4" horn tweeter. Features tweeter, midrange level controls; candlelight hickory vinyl finish; removable grille. Frequency range 40-20,000 Hz; impedance 8 ohms; power range 25-130 W; crossovers 1.5 and 7 kHz; sensitivity 90 dB SPL/W/m; 31½"H \times 18¼"W \times 13½"D; 51 lb \$450

ST920 Speaker System

Bass-reflex speaker system with 12" woofer, 5" midrange, 4" horn tweeter. Features midrange, tweeter level controls; candlelight hickory vinyl finish; removable grille. Frequency range 45-20,000 Hz; impedance 8 ohms; crossovers 1.5 and 6 kHz; power range 20-90 W; sensitivity 94 dB SPL/W/m. 28"H \times 16"W \times 12¼"D; 41 lb \$390

STE1080 Speaker System

Bass-reflex speaker system with 10" woofer, 1½" dome tweeter. Features walnut-grain vinyl finish; re-



movable grille. Frequency range 40-20,000 Hz; impedance 8 ohms; power range 10-40 W; crossover 2.5 kHz; sensitivity 91 dB SPL/W/m; tweeter level control; 21¼"H \times 12"W \times 12"D; 27¼ lb .. \$295

ST915 Speaker System

Bass-reflex speaker system with 10" woofer, 5" midrange, 3" tweeter. Features tweeter, midrange level controls; candlelight hickory vinyl finish; removable grille. Frequency range 50-20,000 Hz; impedance 8 ohms; power range 10-50 W; crossovers 1.5 and 6 kHz; sensitivity 92 dB SPL/W/m; 26¼"H \times 14¼"W \times 11¼"D; 31 lb \$250

XP95C Speaker System

Acoustic-suspension speaker system with 15" woofer, 2 5" midranges; 3" tweeter. Features midrange presence, treble brilliance controls; walnut-grain vinyl finish; removable grille. Frequency range 40-20,000 Hz; impedance 8 ohms; power range 25-75 W; crossovers at 1 and 5 kHz; sensitivity 92 dB SPL/W/m; 28"H \times 17½"W \times 12¼"D; 44 lb \$250

STEC7 Speaker System

Bass-reflex speaker system with 8" woofer, 4½" midrange, 2" cone tweeter. Features silver vinyl veneer finish. Frequency range 50-20,000 Hz; impedance 6 ohms; power range 10-60 W; crossovers at 1 and 5 kHz; sensitivity 91 dB SPL/W/m; 17¼"H \times 10¼"W \times 9¾"D; 19 lb \$225

MS157 Speaker System

Bass-reflex speaker system with 12" woofer, 5" midrange, 3" tweeter. Features walnut-grain vinyl finish; removable grille. Frequency range 40-20,000 Hz; impedance 8 ohms; power range 8-60 W; crossovers at 1 and 5 kHz; sensitivity 92 dB SPL/W/m; 29¼"H \times 14¼"W \times 11¼"D; 26 lb \$160

DS176 Speaker System

Bass-reflex speaker system with 12" woofer, 5" midrange, 3" tweeter. Frequency range 40-20,000 Hz; impedance 8 ohms; power range 5-75 W; crossovers 1.5 and 6 kHz; sensitivity 92 dB SPL/W/m; 25½"H x 16"W x 11½"D; 34 lb \$150

SME 261 Speaker System

Compact 2-way speaker system with 4" woofer, 1" tweeter. Features silver-vinyl finish. Frequency range 80-20,000 Hz; crossover 4.5 kHz; power range 10-50 W; sensitivity 85 dB SPL/W/m; impedance 8 ohms; 7¾"H x 4¾"W x 4½"D; 5 lb \$150

MS147 Speaker System

Bass-reflex speaker system with 10" woofer, 5" midrange, 3" tweeter. Features walnut-grain vinyl finish; removable grille. Frequency range 50-17,000 Hz; impedance 8 ohms; power range 6.5-45 W; crossovers 1 and 5 kHz; sensitivity 92 dB SPL/W/m; 26¾"H x 14¾"W x 11"D; 22 lb \$130

ST 280 Speaker System

Bass-reflex 2-way speaker system with 8" woofer, 3" cone tweeter. Features woodgrain-vinyl finish; removable grille. Frequency range 55-20,000 Hz; crossover 3 kHz; power range 8-40 W; sensitivity 90 dB SPL/W/m; impedance 8 ohms; 17¾"H x 11¾"W x 8¾"H \$130

DS 151 Speaker System

Bass-reflex 3-way speaker system with 10" woofer, 5" midrange, 3" cone tweeter. Features candlelight-hickory vinyl finish; removable grille. Frequency range 45-20,000 Hz; crossovers 1.5 and 6 kHz; power range 3-50 W; sensitivity 92 dB SPL/W/m; impedance 8 ohms; 23½"H x 14¾"W x 10"D... \$110

MS137 Speaker System

Bass-reflex speaker system with 8" woofer, 3" midrange, 2" tweeter. Features walnut-grain vinyl finish; removable grille. Frequency range 60-16,000 Hz; impedance 8 ohms; power range 5-35 W; sensitivity 91 dB SPL/W/m; crossovers 6 and 8 kHz; 25¾"H x 14¾"W x 11"D; 21 lb \$100

MS M140 Speaker System

Bass-reflex 2-way speaker system with 6" woofer, 2½" tweeter. Features candlelight-hickory vinyl finish. Frequency range 60-20,000 Hz; crossover 6 kHz; power range 5-30 W; sensitivity 92 dB SPL/W/m; impedance 8 ohms; 11¾"W x 9¾"D x 8¾"H \$100

MSM100 Speaker System

Bass-reflex speaker system with 6" woofer, 2½" tweeter. Frequency range 60-20,000 Hz; impedance 8 ohms; power range 5-30 W; crossover 6 kHz; sensitivity 90 dB SPL/W/m; rosewood-grain vinyl finish;

10¾"H x 8¾"W x 9¾"D \$90
MSM101. Same as MSM100 but with candlelight hickory finish \$90

MS127 Speaker System

Bass-reflex speaker system with 8" woofer, 2" midrange driver. Features walnut-grain vinyl finish; removable grille. Frequency range 60-14,000 Hz; impedance 8 ohms; power range 4-30 W; crossover 6 kHz; sensitivity 91 dB SPL/W/m; 24¾"H x 13¾"W x 9"D; 16 lb \$90

DS 126 Speaker System

Bass-reflex 3-way speaker system with 8" woofer, 5" midrange, 3" tweeter. Features candlelight-hickory vinyl finish; midrange presence, treble brilliance controls. Frequency range 40-40,000 Hz; crossovers 1.5 and 6 kHz; power range 2-30 W; sensitivity 92 dB SPL/W/m; impedance 8 ohms; 22¾"H x 12¾"W x 10"D \$100

FRAZIER

Eleven System

Speaker system with 15" and 12" woofers, 4" midranges, each pair isolated in separate sealed enclosures, 2 dc piezoelectric horn supertweeters. Crossovers 400 and 4k Hz; efficiency 103-dB SPL/W/m; maximum power 100 W continuous; impedance 4 ohms; stepped high-frequency, midrange controls; oiled-walnut veneer finish; black foam grille; 55"H x 30"W x 18"D \$1766

Seven-D System

Floor-standing speaker system with 12" woofer, 4½" high-compliance midrange with rolled edge, soft-dome tweeter. Features front-mounted woofer, midrange; midrange, tweeter controls; walnut-veneer finish; black knit grille. Frequency range 25-22,000 Hz; power range 5-100 W; impedance 8 ohms; crossovers 500 and 4k Hz; efficiency 98 dB SPL/W/m; 29"H x 19"W x 16¾"D; 98 lb \$562

Mark V-D System

Speaker system with 12" woofer, 4" midrange, 1" soft-dome tweeter. Features front-mounted woofer, midrange; midrange, tweeter level controls; walnut-veneer cabinet; knit grille. Frequency range 35-22,000 Hz; power range 5-100 W; impedance 8 ohms; efficiency 97 dB SPL/W/m; 25¾"H x 14"W x 12¾"D; 55 lb \$423

Concerto D Speaker System

Floor-standing speaker system with 10" woofer, 3" x 7" compression horn tweeter, 1" dome tweeter. Features midrange, tweeter level controls; walnut-veneer finish; knit grille. Frequency range 35-22,000 Hz; power range 5-75 W; impedance 8 ohms, crossovers 2 and 4 kHz; efficiency 97 dB SPL/W/m; 21½"W x

16¾"D x 16"W; 56 lb \$344

Mark IV-D Speaker System

Speaker system with 10" stiff-suspension woofer, 1" dome tweeter. Features front-mounted woofer; tweeter level control; walnut-veneer finish; knit grille. Frequency range 40-22,000 Hz; power range 5-50 W; impedance 8 ohms; crossover 4 kHz; efficiency 96 dB SPL/W/m; 24"H x 14"W x 12"D; 44 lb \$255

Monte Carlo D Speaker System

Bookshelf speaker system with 8" woofer, 1" ferrofluid dome tweeter. Features walnut-veneer finish; black double-knit grille. Frequency range 50-22,000 Hz; power range 5-50 W; impedance 8 ohms; efficiency 94 dB SPL/W/m; 19"H x 12"D x 10"W; 31 lb \$160

CAD-1 System

Bookshelf speaker system with 8" woofer, 3" solid-backed cone tweeter. Frequency range 50-14,000 Hz; crossover 3 kHz; power range 15-32 W continuous; sensitivity 93 dB SPL/W/m; impedance 8 ohms; walnut-grain vinyl finish; black knit fabric grille; 19"H x 10½"W x 10½"D \$110

FRIED PRODUCTS

Model O Subwoofer

Mirror-image dual-channel subwoofer with transmission-line design, 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 24½"W x 13¾"D.

Kit \$650/pr
Factory assembled \$2500/pr
Model S.M. Similar to Model O except maximum 12" woofer; power 400 W; 38"H x 29½"W x 15"D.
Kit \$750/pr
Factory assembled \$3000/pr

E Speaker System Kit

Line-tunnel pyramidal floor-standing 2-way speaker system with 8" woofer with magnetic damping, dome tweeter. Frequency response 32-20,000 Hz ±3 dB; sensitivity 95 dB/W at 500 Hz; impedance 8 ohms; includes 2" pedestal base; 33"H x 18½" (bottom) x 6½" (top) W x 15½" (bottom) x 9½" (top) D \$515/pr
Factory assembled \$1300/pr

C Satellite Speaker Kit

Pyramidal 2-way speaker system designed for use with Model O subwoofer. Features 6" bass/midrange, dome tweeter; pressure-release damped venting; 10½" (bottom) x 6" (top) W x 9" (bottom) x 6½" (top) D \$400/pr

"...strikingly balanced, uncolored sound..."

-Stereo Review



DA-30 Stereo-trio System

"...delivers wall-shaking sound... driven by a good 30-watt-per-channel amplifier."

"...the blending of the DA20LF with the DA-10 satellites was exceptionally effective."

"...no one could suspect...that a common-bass module was present."

"...a most attractive system..."
Read the entire review and hear the exciting DA-30 Stereo-trio at your Design Acoustics dealer today!

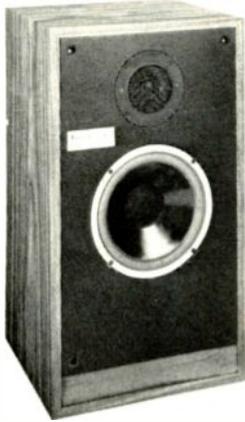
DA DESIGN ACOUSTICS
An Audio-Technica Company

9 SPEAKER SYSTEMS

Factory assembled..... \$800/pr

A/2 Speaker System

Speaker system with 8" polypropylene woofer, 1" soft-dome tweeter. Features edge-on free-flow filters;



line tunnel. Frequency response 45-20,000 Hz \pm 3 dB; power range 25-100 W; impedance 8 ohms; crossover 2 kHz; sensitivity 89 dB SPL/W/m; 23"H \times 13"W \times 10 1/2"D..... \$500/pr

Q/2 Speaker System

Speaker system with 8" polypropylene woofer, dome tweeter. Features edge-on free-flow filters; circuit-breaker protection. Frequency range 45-20,000 Hz; power range 20-100 W; vinyl finish; 20"H \times 13"W \times 10 1/2"D..... \$350/pr

GARRARD

Master 78 Speaker System

Vented 3-way speaker system with computer-tuned duct (CTD), Long Fiber (LF) speaker cones, power level display (PLD). Features midrange, tweeter level controls; removable grille. Maximum power 80 W continuous; sensitivity 96 dB SPL/W/m; impedance 8 ohms; 600 mmH \times 350 mmW \times 320 mmD; 16.3 kg..... \$200

Master 67. Similar to Master 78 except no power-level display. Maximum power 65 W; 560 mmH \times 330 mmW \times 300 mmD; 13 kg..... \$150

Master 56. Similar to Master 67. Maximum power 50 W; 495 mmH \times 300 mmW \times 250 mmD; 10 kg..... \$130

Master 45. Similar to Master 56 except 2-way system. Maximum power 40 W; 450 mmH \times 280 mmW \times 240 mmD; 8 kg..... \$100

GENESIS

210 Speaker System

Floor-standing 2-way speaker system with 8" woofer, 10" passive radiator, 1" ferrofluid-suspension invert-



ed-dome tweeter. Features 2-position tweeter control; walnut-grain vinyl finish; beveled low-diffraction-frame black grille. Frequency response 30-20,000 Hz \pm 4 dB; crossovers 45 and 1.8k Hz; sensitivity 89 dB/W/m; power range 20-100 W; impedance 8 ohms; 31"H \times 16 1/2"W \times 10 1/2"D. \$500-\$520/pr

110 Speaker System

Acoustic-suspension 2-way speaker system with 10" woofer, 1" ferrofluid-suspension inverted-dome tweeter. Features walnut-grain vinyl finish; low diffraction-frame black grille. Frequency response 38-20,000 Hz \pm 4 dB; crossover 1.8 kHz; sensitivity 89 dB/W/m; power range 20-100 W/channel; impedance 8 ohms; 27"H \times 14 1/2"W \times 10 1/2"D..... \$400-\$420/pr

1 Speaker System

Acoustic-suspension 2-way speaker system with 8" woofer, 1" inverted-dome tweeter. Features walnut-grain vinyl finish. Frequency response 58-20,000 Hz \pm 4 dB; crossover 1.8 kHz; sensitivity 89 dB/W/m; power range 15-50 W; impedance 8 ohms..... \$220-\$240/pr

GLI

FRA-2 Series II Speaker System

Modular design speaker system with 3 solid-state supertweeters, 4 5/4" extended-range forward-facing drivers, rear-mounted 15" passive bass radiator. Frequency response 55-22,000 Hz \pm 3 dB; maximum output 110 dB; efficiency 96 dB SPL/W/m; maximum input power 175 W/ch; impedance 8 ohms; crossover 300 Hz (bass roll-off mode 6 kHz). Black cabinet with protective metal corners and metal screens; 20" \times 19" \times 9"; 30 lb..... \$350

MR-II. Decor version of FRA-2. Wood-grain finish; brown grille cloth..... \$350

GOLD SOUND

System 14 Speaker System

Floor-standing 4-way speaker system with 18" woofer, compression midrange and tweeter. Frequency response 25-21,000 Hz \pm 3 dB; power range 3-600 W; sensitivity 95 dB SPL/W/m; maximum volume 123 dB at 600 W; impedance 8 ohms; 46"H \times 29"W \times 19"D (subwoofers measure 36"W \times 36"D \times 19"H).

With 2 subwoofers..... \$1976/pr

With single subwoofer..... \$1636

System 13. Similar to System 14 except has 15" woofer. Maximum power 300 W; sensitivity 93 dB; maximum volume 118 dB; 36"H \times 24"W \times 19"D (subwoofer measures 32"W \times 32"D \times 19"H).

With 2 subwoofers..... \$1400/pr

With single subwoofer..... \$1180/pr

System 12 Speaker System

Ported 3-way speaker system with 15" woofer, midrange and tweeter horns. Frequency response 28-18,000 Hz \pm 3 dB; power range 5-300 W; sensitivity 93 dB SPL/W/m; maximum volume 118 dB at 300 W; impedance 8 ohms; 36"H \times 24"W \times 19"D..... \$998/pr

System 11 Speaker System

Ported 3-way speaker system with 2 8" woofers, 5" midrange, horn tweeter. Frequency response 36-18,000 Hz \pm 3 dB; power range 2-100 W; sensitivity 98 dB SPL/W/m; maximum volume 118 dB at 100 W; impedance 4 ohms; 30"H \times 19"W \times 14"D..... \$728/pr

System 10 Speaker System

Ported 3-way speaker system with 12" woofer, horn midrange and tweeter. Frequency response 43-18,000 Hz \pm 3 dB; power range 2-80 W; sensitivity 98 dB SPL/W/m; maximum volume 117 dB at 80 W; impedance 8 ohms; 36"H \times 19"W 14"D. \$618/pr

System 9 Speaker System

Ported 4-way speaker system with 10" woofer, 3" polyamide ferrulid midrange, ferrofluid dome tweeter, ribbon supertweeter. Frequency response 29-20,000 Hz \pm 3 dB; power range 10-150 W; sensitivity 90 dB SPL/W/m; maximum volume 112 dB at

150 W; impedance 8 ohms; 30"H \times 19"W \times 14"D..... \$528/pr

Studio Monitor Speaker System

Ported 4-way speaker system with 12" woofer, 5" midrange, 1" ferrofluid dome tweeter, ribbon supertweeter. Frequency response 38-20,000 Hz \pm 3 dB; power range 10-150 W; sensitivity 91 dB SPL/W/m; maximum volume 113 dB at 150 W; impedance 8 ohms; 30"H \times 19"W \times 14"D \$479/pr

System 8 Speaker System

Ported 3-way speaker system with 8" woofer, 1" ferrofluid dome tweeter, ribbon supertweeter. Fre-



quency response 33-20,000 Hz \pm 3 dB; power range 10-100 W; sensitivity 89 dB SPL/W/m; maximum volume 109 dB at 100 W; impedance 8 ohms; 30"H \times 13"W \times 12"D..... \$338/pr

System 7 Speaker System

Ported 3-way speaker system with 2 12" woofers, 4" midrange, ribbon tweeter. Frequency response 37-20,000 Hz \pm 3 dB; power range 2-120 W; sensitivity 96 dB SPL/W/m; maximum volume 116 dB at 120 W; impedance 8 ohms. Available as either single full-range system measuring 36"H \times 24"W \times 16"D or separate satellites (14"H \times 8"W \times 5"D) and subwoofer (36"H \times 29"W \times 24"D)..... \$318/pr

System 6. Similar to System 7 except has 2 10" woofers, ferrofluid dome tweeter. Low-end response 39 Hz; maximum power 100 W; sensitivity/maximum volume 95/115 dB. Single-cabinet full-range system 30"H \times 19"W \times 12"D or separate satellites (14"H \times 8"W \times 5"D) and subwoofer (36"H \times 24"W \times 12"D)..... \$278/pr

System 5 Speaker System

Ported 2-way speaker system with 8" woofer, ferrofluid dome tweeter. Frequency response 45-20,000 Hz \pm 3 dB; power range 2-50 W; sensitivity 95 dB SPL/W/m; maximum volume 112 dB at 50 W; impedance 8 ohms; 24"H \times 13"W \times 12"D \$218/pr

System 4 Speaker System

Ported 3-way speaker system with 12" woofer, 4" midrange, ferrofluid dome tweeter. Frequency response 41-20,000 Hz \pm 3 dB; power range 5-100 W; sensitivity 93 dB SPL/W/m; maximum volume 113 dB at 100 W; impedance 4 ohms. Available as single-cabinet full-range system (30"H \times 19"W \times 12"D) or as separate satellites (36"H \times 24"W \times 16"D) and satellites (14"H \times 8"W \times 5"D) \$178/pr

System 3 Speaker System

Ported 2-way speaker system with 10" woofer, 1" ferrofluid dome tweeter. Frequency response 42-20,000 Hz \pm 3 dB; power range 5-80 W; sensitivity 92 dB SPL/W/m; maximum volume 112 dB at 80 W; impedance 4 ohms; 24"H \times 13"W \times 12"D \$138/pr

System 2 Speaker System

Ported 2-way speaker system with 2 6" woofers,

ferrofluid dome tweeter. Frequency response 50-20,000 Hz ± 3 dB; power range 10-100 W; sensitivity 93 dB SPL/W/m; maximum volume 113 dB at 100 W; impedance 8 ohms; 22"H \times 14"W \times 9"D \$118/pr

System 1 Speaker System

Compact acoustic-suspension 2-way speaker system with 6" woofer, ferrofluid dome tweeter. Frequency response 60-20,000 Hz ± 3 dB; power range 10-50 W; sensitivity 90 dB SPL/W/m; maximum volume 107 dB at 50 W; impedance 4 ohms; 17"H \times 11"D \times 7"W 79/pr

HARTLEY PRODUCTS

The Reference

Floor-standing 4-way speaker system with 24" super woofer, 10" midrange, 7" tweeter, 1" supertweeter. Crossovers 250, 3k, 7k Hz; frequency response 16-25,000 Hz; power range 25-300 W; impedance 5-8 ohms; wood cabinet with removable knit grille; 50 $\frac{1}{2}$ "H \times 36"W \times 24"D \$4000/pr

The Concertmaster

Floor-standing 4-way speaker system with 18" woofer, 10" midrange, 7" tweeter, 1" supertweeter; crossovers 250, 3k, 7k Hz; frequency response 16-25,000 Hz; power range 25-300 W; impedance 5-8 ohms; wood cabinet with removable brown grille; 41 $\frac{1}{2}$ "H \times 29"W \times 18"D \$3000/pr

H-Series

All cabinets in H Series have hand-rubbed walnut veneers, black knit grilles.

H-100 Speaker System

Aligned air-column speaker system with 8" long-throw woofer with 1 $\frac{1}{2}$ " high-temperature voice coil, chemically treated cone, 1 $\frac{1}{2}$ " air-column midrange, 2" low-mass cone tweeter. Frequency response 50-20,000 Hz ± 4 dB; power range 5-50 W rms, unclipped; crossover 2.3 kHz; 21 $\frac{1}{2}$ "H \times 10 $\frac{1}{2}$ "W \times 10 $\frac{1}{2}$ "D \$320/pr

H-200 Speaker System

Aligned air-column speaker system with 10" long-throw woofer with 1 $\frac{1}{2}$ " high-temperature voice coil, chemically treated cone, 2 $\frac{1}{2}$ " air-column midrange, 1" coated mylar dome tweeter. Frequency response 35-25,000 Hz ± 3 dB; power range 5-100 W rms; impedance 8 ohms; crossover 2.6 kHz; 30"H \times 15"W \times 15"D \$550/pr

H-300 Speaker System

Aligned air column speakers with 2 10" long throw woofers with 1 $\frac{1}{2}$ " high-temperature voice coil, chemically treated cone assembly, 4 1 $\frac{1}{2}$ " air-column midranges, 2 1" mylar dome tweeters. Frequency response 30-25,000 Hz ± 3 dB; power range 5-150 watts rms; impedance 4 ohms; crossover 3.4 kHz; 43"H \times 15"W \times 15"D \$850/pr

SPL-1 System

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. System frequency response 3800-25,000 Hz ± 2 dB.

SW-10. Aligned air-column system with 10" woofer with 1" high-temperature dual voice coil, polymer cone, magnetic suspension, EFM magnet; 3" polymer cone midrange, magnetic suspension, with 2 3" air columns; impedance 6 ohms; power range 15-100 W rms.

ST-4. Polar-aligned phasor with phasor-array supertweeter; impedance 8 ohms; power range 15-150 W rms; 12"H \times 5"W \times 5"D.

System price \$1550

HEATH

AS-1320 Subwoofer

Vented subwoofer with 15" long-throw woofer. Features 6" tuned vent loaded into floor; black cabinet with walnut-finished solid ash rails. Requires AS-

1320-1 passive or AD-1702 electronic crossover. Frequency response 22-500 Hz ± 3 dB; power range 30-250 W; impedance 8 ohms; 64 $\frac{1}{2}$ "H \times 21 $\frac{1}{2}$ "W \times 17"D \$300 kit

AS-1321. 3-way speaker module for use with AS-1320. Fits inside AS-1320 subwoofer cabinet. Features 6 $\frac{1}{2}$ " polypropylene mid/bass, 2" impregnated textile dome midrange, leaf tweeter; thermal protection via circuit breaker; 2 inputs for wiring full-range or bi-amplification. Frequency response 100-20,000 Hz ± 3 dB; crossovers 100, 600, 4k Hz; power range 30-250 W; impedance 6 ohms \$290 kit

AS-1324. Full 4-way system with AS-1320 subwoofer kit, AS-1321 3-way kit purchased at same time \$570

AS-1324-2. Stereo pair of AS-1324, all items purchased at same time \$1090

AS-1320-1. Passive crossover for AS-1320 . \$45 kit

AD-1702. Electronic crossover for AS-1320 \$195 kit

HITACHI

HS-410 Speaker System

Bass-reflex speaker system with 30-cm metal-cone woofer, 10-cm metal-cone midrange, 2.5-cm metal-



cone tweeter. Features midrange, tweeter level controls; Padouk finish; removable brown cloth grille. Frequency response 35-20,000 Hz -15 dB; crossovers 1k and 3.5k Hz; rated/maximum power 60/120 W; sensitivity 91 dB SPL/W/m; impedance 8 ohms; 26 $\frac{3}{16}$ "H \times 14 $\frac{3}{16}$ "W \times 12 $\frac{3}{16}$ "D; 31 lb 14 oz \$300

HS-310. Similar to HS-410 except has 25-cm woofer, no controls. Crossovers 1 and 4 kHz; rated/maximum power 50/100 W; 22 $\frac{3}{8}$ "H \times 12 $\frac{3}{8}$ "W \times 12 $\frac{3}{8}$ "D; 25 lb 5 oz \$200

HS-31 Speaker System

Acoustic-suspension 2-way bookshelf speaker system with 20-cm woofer, 5-cm tweeter. Features rosewood-grain vinyl finish; removable brown cloth grille. Frequency range 45-20,000 Hz -15 dB; crossover 3.5 kHz; rated/maximum power 80/35 W; sensitivity 92 dB SPL/W/m; impedance 8 ohms; 16 $\frac{1}{16}$ "H \times 9 $\frac{1}{2}$ "W \times 8 $\frac{1}{16}$ "D; 11 lb 7 oz \$200

HSA Series Speaker Systems

All speaker systems in this series are ported bookshelf designs with wood-grain vinyl finish, removable black cloth grille.

HSA3122. 3-way system with 12" woofer, 5" midrange, 2" horn tweeter. Frequency range 35-20,000 Hz; maximum power 80 W rms; impedance 8 ohms; 26 $\frac{1}{8}$ "H \times 15 $\frac{1}{8}$ "W \times 12 $\frac{3}{8}$ "D; 37 lb . \$170

HSA3102. Similar to HSA3122 except has 10" woofer. Low-end response 40 Hz; maximum power 50 W; 23 $\frac{1}{8}$ "H \times 13 $\frac{1}{8}$ "W \times 10 $\frac{3}{8}$ "D; 28 lb . . . \$130

HSA2102. Similar to HSA3122 except 2-way system with 10" woofer, 2 $\frac{1}{2}$ " tweeter. Low-end response 45 Hz; 22 $\frac{3}{8}$ "H \times 12 $\frac{3}{8}$ "W \times 10 $\frac{1}{2}$ "D; 24 lb . . \$100

IMF ELECTRONICS

Reference Standard Mk. VII

Floor-standing 4-way speaker system with 11 $\frac{1}{4}$ " \times 8 $\frac{1}{4}$ " woofer, 5" midrange, 1 $\frac{1}{2}$ " tweeter, $\frac{3}{4}$ " supertweeter. Features tilt, slope controls; heavily braced cabinet; American walnut finish; removable grille. Frequency range 17-40,000 Hz; crossovers 350, 3k, 13k Hz; sensitivity 80-82 dB at 1 W, depending on control settings; minimum power 50 W

The Elegant Alternative

to own a pair of IMF Electronics loudspeakers. The natural and necessary step to fine music reproduction.

Only after you have enjoyed the superb performance of our range of loudspeakers, produced by dedicated engineers and craftsmen, will you have experienced the highest level of British expertise and technology.

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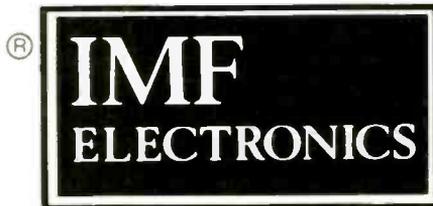
After development comes the most demanding criteria . . . exhaustive listening tests . . . and stringent performance measurements.

Through these methods we are able to ensure a lifetime of listening pleasure.

Not expensive if you value quality and performance . . . unattainable . . . by any other means.



The Standard By Which All Others Are Judged



5226 STATE STREET SAGINAW, MICHIGAN 48603
TELEPHONE (517) 790-2121 TELEX 227461
CIRCLE NO. 29 ON READER SERVICE CARD

rms; impedance 8 ohms; 45 $\frac{1}{4}$ "H with stand \times 19 $\frac{1}{2}$ "W \times 16 $\frac{1}{2}$ "D..... \$3600 with stands

Professional Monitor Speaker System

Floor-standing 4-way speaker system with 11 $\frac{1}{4}$ " \times 8 $\frac{1}{4}$ " woofer, 5" midrange, 1 $\frac{1}{4}$ " tweeter, $\frac{3}{4}$ " supertweeter. Features perspective control; heavily braced cabinet; American walnut finish; removable grille. Frequency range 19-40,000 Hz; crossovers 350, 3k, 13k Hz; minimum power 40 W rms; sensitivity 82 dB at 1 W; impedance 8 ohms; 41 $\frac{1}{4}$ "H with stand \times 18 $\frac{1}{4}$ "W \times 15 $\frac{1}{4}$ "D \$2580 with stand

Studio Monitor Speaker System

Floor-standing 3-way speaker system with 8" woofer, 4" midrange, $\frac{3}{4}$ " tweeter. Features perspective control; heavily braced cabinet; American walnut finish; removable grille. Frequency range 23-40,000 Hz; crossovers 375 and 3k Hz; minimum power 30 W rms; sensitivity 81 dB at 1 W; impedance 8 ohms; 39 $\frac{1}{2}$ "H with stand \times 15 $\frac{1}{2}$ "W \times 13 $\frac{3}{4}$ "D ... \$1575 with stand

CM3 Speaker System

Compact 3-way monitor speaker system with 8" woofer, 4" midrange, 1" tweeter. Features walnut veneer (optional light beechwood trim) finish; removable grille. Frequency range 29 Hz to beyond audibility; crossovers 375 and 3k Hz; power range 20-150 W rms; sensitivity 84 dB at 1 W; impedance 8 ohms; 24"H \times 11 $\frac{1}{4}$ "W \times 11"D \$675
CM2. Similar to CM3 except 2-way system with 8" midwoofer, 1" soft-dome tweeter. Low-end response 34 Hz; crossover 3 kHz; power range 10-100 W; sensitivity 86 dB; 18 $\frac{1}{4}$ "H \times 10 $\frac{1}{2}$ "D \times 10"W .. \$475

MCR 2A Speaker System

Acoustic-suspension 2-way speaker system with 5" midwoofer, $\frac{3}{4}$ " tweeter. Features American walnut veneer finish; removable grille. Frequency range 65-40,000 Hz; crossover 3 kHz; minimum power 20 W rms; sensitivity 83 dB at 1 W; impedance 8 ohms; 14 $\frac{1}{4}$ "H \times 9"W \times 9"D \$465

INFINITY

IRS Reference Standard Speaker System

Modular 4-piece 3-way floor-standing speaker system: 2 woofer modules with 6 12" woofers in feedback loop of servo amplifier (2 1500-W woofer amplifiers), 2 midrange/tweeter modules with 12 dipole midrange drivers, 36 tweeters in dipole line-source array (24 front/12 rear-facing). Features bass variable low-pass filters; low-pass variable damping; woofer level controls; selectable input impedance midrange/tweeter amp control; woofer phase switch; servo bass on/off circuit; Monster Cable wiring for midrange, woofer. Frequency response 16-40,000 Hz \pm 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/channel; oiled and "Grand Piano" Indian Rosewood finish; includes 100-ft cable for hookup of midrange/tweeter to midrange/tweeter amplifier. Woofer modules: 7'6"H \times 18" square; midrange/tweeter modules 7'6"H \times 40"W (with hollow and sand-filled curved wing sections) \$25,000

Reference Standard Series Speakers

Reference Standard I

Modular 4-piece floor-standing speaker system: 2 woofer modules with 6 servoed 8" polypropylene woofers, 2 midrange/tweeter curved sections with 7 dipole EMIM drivers, 3 EMIT tweeters, 1 super-high-dispersion EMIT in dipole source array. Features bass variable low-pass filters; low-pass variable damping with level control; selectable impedance controls for midrange/tweeter amplifier; bass amplifier phase switch; servo-controlled bass circuitry; Monster Cable throughout; mid-tweeter, high-tweeter control on rear

of midrange/tweeter module; lacquered oak and hardwood veneers. Frequency response 22-32,000 Hz \pm 1.5 dB; woofer crossover variable 100-200 Hz; crossovers 125, 750, 3k, 8k Hz; 60"H \times 12"W \times 12"D bass column; 60"H \times 24"W screens..... \$4500/system

Reference Standard II Speaker System

Floor-standing 3-way speaker system with 2 10" polypropylene woofers, 3 5" dipole polypropylene midranges, 2 EMIT tweeters. Features solid gold-oak diffraction wing. Frequency response 33-32,000 Hz \pm 3 dB; crossovers 60, 125, 1.5k, 3k Hz; power range 35-250 W; impedance 4-8 ohms; 48"H \times 22 $\frac{1}{4}$ "W \times 18"D \$725

Reference Standard IIIa Speaker System

Floor-standing 3-way speaker system with 2 10" polypropylene woofers with L-C tuning for bass extension, 2" polypropylene dome midrange, EMIT tweeter. Designed for minimum diffraction distortion. Features hand-rubbed oak hardwoods and veneers. Frequency response 35-32,000Hz \pm 3 dB; crossovers 1 and 4 kHz; power range 50-200 W; 48"H \times 18"W \times 7 $\frac{1}{4}$ "D \$585

Reference Standard 4 Speaker System

Floor-standing 3-way speaker system with 2 8" polypropylene woofers with L-C tuning for bass extension, 2" polypropylene dome midrange, EMIT tweeter. Features hand-rubbed oak hardwoods and veneers. Frequency response 40-32,000 Hz \pm 3 dB; crossovers 1 and 4 kHz; power range 40-150 W; impedance 4-8 ohms; 33"H \times 13 $\frac{1}{2}$ "W \times 10"D \$449
Reference Standard 5. Similar to Reference Standard 4 except has 2 6" woofers. Power range 35-125 W; 28 $\frac{1}{2}$ "H \$349

Reference Standard 6 Speaker System

Floor-standing or bookshelf 3-way speaker system with 8" polypropylene woofer with L-C tuning for bass extension, 2" polypropylene dome midrange, EMIT tweeter. Features hand-rubbed oak hardwoods and veneers. Frequency response 45-32,000 Hz \pm 3 dB; crossovers 600 and 4k Hz; power range 35-100 W; impedance 4-8 ohms; 22"H \times 13 $\frac{1}{2}$ "W \times 10"D..... \$259

RS Series Speakers

Reference Studio Monitor

Sealed-box 3-way bookshelf speaker system with 12" polypropylene woofer, 5" polypropylene midrange, EMIT tweeter. Features midrange tweeter level controls; oak-veneer finish; removable dark brown cloth grille. Frequency response 43-32,000 Hz \pm 3 dB; crossovers 500 and 5k Hz; power range 35-250 W continuous; impedance 4-8 ohms; 26 $\frac{1}{2}$ "H \times 15"W \times 10"D \$400

RS-7 Speaker System

Sealed-box 3-way speaker system with 8" polypropylene woofer, 5" midrange, EMIT tweeter. Features midrange, tweeter controls; oak-vinyl finish. Frequency response 45-32,000 Hz \pm 3 dB; crossovers 500 and 5k Hz; power range 35-125 W; impedance 4-8 ohms; 23"H \times 13"W \times 9 $\frac{1}{2}$ "D..... \$199
RS-8. Similar to RS-9 except 2-way system with no midrange driver control. Crossover 3 kHz; power range 20-100 W \$149
RS-9. Similar to RS-8 except has 2 6 $\frac{1}{2}$ " polypropylene woofers, "PolyCell" dome tweeter, no controls. Frequency response 48-22,000 Hz; crossover 2.5k Hz; 18"H \times 12"W \times 9 $\frac{1}{2}$ "D..... \$98

Infinitesimal III Speaker System

Diecast 2-way mobile or utility speaker system with 5" polypropylene woofer, EMIT tweeter. Accessory bracket available. Frequency response 58-32,000 Hz \pm 3 dB; crossover 3 kHz; power range 10-60 W; 11 $\frac{1}{4}$ "H \times 6 $\frac{1}{4}$ "W \times 5 $\frac{1}{4}$ "D \$195

INTERAUDIO

Alpha Four Speaker System

Floor-standing speaker system with 10" woofer, 10" Dual Compliance™ passive radiator, 6 $\frac{1}{2}$ " midrange, 2 3" tweeters with OmniVector™ lenses. Features auto-

matic tweeter protection with fiber-optic indicator; Total System Protection with fiber-optic indicator; push-type input terminals; walnut-grain vinyl finish; removable black cloth grille. Frequency range 24-20,000 Hz; crossovers 60, 400, 2.5k Hz; power range 15-200 W continuous; sensitivity 91 dB; impedance 8 ohms; 44"H \times 14 $\frac{1}{2}$ "W \times 11 $\frac{1}{2}$ "D \$459
Alpha Three. Similar to Alpha Four except no passive radiator, single tweeter/lens assembly. Low-end response 28 Hz; crossovers 400 and 2.5k Hz; maximum power 150 W; sensitivity 90 dB; 32"H .. \$333
Alpha Two. Similar to Alpha 3 except bookshelf design with no midrange driver. Low-end response 32 Hz;



crossover 2 kHz; sensitivity 89 dB; maximum power 100 W; 22 $\frac{1}{2}$ "H \times 13 $\frac{1}{2}$ "W \$232
Alpha One. Similar to Alpha 2 except 8" woofer. Low-end response 38 Hz; power range 10-75 W continuous; 18 $\frac{1}{2}$ "H \times 11 $\frac{1}{2}$ "W \times 9 $\frac{1}{2}$ "D \$155

INTER-EGO SYSTEMS

Super Tower Speaker System

Floor-standing tower speaker system with 2 10" woofers, 10" passive radiator, 5" midrange, 1" Mylar dome tweeter with ferrofluid. Features fuse protection; phase compensation switches; brightness control; alagash vinyl finish; removable black cloth grille. Frequency range 22-23,000 Hz; crossovers 400 and 4k-8k Hz; power range 10-150 W; sensitivity 97 dB SPL/W/m; 37"H (includes integral 2" pedestal) \times 14 $\frac{1}{2}$ "W \times 14"D; 67 lb..... \$595

Super Ego Series

SUPEREGO Speaker System

Bass-reflex 3-way speaker system with 12" woofer, 2 10" passive radiators, 5" midrange, 1" Mylar dome tweeter with ferrofluid. Features midrange, tweeter



level controls; dual phase compensation™ switches with expand, compress settings; four-digit LED power display; controlled dispersion energizer™; fuse protection; front-mounted crossover panel; removable black polyester grille; walnut-veneer cabinet; 2" pedestal. Frequency range 26-23,000 Hz; crossovers 600 and variable 5k-8k Hz; sensitivity 97 dB SPL/W/m; power range 10-150 W continuous; impedance 4 ohms; 30 $\frac{1}{2}$ "H \times 18 $\frac{1}{2}$ "W \times 11 $\frac{1}{4}$ "D \$545

SE 12.3 Speaker System

Bass-reflex 3-way speaker system with 12" woofer, 5" midrange, 1" Mylar dome tweeter with ferrofluid. Features LED peak-level indicator, spring terminals; brightness control; midrange pad; fuse protection; controlled dispersion energizer*, dual-phase compensation* switches; front-mounted crossover panel; removable black knit grille. Crossovers 700 and variable 5k-8k Hz; power range 10-100 W rms; SPL 97 dB; impedance 4 ohms; 26 1/2"H x 15 1/2"W x 11 1/2"D; 48 lb \$395

SE 10 Speaker System

Bass-reflex 3-way speaker system with 10" woofer, 4 1/2" midrange, 1" Mylar dome tweeter with ferrofluid. Features tweeter brightness control; LED peak level indicator; phase compensation* switch with compress/expand settings; black removable knit grille. Frequency response 32-23,000 Hz ±3 dB; crossovers 700 and variable 5k-8k Hz; sensitivity 96 dB SPL/W/m; power range 10-80 W continuous; impedance 4 ohms; 23 1/2"H x 14"W x 11 1/2"D \$295

SE 8 Speaker System

Bass-reflex 3-way speaker system with 8" woofer, 3 1/2" midrange, 1" tweeter with ferrofluid. Features tweeter brightness control; LED peak level indicator; oiled-walnut veneer cabinet; black knit grille. Frequency response 40-20,000 Hz ±3 dB; crossovers 2 kHz and variable 4k-8k Hz; sensitivity 95 dB SPL/W/m; power range 10-40 W continuous; impedance 4 ohms; 20 1/2"H x 12 1/4"W x 9 1/2"D \$195

Pro Series

Pro 1200 Speaker System

Ducted-port 3-way speaker system with 12" woofer, 5" midrange, 1" Mylar dome tweeter. Features controlled dispersion energizer; phase compensation switch; peak power LED; fuse protection; brightness control. Frequency range 38-20,000 Hz; crossovers 700 and 3k-8k Hz; power range 12-100 W rms; sensitivity 97 dB SPL/W/m; impedance 4 ohms; 26 1/2"H x 15 1/2"W x 12 1/2"D; 47 lb \$345

Pro 1000. Similar to Pro 1200 except has 10" woofer, 3" low/mid driver; no controlled dispersion energizer, fuse protection, phase compensation switch. Low-end response 42 Hz; crossovers 1.6k and 3k-8k Hz; maximum power 70 W; sensitivity 96 dB; 23 1/2"H x 14"W x 12 1/4"D; 35 lb \$245

Pro 800. Similar to Pro 1000 except has 8" woofer, 2 1/2" supertweeter with ferrofluid; no midrange driver. Frequency range 48-19,500 Hz; sensitivity 94 dB; 20 1/2"H x 11"W x 10 1/4"D; 22 lb \$175

Super Mini Series

Compact mini speaker systems designed to fit in locations where space is at a premium.

Super-Mini. Features 5" polypropylene woofer; 5" polypropylene passive radiator; 1" Mylar dome tweeter with ferrofluid; removable black knit grille. Frequency range 42-21,000 Hz; crossovers 100 Hz acoustic, 2.5 kHz electrical; power range 10-70 W; impedance 4 ohms; 11 1/2"H x 7 1/8"D x 7"W; 11 lb \$150

Mini. Similar to Super-Mini except has 2" cone tweeter with ferrofluid. Frequency range 45-18,000 Hz; crossovers 120 Hz acoustic, 2 kHz electrical; power range 10-50 W; impedance 4 ohms; 11"H x 6 3/4"W x 6 3/8"D; 9 lb \$115

JAMO

Professional Series

CBR* 1702 Speaker System

Floor-standing bass-reflex 4-way speaker system with 13" woofer, 7" midrange, 2" dome high midrange, 1" dome tweeter. Features midrange, tweeter controls; tweeter/midrange overload diodes; pedestal. Frequency range 22-22,000 Hz; crossovers 350, 1.5k, 5.5k Hz; maximum peak/continuous power 250/170 W; sensitivity 96 dB at 1 m, 1.2 W; impedance 4-8 ohms; 32"H x 17"W x 14"D; 68 lb \$650

CBR 1302. Similar to 1303 except 3-way system with 11" woofer, 4 1/2" midrange, 1" dome tweeter. Low-end response 24 Hz; crossovers 750 and 4k Hz; peak/continuous power 200/130 W; sensitivity 96 dB at 1.8 W; 28"H x 14"W x 13"D; 46 lb \$440

CBR 902. Similar to 1302 except floor-standing/bookshelf design with 8 1/2" woofer, 4 1/2" midrange, 1" dome tweeter. Frequency range 28-20,000 Hz; crossovers 800 and 4.5k Hz; peak/continuous power 140/90 W; sensitivity 96 dB at 2.1 W; 24"H x 12"W x 11"D; 31 lb \$300

703. Similar to CBR 902 except has 9" woofer, no midrange control. Low-end response 32 Hz; crossovers 900 and 4.5k Hz; peak/continuous power 100/70 W; sensitivity 96 dB at 2 W; 21"H x 11"D x 10"W; 22 lb \$220

503. Similar to 703 except 2-way design with 9" woofer, 1" dome tweeter; has no controls, only tweeter overload diode. Low-end response 34 Hz; crossover 1.8 kHz; peak/continuous power 80/50 W; sensitivity 96 dB at 2.3 W; 19"H x 10"W x 9"D; 16.5 lb \$150

Mini CBR Speaker System

Compact 2-way bass-reflex speaker system with 5 1/2" woofer, 1" dome tweeter. Features tweeter overload protection. Frequency range 37-20,000 Hz; crossover 1850 Hz; maximum power 110 W music; sensitivity 92.2 dB SPL/W/m; impedance 4-8 ohms; 12"H

x 10"D x 7 1/2"W; 12 lb \$170

Power Series

All models supplied in black and walnut finish, have removable grilles.

P 500 Speaker System

Floor-standing 3-way CBR speaker system with 12" woofer, 15 1/2" x 3 1/4" horn midrange with 2" driver, 5 3" horn tweeters with 1" drivers. Features midrange, tweeter controls; midrange, tweeter overload protection; pedestal. Frequency range 22-20,000 Hz; crossovers 1 and 4.5 kHz; maximum power 500 W music; sensitivity 96.1 dB SPL/W/m; impedance 4-8 ohms; 30"H x 18"W x 14"D; 75



lb \$600

P 350. Similar to P 500 except has 9 1/2" woofer, 13" x 3 1/2" horn midrange, single 5 1/2" x 2 1/2" horn tweeter. Crossovers 1.25 and 5 kHz; maximum power 350 W music; sensitivity 96 dB SPL/W/m; 26 1/2"H x 15"W x 12"D; 48.5 lb \$260

P 200. Similar to P 350 except has 8 1/2" woofer, 11" x 2 1/2" horn midrange, 5 1/2" x 2 1/2" horn tweeter, no controls. Low-end response 25 Hz; crossovers 1.4 and 4.8 kHz; maximum power 200 W music; sensitivity 95.6 dB SPL/W/m; 23 1/2"H x 13"W x 10 1/2"D; 33 lb \$160

P 150. Similar to P 200 except 2-way bass-reflex design with 8 1/2" woofer, 5 1/2" x 2 1/2" tweeter. Low-end response 30 Hz; crossover 2.5 kHz; maximum power 150 W music; sensitivity 95.8 dB SPL/W/m; 20"H x 12"W x 9"D; 19.8 lb \$170

(Continued on next page.)

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SPEAKER SYSTEMS

JBL

L Series

D44000 Paragon Speaker System

Radial-reflection, dual 3-way floor-standing speaker system with 2 15" compression horn woofers, 2 compression midranges, 2 uhf ring radiators. Features midrange, uhf level controls; special dispersion surface to recreate stereo image; oiled walnut finish. Crossovers 500 and 7k Hz; power range 10-200 W continuous; impedance 8 ohms; 35½"H × 103¼"W × 24¼"D \$6000/pr

L300 Summit Speaker System

Ducted-port, floor-standing 3-way speaker system with 15" woofer, compression midrange with horn/lens assembly, 077 ring tweeter. Features oiled-walnut finish with smoked glass top; blue, black, brown, or camel fabric grille. Crossovers 800 and 8.5k Hz; power range 10-400 W continuous; impedance 8 ohms; 31¾"H × 23"W × 22½"D \$1500

L250 Speaker System

Floor-standing 4-way speaker system with 14" woofer, 8" midwoofer, 5" midrange, 1" tweeter. Features bus-bar midrange, high, ultra-high level adjustment; high-resolution crossover network; walnut or black finish; choice of removable fabric grille colors. Crossovers 400, 1.6k, 4.5k Hz; maximum power 400 W; sensitivity 90 dB SPL/W/m; impedance 8 ohms; 52"H × 22½"W × 14¾"D; 135 lb.

Walnut finish \$1200
Black finish \$1200

L150A Millenium Speaker System

Floor-standing 3-way speaker system with 12" woofer, 12" passive radiator, 5" midrange in isolated chamber, 1" dome radiator. Features midrange, tweeter level controls; compressed wood cabinet with American black walnut veneer finish; brown, rust, or camel grille. Crossovers 1.1 and 3.7 kHz; power range 10-300 W continuous; sensitivity 89 dB SPL/W/m; 41½"H × 17"W × 13"D; 83.5 lb \$700

L112 Century II Speaker System

Ducted-port 3-way bookshelf speaker system with 12" woofer, 5" midrange, 1" dome tweeter. Features mirror-imaged pairing; oiled-walnut finish; brown grille. Crossovers 1.1 and 3.7 kHz; power range 10-300 W continuous; impedance 8 ohms; 24½"H × 14¾"W × 13"D \$530

L96 Delta Speaker System

Ported 3-way bookshelf speaker system with 10" woofer, 5" midrange, 1" tweeter. Features midrange,

pedance 8 ohms; 23½"H × 14¾"W × 11¾"D \$400

L56 Delphi Speaker System

Ported 2-way bookshelf speaker system with 10" woofer, 1" tweeter. Features oiled-walnut finish; removable brown grille. Crossover 2.2k Hz; power range 10-150 W; sensitivity 90 dB SPL/W/m; impedance 8 ohms; 22¼"H × 14"W × 11¾"D; 44 lb \$225

L46 Sigma Speaker System

Ported 2-way speaker system with 8" woofer, 1" tweeter. Features oiled-walnut finish; removable brown grille. Crossover 3 kHz; power range 10-100 W; sensitivity 88 dB SPL/W/m; impedance 8 ohms; 20¾"H × 12½"W × 10½"D; 29 lb \$165

L15 Speaker System

Ported 2-way bookshelf speaker system with 6½" woofer, 1" tweeter. Features oiled-walnut finish; removable brown grille. Crossover 2.5 kHz; power range 10-100 W; sensitivity 87 dB SPL/W/m; impedance 8 ohms; 14¾"H × 9¾"W × 7¾"D; 35 lb \$150

Radiant Series

4312 Monitor II Speaker System

Ported bookshelf 3-way speaker system with 12" woofer, 3" midrange, 1.4" tweeter. Features midrange, tweeter level controls; American black walnut veneer finish; removable grille. Crossovers 1.5 and 6 kHz; power range 10-200 W continuous; sensitivity 91 dB SPL/W/m; impedance 8 ohms; 23½"H × 14¾"W × 11¾"D; 52 lb \$435

R133 Radiance Speaker System

Floor-standing 3-way speaker system with 10" woofer, 10" passive radiator, 3" midrange, 1½" tweeter. Crossovers 600 and 3k Hz; impedance 6 ohms; power range 10-150 W; SPL 91 dB; 37¾"H × 16¾"W × 12¾"D; 57.5 lb \$325

R123 Radiance Speaker System

Bookshelf 3-way speaker system with 12" woofer, 3" midrange, 1½" tweeter. Crossovers 600 and 3k Hz; impedance 6 ohms; power range 10-125 watts; SPL 90 dB; 27½"H × 17¾"W × 12¾"D; 46 lb . \$275

R103 Radiance Speaker System

Bookshelf 3-way speaker system with 10" woofer, 3" midrange, 1½" tweeter. Crossovers 600 Hz and 3k Hz; impedance 6 ohms; power range 10-100 watts; SPL 90 dB; 25½"H × 15¾"W × 11¾"D; 40 lb \$225

R82 Radiance Speaker System

Bookshelf 2-way speaker system with 8" woofer, 1½" tweeter. Crossover 2 kHz; impedance 6 ohms; power range 10-60 W; SPL 89 dB; 21½"H × 13¾"W × 11¾"D; 31 lb \$155

JENSEN

System C Speaker System

Vented bookshelf 3-way speaker system with 10" woofer, 2" soft-dome midrange, 1" soft-dome front-firing tweeter, 2" rear-firing tweeter; Features midrange, tweeter level controls; oak veneer cabinet; dark brown grille. Frequency response 47-21,000 Hz ± 2/-4 dB; crossovers 900 and 5.5k Hz; sensitivity 87 dB SPL/W/m; power range 9-125 W; impedance 8 ohms; 24¾"H × 14½"W × 12½"D \$440

System 500 Speaker System

Acoustic-suspension 3-way speaker system with 12" woofer, 5" midrange, 1" soft-dome tweeter in front, 2" direct radiator tweeter in rear. Features midrange, tweeter level controls; dark brown cloth grille; oak-grain vinyl finish. Frequency response 38-20,000 Hz ± 3 dB; crossovers 760 and 4.2k Hz; impedance 8 ohms; power range 10-100 W continuous; 29"H × 15¾"W × 11¾"D; 45 lb \$330

System 400 Speaker System

Acoustic-suspension 3-way speaker system with 10" woofer, 3½" midrange, 1" dome tweeter. Features

midrange, tweeter level controls; brown grille; oak-grain vinyl finish. Frequency response 45-20,000 Hz ± 3dB; crossovers 1.5 and 4.2 kHz; impedance 8 ohms; power range 10-90 W continuous; 26¼"H × 13"W × 10¾"D; 31 lb \$230

1230 Speaker System

Acoustic-suspension 3-way bookshelf speaker system with 12" woofer, 5" midrange, 3" direct-radiator tweeter. Features walnut-grain vinyl finish; black cloth grille. Frequency range 56-21,500 Hz; crossovers 3.5 and 10 kHz; power range 10-70 W continuous; impedance 8 ohms; 27"H × 16¼"W × 11¼"D \$199
1030. Similar to 1230 except has 10" woofer. Low-



end response 58 Hz; power range 10-60 W; 24½"H × 15"W × 10¾"D \$169
820. Similar to 1030 except 8" woofer, no midrange driver; crossover 3.5 kHz; power range 10-50 W; 20¼"H × 11¾"W × 9¾"D \$119

System 300 Speaker System

Acoustic-suspension 2-way speaker system with 10" woofer, 1" soft-dome tweeter. Features tweeter level control; dark-brown cloth grille; oak-grain vinyl finish. Frequency response 48-20,000 Hz ± 3dB; crossover 3.1 kHz; impedance 8 ohms; power range 10-75 W continuous; 23" × 13" × 10¾"; 23 lb \$175

System 200/A Speaker System

Acoustic-suspension 2-way speaker system with 8" woofer, 1" dome tweeter. Features tweeter level control; oak-grain vinyl finish; brown cloth grille. Frequency response 56-20,000 Hz ± 3 dB; crossover 3.1 kHz; impedance 8 ohms; power range 10-60 W continuous; 18¾"H × 11"W × 9¾"D; 16 lb ... \$140

JVC

Zero Series

Zero 6 Speaker System

Acoustic-suspension 3-way speaker system with 12" woofer, 4" ceramic-coated metal-cone midrange. Features midrange, tweeter level controls; removable grille. Frequency range 35-100,000 Hz; maximum power 100 W rms; 25¼"H × 14¾"W × 13¾"D; 48.4 lb \$440

Zero 4. Similar to Zero 6 except has 10" woofer, 2½" cone/soft-dome midrange. Maximum power 75 W; 22¾"H × 12¼"D × 12¼"W; 36.3 lb .. \$330

Zero 2. Similar to Zero 4 except single level control. High-end response 25 kHz; maximum power 50 W; 20¾"H × 12¾"D × 11¾"W; 26.4 lb \$250

Bass-Reflex Series

SK-90 Speaker System

Ported 3-way speaker system with 12" free-edge woofer, 5" free-edge midrange, 1" dome tweeter. Features midrange, tweeter controls; removable grille. Frequency range 30-40,000 Hz; maximum power 100 W rms; 26¾"H × 15"W × 13"D; 46.3 lb \$280

SK-50. Similar to SK-90 except has 10" woofer, 2½" midrange. Low-end response 40 Hz; maximum power 60 W rms; 21¼"H × 12¾"W × 11¾"D; 27.5 lb \$300/pr

SK-30. Similar to SK-50 except has 8" woofer, 2½" tweeter, no midrange driver. Maximum power 80 W



tweeter level controls; oiled-walnut finish; removable brown cloth grille. Crossovers 1.1 and 3.7 kHz; maximum power 250 W; sensitivity 87 dB SPL/W/m; im-

peak \$
SK-11. Similar to SK-50 but without midrange driver.
 Maximum power 40 W; 22 $\frac{1}{2}$ "H \times 12 $\frac{1}{2}$ "W \times 8 $\frac{3}{4}$ "D;
 17.4 lb \$170/pr
SK-111. Similar to SK-11 \$170/pr

SK-303 Speaker System

Ported 3-way speaker system with 12" woofer, 5" midrange, 2 $\frac{3}{4}$ " cone tweeter. Frequency range 35-20,000 Hz; maximum power 120 W peak; 25 $\frac{3}{4}$ "H \times 14 $\frac{7}{8}$ "W \times 12 $\frac{3}{16}$ "D; 37.8 lb \$140
SK-404. Similar to SK-303 \$140
SK-202. Similar to SK-303 except has 2 $\frac{1}{4}$ " midrange.



Maximum power 80 W; low-end response 40 Hz \$210/pr
SK-101. Similar to SK-303 except has 10" woofer, 2 $\frac{1}{2}$ " midrange, 2" cone tweeter. Low-end response 40 Hz; maximum power 40 W; 23 $\frac{1}{8}$ "H \times 13 $\frac{1}{2}$ "W \times 10 $\frac{1}{2}$ "D; 26.8 lb \$220/pr

KEF

Model 105.2 Speaker System

Floor-standing 3-way speaker system with minimum interunit time delay. Flat frequency response 38-22,000 Hz. Features visual indication of optimum listening area; variable system geometry extends choice of listening position; contoured midrange, tweeter cabinets reduce off-axis coloration; novel bass loading technique; electronic protection (S-STOP) against overload, fault conditions; peak level indicator; pairing of systems for sensitivity, frequency response match to within 0.5 dB. Maximum output 107 dB SPL on program peaks; THD < 1%, 20-20,000 Hz; 965 mmH \times 455 mmD \times 415 mmW; 80 lb. \$1400

Model 105.4 Speaker System

Floor-standing 3-way speaker system. Features flat frequency response 60-22,000 Hz; contoured midrange, tweeter cabinets; visual indication of optimum listening area; variable system geometry; novel bass loading; S-STOP; pairing of systems for sensitivity, match to within 0.5 dB; maximum output 108 dB; THD < 1%, 30-20,000 Hz; impedance 8 ohms; 963 mmH \times 350 mmW \times 380 mmD; 45 lb each \$1050

Model 304 Speaker System

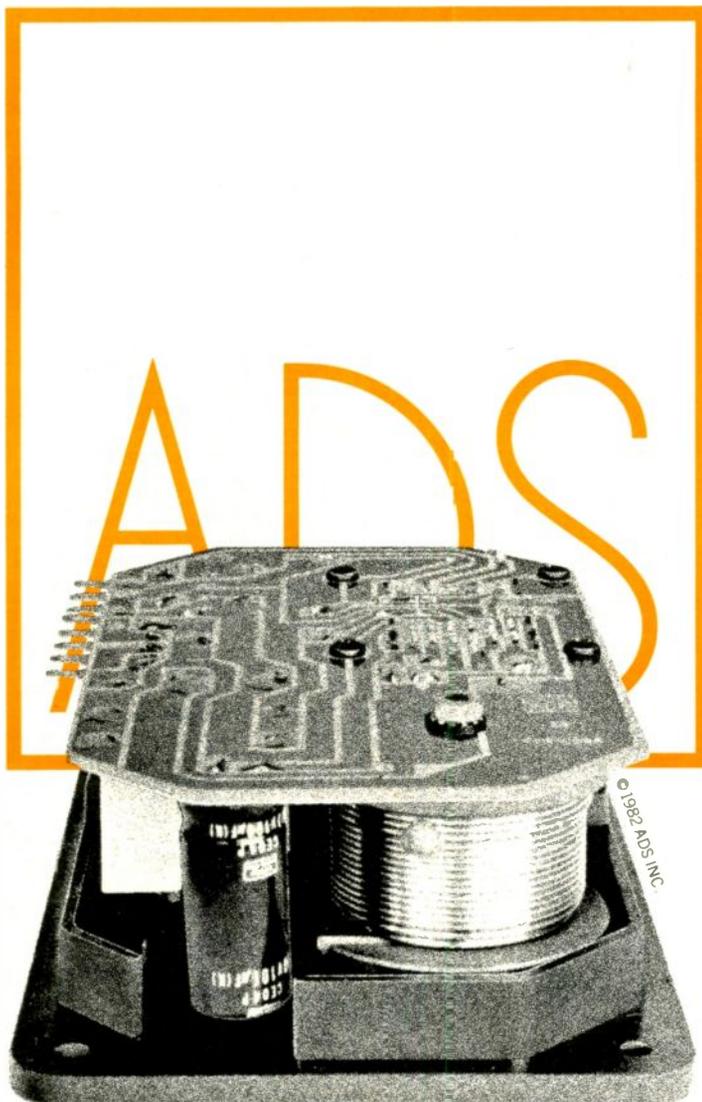
Acoustic-suspension 2-way speaker system with 2 200-mm woofers in vertical line tweeter. Designed to be placed 23 cm minimum from floor. Features satin black plinth cabinet; black cloth grille. Frequency range 40-25,000 Hz; sensitivity 87 dB SPL/W/m; power range 10-100 W; impedance 8 ohms; 680 mm H \times 315 mmD \times 280 mmW \$350

Model 101 Speaker System

Acoustic-suspension 2-way speaker system with 110-mm woofer, Melinex dome tweeter. Features teak/walnut cabinet; black/brown cloth grille. Frequency response 90-30,000 Hz \pm 2 dB; sensitivity 81 dB SPL/W/m; input range 20-100 W; impedance 8 ohms; 340 mmH \times 190 mmD \times 180 mmW \$295

Model 303 Series II Speaker System

Acoustic-suspension 2-way speaker system. Features satin black plinth cabinet; black cloth grille. Frequency range 50-25,000 Hz; sensitivity 86 dB SPL/W/m; power range 10-50 W; impedance 8 ohms; 508 mmH



The crossover network. A great place to hide.

You don't usually see crossovers in loudspeaker ads.

Because the crossover is the most embarrassing part of most loudspeaker systems; an electronic 'kludge' buried deep in the cabinet. Designed to cover up the deficiencies of mediocre drivers. Or, just to save money so that the speaker can be sold at a particular price.

The ADS crossover, above, is a different breed altogether.

All its components are computer grade, and mounted on a 'military spec' epoxy printed circuit board. Chokes are wound with wire imported from one country on ferrite cores imported from another.

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We bring it to your attention because it is one of many fastidious details which are part of every piece of equipment (regardless of price) which carries the ADS name.

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Or best of all, see an ADS dealer. We can only tell you how well they're made. He can show you how much better they sound.

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9 SPEAKER SYSTEMS

× 265 mmW × 230 mmD \$225

Model 103.2 Speaker System

Floor-standing 2-way speaker system with novel bass loading; S-STOP protection; pairing of systems for sensitivity, frequency response match to within 0.5 dB. Frequency response flat 60-20,000 Hz; SPL output 106 dB on program peaks; THD <1%, 50-20,000 Hz; impedance 8 ohms; 506 mmH × 265 mmW × 249 mmD; 19 lb \$900/pr

KENWOOD

LS-1800 Speaker System

Speaker system with 11" woofer with carbon-fiber rods; 4" active planar radiator midrange, 1 1/2" active planar radiator tweeter. Features polyvinyl finish. Measures 26 3/32" H × 14 1/16" W × 12 3/16" D, weighs 77 lb \$1080

LS-407C Speaker System

Bass-reflex 3-way speaker system with 10" woofer in diecast basket, 4 3/8" midrange in diecast basket, 1 1/4" cone tweeter. Features midrange, tweeter level controls; lauan-core mica-sheet front-panel; walnut-grain vinyl side, top, bottom panels. Frequency range 40-20,000 Hz; crossovers 2 and 5 kHz; sensitivity 90 dB/W/m; maximum power 120 W; impedance 8 ohms; 25 3/8" H × 15" W × 13" D \$275

LS-1000 Speaker System

Speaker system with 10" woofer with carbon-fiber rods, 1 1/4" active planar radiator tweeter. Features walnut-grain vinyl finish. Measures 23 1/4" H × 12 1/2" D × 11 1/4" W, weighs 35 lb \$250

JL-815 Speaker System

Speaker system with 15" woofer, 2 5" midranges, 3" tweeter. Features walnut-grain vinyl finish. Measures 28" H × 17 1/2" W × 12 3/4" D \$225

LS-10 Speaker System

Speaker system with 7 3/4" woofer with carbon-fiber rods, 1 3/4" active planar radiator tweeter. Features polyvinyl finish. Measures 15 1/2" H × 8 1/2" D × 8 1/2" W, weighs 31 lb \$400/pr

LS-405C Speaker System

Bass-reflex 2-way speaker system with 10" woofer in diecast basket and 1 1/4" cone tweeter. Features lauan-core mica-sheet front panel with walnut-grain finish. Frequency range 40-20,000 Hz; crossover 3 kHz; sensitivity 90 dB/W/m; maximum power 100 W; impedance 8 ohms; 23 1/4" H × 13" W × 12 3/4" D \$189

LSC-5500 Speaker System

Acoustic-suspension 3-way speaker system with 12" woofer, 4 3/8" midrange, 1 1/4" tweeter. Features walnut-grain vinyl finish. Measures 24" H × 14" W × 10 3/4" D \$189

LSC-4500 Speaker System

Acoustic-suspension 3-way speaker system with 10" woofer, 4 3/8" midrange, 1 1/4" tweeter. Features walnut-grain vinyl finish. Measures 24" H × 14" W × 10 1/8" D \$163

LSK-400C Speaker System

Acoustic-suspension 3-way speaker system with 10" woofer, 4 3/8" midrange, 1 1/4" tweeter. Features walnut-grain vinyl finish. Measures 24" H × 14" W × 10 1/8" D \$163

S-4 Speaker System

Speaker system with 8" woofer, 2" midrange, 1" tweeter. Features polyvinyl finish. Measures 14 3/32" H × 9 1/32" W × 8 1/32" D \$240/pr

S-2 Speaker System

Speaker system with 6 1/2" woofer, 2 3/8" tweeter. Features polyvinyl finish. Measures 14 3/32" H × 8 1/2" W ×

5 1/32" D \$165/pr

LSC-2500 Speaker System

Acoustic-suspension 2-way speaker system with 8" woofer, 1 1/4" tweeter. Features walnut-grain vinyl finish. Measures 17 3/8" H × 11 7/8" W × 8 13/16" D \$155/pr

LSK-200C Speaker System

Acoustic-suspension 2-way speaker system with 8" woofer, 1 1/4" tweeter. Features walnut-grain vinyl finish. Measures 17 3/8" H × 11 7/8" W × 8 13/16" D \$155/pr

KINETIC AUDIO INT'L

Titan Speaker System

Tapered Acoustical Trapezoidal Line (TATL)/labyrinth 5-way speaker system with 2 12" polypropylene woofers, 6 1/2" polystyrene midwoofer, 2" dome midrange/tweeter, 1 1/4" dome tweeter, 3/4" dome supertweeter. Woofers have long-excursion design for lowest frequency response; midwoofer has diffractionless surround; midrange/tweeter driver has magnetic liquid. Linear-phase system design features 4 high-power noninductive controls. Impedance selectable 4/8/16 ohms; power range 25-200 W rms; sensitivity 92 dB SPL/W/m; frequency response 12-22,000 Hz ±1.5 dB; crossovers 90, 1k, 3k, 7k Hz; 60" H × 22" D × 18" W; 245 lb \$2499

Trapezium Speaker System

Tapered Acoustical Trapezoidal Line/Labyrinth 5-way floor-standing speaker system with 12" polypropylene woofer, 6 1/2" polystyrene midwoofer, 2" dome midtweeter, 1 1/4" dome tweeter, 3/4" dome supertweeter in linear-phase array. Features 4 level controls; hand-rubbed Tung-oiled walnut-veneer finish; removable black cloth grille. Frequency response 14-22,000 Hz ±1.5 dB; crossovers 90, 1k, 3k, 7k Hz; sensitivity 90 dB/W/m; power range 45-150 W; impedance 8 ohms; 60" H × 20" D × 16" W. Available in mirror-matched pairs \$1999

Labyrinth Speaker System

Floor-standing 4-way speaker system with 12" polypropylene woofer, 6 1/2" polystyrene midrange, 2" midtweeter, 1 1/4" dome supertweeter. Features Frequency response 18-25,000 Hz ±2 dB; crossovers 90, 1k, 3.5k Hz; sensitivity 91 dB SPL/W/m; power range 15-150 W continuous; impedance 8 ohms; midrange, tweeter level controls; combined or separate electronic and passive crossovers; walnut veneer finish; 52" H × 18" D × 16" W \$1299

Trapezoid Speaker System

Floor-standing 4-way speaker system with 12" woofer, 6.5" polystyrene midrange, 1 1/8" dome tweeter, 3/4" dome supertweeter. Features midrange, tweeter, supertweeter controls. Frequency response 20-22,000 Hz, ±1.5 dB; crossovers 175, 2k, 7.5k Hz; sensitivity 91-dB SPL/W/m; impedance 8 ohms; power range 15-150 W continuous; 40" H × 16" W × 14" D \$699

Impulse/CRM Speaker System

Floor-standing 3-way monitor speaker system with 12" woofer, 6.5" polystyrene midrange, 1 1/4" dome supertweeter. Features midrange, tweeter level controls; walnut-veneer finish. Frequency response 18-22,000 Hz ±2.5 dB; crossovers 180 and 2k Hz; sensitivity 90 dB SPL/W/m; power range 15-150 W continuous; impedance 8 ohms; 26" H × 14 1/2" W × 14" D \$449

Stat Nouveau Speaker System

TATL 2-way wide-range miniature monitor speaker system with 2 6.5" midwoofers, 1 1/8" dome tweeter. Features Dual Tapered Acoustical Trapezoidal Line cabinet with center plenum chamber; tweeter level control; walnut-veneer finish; black cloth grille. Frequency response 45-18,000 Hz ±2 dB; crossover 1.8 kHz; sensitivity 93 dB SPL/W/m; power range 15-100 W rms; impedance 4 ohms; 20" H × 12" W × 9" D; 48 lb \$399

Stat Speaker System

Linear-phase 2-way miniature monitor bookshelf speaker system with 2 5" long-throw polystyrene

midwoofers, 1 1/2" dome tweeter. Features tweeter level control; hand-rubbed oil-finish walnut-veneer cabinet; removable black cloth grille. Frequency response 36-22,000 Hz ±2.5 dB; crossover 1.8 kHz; sensitivity 94 dB SPL/W/m; power range 10-80 W continuous; impedance 4 ohms; 17.5" H × 10.5" W × 9" D \$349

Micro Monitor Speaker System

Miniature 2-way speaker system with 6 1/2" woofer, 1 1/2" dome tweeter. Features tweeter level control; oiled-walnut veneer cabinet; black cloth grille. Frequency response 38-22,000 Hz ±2.5 dB; crossover 1.8 kHz; recommended power 15 W; sensitivity 91 dB SPL/W/m; impedance 8 ohms; 15 1/2" H × 9" W × 9" D; 30 lb \$299

302P Speaker System

Speaker system with 12" woofer, 5" midrange, 1" dome tweeter. Features midrange, tweeter level controls; oiled-walnut veneer cabinet; black cloth grille.



Frequency response 29-22,000 Hz ±3 dB; crossovers 350 and 3.5k Hz; recommended power 10 W; sensitivity 93 dB SPL/W/m; impedance 8 ohms; 26" H × 14 1/2" W × 14" D; 68 lb \$269
210P. Similar to 302P except has 8" woofer, no midrange driver, level control. Low-end response 36 Hz; crossover 1.8 kHz; sensitivity 94 dB; 24" H × 9" D; 49 lb \$199
102P. Similar to 210P except has 6 1/2" woofer. Low-end response 45 Hz; crossover 3 kHz; recommended power 25 W; sensitivity 93 dB; 15 1/2" H × 9" W; 24 lb \$169

Titan Subwoofer

Linear-phase subwoofer system with 2 12" polypropylene woofers in TATL/labyrinth enclosure. Features selectable 65/100/200-Hz crossover or direct hookup for active electronic crossover. Frequency response 12-2000 Hz ±1.5 dB; impedance 4, 8, or 16 ohms; power range 25-200 W; sensitivity 92 dB SPL/W/m; 60" H × 22" D × 18" W; 220 lb \$1299

Trapezium Subwoofer

Tapered Acoustical Trapezoidal Line floor-standing subwoofer with 12" polypropylene woofer. Features Tung-oil finish walnut-veneer cabinet; removable black cloth grille. Frequency response 14-2000 Hz ±1.5 dB; crossovers 65, 100, 200 Hz; sensitivity 90 dB/W/m; power range 55-200 W; impedance 8 ohms; 60" H × 16" W × 20" D × 16" W \$1049

Labyrinth Subwoofer

Subwoofer with 12" long-excursion woofer. Features tapered acoustical trapezoidal line labyrinth; 4 sets input terminals; bi-amp capability with, without electronic crossover. Frequency response 16-2000 Hz ±2 dB; crossovers 40, 90, 175 Hz or none internal; recommended power 20 W; sensitivity 91 dB SPL/W/m; impedance 8 ohms; 50" H × 18" D × 16" W \$599

Trapezoid. Similar to Labyrinth except low-end response 18 Hz; 40" H × 16" W × 14" D \$299
Impulse Subwoofer. Similar to Trapezoid except low-end response 18 Hz; sensitivity 90 dB; recommended power 25 W; 26" H × 14 1/2" W × 14" D \$229
320P. Similar to Impulse fixed 200-Hz crossover;

low-end response 20 Hz; sensitivity 93 dB ... \$169

KLH

Series 500 Speaker Systems

All speaker systems in this series have ported cabinet hickory-grain vinyl finish; removable grilles.

515. 3-way system with 15" woofer, 5" midrange, 3" cone tweeter. Frequency range 30-20,000 Hz; crossovers 1 and 4 kHz; power range 20-100 W; sensitivity 92 dB SPL/W/m; impedance 8 ohms; 28"H × 18"W × 15½"D \$350

512. Similar to 515 except has 12" woofer. Power range 10-75 W; sensitivity 90 dB; 25½"H × 15"W × 12¾"D \$250

510. Similar to 515 except has 10" woofer. Power range 10-50 W; 22½"H × 12½"W × 10¾"D \$160

508. Similar to 515 except has 8" woofer, no midrange driver. Low-end response 40 Hz; power range 10-30 W; 21"H × 12"W × 9¾"D \$100

KM LABORATORIES

205 Speaker System

Horn-loaded 2-way, 2-piece floor-standing speaker system with 2 long-throw 12" woofers, Motional Feedback amplifier (120 W continuous) in bass cabinet, horn tweeter with amplifier (60 W continuous) in separate box. Features tweeter level control (2-dB steps); red and green LED circuit protection indicators; auto power switching; transit wheels at rear of bass unit; black textured finish. Frequency response 30-15,000 Hz ±4 dB; electronic crossover 600 Hz; maximum output 125 dB SPL; maximum input 2 V rms at 10k ohms impedance; bass 54½"H × 19¾"W × 32¾"D; tweeter 10¾"H × 19¾"W × 19¾"D \$3000

KM-52 Speaker System

Bass-reflex 2-way bookshelf speaker system with 6½" woofer, Motional Feedback amplifier (60 W continuous), 1¾" soft-dome tweeter. Features bass, tre-



ble controls; choice of natural walnut, rosewood, black walnut, black vinyl, or white vinyl finish. Frequency response 38-20,000 Hz ±3 dB; crossover at 2.2 kHz; maximum output 105 dB SPL at 1 m A weighted; input level/impedance 0.775 V rms/4.7k ohms low-level, 7.75 V rms/150 ohms high-level; 14"W × 10½"H × 9½"D \$1099/pr

KM-32 Speaker System

Bass-reflex 2-way bookshelf speaker system with 6½" woofer with passive radiator, 1" soft-dome tweeter. Features bass, treble controls. Frequency response 42-22,000 Hz ±3 dB; input impedance 4.7k ohms low-level, 150 ohms high-level; maximum power 40 W rms; crossover 2.7 kHz; SPL 100 dB; 14"H × 9¾"W × 8"D; 17.8 lb \$749/pr

AC 550 Speaker System

Ducted-port floor-standing 5-way passive bass-reflex speaker system with 9" woofer, 9" midwoofer, 1" soft-dome tweeter, 2 1" soft-dome HF Ambience tweeters. Features walnut, natural, or black oak finish. Frequency response 37-23,000 Hz ±2dB; crossovers at 850 Hz and 2.8k Hz; maximum power 250 W; sensitivity 93 dB SPL/W/m; impedance 4 ohms; 33½"H × 13½"D × 11"W \$749

AC 530 Speaker System

Bookshelf 3-way speaker with passive radiator, rear-mounted ambience tweeter, 5" passive radiator, 6"

midwoofer, 1" soft-dome tweeter, 1¾" HF Ambience tweeter. Frequency response 45-23,000 Hz ±3 dB; crossover 2.8 kHz; maximum power 150 W; sensitivity 89 dB SPL/W/m; impedance 4 ohms; 14"H × 9¾"W × 8"D \$274

AC 510 Speaker System

Miniature speaker with rear-mounted 5" passive radiator, 5" midwoofer, 1" soft-dome tweeter. Frequency response 50-23,000 Hz ±3 dB; crossover 2.7 kHz; maximum power 75 W; sensitivity 85 dB SPL/W/m; impedance 8 ohms; walnut finish; 10"H × 6½"W × 5½"D \$199

KOSS

CM 1030 Speaker System

Dual-port, 4-way, 4-bandpass floor-standing speaker system with 10" woofer, 2 4" midrange, 1" dome treble tweeter, 1" dome tweeter. Features ±3-dB midrange, treble, tweeter spectrum-shaped controls. Bandpass 29-19,000 Hz -3 dB; crossovers 300, 2.5k, 7k Hz; efficiency 94 dB SPL/W/m; power range 15-200 W/channel; impedance 5 ohms; 38¾"H × 16½"W × 14½"D \$777-\$1000/pr

CM 1020 Speaker System

Vented 3-way, 3-bandpass floor-standing speaker system with 10" woofer, 4½" midrange, 1" dome tweeter. Features midrange, tweeter controls. Bandpass 31-18,500 Hz -3 dB; crossovers 300 and 3.5k Hz; efficiency 92 dB SPL/W/m; power range 15-150 W/channel; impedance 5 ohms; 33"H × 15½"W × 13¾"D \$597-\$774/pr

CM 1010 Speaker System

Vented 2-way, 2-bandpass floor-standing speaker system with 8" woofer, 10" passive radiator, 1" dome tweeter. Features ±3-dB tweeter spectrum-shaped control. Bandpass 35-17,500 -3 dB; crossover 3.5k Hz; efficiency 90 dB SPL/W/m; power range 15-100 W/channel; impedance 6 ohms; 28"H × 15½"W × 11"D \$417-\$540/pr

CM 530 Speaker System

Bookshelf 2-way, 2-bandpass speaker system with 8" woofer, 8" passive radiator, 1" dome tweeter. Features ±3-dB tweeter spectrum-shaped control. Bandpass 36-17,000 Hz -3 dB; crossover 3k Hz; efficiency 88 dB SPL/W/m; power range 15-75 W/channel; impedance 7 ohms; 24"H × 13¾"W × 11¾"D \$297-\$385/pr

KOSSFIRE 210 Speaker System

Vertically aligned 4-driver, 3-bandpass speaker system with 12" woofer, 5" midrange, 2 1" tweeters. Features midrange, tweeter level controls; linear-phase, constant-voltage crossover network; pecan veneer over particleboard cabinet/molded rigid grille. Frequency range 30-20,000 Hz; power range 10-100 W/channel; sensitivity 92 dB SPL/W/m; impedance 8 ohms; 32½"H 15½"W × 13½"D \$420-\$550/pr

KOSSFIRE 110 Speaker System

Speaker system with 10" woofer, 1¾" magnetic-fluid damped midtweeter, 2 1¾" tweeters. Features ±5-



dB tweeter level control; 3-bandpass, 4-driver design; automatic-reset circuit-breaker protection; scratch-resistant vinyl-laminate finish; cloth/rigid-foam grille. Frequency range 30-20,000 Hz; power range 10-100 W/channel; impedance 8 ohms; 32"H × 13¾"W × 10¾"D \$220-\$300/pr

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9 SPEAKER SYSTEMS

Dynomite M-80 Speaker System

Speaker system with 2 4 $\frac{1}{4}$ " woofers, 1" dome tweeter. Features hand-rubbed walnut-veneer finish. Frequency range 50-30,000 Hz; power range 10-30 W/channel; sensitivity 87 dB SPL/W/m; impedance 6 ohms; 12 $\frac{1}{2}$ "H x 5 $\frac{1}{8}$ "D x 5 $\frac{1}{2}$ "W. \$200-\$260/pr

LINN by AUDIOPHILE SYSTEMS

DMS Isobarik Speaker System

Isobarik-loading 3-way floor-standing speaker system with 12" x 9" woofers, 5" midranges, 2 1" dome tweeters. Frequency response 25-20,000 Hz \pm 1.5 dB; crossovers 375 and 3k Hz; instantaneous dynamic range 54 dB; impedance 4 ohms; power range 50-500 W; 30"H x 15" W x 16 $\frac{1}{2}$ "D \$3740/pr

S.A.R.A. Isobarik Speaker System

Isobarik-loading 2-way bookshelf speaker system with 2 8" woofers, 1" dome tweeter. Features cast structural foam housing. Frequency response 36-20,000 Hz \pm 2 dB; impedance 4 ohms; 17"H x 13"W x 10"D \$1590/pr

K.A.N. Speaker System

Acoustic-suspension 2-way bookshelf speaker system with 5" woofer, 1" dome tweeter. Frequency response 70-20,000 Hz \pm 3 dB; impedance 8 ohms; 12"H x 7 $\frac{1}{2}$ "W x 6 $\frac{1}{2}$ "D \$625/pr

MAGNEPAN

MG-IIB Speaker System

Floor-standing 2-way speaker system with Magneplanar* woofer, Magneplanar* tweeter. Features oak side rails; brown fabric grille. Frequency response 40-18,000 Hz \pm 3 dB; crossover 400-1600 Hz at 6 dB/octave; power range 25-200 W; impedance 5 ohms purely resistive; 71"H x 22"W x 2"D \$1025/pr

MG-I (Improved) Speaker System

Floor-standing 2-way speaker system with Magneplanar* woofer, Magneplanar* tweeter. Features oak side rails; off-white fabric grille. Frequency response 45-18,000 Hz \pm 4 dB; crossover 1.6 kHz; sensitivity 82-dB SPL/W/3 ft; power range 40-200 W rms; impedance 5 ohms purely resistive; 60"H x 22"W x 2"D \$675/pr

SMG Magneplanar Speaker System

Full-range 2-way speaker system with 0.5-mil diaphragm driven by Magneplanar* magnetic field. Features oak side rails; brown fabric grille. Frequency response 50-16,000 Hz \pm 4 dB; power range 20-100 W rms; impedance 4 ohms purely resistive; crossover 2.4 kHz; 48 $\frac{1}{8}$ "H x 24 $\frac{1}{4}$ "W x 1 $\frac{1}{4}$ "D; 70 lb \$450/pr

MARANTZ

SP 1230 Speaker System

Ported 3-way speaker system with 12" Linear T Drive woofer, 5" midrange, 1" dome tweeter. Features automatic overdrive protection with LED indicator; midrange, tweeter level controls; simulated walnut vinyl finish; removable grille. Frequency response 35-22,000 Hz \pm 3 dB; crossovers 1.5k and 7.5k Hz; power range 10-200 W; sensitivity 90 dB SPL/W/m; impedance 4 ohms; 30"H x 16"W x 13 $\frac{3}{4}$ "D. 270 SP 1030. Similar to SP 1230 except has 10" woofer. Low-end response 40 Hz; power range 12-150 W; 26"H x 13 $\frac{1}{2}$ "W x 10 $\frac{1}{4}$ "D \$220

200 Speaker System

Acoustic-suspension 3-way speaker system with 8" Linear T Drive woofer, 3 $\frac{1}{2}$ " midrange, 1" dome tweeter. Features multi-rated crossover; constant radiated power; walnut vinyl finish; removable grille. Frequency range 36-20,000 Hz; crossovers 2k and 8k Hz; power range 7-50 W; sensitivity 88 dB

SPL/W/m; 20 $\frac{1}{4}$ "H x 12 $\frac{1}{4}$ "W x 8 $\frac{1}{2}$ "D \$98

MATRECS

4324 Speaker System

Floor-standing 6-element speaker system with 2 12" woofers, isolated 6" midrange; 2 1" polycarbonate dome tweeters. Features brilliance, presence controls; pushbutton terminals. Frequency range 25-22,000 Hz; power range 10-200 W rms \$499

4315 Speaker System

Floor-standing speaker system with 2 10" woofers, 5" midrange, 1" polycarbonate dome tweeter. Features brilliance, presence controls; pushbutton terminals. Frequency range 30-22,000 Hz; crossovers 1 and 5 kHz; power range 10-110 W rms \$329

4320 Speaker System

Floor-standing speaker system with 15" woofer, 6" midrange, 1" polycarbonate dome tweeter. Features brilliance, presence controls; pushbutton terminals. Frequency range 20-22,000 Hz; crossover 5 kHz; power range 10-150 W rms \$309

4312 Speaker System

Speaker system with 12" woofer, 5" midrange, 1" polycarbonate dome tweeter. Features brilliance, presence controls; pushbutton terminals. Frequency range 30-22,000 Hz; crossovers 1 and 5 kHz; power range 10-100 W rms \$249

4309 Speaker System

Tower speaker system with 10" woofer, 10" passive radiator, 5" midrange, 3 $\frac{1}{2}$ " tweeter. Features pushbutton terminals. Frequency range 35-20,000 Hz; crossovers 2.5 and 5 kHz; power range 5-75 W rms \$179

4310 Speaker System

Speaker with 12" woofer, 5" midrange, 3 $\frac{1}{2}$ " tweeter. Features pushbutton terminals. Frequency range 35-20,000 Hz; crossovers 2.5 and 5 kHz; power range 5-45 W rms \$159

4308 Speaker System

Speaker system with 8" woofer, 3 $\frac{1}{2}$ " tweeter. Frequency range 45-20,000 Hz; crossover 5 kHz; power range 5-25 W rms; pushbutton terminals \$85

MERIDIAN

M2 Speaker System

Ported 2-way integrated speaker system with 2 5" woofers, 2" tweeter, power supply, 2 power amplifiers in low-resonance cabinet. Features Inter-Active technology; $\frac{1}{4}$ " A quality birch plywood cabinet construction; stand with decoupled tilt mechanism. Frequency response 38-20,000 Hz \pm 3 dB; maximum output 105 dB; 20"H x 15"D x 7"W.



Walnut or mahogany finish; with amplifiers \$1995/pr
Rosewood finish; with amplifiers \$2185/pr

M3 Speaker System

Compact Inter-Active 2-way speaker system with 5" woofer, 1 $\frac{1}{4}$ " tweeter. Features time-delay correction; power supply; power amplifiers. Frequency response 38-20,000 Hz \pm 3 dB; maximum output 100 dB free-standing, up to 103 dB on shelf; 14 $\frac{1}{2}$ "H x 12"D x 7"W.

Walnut or mahogany finish; amplifiers ... \$1325/pr
Rosewood finish; with amplifiers \$1455/pr

MESA

125 Speaker System

Bass-reciprocator 3-way speaker system with 12" woofer, 5" midrange, 3" Prismadome ferrofluid tweeter. Features 10-dB range Vicom control; automatic circuit-breaker protection. Frequency range 30-22,000 Hz; crossovers 900 and 6k Hz; maximum power 125 W rms; 27 $\frac{1}{2}$ "H x 16"W x 13"D. \$325
85. Similar to 125 except has 10" woofer. Low-end response 36 Hz; maximum power 85 W; 25 $\frac{1}{4}$ "H x 14 $\frac{1}{2}$ "W x 11 $\frac{1}{4}$ "D \$269
65. Similar to 85 except 2-way system with 10" woofer, 3" ferrofluid Prismadome tweeter; no control. Low-end response 40 Hz; crossover 2.5 kHz; maximum power 65 W rms; 23"H x 12 $\frac{1}{2}$ "W x 10 $\frac{3}{8}$ "D \$199
45. Similar to 65 except has 8" woofer. Low-end response 45 Hz; crossover 3 kHz; maximum power 45 W rms; 21"H x 11 $\frac{1}{2}$ "W x 9 $\frac{1}{4}$ "D \$139

MIRAGE ACOUSTICS

SM-3 Speaker System

Quasi 3rd-order Butterworth ported floor-standing speaker system with 25-cm woofer, 2.5-cm soft-



dome tweeter. Features adjustable integral stand; internal Live Wire* wiring; first-order crossover. Frequency response 37-19,000 Hz \pm 1.5 dB; crossover 2.5 kHz; maximum power 250 W rms; sensitivity 91 dB SPL/W/m; 37"H x 15 $\frac{1}{2}$ "W x 11 $\frac{1}{4}$ "D \$389

SM-2.5 Speaker System

Mirror-imaged 3-way floor-standing speaker system with 25-cm woofer, 12-cm midrange, $\frac{1}{4}$ " soft-dome tweeter. Features first-order crossover network. Frequency response 39-20,000 Hz \pm 1.5 dB; crossovers 250 and 3.5k Hz; power range 10-250 W rms; 31 $\frac{1}{2}$ "H x 12 $\frac{1}{2}$ "W x 9 $\frac{1}{4}$ "D \$299
T-2. Speaker stands dedicated to SM-2.5 speakers \$50/pr

SM-1 Speaker System

Sealed-box 2-way floor-standing/bookshelf speaker system with first-order crossover system. Frequency response 47-18,000 Hz \pm 2 dB; crossover 2.5 kHz; power range 10-125 W rms; 24"H x 12 $\frac{1}{2}$ "W x 9"D \$199
T-1. Speaker stands dedicated to SM-1 speakers \$40/pr

SM-5 Speaker System

Heavily braced acoustic-suspension bookshelf speaker system with 20.3-cm woofer, 2.5-cm soft-dome

tweeter. Features first-order crossover. Frequency response 59-18,000 Hz ± 3 dB; crossover 2.5 kHz; power range 10-90 W rms; sensitivity 92 dB SPL/W/m; 18"H \times 11 $\frac{1}{8}$ "W \times 8 $\frac{3}{8}$ "D..... \$149

SM-4 Speaker System

Heavily braced acoustic-suspension 2-way speaker system with 16.5-cm woofer, $\frac{1}{4}$ " soft-dome tweeter mounted inside felt ring on flush low-diffraction baffle. Features first-order crossover. Crossover 3.5 kHz; power range 10-50 W rms; sensitivity 92 dB SPL/W/m; 15 $\frac{1}{4}$ "H \times 10"W \times 7 $\frac{1}{2}$ "D..... \$119

MISSION ELECTRONICS

770 Speaker System

Reflex 2-way monitor speaker system with 214-mm polypropylene woofer, 25-mm dome oil-cooled tweeter. Features walnut, black, or ebony finish. Frequency response 45-20,000 Hz ± 2.5 dB; impedance 8 ohms; 590 mmH \times 300 mmW \times 290 mmD; 12 kg \$1200/pr

727 Speaker System

Reflex 2-way speaker system with 220-mm polypropylene woofer, ferrofluid tweeter. Features walnut or



black finish. Frequency response 50-20,000 Hz ± 3 dB; power range 20-150 W; impedance 8 ohms; 570 mmH \times 288 mmW \times 280 mmD; 12 kg. \$847/pr

717 Speaker System

Bass-reflex 2-way speaker system with 210-mm radially reinforced woofer, 25-mm soft-dome tweeter. Features walnut or black finish. Frequency response 55-20,000 Hz ± 3 dB; power range 15-100 W; impedance 8 ohms; 515 mmH \times 277 mmW \times 270 mmD; 8.5 kg..... \$647/pr

700 Speaker System

Bass-reflex 2-way speaker system with 205-mm woofer, 19-mm ferrofluid tweeter. Features walnut or black finish. Frequency response 60-20,000 Hz ± 3 dB; power range 15-80 W; impedance 8 ohms; 460 mmH \times 260 mmW \times 255 mmD; 6.5 kg. \$447/pr

MITSUBISHI

DS-32BMKII Speaker System

Bass-reflex 3-way bookshelf speaker system with 10" woofer, 4" midrange, 1 $\frac{1}{8}$ " semidome tweeter. Features



all drivers mounted in diecast aluminum frames in mirror-image alignment; simulated walnut finish; removable fabric grille. Frequency range 38-30,000 Hz; crossovers 700 and 5k Hz; maximum power 120 W; sensitivity 91 dB SPL/W/m; impedance 6 ohms;

24"H \times 12 $\frac{1}{2}$ "W \times 12 $\frac{1}{8}$ "D..... \$265

DS-181 W Speaker System

Bass-reflex 3-way bookshelf speaker system with 8" woofer, 2" midrange, $\frac{3}{8}$ " dome tweeter. Features mirror-image driver alignment; crossover switch; simulated walnut finish; removable grille. Frequency range 45-30,000 Hz; crossovers 2k and 10k Hz; maximum power 100 W; sensitivity 90 dB SPL/W/m; impedance 6 ohms; 18 $\frac{1}{4}$ "H \times 10 $\frac{1}{4}$ "W \times 9 $\frac{1}{8}$ "D. \$170

M&K

SV-200 Satellite/Subwoofer System

Integrated Satellite 2B/Volkwoofer 2B speaker system in single cabinet. Features internally amplified woofers; 36 tonal combinations; 6 $\frac{1}{2}$ " polypropylene midrange, 12" polypropylene woofer; walnut or oak finish; black grille. Frequency response 18-20,000 Hz ± 3 dB; woofer amplifier power 200 W; power range 15-200 W; 40 $\frac{1}{2}$ "H \times 15 $\frac{1}{2}$ "W \times 12 $\frac{1}{2}$ "D; 55 lb 1350/pr

Satellite 1B Speaker System

Acoustic-suspension 2-way speaker system with 2 5" polypropylene woofers, 2 1" soft-dome tweeters. Features selector for 36 tonal balances; midrange, tweeter character switches; walnut or oak finish; black grille. Frequency response 70-22,000 Hz ± 3 dB; power range 7.5-400 W; Impedance 4 ohms; 21"H \times 7 $\frac{1}{2}$ "W \times 7 $\frac{1}{2}$ "D; 19 lb..... \$600/pr

Satellite 2B Speaker System

Acoustic-suspension 2-way speaker system with 6 $\frac{1}{2}$ " polypropylene woofer, 1" soft-dome tweeter. Features



selector for 36 tonal balances; midrange, treble character switches; walnut or oak finish; black grille. Frequency response 65-20,000 Hz ± 3 dB; power range 15-200 W; 12 $\frac{1}{4}$ "H \times 9 $\frac{1}{4}$ "W \times 8"D; 16 lb \$430/pr

Satellite 3B Speaker System

Acoustic-suspension 2-way speaker system with 5" polypropylene woofer, 1" soft-dome tweeter. Features selector for 14 tonal balances via multiple inputs; black finish; black grille. Frequency response 100-20,000 Hz ± 3 dB; power range 15-100 W; 10 $\frac{1}{2}$ "H \times 7"D \times 6 $\frac{1}{2}$ "W; 9 lb \$300/pr

Volkwoofer 1B Subwoofer

Internally amplified subwoofer with 12" polypropylene driver. Features preamplifier, power amplifier inputs; active filtering at 24 dB/octave; walnut or oak finish; black grille. Frequency response 18-125 Hz ± 3 dB; amplifier power 400 W; 18 $\frac{1}{4}$ "W 17 $\frac{3}{4}$ "H \times 15 $\frac{1}{4}$ "D; 50 lb \$650

Volkwoofer 2B. Similar to Volkwoofer 1B except amplifier power 200 W; 43 lb \$520

Volkwoofer 3B. Similar to Volkwoofer 2B except amplifier power 100 W; 17 $\frac{1}{2}$ "H \times 17 $\frac{1}{2}$ "W \times 14 $\frac{1}{2}$ "D; 43 lb \$450

Goliath 2B Subwoofer

Acoustic-suspension passive subwoofer with 12" polypropylene driver, internal crossover network. Features walnut or oak finish; black grille. Frequency range 26-150 Hz; 18 $\frac{1}{4}$ "W \times 17 $\frac{3}{4}$ "H \times 15 $\frac{1}{4}$ "D; 45 lb \$325

Goliath 3B. Similar to Goliath 2B except different 12" woofer; black painted finish; 17 $\frac{1}{2}$ "H \times 17 $\frac{1}{2}$ "W \times 14 $\frac{1}{2}$ "D; 40 lb \$250

Bottom End 2B Subwoofer

Acoustic-suspension passive subwoofer with 12"

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MAGNEPLANAR

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White Bear Lake, MN 55110

9 SPEAKER SYSTEMS

polypropylene driver designed for bi-amplification, external crossover network. Features walnut or oak finish. Frequency range 25-150 Hz; power range 30-150 W; 18 1/2" W x 17 1/2" H x 15 1/2" D; 41 lb. \$250

RC-1 Satellite/Subwoofer Remote Control

Allows adjustment of all available tonal conditions remotely. Features midrange, treble character switches; 100-Hz filter or full-range satellite operation; satellite/subwoofer phase correction; Volkswoofer level control; 8 3/4" W x 7 1/4" D x 2 3/4" H; 3 lb. \$185

MORDAUNT-SHORT

Pageant Series #3 Speaker System

Floor-standing 3-way reflex speaker system 208-mm DSB woofer, 120-mm midrange, 12-mm dome tweeter with ferrofluid cooling. Features color-coded terminals; connecting cable with matching 4-mm plugs; teak or walnut veneer top, matte black plinth; brown fabric grille. Frequency response 60-20,000 Hz ± 3 dB; crossovers 750 and 4k Hz; power range 25-100 W; sensitivity 96 dB SPL/W/m; distortion < 1%, 100-20,000 Hz; impedance 8 ohms; 24 1/2" H x 12" D x 10 1/2" W. \$750/pr

Festival 3 Speaker System

Floor-standing 2-way speaker system with 208-mm DSB woofer, 25-mm dome tweeter. Features color-coded connectors; cable with matching 4-mm plugs; teak or walnut veneer top, matte black plinth; brown fabric grille. Frequency response 70-20,000 Hz ± 3 dB; crossover 3.5 kHz; power range 15-90 W; sensitivity 96 dB SPL/W/m; distortion < 1%, 150-20,000 Hz; impedance 8 ohms; 20 1/2" H x 10" W x 8 3/4" D. \$525/pr

Carnival 2 Speaker System

Floor-standing 2-way speaker system with 208-mm DSB woofer, 12-mm dome tweeter. Features color-coded connectors; cable with matching 4-mm plugs; teak or walnut veneer top, matte black plinth; brown fabric grille. Frequency response 80-20,000 Hz ± 3 dB; crossover 3.5 kHz; power range 15-80 W; sensitivity 96 dB SPL/W/m; distortion < 1%, 150-20,000 Hz; impedance 8 ohms; 16 1/2" H x 9 1/2" W x 7 1/4" D. \$395/pr

OHM ACOUSTICS

Model F Speaker System

Floor-standing speaker system with 12" Walsh radiator, 16" tweeter. Features oiled-walnut cabinet. Frequency response 37-19,000 Hz ± 4 dB; power range 75-250 W; impedance 4 ohms; 44" H x 17 1/4" W x 17 1/4" D (tapers to 13" W x 13" D at top) ... \$1125

Model I Speaker System

Vented floor-standing 4-way speaker system with 12" subwoofer, 1 1/2" soft-dome tweeter, 2 1" soft-dome



supertweeters. Features walnut veneer on 3/4" particleboard cabinet. Frequency response 32-21,000 Hz ± 3.5 dB; crossovers 100, 2k, 10k Hz; power range 10-1000 W continuous; impedance 4 ohms; 33 1/4" H x 15 1/2" W x 15 1/2" D at bottom, tapers to 13 1/4" W x 13 1/4" D at top. \$775

Model C₂ Speaker System

System with 10" woofer, 2" tweeter, 1" dome supertweeter. Features tweeter level control switch; oiled walnut on 3/4" particleboard cabinet with black Formica back. Frequency response 37-20,000 Hz ± 4 dB; crossovers 1.7 and 5 kHz; power range 10-100 W; impedance 8/6 ohms; 25" H x 14" W x 9 1/4" D. \$300

Model L Speaker System

Speaker system with 8" woofer, 2" tweeter, 2" supertweeter. Features tweeter level control; oiled-walnut finish. Frequency response 42-20,000 Hz ± 4 dB; crossovers 1.7 and 10 kHz; power range 8-100 W continuous; impedance 4/8 ohms; input range 8-100 W; efficiency 100-dB SPL at 3 ft; 20" H x 12" W x 9 3/4" D. \$220

Model M Speaker System

Vented 2-way speaker system with 4" woofer, 1" dome tweeter. Features cast-aluminum cabinet. Frequency response 120-20,000 Hz ± 4 dB; crossover 3.5 kHz; power range 5-100 W; impedance 4 ohms; 7 1/4" H x 4 1/2" W x 4 1/2" D. \$150

Model N2 Subwoofer

Dual-vented subwoofer with 2 8" woofers. Features walnut-veneer finish. Frequency range 32-140 Hz; power range 10-100 W; impedance 8 ohms; 15" H x 16" W x 15" D. \$385

ONYKO

F-5000 Speaker System

Air-suspension floor-standing 3-way speaker system with 12.2" woofer, 4" midrange, 1.95" direct-drive membrane tweeter in phase-aligned array. Features midrange, tweeter level controls; matched stereo pairing; 2 4" feet; African rosewood-veneer finish. Frequency range 28-20,000 Hz; crossovers 1.2 and 5 kHz; power range 200 W peak program. \$500

E-200 Speaker System

Air-suspension 3-way speaker system with 11" Fiber-Aligned™ woofer, 4" carbon-fiber midrange, 2" x 3/4" direct-drive membrane tweeter. Features Aztec rosewood vinyl finish. Frequency range 35-70,000 Hz; sensitivity 90 dB SPL/W/m; power range 20-100 W. \$230

E-100. Similar to E-200 except has 8" Fiber-Aligned™ woofer in 2-way system. Frequency range 40-40,000 Hz; sensitivity 89 dB SPL/W/m; power range 15-80 W. \$130

E-90 Speaker System

Air-suspension 3-way speaker system with 10" woofer, 5" midrange, 3" tweeter. Features rosewood vinyl finish. Maximum power 60 W. \$150

HS-20 Midi Speaker System

Mirror-imaged 2-way speaker system with 6.5" woofer, 2" tweeter. Frequency range 60-20,000 Hz; maximum power 50 watts; silver finish. \$100

E-75 Speaker System

Air-suspension 2-way speaker system with 8" woofer, 3" tweeter. Features rosewood vinyl finish. Maximum power 60 W. \$90

OPTONICA

CP-8501 Speaker System

Acoustic-suspension 3-way speaker system with 10" woofer, 4" midrange, horn tweeter. Features gold-look design. Maximum power 80 W rms. \$340/pr

CP-8101 Speaker System

Bass-reflex 2-way speaker system with 8" woofer, 2" tweeter. Features RC crossover network; gold-look design; integral speaker stands. Maximum power 45 W rms; 25" H x 12" W x 10" D. \$200/pr

CP8201. Similar to CP-8101A except has 10" woofer, 1 1/2" tweeter; maximum power 50 W. \$240/pr

PAISLEY RESEARCH LIMITED

AE-500 Speaker System

Vented 2-way speaker system with 8" ferrofluid woofer, 1" soft-dome tweeter. Features American walnut finish; removable grille. Frequency response 28-



20,000 Hz ± 2 dB; crossover 2.5 kHz; power range 20-100 W rms; sensitivity 86 dB SPL/W/m; impedance 6 ohms; 25 1/2" H x 13 1/2" W x 13 1/2" D. \$399

30 Speaker System

Time-aligned 3-way speaker system with 10" woofer using passive electronic suspension bass loading, 8" ferrofluid midrange, 1" foam-dome tweeter. Maximum power 150 W; efficiency 89 dB SPL/W/m. Comes with stand. \$375

AE400 Speaker System

Acoustic-suspension 2-way speaker system with 8" ferrofluid woofer, 1" soft-dome tweeter. Features American walnut finish; removable grille. Frequency response 35-20,000 Hz ± 2 dB; crossover 2.5 kHz; power range 20-100 W rms; sensitivity 85 dB SPL/W/m; impedance 6 ohms; 19 1/2" H x 12 1/4" W x 12 1/4" D. \$337

AE300 Speaker System

Vented 2-way speaker system with 6 1/2" ferrofluid woofer, 1" soft-dome tweeter. Features American walnut finish; removable grille. Frequency response 38-20,000 Hz ± 2 dB; crossover 2.5 kHz; power range 20-60 W rms; sensitivity 84 dB SPL/W/m; impedance 6 ohms; 15 1/2" H x 10 1/4" W x 9 1/2" D. \$249

20 Speaker System

Vented 2-way speaker system with 8" woofer, 1" soft-dome tweeter. Features alagash birch finish; removable grille. Frequency response 32-20,000 Hz ± 3 dB; crossover 3 kHz; power range 20-100 W rms; sensitivity 91 dB SPL/W/m; impedance 6 ohms; 25" H x 15 1/4" W x 9 1/2" D. \$225

10 Speaker System

Vented 2-way speaker system with 8" polypropylene woofer, 1" soft-dome tweeter. Features alagash birch finish; removable grille. Frequency response 40-20,000 Hz ± 3 dB; crossover 3 kHz; power range 20-100 W rms; sensitivity 90 dB SPL/W/m; impedance 6 ohms; 24" H x 14" W x 8" D. \$180

5 Speaker System

Acoustic-suspension 2-way speaker system with 8" woofer, 1 1/4" flared-dome tweeter. Features alagash birch finish; removable grille. Frequency response 45-20,000 Hz ± 3 dB; crossover 3 kHz; power range 15-75 W rms; sensitivity 90.3 dB SPL/W/m; impedance 6 ohms; 16 1/2" H x 9 3/4" W x 9 1/4" D. \$125

JC PENNEY

MCS 8290 Tower Speaker System

Ported 3-way tower speaker system with 9" Honeycomb Disc woofer, 2" Honeycomb Disc midrange, 1 1/4" Honeycomb Disc tweeter. Features tweeter level control; thermal relay protection; LED overload indicator; removable cloth grille. Frequency range 40-35,000 Hz -10 dB; crossovers 1.8 and 3.5 kHz; power range

10-120 W; impedance 8 ohms; 33"H x 11 1/4"W x 10"D; 30 lb \$600/pr

MCS 8330 Speaker System

Linear-phase 3-way speaker system with 12" woofer, 5" midrange, 2" cone tweeter. Features midrange, tweeter level controls; handles; woodgrain-vinyl finish; removable cloth grille. Power range 10-120 W; impedance 8 ohms; 27"H x 15"W x 13"D ... \$300

MCS 8232 Speaker System

Bass-reflex 3-way speaker system with 12" woofer, 1 1/2" soft-dome midrange, 2" tweeter. Features midrange, tweeter controls; driver protection; reset buttons; woodgrain-vinyl finish; removable cloth grille. Power range 10-100 W; impedance 8 ohms; 27"H x 15"W x 10 1/2"D \$250

MCS 8229. Similar to 8232 except has 10" woofer, only tweeter level control. Power range 10-60 W; 24 1/2"H x 13"W x 10 1/2"D \$150

MCS 8231. Similar to 8229 except has 8" woofer, 3 1/2" cone midrange, no level controls. Power range 10-30 W; 23"H x 13"W x 9"D \$75

PHASE TECHNOLOGY

Phase Coherent Series

PC 100 Speaker System

Air-suspension 4-way phase-coherent speaker system with 2 10" solid-piston woofers, 3" soft-dome lower-midrange driver, 1 1/2" soft-dome upper-midrange driver, 1" soft-dome tweeter. Features speaker protection; all sides finished in genuine walnut solids and veneers; removable grille. Frequency range 24-20,000 Hz; power range 50-200 W; 42 1/2"H x 14"W x 8"D; 80 lb \$550

PC 70 Speaker System

Air-suspension 3-way phase-coherent speaker system with 10" solid-piston woofer, 2" soft-dome midrange,



1" soft-dome tweeter. Features speaker protection; genuine walnut solid and veneer finish; removable grille. Frequency range 25-20,000 Hz; power range 25-125 W; 26"H x 14 1/4"W x 10 1/2"D; 50 lb \$300

PC 65 Speaker System

Air-suspension 2-way phase-coherent speaker system with 8" solid-piston woofer, 1" soft-dome tweeter. Features speaker protection; genuine walnut solids and veneer finish; removable grille. Frequency range 35-20,000 Hz; sensitivity 86 dB SPL/W/m; power range 25-100 W; 21"H x 12"W x 10 1/2"D; 29 lb \$200

PC 60 Speaker System

Air-suspension 2-way phase-coherent speaker system with 6" solid-piston woofer, 1" soft-dome tweeter. Features speaker protection; genuine walnut solids and veneer finish; removable grille. Frequency range 40-20,000 Hz; power range 25-80 W; 13 1/4"H x 8"W x 8"D; 30 lb \$150

PC 50 Subwoofer

Air-suspension subwoofer with 10" solid-piston woofer. Features genuine walnut solids and veneer finish. Frequency range 30-150 Hz; sensitivity 85 dB SPL/W/m; power range 25-200 W; 15"D x 14"H x 13"W; 33 lb \$200

High Transparency Series

HT 42 Speaker System

Bass-reflex 3-way high-technology speaker system with 12" woofer, 1 1/2" soft-dome midrange 1" soft-dome tweeter. Features midrange and tweeter level controls; speaker protection; walnut-grain vinyl finish; removable grille. Frequency range 30-20,000 Hz; sensitivity 91 dB SPL/W/m; power range 25-125 W; 27"H x 15 1/4"W x 11 1/4"D; 52 lb \$250

HT 32 Speaker System

Bass-reflex high-technology 3-way speaker system with 10" woofer, 1 1/2" soft-dome midrange, 2" soft-dome tweeter. Features speaker protection; walnut-grain vinyl finish; removable grille. Frequency range 40-20,000 Hz; sensitivity 89 dB SPL/W/m; power range 10-60 W; 23"H x 13"W x 10 1/4"D; 35

lb \$170

HT 28 Speaker System

Bass-reflex high-technology 2-way speaker system with 8" woofer, 2" cone tweeter. Features walnut-grain vinyl finish; removable front grille. Frequency range 50-20,000 Hz; sensitivity 90 dB SPL/W/m; power range 5-50 W; 20"H x 10 3/4"W x 9 3/4"D; 37 lb \$90

PIONEER

HPM-1100 Speaker System

Bass-reflex 4-way speaker system with 15 1/4" Polymer Graphite (PG) woofer, 4 3/4" PG midrange, 1 3/4" PG cone tweeter, horn-loaded double-drive High Polymer film supertweeter. Features walnut-grain vinyl finish; removable grille. Frequency range 25-50,000 Hz;

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THE COMPLETE BUYER'S GUIDE TO
**Stereo/Hi-Fi
Equipment**

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"It is, bluntly put, one of the finest speakers we've heard, regardless of price. The fact that a pair sells for well under a thousand dollars is, in our opinion, nothing short of a sonic miracle. Buy a pair quickly, before Ohm realizes what they're really worth!"

"Sound quality was notable for a very smooth midrange with a satisfying bass, surprisingly good for such a small system. But where the system really scored was in the remarkably consistent frequency response over a 120 degree angle. As you might expect, the stereo image was stable with excellent location and an unusual sense of spaciousness."

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The New York Times

"... spacious acoustic ambiance linked with precise stereo imaging creates a 'reach-out-and-touch-it' realism that this listener has experienced rarely and only with the very best speakers. What's more, the effect is maintained over a broad listening area, so you are not confined to a particular listening position for best results... Add the exquisite clarity of the treble and ample bass free from false boominess, and you have the making of musical truth. As speaker prices go these days, the Ohm Walsh 2 seems a bargain."

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"These little truncated pyramids are efficient, coherent, smooth and easy to place in a room. They gave our reference speakers, at 3.5 times the price, some real competition. Clearly, Ohm Acoustics has a winner."

Greenhill



"GOS: Having owned both Ohm Fs and Gs, I agree with Larry's statement that these are the best Ohm's yet. Good value!"

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June 1982
Stereo Review

"... a very fine performing unit. Its sound was surprisingly natural, to the point that we were hardly aware we were listening to speakers, and this is one of the greatest compliments one could pay to a loudspeaker."

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9 SPEAKER SYSTEMS



power range 50-300 W; sensitivity 92.5 dB SPL/W/m; 35¹/₈"H x 19¹/₈"W x 14¹/₈"D; 70 lb 1 oz \$550

HPM-900 Speaker System

Bass-reflex 4-way speaker system with 12" PG woofer, 4" PG midrange, 1¹/₄" PG cone tweeter, horn-loaded High Polymer film supertweeter. Features walnut-grain vinyl finish; removable grille. Frequency range 30-50,000 Hz; power range 50-270 W; sensitivity 92.5 dB SPL/W/m; 26³/₈"H x 15¹/₈"W x 15¹/₂"D; 51 lb 9 oz \$375

HPM-700 Speaker System

Bass-reflex 4-way speaker system with 10" PG woofer, 4" PG midrange, 1¹/₄" PG cone tweeter, horn-loaded High Polymer film supertweeter. Features walnut-grain vinyl finish; removable grille. Frequency range 35-50,000 Hz; power range 30-150 W; sensitivity 92.5 dB SPL/W/m; 24"H x 13¹/₄"W x 12¹/₄"D; 32 lb 7 oz \$275

HPM-500 Speaker System

Bass-reflex 3-way speaker system with 10" PG woofer, 1¹/₄" PG cone tweeter, horn-loaded High Polymer film supertweeter. Features walnut-grain vinyl finish; removable grille. Frequency range 35-50,000 Hz; input power range 20-100 W; sensitivity 91 dB SPL/W/m; 22⁷/₈"H x 12¹/₈"W x 12¹/₂"D; 26 lb 14 oz \$195

POLK AUDIO

SubSat 4/14 Speaker System

System contains 2 Monitor 4s, one LF 14 subwoofer. Monitor 4 specifications as below. LF 14 features 12"



planar fluid-coupled subwoofer, 2 6¹/₂" trilaminate-polymer bass/midrange drivers. Crossover 120 Hz; maximum output 108 dB SPL; power range 10-150 W; impedance 4 ohms; 28"H x 16"W x 11¹/₂"D. 3-piece system \$555

R.T.A. 12B Monitor Speaker System

Real-time-array 3-way floor-standing speaker system with 12" low-resonance molded-foam subwoofer, 2 6¹/₂" polymer laminated bass-midrange drivers, 1" open-mounted, moving-coil soft-dome tweeter. Frequency range 17-25,000 Hz; crossovers 40 and 2k Hz; power range 10-500 W; impedance 4 ohms; wal-

nut or rosewood grain finish (genuine walnut veneer available at extra cost); 39"H x 16"W x 12"D\$500

R.T.A. 11 Speaker System

Floor-standing 3-way real-time-array speaker system with 6¹/₂" trilaminate-polymer drivers, 12" planar subwoofer, 1" moving-coil tweeter. Features walnut- or rosewood-grain vinyl finish; genuine walnut veneer available at extra cost. Frequency response 26-20,500 Hz ±2 dB; crossover 4.5 kHz; power range 10-500 W; 33¹/₂"H x 16"W x 11¹/₂"D; impedance 4 ohms; \$400

LF14 Low-Frequency System

Modular bass reference monitor low-frequency speaker system with 2 6.5-W trilaminate polymer drivers fluid coupled to low-resonance 12" foam-laminated planar subbass radiator. Features low-pass filter (can be added as single dual-channel woofer unit or as one of stereo pair of bass modules); crossover bypassing for connection to bi/tri-amplified systems. Power range 20-250 W; walnut or rosewood grain vinyl cabinet \$325

TenA Speaker System

Subbass radiator/sealed 3-way floor-standing speaker system with 10" fluid-coupled subwoofer, 2 6¹/₂" bass/midrange drivers, 1" soft-dome tweeter. Frequency range 22-25,000 Hz; crossovers 60 and 3k Hz; power range 10-200 W/channel; impedance 6 ohms; walnut or rosewood grain finish (genuine walnut veneer available at extra cost); 28"H x 16"W x 11¹/₂"D \$300

SevenB Speaker System

Subbass radiator/sealed 3-way bookshelf speaker system with 10" subwoofer, 6¹/₂" plasticized bass/midrange, 1" soft-dome tweeter. Frequency range 26-25,000 Hz; crossovers 60 and 3k Hz; power range 10-100 W; impedance 8 ohms; walnut or rosewood grain finish; 24"H x 14"W x 9¹/₂"D .. \$220
FiveA. Similar to SevenB but 8" subwoofer; frequency range 31-25,000 Hz; power range 10-60 W; 21¹/₂"H x 10¹/₂"W x 8¹/₂"D \$170

Monitor Four Speaker System

Satellite speaker system with trilaminate-polymer 6500 woofer, SL 1000 moving-coil tweeter, isophase crossover network. Features cabinet, grille designed to eliminate diffraction effects, smooth frequency response; terminated transmission duct that loads bass/midrange driver into deep-bass range. Frequency response 55-21,000 Hz ±3 dB; power range 10-80 W; maximum output 108 dB SPL; crossover 4.5 kHz; impedance 8 ohms; 14¹/₂"H x 8¹/₂"W x 7¹/₄"D \$115

QUAD

ESL-63 Electrostatic Loudspeaker

Full-range electrostatic double speaker with dipole source. 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 kHz; 92.5 x 66 x 27 cm; 23 kg \$3300/pr

Quad Electrostatic Loudspeaker

Full-range electrostatic loudspeaker incorporates closely-coupled moving elements 200 times lighter than diaphragms of moving-coil speakers; bandwidth 45-18,000 Hz; horizontal/vertical dispersion 70°/15°; sensitivity 93 dB at 2 meters on-axis, free space; impedance 15-30 ohms; expanded aluminum, bronze or black metal grille with polished wood end frames, feet; 880mmW x 790mmH x 270mmD \$890

REALISTIC

Optimus T-300 Speaker System

Floor-standing acoustic-suspension 3-way speaker system with 10" woofer, 10" passive radiator, 5" midrange, 1" tweeter. Features ferrofluid damping; midrange, tweeter level controls; oiled-walnut veneer finish. Frequency range 44-20,000 Hz; crossover 800 and 7.6k Hz; maximum power 150 W; sensitivity 91 dB SPL/W/m; impedance 8 ohms; 34"H x 14"D

x 12¹/₈"W \$260
Optimus T-110. Similar to T-300 except has 8" woofer, no midrange, 2" tweeter. Features tweeter level control; ferrofluid tweeter; walnut-veneer finish. Low-end response 50 Hz; maximum power 80 W; sensitivity 92 dB; 35¹/₂"H x 12¹/₂"W x 11¹/₂"D.... \$180

Mach One LC Speaker System

Floor-standing acoustic-suspension 3-way speaker system with 15" woofer, multi-cell midrange horn, high-compliance tweeter horn. Features liquid-cooled heavy-duty "bullet" tweeter; midrange, tweeter controls; LC crossover network; walnut-veneer finish cabinet; grille cloth. Frequency range 20-20,000 Hz; crossovers 8 and 8 kHz; maximum power 160 W; sensitivity 90 dB SPL/W/m; impedance 8 ohms; 28³/₈"H x 17¹/₈"W x 12"D \$240

Optimus-40 Speaker System

Time-aligned 2-way speaker system with 8" long-throw woofer, 10" passive radiator, 2" tweeter. Features ferrofluid-cooled tweeter; tweeter level control; oiled-walnut veneer finish. Frequency range 38-20,000 Hz; maximum power 75 W; sensitivity 87 dB SPL/W/m; impedance 8 ohms; 26"H x 14¹/₂"W x 10"D \$130

Nova-10 Speaker System

Speaker system with 8" woofer, 8" passive radiator, 2¹/₂" tweeter. Features walnut-veneer finish; latticed grille. Frequency range 80-18,000 Hz; maximum power 50 W; sensitivity 90 dB SPL/W/m; impedance 8 ohms; 22"H x 12¹/₄"W x 10¹/₄"D \$130

Nova-10 Speaker System

Acoustic-suspension 2-way speaker system with 8" woofer, 8" passive radiator, 2¹/₂" cone tweeter. Features phono jacks, screw terminals; oiled-walnut finish; latticed grille. Frequency range 80-18,000 Hz; crossover 3 kHz; maximum power 50 W; sensitivity 90 dB SPL/W/m; impedance 8 ohms; 22"H x 12¹/₄"W x 10¹/₄"D \$130

Nova-500 Speaker System

Acoustic-suspension 3-way speaker system with 12" woofer, 5" midrange, 3" tweeter. Features midrange, tweeter level controls; walnut-grain vinyl finish. Frequency range 55-20,000 Hz; maximum power 50 W; 24"H x 15"W x 10¹/₄"D \$100

Optimus-30 Speaker System

Tuned-port 2-way speaker system with 10" woofer, 2¹/₂" tweeter. Features color-coded spring terminals. Frequency range 55-20,000 Hz; maximum power 70 W; 22¹/₄"H x 12¹/₄"W x 8¹/₄"D \$100

Minimus-50 Speaker System

Time-aligned, 2-way tuned-port speaker system with 6" woofer, 2" tweeter. Features push terminals; non-resonant high-density molded cabinet; metal grille. Frequency range 50-20,000 Hz; maximum power 55 W; 15¹/₄"H x 9"D x 8¹/₄"W \$90
Minimus-11. Similar to Minimus-50 except has time-aligned 5¹/₂" woofer, 2¹/₂" horn-loaded tweeter. Maximum power 50 W; 10¹/₂"H x 6¹/₈"W x 6¹/₈"D \$80

MC-1401 Speaker System

Bass-reflex 2-way speaker system with 8" woofer, 4¹/₄" tweeter. Features phono jack, screw connectors. Frequency range 80-20,000 Hz; maximum power 55 W; 18"H x 11¹/₂"W x 7¹/₂"D \$70

MC-1201 Speaker System

Acoustic-suspension 2-way speaker system with 8" woofer, 2¹/₂" tweeter. Features phono jack, screw connectors; removable decorator grille. Frequency range 85-17,000 Hz; maximum power 50 W; 17¹/₄"H x 10³/₈"W x 7¹/₂"D \$60

Supertweeters

Dynamic. Extends response to 40 kHz, mounts in or outside speaker cabinet. Maximum power 50 W; 4"H \$20
Piezo. Extends response to 27 kHz. Maximum power 75 W; sensitivity 96 dB SPL/W/m \$15

RTR INDUSTRIES

DAC/1 Subwoofer

Differential area coupler subwoofer with 12", 2 1/2" passive couplers. Features provisions for casters; oiled-walnut cabinet finish; black knit grille. Frequency response 16-150 Hz ±1.5 dB; crossover 120 Hz; impedance 6 ohms; minimum power 40 W. 21 1/4"H x 29 1/2"W x 28"D \$600

G-350B Speaker System

Passive-radiator, tuned-column 3-way speaker system with 10" woofer with 1 1/2" high-temperature voice coil, gravity-dispersal dampener impregnation of cone apex; 12" passive radiator; 1 1/2" carbon-fluid damped soft-dome midrange; 1" ferro-fluid soft-dome tweeter. Features midrange, tweeter level controls; auto-reset circuit-breaker protection; color-coded pushbutton connectors; walnut-veneer finish. Frequency response 36-22,000 Hz ±2.5 dB; crossovers 1.25 and 10 kHz; power range 10-150 W; sensitivity 89 dB SPL/W/m; impedance 8 ohms; 38"H x 18"W x 11"D \$400
G200B. Similar to G-350B except no 1 1/2" midrange driver. Low-end response 42 Hz; crossover 2 kHz; power range 10-120 W; no midrange level control; 36"H x 14 1/2"W x 12 1/2"D \$300

G-80B Speaker System

Passive-radiator 2-way tuned speaker system with 8" woofer with 1 1/2" voice coil, gravity dispersal dampener impregnation, 10" passive radiator, 1" ferro-fluid soft-dome tweeter. Features tweeter level control; auto-reset circuit-breaker protection; walnut vinyl finish. Frequency response 48-22,000 Hz ±2.5 dB; crossover 2 kHz; power range 10-100 W continuous; sensitivity 88 dB SPL/W/m; impedance 8 ohms; 25 1/2"H x 14 1/4"W x 11"D \$200
G-40B. Similar to G-80B except has 8" passive radiator. Low-end response 60 Hz; 23"H x 12"W x 9 1/2"D \$160

SANSUI

PM-C100 Speaker System

Bass-reflex 4-way bookshelf speaker system with 13 3/8" woofer, 5 1/8" midrange, 1" tweeter, 1" supertweeter. Features new PMC (polypropylene, mica, carbon) woofer, midrange; walnut-veneer finish. Frequency range 30-35,000 Hz; maximum power 260 W; sensitivity 92 dB SPL/W/m; impedance 8 ohms; 26 3/8"H x 15"W x 12 1/4"D; 40.1 lb. \$400

S-930 Speaker System

Acoustic-suspension 3-way speaker system with 12" woofer, 4" midrange, 3/8" dome tweeter. Features tweeter level control. Frequency range 30-22,000 Hz; maximum power 110 W \$200
S-730. Similar to S-930 except has 10" woofer, no midrange driver, 2" tweeter; maximum power 80 W; sensitivity 91 dB SPL/W/m \$150



S-530. Similar to S-730 except has 8" woofer; maximum power 60 W; sensitivity 90 dB \$180/pr

H. H. SCOTT

Pro-100BII Speaker System

Bidirectional 3-way air-suspension floor-standing monitor speaker system with 15" woofer, 2 4 1/2" midranges; 3 1" dome tweeters. Features tweeter, midrange level controls; bidirectional control; tweeter burn out protection; oiled-walnut finish; 2 removable grilles. Frequency response 36-20,000 Hz ±4 dB; crossovers 700 and 3.5k Hz; efficiency 90-dB SPL/W/m; power range 20-300 W; impedance 4 ohms; 29 1/4"H x 19"W x 14 1/2"D \$795

199T Speaker System

Floor-standing vertically aligned 3-way acoustic-suspension speaker system with 12" woofer, 4 1/2" midrange, 1" dome tweeter. Features tweeter, midrange level controls; tweeter burnout protection; hickory vinyl finish; removable grille. Frequency response 38-20,000 Hz ±4 dB; crossovers 800 and 3.5k Hz; power range 15-150 W; efficiency 92 dB SPL/W/m; impedance 6-8 ohms; 36" H x 15"W x 11 1/4"D \$360

197BII Speaker System

Floor-standing 3-way air-suspension speaker system with 15" woofer, 4 1/2" midrange, 1 dome tweeter. Features tweeter, midrange level controls; hickory vinyl finish; removable grille. Frequency response 38-20,000 Hz ±4 dB; crossovers 750 and 3.5k Hz; efficiency 92-dB SPL/W/m; power range 15-150 W; impedance 6-8 ohms; 32"H x 17"W x 10 1/4"D \$410
196B. Similar to 197B except has 12" woofer. Efficiency 96-dB SPL/W/m; crossovers 800 and 3.5k Hz; power range 15-120 W; 25 1/2"H x 15"W x

10 1/8"D \$280

312 Speaker System

Air-suspension 3-way bookshelf speaker system with 12" woofer, 4 1/2" midrange, 1 1/4" tweeter. Features midrange, tweeter level controls; tweeter burnout protection; hickory vinyl finish. Frequency response 45-18,000 Hz ±4 dB; crossovers 1.1 and 3.5 kHz; sensitivity 96 dB SPL/W/m; power range 10-90 W; impedance 6-8 ohms; 24 1/2"H x 14 1/2"W x 11 1/4"D \$300

188T Speaker System

Air-suspension floor-standing 3-way speaker system with 10" woofer, 4 1/2" midrange, 1" dome tweeter. Features midrange, tweeter level controls; tweeter burnout protection; hickory vinyl finish; removable grille. Frequency response 38-20,000 Hz ±4 dB; crossovers 900 and 3.5k Hz; efficiency 95.4-dB SPL/W/m; power range 10-100 W; impedance 6-8 ohms; 33 1/8"H x 13 1/8"W x 10 1/2"D \$285
186BII. Similar to 188T except bookshelf system efficiency 95 dB SPL/W/m; 24"H x 13 1/2"W x 10 1/2"D \$250

177BL Speaker System

Air-suspension 3-way speaker system with 8" woofer, 5" midrange, 1 1/2" tweeter. Features tweeter burnout protection; hickory vinyl finish; removable grille. Frequency response 50-18,000 Hz ±4 dB; crossovers 1.2 and 3.5 kHz; power range 7-70 W; efficiency 92.5 dB SPL; impedance 6-8 ohms; 21"H x 11"W x 9 1/4"D \$150

166 Speaker System

Air-suspension 2-way bookshelf speaker system with 6 1/2" woofer, 1" dome tweeter. Features tweeter burnout protection; hickory vinyl cabinet finish; removable knit grille. Frequency response 55-20,000 Hz ±4 dB; crossover 2.2 kHz; power range 10-100 W; sensitivity 92.5 dB SPL/W/m; impedance 7-8 ohms; 13"H x 7 1/8"W x 6 1/2"D \$145

176BL Speaker System

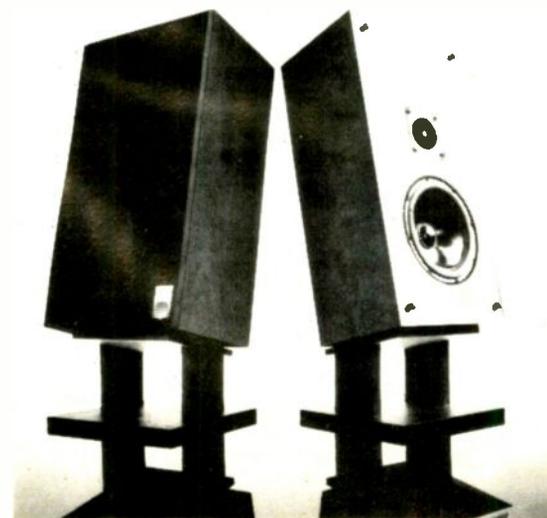
Air-suspension 2-way bookshelf speaker system with 8" woofer, 1 1/2" tweeter. Features tweeter burnout protection; hickory vinyl finish; removable grille. Frequency response 50-18,000 Hz ±4 dB; crossover 3.5 kHz; power range 5-65 W; efficiency 91.0 dB SPL; impedance 6-8 ohms; 21"H x 11"W x 9 1/4"D \$115

SERIES IV by RTR

IV-E Speaker System

Acoustic-suspension column 4-way speaker system with front and side radiating midrange drivers and tweeters. Features 2 12" woofers; 4 3 3/4" midrange drivers; 4 2 1/2" tweeters; 5 1/2" x 2 1/2" piezoelectric

IF YOU'RE SEEING THINGS, IT'S A MIRAGE.



Close your eyes at a live concert and you can perceive a clear sonic image of each musician's place in space.

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Tel. (416) 298-3434

9 SPEAKER SYSTEMS

supertweeter; midrange, tweeter level controls; auto-reset circuit breaker; walnut veneer finish. Frequency range 20-30,000 Hz; crossovers 2, 4, 7.5 kHz; power range 5-150 W rms; sensitivity 94 dB SPL/W/m; impedance 4 ohms; 38"H x 18"W x 11"D .. \$480
IV-D. Similar to IV-E except has 2 10" woofers, 2 3/4" midranges, 2 2 1/4" tweeters, 5 1/2" x 2 1/2" piezoelectric tweeter. Frequency range 25-30,000 Hz; power range 5-100 W rms; sensitivity 92.5 dB SPL/W/m; 36"H x 14 1/4"W x 12"D \$330

IV-C Speaker System

Acoustic-suspension 4-way speaker system with 12" woofer, 3/4" midrange, 2 1/4" tweeter, 5 1/2" x 2 1/2" piezoelectric supertweeter. Features tweeter, midrange level controls; auto-reset circuit breaker; walnut finish. Frequency range 30-30,000 Hz; crossovers 2, 4, 7.5 kHz; power range 5-75 W rms; sensitivity 91 dB SPL/W/m; impedance 8 ohms; 30"H x 14 1/4"W x 11"D \$230

IV-B. Similar to IV-C except has 10" woofer; 3/4" midrange; 2 1/4" tweeter; 2 1/2" supertweeter; no midrange level control. Frequency range 32-20,000 Hz; power range 5-60 W rms; sensitivity 90 dB SPL/W/m; 25 1/2"H x 14 1/4"W x 11"D \$150

IV-A Speaker System

Acoustic-suspension 3-way speaker system with 8" woofer, 2 1/4" midrange/tweeter, 2 1/2" tweeter. Features tweeter level control; auto-reset circuit breaker; walnut vinyl finish. Frequency range 40-20,000 Hz; crossovers 3 and 7 kHz; power range 10-50 W rms; sensitivity 88 dB SPL/W/m; impedance 8 ohms; 22 1/2"H x 13"W x 10 1/2"D \$100

IV-M Miniature Speaker System

Acoustic-suspension 2-way speaker system for home/mobile applications. Features 4" long-excursion woofer; 1" soft-dome tweeter; diecast aluminum enclosure. Frequency range 55-25,000 Hz; power range 10-60 W; impedance 4 ohms; 7 3/8"H x 4 3/8"W x 4 1/2"D \$200/pr

SHAHINIAN ACOUSTICS

Obelisk Speaker System

Folded double-prism 3-way 48" hybrid transmission line speaker system with 8" asymmetrically-placed shallow-cone woofer, 10" mass-loaded-membrane, viscous-damped passive radiator, 1" Mylar dome tweeters. Frequency response 32-21,000 Hz +2/-3 dB; crossover 2 kHz; impedance 6 ohms; maximum power 150 W average music program; walnut or oak finish (other finishes available); 27"H x 14"W x 12"D \$750

Eagle Speaker System

Floor-standing 3-way speaker system with 8" polypropylene woofer, viscous-damped passive radiator, 28-mm dome midrange, W-shaped polyamide dome supertweeter. Features fast-blow fuse protection. Frequency response 28-22,000 Hz -3 dB; 28 1/2"H x 13"D x 12"W; 40 lb.

Birch finish \$450
Walnut finish \$500

The Box Speaker System

Speaker system with 8" polypropylene woofer, same passive radiator as Eagle and Obelisk, 1" polyamide dome tweeter. Features fast-blow fuse protection. Frequency response 30-18,000 Hz -3 dB; 23 1/2"H x 11 1/4"W x 11 1/2"D; 34 lb.

Birch finish \$300
Walnut finish \$350

Pipe Speaker System

Floor-standing speaker system with 6" polypropylene woofer, 3/4" low-mass Cambric-dome tweeter, 3/4" polyamide-dome supertweeter. Features Finland birch finish. Frequency range 40-22,000 Hz; power range 25-150 W; crossovers 3.5 and 6 kHz; 43"H x

10 1/2"W x 10 1/2"D; 38 lb \$235

Contra Bombarde Subwoofer

Twin conical slot-loaded-horn stereo subwoofer. Can be bridged for single-channel operation. Features 2 8" drivers. Total horn path 20 ft from throat to mouth; frequency range 16-200 Hz; maximum power 150 W continuous; 35"H x 27 1/2"W x 18 1/2"D; 165 lb \$1500

SHARP

CP-8501 Speaker System

Acoustic-suspension 3-way speaker system with 10" woofer, 4" midrange, horn tweeter, new Gold Look design. Maximum power 80 W rms peak \$170

CP-8201 Speaker System

Bass-reflex 2-way speaker system with 10" woofer, 1 1/2" tweeter, new Gold Look design. Maximum power 50 W rms peak \$240/pr
CP-8101A. Similar to CP-8201 except has 8" woofer, 3" tweeter. Maximum power 45 W rms peak \$200/pr

SHERWOOD

S-03 Speaker System

Time-compensated speaker system with 12" passive radiator, 10" woofer, 2" soft-dome midrange, 1" soft-dome tweeter. Features separate free-standing baffle for midrange, tweeter; hand-rubbed oiled-walnut finish; black grille. Frequency response 40-20,000 Hz ±2 dB (-3 dB at 28 Hz with optional ultra-low bass equalizer); power range 8-150 W rms; impedance 8 ohms; sensitivity 88 dB SPL/W/m; crossovers 500 and 5k Hz; 30"H x 16"W x 14 1/2"D; 69 lb \$400

S-02 Speaker. Similar to S-03 except has 10" passive radiator, 8" woofer, 1" soft-dome tweeter, no midrange driver. Frequency response 40-20,000 Hz ±2.5 dB (-3 dB at 28 Hz with optional bass EQ); maximum power 100 W; 31"H x 15 1/2"W x 11 1/2"D; 41 lb \$250

S-01 Speaker System

Speaker system with 8" passive radiator, 6 1/2" woofer, 1" soft-dome tweeter. Features hand-rubbed oiled-walnut finish; black grille. Frequency response 40-20,000 Hz ±3 dB (-3 dB at 28 Hz with optional ultra-low bass equalizer); power range 12-80 W rms; sensitivity 84 dB SPL/W/m impedance 8 ohms; 23"H x 12"W x 9 1/2"D; 27 lb \$170

S.I.A.R.E.

Delta 400 Speaker System

Vented phase-aligned 3-way speaker system with 9" long-excursion woofer, woven-fiberglass-cone midrange, polyamide-dome tweeter. Features "acoustic stabilizers" throughout cabinet interior to eliminate standing waves, undesirable resonances; hand-rubbed oiled-walnut finish. Frequency response 45-25,000 Hz ±2 dB; crossovers 500 and 4k Hz; maximum power 100 W rms; impedance 8 ohms; 30 1/2"H x 16 1/4"D x 13 1/4"W; 66 lb \$850

Fugue 400 Speaker System

Vented vertically-aligned 3-way speaker system with 8" long-throw, radially-ribbed woofer, woven-fiberglass-cone midrange, Nomex dome tweeter. Features hand-wired crossover network; hand-rubbed oiled-walnut finish. Frequency response 50-22,000 Hz ±2.5 dB; crossovers 600 and 4k Hz; maximum power 80 W rms; impedance 8 ohms; 30 3/4"H x 14 1/4"D x 11"W; 44 lb \$500

Sigma 400 Speaker System

Vented vertically-aligned 3-way speaker system with same type drivers as in Fugue 400. Features hand-rubbed oiled-walnut finish. Frequency range 50-20,000 Hz; crossovers 700 and 3k Hz; maximum power 60 W rms; impedance 8 ohms; 26 3/4"H x 13 1/4"D x 11"W; 36 lb \$400

Gamma 400 Speaker System

Vented vertically-aligned speaker system with same type drivers as in Fugue 400. Features alagash-grain vinyl finish. Frequency range 60-20,000 Hz; cross-



overs 700 and 3 kHz; maximum power 50 W rms; impedance 8 ohms; 23 1/2"H x 11"W x 10 1/4"D; 24 lb \$298

SNELL ACOUSTICS

Type I Speaker System

Precision-tuned (using Richard Small Technique) floor-standing 2-way speaker system with individually fused Bextrene isolation-mounted woofer, 1 1/4" soft-dome ferrofluid tweeter, hand tailored electrically, sonically to low-distortion crossover. Interfaced with listening-room environment by patented Alignment Baffle*, specially positioned drivers that precisely align wavefront of sound reflected off baffle, floor with wavefront coming directly from drivers. Frequency response 41-17,000 Hz, ±1.25 dB, 34-20,000 Hz ±3 dB; crossover at 2.1 kHz; minimum power 20 W continuous; impedance 4 ohms; hand-rubbed walnut finish; 32"H x 18.5"W x 30"D \$1325/pr

Type A/II Speaker System

Floor-standing 3-way Speaker system designed to produce sound energy that is an exact analog of applied electrical input using 10" fused woofer in its own cabinet, 4" fused midrange, 1" fused tweeter mounted in separate cabinet on special curved enclosure to minimize diffraction effects, provide extremely uniform dispersion into listening environment. Can be biamplified with exclusive Snell electronic crossover specifically to Type A/II. Frequency response 36-18,000 Hz ±1.25 dB on-axis, up to 25° off-axis; crossovers 275 and 2.5k Hz; minimum power 80 W; impedance 4 ohms; 46 1/2"H x 23 1/2"W x 13"D. Hand-rubbed white oak cabinet \$2600/pr
 American walnut \$2485/pr

Type E Speaker System

Floor standing speaker system with 8" woofer and 1" dome tweeter. Frequency response ±1.75 dB 39 Hz to 22 kHz; crossover frequency 2300 Hz; nominal impedance 8 ohms; unit-to-unit efficiency variation less than 1/2 dB; sensitivity 90 dB (at 1 m 2.8 v pink noise); requires minimum 15 w/ch, maximum 150 w/ch; 33" H x 14 1/4" W x 11"; available in walnut or oak \$798

Type J Speaker System

Bookshelf speaker with polymer treated curvilinear cone for midrange clarity, natural tonal balance. Frequency response ±2 dB 50 Hz to 22 kHz; crossover 2.3 kHz; impedance 8 ohms; unit-to-unit efficiency variation <0.25 dB; sensitivity 90 dB at 1 meter, 2.8 V pink noise; power range 15-150 W power; 23"H x 13"W x 10"D; 38 lb \$549

SONY

SS-U80 Speaker System

Acoustic-suspension speaker system with 12" woofer, 4" low midrange driver, 2 1/2" high midrange driver, direct-drive ribbon tweeter. Features 1"-thick particle-board cabinet, fiber-board baffle; genuine walnut-veneer finish. 39 3/4"H x 16 1/4"W x 14 1/4"D; 78 lb 11 oz \$480

SS-U70 Speaker System

Acoustic-suspension speaker system with 10" woofer, 4" midrange driver, direct-radiator ribbon tweeter. Features 1"-thick particleboard cabinet, fiber-board baffle; genuine walnut-veneer finish. 32 1/2"H x 15"W x 14"D; 63 lb 6 oz \$380/pr

SS-U60 Speaker System

Acoustic-suspension 3-way bookshelf speaker system with 8" woofer, 2" midrange, direct-drive ribbon tweeter in in-line arrangement. Frequency range to 15,000 Hz; midrange and tweeter level controls; 23 $\frac{3}{4}$ "H x 13"W x 12 $\frac{1}{4}$ "D \$360/pr

SS-U50 Speaker System

Acoustic-suspension speaker system with 8" woofer, direct-drive ribbon tweeter, walnut-grain vinyl finish. Maximum power 80 W; 24 $\frac{1}{2}$ "H x 13"W x 12 $\frac{1}{4}$ "D; 28 lb 14 oz. \$280/pr

SOUND DYNAMICS by API

Consumer S Series

15S Speaker System

Computer-tuned 2-way bass-reflex speaker system with floating port, 15" long-throw felted-cone woofer, 1" horn-loaded phenolic dome diecast aluminum 5.375" lens tweeter, tweeter level control. Frequency response 25-20,000 Hz \pm 3 dB; crossover 2 kHz; sensitivity 102 dB SPL/W/m; dispersion 120°; power range 20-400 W continuous; nominal impedance 8 ohms; walnut vinyl finish with removable black grille; 36 $\frac{1}{2}$ "H x 18 $\frac{3}{4}$ "D x 10"W \$500

12S. Similar to 15S except has 12" long-throw felted-cone woofer, 5" exponential horn with 1" driver; frequency response 28-20,000 Hz \pm 3 dB; crossover 2.1 kHz; sensitivity 101.5 dB SPL/W/m; power range 12-250 W; 27"H x 15 $\frac{1}{2}$ "W x 12"D \$360

10S. Similar to 12S except 10" long-throw felted-cone woofer; frequency response 30-20,000 Hz \pm 3 dB; crossover 2.2 kHz; sensitivity 100 dB SPL/W/m; power range 8-60 W continuous; 25 $\frac{1}{2}$ "H x 14 $\frac{1}{2}$ "W x 12 $\frac{1}{4}$ "D \$225

100S Speaker System

Two-way computer-tuned bass-reflex bookshelf speaker system with 10" long-throw soft felted-cone woofer, 1" horn-loaded phenolic dome diecast aluminum 5.375" lens tweeter. Frequency response 34-20,000 Hz \pm 3 dB; crossover 2250 Hz; sensitivity 98.5 dB SPL/W/m; power range 8-100 W continuous; nominal impedance 8 ohms; walnut finish with removable black grille; 20"H x 12 $\frac{1}{4}$ "W x 10"D \$200

6S. Similar to 100S except uses 6" woofer; crossover 2.3 kHz; sensitivity 96 dB SPL/W/m; power range 5-50 W continuous; tweeter level control; black finish with removable grille; 14 $\frac{1}{8}$ "H x 9 $\frac{1}{8}$ "W x 9"D \$150

Studio Monitor Tower Series

1200 SMT MKII Speaker System

Passive-radiator speaker system with 12" woofer, 5" exponential horn with 1" driver, tweeter/midrange



level controls. Frequency response 25-20,000 Hz \pm 3 dB; crossover 2050 Hz; sensitivity 101 dB SPL/W/m; impedance 8 ohms; power range 15-400 W; 37"H x 15"W x 14 $\frac{1}{2}$ "D; 75 lb \$450

1000 SMT Studio Monitor Tower

Passive-radiator tower speaker system with 10" woofer, 5" exponential horn with 1" driver, tweeter/midrange

er/midrange level controls. Frequency response 30-20,000 Hz \pm 3 dB; crossover 2050 Hz; sensitivity 99 dB SPL/W/m; impedance 8 ohms; power range 15-300 W; 33 $\frac{3}{4}$ "H x 12 $\frac{1}{2}$ "W x 12"D; 55 lb \$375

800 SMT. Similar to 1000 SMT except frequency response 40-20,000 Hz; sensitivity 93 dB SPL/W/m; power range 10-150 W; 26 $\frac{1}{2}$ "H x 11"W x 9 $\frac{1}{2}$ "D; 32 lb \$275

Energy Series

Energy 22 Professional Sound Monitor

Bass-reflex speaker system with 8" polypropylene-cone woofer with unique butyl suspension, 1 $\frac{1}{2}$ " Dual Hyperdome™ tweeter. Frequency response 35-45,000 Hz \pm 3 dB on-axis; crossover 1.3 kHz; sensitivity 89 dB SPL/W/m; impedance 8 ohms; power range 20-200 W; 24 $\frac{1}{2}$ "H x 12"W x 10 $\frac{1}{2}$ "D; 34 lb \$350

Energy 11 Sound Monitor

Bass-reflex speaker system with 8" soft treated felted cone with butyl surround, 1 $\frac{1}{2}$ " Dual Hyperdome™ tweeter. Frequency response 35-45,000 Hz \pm 3 dB on-axis; crossover 1.8 kHz; sensitivity 88 dB SPL/W/m; impedance 8 ohms; power range 15-150 W; 20 $\frac{1}{2}$ "H x 10 $\frac{1}{2}$ "W x 9 $\frac{1}{2}$ "D; 23 lb \$160

SPEAKERLAB

SDT5 Speaker System

Floor-standing 4-way speaker system with 12" and 10" polypropylene Delta I Hybrid Woofer System, 6" polypropylene midbass/midrange, 1 $\frac{1}{2}$ " dome upper midrange, samarium-cobalt leaf tweeter. Features ferrofluid-cooled 10" woofer; tweeter level control. Crossovers 350, 1.5k, 8k Hz; power range 150250 W; sensitivity 93 dB SPL/W/m; impedance 4 ohms; 46"H x 16"W x 12 $\frac{1}{2}$ "D. Oak finish \$1099 ea Kit \$1298/pr

SDT4 Speaker System

Floor-standing 3-way speaker system with 10" and 8" polypropylene Delta I Hybrid Woofer System, 4 $\frac{1}{2}$ " midrange, samarium-cobalt leaf tweeter. Features midrange, tweeter level controls; ferrofluid woofer. Crossovers 750 and 7 kHz; maximum power 250 W; sensitivity 92.5 dB SPL/W/m; impedance 8 ohms; 31"H x 12 $\frac{1}{2}$ "W x 11 $\frac{1}{4}$ "D. Oak finish \$598 Kit \$699/pr

Super 7 Speaker System

Acoustic-suspension 3-way speaker system with 12" polypropylene woofer, 6 $\frac{1}{2}$ " polypropylene midrange, samarium-cobalt tweeter. Crossovers 350 and 6 kHz; sensitivity 93 dB SPL/W/m; power range 20-200 W; impedance 4 ohms; 38 $\frac{1}{2}$ "H x 16"W x 14 $\frac{1}{2}$ "D. With rosewood vinyl finish, black grille cloth .. \$389 With oak finish, brown grille cloth \$449 Speaker and crossover only \$538/pr

S19 Speaker System

Vented 3-way speaker system with 10" polypropylene ferrofluid woofer, 4" midrange, samarium-cobalt leaf tweeter. Features oak or rosewood vinyl finish. Crossovers 750 and 7k Hz; power range 10-150 W; sensitivity 92 dB SPL/W/m; impedance 8 ohms; 31"H x 12 $\frac{1}{4}$ "W x 11 $\frac{1}{2}$ "D. Rosewood vinyl finish, black grille cloth \$279 Oak finish, brown grille cloth \$309 Speakers and crossover only \$309/pr

S9 Speaker System

Acoustic-suspension 2-way speaker system with 6 $\frac{1}{2}$ " woofer, samarium-cobalt lead tweeter. Crossover 3.8 kHz; sensitivity 91 dB SPL/W/m; power range 10-75 W; impedance 6 ohms; 13 $\frac{1}{2}$ "H x 8 $\frac{1}{2}$ "W x 7"D. Oak finish, brown grille cloth \$270/pr Speakers and crossover only \$158/pr

S15 Speaker System

Speaker system with 10" passive radiator, 8" polypropylene woofer, samarium-cobalt leaf tweeter. Crossover 3.8 k-Hz; sensitivity 91 dB SPL/W/m; power range 15-75 W; impedance 6 ohms; 31"H x 12 $\frac{1}{4}$ "W x 11 $\frac{1}{4}$ "D.

Rosewood vinyl finish, black grille cloth \$209 Oak finish, brown grille cloth \$249 Speakers and crossover only \$238/pr

S11 Speaker System

Bass-reflex system with 8" polypropylene woofer, samarium-cobalt leaf tweeter. Crossover 3.5 kHz; sensitivity 91 dB SPL/W/m; power range 15-75 W; impedance 6 ohms; 28 $\frac{1}{4}$ "H x 11 $\frac{1}{4}$ "W x 10 $\frac{3}{4}$ "D. Rosewood vinyl finish, black grille cloth \$169 Oak finish, brown grille cloth \$199 Speakers and crossover only \$198/pr

SX Speaker System

Bass-reflex 2-way speaker system with 6 $\frac{1}{2}$ " polypropylene woofer, samarium-cobalt leaf tweeter. Features rosewood vinyl finish, black grille cloth. Crossover 3.8 kHz; sensitivity 91 dB SPL/W/m; power range 10-75 W; impedance 6 ohms; 20 $\frac{1}{4}$ "H x 11 $\frac{1}{4}$ "W x 9 $\frac{1}{4}$ "H \$129 Speakers and crossover only \$158/pr

SQ Speaker System

Vented 2-way speaker system with 8" double-layer woofer, 10-mm ferrofluid tweeter. Features rosewood vinyl finish. Crossover 4.5 kHz; sensitivity 91.5 dB SPL/W/m; 24 $\frac{1}{2}$ "H x 9 $\frac{1}{2}$ "W x 9 $\frac{1}{4}$ "D \$109

S.1 Speaker System

Acoustic-suspension 2-way mini speaker system with 6" double-layer-cone woofer, 1" dome tweeter. Crossover 2.5 kHz; sensitivity 88 dB SPL/W/m; impedance 6 ohms; tweeter level control; 10"H x 7"W x 5"D. Vinyl-finish, kit \$170/pr S1S speakers and crossover only \$118/pr

S10 Subwoofer

Passive subwoofer system for S9 speaker system (below) features 10" dual-coil mono woofer, 12" passive radiator. Crossover 180 Hz; sensitivity 91 dB SPL/W/m, input power 10-75 W; impedance 6 ohms; 18"W x 18"D x 18 $\frac{1}{4}$ "H. Oak finish, brown grille cloth \$229 Speakers and crossover only \$109

S8 Subwoofer

Subwoofer for S.1 speaker system has 2 8" woofers in separate vented cabinet. Features rosewood-vinyl finish. Crossover 180 Hz; sensitivity 90 dB SPL/W/m; impedance 8 ohms; 18 $\frac{1}{2}$ "W x 18"H x 18"D \$189

STUDER/REVOX

Revox Triton Speaker System

Speaker system consisting of floor-standing subwoofer module, 2 3-way bookshelf satellites. Subwoofer has 2 9.7" spring-supported drivers; each satellite has 6.9" low/midrange, 1.2-in dome midrange, 0.75" dome tweeter. Frequency range 30-25,000 Hz; crossovers 150, 1.3k, 3.2k Hz; power range 20-110 W; impedance 4 ohms; 42"W x 18"D x 13"H subwoofer; 19"W x 12"H x 7.5"D satellites \$1899

Revox Symbol B Speaker System

Highly-efficient 3-way speaker system with bass reinforcement between 33 and 70 Hz via passive radiator. Woofer made of rigid die-cast basket, glass-fiber-reinforced, highly damped cone; dome-type midrange with 2" soft-plastic diaphragm, compensating magnet; dome-type tweeter with 17,500-Gauss field intensity, acoustic diffraction lens for optimum dispersion above "presence" range; tweeter thermal protector reduces power level by 30 dB when overload occurs, 2 level controls (6 dB each in 3 steps). Power range 20-180 watts; crossovers 730 and 2.8k Hz; impedance 4 ohms; 43 $\frac{1}{2}$ "H x 18"W x 15 $\frac{1}{2}$ "D \$1099

Plenum B Speaker System

Bass-reflex 3-way speaker system with new woofer featuring extended voice coil/magnet assembly, dome midrange dome tweeter. Features custom crossover network that prevents tweeter overload; handcrafting with premium wood veneers. Sensitivity 90 dB SPL/W/m; distortion 0.4%; maximum power 120 W \$599

Forum B. Similar to Plenum B except maximum power

90 W \$399

SYNERGISTICS

S-70B Speaker System

Passive-radiator 3-way floor-standing speaker system with 12" woofer and 12" passive radiator, 1½" soft-dome tweeter, 2 × ½" ribbon tweeter. Frequency response 34-30,000 Hz ±3 dB; crossovers 1.9 and 9 kHz; sensitivity 91 dB/W/m; power range 15-200 W; impedance 8 ohms; 38"H × 18"W × 11"D. \$475

S-60B Speaker System

Passive-radiator 3-way floor-standing speaker system with 10" woofer and 10" passive radiator, 4½" midrange, 2 × ½" ribbon tweeter. Frequency response 36-30,000 Hz ±3 dB; crossovers 1 and 9 kHz; sensitivity 91 dB/W/m; power range 15-150 W; impedance 8 ohms; 34"H × 14½"W × 12½"D. \$350

S-50 Speaker System

Passive-radiator floor-standing 2-way speaker system with 2 6½" woofers and 12" passive radiator, 1" soft-dome tweeter. Frequency response 38-20,000 Hz ±3 dB; crossover at 2.9 kHz; sensitivity 90 dB/W/m; power range 15-150 W; impedance 4 ohms; 30"H × 14½"W × 11"D. \$275

S-40 Speaker System

Passive-radiator 2-way speaker system with 8" woofer and 10" passive radiator, 1" soft-dome tweeter. Frequency response 42-20,000 Hz ±3 dB; crossover 2.5 kHz; sensitivity 90 dB/W/m; power range 10-100 W; impedance 8 ohms; 25¼"H × 14¼"W × 10¾"D. \$200

S-30 Speaker System

Passive-radiator 2-way speaker system with 6½" woofer and 8" passive radiator, 1" soft-dome tweeter. Frequency response 55-20,000 Hz ±3 dB; crossover 2 kHz; sensitivity 90 dB/W/m; power range 10-60 W; impedance 8 ohms; 22½"H × 13"W × 10½"D. \$150

S-20 Speaker System

Vented 2-way bookshelf speaker system with 6½" woofer, 1" soft-dome tweeter. Frequency response 70-20,000 Hz ±4 dB; crossover 3 kHz; sensitivity 90 dB/W/m; power range 10-60 W; impedance 8 ohms; 17¼"H × 9¾"W × 8"D. \$100

S-12B Speaker System

Acoustic-suspension speaker system with 8" woofer, 2½" tweeter. Features vinyl cabinet finish. Impedance 8 ohms; power range 6-40 W; sensitivity 88 dB SPL/W/m; 18"H × 10"W × 8½"D. \$80

TECHNICS

SE-8 Speaker System

Linear-phase bass-reflex 3-way disc speaker system with 13" woofer, 3¼" honeycomb disc midrange, 1¼" honeycomb disc tweeter. Features midrange, tweeter controls; thermal relay protection with reset button, LED indicator; Frequency range 36-35,000 Hz; crossovers 1.2 and 3.5 kHz; maximum power 150 W music; sensitivity 94 dB SPL/W/m; impedance 8 ohms; 28"H × 15¾"W × 14¾"D; 59.5 lb. \$650
SB-6. Similar to SB-8 except has 10" woofer, 3¼" midrange driver. Low-end response 38 Hz; crossovers 800 and 4k Hz; maximum power 120 W music; sensitivity 93 dB SPL/W/m; 23¾"H × 13¾"W × 12¾"D; 37.4 lb. \$400
SB-4. Similar to SB-6 except has 9" woofer, 2" midrange driver. Low-end response 45 Hz; crossovers 1.8 and 3.5 kHz; maximum power 90 W music; sensitivity 91 dB SPL/W/m; 21¼"H × 11¼"W × 10¾"D; 24 lb. \$600/pr

SB-L301 Speaker System

Linear-phase bass-reflex 3-way speaker system with 12" woofer, 4" midrange, radial horn tweeter. Features midrange, tweeter controls; thermal relay protection with reset button, LED indicator. Frequency range 39-22,000 Hz; crossovers 1.5 and 4 kHz; maximum power 130 W music; sensitivity 90 dB SPL/W/m impedance 8 ohms; 28¾"H × 14¾"W × 13¾"D; 34.2 lb. \$250
SB-L201. Similar to SB-L301 except has 10" woofer. Low-end response 41 Hz; crossovers 1.8 and 4 kHz; maximum power 100 W music; 26¾"H × 13½"W × 13¾"D; 28.7 lb. \$200
SB-L101. Similar to BL-L201 except 2-way system with 10" woofer, radial-horn tweeter; no level controls. low-end response 43 Hz; crossover 2.6 kHz; maximum power 90 W music; 24½"H × 12¾"W × 11"D; 22 lb. \$150

SB-L71 Speaker System

Bass-reflex 3-way speaker system with 10¾" woofer, 2½" midrange, horn tweeter. Features ring-type reflex port; linear-phase configuration. Frequency range



38-30,000 Hz; crossovers 4 and 8 kHz; maximum power 90 W music; sensitivity 92 dB SPL/W/m; impedance 8 ohms; 27¾"H × 14¾"W × 10¾"D; 20.5 lb. \$250/pr
SB-L51. Similar to SB-L71 except has 8¾" woofer. Low-end response 43 Hz; crossovers 3.5 and 8 kHz; maximum power 75 W music; 23¾"H × 12¾"W × 8¾"D; 16.1 lb. \$200/pr
SB-L31. Similar to SB-L51 except 2-way system with 8¾" woofer, 2½" cone tweeter. Frequency range 45-22,000 Hz; crossover 4 kHz; maximum power 60 W music; sensitivity 91 dB SPL/W/m; impedance 8 ohms; 22¾"H × 11¾"W × 8¾"D; 15.4 lb. \$140/pr

SB-F5 Speaker System

Compact 2-way linear-phase bass-reflex speaker system with 7¾" woofer, sectoral radial-horn tweeter. Features slit reflex port; antiresonant cabinet; metal grille. Frequency range 70-20,000 Hz -10 dB; crossover 6 kHz; maximum power 70 W music; sensitivity 90 dB SPL/W/m; impedance 8 ohms; 12¾"H × 7¾"W; 6.8 lb. \$180/pr

Micro Series

SB-F3. Micro-size 2-way bookshelf speaker system with 6.3" woofer, horn tweeter. Features diecast aluminum cabinet. Impedance 8 ohms; maximum power 90 W music; sensitivity 89 dB SPL/W/m; 12.6"H × 7.5"D × 7"W. \$370
SB-F2. Similar to SB-F3 except has 4.7" woofer. Maximum power 60 W music; sensitivity 88 dB SPL/W/m; 10"H × 6.2"D × 5.4"W. \$310/pr
SB-F1. Similar to SB-F2 except has 4" woofer. Sensitivity 86 dB SPL/W/m; 8.3"H × 5"D × 4.6"W. \$240/pr

Accessories

SH-S1. Tripod stand for SB-F1, SB-F2 speaker systems. \$50

SH-S2. Angle mount for SB-F1, SB-F2. \$40
SH-S3. Suspension chain, bracket for SB-F1, SB-F2. \$30

THIEL

Model 03a Speaker System

Coherent-source 3-way speaker system with 10" woofer, 5" midrange, 1" soft-dome tweeter. Frequency



response 30-20,000 Hz ±2 dB; crossovers 400 and 4k Hz; sensitivity 90 dB/W/m; power range 20-250 W; impedance 4 ohms; walnut finish; rosewood, teak, or oak finishes optional; 38"H × 12"W × 12"D. \$1120/pr

Model 04a Speaker System

Coherent-source floor-standing 2-way system with 6½" woofer/midrange, 1" soft-dome tweeter. Frequency response 50-15,000 Hz ±2 dB; crossover 2.5 kHz; sensitivity 87 dB/W/m; power range 20-150 W; impedance 8 ohms; walnut, rosewood, teak, or oak finishes optional; 36"H × 10"W × 10"D. \$640/pr

Model 02 Speaker System

Ported 2-way bookshelf speaker system with 6½" woofer, 1" cloth dome tweeter. Frequency response 45-20,000 Hz ±2 dB; crossover 2.5 kHz; sensitivity 90 dB/W/m; power range 10-100 W; walnut, rosewood, teak, or oak finish; knit black grille; 19"H × 11"W × 9.5"D. \$350/pr

THORENS

A 300 Speaker System

Bookshelf/floor-standing 3-way speaker system with 10" Focused Field woofer, 4" ferrofluid midrange, 1" Air Spring tweeter. Features oiled-walnut finish; cloth grille. Frequency response 40-20,000 Hz ±3 dB; crossovers 750 and 3k Hz; power range 20-250 W; impedance 4 ohms; 22½"H × 13½"W × 10¾"D. \$300

3D ACOUSTICS

3D Speaker System

Three-piece speaker system: 2 acoustic-suspension bookshelf satellite systems with 6" midrange, 1" cloth dome tweeters and resistively loaded/tuned port floor-standing bass module with 10" high-compliance, low-resonance woofer. System frequency range 32-20,000 Hz; crossovers 100 and 2k Hz; power range 30-150 W/channel continuous; impedance 8 ohms; oiled walnut veneer cabinet; satellites 14"H × 8½"D × 7¾"W; woofer 24"H × 16"D × 13¾"W. \$495
 Stands for satellite system. \$65/pr

3D Decade Speaker System

Floor-standing 3-way speaker system with 6" controlled-output woofer, 10" passive radiator, ¼" polycarbonate dome tweeter. Features resistively loaded passive radiator; oiled-walnut veneer cabinet; 3-sided black cloth grille. Frequency response 40-25,000 Hz

±2 dB; crossover 2.4 kHz; power range 25-150 W rms; impedance 9 ohms; 31"H × 12 $\frac{1}{2}$ "W × 9 $\frac{1}{4}$ "D \$395/pr

3D8 Speaker System

Speaker system with 8" long-throw woofer, 2 2" wide-angle tweeters. Features acoustic coupling of tweeters. Power range 20-100 watts/channel; crossover 2 kHz; 22"H × 10 $\frac{1}{2}$ "W × 10 $\frac{1}{2}$ "D \$329/pr

3D Cube Speaker System

Bookshelf speaker system with 6" controlled-output woofer, 3" polycarbonate dome tweeter. Features oiled-walnut veneer cabinet; 3-sided black cloth grille. Frequency response 70-25,000 Hz ±2 dB; crossover 2.5 kHz; power range 15-150 W; impedance 8 ohms; 9 $\frac{3}{4}$ "H × 9 $\frac{3}{4}$ "W × 9 $\frac{3}{4}$ "D \$195/pr

UNITRONEX

Impact Series

Model 8 Speaker System

Floor-standing balanced ducted-port 3-way speaker system with 12" woofer, 7" midrange, 2" × 5" horn tweeter. Features ±3-dB tweeter, midrange level controls; oak veneer finish; removable chocolate-brown knit grille. Frequency range 35-20,000 Hz; crossovers 300 and 7k Hz; power range 10-150 W continuous; sensitivity 105 dB SPL/W/m; impedance 8 ohms; 26.8"H × 17.3"W × 12.6"D \$399

Model 6 Speaker System

Floor-standing balanced ducted-port 3-way speaker system with 10" woofer, 5" midrange, 2 $\frac{1}{2}$ " horn tweeter. Features ±3-dB tweeter, midrange level controls; oak-veneer finish; removable chocolate-brown knit grille. Frequency range 45-20,000 Hz; crossovers 800 and 8k Hz; sensitivity 104 dB SPL/W/m; power range 10-100 W continuous; 25.2"H × 16.6"W × 11.2"D \$299

Model 4 Speaker System

Balanced ducted-port 2-way speaker system with 10" woofer/midrange, 2 $\frac{1}{2}$ " horn tweeter. Features ±3-dB tweeter level control; oak-veneer finish; removable chocolate-brown knit grille. Frequency range 50-20,000 Hz; crossover 2.5 kHz; power range 5-70 W continuous; sensitivity 97 dB SPL/W/m; impedance 8 ohms; 22.7"H × 14"W × 9.8"D \$199

Model 2 Speaker System

Balanced ducted-port 2-way speaker system with 8" woofer/midrange, 2 $\frac{1}{2}$ " horn tweeter. Features oak-veneer finish; removable chocolate-brown knit grille. Frequency range 60-20,000 Hz; crossover 3.5 kHz; power range 5-50 W continuous; sensitivity 98 dB SPL/W/m; 21.3"H × 11.6"W × 9.1"D \$149

VISONIK

David 9000 Speaker System

Three-way speaker system with 7" woofer, 1 $\frac{1}{2}$ " midrange, $\frac{3}{4}$ " tweeter. Frequency response 35-25,000 Hz +4/-8 dB; crossovers 900 and 4.5k Hz; power range 20-120 W; impedance 4 ohms; nextel grey or simulated walnut finish; 14 $\frac{1}{2}$ "H × 9 $\frac{1}{2}$ "W × 9 $\frac{1}{2}$ "D \$330

David 8000 Speaker System

Three-way speaker system with 5" woofer, 2" dome midrange, 1" dome tweeter. Features grey nextel, brown nextel, or metallic silver finish. Frequency range 38-25,000 Hz; crossovers 1k and 5k Hz; power range 20-100 W; impedance 4 ohms; 9 $\frac{3}{4}$ "H × 6 $\frac{3}{4}$ "D × 6 $\frac{1}{4}$ "W \$230

David 7000 Speaker System

Two-way speaker system with 5" woofer, 1" tweeter. Frequency range 40-25,000 Hz; crossover 2.5 kHz; power range 15-70 W; impedance 4 ohms; nextel grey or simulated walnut finish; 9 $\frac{3}{4}$ "H × 6 $\frac{1}{4}$ "W × 6 $\frac{3}{4}$ "D \$195

David 6000 Speaker System

Two-way speaker system with 4" woofer, 1" dome tweeter. Features brown or grey nextel finish. Frequency range 45-25,000 Hz; crossover 2.8 kHz;

power range 10-60 W; impedance 4-8 ohms; 7 $\frac{3}{4}$ "H × 5 $\frac{3}{4}$ "D × 5"W \$165

David 5000 Speaker System

Two-way speaker system with 4" woofer, 1" tweeter. Frequency range 45-25,000 Hz; crossover 2.5 kHz; power range 10-60 W; impedance 4 ohms; nextel grey or brown finish; 7 $\frac{3}{4}$ "H × 5"W × 5 $\frac{1}{4}$ "D \$150

David 3000 Speaker System

Two-way mini speaker system with 4" woofer, 1" dome tweeter. Crossover at 4 kHz; black cast-aluminum enclosure; 6 $\frac{3}{4}$ "H × 4 $\frac{1}{2}$ "W × 4 $\frac{1}{2}$ "D; 5 lb. \$95

Ambassador Series

A150 WN Speaker System

Three-way speaker system with 12" woofer, 2" dome midrange, 1" dome tweeter. Features walnut-veneer finish with solid walnut corners. Frequency range 20-22,000 Hz; crossovers 600 and 4k Hz; power range 20-150 W; impedance 4-8 ohms; 23 $\frac{3}{4}$ "H × 14 $\frac{1}{4}$ "W × 11"D \$385

A120 WN. Similar to A150 WN except has 10" woofer, 1 $\frac{1}{2}$ " midrange, $\frac{3}{4}$ " tweeter. Frequency range 25-25,000 Hz; crossovers 800 and 5k Hz; maximum power 120 W; 23 $\frac{3}{4}$ "H × 12 $\frac{3}{4}$ "W × 10 $\frac{1}{4}$ "D \$385

A100 WN. Similar to A120 WN except has 8" woofer, 1 $\frac{1}{2}$ " dome midrange, $\frac{3}{4}$ " tweeter. Low-end response 28 Hz; maximum power 100 W; 16 $\frac{1}{8}$ "H × 12 $\frac{3}{4}$ "W × 8 $\frac{1}{2}$ "D \$335

A80 WN. Similar to A100 WN except has 7" woofer, 1 $\frac{1}{4}$ " midrange, $\frac{3}{4}$ " tweeter. Low-end response 35 Hz; crossovers 1k and 5k Hz; power range 15-80 W; 13 $\frac{3}{4}$ "H × 9 $\frac{3}{4}$ "W × 8 $\frac{1}{4}$ "D \$295

A60 WN. Two-way system with 5" woofer, 1" dome tweeter. Frequency range 40-25,000 Hz; crossover 2.8 kHz; power range 10-60 W; impedance 4-8 ohms; 9 $\frac{3}{4}$ "H × 6 $\frac{1}{2}$ "D × 6 $\frac{3}{4}$ "W \$150

Sub-1S Subwoofer

Floor-standing subwoofer with 12" woofer, matrix crossover at 160 Hz. Frequency range 16-200 Hz; impedance 6 ohms; power range 50-300 W continuous; walnut finish with brown knit grille; designed for use with David speakers 23 $\frac{3}{4}$ "H × 17"W × 13 $\frac{3}{4}$ "D \$400

Sub-2S Subwoofer

Floor-standing subwoofer with 10" woofer with dual voice coil. Features walnut finished cabinet, brown knit grille. Frequency range 20-200 Hz; impedance 4 ohms; power range 50-250 W/channel; crossover 160 Hz. Can be used with David 6000, 8000 speaker systems. 19"H × 14 $\frac{1}{4}$ "W × 12 $\frac{1}{2}$ "D; 37 lb \$300

WHARFEDALE

Time Delay Compensated Series

TSR112.2. Time-delay compensated 4-way speaker system with 2 7 $\frac{1}{4}$ " acoustic-suspension woofers and 7 $\frac{1}{4}$ " midrange, 3 $\frac{3}{4}$ " ferrofluid damped dome tweeter. Features ambience control; walnut-veneer cabinet. Frequency response 39-25,000 Hz ±3 dB; crossovers 100, 800, 3.5k Hz; maximum power 200 W program; sensitivity 87 dB SPL/W/m; impedance 8 ohms; 36 $\frac{3}{4}$ "H × 15"D × 14"W \$1095

TSR110.2. Similar to TSR112.2 except only one woofer, $\frac{3}{4}$ " tweeter; veneer finish on particleboard. Low-end response 45 Hz; crossovers 300 and 3.5 k Hz; maximum power 150 W; sensitivity 88 dB; 27"H × 13 $\frac{1}{4}$ "D × 13"W \$650

TSR108.2. Similar to TSR110.2 except no midrange driver or controls. Maximum power 100 W; crossover 3.5 kHz; 22 $\frac{1}{4}$ "H × 12"W × 11 $\frac{1}{4}$ "D \$495

TSR102.2. Similar to TSR108.2 except has 4 $\frac{1}{2}$ " woofer. Low-end response 75 Hz; maximum power 60 W; sensitivity 83 dB; 16"H × 7 $\frac{1}{2}$ "D × 7 $\frac{1}{4}$ "W \$295

E Series Speaker Systems

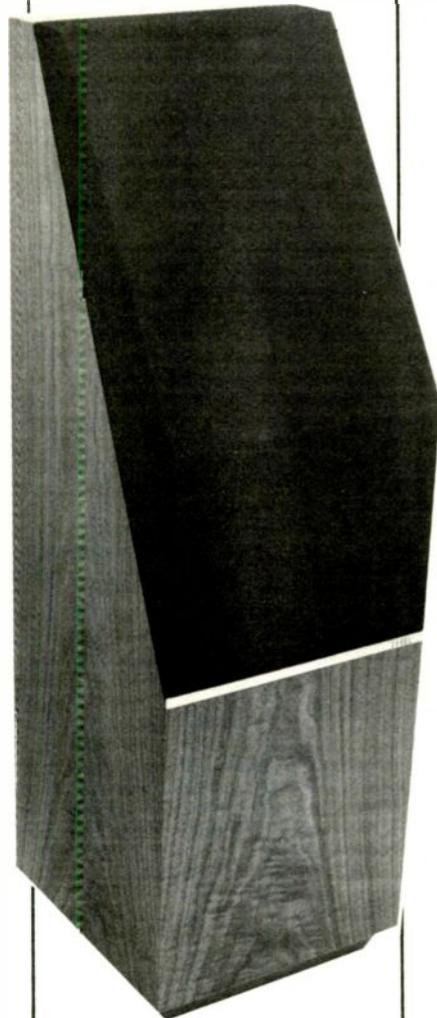
E-90. Bass-reflex 3-way speaker system with 2 10" woofers, 2 3 $\frac{1}{8}$ " midranges, 1" horn-loaded compression tweeter. Features midrange, tweeter controls; 4th-order Butterworth crossovers; walnut-ve-

FOR THE LOVE OF MUSIC

Thiel audio applies both innovative design principles and great musical sensitivity to produce loudspeakers that recreate the nuance and impact of the original performance.

Listen.

Thiel loudspeakers do it all.



THIEL model 03
coherent source loudspeaker

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THIEL

1042 Nandino Boulevard
Lexington, Kentucky 40511
CIRCLE NO. 64 ON READER SERVICE CARD

(Continued on page 108.)

10

HEADPHONES

AIWA

HP-T10 Stereo Headphones

Deluxe ultralightweight mini stereo headphones. Features 3-way Acoustic Super Loudness (A.S.L.) left/



right controls; 2 extra ear covers; headphone jack converter\$65

HP-A5Y Stereo Headphones

Ultralightweight miniature stereo headphones. Features 2 extra ear covers; headphone jack converter\$35

AKG

K-340 Stereo Headphones

Two-way electrostatic/dynamic headphones with fixed-charge electrostatic transducer/dynamic moving-coil transducer and passive diaphragm in each earcup. Connects directly to headphone jack of receiver or amplifier or across speaker output terminals. Frequency range 16-25,000 Hz; SPL 104 dB, 200-2000 Hz at 1.0% THD; nominal impedance 400 ohms; maximum continuous input 200 mW/channel at 117 dB SPL; includes 9.8-ft 4-conductor cable with 3-conductor 1/4" stereo phone plug; 13.5 oz less cable\$195

K-4 Mini Stereo Headphones

Two-way electrostatic/dynamic headphone weighing < 3 oz. Features 2 fixed-charge electrostatic high-frequency, 2 dynamic moving-coil low-frequency transducers; adapter plug that fits home/portable equipment; unique self-adjusting headband. Frequency range 20-25,000 Hz; nominal SPL 92 dB at < 1% THD; Impedance 400 ohms; maximum continuous input 200 mW; 9.8-ft cable with stereo plug and mini-plug adapter\$99

K-240 Free-Field Headphones

Free-field stereo headphones; dynamic moving-coil transducer and 6 passive radiators in each circum-aural cup. Frequency range 16-20,000 Hz; Imped-

ance 600 ohms, 16-20,000 Hz; maximum SPL 125 dB; supplied with 9.8-ft 4-conductor cable; 1/4" phone plug; 10 oz\$95

K-141 Monitor Headphones

Supra-aural stereo dynamic professional monitoring headphones with moving-coil transducers. Frequency range 20-20,000 Hz; maximum SPL 120 dB impedance matches 4-600 ohms; 9.8-ft 4-conductor cable, standard 3-conductor stereo phone plug; 9 oz ..\$75

K-140S Stereo Headphones

Supra-aural stereo headphones with dynamic moving-coil transducers. Frequency range 20-20,000 Hz; maximum SPL 119 dB; impedance 600 ohms, 20-20,000 Hz; 9.8-ft 4-conductor cable, 1/4" phone plug; 8 oz\$65

K-130 Stereo Headphones

Stereo headphones with dynamic moving-coil transducers. Frequency range 20-20,000 Hz; maximum SPL 119 dB; Impedance 600 ohms; 9.8-ft 4-conductor cable with 3-conductor stereo phone plug; 4.5 oz\$49

K-41 Stereo Headphone

Lightweight supra-aural stereo headphones with dynamic moving-coil transducers. Frequency range 30-18,000 Hz; maximum SPL 117 dB; matches 4-200 ohms; 9.8-ft 4-conductor cable with 3-conductor phone plug; 4.5 oz\$39

K-40 Stereo Headphones

Ultra-lightweight supra-aural stereo headphones with dynamic moving-coil transducers. Frequency range 30-18,000 Hz; maximum SPL 117 dB; matches 4-200 ohm outputs; 9.8-ft 4-conductor cable; 3-conductor stereo phone plug; 4.5 oz\$29

AUDIO-TECHNICA U.S.

ATH-7 Stereophones

Electret condenser stereophones. Frequency response 20-22,000 Hz ± 2 dB; sensitivity 98 dB SPL at 1 kHz (0 dB = 0.00 μ bar/V); Impedance 4-16 ohms. Includes impedance-matching adapter with headphone/speaker switching and normal/high-level LED indicators; 8 1/4-ft cord, adapter size 3 1/2" H \times 2 3/4" W \times 7" D; 7.4 oz less cord\$150

ATH-6 Stereophones

Electret condenser stereophones. Frequency response 40-22,000 Hz ± 2 dB; sensitivity 98 dB SPL at 1 kHz; impedance 4-16 ohms; includes impedance-matching adapter with headphone/speaker switching; 8 1/4-ft. cord; adapter size 1 1/2" D; 7.4 oz less cord\$100

ATH-5 Stereophones

Dynamic moving-coil stereophones. Frequency range 20-20,000 Hz; sensitivity 96 dB SPL at 1 kHz; impedance 4-16 ohms; 11 1/2-ft cord; 7.25 oz\$85

ATH-3 Stereophones

Dynamic moving-coil stereophones. Frequency range;

25-20,000 Hz; sensitivity 94 dB SPL at 1 kHz; impedance 4-16 ohms; 11 1/2-ft cord; 7.25 oz\$65

ATH-2 Stereophones

Dynamic planar moving-coil stereophones. Frequency range 30-20,000 Hz; sensitivity 93 dB SPL at 1 kHz; impedance 4-16 ohms; HD 0.7% maximum at 110 dB SPL; 8.25-ft cord; 7 oz\$50

ATH-1 Stereophones

Dynamic planar moving-coil stereophones. Frequency range 30-20,000 Hz; sensitivity 93 dB SPL at 1 kHz; Impedance 4-16 ohms; 8 1/4-ft cord; 4.75 oz ...\$30

ATH Point 1 Stereophones

Moving-coil dynamic stereophones. Frequency range 35-20,000 Hz; sensitivity 100 dB at 1 kHz, 1 mW; matching impedance 4-16 ohms; acoustical foam ear-cushions; 1.5-m cord; 1/4" plug; 1.8 oz without cord; black\$30

ATH Point 2. Frequency range 35-20,000 Hz; sensitivity 105 dB SPL at 1 kHz; impedance 4-16 ohms; 5-ft cord; 1 oz without cord\$35

ATH Point 2F. Same as ATH Point 2 but foldable and supplied with carrying case\$40

ATH Point 3. Pendulum adjustment. Frequency range 30-20,000 Hz; 2.5-m cord; 1/4" phone plug; 1.9 oz without cord\$50

ATH Point 4. Super-lightweight (1.6 oz) stereo headphones. Frequency range 25-20,000 Hz; 2.5-m cord with mini stereo plug and adapter\$60

ATH Point 5. Same as ATH-0.3 except frequency response 25-20,000 Hz; brown\$80

ATH Point 6. Same weight as ATH-0.4 but frequency



range improved to 20-20,000 Hz; Impedance 4-16 ohms matching Impedance\$90

Esimo® Stereophone Earmuffs

For cold-weather listening; quickly convert lightweight, portable stereophones to musical earmuffs or to improve fit and increase comfort indoors; fit models with 35- or 45-mm elements; nonallergenic

material \$8

BANG & OLUFSEN

U-70 Headphones

Orthodynamic stereo headphones. Frequency range 16-20,000 Hz; sensitivity 8 mW for 94-dB SPL; continuous load 2 W; distortion 1% maximum; impedance 140 ohms; 10-ft straight cord with 3-conductor phone jack; 10.6 oz \$100

BEYER DYNAMIC, INC.

DT-48 Dynamic Headphones

Moving-coil dynamic headphones. Frequency response 16-20,000 Hz ± 2 dB; supplied with 10-ft straight cord \$190

DT-880 Dynamic Headphones

Stereo headphones utilize rare-earth magnet, vibrationless membrane. Semi-open design permits close coupling for full bass response with hear-through external access. Frequency range 15-25,000 Hz; sensitivity 94 dB SPL with <1% harmonic distortion; nominal impedance 600 ohms; 6-ft coiled cord \$130
DT-550. Similar to DT-88, except frequency range 10-22,000 Hz; sensitivity 95 dB SPL 90
DT-330. Similar to DT-550, except frequency range



15-18,000 Hz; sensitivity 90 dB SPL; nominal impedance 40 ohms \$48

DT-109 Moving-Coil Mic/Headphone

Lightweight moving-coil stereo headphones with cardioid broadcast-quality moving-coil microphone; SPL 120 dB; left and right channels can be independently wired; removable ear cushions; high-impact plastic, stainless steel construction; field serviceable . \$129

DT-660 Bass-Reflex Stereo Headphones

Stereo headphones with enclosed bass-reflex system with ducted-port, specially designed venting system to improve bass response. Frequency range 15-25,000 Hz; maximum continuous power level approximately 113 dB at 1 kHz; impedance 600 ohms; sound-pressure level 96 dB at 1 kHz; ambient isolation greater than -16 dB; 6-ft flat cord, extends to 12 ft \$98

DT-480 Dynamic Headphones

Moving-coil dynamic headphones. Frequency range 20-18,000 Hz; sensitivity 1mW at 400 Hz for 115-dB SPL; impedance 5, 100, 400, 2000 ohms; maximum input 1 W/phone \$120

DT-108 Moving-Coil Mic/Headphone

Moving-coil stereo headphones with noise-canceling microphone. Frequency range 40-12,000 Hz; SPL 120 dB; mic rotates 180°; foam-filled ear cushions, padded headband; field serviceable \$105

DT-100 Dynamic Headphones

Moving-coil dynamic headphones. Frequency range 30-18,000 Hz; sensitivity 1 mW at 400 Hz for 110-dB SPL; impedance 5, 100, 400, 2k ohms; maximum input 1 W/phone \$93

DT-96A Dynamic Headphones

Moving-coil dynamic headphones. Frequency range 30-17,000 Hz; sensitivity mW at 400 Hz for 110-dB SPL; impedance 5-200 ohms; maximum input 100 mW/phone; 5-ft cord; 8 oz \$80

DT-440 Dynamic Headphones

Open high-velocity dynamic headphones with polyvi-

nyl chloride diaphragm in Novodur housing. Frequency range 20-20,000 Hz; sensitivity 1 mW for 100-dB SPL; impedance 600 ohms; chrome finish \$70

DT-220 Dynamic Headphones

Closed-ear dynamic headphones. Frequency range 20-20,000 Hz; sensitivity 1 mW for 100 dB SPL; impedance 600 ohms; maximum input 42 mW (for 116-dB SPL); 260 g without cable \$63

DT-302 Lightweight Headphones

Open-air high-velocity dynamic headphones connect directly to high- or low-impedance outputs. Frequency range 20-20,000 Hz; rated power 7 mW (2.1 V) for 600 ohms; sponge ear cushions; stereo phone plug; 2.3 oz without cord \$36
DT303. Same as DT302 but designed for TV listening; has volume control built into 22.5-ft cable. . \$37

DT-301 Single Headphone

Single earphone for use with portable cassette recorders, transistor radios, dictating machines, TV receivers. Supplied with 5-ft cord and miniature phone plug \$19

CALCETRO

90-108 Stereo Headphones

Professional-quality open-air stereo headphones with samarium-cobalt drivers. Features Mylar diaphragms; soft foam earpads; 3.5-mm plug for portable equipment; 1/4" adapter for home use; 6-ft Y straight cord. Frequency range 20-20,000 Hz; maximum input 5 W; impedance 4-16 ohms; 6.5 oz without cord \$32.75

90-112 Stereo Headphones

High-velocity stereo headphones with 10-ft coiled cord terminated in 1/4" phone plug. Frequency range 20-20,000 Hz; maximum input 100 mW; sensitivity 100 dB SPL at 1 V; impedance 4-16 ohms' 6 oz without cord \$16.75

90-104 Stereo Headphones

Stereo headphones with independent tone, volume controls, 10-ft coiled cord with 1/4" phone plug. Frequency range 30-18,000 Hz; maximum input 500 mW; impedance 4-8 ohms; 13 oz without cord \$14.95

90-107 Stereo Headphones

Ultralightweight stereo headphones with samarium-cobalt drive elements. Features soft foam earpads; 3.5-mm stereo plug; 1/4" phone plug adapter; 5.5-ft Y cord. Frequency range 20-20,000 Hz; maximum input 100 mW; impedance 4-100 ohms; 1.5 oz without cord \$12.45

90-102 Stereo Headphones

Stereo headphones with left, right volume controls, 10-ft coiled cord with 1/4" phone jack. Frequency range 30-18,000 Hz; maximum input 550 mW; impedance 4-8 ohms; 11.75 oz without cord . \$12.15

90-1010 Stereo Headphones

Stereo headphones with 10-ft Y coiled cord with 1/4" phone jack. Frequency range 20-30,000 Hz; maximum input 10 W; impedance 8 ohms; 7.25 oz without cord \$11.45

90-100 Stereo Headphones

Starter headphones with padded earpads, 10-ft coiled cord with 1/4" phone jack. Frequency range 20-

15,000 Hz; maximum input 500 mW; impedance 4-16 ohms; 8 oz without cord \$9.35

DENON

AH-9 Open-Type Stereo Headphones

Open-earcup stereo headphones. Impedance 600 ohms; sensitivity 100 dB/mW; maximum input 100 mW; frequency range 20-22,000 Hz; 100 g...\$80
AH-7. Same as AH-9 but impedance 65 ohms...\$50



AH-5. Same as AH-9 but impedance 32 ohms...\$35

A4-5P Folding Portable Headphones

Double 90° fold allows storage in cassette-sized case (supplied). Portable model comes with 1.2-m cord with mini-plug, 1.8-m mini-to-regular adapter cord for home use. Frequency range 20-22,000 Hz; sensitivity 100 dB/mW; maximum input 100 mW; impedance 32 ohms; <1 oz \$40

PML BY ERCONA

D-42 Stereo Headphones

Dynamic stereo/mono headphones; supplied with detachable, washable soft rubber ear cushions. Frequency range 30-20,000 Hz; output impedance 200 ohms stereo, 100 or 400 ohms mono; power/voltage at normal listening 0.3 mW/0.25V; 100 dB SPL with 0.3 mW input; 5 mW maximum power with 2% distortion; supplied with 6-ft unterminated cable; 9.5 oz \$45

RDF-224 Dynamic Headphones

Dynamic stereo/mono headphones; removable soft-foam-padded vinyl ear cushions; supplied with 8-ft coiled cable, 3-conductor phone plug. Frequency range 20-18,000 Hz; output impedance 8 ohms $\pm 20\%$ at 1 kHz; output level 100 dB at 1 kHz; maximum input 100 mW; 12 oz \$30

HERVIC

HP-1 Stereo Headphones

Dynamic stereo headphones with low-mass diaphragms; simulated-leather headband; Y-type coiled cord with stereo phone jack. Frequency range 18-22,000 Hz; impedance 4-150 ohms; sensitivity 100 dB SPL/mW; maximum input 100 mW; 4.2 oz less cable \$70

EMPIRE

LW2 Stereo Headphones

Lightweight open-air stereo headphones with leatherette inner band, foam ear cushions, mini-plug adapter \$35

NOTICE TO READERS

Prices of items described are suggested prices only and are subject to change without notice. Actual selling prices are determined by the dealer.

10 HEADPHONES

LW1 Stereo Headphones

Ultra-lightweight stereo headphones with samarium-cobalt magnets, foam ear cushions, mini-plug adapter \$20

EVG, INC

Ear Puffs* Stereo Headphones

Stereo headphones designed to fit directly in ears without headband. Features samarium-cobalt transducers; 36" cord with 3.5-mm mini stereo plug; extra set foam earpads. Total weight <0.5 oz \$25

JVC

H-707 Moving-Coil Headphones

Moving-coil design weighs only 5.64 oz and features 46-mm diameter x 38-micron thick diaphragms; open-back design; double headband for added com-



fort. Frequency range 20-20,000 Hz; impedance 63 ohms; sensitivity 104 dB/mW at 1 kHz; maximum input 100 mW; 9.75-ft cord \$60
H-505. Similar to H-707 except 8-ohm impedance; 106-dB sensitivity; 4.58 oz \$40
H-404. Similar to H-505 except 16-ohm impedance; 102-dB sensitivity; 3.7 oz \$30

Super-Lightweight Stereo Headphones

Lightweight stereo headphones designed for portable listening; come with mini-to-standard plug adapter.

H-M9T. \$50
H-M7T. \$40

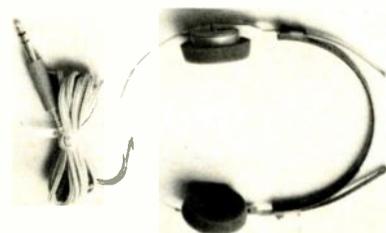
KENWOOD

KH-7 Stereo Headphones

Dynamic stereo headphones with 1" polyester film drivers. Features extra pair of earpads, 9.8-ft Y-type cord with standard 1/4" plug. Frequency range 20-23,000 Hz; sensitivity 98 dB/mW; maximum input 150 mW/channel; impedance 32 ohms; 1.8 oz minus cord, 3.4 oz with cord \$80

KH-5 Stereo Headphones

Dynamic stereo headphones with 1" polyester film drivers. Features extra pair of earpads, 9.8-ft Y-type



cord with standard 1/4" phone plug. Frequency range 20-22,000 Hz; sensitivity 98 dB/mW; maximum input 150 mW/channel; impedance 32 ohms; 1.8 oz

minus cord, 3.2 oz with cord \$55

KH-3 Stereo Headphones

Dynamic stereo headphones with 1.5" polyester film drivers. Features extra pair of earpads, 6.5-ft Y-type cord with standard 1/4" phone plug. Frequency range 25-20,000 Hz; sensitivity 95 dB/mW; maximum input 150 mW/channel; impedance 24 ohms; 2.1 oz without cord, 5.3 oz with cord \$30

KH-M5 Stereo Headphones

Dynamic stereo headphones with 1 7/32" high polymer film drivers. Features 4.7-ft Y-type cord with standard 1/4" phone plug, extra earpads. Frequency range to 20,000 Hz; sensitivity 102 dB/mW; maximum input 50 mW/channel; impedance 32 ohms; 5 g without cord, 15 g with cord \$25

KH-2 Stereo Headphones

Lightweight dynamic stereo headphones. Features 2" polyester film drivers, adjustable headband. Frequency range 40-20,000 Hz; sensitivity 95 dB/mW; maximum input 100 mW/channel; 2.1 oz without cord, 1.9 oz with cord \$22

KOSS

ESP/10 Electrostatic Stereophones

Electrostatic circumaural stereo headphones with energizer. Headset bandpass response 20-22,000 Hz ± 2 dB; sensitivity for 1.9 V rms at 1 kHz into E/10 energizer, 2.0 V rms pink noise 100-dB SPL; THD 0.38% at 1 kHz, 100 dB SPL; radiating surface area of electrostatic element 25 cm²/channel; black with silver accents; 10-ft cord. Energizer bandpass response -3 dB at 15 Hz and 24 kHz; hum and noise 75 dB below sensitivity reference level (100 dB SPL); phase response at +30° at 20 Hz, -30° at 15 kHz; input impedance 2 ohms minimum at 20 and 20k Hz, 180 ohms maximum at 800 Hz; minimum recommended amplifier power 35 W/channel; overload voltage (for relay cutoff) 5.3 V rms pink noise into energizer; semipeak-indicating VU meters; LED overload indicators; automatic overload detector; wood-grain trim \$300

PRO/4X Stereo Headphones

Dual-element stereo headphones combine rare-earth moving-coil element with piezoelectric element in each earcup to provide a 10-40,000-Hz frequency range. Closed-design headphones weigh only 10 oz, come with coiled cord; labeled left/right earcups; adjustable headband \$85

TECH/VFR Stereophones

Dynamic stereo headphones with variable frequency-



response controls; slide-type controls at base of each earcup permit fine tuning of shape of response curve. Frequency range 10-22,000 Hz; THD 0.3% at 1 kHz, 100 dB SPL; sensitivity for 100-dB SPL 0.6 V rms sine wave at 1 kHz, 0.275 V rms pink noise; impedance 245 ohms at 1 kHz. Features Pneumalite ear cushions to exclude outside sounds; wide vinyl headband with self-adjusting yoke; black and chrome; equipped with boom microphone mount for professional applications; 4-conductor coiled cord; 16.8 oz less cord \$80

HV/XLC Stereophones

Lightweight high-velocity stereophones. Frequency range 15-35,000 Hz; sensitivity for 100 dB SPL 1.0 V rms at 1 kHz. Features volume, balance controls/cup; variable density contoured circumaural earcushions with twist-lock mechanism for easy removal; 10-ft coiled cord; 8.4 oz less cord \$80
HV/X. Same as HV/XLC without volume, balance controls; impedance 90 ohms; 7.7 oz less cord \$70

TECH/2 Stereophones

Dynamic stereo headphones with 2" polyester driver elements. Frequency range 10-22,000 Hz; impedance 245 ohms at 1 kHz; sensitivity for 100 dB SPL 0.7 V rms at 1 kHz, 0.3 V rms pink noise; THD 0.3% at 1 kHz, 100 dB SPL. Features adjustable cushioned vinyl headband with adjustable stainless-steel yokes and slidebars, Pneumalite ear cushions; 10-ft coiled cord; 15.9 oz less cord \$60

HV/1A Stereophones

High-velocity stereophones with low-mass Decilite drivers for 15-30,000 Hz coverage; operates from outputs of 3.2 to 600 ohms; distortion 0.5% at 100 dB SPL; sensitivity 0.9 V rms for 100 dB SPL, handles 5 V rms continuous with provisions for 14-dB SPL transient peaks; 157-ohm impedance; acoustical sponge ear cushions; extendable headband with self-adjusting, pivoting yokes, soft padded vinyl cover; 3-conductor coiled cord (10-ft extended); 10.1 oz \$50
HV 1LC. Same as HV/1A except volume/balance control per earcup; sensitivity 1.1 V rms for 100-dB SPL; impedance 132.5 ohms; 10.8 oz \$60

K/6XLC Dynamic Stereophones

Dynamic stereo headphones with low-profile (57-mm) element with Mylar diaphragm and separate volume controls. Frequency range 10-22,000 Hz; <1% THD at 1 kHz, 100 dB SPL; sensitivity 1.0 V rms at 100 dB SPL; 10 oz without cord \$40
K/6X. Same as K/6XLC but without volume controls \$30

KSP Sound Partner Stereophones

Featherweight stereophone for on-the-go radio, tape listeners. Folds to compact size to fit into denim tote bag (supplied). Frequency range 20-17,000 Hz; sensitivity 100 dB SPL pink noise at 1 volt; impedance 43 ohms; total weight 3.5 oz, including 9-ft cord. Comes with accessory adapters to fit almost any sound system \$35

KC/180 Stereophones

Inexpensive stereo headphones with patented Pneumalite® earcushions and Mylar cone elements. Frequency range 16-20,000 Hz; impedance 90 ohms; 220 g \$20

P/19 Portable Stereophones

For personal, portable listening. Can be used with portable radios, cassette players, TV receivers, home receivers, amplifiers with included 6.36-mm adapter. Frequency range 20-17,000 Hz; impedance 43 ohms (ideal for battery-powered products for low power drain); 6-ft cord with 3.5-mm mini stereo plug. . \$20

MURA

HV-190 Stereo Headphones

Stereo headphones with ferrite-magnet speaker system. Frequency range 20-20,000 Hz; impedance matching 8-70 ohms; maximum input 250 mW; lightweight 12-ft coiled cord with 1/4" stereo plug; 8 oz less cord \$30

SB-60 Stereo Buds Headphones

Stereo speakers that fit directly into ears. Features 4-ft cord with 3.5-mm stereo plug \$25

HV-100 Stereo Headphones

Lightweight vented high-velocity stereo headphones with thin Mylar diaphragms; voltage control; stereo/mono switch. Frequency range 30-15,000 Hz; 10-ft coiled cord with plug \$20

SP-504 Headphones

Stereo headphones with 3" dynamic drivers. Features separate volume, tone controls on each earcup,

Nova-35 Stereo Headphones

Micro stereo headphones with foam earpads, adjustable headband, 5-ft cord with 1/4" plug. Frequency range 50-20,000 Hz; < 3 oz less cord \$15

Micro-in-Ear Stereo Headphones

Stereo headphones designed to slip into outer ear. Frequency range 30-15,000 Hz; 0.6 oz minus cord \$13

RECOTON

ST88 High-Velocity Stereo Phones

Stereo headphones with volume controls. Features lightweight high-velocity samarium-cobalt magnets; stereo/mono switch; volume, tone controls. Frequency range 15-20,000 Hz; sensitivity 102 dB at 1 kHz; impedance 30 ohms; maximum input power 0.5 W; 10-ft cable with stereo phone plug \$43

ST66 Ultralightweight Headphones

Designed for all mini recorders, players, stereo headphones weight only 2.47 oz exclusive of cable. Sensitivity 98 dB at 1 kHz; frequency range 20-25,000 Hz; input impedance 25 ohms; maximum input power 0.4 W; 10-ft cable with mini plug, 1/4" stereo adapter \$43

ST77 Ultralightweight Stereo Phones

Designed for all mini recorders, players; includes an adaptor for standard receivers. Weighs 1.65 oz, less cable. Sensitivity 98 dB at 1 kHz; frequency range 20-25,000 Hz; impedance 25 ohms; maximum power input 0.3 W; 10-ft cable with mini plug, 1/4" stereo adapter \$38

ST22 Stereo Headphones

Dynamic stereo headphones; all-aluminum earcups; leathery-soft ear cushions, headband; volume control for each channel. Frequency range 20-22,000 Hz; impedance 8 ohms; matching impedance 4-16 ohms; sensitivity 110 dB at 1 kHz with 1 mW; maximum input 0.5 W; 3" dynamic speakers; 10-ft coiled cord \$30

ST-91 Stereo Headphones

Lightweight stereo headphones with samarium-cobalt magnets. Includes adapter to allow use with mini, home tape players. Frequency range 20-25,000 Hz; impedance 200 ohms; sensitivity 100 dB at 1 mW; 1.23 oz minus cable \$28

ST-11 Stereo Headphones

Lightweight stereo headphones with volume controls, stereo/mono switch, foam-filled earcushions. Frequency range 20-20,000 Hz; impedance 8 ohms; sensitivity 100 dB at 1 mW, 1 kHz; 10-ft coiled cord with phone plug \$20

ST16 Stereo Headphones

Stereo headphones with volume control for each channel; stereo/mono switch. Frequency range 20-18,000 Hz; impedance 8 ohms; soft adjustable padded headband; soft ear cushions; 10-ft coiled cord with stereo phone plug \$20

ST-90 Stereo Headphones

Fold-away lightweight stereo headphones with samarium-cobalt transducers, superthin polymer film diaphragms. Designed for use with mini, home players. Frequency range 20-20,000 Hz; impedance 32 ohms; sensitivity 96 dB at 1 mW; 0.83 oz minus cable \$18

ST99 Miniature Stereo Headphones

Miniature stereo headphones consisting of pair of earpieces approximate size of quarter. Earpieces slip into place over ears without headband. Includes lightweight 7-ft cord and mini plug \$17

SANSUI

SS-L5 Dynamic Stereo Headphones

Isolation-free dynamic stereo headphones in around-the-ear design and 1 1/4" drivers. Impedance 100 ohms at 1 kHz; frequency range 20-20,000 Hz; maximum input power 500 mW; sensitivity 104 dB/mW at 500 Hz; 2-m cord; 4.8 oz without cord \$50

MS-7 Dynamic Stereo Headphones

Lightweight on-the-ear mini-sized dynamic stereo headphones with adaptor plug that permits mini stereo phone plug to be used with standard home audio equipment. Impedance 40 ohms; frequency range 30-20,000 Hz; maximum input power 250 mW; sensitivity 100 dB/mW; 2.5-m cord; 1.1 oz without cord \$40

SS-L3 Dynamic Stereo Headphones

Isolation-free, around-the-ear stereo headphones with 1 1/4" drivers. Impedance 60 ohms; frequency range 20-20,000 Hz; maximum input power 500 mW; sensitivity 104 dB/mW; 2-m cord; 4.4 oz without cord \$30

MS-3 Dynamic Stereo Headphones

Lightweight on-the-ear mini-sized dynamic stereo headphones fitted with mini stereo plug, supplied with adaptor for use with standard home audio equipment. Impedance 30 ohms; frequency range 35-20,000 Hz; maximum input power 100 mW; sensitivity 97 dB/mW; 2.5-m cord; 1.8 oz without cord \$20

SENNHEISER

HD224 Stereo Headphones

Dynamic stereo headphones. Frequency range 16-20,000 Hz; SPL 94 dB at 1 mW; THD 1.0%; impedance 200 ohms; double-walled circumaural foam earpads cover entire ear; includes steel-stranded detachable 3000-mm cable; 252 g \$144

HD 430 Stereo Headphones

Open-air design dynamic stereo headphones. Frequency range 16-20,000 Hz; sensitivity 94 dB SPL at 1 mW, 1 kHz; HD 0.5%; impedance 600 ohms; padded earpad rims, adjustable suspension strap; 10-ft cable; 7 oz \$126

HD 222 Closed-Earcup Headphones

Stereo headphones with ultralightweight diaphragms with powerful cobalt-samarium magnets in closed-earcup design. Frequency range extremely flat 16-10,000 Hz; impedance 600 ohms; 8.8 oz. \$120

HD 424 Stereo Headphones

Deluxe open-air dynamic headphones. Frequency range 15-20,000 Hz; sensitivity 17.7 μ bar/V, 1 mW (1.41 V)/channel for SPL of 102 dB; distortion 1% at 22 V, 1 kHz; impedance 2000 ohms; removable head and ear cushions; 10-ft cable; 6.5 oz without cable \$115

HD 420 Stereo Headphones

Open-air design dynamic headphones. Frequency range 18-20,000 Hz; sensitivity 94 dB SPL at 1 mW at 1 kHz; HD 1.0%; impedance 600 ohms; adjustable suspension strap, cushioned earpads; 10-ft cable; 4 oz \$89

HD 414 Stereo Headphones

Open-air design dynamic headphones. Frequency range 20-20,000 Hz; sensitivity 17.7 μ bar/V, 1 mW (1.41 V) for 102 dB SPL; distortion 1% at 22 V, 1 kHz; impedance 2000 ohms; 10-ft cable; 5 oz without cable \$79

HD 400 Stereo Headphones

Open-air design dynamic headphones. Frequency range 20-18,000 Hz; sensitivity 88 dB SPL at 1 mW; impedance 600 ohms; 10-ft cable; 3 oz without cable \$46

HD 40 Lightweight Headphones

Open-air design stereo headphones. Frequency range 22-18,000 Hz; sensitivity 90 dB with 1 mW input; distortion < 1%; 2 oz without cable \$35

SIGNET DIVISION, A.T.U.S., INC.

TK33 Stereophones

Dipolar electret condenser stereophones with power adapter feature high-compliance film moving diaphragm, 45 mm diameter, 2 microns thick. Features suede-finish inner headband and pivotal porous vinyl ear pads. Passive impedance matching transformer

adapter features stereophone/speaker operation, hi/lo stereophone sensitivity switches; 2 dual-color LED arrays in groups of 6, first 4 indicating medium-to-loud normal reproduction and last 2 indicating high-level peaks; no external power required; can accommodate 2 headsets. Frequency response 20-22,000 Hz \pm 2 dB; sensitivity 100 dB at 1 V, 1 kHz; THD 0.1% at 110-dB SPL; matching impedance 4-16 ohms; includes 8.2-ft cord with special plug, 3.9-ft adapter cable with 4-conductor plug. Stereophone 9.7 oz with cord; adapter 4 lbs; adapter 8.7"D 5.5"H \times 2.4"W \$330
TK33S. Additional stereophone for TK33 \$135

TK22 Stereophones

Moving-coil dynamic stereophones feature high-compliance polyester dome diaphragm, 20 microns thick, 45 mm diameter with 40-micron self-supporting



silver/copper voicecoil. FXD magnet. Features full-swivel foam earpieces, soft suede-finish inner headband. Frequency range 20-20,000 Hz; sensitivity 96 dB at 1 mW, 1 kHz; THD 0.4% at 110-dB SPL; matching impedance 4-16 ohms; 11 1/2-ft cord with plug; 9.2 oz with cord \$105

Miniature Stereo Headphones

TK20. Features fully rotating yoke-and-pivot suspension system; can be compactly folded, fitted into belt pouch (supplied). Frequency range 25-20,000 Hz; 1.5 oz \$60

TK11. Features unique ball-joint pivot on each earcup; 4.9-ft cord with mini plug, mini-to-standard phone-plug adapter. Frequency range 30-20,000 Hz slightly less than 2 oz \$35

SONY

MDR Series Headphones

Ultra lightweight open-air stereo headphones with samarium-cobalt magnets, high-exursion driver elements, oxygen-free litz wire cables, and minimal headband pressure.

MDR-80T. Top-of-the-line headphones with 30-mm drivers, one-sided cable; frequency range 16-24,000 Hz; sensitivity 101 dB/mW; 2.2 oz less cable .. \$85

MDR-70T. Headphones with 30-mm drivers; frequency range 16-22,000 Hz; sensitivity 100 dB/mW; 1.8 oz less cable \$65

MDR-50T. Headphones with 30-mm drivers; frequency range 18-22,000 Hz; sensitivity 100 dB/mW; 1.8 oz less cable \$50

MDR4T. Ultralightweight headphones with scaled-down headband, driver housings; frequency range 20-22,000 Hz \$40

MDR-E33. Consists of 2 MDR-type drivers designed to hang comfortably from each ear; has no headband to add bulk, interfere with hair styles; especially suited for Sony Walkman users; frequency range 40-18,000 Hz; < 1 oz less cable. Supplied with mini stereo plug only \$35

MDR-1T. Incorporates stereo Unimatch plug; frequency range 24-18,000 Hz \$30

MDR-3. Frequency range 20-20,000 Hz; sensitivity 96 dB/mW; 32 ohms; 40 g less cable \$50

MDR-2. Similar to MDR-3 \$40

(Continued on next page.)

10 HEADPHONES

STANTON

Dynaphase Stereo Headphones

Specially designed for recording professionally, resulting in flattest response and superior acoustical behavior of driver elements. Feature 1 1/2" dynamic high-velocity elements with specially formulated synthetic film diaphragms, samarium-cobalt magnets; adjustable headband with pivot yokes, glove-soft padded vinyl cover; soft nylon tricot-covered foam earcushions; 10-ft 4-conductor cord with double molded no-break connector. Frequency range 20-22,000 Hz; distortion <0.25% at 110 dB SPL, 1 kHz; sensitivity 110 dB minimum SPL at 0.2 V, 1 kHz; impedance 600 ohms ±10% at 1 kHz; maximum input power 0.25 W rms/channel; 5.5 oz less cord\$70

Stereo/Wafers XXI Headphones

Ultra-lightweight professional-standard headphone; frequency response 20-22,000 Hz ±4 dB; sensitivity 2 V for 100 dB SPL; maximum power input 0.1 W continuous; distortion 0.5% at 200-dB SPL; impedance 100 ohms at 1 kHz; brushed blue denim finish; 10-ft flat cord with heavy-duty plug; 5.9 oz\$70

Dynaphase 55 Stereo Headphones

Lightweight open-audio stereo headphones with 1.5" samarium-cobalt dynamic drivers; input impedance 100 ohms ±10% at 1 kHz; maximum input 0.25 W/channel continuous; sensitivity 110 dB SPL at 0.2 V input, 1 kHz; frequency range 20-22,000 Hz; distortion 0.25% at 110-dB SPL at 1 kHz; adjustable padded-vinyl headband with pivot yokes and nylon tricot-covered foam ear cushions; 10-ft 4-conductor cord with no-break connector; includes adapter plug for use with portable radios and tape recorders; 5.5 oz less cord\$60

Micro/Wafer XII Stereo Headphones

Super-lightweight open-audio stereo headphones with 3/4" dynamic high-velocity drivers with synthetic film diaphragms, samarium-cobalt magnets. Frequency range 10-20,000 Hz; distortion 0.5% at 100 dB SPL/mV at 1 kHz; sensitivity 105 dB SPL/mV at 1 kHz/channel; input impedance 40 ohms at 1 kHz; maximum input 0.15 W/channel continuous; adjustable lightweight headband with multi-density polyurethane foam earcushions; includes adapter plug for use with portable radios, TV sets, and tape recorders; 7-ft Y-type straight cord with plug; 2 oz less cord. \$50

Dynaphase 25 Stereo Headphones

Lightweight open-audio stereo headphones with dynamic high-velocity drivers with 1" polyester diaphragms. Frequency range 10-20,000 Hz; distortion 0.5% at 110 dB SPL, 1 kHz; sensitivity 100 dB SPL at 0.25 V input, 100 Hz; input impedance 50 ohms at 1 kHz; maximum input power 0.2 W/channel continuous; adjustable padded vinyl headband with soft vinyl-covered foam earcushions; includes adapter plug for use with portable radios, TV sets, tape recorders; 7-ft Y-type straight cord with plug\$30

Model V Micro Wafer-F Headphones

Super-lightweight stereo headphones with adjustable folding headband. Feature acoustically engineered polyurethane foam cushions; 5-ft Y-type straight cord with plug. Frequency range 20-18,000 Hz; distortion <0.5% at 100 dB SPL, 1 kHz; sensitivity 100 dB minimum SPL, 0.25 V input at 1 kHz each channel; impedance 40 ohms ±20% at 1 kHz; maximum input 0.1 W; 2 oz less cord\$30

STUDER/REVOX

RH 310 Stereo Headphones

Open-type lightweight headphones designed for amplifiers rated for 4-to-600-ohm load impedance; frequency range 20-20,000 Hz\$100

SUPEREX

PEP-81 Electrostatic System

Consists of PEP-81 headphones and CC-81 control console; headphone frequency response 15-18,000 Hz ±2 dB, 10-22,000 Hz ±5 dB; distortion 0.2%; impedance-matched to CC-81 for 4-16 ohms; isolation-type headphones with fully adjustable vinyl-covered headband, foam cushions and 15-ft coiled cord; control console has level controls for both channels, speaker/phone rocker, on/off switch; can accommodate 2 sets headphones; requires 5 W/channel minimum drive; console size 11" x 3 1/4" x 6 1/2". \$150

PEP-79E Electrostatic System

Consists of PEP-74 headphones and CC-79E control console; headphone frequency response 15-18,000 Hz ±2 dB, 10-22,000 Hz ±5 dB; negligible distortion; impedance-matched to CC-79E for 4-16 ohms; trans-air lightweight headphones with fully adjustable vinyl-covered headband, foam cushions, 15-ft coiled cord; control console is designed for use with main amplifier level controls, has self-protecting circuits; 2 1/2"H x 7"W x 4"D\$90

SM-700 Headphones

Dynamic headphones with 2 1/4" Mylar diaphragm. Frequency response 10-22,000 Hz ±3 dB; impedance 35 ohms; sensitivity 10 mW (0.6V) for 110 dB at 400 Hz; 0.25% distortion at 400 Hz, 110-dB SPL; padded, fully adjustable steel, aluminum headband with foam-filled vinyl cushions; 15-ft cable, clothing clip, molded stereo plug\$70

PRO B VI Stereophones

Each earcup features dynamic woofer, ceramic tweeter, L/C crossover. Impedance 4-16 ohms; frequency response 15-22,000 Hz; fully adjustable, vinyl-covered, padded spring steel headband with vinyl covered urethane foam cushions; 10-ft coiled cord and plug\$60

Classic CL-1 Headphones

Lightweight, isolating-type headphones. Frequency range 10-20,000 Hz; impedance 35 ohms; distortion 0.3% at 110-dB SPL 400 Hz; sensitivity 10 mW (0.6V) for 110-dB SPL at 400 Hz; padded fully adjustable steel, aluminum headband with foam-filled vinyl cushions; 15-ft (extended) retractable cable with clothing clip; and molded stereo plug; 10.6 oz without cable\$60

TRL-99 Headphones

Dynamic headphones with 2 1/4" Mylar diaphragm. Impedance 35 ohms; frequency response 15-20,000 Hz ±4 dB; sensitivity 6 mW for 100-dB SPL; distortion 0.4% at 400 Hz, 110-dB SPL; padded, fully adjustable aluminum, steel headband with fabric-faced, foam-filled cushions; 15-ft cable, clothing clip, plug; 10 oz\$55

TRL-88 Trans-Linear Headphones

Featherweight open-air stereo headphones with 1.75" Mylar transducers. Frequency response 18-24,000 Hz ±5 dB; dis 0.5%; 7-ft Y cord with molded plug; 4.25 oz\$50

TRL-3 Trans-Linear Headphones

Open design headphones. Frequency response 40-20,000 Hz ±5 dB, 5-dB bass boost between 70 and 200 Hz; impedance 80 ohms; distortion 0.6% at 110 dB, 400 Hz; sensitivity 6 mW for 100-dB SPL; maximum input 5 V; padded, fully adjustable aluminum, steel headband; urethane foam, snap-on cushions; 15-ft retractable cable with clothing clip, molded plug, strain relief; 8.5 oz\$45

DP-903 Monitor Phone

Single hand-held earphone with swivel grip; blends left, right channels into single earphone. Frequency range 20-19,000 Hz; impedance 180 ohms; 7-ft cord with stereo plug\$20

TRL-66 Headphones

Dynamic headphones with 6-mm transducer; Impedance 8 ohms; frequency range 40-15,000 Hz; high impact unbreakable plastic headband with padding, foam-filled vinyl cushions; 7-ft Y cord with molded

plug; 9 oz (less cable)\$20

TEAC

THD-101 Stereo Headphones

Open-air dynamic moving-coil stereo headphones. Features foam earpads; stereo phone plug with 3.5-mm to 1/4" adapter. Frequency range 20-20,000 Hz; sensitivity 95 dB/mW ±2 dB at 1 kHz; maximum input 100 mW; impedance 30 ohms; 9.8-ft cable; 4 oz\$40

TECHNICS

EAH-830 Linear-Drive Headphones

Low-distortion high-power-handling capacity stereo headphones. Frequency range 15-35,000 Hz; maximum input 3000 mW; 125-ohm impedance; 0.3% distortion; 3-meter coiled cord; Supra-Aural ear pads; precise-fit, soft leather head pads; 450 g\$75

EAH-820 Linear-Drive Headphones

High-power-handling capacity stereo headphones. Frequency range 15-30,000 Hz; maximum input 3000 mW; 125-ohm impedance; 0.3% distortion; 3-meter coiled cord; Supra-Aural ear pads; precise fit, soft, wide-contact leather head pads; 430 g\$55

EAH-810 Linear-Drive Headphones

Open-environment stereo headphones with wide waveform response at ear drum. Frequency range 20-25,000 Hz; maximum input power 1000 mW; impedance 63 ohms; distortion 0.5% at 100 dB; 3-meter cord; Supra-Aural ear pads; precise-fit, soft, wide-contact leather head pads; 230 g\$35

EAH-T805 Stereo Headphones

Frequency range 20-20,000 Hz; maximum input 200 mW; SPL 100 dB/mW; impedance 125 ohms ...\$30

TELEDYNE by OLSON

16 PH-594 Stereo Headphones

Stereo headphones with 7.5-ft flexible cord with 1/4" stereo phone plug. Frequency range 20-20,000 Hz; Mylar cone speakers\$40

UHER by WALTER ODEMER

W 775 Stereo Headphones

Dynamic stereo headphones with one active, 6 auxiliary membranes per system; half-open design. Frequency range 16-20,000 Hz; SPL 94 dB; impedance 600 ohms; nominal loading capacity 200 mW; distortion 1.0%; automatic strap adjustment; gimbal earcups; 3-m cable; 330 g\$184

W675 Featherweight Headphones

Lightweight (2.2 oz) mono/stereo headphones with 8-ft coiled cord. Frequency range 20-20,000 Hz; impedance 200 ohms at 1 kHz; has lightweight adjustable headband, yellow foam-cushioned earpieces. With 5-pin plug for Uher cassette recorders\$84

VIDAIRE

983 Deluxe Stereo Headphones

Stereo headphones feature stereo/mono switch, volume controls, padded headband. Frequency range 20-18,000 Hz; impedance 8-16 ohms; maximum input 0.5 W; 10-ft coiled cord with 1/4" stereo plug. \$28

617 High-Velocity Stereo Headphones

Features snap-lock pivot in headstrap for compact storage in pocket. Frequency range 20-20,000 Hz; impedance 4-32 ohms; 5-ft shielded mini cord with 3.5-mm stereo mini plug, strain relief; optional adapter converts to standard 1/4" stereo phone plug. \$18

960C Dynamic Stereo Headphones

Dynamic Stereo headphones. Frequency range 20-18,000 Hz; impedance 8-16 ohms; maximum input 0.5 W; 6-ft cord with 1/4" stereo plug\$15

WALD SOUND, INC.

J-3000 Stereo Headphones

Super-thin 2-way stereo headphones. Nomi-

nal/matching impedance 25/4-150 ohms; frequency range 20-20,000 Hz; sensitivity 112 dB SPL at 1 mW; maximum input 300 mW; 40- and 29-mm Mylar drivers; 9-ft coiled cord; 245 g less cable \$60

J-2000 Stereo Headphones

Aluminum case stereo headphones with volume controls. Nominal/matching impedance 25/8-100 ohms; frequency range 20-22,000 Hz; sensitivity 110 dB SPL at 1 mW; maximum input 250 mW; 9-ft Y cord; 230 g less cord \$40

J-1000 Stereo Headphones

Rare-earth supermagnet stereo headphones with ultrathin diaphragms, ribbon drivers. Nominal/matching impedance 25/8-100 ohms; frequency range 10-25,000 Hz; sensitivity 100 dB SPL at 1 mW; maximum input 250 mW; 150 g less cord. \$30

SC-3 Stereo Headphones

Super-lightweight stereo headphones with adjustable headband, soft foam earpads. Nominal/matching impedance 31/4-150 ohms; frequency range 20-22,000 Hz; sensitivity 98 dB SPL at 1 mW; maximum input 100 mW; 1.5 oz less cord \$20

YAMAHA

YH-1000 Stereo Headphones

Orthodynamic-design headphones with 12.7-micron 30-mg polyester film diaphragm between cerium-cobalt disc magnets. Frequency range 20-20,000 Hz; output 103 dB/mW SPL; rated/maximum input 3/10 W; HD -50 dB at 90-dB SPL, -30 dB at 120-dB SPL; impedance 100 ohms; urethane foam-padded earcups; leather-finish headstrap; universal ball-joint tilt adjustment; lockable height-adjusting sliders; includes 7.9-ft cord with stereo plug; 19 oz with cord \$220

YH-100 Stereo Headphones

Orthodynamic stereo headphones with lightweight polyester film diaphragms in dual-support drive unit with mutually opposed anisotropic ferrite magnets. Frequency range 20-20,000 Hz; output 98 dB/mW SPL at 106 dB/V; rated/maximum input 3/10 W; HD 0.3% at 90 dB SPL; impedance 150 ohms; double padded headband with supra-aural earcups; includes 8-ft straight cord; 340 g less cord \$95

YH-1 Stereo Headphones

Lightweight orthodynamic design featuring sintered ferrite disc magnets with combination voice-coil diaphragm between. Frequency range 20-20,000 Hz; output 94 dB/mW SPL; 3 W rated/maximum input 3/10 W; HD 0.3% at 120 dB SPL; impedance 150 ohms; soft leather strap distributes weight over entire head; supra-aural pads; 8-ft straight cord; weight 10.2 oz with cord \$70.
 YH-2. Same as YH-1 except output 93 dB/mW SPL; weight 8.1 oz with cord \$50
 YH-3. Similar to YH-2 except 1/3 W rated/maximum input; 7.4 oz with cord \$40

YHL-005 Lightweight Stereo Headphones

Natural-sound stereo headphones for casual music-anywhere use. Feature fatigue-reducing human-engineered design; rare-earth samarium-cobalt magnets; mini plug adapter. Impedance 45 ohms; frequency range 20-20,000 Hz; output SPL 102 dB/mW at 1 kHz; maximum input 100 mW; output SPL 122 dB; 8-ft cord; weight with/without cord 2.8/1.8 oz. \$40
 YHL-007. Similar to YHL-005 except smaller drivers, lighter weight (2.5/1.4 oz with/without cord), 119-dB SPL output \$30

DIRECTORY of MANUFACTURERS

(Continued from page 121.)

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111 Third Ave., New York, NY 10003

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NEED MORE INFORMATION?

Write directly to the manufacturer or distributor. A list of names and addresses starts on page 188.

11

MICROPHONES

AIWA

CM-27 Electret Microphone

One-point stereo-wide-zoom position back-electret condenser microphone with 2 unidirectional, 1 bidirectional mic capsules. Features metal-vaporized polyester film diaphragm; cord with duo-fit plugs; mic stand, holder; wind screen; battery. Weighs 6 oz \$150

DM-D6 Dynamic Microphone

Unidirectional dynamic recording microphone with double dome diaphragm. Features solid diecast housing; talk switch; mic holder; Cannon 3-pin XLR-type connector; cable \$50

DM-D3. Similar to DM-D6 except has duo-fit plugs instead of Cannon connector \$30

CM-23 Microphone

Variable directivity mono zoom microphone. Can be used with microcassette recorders, attaches to most VCRs \$39

CM-30Y Microphone

Miniature 1-point stereo microphone \$39

DM-501 Microphone

Dynamic unidirectional moving-coil microphone with on/off switch \$20

CM-50 Microphone

Remote-control tie-clip microphone \$20

AKAI

ACM-100 Condenser Microphone

High-impedance electret-condenser type general-purpose microphone \$58

ACM-80 Condenser Microphone

Medium-impedance electret-condenser type general-purpose microphone \$35

AKG

Condenser Mic/FET Preamplifiers

C422. Large-diaphragm stereo condenser microphone with FET preamplifier. Features 9 polar patterns/channel selected via remote control with M-S or Y-Y recording techniques; 0/-10/-20-dB preattenuator; 9-52 V phantom powered; LED aiming indicator; S-42E remote controller; MK-42/20 66-ft cable; W-42 windscreens; H-15/9 suspension mount/stand adaptor; foam-lined carrying case. Frequency range 20-20,000 Hz; sensitivity -42 dBm; impedance 200 ohms; 9 1/2" L x 1 1/2" dia; 15.5 oz. \$2365

C-34. Small-diaphragm stereo condenser microphone similar to C-422 except sensitivity -43.5 dBm; W-34 windscreens; H-15/6 suspension mount/stand adaptor; 7 3/4" L; 9.75 oz \$1649

C-33. Same as C-34 except for selectable polar patterns; cardioid capsules for X-Y stereo recording with one capsule fixed to main housing, the other rotatable through 0°-180° angle; MK-32/20 66-ft cable. \$950

C-414EB/P48 Polydirectional Microphone

FET condenser microphone with large-diaphragm cap-

sule. Features selectable omni, cardioid, hypercardioid, or figure-8 pattern; flat/75/150-Hz) bass roll-off switch; 0/-10/-20 dB attenuator switch. Frequency range 20-20,000 Hz (all patterns); sensitivity -43.5 dBm; maximum SPL 138 dB with 0.4% THD; impedance 200 ohms; 48 V phantom powered; supplied with SA-18/3 stand adapter, W-26 windscreen, case; 1.75" diameter x 5.5" L; 12 oz \$755

C-414E1. Similar to C-414EB except has 9 selectable polar patterns via phantom-powered remote control; remote-control unit can operate 2 microphones independently; includes one microphone, S-42E1 remote control, MK-23/20 66-ft cable, W-26 windscreen, SA-18/3 stand adapter, case \$1401

C-450 Modular Condenser Microphone System

Modular system consists of 3 interchangeable preamps, 7 interchangeable small-diaphragm capsules, and associated accessories. All C-450 FET preamps have 5-30,000 Hz frequency range, 200-ohm source impedance, 500-ohm load impedance; C-451E preamp has 9-52 V power; C-451EB and C-452EB have 2-position bass rolloff; choice of matte-nickel or satin-black finish. All capsules are condenser-designed and have frequency range of 20-20,000 Hz. Capsules available are CK-1 cardioid, CK-1S cardioid with rising response, CK-4 figure-8, CK-5 cardioid with shock-suspended transducer and integrated windscreen/pop filter, CK-8 short shotgun, DK-9 long shotgun and CK-22 omnidirectional with built-in pop filter. Preamps and capsules available either separately or in combinations.

C-460B preamp	\$325
C-451EB preamp	\$246
C-452EB preamp	\$246
CK-4 figure-8	\$300
CK-9 long shotgun	\$265
CK-5 cardioid	\$225
CK-8 short shotgun	\$215
CK-22 omnidirectional	\$120
CK-1 cardioid	\$113
CK-1S cardioid	\$113
CK-3 hypercardioid	\$112

C-567E Pre-Polarized Condenser Microphone

Professional miniature wide-range omnidirectional lavalier condenser microphone with FET preamplifier. Features durable metal construction with shock/noise-resistant system and easy field-serviceable capsule. Frequency range 20-20,000 Hz; sensitivity -43.5 dBm; SPL 132 dB with 0.5% THD; impedance 500 ohms; power required 9-52 V; supplied with H-20 tie tack, H-21 tie bar, W-37 wire-mesh windscreen, H-16 belt clip, case; 3.5 oz \$225

D-330BT Hyper Cardioid Microphone

Hyper cardioid dynamic microphone with elastomer shock-suspended plug-in field-replaceable transducer system; designed for the professional vocalist. Features dual-band, 3-position equalizer switches and hum and noise rejection systems. Frequency range 50-20,000 Hz; impedance 200 ohms; dual windscreen/pop filter; nickel-plated zinc alloy die-cast housing; includes SA-31 stand adapter case; 2" dia. x 7.25" L; 12 oz. \$195

D-200E Two-way Cardioid Microphone

Cardioid dynamic 2-way microphone for the semi-professional recording and musician. Frequency range 25-16,000 Hz ±3 dB; sensitivity -56 dBm ASA; distortion 0.5%; 200-ohm impedance; includes SA-20 stand adapter and case; wire-mesh grille and cotton-fiber screen; 1.5" diameter x 7" L; 8.5 oz. \$160

D-320B Hyper Cardioid Microphone

Hyper cardioid dynamic microphone with elastomer shock-suspended field-replaceable transducer; designed for professional entertainer. Features 3-position EQ switch and hum rejecter. Frequency range 80-18,000 Hz; sensitivity -57 dBm; impedance 200 ohms; dual windscreen/pop filter; nickel-plated zinc alloy diecast housing; includes SA-31 stand adapter and case; 2" diameter x 7.5" L; 10.5 oz \$155

D-1000E Cardioid Microphone

Cardioid dynamic microphone with elastomer shock-mounted transducer; doubles as studio and field mic; has mode switch that provides up to 13 dB bass rolloff at 100 Hz and up to 6 dB midrange shelf attenuation at 1 kHz. Frequency response 40-17,000 Hz ±3 dB; sensitivity -52 dBm; 200-ohm impedance; sintered bronze windscreen; nickel-plated housing; supplied with SA-12 stand adapter and case; 1.5" diameter x 6.25" L; 8.5 oz \$135

D-310S Cardioid Microphone

Cardioid dynamic microphone with elastomer shock-suspended transducer; designed for vocal music cov-



erage in the home, studio, or on stage. Frequency range 80-18,000 Hz; sensitivity -58 dBm; impedance 200 ohms. Features integral on/off switch, windscreen/pop filter, and hum rejecter; nickel-plated zinc alloy diecast housing; includes SA-30 stand adapter and case; 1.75" diameter x 7.5" L; 8.5 oz \$135

D-310. Similar to D-310S but without integral on/off switch \$120

D-190E Cardioid Microphone

Cardioid dynamic microphone for speech or music performing and recording. Frequency range 30-15,000 Hz; sensitivity -52 dBm; 200-ohm impedance; sintered bronze windscreen; nickel-plated housing; supplied with SA-11 stand adapter and case; 1.5" diameter x 6.25" L; 6.5 oz \$115

D-190ES. Same as D-109E but with integral on/off

switch \$130

D-160E Omnidirectional Microphone

Omnidirectional dynamic microphone designed for semiprofessional recordist. Frequency range 40-20,000 Hz; sensitivity -58 dBm; impedance 250 ohms; W-20 windscreen; nickel-plated finish; supplied with SA-23/2 stand adapter and case; 7/8" diameter x 5 1/2" L; 4.5 oz \$110

D-125E Cardioid Microphone

Cardioid dynamic microphone with shock-suspended transducer; for general-purpose applications; hum rejecter and heavy-duty wire-mesh windscreen. Frequency range 100-18,000 Hz; sensitivity -53.5 dBm; 200-ohm impedance; supplied with SA-30 stand adapter and case; 1.75" diameter x 7" L; 8 oz \$110

D-130E Omnidirectional microphone

Omnidirectional dynamic microphone with shock-suspended transducer; designed for newsfilm and ENG applications. Frequency range 50-15,000 Hz; sensitivity -54.5 dBm; impedance 200 ohms; hum rejecter and sintered bronze windscreen; nickel-plated zinc-alloy diecast housing; includes SA-30 stand adapter and case; 1.75" diameter x 7" L; 9 oz \$100

D-40 Stereo-Pair Microphones

Package contains 2 D-40 low-impedance cardioid dynamic microphones, stand adapters, cable \$99

AUDIO-TECHNICA U.S.

AT815 Line/Gradient Microphone

Electret condenser shotgun microphone with permanently polarized element. Frequency range 40-20,000 Hz; sensitivity -50 dB; nominal impedance 600 ohms; maximum input SPL 120 dB; S/N 50 dB at 1 kHz, 1 µbar; 1.5-V AA cell powered; 16.5-ft cable with professional XLR/A3F connector at mic end, 1/4" phone plug at equipment end; slip-in stand clamp; carrying case; windscreen; battery \$205
AT815/XLR. Same as AT815 except with XLR/A3M connector at output end of cable \$210

AT814 Unidirectional Microphone

Moving-coil dynamic cardioid microphone designed for professional recording and broadcasting studios. Frequency range 50-16,000 Hz; sensitivity -56 dB



(0 dB = 1 mW/10 dynes/cm²); EIA sensitivity -150 dB; 250-ohm nominal impedance. Features high-efficiency windscreen and balanced low-impedance output and includes 16.5-ft cable with XLR/A3F professional connector with 1/4" phone plug, tapered slip-in stand clamp, and carrying case \$135
AT814/XLR. AT814 with XLR/A3M connector on output end of cable \$140

AT813 Unidirectional Microphone

Incorporates electret condenser permanently polarized element with 4-micron polymer diaphragm. Frequency range 20-20,000 Hz; sensitivity -55 dB; 600-ohm nominal impedance; input SPL 125 dB; S/N 50 dB at 1 kHz, 1 µbar; AA penlight battery powered. Supplied with 16.5-ft cable with professional XLR/A3F connector with 1/4" phone plug, slip-in stand clamp, carrying case, battery \$115
AT813/XLR. AT813 with XLR/3M connector on output end of cable \$120
AT813R. Phantom-power version of AT813. External power only (9-65 V dc). Sensitivity -49 dB; imped-

ance 200 ohms; maximum SPL 141 dB. Supplied with A3F/A3M connectors on cable \$165

AT831 Miniature Unidirectional Mic

Electret condenser permanently polarized element. Frequency range 50-18,000 Hz; sensitivity -58 dB; nominal impedance 600 ohms; maximum input SPL 130 dB; S/N 45 dB at 1 kHz, 1 µbar; 1.5-V N-type battery powered; balanced output via battery holder/belt clip with recessed on/off switch. Includes clothing clip, musical instrument adaptor for acoustic guitar, saxophone, etc.; windscreen; battery carrying case; 0.3" diameter x 0.9" L \$115

AT812 Unidirectional Microphone

Incorporates moving-coil dynamic element. Frequency range 50-18,000 Hz; sensitivity -60 dB; 600-ohm nominal impedance. Supplied with 16.5-ft cable with professional XLR/3M connector on output end of cable \$105
AT812/XLR. AT812 with XLR/3M connector on output end of cable \$110

AT811 Unidirectional Microphone

Incorporates electret condenser permanently polarized element. Frequency range 50-20,000 Hz; sensitivity -56 dB; 600-ohm nominal impedance; maximum input SPL 130 dB; S/N 50 dB at 1 kHz, 1 µbar; battery powered. Supplied with 16.5-ft cable with professional XLR/A3F connector with 1/4" phone plug, slip-in stand clamp, carrying case, battery \$100
AT811/XLR. AT811 with XLR/A3M connector on output end of cable \$105

AT803S Subminiature Microphone

Electret condenser permanently charged element; omnidirectional pattern; 5-micron polymer diaphragm. Frequency range 50-15,000 Hz; sensitivity -57 dB; 600-ohm impedance; balanced output; battery holder/belt clip with on/off switch; uses 1.5-V N-type penlight cell. Includes clothing clip, windscreen, battery, carrying case; 16.5-ft cable; mic 0.4" diameter x 0.8" L \$100

AT801 Omnidirectional Microphone

Incorporates electret condenser permanently polarized element. Frequency range 40-18,000 Hz; sensitivity -48 dB; 600-ohm nominal impedance; maximum input SPL 125 dB; S/N 50 dB at 1 kHz, 1 µbar; AA penlight battery powered. Supplied with 16.5-ft cable with professional XLR/A3F connector, slip-in stand clamp, carrying case \$90
AT801/XLR. AT801 with XLR/A3F connector on output end of cable \$95

AT802 Omnidirectional Microphone

Microphone with moving-coil dynamic element. Frequency range 50-16,000 Hz; sensitivity -56 dB; impedance 600 ohms. Supplied with 16.5-ft cable with professional XLR/A3F connector; slip-in stand clamp; carrying case \$85
AT802/XLR. AT802 with XLR/A3M connector on output end of cable \$90

AT805S Miniature Microphone

Electret condenser permanently charged element; omnidirectional pattern. Frequency range 50-15,000 Hz; sensitivity -57 dB; 600-ohm impedance; unbalanced output; built-in switch. Uses E675 battery. Includes clothing clip, lavalier cord, windscreen, belt clip, battery, carrying case, 16.5-ft cable with 1/4" phone plug; mic 0.6" diameter x 2" L \$60

ATH817 Unidirectional Microphone

Electret condenser permanently polarized element. Frequency range 50-16,000 Hz; sensitivity -52 dB; nominal impedance 60 ohms; maximum input SPL 125 dB; S/N 45 dB at 1 kHz, 1 µbar; 1.5-V AA cell powered; 13-ft integral cable with 1/4" phone plug; snap-in stand clamp battery \$52.50

AT816/2 Unidirectional Microphone

Stereo pair of unidirectional moving-coil dynamic microphones designed for home stereo recording. Frequency range 60-15,000 Hz; sensitivity -62 dB; nominal impedance 600 ohms (matches 150-1000 ohm inputs). Includes slip-on desk stands and 13-ft cables with 1/4" phone plugs \$65/pr.

BEYER DYNAMIC, INC.

M-130 Bidirectional Ribbon Microphone

Figure-8 bidirectional ribbon microphone incorporating two 0.012" aluminum ribbons that move one above the other with 0.020" separation; designed for studio broadcasting or recording. Frequency range 40-18,000 Hz; polar pattern provides 3-dB attenuation at 90°; ribbon design protects from overload or mechanical shock; supplied with standard 3-pin Switchcraft connector; 5.04" L \$420

M-160 Super Cardioid Ribbon Microphone

Super-cardioid dynamic double-microphone. Frequency response 40-18,000 Hz ±2.5 dB; sensitivity -152 dBm (EIA); 200-ohm impedance; low sensitivity at 120° to axis; suitable for stereo recording; Cannon XLR termination \$360

M-88 Super Cardioid Moving-Coil Microphone

Super-cardioid dynamic type. Frequency response 30-20,000 Hz ±2.5 dB; sensitivity -144 dBm (EIA); special transducer mounting eliminates body noise; withstands rough handling, humidity, temperature changes; for studio work, recording artists, instruments \$320

M600 Unidirectional Dynamic Microphone

True hypercardioid characteristic dynamic microphone with built-in presence boost; hum bucking coil; pop filter; lockable on/off switch; adjustable 3-position bass attenuator. Frequency range 40-16,000 Hz; side attenuation >24 dB at 120°, 1 kHz; output level -56 dBm; EIA sensitivity -149 dB; impedance 250 ohms; load impedance >1k ohms; bass attenuation -8/-12/-16 dB; aluminum case with steel mesh grille, black anodized finish; XLR or equivalent male connector \$280
M600S. Same as M600 except has on/off switch \$280

M 500 Unidirectional Ribbon Microphone

Hyper cardioid dynamic ribbon microphone with professional-application tailored presence boost. Fre-



quency range 40-18,000 Hz; integral 4-stage blast filter for high-level sound sources; sensitivity -152 dBm (EIA), -60 dBm (1mW/Pa); 20-dB side attenuation at 120°; matte black aluminum case; 16 1/2-ft, 2-conductor cable with XLR-type connector; leatherette carrying case; 7.4" L \$240
M 500S. Same as M 500 except has on/off switch \$250

M-260S Super Cardioid Ribbon Microphone

Super cardioid dynamic design. Frequency response 50-18,000 Hz ±2.5 dB; sensitivity -153 dBm (EIA); high-energy ribbon; 200-ohm impedance. Suitable for speech, music, or vocals; has on/off switch and Cannon XLR termination \$200

M-101 Omnidirectional Moving-Coil Microphone

Omnidirectional type. Frequency range 40-20,000

Hz; sensitivity -150 dBm (EIA); 200-ohm impedance. Withstands pressures associated with modern music (modulated voltages up to 2 V); low handling noise; $4\frac{1}{2}'' \times \frac{1}{4}''$; Cannon XLR termination... \$210

M-201 Hypercardioid Dynamic Microphone

Professional-application unidirectional dynamic microphone with hum-bucking coil construction. Frequency range 40-18,000 Hz; sensitivity -149 dBm (EIA), -56 dBm (1mW/Pa); impedance 200 ohms electrical, 1k ohm or more load; >20 dB side attenuation at 120°; 16½-ft, 2-conductor cable and Switchcraft A3F connector; matte black brass case with windscreens, clamp, case, 6.3" long... \$189

M-111 Omnidirectional Lavalier Microphone

Miniature omnidirectional dynamic lavalier microphone with filter providing flat frequency response when suspended over chest; designed for TV broadcasting. Frequency range 60-15,000 Hz (decreases 6 dB between 700-800 Hz and rises to 8 dB from 1000 to 10,000 Hz); output -62 dBm; 200-ohm impedance; spring-mounted inner casing suspended within outer housing; available with standard Cannon 3-pin connector or 1-m cable and 6-pin connector for use with company's TS 73 or TS 83 wireless pocket transmitter; clamp and cord in black leatherette case; black matte finish; 3.35" L... \$182

MCE-5 Omnidirectional Tie-Clip Mic

Broadcast-quality clip-on omnidirectional electret condenser microphone designed for on-camera applications. Frequency range 20-20,000 Hz; S/N ratio 62 dB; maximum SPL 116 dB at 1 kHz; EIA sensitivity 141 dBm; electrical impedance 700 ohms; load impedance 2500 ohms; supplied with detachable windscreens and 1-m cable with 6-pin male connector to interface with MES5VNC pocket power supply... \$160

M-69 Cardioid Moving-Coil Microphone

Dynamic cardioid design. Frequency response 50-16,000 Hz ± 3 dB; sensitivity -144 dBm (EIA); 200-ohm impedance; for indoor/outdoor applications; unaffected by temperature, humidity... \$160

M-69-SM. Same as M-69 but with on/off and bass-cut switch... \$180

M-400 Moving-Coil Cardioid Microphone

Moving-coil dynamic super-cardioid type. Frequency range 50-15,000 Hz; sensitivity -146 dB (EIA); 200-ohm impedance; on-off switch; 3-pin XLR termination; blast filter; 24.6-ft cable; black anodized aluminum case and clamp... \$160

M-400S. Same as M-400 except with on/off switch... \$170

M 300 Unidirectional Microphone

Hypercardioid moving-coil microphone with pop filter; 3-pin XLR connector; mic stand clamp; black anodized aluminum case. Frequency range 50-15,000 Hz; sensitivity -150 dBm (EIA); impedance 200 ohms; 24.6-ft cable... \$125

CALECTRO

30-2372 Dynamic Microphone

Low-impedance unidirectional dynamic moving-coil microphone with professional 3-pin connector, 20-ft 2-conductor shielded cable with ¼" phone plug. Frequency range 60-15,000 Hz; output -75 dB at 1 kHz; impedance 200 ohms... \$70

30-2382 Stereo Microphone

Stereo electret microphone with matched unidirectional elements, 9.9-ft cable with two ¼" phone plugs. Frequency range 50-16,000 Hz; output level -68 dB at 1 kHz; impedance 600 ohms... \$43

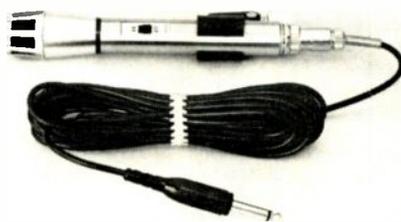
30-2373 Cardioid Microphone

Cardioid unidirectional dynamic microphone with 2-

pin screw connector, 16.5-ft cord with ¼" phone plug. Frequency range 50-17,000 Hz; output level -58 dB at 1 kHz; impedance 30k ohms... \$40

30-2388 Omnidirectional Microphone

Dynamic omnidirectional microphone with dual impedances, 4-pin screw connector, 15-ft cord with ¼"



phone plug. Frequency range 100-10,000 Hz; output level/impedance -78 dB/250 ohms, -60 dB/10k ohms... \$38

30-2376 Dynamic Microphone

Low-impedance dynamic unidirectional moving-coil microphone with 2-pin screw connector, 15-ft low-noise cord with ¼" phone plug. Frequency range 100-13,000 Hz; output level -85 dB at 1 kHz; impedance 500 ohms... \$38

30-2378 Unidirectional Microphone

Electret condenser microphone with fixed 20-ft heavy-duty cable with ¼" phone plug. Frequency range 30-16,000 Hz; output level -68 dB at 1 kHz; impedance 600 ohms... \$31

30-2374 Dual-Impedance Microphone

High/low-impedance dynamic moving-coil microphone with 4-pin screw connector, 20-ft 2-conductor shielded cable with ¼" phone plug. Frequency range 80-15,000 Hz; output level/impedance -72 dB/500 ohms, -52 dB/50k ohms... \$28

30-2398 Omnidirectional Microphone

Electret microphone with fixed 20-ft heavy-duty cord with ¼" phone plug. Frequency range 50-16,000 Hz; output level -65 dB at 1 kHz; impedance 600 ohms... \$24

30-2308 Stereo Microphones

Matched-pair omnidirectional moving-coil dynamic microphones with fixed 4.3-ft cords with ¼" phone plugs. Frequency range 100-10,000 Hz; output level -74 dB at 1 kHz; impedance 500 ohms... \$22/pr

30-2383 Lavalier Microphone

Omnidirectional lavalier microphone with fixed 16.5-ft cable with 3.5-mm phone plug. Frequency range 70-12,000 Hz; output level -57 dB; impedance 30k ohms... \$17

30-2302 High-Impedance Microphone

Omnidirectional moving-coil tape recorder microphone with fixed 4.5-ft cord with 2.5- and 3.5 mm plugs. Frequency range 50-13,000 Hz; output level -60 dB at 1 kHz; impedance 30k ohms... \$11

30-2300 Low-Impedance Microphone

Dynamic moving-coil omnidirectional tape recorder microphone with fixed 4-ft cord with 2.5- and 3.5 mm plugs. Frequency range 100-10,000 Hz; output level -70 dB; impedance 200 ohms... \$7

CERWIN-VEGA!

Professional Series

UE-1 Cardioid Microphone

Uni-electret cardioid microphone designed for stage instruments. Features pop filter; on/off and tone impedance switches. Frequency range 80-20,000 Hz; impedance switchable 600/10k ohms; sensitivity -70 dB 3 dB into 600 ohms (0 dB = 1 V/ μ bar); 16-ft cable with ¼" 3-conductor phone plug and Cannon XLR-3-11C equivalent connector; 7.914" L \times

1.930" diameter... \$125

UD-1 Cardioid Microphone

Unidirectional cardioid dynamic microphone designed for live vocal applications or studio use. Features built-in pop filter and on/off switch. Frequency range 70-15,000 Hz; sensitivity -73 dB 3 dB (0 dB = 1 V/ μ bar); impedance 600 ohms; 16-ft cable with ¼" 3-conductor phone plug and Cannon XLR-3-11C equivalent connector; 7.323" L \times 1.575" diameter... \$100

CROWN

Pressure Zone® Microphones®

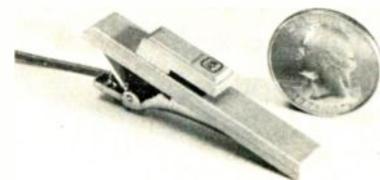
Hemispherically-patterned electret microphones engineered to respond to coherent wavefront at surface of acoustic boundary to eliminate comb filtering. Designed for television, theater, concert, and PA applications. Features reduced pressure-calibrated electret modules mounted within a few millimeters of rigid surface and facing a boundary; need for fewer channels; simplified design for easier set up; handles 150-dB SPL. Equipped with battery and phantom power supply arranged in cylindrical metal tube with XLR connectors; available in gold or black.

General Purpose (PZM®-30GP). XLR connector, electret capsule, and mike cantilever mounted on ¼" aluminum plate 5" \times 6"; wall or floor positioning or suspension above choir or orchestra... \$350

Low Profile (PZM®-6LP). Cantilever holding electret capsule, mounted on 2" \times 3" aluminum plate; XLR connector at end of several feet of cable; suitable for conference rooms or TV programming... \$350

Flush Mount (PZM®-20RMG). All connections at section of mike extending below level of capsule, ensuring invisibility of mike; suitable for mounting into podium, lectern, or pulpit; cantilever capsule protected from objects or papers by 3 small metal pegs \$350

Lavalier (PZM®-2LG). Designed to be worn on tie, scarf, or coat... \$350



Tie Bar (PZM®-3LV). Smallest PZM® microphone... \$350

PZM®-31S Pressure Zone Microphone

Designed to complement the PZM 30GP to provide a frequency response with a deeper low end. Active element is an electret capsule mounted on a 6" \times 5" plate so that it faces boundary defined by plate and surface on which plate rests. Sound pickup pattern is hemispheric. Mike is usable with either PX-18 transformer or PA-18 active power supply. Frequency range 20-20,000 Hz; sensitivity -76 dB open circuit (0 dB = 1V/ μ bar); normal loading impedance 1k ohms; THD 3% at 150 dB SPL; S/N <25 dB SPL; electrical impedance 150 ohms with PA-18 and PX-18; cable length 5.5 ft... \$350

PZM®-6S. Similar to PZM®-31S, smaller size... \$350

ELECTRO-VOICE

PL20 Dynamic Supercardioid Microphone

Supercardioid condenser microphone designed for critical recording, musical sound-reinforcement applications. Features integral blast filter; <160-dB miking; nonreflecting gray finish. Frequency range 50-20,000 Hz... \$516

PL80 Dynamic Supercardioid Microphone

Supercardioid microphone designed for real-life use. Features professional low impedance, integral blast filter, snow gray finish, contrasting charcoal Memraflex grille. Frequency range 50-20,000 Hz... \$216

PL77B Condenser Cardioid Microphone

Designed for phantom or battery powering. Has recessed on/off switch that controls battery power only.

Features 2-position bass-contour switch; blast filter; nonreflecting snow gray finish, Memraflex grille. Frequency range 50-20,000 Hz \$198

PL11 Dynamic Supercardioid Microphone

Instrument microphone that can double for vocal applications. Features variable-D directionality that virtually eliminates boost at bass frequencies when used up close; blast filter; low impedance; steel case finished in nonreflecting gray. Frequency range 50-15,000 Hz; output level -56 dB \$187

PL76B Condenser Cardioid Microphone

Condenser microphone designed for vocal applications. Features nonreflecting snow-gray-finished diecast case. Frequency range 50-20,000 Hz; distortion <1% at 136 dB SPL; power source 1.5-V AA cell \$168

PL95A Dynamic Cardioid Microphone

Special-element and 2-piece diaphragm dynamic cardioid microphone designed for wide-range linear frequency response. Features rugged steel case; pop filter; Memraflex steel grille; nonreflecting snow-gray finish. Frequency range 70-20,000 Hz; output level -60 dB \$162

PL9 Dynamic Omnidirectional Microphone

Omnidirectional instrument microphone with professional low-impedance, high-output characteristics. Features turned-steel case; Memraflex steel grille; nonreflecting gray finish. Frequency range 50-20,000 Hz; output level -58 dB \$156

PL19A Dynamic Cardioid Microphone

Vocal microphone with strong bass boost when held close. Features directional, antifeedback performance; locking on/off switch; diecast case; snow-gray finish, charcoal Memraflex grille. Frequency range 50-15,000 Hz; low-impedance output; output level -60 dB \$126

PL6 Dynamic Supercardioid Microphone

Continuously Variable-D directional microphone without up-close bass boost. Features extra-tight supercardioid directional pattern that minimizes feedback; rugged diecast case; Memraflex grille; nonreflecting gray finish. Frequency range 50-17,000 Hz; low-impedance output; output level -56 dB \$119

PL5 Dynamic Omnidirectional Microphone

Professional instrument microphone designed for high sound-pressure levels (SPLs). Features pop filter; low-impedance input/high output level; rugged steel case; Memraflex steel grille; nonreflecting gray finish. Frequency range 40-15,000 Hz; output level -55 dB; SPL-handling range up to 160 dB \$97

PL88L Dynamic Cardioid Microphone

Vocal microphone with on/off switch. Offered in 2 versions: PL88L low impedance and PL88H high impedance. Feature snow-gray finish, contrasting charcoal grille. Frequency range 50-14,000 Hz \$80

JVC

M-510 Electret Condenser Microphone

Super-directional/unidirectional pattern. Frequency range 40-20,000 Hz; sensitivity -68 dB super, -71 dB uni; S/N ratio >50 dB; 13-dB gain loss in passive mode \$190

M-201 Electret Condenser Microphone

Frequency range 40-18,000 Hz; sensitivity -71 dB;

S/N ratio >47 dB at 1 kHz; output impedance 600 ohms \$60

MARLBORO SOUND WORKS

M900 Cardioid Microphone

Unidirectional dynamic cardioid microphone with spherical wind screen. Frequency range 50-17,000 Hz; output at 1 kHz 74.6 dB low, 58.7 dB high impedance; 200-ohm low impedance, 20k-ohm high impedance; 16-ft detachable cable with XLR-connector \$89

M500 Cardioid Microphone

Unidirectional dynamic microphone for acoustic instruments. Frequency ranges 50-16,000 Hz; output level at 1 kHz 76 dB low impedance, 56 dB high impedance; 200-ohm low impedance, 20k-ohm high impedance; 16-ft detachable cable with XLR-connector \$87

M400 Cardioid Microphone

Cardioid condenser microphone; electret element; FET preamp; 1.5-V cell. Frequency response 40-18,000 Hz ± 3 dB; sensitivity 51 dB ± 3 dB high impedance; 20-ft detachable cable with heavy duty Cannon-type connector \$49

M300 Cardioid Microphone

Cardioid dynamic microphone. Frequency response 60-15,000 Hz ± 3 dB; sensitivity 58 dB ± 3 dB high impedance; 20-ft detachable cable with heavy-duty Cannon-type connector \$42

M200 Cardioid Microphone

Cardioid dynamic microphone. Frequency response 60-13,000 Hz ± 3 dB; sensitivity 61 dB ± 3 dB high, 80 dB ± 3 dB low impedance; 10-ft heavy duty detachable cable \$31

M50 Dynamic Microphone

Dynamic microphone. Frequency response 60-12,000 Hz ± 3 dB; sensitivity 61 dB ± 3 dB high impedance; 10-ft heavy-duty cable \$21

M30 Dynamic Microphone

Dynamic microphone. Frequency response 70-12,000 Hz ± 3 dB; sensitivity 56 dB high impedance; 10-ft heavy-duty-cable \$14

MURA

DX-118 Cassette Microphone

Type B microphone designed to fit most cassette recorders and supplied with dual plugs for audio, remote control. Impedance 500 ohms; sensitivity -70 dB at 1 kHz; frequency range 60-12,000 Hz; remote switch; 5-ft cable \$6

DX-211 Microphone

Type E single-plug microphone designed for tape recorders requiring high-quality mic with single miniature plug. Supplied with adapter to convert from miniature to standard 1/4" phone plug; on/off switch; 5-ft cable. Impedance 500 ohms; sensitivity -70 dB at 1 kHz; frequency range 60-12,000 Hz \$6

DX-242 Stereo Microphones

Type F matched-pair stereo microphones for stereo recorders. Supplied with adapters to convert from miniature to standard 1/4" phone plug; 5-ft cable. Impedance 500 ohms; sensitivity -70 dB at 1 kHz; frequency range 60-12,000 Hz \$20

EX-279 Lapel Microphone

Omnidirectional electret condenser microphone with clothing clip, 10-ft cable, mini plug, battery. Frequency range 30-16,000 Hz; impedance 600 ohms \$26

NAKAMICHI

CM-300T Electret Tri Microphone

Tri-microphone system with 3 CM-300 microphone recording system; supplied with carrying case with space for headphones, cables, accessories ... \$465
CM-300S. Similar to CM-300T except single-mic version \$170

DM-1000 Dynamic Cardioid Microphone

Cardioid moving-coil microphone with low-mass diaphragm, voice coil for extended high-end response; designed for vocals. Features triple metal screen pop, blast, wind filter; double casing, foam suspension for reduced sensitivity to vibration; immunity to hum and magnetic fields. Frequency response 30-20,000 Hz ± 3.5 dB; sensitivity -76 dB at 1 kHz (0 dB = 1V/ μ bar); impedance 250 ohms; supplied with Cannon-type XLR-3 connector; anodized black matte finish; 10.4 oz. \$300

CM-300 Electret Condenser Microphone

Studio-type system with interchangeable capsules. Basic set comes with CP-1 cardioid and CP-2 omnidirectional capsules, windscreen, 15-ft cable, XLR connector, battery, stand adapter. Features 10-dB attenuator pad; low-cut proximity effect compensator. Frequency response ± 3.5 dB 30-18,000 Hz (CP-3); 30-20,000 Hz (CP-4) ± 3.5 dB; impedance 200 ohms balanced; sensitivity ± 2.5 dB -76 dB (CP-1, CP-2, CP-4), -74 dB (CP-3); 138-dB SPL maximum (CP-1, CP-2), 136 dB SPL maximum (CP-3); 118-dB SPL maximum (CP-4) at 3% distortion; dynamic range 114 dB (CP-1, CP-2), 107 dB (CP-3), 94 dB (CP-4) \$170
 CP-2. Omni. capsule for CM-100 (included with CM-300) \$20
 CP-3. Optional small-diameter, super omnidirectional capsule \$40
 CP-4. Super-directional (shotgun) capsule \$60
CM-100. Similar to CM-300 but powered by 1.5-V cell; maximum SPL 118 dB at 3% distortion; dynamic range 94 dB; supplied with CP-1 cardioid capsule; accepts CP-2, CP-3, CP-4 \$110

DM-500 Super Cardioid Microphone

Dynamic moving-coil microphone with windscreen, supercardioid polar pattern. Frequency response 50-15,000 Hz ± 5 dB; impedance 250 ohms; sensitivity -73 dB ± 2.5 dB \$100

NEUMANN

Fet-80 Condenser Microphones

Line of studio microphones that come in many configurations (omnidirectional, figure-8, cardioid, multiple pattern, multiple pattern stereo); can be battery or phantom (separate power supplies) powered except U-87 (which contains a switchable battery compartment).

KM-83. Omnidirectional \$375
 KM-84. Cardioid \$375
 KM-85. Cardioid, low-frequency rolloff \$375
 KMS-84. Pop-proof cardioid \$799
 U-47FET. Cardioid \$969
 KMR-82. Shotgun \$799
 KM-88. Sw tchable 3-pattern \$1098
 KM-86. Switchable 3-pattern \$998
 U-87. 3-pattern \$998
 U-89. 5-pattern 1098
 N80G2. 117-V ac portable power supply for powering 1 or 2 fet-80 microphones \$74

PHILIPS

7401 Series Cardioid Microphones

Cardioid dynamic microphones for professional vocal recording and live applications. Feature ball-head wire-mesh windscreen; on/off switch; detachable 15-ft cable; stand adapter; black matte finish. Sensitivity -73 dBm, impedance 600 ohms; 9.5 oz.

7401 P. With XLR-XLR connector cable \$135
 7401 E. With XLR-phone plug cable \$135

NOTICE TO READERS

Prices of items described are suggested prices only and are subject to change without notice. Actual selling prices are determined by the dealer.

11 MICROPHONES

7401 T. With XLR-high-impedance phone plug cable \$160

7300 Series Cardioid Microphones

Cardioid dynamic microphones for vocal and instrumental recording and sound reinforcement. Ball-head wire-mesh windscreen; on/off switch; detachable 15-ft cable; stand adapter; silver/gray finish. Sensitivity -57 dBm; impedance 6 ohms; 8.5 oz.

7300 P. With XLR-XLR connector cable \$95

7300 E. With XLR-phone plug cable \$95

7300 T. With XLR-high-impedance phone plug cable \$120

7301 P. Same as 7300 P except matte black finish \$110

7301 E. Same as 7300 E except matte black finish \$110

7301 T. Same as 7300 T except matte black finish \$135

7302 P. Same as 7300 P except white finish, matte black windscreen \$110

7302 E. Same as 7300 E except white finish, matte black windscreen \$110

7302 T. Same as 7300 T except white finish, matte black windscreen \$135

7200 Stereo Cardioid Microphone

Cardioid dynamic microphone with 2 moving-coil elements for 1-point stereo micing. Features fixed 9-ft cable with dual color-coded phone plugs; stand adapter. Sensitivity -63 dBm; impedance 8 ohms; 6 oz \$70

7100 Cardioid Microphone

Cardioid dynamic microphone for vocal and general-purpose recording and PA use. Features wire-mesh windscreen; on/off switch; fixed 18-ft cable with phone plug; stand adapter. Sensitivity -59 dBm; impedance 600 ohms; 6.5 oz \$66

8200 Lavalier Microphone

Omnidirectional condenser lavalier microphone designed for broadcasting, PA, sound reinforcement, instrument clip-on use. Features foam windscreen; PX-675 battery; tie bar and belt clip; fixed 9-ft cable terminated in XLR power module. Sensitivity -54 dBm; impedance 200 ohms balanced; 3 oz \$66

PIONEER

DM-61 Dynamic Microphone

Unidirectional dynamic microphone. Frequency range 80-12,000 Hz; sensitivity 75 dB/ μ bar at 1 kHz; impedance 600 ohms \$130

DM-51 Dynamic Microphone

Unidirectional dynamic microphone. Frequency range 80-12,000 Hz; sensitivity 75 dB/ μ bar at 1 kHz; impedance 600 ohms \$100

DM-21 Dynamic Microphone

Unidirectional dynamic microphone. Frequency range 100-15,000 Hz; sensitivity 75 dB/ μ bar; impedance 500 ohms \$30

REALISTIC

33-1080 Cardioid Microphone

Cardioid-pattern microphone with professional back electret design, switchable low-frequency contour, foam windscreen, stand adapter. Frequency range 20-20,000 Hz; impedance 600 ohms with low-impedance balanced option; 16.5-ft heavy-duty cable with XLR connector; requires AA cell \$50

33-984 Highball Cardioid Microphone

Unidirectional dynamic microphone with on/off switch, ball-type screen pop/blast filter, rubber antishock ring. Frequency range 80-13,000 Hz; switchable impedance 600 ohms low, 10k ohms high (low-impedance balanced option); XLR-type connector; 16.5-ft cable with plug \$50

33-1070 Super Omni Dynamic Microphone

Omnidirectional dynamic microphone with all-metal body, rubber shock ring, windscreen/blast filter. Frequency response 40-17,000 Hz \pm 3 dB; impedance 500 ohms, unbalanced with balanced option; XLR-type connector; 16.4-ft cable with plug \$40

33-919 Dual-Pattern Microphone

Stereo electret condenser microphone with 2 internal capsules. Features switchable wide/normal pickup pattern. Frequency range 30-15,000 Hz. Requires AA cell \$40

33-1071 Cardioid Microphone

Cardioid microphone with pop filter. Features wire-mesh grille; heavy-duty diecast body; on/off switch; balanced low-impedance capacity; 12-ft cable with $\frac{1}{4}$ " phone plug; stand adapter. Frequency range 50-15,000 Hz \$30

33-992B Supercardioid Microphone

Tight directional pattern microphone designed for PA/recording use. Features windscreen; all-metal body; on/off switch; 6-ft cable with $\frac{1}{4}$ " plug; stand adapter. Frequency range 80-14,000 Hz \$25

33-985C Omnidirectional Microphone

High-ball omnidirectional microphone with wire-mesh windscreen. Features pop filter; chromed body; on/off switch; 6-ft cable with $\frac{1}{4}$ " plug; stand adapter. Frequency range 50-13,000 Hz \$20

33-1065 Microphone

Dual-head electret condenser microphone adjusts up to 90° for optimum stereo separation. Features built-in table-top stand; 6 $\frac{1}{2}$ -ft cord with 2 mini plugs; 2 foam windscreens. Frequency range 50-15,000 Hz; Requires AA cell \$20

33-1050 Electret Microphone

Lightweight electret microphone with windscreen, adjustable stand, on/off switch, 9-ft cable with $\frac{1}{4}$ " plug. Supplied with battery. Frequency range 20-13,000 Hz \$18

RECOTON

MM-670 Unidirectional Dynamic Microphone

Unidirectional dynamic microphone with on/off, high/low impedance switches, black satin finish, wind filter. Frequency range 30-18,000 Hz; 20-ft cable with standard phone plug \$70

MM-3000 Unidirectional Dynamic Microphone

Unidirectional dynamic microphone with on/off switch, wind filter, aluminum finish. Frequency range 30-18,000 Hz; 20-ft cable with standard phone plug \$65

MM-660 Cardioid Microphone

Unidirectional electret condenser stereo microphone designed for outdoor use; 1.5-V battery-powered; sensitivity -68 dB at 1 kHz; frequency range 50-16,000 Hz; impedance 600 ohms. Includes windscreen and 3-m cord; aluminum casing; 295 g \$60

MM-620 Cardioid Microphone

Unidirectional cardioid electret microphone designed for performing, broadcasting, PA, home recording. Sensitivity -68 dB; frequency range 30-16,000 Hz; impedance matches 200-600 ohms; operates on 1.5-V AA battery. Supplied with 18-ft shielded cable with standard phone plug, swivel mic adapter, vinyl case; satin gold finish \$50

MM-770 Miniature Stereo Microphone

Ultraminiature stereo electret condenser microphone with 2 pickup elements. Features matrix circuit to provide superior stereo separation; color-coded on/off switch; 2 color-coded 3.5-mm plugs; 2 standard phone-plug adapters; foam windscreen; vinyl storage case. Frequency range 48-18,000 Hz; impedance 600 ohms; sensitivity -80 dB at 1 kHz; dc power source 1.35-V mercury cell; 76 mmL \times 22mmW \times 22 mmD (including stand); < 3 oz; 1-m cord \$50

MM-610 Unidirectional Microphone

Sensitive slimline unidirectional cardioid electret microphone with brushed satin gold aluminum finish, shielded cable, windscreen, swivel mic adapter, vinyl carrying case. Frequency range 40-15,000 Hz; sensitivity -66 dB; impedance matches 200-600 ohms; dc power 1.2-V AA cell; 18-ft cable with standard phone plug \$41

MM-330 Cardioid Microphone

Unidirectional dynamic cardioid microphone designed for performers. Features hi/lo and on/off switches; bull-head design; triple-mesh construction; 18-ft shielded cable with standard phone plug; swivel mic adapter; vinyl case; silver finish \$38

MM-680 Omnidirectional Microphone

Electret condenser omnidirectional microphone with on/off switch, wind filter, black aluminum finish. Frequency range 50-16,000 Hz; low impedance; 20-ft cable with standard phone plug \$35

MM-600 Unidirectional Microphone

Unidirectional cardioid electret microphone with on/off switch, swivel stand adapter, satin gold aluminum finish. Frequency range 50-13,000 Hz; impedance 200-600 ohms; power source 1.5-V AA cell; 9-ft cable with standard phone plug \$32

MM-760 Ultraminiature Electret Mike

Omnidirectional tie clip electret microphone. Output level 65 dB, frequency range 30-16,000 Hz; powered by 1.5-V AA battery (in plug assembly); 15-ft shielded cable; standard phone plug; vinyl case; brush gold finish; $\frac{3}{8}$ " diameter \times $\frac{3}{8}$ " L \$32

MM400 Stereo Microphone Set

Matched pair of microphones with universal plugs and adapters. Feature on/off switches, 500-ohm impedance, 3-ft cords \$29

MM-750 Miniature Microphone

Ultra-small lavalier microphone. Frequency range 50-12,000 Hz; impedance 600 ohms; sensitivity -72 dB; power source 1.5-V cell; $\frac{1}{4}$ " L \times $\frac{3}{8}$ " Diameter; 20-ft cable with 3.5-mm mini plug \$26

DM150 Dynamic Microphone

Replacement microphone designed for voice, music. Features on/off switch, desk stand, 3.5-mm phone plug, 2.5-mm remote-control plug. Impedance 500 ohms; 3-ft cord \$17

MM100 High-Impedance Microphone

Replacement for crystal or other high-impedance microphone. Features on/off switch; desk stand; phone plug; 5-ft cord \$16

DM100 Dynamic Microphone

Features desk stand, 5-ft cord, 3.5-mm phone plug, 2.5-mm remote-control plug. Impedance 500 ohms \$9

DM120. Same as DM100 except impedance 50k ohms \$15

DM130. Same as DM100 except impedance 200 ohms \$9

DM133 Budget Cassette Microphone

Inexpensive microphone with desk stand, 3-ft cord, 3.5-mm phone plug, 2.5-mm remote-control plug. Impedance 200 ohms \$7

SANUI

EM-5 Electret Condenser Microphone

Unidirectional single-point electret condenser microphone. Frequency range 70-15,000 Hz; impedance 1k ohms balanced; frontal sensitivity -72 dB; power source 1.5-V R-1 cell \$37

DM-3 Dynamic Microphone

Unidirectional dynamic microphone. Impedance 500 ohms unbalanced; frequency range 100-10,000 Hz; frontal sensitivity -77 dB; 3-m cord with 6.3-mm phone plug \$20

SCHOEPS

Colette Series Microphones

Studio condenser microphones with interchangeable capsules, amplifiers. Can be 12-volt phantom or parallel powered, or 48-volt phantom powered. Transformerless construction for low output impedance; insulated transducer, 60-V polarization.

CMC 38. Figure-8 microphone. Frequency range 40-16,000 Hz; sensitivity 1.0 V/ μ bar; S/N ratio 75 dB; 132 dB SPL at 0.5% distortion; 80 g; 5.57" L \times 0.79" diameter \$780
CMC 341. Hypercardioid microphone. Frequency range 40-20,000 Hz; sensitivity 1.3 mV/ μ bar; S/N ratio 75 dB; 132 dB SPL at 0.5% distortion; 80 g; 5.57" L \times 0.79" diameter \$780
CMC 341. Hypercardioid microphone. Frequency range 40-20,000 Hz; sensitivity 1.3 mV/ μ bar; S/N ratio 77 dB; 131 dB SPL; 80 g; 5" L \times 0.79" diameter \$730
CMC 34. Cardioid microphone. Frequency range 40-20,000 Hz; sensitivity 1.2 mV/ μ bar; S/N ratio 76 dB; 131 dB SPL; 80 g; 5" L \times 0.79" diameter. \$640
CMC 33. Special omnidirectional microphone designed for distant field placement. Frequency range 20-20,000 Hz; sensitivity 1.0 mV/ μ bar; S/N ratio 76 dB; 132 dB SPL; 80 g; 5" L \times 0.79" diameter \$640

SENNHEISER

MD 441 U Supercardioid Microphone

Supercardioid dynamic microphone. Frequency range 30-20,000 Hz; sensitivity 0.2 mV/ μ bar \pm 3 dB; brilliance switch for 5-dB boost at 5 kHz; 5-position bass attenuator; front-to-back ratio 20 dB $-$ 3 dB. Supplied with cable, quick-release mount for floor stand or MZT-441 table stand; takes MZW-441 windscreens; 9.6" L \times 1.4" W \times 1.3" H.
 With low-impedance cable \$455
 With high-impedance cable \$487

MD 211 U Omnidirectional Microphone

Omnidirectional dynamic microphone. Frequency range 40-20,000 Hz; sensitivity $-$ 58 dBm (0.13 mV/ μ bar) \pm 2.5 dB. Supplied with Cannon XLR connector, cable; 1" diameter \times 4 3/4" L.
 With low-impedance cable \$356
 With high-impedance cable \$388

MD 431 U Supercardioid Microphone

Supercardioid dynamic vocal microphone. Frequency range 40-16,000 Hz; sensitivity 1.4 mV at 94-dB SPL; output $-$ 55.5 dB at 1 mW/10 dynes/cm²; source impedance 200 ohms at 1 kHz. Features bass/proximity cutoff, pop filters; on/off switch with lock; metal housing with replaceable stainless-steel grille screen; double-housed and shock-mounted; can be used in mobile situations; includes quick-release clip with lock, XLR connector, 16-ft cable, phone plug \$352

MD 421 U Cardioid Microphone

Cardioid dynamic microphone. Impedance 200 ohms; frequency response 30-17,000 Hz \pm 5 dB; sensitivity 0.2 mV/ μ bar \pm 3 dB at 1 kHz; EIA rating $-$ 145.8 dB; output level $-$ 53 dBm (1 mW/10 dynes/cm²); front-to-back ratio 18 dB, variable bass attenuator; XLR connector, cable; 7" \times 1 1/4" \times 1 1/8".
 With low-impedance cable \$327
 With high-impedance cable \$358

MD 416 U Cardioid Microphone

Cardioid dynamic microphone designed for close miking. Frequency range 50-15,000 Hz; sensitivity 0.13 mV/ μ bar \pm 3 dB; impedance 200 ohms. Features isolation system to eliminate handling noise; pop filter; Cannon XLR connector; threaded stand mount with quick-release clip; cable.
 With low-impedance cable \$300
 With high-impedance cable \$332

Electret Condenser Microphone System

One common powering module in balanced version (K3U) or unbalanced version (K1) serves 3 different compact heads. ME20 omnidirectional head frequency range 50-15,000 Hz; sensitivity 49 dBm; S/N ratio 64 dBm minimum. ME40 supercardioid head frequency range 50-15,000 Hz; sensitivity 49 dBm; S/N ratio 64 dBm minimum. ME80 shotgun head frequency range 50-15,000 Hz; sensitivity 45 dBm;

S/N ratio 70 dB minimum.

K3U. Powering module \$147
 K1. Powering module \$122
 ME20. Omnidirectional head \$87
 ME40. Supercardioid head \$123
 ME80. Shotgun head \$172
 ME88. Spot microphone head \$255

MD 402 Supercardioid Microphone

Supercardioid dynamic microphone. Frequency range 50-15,000 Hz; output level $-$ 57 dBm at 94 dB SPL; windscreens, 15-ft cable; quick-release clamp ... \$80

MD 200 Microphone

Frequency range 60-13,500 Hz; pressure transducer; omnidirectional pickup pattern; output level 2.5 mV/pA \pm 3 dB at 1 kHz; impedance 600 ohms; phone-plug connector; 1.9" diameter; 4 oz \$31
MD 400. Same as MD 200 except supercardioid with 22-dB rejection at 1 kHz, 120"; pressure-gradient transducer \$39

SHURE

300 Bidirectional Ribbon Microphone

Power level $-$ 60 dB (0 dB = 1 mW/10 μ bar); frequency range 40-15,000 Hz; user-selectable high or low impedance; bidirectional pickup pattern; swivel mount to stand; recommended for speech, music applications; 20-ft cable and connector; color gray \$215.40

Unisphere® I Series Microphones

Dynamic cardioid microphone for high-quality recording, reproduction. Has built-in pop filter; dual impedance. Frequency range 50-15,000 Hz; power level $-$ 57 dB low impedance; 15-ft cable.

565D \$123
 565SD. Same as 565D plus on/off switch in handle \$126
 565SD-CN. Same as 565D plus on/off switch, 20-ft cable with 3-pin professional connector \$132

516Q E-Qualidyne® Microphone

Unidirectional cardioid dynamic equalizer microphone for tape recording. Features equalization, response-shaping control; 4 switches on handle provide 16 different combinations of special effects to eliminate undesirable effects or enhance various instruments. Frequency range 50-15,000 Hz; impedance 150 ohms. Comes with foam windscreens; swivel adapter; cable; mini-plug adapter cable; carrying case . \$124
 516EQ-RP. Pair of 516 EQ microphones \$221

Unidyne® III Series Microphones

Dynamic cardioid microphone for high-quality music, voice recording, reproduction. Dual impedance. Frequency range 50-15,000 Hz; power level $-$ 58.5 dB in low impedance. Supplied with 15-ft cable.

545D \$110
 545SD. Same as 545D plus on/off switch in handle \$113
 545SH. Same as 545D but with on/off switch in permanently attached stand mount \$113
 545SD-CN. Same as 545D plus on/off switch, 20-ft cable with 3-pin professional connectors \$119
 545L. Same as 545D but low impedance. Supplied with lavalier cord, clip, permanently attached 20-ft cable \$132

578 Omnidyne® Omnidirectional Microphone

Omnidirectional hand-held microphone for music, speech. Power level $-$ 60 dB; frequency range 50-15,000 Hz; dual impedance; 15-ft cable; accessory swivel bracket; chrome finish \$105

579SB "Vocal Sphere" Omnidirectional Microphone

Omnidirectional microphone with snap-in stand attachment, on/off switch, pop/blast filter. Designed for speech, rock vocal, music use. Power level $-$ 57 dB; frequency range 50-15,000 Hz; low impedance; 20-ft cable and connector; chrome finish \$92

Unisphere® A Cardioid Microphones

Hand-held cardioid microphones with slip-in stand attachment, pop/blast filter, on/off switch. Designed for speech, rock vocal, music use. Power level $-$ 59 dB; frequency range 50-13,000 Hz; 15-ft cable with

connector; chrome finish.

585SA. High impedance \$90
 585SB. Low impedance \$90
 585SAV. Similar to 585SA but has volume control on microphone barrel \$100
 585SAC. High impedance with 1/4" plug \$93
 585SBV. Similar to 585SB except has volume control in handle \$100
 585SAVC. Similar to 585SAVC plus 1/4" plug . \$104

Unisphere® B Cardioid Microphones

High-impedance cardioid microphone. Power level $-$ 60.5 dB; frequency range 80-13,000 Hz. Hand-held with slip-in stand attachment; use for speech, rock vocal, music; has pop/blast filter, on/off switch; comes with 15-ft cable, connector; chrome finish.

588SA. High impedance \$75
 588SB. Low impedance \$75
 588SAC. 588SA with 1/4" plug \$78
 588SBC. 588SB with 3-pin plug \$81

515 SAC Unidyne® B Microphone

Dynamic cardioid microphone for good-quality sound systems, tape recordings. Has locking on/off switch. Power level $-$ 61 dB; frequency range 80-13,000 Hz; high impedance. Comes with 15-ft cable with 1/4" phone plug, built-in shock mount \$55

575S Omnidirectional Microphone

Dynamic microphone designed for wall/panel mount, on desk or floor stand, or lavalier or handheld use. Features slide-to-talk on/off switch; high impedance. Frequency range 40-15,000 Hz; output $-$ 58 dB; black ARMO-DUR® finish with satin anodized cap, stainless-steel grille; 5 oz. Includes stand adapter, lavalier assembly; 7-ft single-conductor shielded cable \$36
 575SB. Similar to 575S but low impedance \$36

Professional Microphones

SM7 Dynamic Cardioid Microphone

Unidirectional microphone with flat, bass rolloff, presence-boost, bass/rolloff/presence-boost response tailoring. Power level $-$ 57 dB (0 dB = 1 mW/10 μ bar); frequency range 40-16,000 Hz; impedance 150 ohms for inputs of 19-300 ohms; dark gray foam windscreens, dark gray enamel finish \$470

SM81-CN Condenser Cardioid Microphone

Unidirectional low-noise, low-distortion microphone with selectable 10-dB attenuator, 3-position low-frequency-response switch. Power level $-$ 40.5 dB; frequency range 20-20,000 Hz; impedance 150 ohms; low r-f susceptibility; range of power sources 12-48 V. Supplied with attenuator lock, windscreens, swivel adapter, cable; metallic vinyl finish \$348
 SM81-LC. Same as SM81-CN except minus cable \$327
 PS1. Power supply for SM81 microphones; powers 2 microphones; 108-132 V ac, 50/60 Hz \$136

SM33 Super Ribbon Cardioid Microphone

Supercardioid ribbon microphone for speech, instrumental, vocal recordings; has bass response selector switch. Power level $-$ 59 dB; frequency range 40-15,000 Hz; dual impedances (38 and 150 ohms); dark gray nonglare finish \$330

SM10A Unidirectional Head-Worn Microphones

Close-talking cardioid microphones for noise reduction. Power level $-$ 66 dB; frequency range 50-15,000 Hz; impedance 150 ohms \$120
 SM12A. Same as SM10A plus 1 ear monitor . \$165
 SM14A. Same as SM10A plus 2 ear monitors \$215

SM59-CN Dynamic Cardioid Microphone

Unidirectional microphone with mechano-pneumatic shock-mount design, pop filter. Power level $-$ 61 dB; frequency range 50-15,000 Hz; impedance 150 ohms; aluminum, zinc, stainless-steel construction; champagne enamel finish \$195
 SM59-LC. Same as SM59CN but less cable ... \$174

Starmaker® Series Microphones

Small, lightweight, rugged dynamic cardioid microphones designed for stand-mount or handheld use. Frequency range 50-15,000 Hz; output $-$ 57.5 dB;

11 MICROPHONES

low impedance.

SM77EB-C. Ebony Suedecoat®, less cable* ...	\$122
SM77BR-LC. Brown Suedecoat	\$122
SM77EB-CN. Same as SM77EB plus 25-ft cable with 3-pin connector	\$143
SM77BR-CN	\$143
SM77TN-C. Tan Suedecoat®, less cable	\$122
SM78BR-LC	\$157
SM77TN-CN. Same as SM77TN plus 25-ft cable with 3-pin connector	\$143
SM78BR-CN	\$178
SM78EB-C. Ebony Suedecoat® plus pop filter, less cable	\$157
SM78EB-CN. Same as SM78EB plus 25-ft cable with 3-pin connector	\$178
SM78TN-C. Tan Suedecoat® plus pop filter, less cable	\$157
SM78TN-CN. Same as SM78TN plus 25-ft cable with 3-pin connector	\$178

SM63-CN Dynamic Omnidirectional Microphone

Miniature lightweight omnidirectional microphone with hum-bucking coil, shock mount, breath/pop filter. Output power -56.5 dB; frequency range 50-20,000 Hz; impedance 150 ohms; Veraflex® grille damage resistant to drops and impact, rust, moisture, corrosion; champagne finish aluminum case .. \$120
SM63-LC. same as SM63-CN except no cable .. \$99

SM11 Miniature Lavalier Microphone

Dynamic omnidirectional microphone with lavalier, tie-bar, tie-tack mounting options. Frequency range 50-15,000 Hz; power level -64 dB; low impedance. Weighs 0.28 oz. Comes with 48" cable, mounting accessories .. \$90
SM17. Similar to SM11 but includes musical instrument mounting accessories, 10-ft cable .. \$95

SM57-CN Unidirectional Microphone

Dynamic microphone with cardioid polar pattern, suitable for instrument pickup. Frequency range 40-15,000 Hz; output -56.5 dB; dual impedance. Comes with 20-ft. cable with 3-pin professional connector .. \$142

SM-58CN Unidirectional Microphone

Dynamic microphone with cardioid polar pattern, suitable for vocal pickup. Frequency range 50-15,000 Hz; output power level -56 dB; dual low impedance; pop filter. Comes with 20-ft cable with 3-pin professional connector .. \$178

Accessories

A15 Series In-Line Adapters

Modifies microphone response. Has 3-pin male output, female input connectors.

A15AS. Switchable microphone attenuator ..	\$33.60
A15PRS. Switchable phase reverser	\$29.40
A15HP. High-pass filter	\$29.40
A15LP. Low-pass filter	\$29.40
A15PA. Presence adapter	\$29.40
A15RS. Response shaper	\$29.40
A15LA. Line input adapter	\$29.40
A15BT. Bridging transformer	\$29.40
A15TG. Tone generator	\$39.00
A27M. Stereo microphone mount	\$26.70
A53M. Shock mount for 578, 579, SM59, SM63, SM81 microphones	\$29.00
A55M. Shock mount for 515, 516, 545, 465, 585, 588, SM77, SM78 microphones	\$29.00

NEED MORE INFORMATION?

Write directly to the manufacturer or distributor. A list of names and addresses starts on page 188.

A95 Series Line-Matching Transformers

Connect low-impedance microphones to high-impedance inputs or vice-versa. Designed for use with most microphones, input jacks.

A95U. Low-Z, 3-pin; high-Z, 1/4" plug, jack ..	\$22.50
A95UF. Low-Z, 3-pin; high-Z, 1/4" plug, jack ..	\$27.00

SONY

M3500 Dynamic Cardioid Microphone

Dynamic unidirectional moving-coil hypercardioid microphone. Frequency range 40-18,000 Hz; impedance 6000 ohms. Comes with windscreen clamp, table stand, case; Cannon XLR connector; each unit supplied with own frequency-response curve; all-metal construction with matte black chromium finish .. \$185

ECM-Z300 "Sound Crew" Electret Microphone

Back electret zoom microphone designed to interface with Sony HVC-2200 video camera. Manually zooms from cardioid to supercardioid to complement images captured by camera lens. Frequency range 100-15,000 Hz; 6.6 oz. Comes with dc power cable, carrying case, windscreen .. \$150

ECM-929T "Sound Crew" Electret Microphone

Bidirectional back electret cardioid-capsule microphone with stereo characteristics. Frequency range 50-15,000 Hz; output level -57.6 dBm. Comes with stand; windscreen; carrying case; left, right Unimatch plugs (threaded mini plugs with 1/4" phone-plug sleeves). Compatible with all consumer tape recorders. 5"L x 1/4" diameter .. \$115

ECM-23F Cardioid Microphone

Unidirectional back electret microphone. Features FET impedance translator; battery power; low-cut switch; pad switch; windscreen; carrying case; cable; microphone holder; XLR-3 microphone connector. Frequency range 20-20,000 Hz; impedance 250 ohms; S/N ratio 44 dB; SPL 126 dB maximum; dynamic range 96 dB; output for both balanced, unbalanced circuits; 20-ft cable; 7 1/2"L x 1 1/4" diameter .. \$115

ECM-939LT Microphone

Stereo-pickup microphone designed to mate with Sony TCS-310, M-1000, M-1000B stereo cassette, microcassette recorders. Comes with mini plug; PC-



61 Unimatch plug adaptor; microphone stand; windscreen; carrying case. Offers easy adaptability to remote-control operation when used with Sony MRU-60 remote-control unit. Frequency range 60-20,000 Hz; dynamic range >96 dB; coverage angle 0°-150°; 4 1/2"L x 2 3/4"W .. \$85

F-520 Dynamic Cardioid Microphone

Unidirectional microphone for vocal and instrument reinforcement. Frequency range 80-12,000 Hz; output impedance 250 ohms; 16-ft cable with fixed phone plug connector; 2" diameter x 6 1/2"L .. \$100
F-420. Similar to F-520 except designed for public address, recording applications; frequency range 100-12,000 Hz .. \$75

ECM-170A Omnidirectional Mike

Omnidirectional electret condenser microphone for semiprofessional use, recording or lecturing outdoors. Frequency range 20-16,000 Hz; 200-ohm output impedance; S/N ratio 64 dB; maximum SPL 126 dB; dynamic range 96 dB; low-cut switch; output for balanced and unbalanced circuits; detachable windscreen; FET impedance translator; easy-to-hold

grip; satin nickel finish; Sony type microphone connector; 16-ft cable; includes microphone cable, microphone holder, carrying case; 1" diameter x 6 1/2"L .. \$75

ECM-150 Omnidirectional Microphone

Miniature omnidirectional electret condenser microphone. Frequency range 40-13,000 Hz; output impedance 250 ohms; S/N ratio 60 dB; maximum SPL 117 dB; dynamic range 83 dB; plug adaptor for mini- phone connections; on/off switch; includes windscreen, case with microphone stand, tie clip, battery; fixed microphone connector; 6-ft 5-in cable; 1 1/2" diameter x 1 1/2"L .. \$65

F-V7ET Dynamic Cardioid Microphone

Dynamic cardioid vocal microphone with active circuitry that produces vibrato, echo effects. Comes with Unimatch plug that allows compatibility with all consumer tape recorders and microphone stand. Features on/off switch, normal/echo switch, speed effect switch. Frequency range 100-12,000 Hz; high impedance; 8 1/2"L x 1 1/2" diameter; 6.7 oz .. \$60

ECM-31M Cardioid Microphone

Unidirectional electret condenser microphone designed for indoor/outdoor interviews, features telescoping design. Frequency range 50-13,000 Hz; impedance 250 ohms; battery-operated; 8-ft cable with mini cable plug; includes urethane windscreen, mic holder; 3/4" diameter x 10 3/4"-19 1/8"L .. \$55

ECM-220T "The Instrument Mic"

Back electret condenser cardioid microphone for miking instruments, with unimatch plug to fit all home recorders. Frequency range 50-14,000 Hz; impedance 200 ohms .. \$50

F-V4T "The Vocal Mic" Microphone

Cardioid-pattern dynamic microphones for vocal applications, with unimatch plug to fit all home tape recorders. Frequency range 90-13,000 Hz; output level -58.8 dBm; impedance 600 ohms .. \$40

ECM-16T "The Tie Tac Mic"

Omnidirectional electret condenser microphone for lavalier applications, with unimatch plug to fit all home tape recorders. Frequency range 50-13,000 Hz; impedance 250 ohms .. \$40

F-99T "The Stereo Mic"

Stereo dynamic microphone for recording purposes, with left and right unimatch plugs to fit all home tape recorders. Frequency range 80-12,000 Hz; impedance 200 ohms .. \$40

ECM-210 S Unidirectional Electret Microphone

Unidirectional electret condenser microphone with transport control switch. Features dual pin plug for use with tape recorders that offer remote control; battery, desk stand; 10,000 hours of continuous operation on AA power source. Frequency range 50-12,000 Hz; S/N ratio 64 dB; maximum SPL 126 dB .. \$38

F-V3T "The Mic" Dynamic Microphone

Cardioid-pattern dynamic microphone with unimatch plug that fits all home tape recorders. Frequency range 100-12,000 Hz; impedance 600 ohms .. \$30

F-V2A Dynamic Microphone

General-purpose microphone with 1/4" phone plug that fits hi-fi tape recorders .. \$20

PBR-330 Parabolic Sound Reflector

Concentrates sound for greater reach when used with Sony ECM-170A, ECM-150 omnidirectional microphones. Features hand-held or stand mount \$70

STUDER/REVOX

M3500 Dynamic Cardioid Microphone

Dynamic unidirectional hypercardioid moving-coil microphone. Frequency range 40-18,000 Hz; impedance 600 ohms. Comes with windscreen, clamp, table stand, case; Cannon XLR connector. Supplied with frequency response curve. All-metal construction with matte-black finish .. \$200

SUPERSCOPE by MARANTZ

EC-9P Cardioid Microphone

Pressure gradient electret condenser cardioid microphone. Frequency range 30-17,000 Hz; output -50 dB; S/N ratio > 59 dB; maximum SPL 126 dB; output impedance 250 ohms balanced; 7.7" L x 1.18" dia; 13.8 oz mic and cable; 10-ft 2-conductor shielded cable with female Cannon connector, pigtailed at other end \$110

EC-15P Tie-Clasp Microphone

Omnidirectional electret condenser tie-clasp microphone. Frequency range 70-16,000 Hz; output -52 dB; S/N ratio > 60 dB; maximum SPL 123 dB; output impedance 250 ohms balanced; 1.5" L x 0.37" dia; 1.2 oz mic only; 15-ft shielded cable with Cannon connector \$100

EC-33S Microphone

Pressure gradient electret condenser 3-in-1 microphone can be separated into 2 unidirectional mics, put together to make single bidirectional stereo mic. Frequency range 50-15,000 Hz; output -46 dB; maximum SPL 118 dB; S/N ratio > 55 dB; output impedance 1k ohm unbalanced; 7.4" L x 1" dia each mic; 6.24 oz mic only; 10-ft shielded cable with 2 mini, 1 submini plugs \$66

EC-7 Cardioid Microphone

Pressure gradient electret condenser microphone. Frequency range 40-16,000 Hz; output -52 dB; maximum SPL 123 dB; S/N ratio > 55 dB; output impedance 250 ohms balanced; 7.44" L x 1.5" dia; 10.4 oz mic and cable; 10-ft shielded cord with phone plug \$64

EC-128 Omnidirectional Microphone

Electret condenser microphone. Frequency range 100-15,000 Hz; output -52 dB; maximum SPL 120 dB; S/N ratio > 50 dB; impedance 250 ohms balanced; 10.12" L x 0.55" dia; 2.3 oz mic only; 10-ft 2-conductor shielded cable with mini plug \$54

EC-5 Cardioid Microphone

Pressure gradient electret condenser microphone. Frequency range 40-15,000 Hz; output -52 dB; S/N ratio > 51 dB; maximum SPL 119 dB; output impedance 2.2k ohms unbalanced; 6.97" L x 0.87" dia; 4.1 oz mic and cable; 10-ft shielded cable with mini/mini phone plug \$42

EC-3 Cardioid Microphone

Pressure gradient electret condenser microphone. Frequency range 50-15,000 Hz; output -52 dB; S/N ratio > 50 dB; maximum SPL 118 dB; impedance 1.5k ohms unbalanced; 7.05" L x 0.89" dia; 8.8 oz mic and cable; 10-ft shielded cable with mini/mini phone plug \$28

EC-1 Omnidirectional Microphone

Pressure-type electret condenser microphone. Frequency range 60-13,000 Hz; output -52 dB; S/N ratio > 50 dB; maximum SPL 116 dB; impedance 2k ohms unbalanced; 4.02" L x 0.69" dia; 3.5 oz mic and cable; 10-ft shielded cable with mini/mini plug \$18

TASCAM by TEAC

PE-250 Moving-Coil Microphone

Professional moving-coil microphone designed for PA/recording applications. Features cardioid moving-coil design with 4-position low-frequency rolloff selector; 250-ohm balanced output with XLR connector; built-in threaded stand mount \$250

PE-150 Electret Condenser Microphone

Professional PA/recording cardioid electret condenser microphone operates on 1.5-V AA cell, accepts 48-V phantom power with no switching or battery removal. Features -10-dB pad; off/flat/low-frequency rolloff switch; 200-ohm balanced output with XLR connector; stand adapter; 20-ft cable; 1.5-V AA cell \$150

PE-120 Electret Condenser Microphone

Professional PA/recording cardioid/omnidirectional condenser microphone with 200-ohm balanced output and XLR connector \$100

TEAC

ME-120 Microphone

Cardioid or omnidirectional electret condenser microphone with 2-position response switch (40-18,000 Hz cardioid, 30-16,000 Hz omni). Supplied with stand adapter, 2 windscreens, 15-ft cable \$120
ME-80. Same as ME-120 except cardioid only, 50-16,000 Hz range \$90
ME-50. Similar to ME-80 except unbalanced/balanced 10k/200-ohm impedance; range 50-14,000 Hz. Supplied with foam windscreen and 1/4" plug \$50

TECHNICS

RP-3500E Electret Microphone

Cardioid electret-condenser microphone with high sig-



nal-handling ability for excellent dynamic range in music. Comes with tripod desk stand. Frequency range 50-12,000 Hz \$60

RP-V730 Dynamic Microphone

Unidirectional dynamic microphone designed for vocal, musical instrument recording. Comes with 3/8" mic holder adaptor. Frequency range 40-12,000 Hz \$40

RP-V340 Cardioid Microphone

Dynamic cardioid microphone designed for voice recording with built-in windscreen. Comes with 3/8" mic holder adaptor. Frequency range 100-10,000 Hz \$28

TOSHIBA

EM-420 Cardioid Microphone

Unidirectional back electret condenser microphone with low-cut switch, windscreen. Designed for music, voice. Frequency range 50-20,000 Hz; S/N ratio 45 dB \$70

EM-220 Electret Condenser Microphone

Back electret condenser microphone. Frequency range 50-18,000 Hz; S/N ratio 45 dB \$40

UHER by WALTER ODEMER

M 646 Cardioid Microphone

Electret condenser cardioid microphone. Frequency range 30-20,000 Hz; sensitivity 3.5 mV/pA; impedance 280 ohms. Supplied with table stand and windscreen; powered by internal primary battery or from recorder's mic cable with 8-pole plug \$203

M 634 Cardioid Microphone

Stereo-pair dynamic shotgun-type cardioid microphones with stereobar; all-metal design. Frequency range 50-16,000 Hz; sensitivity 2.3 mV/pA; low-resistive impedance. Includes collapsible table stand, storage case \$194
M 534. Similar to M 634 except single microphone for desk use \$98

VIDAIRE ELECTRONICS

620 Unidirectional Ultradynamic Microphone

Professional microphone features hi/lo dual impedance; on/off switch; unidirectional pattern to eliminate unwanted noise; 2-position cable plug to change impedance; microphone holder; satin gold finish. Impedance 600/50k ohms; frequency range 30-18,000 Hz. Sensitivity at 600/50k ohms -78/-60 dB; 20-ft cable with 1/4" phone plug \$53

942C Unidirectional Ball Microphone

Dynamic ball microphone with dual impedance; on/off switch; unidirectional pickup pattern to eliminate unwanted noise; microphone holder. Impedance 600/50k ohms; frequency range 80-15,000 Hz; sensitivity at 600/50k ohms -72/-52 dB; 20-ft shielded cable with 1/4" phone plug \$48

619 Unidirectional Microphone

Dynamic contoured microphone with dual impedance; on/off switch; unidirectional pickup pattern to eliminate unwanted noise; microphone holder; satin gold finish. Impedance 600/50k ohms; frequency range 80-15,000 Hz; sensitivity at 600/50k ohms -72/-52 dB; 20-ft cable with 1/4" phone plug \$47

729 Tie-Clasp Electret Microphone

Highly sensitive omnidirectional tie-clasp electret condenser microphone. Comes with vinyl carrying case. Impedance 600 ohms; frequency range 50-16,000 Hz sensitivity -65 dB at 1 kHz; current drain 160 microamperes; 1.3-V mercury cell included; 1" diameter x 1 1/2" L; 13-ft cable with 1/4" phone plug \$40

618 Omnidirectional Dynamic Microphones

Matched-pair microphones designed for all types of home and portable stereo tape recorders come with microphone stands. Impedance 500 ohms; frequency range 80-10,000 Hz; 5-ft cord with 3.5-mm mini-plug; optional adapter converts to standard 1/4" plug \$28/pr



(Continued from page 187.)

Model 2A Audio Mixer

Features 6 inputs (mike or line in any combination), 4 outputs; level controls for each input channel; master output level control; cue out jack on each input channel; accessory send/receive patch points on each output bus for reverb units, graphic equalizer, limiters, compressors, noise-reduction units, other signal processing equipment; 4 aux outputs in parallel with 4 line outputs; selectable high cut filters at 5 kHz or 10 kHz; low-cut filters 100 Hz or 200 Hz; color-coded push-push channel assignment buttons with pan on each channel; 14 1/4" D x 13 1/4" W x 3 1/2" H \$495

System 20 Audio Mixer

MM-20 master module. Features 2 mic inputs, XLR, balanced; 4 line outputs, -10 dBV, unbalanced, 6 output buses; 14 1/2" W x 14" D x 3 1/4" H; 9.24 lb \$395

MU-20 Meter Unit. Permits patching of any -10-dBV (0.3-V) unbalanced signal from mixer or external units; 14 1/2" W x 2 1/4" H x 1 1/4" D; 1.1 lb \$150

EX-20. Expander module with 4 mic inputs (XLR, balanced) and 4 output buses; 14" D x 14" D x 3 1/4" H; 4.4 lb \$325

PE-20. Parametric sweep-type equalizer module with 4 EQ modes; 3 frequency bands (low 60-1500 Hz ±12 dB; mid 1000-8000 Hz ±12 dB; high; 10 kHz fixed ±12 dB; 14" D x 8 1/2" W x 3 1/4" H; 4.6 lb \$350

12

SIGNAL PROCESSORS (includes Mixers)

ACE AUDIO

6000-6 Electronic Crossover

Designed for bi- or tri- (with 2 6000s) amplifying. Features plug-in frequency module; built-in power supply; 15 crossover frequencies, 200-10,000 Hz at 12-dB/octave; 2 tweeter level controls. THD/IM distortion 0.02%; Input Impedance 220k ohms; output impedance 100 ohms; hum and noise -90 dB; 6"W x 4 1/4"D x 2 1/4"H \$175

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

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 1/4"H x 6"W x 4 1/4"D \$116
Kit \$97.00

ADC PROFESSIONAL PRODUCTS

Sound Shaper Thirty Equalizer

Ten-band stereo graphic equalizer with LED in each slide control knob for quick visualization of response curves and built-in spectrum analyzer/display. Features tape dub, monitor, line/record, bypass/equalize, subsonic-filter, mic/line switches; display controls. Center frequencies 31, 62, 125, 250, 500, 1k, 2k, 4k, 8k, 16k Hz; boost/cut range ± 12 dB; frequency response 5-100,000 Hz $+0.5/-1.0$ dB; dynamic range 10 V rms into 10k ohms; gain 0 dB ± 1 dB; harmonic/IM distortion 0.015%/0.018% at 1 V output; hum and noise 95 dB below 1 V output; input/output Impedance 75k/100 ohms; load impedance 10k ohms; inputs and outputs: 2 main, 4 tape monitor; subsonic filter slope 18 dB/octave; power consumption 23 W; 16 1/8"W x 8 3/4"D x 4 1/2"H; 11.8 lb. Accessories included: 2 pair audio cables; electret condenser microphone calibrated to built-in analyzer; 1.5-V (UM-5) cell for microphone... \$400

Sound Shaper Twenty Equalizer

Twelve-band stereo graphic equalizer with LED in each slide control and built-in spectrum analyzer/display. Features LED level displays; tape-monitor, dub, line/record, bypass/equalize, mic/line, subsonic-filter switches; meter controls. Center frequencies 32, 56, 100, 180, 320, 560, 1k, 1.8k, 3.2k, 5.6k, 10k, 18k Hz; boost/cut range ± 12 dB; dynamic range 10 V rms at 10k ohms; frequency response 5-100,000 Hz $+0.5/-1.0$ dB; gain 0 dB ± 1 dB; harmonic and IM distortion 0.015% at 1 V output; hum and noise 98 dB below 1 V output; Input/output impedance 75k/100 ohms at 1 kHz; load impedance 10k ohms; inputs/outputs: 2 main, 4 tape monitor; subsonic filter slope 18 dB/octave; power consumption 23 W; 16 1/8"W x 8 3/4"D x 4 1/2"H; 11.8 lb. Accessories

provided: 2 pair audio cables \$330
Sound Shaper Ten. Similar to Sound Shaper Twenty except 10-band equalization, no tape dub or monitor switches; no output level control. Center frequencies 31, 62, 125, 250, 500, 1k, 2k, 4k, 8k, 16k Hz; harmonic and IM distortion 0.018%; power consumption 17 W; 16 1/8"W x 6 1/2"D x 4 1/2"H; 8 lb \$250

Sound Shaper Five Equalizer

Five-band stereo graphic equalizer with LED in each slide control knob. Center frequencies 60, 240, 1k, 3.5k, 10k Hz; boost/cut range \pm ; dynamic range 5 V rms into 10k ohms; frequency response 5-100,000 Hz $+0.5/-1.0$ dB; gain 0 dB ± 1 dB; harmonic/IM distortion 0.018%/0.035% at 1 V output; hum and noise 95 dB below 1 V output; input/output impedance 75k/100 ohms; load Impedance 100 ohms; inputs/outputs: 2 main, 2 tape monitor; power consumption 17 W; 16 1/8"W x 6 1/2"D x 4 1/2"H; 8 lb. Accessories supplied: 2 audio cables \$130

ADS

ADS 10 Digital Time Delay System

Digital time-delay system with built-in 100-W/ch continuous amplifier into 4 ohms, 20-20,000 Hz, 0.08% THD. Delay section: 3 initial delays, first variable 10-40 msec, longest variable to 100 msec; reverberation decay time 0-1.6 sec (variable 0 to -60 dB); controls include ambience-channel bandwidth, stage depth (first delay), hall size (remaining delays), extra outputs for additional amplifier-speaker systems; "Source Ambience Discriminator" extracts ambience in recordings, reduces reverberation of FM announcer voices; can be driven from line-level (preamp or tape out) or speaker terminals (using optional cables); LED delay indicators; ambience outputs, 30-13,000 Hz, $+1/-3$ dB, $<0.3\%$ THD + noise, 83 dB dynamic range. Power amplifier section: 94 dB S/N ratio, A-weighted, frequency response 30-20,000 Hz ± 0.5 dB. Delay/amplifier dimensions 15 1/4"W x 3 1/2"H (19"W optional rack mount) x 12"D \$995
10-01. Similar to ADS 10 minus built-in power ampli-



fier; optional bolt-on rack handles (extends to 19"), walnut sides available; black satin finish \$775

C2000 Biampifier System Control

Electronic crossover/equalizer designed to provide correct crossover characteristics for ADS L2030, L1530, L1230 Professional Monitor Series speaker systems. Features system level and bass level controls; crossover selector switch; dynamic bass equalizer with signal-controlled boost at 22 or 37 Hz with sharp-cutoff subsonic filter; rear-panel crossover program switched that provide 4 frequencies and 4 Qs

for use with non-ADS speaker systems; satin black finish. THD $<0.01\%$; S/N ratio >90 dB A weighted; Input sensitivity 530 mV; output impedance 600 ohms; high-pass/low-pass gain 0/+3 dB; crossover slope -12 dB/octave; 17"W x 10"D x 2"H. \$549

AIWA

GE-80 Graphic Equalizer

Seven-band stereo graphic equalizer with electronic illuminated cursors, defeat and line/tape switches. Center frequencies 40,125, 330, 1k, 2.5k, 6.3k, 15k Hz; boost/cut range ± 10 dB; maximum output 5 V; harmonic distortion 0.0025% at 1 V, 1 kHz \$195

ALLISON

The Electronic Subwoofer

Stereo bottom-octave equalizer/bandpass filter for use in tape-monitor or external-processor loop of preamp, amplifier, receiver. Has FILTER ONLY switch. Rolloff 24 dB/octave below 20 Hz, 18 dB/octave beyond 20 kHz; turnover frequencies $+3$ dB at 41, 35.5, 48 Hz (extends Allison speakers flat to 20 Hz); S/N ratio 100 dB minimum A weighted; 14 1/4"W x 4 1/4"D x 2"H \$290

AUDIO CONTROL

C-101 Equalizer/LED Spectrum Analyzer

Stereo graphic equalizer features 101-LED spectrum analyzer display that operates on various levels: shows controllable peak-reading modes (fast/slow); horizontal LEDs indicate sound pressure level with external microphone or VU meter readings; switchable calibration levels from 2 dB/LED (analyzes pink noise and microphone) to 4 dB/LED (displays wider dynamic range). Center frequencies set 32, 60, 120, 480, 960, 1920, 3840, 7680, and 15,500 Hz; boost/cut range ± 15 dB; -1 dB subsonic rolloff at 25 Hz, -3 dB rolloff at 20 Hz, -21 dB rolloff at 10 Hz; variable input level sensitivity with calibration; automatic mic/line input switching; pink noise generator; stereo paired equalizer sliders; equalization tape button; 18-dB/octave subsonic filter; phase correlation rumble reducer circuit. Frequency response 3-100,000 Hz ± 0.75 dB; distortion 0.025% at 1 V, 20-20,000 Hz; hum and noise -96 dB at 1 V, 10,000-Hz bandwidth; maximum Input 7 V; input impedance 100k ohms; output impedance 150 ohms; 19"W x 6.5"D x 3.5"H \$599

TEN-PLUS Equalizer

Stereo 10-band equalizer with LED indicators in slide controls. Features video/sound output; 18-dB/octave subsonic filter; tape equalization with flashing LED warning indicator; calibrated microphone with response curve; sound pressure meter with 0-dB LED. Frequency response 3-100,000 Hz ± 1 dB; THD 0.07%; S/N ratio 99 dB \$329

TEN Equalizer

Stereo graphic equalizer with video/sound output, 18-dB/octave subsonic filter. Features LEDs in slide controls; flashing LED to warn when in tape equaliza-

tion mode. Center frequencies 31.5, 63, 125, 250, 500, 1k, 2k, 4k, 8k, 16k Hz; boost/cut range ± 12 dB; frequency response 3-100,000 Hz ± 1 dB; THD 0.07%; S/N ratio 99 dB \$269

C-22 Octave Equalizer

Stereo octave equalizer with center frequencies 32, 60, 120, 480, 960, 1920, 3840, 7680, and 15,500 Hz. Boost/cut range ± 15 dB; -1 dB subsonic rolloff at 25 Hz, -3 dB rolloff at 20 Hz, -21 dB rolloff at 10 Hz. Features 18 dB/octave subsonic filter, equalization tape button, and phase correlation rumble reducer circuit. Frequency response 3-100,000 Hz ± 1 dB; distortion 0.04% at 1 V; hum and noise -96 dB at 1 V; maximum input 7 V; input impedance 100k ohms; output impedance 150 ohms; 19"W \times 6.5"D \times 3.5"H \$269

Richter Scale™

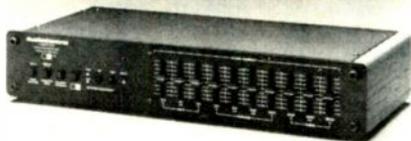
Unit combines five-band half-octave bass equalizer, pink noise generator/analyzer, electronic crossover, and measurement microphone; designed to enhance bass response. Features center frequency slide controls at 31.5, 45, 63, 90, and 125 Hz, ± 12 dB; stereo pink noise source adjustable to each center band via rotary switch; -20 to $+3$ -dB lighted meter registering mic input; 18 dB/octave subsonic filter; source/tape monitoring; equalize program; low-frequency rumble (12 dB/octave at 200 Hz) summing circuit for rumble reduction; ultra-low-boost ($+15$ dB at 36 Hz) switch; 100/1000-Hz (12 dB/octave) electronic crossover circuit for subwoofer and bi-amplification modes. Frequency response 3-100,000 Hz ± 1 dB; THD 0.04%; input impedance 100,000 ohms; output impedance 150 ohms; pink noise 100 mV; S/N 90 dB; ebony face-plate with oak end panels . \$249

D-11 Equalizer/Pink Noise Analyzer

Unit combines ten-band octave graphic equalizer, pink noise generator/analyzer, measurement microphone. Features center frequencies 31.5, 63, 125, 250, 500, 1k, 2k, 4k, 8k, 16k Hz ± 12 dB boost or cut; stereo pink noise source adjustable to each band center via rotary switch, 2-position range buttons; -20 to $+3$ -dB lighted meter registering mic input; 18 dB/octave subsonic filter; source/tape monitoring. Frequency response 3-100,000 Hz ± 1 dB; THD 0.04%; input impedance 100k ohms; output impedance 150 ohms; pink noise 100 mV; S/N 90 dB; ebony faceplate with oak end panels \$229
D10. Similar to D-11 minus noise generator/analyzer and mic measurement \$169

D-10X Equalizer/CX Decoder

Unit features 10-band graphic equalizer, CX record decoder; 18-dB/octave subsonic filter; ebony face-



plate, oak ends. Center frequencies 31.5, 63, 125, 250, 500, 1k, 2k, 4k, 8k, 16 kHz; boost/cut range ± 12 dB; frequency response 3-100,000 Hz ± 1 dB; THD 0.04%; input/output impedance 100k/150 ohms; S/N ratio 90 dB \$199

FIVE Equalizer

Five-band equalizer with video/sound input. Features 18-dB/octave subsonic filter; LEDs in slide controls; flashing tape-equalization warning LED. Center frequencies 40, 240, 1k, 3.5k, 15.5k Hz; frequency response 3-100,000 Hz ± 1 dB; THD 0.07%; S/N ratio 99 dB \$149

D520 Equalizer/Speaker Control System

Five-band equalizer/speaker control system with 18 dB/octave subsonic filter. Center frequencies set at 36, 60, 120, 1000, and 15,500 Hz; equalization range ± 12 -15 dB. Features tape monitor loop and separate function switches; l/r tape inputs/outputs and l/r main inputs/outputs. Frequency response 15-30,000 Hz ± 1 dB; dist. 0.04% from 20-20,000 Hz,

1 V; hum and noise -96 dB at 2 V out, -90 dB at 1 V; max. input 7.5 V rms; input impedance 470k ohms; output impedance 150 ohms; 2.6"H \times 12.3"W \times 5"D \$125

AUDIONICS OF OREGON

Space and Image Composer

Class-A SQ quadraphonic decoder designed to control space within original recording environment, spatial imaging of performance; recreates symphonic, jazz performances, accentuates studio effects, reproduces SQ records, tapes; uses Tate directional-enhancement system. Features input level, balance controls, pushbutton input source switching for stereo bypass and enhance, discrete 4-channel, SQ, axial tilt engage/defeat; stereo enhance, separation controls; separate front-back, left, right and back, left and right front balance controls; solo null switch; output level control; dual-tracking power supply; LED display for balance, input overload, input balance (for solo null), on operations; high-level stereo, discrete 4-channel inputs, main 4-channel, tape monitor outputs. Main outputs: frequency response 10-20,000 Hz ± 0.5 dB; maximum level 2 V rms, 10k ohms; THD 0.1% at 0.5 V rms, 20-20,000 Hz; S/N ratio -80 dB; static separation 40 dB front-back, 50 dB front, left-right; axial tilt correction $\approx 7^\circ$; black anodized front panel; 19"W \times 9"D \times 3 1/2"H \$1275

CX Model DE-1 Record Expander

Decoder for use in any stereo system via tape monitor loop for decoding CX encoded records. Features class-A circuitry; external power supply; tape monitor; stereo bypass; front-panel indicators for calibration; noise reduction/range expansion control. CX dynamic range expansion up to 84 dB; noise reduction 20 dB; THD 0.03%; hum and noise 90 dB down \$125

AUDIO RESEARCH

EC-21 Electronic Crossover

Vacuum-tube low-frequency, passive high-frequency electronic crossover; features individual low-channel level controls; 9-dB maximum gain automatic warmup muting; fixed frequency capacitor kits available. Input impedance 100k ohms; THD 0.003%; outputs match Audio Research power amplifiers; 19"W \times 6"D \times 5 1/4"D \$695

AUDIOSOURCE

EQ-1 Graphic Equalizer/Analyzer

Rack-mount, professional-type stereo graphic equalizer with built-in real-time analyzer, pink-noise generator, omnidirectional electret condenser microphone.



Features LED display consisting of 80 red, 10 green, 2 red LEDs that constantly give accurate music readings, subsonic filter. Center frequencies 31.5, 63, 125, 250, 500, 1k, 2k, 4k, 8k, 16k Hz; boost/cut range ± 12 dB; frequency response 3-100,000 Hz ± 0.75 dB; distortion 0.2%, 20-50,000 Hz; hum and noise -90 dB at 1 V; maximum input/output 5 V; input/output impedance 100k/68 ohms; subsonic filter slope -18 dB/octave; analyzer display range -8 to -16 dB; pink-noise output level/impedance 100 mV/6k ohms; microphone sensitivity -66 dB at 1 kHz; mic impedance 600 ohms; mic frequency range 30-16,000 Hz; 19"W \times 8.36"D \times 5.22"H; 8.4

WHY YOU SHOULD CONTROL AUDIO WITH AUDIO CONTROL

You shouldn't buy an equalizer from a company that doesn't take them seriously.

And only one company takes them seriously enough to specialize in them. Us. Audio Control.

Up here in the Pacific Northwest rainforest, we've been carving out quite a reputation for giving customers like you more value, better features and better quality than any of the hi-fi biggies who just dabble in equalizers.

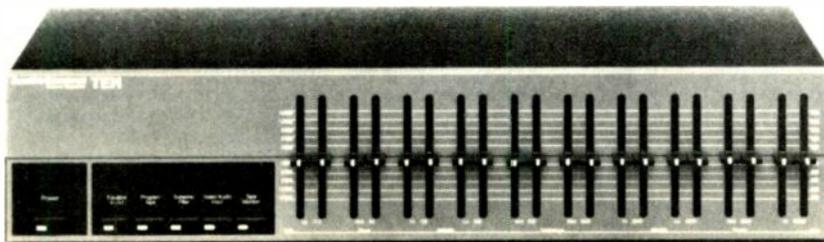
Great values like complete hi-fi test centers (including analyzers, microphones and test signal sources) built right into affordable equalizers.

Great features like paired sliders which put left and right channels next to each other, so you only have to make adjustments once. Far more convenient, accurate and less likely to cause imaging problems than any of our competitors.

And great durability in an American-made product. So good that we offer an over-the-counter warranty on many of our products, something none of our competition feels confident enough to do.

So when you've come to the logical conclusion that a graphic equalizer can literally double the sound quality of your whole system, read the comparison specs and features in this Buyer's Guide. And then come to the equally logical conclusion that Audio Control makes the best value equalizers and analyzers you can buy.

AudioControl
6520 212th St SW Lynnwood, WA 98036 206-775-8461



CIRCLE NO. 7 ON READER SERVICE CARD

12 SIGNAL PROCESSORS

lb..... \$400

BIAMP

EQ/270A Graphic Equalizer

Graphic equalizer with 27 band at 1/3-octave intervals. Features EQ bypass switch; LED overload indicator; transformer-type connectors; phone jacks on inputs, outputs; transformerless balanced in/out lines; combining filters. Center frequencies set 40-16,000 Hz; boost/cut range ± 12 dB; frequency response 15-30,000 Hz ± 0.1 dB; THD and IM distortion 0.0075%; hum and noise 115 dB below rated output; input impedance 600/500 ohms switchable; maximum input +24 dB; slew rate 8 V/ μ sec; 19"W x 10"D x 3 1/2"H..... \$649

EQ/210 Graphic Equalizer

Stereo 10-band graphic equalizer. Features gain control; bypass switch; LED overload indicator; 4 phone jacks/ch for unbalanced/balanced input/output lines. Center frequencies 32, 64, 125, 250, 500, 1k, 2k, 4k, 8k, 16k Hz; boost/cut range ± 15 dB; Frequency response 6-45,000 Hz $\pm 0/-1$ dB flat positions; THD and IM distortion 0.005%; gain -3 dB unbalanced, 0 dB balanced; slew rate 1 V/ μ sec; output load impedance 600 ohms; input impedance 50k ohms, balanced or unbalanced; maximum output +24 dBm at 8 V unbalanced; S/N ratio 84 dB below 1 V out; rack-mountable; 19"W x 5 1/4"D x 3 1/2"H..... \$325
EQ/110R. Mono version of EQ/210 \$215

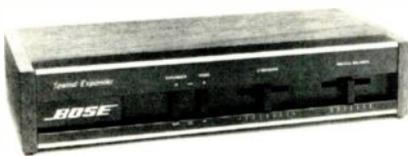
Quad Limiter

Multi-channel limiter/compressor with 4 threshold controls with LED 4 independent channels. Threshold variable from -40 to +18 dB; output impedance 600 ohms unbalanced or balanced; input impedance 25k ohms unbalanced, 50k ohms balanced; frequency response 20-25,000 Hz ± 0.5 dB; THD 0.03% at 1 kHz; attack/release time 1/150 msec to 1.5 sec; S/N ratio 102 dB; slew rate 8 V/ μ sec; 19"W x 5 1/2"D x 1 1/4"H \$325

BOSE

Spatial Expander

Charge-couple-device time delay unit designed to complement pair of 901 Direct/Reflecting speaker systems, Spatial Control receiver, auxiliary pair of



Direct/Reflecting speakers in recreating 3-dimensional sound. 901 combined with receiver simulates space of live performance with control for user to adjust spaciousness of music, while Spatial Expander delays sound from rear speakers to enhance space and ambience of music. Front-panel controls include dimension, spatial balance levers, in/out expander and mode switches \$696

BSR

SS-30 Equalizer

Stereo graphic equalizer with spectrum analyzer, pink-noise generator. Features line/record, tape-monitor (1/2/source), mic/line, tape-dub (1-2/2-1), subsonic filter, bypass/EQ switches; FL display of 10 bands plus average bands; display in/out (separately for each band), pink noise on/off, peak-hold on/off switches; omnidirectional electret condenser microphone. Center frequencies 31, 62, 125, 250, 500,

1k, 2k, 4k, 8k, 16k Hz; boost/cut range ± 12 dB; frequency response 5-100,000 Hz $\pm 0.5/-1.0$ dB; dynamic range 10 V rms into 10k ohms; gain 0 dB; harmonic, IM distortion 0.02% at 1 V; hum and noise 95 dB below 1 V output; input/output/load impedance 75k/100/10k ohms; microphone frequency range 50-13,000 Hz; sensitivity -71 dB at 1 kHz; impedance 600 ohms \$400

SS-20 Equalizer

Stereo 12-band graphic equalizer features line/record, bypass/EQ, left and right meter level, subsonic filter, meter on/off, tape dub (1-2/2-1), tape monitor (1/2/source) switches; left and right output controls. Center frequencies 32, 56, 100, 180, 320, 560, 1k, 1.8k, 3.2k, 5.6k, 10k, 18k Hz; boost/cut range ± 12 dB; frequency response 5-100,000 Hz $\pm 0.5/-1.0$ dB; dynamic range 10 V rms into 10k ohms; gain 0 dB; harmonic, IM distortion 0.02% at 1 V; hum and noise 98 dB below 1 V output; input/output/load impedance 75k/100/10k ohms; power consumption 18 W; 16 1/8"W x 8 3/4"D x 4 1/2"H; 10 lb..... \$330

SS-10. Similar to SS20 except 10-channel version; has no subsonic filter, simpler tape-monitor, no tapedub. Center frequencies 31, 62, 125, 250, 500, 1k, 2k, 4k, 8k, 16k Hz; hum and noise 95 dB below 1 V; power consumption 15 W; 16 1/8"W x 6 1/2"D x 4 1/2"H; 8 lb..... \$250

SS-50. Similar to SS-10 except 5-band version. Center frequencies 60, 240, 1k, 3k, 10k Hz; dynamic range 5.8 V; harmonic, IM distortion 0.05%; hum and noise 70 dB below 1 V; power consumption 7 W; 12 1/2"W x 7 1/2"D x 3 3/8"H; 5.4 lb \$130

CARVER

C-9 Sonic Hologram Generator

Patented outboard employs Sonic Holography. Attaches to any conventional hi-fi system to restore life-like space and dimension to music. Sonic Hologram



Generator precisely locates music and voice in 3-dimensional space by using otherwise inaudible phase and timing information to recreate the original vector sound field. Requires no special source material or additional loudspeakers. Specifications and performance are identical to Sonic Holography section of C-4000 preamplifier. 19"W x 1 1/4"H x 4 1/4"D. \$299

CERWIN-VEGA

CX-2 Electronic Crossover

Passive electronic crossover designed for home subwoofer systems. Requires no external power supply. Available crossover frequencies 100, 150, 250 Hz fixed; 12 dB/octave slope; distortion unmeasurable at or below 2.5 V out; insertion loss 1 dB maximum; input impedance 3.3k ohms; recommended output impedance 5k ohms; crosstalk -70 dB at 20 kHz; maximum input 11 V; 7"W x 2 1/4"D x 1 1/4"H..... \$100

DB-10 Bass Turbocharger

Incorporates 18 dB/octave subsonic filter to eliminate subsonic noise below 20 Hz. Frequency response ± 0.25 dB; rated output 2 V rms; maximum output 8 V rms; HD or IM distortion 0.025% ..\$90

CROWN

EQ-2 Synergistic Equalizer

Stereo 11-band 1/2-octave equalizer with center frequencies at 20, 40, 80, 160, 320, 640, 1250, 2500, 5000, 10,000, 20,000 Hz. ± 15 dB boost/cut; each channel features octave frequency adjust controls; ± 20 dB tone controls with bass hinge points adjustable 180-1800 Hz, treble hinge points adjustable 1k-10k Hz; equalizer, tone cancel master controls; overload indicators. Rear panel has unbalanced inputs, balanced inputs with switchable unity/+10 dB gain selection, screwdriver-adjusted attenuation controls, normal/inverted outputs. Fre-

quency response 10-100,000 Hz ± 0.3 dB, 20-20,000 Hz ± 0.1 dB, controls flat; hum and noise 90 dB below rated output, 20-20,000 Hz bandpass; IM distortion 0.01% at rated output; rated output 2.5 V rms; input impedance 25k ohms unbalanced, 20k ohms balanced (transformerless); output impedance 300 ohms (normal), 600 ohms (balanced); satinized aluminum front panel with grey Lexan inlay; 7 1/2"H x 19"W x 14 1/2"D x 7 1/2"H..... \$1299

VFX-2A Crossover

Solid-state filters used for crossover or bandpass functions; 2-channel, 2 filters/channel (high pass, low pass at 18 dB each) 20-20,000 Hz ± 0.1 dB; filter rolloff 18 dB/octave. Stereo: 0-15.5 dB variable gain bridging input/channel along with unbalanced unity gain input; output impedance 300 ohms (inverted and non-inverted). 6V maximum output into 600 ohms; IM distortion 0.01% at rated output; hum and noise 100 dB below rated output with 0 dB gain. Mono: functions as combined bandpass/2-way crossover, or as 3-way crossover (tri-amping); mono jack combines 2 input signals to form mono output; mono bass output combines low pass section of 2 filters to feed output jack. Satinized aluminum front panel with plexiglass cover; 19"W x 5 1/4"D x 3 1/2"H... \$429

DAHLQUIST

DQ-LPI Variable Low Pass Filter

Low-pass electronic crossover for biampifier bass speaker applications, including external low-bass reproducers. Each channel variable 40-400 Hz. Features 18 dB/octave low-pass cutoff slope; controls adjustable 0-5 dB boost at 20 Hz; stereo or combination of mixed center-channel and choice bass outputs; separate level controls for system balance; up to 15 dB gain; satin-brushed panel; walnut end blocks; 12 1/2"W x 5 1/4"D x 2 1/4"H..... \$350

DQ-MX1 Passive Matrixing Crossover

Connects power amplifier to 8-ohm stereo speakers and subwoofer, combines low frequencies from both channels; stereo separation maintained for main speakers; includes 3-position bass-level switch; 60-80 Hz crossover; phase switch; left and right inputs from power amp or receiver outputs; outputs to left and right speakers and to mixed-channel bass module; 8 3/4"W x 7"D x 3 3/8"H..... \$150

DB SYSTEMS

DB-3 Active Crossover

Designed for bi- and tri-amplified speaker systems. Features asymptotic slope 12 dB/octave Gaussian or 18 dB/octave Butterworth; fixed crossover frequencies (specify on order); available 2- or 3-way (for common bass channel, designate 1 1/2 or 2 1/2-way, respectively); individual channel gains screwdriver adjustable. THD 0.0008%, 20-20,000 Hz; noise -95 dB; summed-output frequency response within 1 dB 5-50,000 Hz.

2-way Gaussian crossover \$250
2-way Butterworth crossover \$330
3-way Gaussian crossover \$300
3-way Butterworth crossover \$465
Additional common base \$17
DB-3-18-100. Similar to DB-3 except 2-way electronic subwoofer crossover with 18 dB/octave Butterworth crossover at 100 Hz and additional common bass; requires DB-2 power supply \$277
DB-2A. Power supply for DB-3 and DB-3-100 .. \$70
DBP-1. Auxiliary cable..... \$15.50

DB-3-24 In-Phase Crossover

Twenty-four dB/octave crossover minimizes irregularity in radiation pattern through crossover region. High-, low-pass outputs always in-phase with each other 6 dB down at crossover frequency. Noise performance improved by 10 dB over 18-dB DB-3. Requires DB-2A power supply or DBP-1 cable. User specifies frequency. Available in 2-way only .. \$420
DB-3-24-100. Standard version of above, set at 100 Hz, with additional common base..... \$350

DB-7 Phase Inverter/Bandpass Filter

Increase power output of stereo power amplifier by 4 times through bridging into mono amplifier, effects

20-20,000 Hz frequency response to <0.3 dB. Features buffered inputs and outputs; switchable positive/negative phase for either or both channels; stereo bridging outputs; 18-dB/octave subsonic and Bessel 18-dB/octave super-sonic filters; gain in inverted mode 0.05 dB of noninverted gain; requires DB-2A power supply or DBP-1 auxiliary cable.... \$175
DB-2A. Power supply for DB-7\$70

dbx

dbx Type II Tape Noise-Reduction Systems

Type II systems reduce noise by more than 30 dB across entire audio-frequency spectrum and add 10 dB additional recording headroom when used with any tape recorder. In addition, they decode dbx discs. **Model 224.** Linear decibel compander offers simultaneous encode/decode for full monitoring capability with 3-head open-reel, cassette decks, also works with 2-head decks. Effective noise reduction 50 dB plus 10 dB headroom; dynamic range 110 dB peak signal to weighted background noise; frequency response ± 0.5 dB 40-20,000 Hz, -1 dB at 30 Hz; slew rate >10 V/ μ sec; equivalent input noise -85 dB unweighted, 20-kHz bandwidth, referenced to 1 V; THD <0.4% 30-100 Hz, <0.1% 100-20,000 Hz; IM distortion <0.2% SMPTE; power consumption 7 W; 17 $\frac{1}{8}$ "W x 7 $\frac{1}{2}$ "D x 1 $\frac{3}{4}$ "H; 6 lb. \$299
Model 228. Tape noise-reduction system/dynamic-range expander that combines functions, specifications of Model 224 NR unit and Model 1BX Series Two dynamic-range expander (see below) \$499
Model 222. Similar to Model 224 but designed for 2-head recorders. Has separate encode (record) and decode (playback) functions, no monitoring capability. Specifications are the same as for Model 224..... \$219

Model 21. dbx* disc, tape decoder designed to reproduce full 90 dB of live performance, virtually eliminate record pop, ticks, surface noise. Dynamic range 100 dB; nominal/maximum input 300 mV/6 V rms; output level 5.5 V rms; frequency response ± 0.5 dB 30-15,000 Hz; hum and noise <-100 dBV, referenced to 1 V. A weighted, 20-kHz bandwidth; THD <0.2% at 1 kHz (encode/decode) up to 4 V rms output; IM distortion <0.2% SMPTE; power consumption 5 W; 8 $\frac{1}{4}$ "W x 6 $\frac{1}{2}$ "D x 2 $\frac{1}{4}$ "H; 2.5 lb. . \$109

dbx* Dynamic Range Expanders

Expanders designed to increase dynamic range of records, tapes, FM broadcasts by as much as 50%, reduce noise by as much as 20 dB.

Model 3BX Series Two. Advanced expander makes loud passages louder, soft passages quieter; bass, midrange, treble frequencies processed individually. Features 3 rows of LEDs that monitor degree of expansion in each range; expansion-level control; transition-level control; tape-monitor loop to restore loop required by expander in stereo system. Expansion ratio continuously variable 1.0-1.5 (0 to 50% increase), linear in dB; dynamic range 100 dB peak signal to weighted background noise; input level nominal/maximum 300 mV/7 V rms; output level 7 V rms; frequency response ± 0.5 dB 20-20,000 Hz at 1.0 expansion; equivalent input noise -85 dBV unweighted, referenced to 1 V, 20-kHz bandwidth; THD 0.1% at 1.0 expansion; IM distortion 0.15% SMPTE; power consumption 30 W; 17 $\frac{1}{8}$ "W x 7 $\frac{1}{2}$ "D x 1 $\frac{3}{4}$ "H..... \$549
Model 1BX Series Two. Similar to Model 3BX Series Two except has infrasonic filter in its rms-level detector to prevent mistracking caused by turntable rumble, record warp; 10 LEDs to monitor upward and downward expansion; power consumption 10 W; 17 $\frac{1}{8}$ "W x 7 $\frac{1}{2}$ "D x 1 $\frac{3}{4}$ "H \$279

dbx Signal-Improvement Units

Model 118. Single-band, linear-decibel expander/compressor, limiter/peak unlimiter designed to expand dynamic range of any program source. Specifications same as Model 3BX Series Two; power consumption 5 W; 10 $\frac{1}{8}$ "W x 3 $\frac{3}{4}$ "H; 5 lb \$239
Model 120. Subharmonic synthesizer that passes low-frequency signals (55-110 Hz) plus same signals a full octave lower (synthesized by sampling original signals) to recreate subharmonics (7.5-55 Hz). Dynamic range 100 dB peak signal to weighted background noise; input level nominal/maximum 300

mV/7 V rms; output level 7 V rms; frequency response 20-20,000 Hz ± 2 dB; equivalent input noise -85 dBV unweighted referenced to 1 V, 20-kHz bandwidth; THD 0.1%; IM distortion 0.15% SMPTE; power consumption 10 W \$249

dbx* Model 20/20 Computerized Equalizer/Analyzer Automatic microprocessor-controlled 10-band graphic equalizer, real-time analyzer, pink-noise generator, sound pressure level (SPL) indicator. Includes cali-

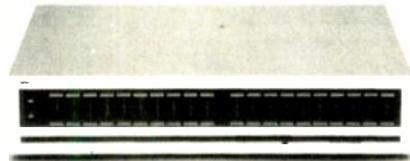


brated 20-20,000-Hz ± 1 dB electret condenser microphone with 20-ft cable. Center frequencies 31.5, 63, 125, 250, 500, 1k, 2k, 4k, 8k, 16k Hz; boost/cut range +14/-15 dB; accuracy ± 1 dB at full boost/cut. ± 0.1 dB/step; gain 0 dB; THD 0.01%, 20-20,000 Hz. Analyzer/SPL meter/generator: analyzer dynamic range 80 dB; display 30 LED x 10 band; meter bandwidth at 90 dB SPL input 15-20,000 Hz; dynamic range 80 dB; generator accuracy ± 0.5 dB. 19"W x 12 $\frac{1}{2}$ "D x 5 $\frac{1}{4}$ "H. \$1700

EMPIRE

GX200 Graphic Equalizer

Stereo 10-band graphic equalizer with 20-push-button frequency controls, LED display for each band.



Features reverse switch for noise-reduction applications; attenuator switch; EQ bypass switch; EQ record, tape-monitor controls. Center frequencies 32, 64, 125, 250, 500, 1k, 4k, 8k, 16k Hz; boost/cut range ± 10 dB; frequency range 10-35,000 Hz; S/N ratio 110 dB at 1 V; THD 0.003% at 1 V; input and output level/impedance 150 mV/47k ohms; maximum output 6 V..... \$250

GX100 Graphic Equalizer

Stereo 10-band graphic equalizer with slide controls. Features attenuator switch; EQ bypass switch; EQ record, tape-monitor controls. Technical specifications same as for GX200 except THD 0.005% \$190

EVENTIDE

H910 Harmonizer

Combo pitch changer and digital-delay unit. Features feedback control to mix output back into input to cre-



ate many special effects; ± 1 -octave pitch change with digital pitch-ratio readout; variable time delay to 112.5 msec; second delay output; antifeedback function for sound-reinforcement applications; availability of remote keyboard controls. Frequency response 20-12,000 Hz ± 1 dB; dynamic range 90 dB; distortion 0.2% at 1 kHz; 19"W x 9"D x 3 $\frac{1}{2}$ "H \$1500

JJ193 Digital Delay

CMOS-logic digital delay line designed for recording studio, concert hall, auditorium, radio station; produces signal doubling, realistic echo effects, synchronization of sound reinforcement speakers, pre-echo delay. Features RAMs; variable time delay switches (0-maximum in 2-dB steps); 4 outputs, 1 input; 6-LED input level indicators; input level control. Input

impedance 20k ohms balanced, 10k ohms unbalanced; input level -10 to +3 dBm full dynamic range; output impedance 300 ohms electronically balanced; maximum output level +22 dBm; distortion 0.2% at 1 kHz; dynamic range 90 dB from clipping to noise floor; frequency response 30-12,000 Hz ± 1 dB; 19"W x 9"D x 1 $\frac{3}{4}$ "H \$1195
CD254. Similar to JJ193 except has two outputs; 0-254 msec time delay controllable by internal switches; no front-panel controls..... \$895

HM-80 Harmonizer

Compact portable harmonizer features ± 1 -octave pitch control, 270-sec delay, word or short riff repeat, time reversal, dry vs effect output mix, feedback controls; dynamic range 80 dB; 10 $\frac{1}{2}$ "W x 8 $\frac{1}{4}$ "D x 2 $\frac{1}{4}$ "H..... \$775

FL201 Instant Flanger

Oscillator, manual, remote, and envelope controls may be used in any configuration; features time delay circuitry, effect modifier block (designed to imitate motor or servo hunting bounce), depth control (effects percentage of direct vs delayed signal, relative phase of each); line in/out control, LED indicator; high level input, output (optional balanced line in/out); LED mode indicators. Frequency response 50-15,000 Hz +1 dB direct channel, 50-10,000 Hz +1.5 dB delayed channel; distortion 0.05% below clipping direct channel, 1.0% from 0 to +8 dBm input delayed; dynamic range 112 dB at 15,000 Hz direct, 75 dB delayed; delay time between 200 μ sec-10 msec; input/output level 0 to +4 dBm; input impedance 10k ohms unbalanced; 19"W x 9"D x 3 $\frac{1}{2}$ "H..... \$700

2830 Omnipressor

Dynamic modifier combines functions of compressor, expander, noise gate, limiter. Features continuously variable expansion/compression control (10:1 gate to -10:1 abrupt reversal); attenuation, gain limit controls (60 dB to ± 1 dB); variable time constant controls (1000:1); bass/cut switch; logarithmic input/output/gain meter; in/out bypass switch. Frequency response 20-16,000 Hz +0/-0.5 dB; input/output level 0 to +8 dBm; input impedance 10k ohms electronically balanced; output impedance 600 ohms; gain unity, +10, +20 dB (agc disabled); compression 1:1 to unity to 10:1; expansion 1:1 to 10:1; S/N ratio -90 dBm at unity gain; attack time 100 sec-100 msec; release time 1 msec-1 sec; 19"W x 9"D x 3 $\frac{1}{2}$ "H \$700

FISHER

EQ550 Graphic Equalizer

Stereo 12-band equalizer. Features EQ on/record/bypass switch; tape-monitor switch; LED indicators in control knobs for at-a-glance indication of equalization curves. Center frequencies 16, 31.5, 63, 125, 250, 500, 1k, 2k, 4k, 8k, 16k, 32k Hz; boost/cut range ± 12 dB; frequency response +0/-0.5 dB; input/output impedance 50k/2k ohms; THD 0.01% at 1 V output, 0.06% at 5 V; maximum output at 1% THD 7 V; S/N ratio at 100/1k/10k Hz referred to 1 V; power consumption 8 W; 17 $\frac{1}{8}$ "W x 11 $\frac{1}{4}$ "D x 4 $\frac{1}{8}$ "H; 10 lb \$350

EQ350 Graphic Equalizer

Stereo 10-band graphic equalizer. Features detented slide controls; tape-monitor, line/source, and record switch. Center frequencies 31.5, 63, 125, 250, 500, 1k, 2k, 4k, 8k, 16k Hz; boost/cut range ± 12 dB; input/output impedance 50k/2k ohms; THD 0.01% at 1 V output, 0.06% at 5 V; maximum output at 1% THD 7 V; frequency response 20-20,000 Hz +0/-0.3 dB; S/N ratio at 100/1k/10k Hz referred to 1 V; power consumption 6 W; 17 $\frac{1}{8}$ "W x 11 $\frac{1}{4}$ "D x 3 $\frac{1}{2}$ "H; 9.2 lb \$200
EQ2322. Similar to EQ350 except black front panel and cabinet, different knobs; all specifications same as above..... \$200

NR500 Noise-Reduction System

Super D dual-process noise-reduction system with decibel compression/expansion system to expand dynamic range up to 40 dB. Features phase-compensated bandsplitting system that minimizes breathing

12 SIGNAL PROCESSORS

while reducing hiss, clipping; decilinear system that eliminates level-matching problems for record, play; response speed matched to bandwidth requirements for optimum transient characteristics with minimum distortion. Dynamic range 100 dB; THD 0.08% at 1 kHz, rated level; frequency range 20-30,000 Hz; noise reduction 40 dB maximum; record/play input level 350 mV, impedance 330 ohms; power consumption 7 W; 17 $\frac{1}{2}$ "W x 10 $\frac{1}{2}$ "D x 1 $\frac{1}{4}$ "H; 8 lb 3 oz \$190

EQ100 Graphic Equalizer

Graphic equalizer with 7 detented boost/cut controls. Features tape monitor switch. Center frequencies 65, 160, 400, 1k, 2.5k, 6k, 15k Hz; boost/cut range ± 10 dB; in/out impedance 50k/2k ohms; THD at 1/5 V output 0.01%/0.06% controls set flat; frequency response 20-20,000 Hz $\pm 0.1/-0.3$ dB; maximum output 7 V; S/N ratio 100 dB; power consumption 6 W; 15 $\frac{1}{2}$ "W x 8 $\frac{1}{2}$ "D x 3 $\frac{1}{2}$ "H; 5 lb \$130

FURMAN SOUND

PQ-6 Parametric Equalizer

Stereo parametric equalizer with level control to compensate for loudness changes caused by EQ settings. Features bypass switch; high- and low-level inputs, outputs via standard $\frac{1}{4}$ " phone jacks; biFET op-amp circuitry; rack-mountability. Frequency ranges 25-500 Hz bass, 150-2500 Hz midrange, 600-10,000 Hz treble; equalization ± 20 dB boost, $-\infty$ cut all ranges; bandwidth $< \frac{1}{2}$ octave to > 4 octaves; input/output impedance 100k/50 ohms; maximum input/output 430 mV/8.3 V rms (+21 dBm); maximum gain high/low level 26/6 dB; S/N ratio 99 dB with EQ controls set flat; distortion 0.025% with EQ controls set flat; power consumption 8 W; 19"W x 8"D x 3 $\frac{1}{2}$ "H; 8 lb \$525
PQ-3. Mono version of PQ-6. Power consumption 4 W; 1 $\frac{1}{4}$ "H; 5 lb \$315

SG-10 Sweep Graphic Equalizer

Designed to meet demands of professionals who need more flexibility than provided by fixed-frequency equalizers. Features 10 bands of high-quality 2-knob EQ; stereo/mono switch (splits 10-band mono into 5-band stereo EQ); biFET construction; center detent; overload indicator for each channel. Bridges gap between graphic and parametric EQs. Center frequencies can be adjusted over 4-octave range; rack-mountable. Frequency ranges 16-250 Hz band 1, 32-500 Hz band 1, 125-2k Hz band 3, 500-8k Hz band 4, 1k-16k Hz band 5; low-cut filter corner frequency 80 Hz; equalization range ± 15 dB; bandwidth $\frac{1}{2}$ octave all ranges; input level low/high/balanced 430 mV/unlimited (depends on setting of input level control)/7.78 V rms (+20 dBm); output level/impedance 7.78 V rms (+20 dBm)/50 ohms balanced or unbalanced; frequency response 20-20,000 Hz ± 0.5 dB controls set flat; S/N ratio 99 dB controls set flat; distortion 0.25% controls set flat; power consumption 10 W \$495

TX-4 Tunable Crossover

Tunable crossover/bandpass filter with stereo 3-way/mono 4- or 5-way capability. Features 4 tunable inputs; stereo/mono modes; range pushbuttons,



crossover frequency controls; separate input level controls; separate regulated power supply for each channel; biFET op-amp active filter circuitry; rack-mountability. Each crossover point tunable 20-20,000 Hz; input impedance 10k ohms with $\frac{1}{4}$ "

phone jack standard, 10k ohms with Cannon-style 3-pin connector, phone jack balanced; output 50 ohms/8.7 V maximum; gain 6 dB maximum; S/N ratio 101 dB; distortion 0.01% at 1 kHz, +20 dBm output; power consumption 8 W; 19"W x 8"D x 3 $\frac{1}{2}$ "H; 8 lb \$435
TX-2. Stereo 2-way/mono 3-way version of TX-4. Power consumption 4 W; 1 $\frac{1}{4}$ "H; 5 lb \$260

LC-2 Limiter/Compressor

Features input, output level, attack, release, compression-ratio controls; LED gain meter; overload LED; normal compression/de-ess/side-chain mode selector; program adjusted release time; biFET op-amp design; 3-pole de-essing filter; modular construction; rack-mountability. Attack time 400 μ sec-25 msec; release time 200 msec-5 sec/compression ratio 2:1 to 50:1; frequency response 20-20,000 Hz ± 0.5 dB; S/N ratio 92 dB with 90 dB gain reduction; THD 0.04% no gain reduction, 0.07% with 5 dB gain reduction; input level/impedance 8.7 V rms/10k ohms; output level/impedance 8.7 V rms/270 ohms; power consumption 5 W; 19"W x 8"D x 1 $\frac{1}{4}$ "H; 5 lb \$315

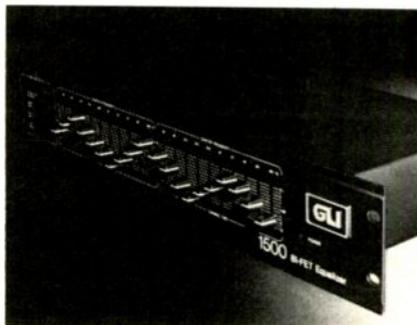
RV-1 Reverb/Limiter/Equalizer

Reverberation system features 16" spring transducer element; fast-attack peak limiter; quasi-parametric midrange controls; completely self-contained, including power supply; rack-mountability. Input sensitivity/impedance -10 to $+4$ dBm/33k ohms; output level/impedance 8.3 V rms/47 ohms; frequency range 45-7000 Hz; decay time 1.8 sec with 30-40 msec initial delay; equalization ± 18 dB; midrange frequency range 160-1400 Hz; limiter compression ratio $> 10:1$; S/N ratio 74 dB EQ control set flat; power consumption 4 W; 19"W x 8"D x 1 $\frac{1}{4}$ "H; 5 lb \$315

GLI

EQ-1500 BiFET Graphic Equalizer

Stereo 10-band graphic equalizer with high-speed biFET IC circuitry. Features center detent on slide controls; defeat switch; main, AUX tape-monitor input



switches. Center frequencies 30, 60, 120, 240, 500, 1k, 2k, 4k, 8k, 16k Hz; boost/cut range ± 12 dB; frequency response 20-20,000 Hz ± 0.5 dB EQ flat, 0-500,000 Hz ± 0.1 dB EQ bypassed; distortion 0.05% at 1 V rms out; THD and IM distortion 0.005%, 20-20,000 Hz at 5 V; slew rate 14 V/ μ sec; S/N ratio 90 dB below 2 V rms; maximum output 10 V before clipping; 19" rack-mountable \$250

HARMAN/KARDON

EQ7 Graphic Equalizer

Stereo 10-band graphic equalizer with gain control, overload LED, tape monitor, tape equalization. Center frequencies 31.5, 63, 125, 250, 500, 1k, 2k, 4k, 8k, 16k Hz; boost/cut range ± 12 dB; frequency response 5-140,000 Hz $+0/-3$ dB, all controls at 0; THD 0.025 at 2 V output, 20-20,000 Hz \$250

HARTLEY PRODUCTS

3/5-Way Crossover

Crossover system built with op amps has high slew rate biFET circuitry that provides 2-pole Butterworth response with 12-dB/octave rolloffs. Features stereo/mono modes; 20-20,000-Hz variable-frequency

settings; input controls with unity gain; output-level controls; gold-plated RCA connectors; regulated power supplies for each channel; black anodized brushed-aluminum front panel. Input 10k ohms unbalanced; output 50 ohms unbalanced; maximum gain 6 dB; S/N ratio 101 dB; THD 0.01% at 1 kHz; power consumption 8 watts; 19"W x 8"D x 3 $\frac{1}{2}$ "H; 8 lb \$750
2/3-Way Crossover. Same as above but with regulated power supplies for each channel; 19"W x 8"D x 1 $\frac{1}{4}$ "H; 5 lb \$475

HEATH

AD-1703 Graphic Equalizer

Stereo 10-band graphic equalizer with switching that allows equalizing before and after recording; left, right clipping indicators. Center frequencies 32, 64, 125, 250, 500, 1k, 2k, 4k, 8k, 16k Hz; boost/cut range ± 12 dB; harmonic distortion 0.001% at rated output, 20-20,000 Hz \$260 kit

AD-1706 Audio Processor

Incorporates dynamic range expander, noise-reduction circuit increasing total dynamic range up to 17 dB (any program source processed gains up to 7 dB of dynamic range expansion, 10-dB noise reduction); front-panel 12-dB/octave (7 kHz) high filter switch; tape monitor; LED noise-reduction, dynamic range expansion indicators; connects via tape output, tape monitor jacks of preamp, integrated amp, or receiver. Rated input 200 mV; input impedance 100k ohms; gain 0 dB expander off, +0.25 dB expander on; frequency range 20-20,000 Hz; sensitivity 500 μ V; hum and noise -70 dB from 20-20,000 Hz; output impedance 500 ohms; input overload 5 V rms at 1 kHz; black cabinet; 19"W x 14"D x 5 $\frac{1}{2}$ "H. \$225

HITACHI

HGE-2100 Graphic Equalizer

Nine-band graphic equalizer with built-in delay line, microphone mixer. Features mixing diagram display;



reverb and mic mixing. Center frequencies 63, 125, 250, 500, 1k, 2k, 4k, 8k, 16k Hz; boost/cut range ± 10 dB; frequency response 20-20,000 Hz $+0/-0.5$ dB; S/N ratio 70 dB; gain 0 dB; input sensitivity/impedance 150 mV/47k ohms input and tape play, 1 mV/8k ohms mic; output level/impedance 150 mV/4k ohms; maximum output 5 V; 17 $\frac{1}{2}$ "W x 8 $\frac{1}{2}$ "D x 3 $\frac{1}{2}$ "H; 6 lb 10 oz \$240

HGE-1100 Graphic Equalizer

Stereo 10-band graphic equalizer with tape monitor, record equalization capability. Center frequencies 31.5, 63, 125, 250, 500, 1k, 2k, 4k, 8k, 16k Hz; boost/cut range ± 10 dB; frequency response 5-30,000 Hz $+0/-0.5$ dB; gain 0 dB; S/N ratio 70 dB; input sensitivity/impedance 150 mV/47k ohms input and tape play, 1 mV/8k ohms mic; output level/impedance 150 mV/4k ohms; maximum output 5 V; 17 $\frac{1}{2}$ "W x 8 $\frac{1}{2}$ "D x 3 $\frac{1}{2}$ "H; 6 lb 10 oz. \$190

INTEGREX

Dolby B Noise Reducer Kit

Stereo unit with 4 Dolby channels for simultaneous encoding/decoding for 3-head tape machines; designed to reduce hiss in magnetic-tape recording machines; decodes commercially-available Dolby B-encoded cassettes or Dolby B FM radio broadcasts and/or encodes blank tapes from any source; cannot be used for discrete 4-channel encoding or decoding. Noise reduction 9 dB weighted (CCIR/ARM); minimum sensitivity 35 mV rms tape and Dolby FM tuner inputs, 40 mV rms aux input; impedance 47k ohms all inputs; 300 ohms variable all outputs; maximum variable output level 580 mV rms (Dolby level); overload 18 dB above Dolby level for 0.3% THD; distortion 0.05% (all outputs at Dolby level); S/N ratio unweighted, referred to Dolby level, at monitor output 76 dB from aux in, 80 dB from tape and tuner in,

Dolby on, 69 dB from tuner in, at tape output 69 dB from aux and tuner in, 76 dB from tuner in, Dolby FM on. Kit includes fiberglass printed circuit board with component locations, all alignment circuits, solid mahogany cabinet; 15½" W × 6¾" D × 2¼" H. \$150
Dolby Calibration Tapes. Specify reel or cassette. \$9

DFM Dolby Noise Reducer

Decodes Dolby B-encoded cassette, reel tapes, Dolby-encoded FM broadcasts; front-panel on/off and Dolby-decoding in/out switches; rear-panel input level calibration, output level, 25/75 μsec de-emphasis input select controls. Noise reduction 9 dB weighted (CCIR/ARM); sensitivity 35 mV rms minimum, variable output level 580 mV at Dolby level, overload 18 dB above Dolby level for 0.3% THD; distortion 0.05% referred to Dolby level; separation tape input 58 dB at 2 kHz, Dolby on; S/N ratio 79 dB Dolby level (CCIR/ARM); aluminum anodized case; 8½" W × 4" D × 2½" H \$100

JVC

SEA-80 Graphic Equalizer

Ten-band stereo graphic equalizer with fluorescent analyzer display with left/right mode switch, memory, level control (32-16,000 Hz over 0-26-dB level range). Features pink-noise generator; SEA switch that doubles input sensitivity to accommodate high in-



puts without distortion; SEA record, -20-dB mic, tape monitor switches. Center frequencies 31.5, 63, 125, 250, 500, 1k, 2k, 4k, 8k, 16k Hz; boost/cut range ±12 dB; input impedance 47k ohms SEA and tape monitor in; output impedance 100 ohms SEA and tape rec out; rated output 2 V rms; frequency response 10-100,000 Hz +0/-1dB; THD and IM distortion 0.003%; gain 0 dB/-6dB; 17¾" W × 12½" D × 6¼" H \$500
MU-S80. Electret condenser microphone for room acoustics measurements with SEA-80. Frequency response 30-16,000 Hz ±2 dB; sensitivity 72 dB ±3 dB; output impedance 600 ohms \$200

SEA-70 Graphic Equalizer

Stereo graphic equalizer with 12 frequency "tone-zone" controls in each channel, 2-deck SEA record/dub. Features wide dynamic range expansion; LED status indicators; boost/cut ±12 dB/±6 dB switchable \$400

SEA-60 Graphic Equalizer

New D.P. 10-band graphic equalizer with real-time spectrum analyzer. Features reverse-response switch for dynamic companding; function indicators; transistor inductors for extended dynamic range; ±12-dB boost/cut range. Input attenuator level -0/-6 dB; frequency response 10-100,000 Hz +0/-2 dB \$300

SEA-40 Graphic Equalizer

Stereo 7-band graphic equalizer with SEA Character switch with reverse for dynamic companding. Features function indicators; -6-dB input attenuator; SEA record switch. Input attenuator level -0/-6 dB; frequency response 10-100,000 Hz \$200

KENWOOD

GE-1000 Graphic Equalizer

Stereo 12-band graphic equalizer with built-in time-delay system. Features LED-illuminated slide controls. Center frequencies 16, 32, 64, 125, 250, 500, 1k, 4k, 8k, 16k, 32k Hz \$440

GE-X9 Graphic Equalizer

Stereo 10-band graphic equalizer with 2 tape inputs, defeat switch. Center frequencies 16/32, 64, 125, 250, 500, 1k, 2k, 4k, 8k, 12k/16k/20k Hz. \$300

GE-90 Graphic Equalizer

Stereo 4-band graphic equalizer. Features FM broadcast low-frequency (60-Hz) boost; turntable hum, rumble low-frequency (60-Hz) cut; tape hiss, record scratch high-frequency (16-kHz) cut; rock music processing boost at 160, 400, 2.5k, 6k Hz \$199

KM LABORATORIES

SSO-330 Servo Sub-Octavator

Designed to tighten and extend bass response of conventional speaker/amplifier systems by up to 1 octave. Features detented 1.5-dB step controls for low-frequency speaker ratings, bass compensation; system-override button; manual left/right balancing controls; test button for 128-Hz oscillator; controls for balancing for particular amplifier/speaker system; LEDs that indicate correct settings for each channel. FET input (cascode zero-gain adder) impedance 20k ohms; output impedance 220 ohms; gain 0 dB ±0.15 dB; separation 90 dB at 1 kHz; THD 0.001% at 0.5 V; group delay 125 msec; S/N ratio 101 dB; maximum output 9 V rms; black finish; 14½" W × 6" D × 2¼" H \$399

KOSS

K/4DS Digital Delay System

Designed to recreate concert hall sound in home environment; stores in digital format 17,000 bits of information of live performances; employs 16,384-bit computer circuitry and RAM; automatically delays recorded material to conform with optimized ideal room stored in computer; hooks into any stereo system; second set of speakers required. Features 15-W/channel amplifier; switchable speaker selector for 4th dimension, stereo only, phones and left/right speaker dimension control; EQ switch (enhances bass response of ambience speakers and rolls off bass response below 50 Hz); minimum/maximum -6-dB, peak amplitude LEDs; 3 equalization controls; direct, reverb, reverb drive controls; send/receive bus. Fre-



quency response 2-40,000 Hz ±0.5 dB direct; reverb 20-5500 Hz; reverb time 2.5 sec; input/output impedance 47k/200 ohms; S/N ratio 90 dBm direct; 19" W × 7" D × 2" H \$400-\$459

LT SOUND

ACC-2 Amplitude Control Center

Stereo unit has Allison Research vca with feed-forward circuit design, deessing with switchable knee, or normal compression. Functions as compressor, limiter, expander, deesser, on-board oscillator for amplitude-modulated tremolo effects. Each channel has compression ratio, attack, release controls; expander threshold, ratio, attack, release controls; 3-color LED gain-reduction indicators. S/N ratio 90 dB below 1 V output; distortion 0.001%; compress/limit slope variable between 1:1 and infinity; 19" W × 7¼" D 3½" H \$995
CLX-2. Similar to ACC-2 except has no tremolo capability, expander ratio, threshold, attack, release controls. Has key function for keyed expansion or noise gating; 2" H \$695

TAD-4 Thompson Analog Delay

Stereo ambience unit for recording use features 2 separate channels each of analog delay, studio reverb. Controls for echo EQ, reverb level, reverb EQ, repeat, direct level, echo level. Delay time range 20-240 msec; bandwidth 12 kHz at 20-70 msec, 8.4 kHz at

100 msec, down to 3.5 kHz at 240 msec; dynamic range >90 dB; 19" W × 7¼" D × 2" H \$650

TC-1 Thompson Vocal Eliminator

Removes most or all of solo vocalist from standard stereo records, leaves most of background instruments, vocalists untouched. Works on tapes, records. 19" W × 7¼" D × 2" H \$595

ECC Echo Control Center

Single-channel unit functions as preamp for 2 low-impedance microphones, 2 low-level low-impedance line-level aux inputs; 3-band equalizer; echo, reverb controls for mic level, EQ, echo. Features biFET op-amp circuitry; relay on/off transient protection; mu-metal shielding for reverb unit. Delay dynamic range 85 dB below 1 V; distortion 0.5% at 1 kHz. 0.775 V; delay range 20-240 msec; delay frequency response ±1.5 dB; mic input impedance 2k ohms for 600-ohm or less mic; aux input impedance 47k ohms; output impedance 200 ohms for 2k-ohm load; bass, midrange, treble EQ range ±18 dB; rack-mountable; 7" D × 2" H \$595
RCC. Similar to ECC except no echo capability. Frequency response 10-40,000 Hz ±0.5 dB direct, 22-5500 Hz reverse; dynamic range 72 dB below 1 V; THD, IM distortion 0.05% \$295

PEQ-2 Parametric Equalizer

Dual 4-band parametric equalizer with studio quality EQ. Has rumble filter; selectable peak-dip or shelving response on upper, lower bands; bypass switch; peak indicator; balanced, unbalanced inputs, outputs. Frequency coverage 20-20,000 Hz; bandwidth 0.15-2.0 octaves; maximum level +22 dBm; maximum boost/cut ±15 dB; input/output impedance 47k/47 ohms; THD 0.007%; IM distortion 0.002%; 19" W × 7¼" D × 3½" H; 8.5 lb \$475
PEQ-1. Single-channel version of PEQ-2, without rumble filter; 5 lb \$249

RV-2 Stereo Reverb Unit

For line-level inputs only. Features -6-dB, peak amplitude LEDs; 3 equalization controls; direct, reverb, reverb-drive controls; send/receive bus. Frequency response 2-40,000 Hz ±0.5 dB direct, 20-5500 Hz reverb; reverb time 2.5 sec; input/output impedance 47k/200 ohms; S/N ratio 90 dBm direct; 19" W × 7" D × 2" H \$395

NR-2 Noise Reducer/Range Enhancer

Stereo unit provides 2:1 compander noise reduction, dynamic range enforcement. Designed for dual or independent tracking. Frequency response 20-20,000 Hz ±0.75 dB; S/N ratio 90 dB; distortion 0.2% at 1 kHz; input/output impedance 47k/200 ohms; 12.75" W × 6.15" D × 2.5" H \$295

NR-4 Four-Channel Compander

Can switch 4 channels of noise reduction from record to play mode using 2 inputs simultaneously or 2-channel simultaneous record, tape monitor decode. Frequency response 20-20,000 Hz ±0.75 dB; THD 0.2% compress/expand; slew rate 13 V/μsec; expand noise -95 dBm; maximum input +26 dBm; 12.75" W × 6.15" D × 2.5" H \$295
NR-8. Similar to NR-4 except provides 8 channels individually switchable record/play and bypass noise reduction or 4-channel simultaneous record/monitor decode \$495

SL-2 Stereo Limiter

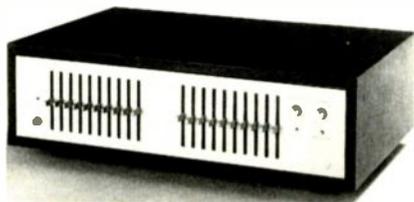
Functions independently or in stereo tracking mode. Provides 3 controls for attack, release functions. Features hard limit, average limit, automatic level control functions. S/N ratio 90 dB below 1 V; distortion 0.01% no limiting; 19" W × 7¼" D × 2" H .. \$249

LUXMAN

G-120A Graphic Equalizer

Stereo 10-band graphic equalizer with discrete circuits throughout. Features normal/bypass/record function selector, input attenuator selector, tape monitor switch, LED overlevel indicator. Center frequencies 28, 55, 110, 220, 440, 880, 1.8k, 3.5k, 7k, 14k Hz; boost/cut range ±12 dB; frequency response 10-100,000 Hz -1.5 dB; THD and IM distort-

12 SIGNAL PROCESSORS



tion 0.01% at 1 V out; S/N ratio 110 dB; input sensitivity/impedance 1 V/65k ohms; 17 $\frac{1}{4}$ "W x 10 $\frac{1}{2}$ "D x 4 $\frac{1}{2}$ "H..... \$350

MRX

128 One-Third Octave Equalizer

Mono 31-band, $\frac{1}{3}$ -octave equalizer. Center frequencies 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, 16k, 20k Hz; boost/cut ± 12 dB; dynamic range 108 dB; THD 0.01% at 0 dBV, 20-20,000 Hz, 0.009% at 0 dBV, 1 kHz; IM distortion 0.01% at 0 dBV, 60/7k Hz mixed 4:1; frequency response 10-20,000 Hz +0/-1 dB; slew rate 7 V/ μ sec; maximum input +18 dBV; input/output impedance 20k/100 ohms; equivalent input noise -90 dBV; optional rack mount kit available; walnut side panels..... \$386

127 Fifteen-Band Stereo Equalizer

Stereo 15-band, $\frac{1}{2}$ -octave graphic equalizer. Center frequencies 25, 40, 63, 100, 160, 250, 400, 630, 1k, 1.6k, 2.5k, 4k, 6.3k, 10k, 16k Hz; boost/cut range ± 12 dB; THD 0.02% at 0 dBV, 20-20,000 Hz, 0.009% at 0 dBV, 1 kHz; IM distortion 0.01% at 0 dBV, 60/7k Hz mixed 4:1; frequency response 20-20,000 Hz +0/-1 dB; maximum input +18 dBV; input/output impedance 20k/100 ohms; equivalent input noise -95 dBV; slew rate 7 V/ μ sec; optional rack mount kit available; walnut side panels .. \$360

132 Dynamic Expander

Linear dynamic expander provides up to 8 dB of upward 21 dB downward expansion. Features release-time control; expansion control (1:1 to 1:6); LED gain change, noise-reduction display; level control; in/out, monitor/normal, pre/post switching; optional rack-mount kit available. Maximum input/output +12/+18 dBV; input/output impedance 40k/100 ohms; dynamic range 110 dB; slew rate 7V/ μ sec; frequency response 20-20,000 Hz +0/-1 dB; attack time 5 msec maximum (depends on program material); release time 50-500 msec; optional rack-mount kit available..... \$330

147 Ten-Band Stereo Octave Equalizer

Vertical 10-band stereo graphic equalizer. Features independent left, right level controls; switchable subsonic filter; tape monitoring facilities with ability to pre-equalize when recording; bypass switch; solid walnut end pieces; optional rack-mount kit. Center frequencies 31, 62, 125, 250, 500, 1k, 2k, 4k, 8k, 16k Hz; boost/cut range ± 12 dB; maximum input/output level +18 dBV; input/output impedance 20k/100 ohms; equivalent input noise -95 dBV; maximum slew rate 7 V/ μ sec; THD 0.02% at 0 dBV, 20-20,000 Hz, 0.009% at 0 dBV, 1 kHz; IM distortion 0.009% at 0 dBV, 60/7k Hz mixed 4:1; frequency response 20-20,000 Hz +0/-1 dB; 19"W x 3 $\frac{1}{2}$ "H..... \$230

114 Stereo Graphic Equalizer

Stereo 10-band graphic equalizer. Features 8 rear-panel phono jacks; 2 inputs, 2 low-impedance outputs, 2 tape-record outputs, 2 tape-monitor inputs; tape-monitor, equalizer bypass switches. Center frequencies 31, 62, 125, 250, 500, 1k, 2k, 4k, 8k, 16k Hz; boost/cut range ± 12 dB; dynamic range 110

dB; gain 0 dB ± 1 dB (controls centered); maximum output +18 dBV at 10k ohms; input impedance 20k ohms; equivalent input noise -95 dBV; frequency response 20-20,000 Hz ± 1 dB at 0 dBV; THD 0.05% at 0 dBV, 20-20,000 Hz, 0.009% at 0 dBV, 1 kHz; IM distortion 0.05% at 0 dBV, 60/7k Hz mixed 4:1)..... \$200

119 Componder

Can be used with open-reel, cassette decks. Features level match control; bypass switch; black anodized aluminum housing with walnut side panels. Dynamic range 100 dB; output impedance drives 600 ohms or more; equivalent input noise -88 dBV (20-20,000 Hz); input impedance 100k ohms; compress/expand ratio 2:1; tracking accuracy ± 1 dB/20 dB; frequency response 30-20,000 Hz ± 1 dB at 0 dBV; THD 0.15% at 0 dBV, 200-20,000 Hz; IM distortion 0.75% at 0 dBV, 60/7k Hz mixed 4:1) \$160

153 Five-Band Equalizer

Stereo equalizer features independent left, right level controls with LED level-set indicators; subsonic filter; tape-monitor, equalizer bypass switches; sloping console design with solid wood end pieces. Center frequencies 50, 100, 200, 2k, 10k Hz; boost/cut range ± 12 dB; maximum input/output level +13 dBV; input/output impedance 20k/100 ohms; equivalent input noise -95 dBV; THD 0.05% at 0 dBV, 20-20,000 Hz, 0.005% at 0 dBV, 1 kHz; IM distortion 0.005% at 0 dBV 60/7 kHz mixed 4:1; frequency response 20-70,000 Hz +0/-3 dB..... \$130

156 Discoder Noise-Reduction System

Noise-reduction system for CX-encoded records manufactured under license from CBS, Inc. Features LED level-set indicators; bypass switch; level-set display; tape-monitor connectors; compact case with solid-walnut end pieces. Noise reduction up to 20 dB with no loss of transient or frequency response; dynamic range > 80 dB..... \$120

NAKAMICHI

High-Com II Noise-Reduction System

Designed to improve dynamic range of high-quality cassette decks; compressor/expander with 2 independent frequency bands, 2:1 ratio for maximum suppression of noise pumping; 20-dB reduction of noise plus 3-7 dB headroom improvement; built-in 400-Hz calibration tone; 2 wide-range peak level meters; defeatable subsonic and multiplex filters; removable 19" rack mount adaptors \$480

NR-200 Noise-Reduction System

Dolby-C noise-reduction system designed to be used with any high-quality tape recorder. Rack-mountable system has its own power supply, peak responding LED recording-level meters; left, right, master recording-level controls; output control; calibration oscillator; MPX filter; switch for choosing between Dolby B and C processing. Features encoder, decoder sections for true off-tape monitoring with 3-head cassette decks. Noise reduction Dolby B/C 10 dB beyond 2 kHz/20 dB 2k-8k Hz; frequency response 20-20,000 Hz ± 1 dB; THD < 0.1% (at 400 Hz, ref. 0-dB level); power consumption 20 W; 19"W x 10 $\frac{3}{4}$ "D x 2 $\frac{1}{4}$ "H; 12 lb 2 oz..... \$450

NR-100 Noise-Reduction System

Dolby-C noise-reduction system designed to be used with Nakamichi 7002XE, 7002XL, 10002XL cassette decks. Can be used without recorder recalibration and is selected by setting noise-reduction switch on cassette deck to EXT. Provides 4 channels of NR (both stereo channels in record and playback). Noise reduction approximately 10 dB at 1 kHz, 20 dB 2k-8k Hz;

power supplied by remote-control socket on cassette deck; 9 $\frac{1}{4}$ "W x 4 $\frac{3}{4}$ "D x 1 $\frac{1}{4}$ "H. Supplied with 27 $\frac{1}{2}$ " cable \$230

EC-100 Electronic Crossover

Designed for stereo bi-amplification; two additional EC-100's allow tri-amplification, etc.; 19 crossover frequency bands at fixed 12 dB/octave slope; phase correction; THD < 0.005%, 20-10,000 Hz; requires PS-100 power supply; 7 $\frac{1}{2}$ "W x 4"D x 2 $\frac{1}{2}$ "H \$140

NIKKO

ATD-1 Time Delay Synthesizer

Designed to recreate concert hall sound in any acoustical environment. Features pushbuttons for acoustics of small, medium, large halls; pushbuttons for hall character; pushbuttons for degree of reverberation from 100 msec to 2 sec; stage distance or front-to-rear balance control; master output control; tape monitor, delay defeat switches; adjustable input level control with LEDs; 4/2-channel switch. Delay time 17-128 msec; reverb decay time 100 msec-2 sec; frequency response 20-7000 Hz ± 3 dB delay, 20-20,000 Hz +0/-0.1 dB main; THD 0.5% delay, 0.05% main; S/N ratio 60 dB delay, 80 dB main; input level/impedance 100 mV/100k ohms; maximum output 0.775 V delay, 1.2 V main; 19"W x 11 $\frac{1}{4}$ "D x 2 $\frac{1}{2}$ "H \$350

EQ-20 Graphic Equalizer

Stereo 10-band graphic equalizer with detented 5-step slide controls. Features tape monitor; equalizer gain switch (-6 dB, 0 dB, +6 dB); pre/post EQ, tape monitor switch; LED equalizer in/out switch. Center frequencies 31.5, 63, 125, 250, 500, 1k, 2k, 4k, 8k, 16k Hz; boost/cut range ± 12 dB; frequency response 10-50,000 Hz ± 1 dB; THD 0.007%; S/N ratio 105 dB; 19"W x 9"D x 3 $\frac{1}{4}$ "H..... \$320

EQ-500 Graphic Equalizer

Stereo graphic equalizer with 6 bands/channel. Features 11-position EQ slide-type controls; EQ-defeat switch; 3 tape-monitor function switches that allow source monitoring, pre/post-EQ monitoring. Center frequencies 40, 125, 400, 1.25k, 4k, 12.5 k Hz; boost/cut range ± 10 dB..... \$200

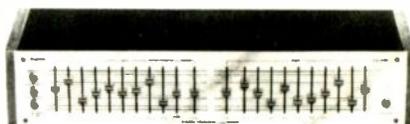
NUMARK ELECTRONICS

EQ2600 Equalizer/Tone Computer Display

Stereo 10-band graphic equalizer with tone computer display. Features true octave spacing; ± 15 -dB EQ, master-gain controls; fluorescent 10-band display; ability to read left or right or both channel displays; VU mode to read output level; pre/post EQ input; attenuated/reverse mode recording; switchable 0/-10-dB meter calibration. Uses binary-coded-decimal (BCD) notation circuit \$329

EQ2400S Graphic Equalizer

Stereo 10-band graphic equalizer with defeat, EQ select, tape-monitor switches. Features left, right unity-



gain controls; availability with optional wood end panels or rack-mount adapter. Center frequencies 30, 60, 120, 240, 480, 960, 1920, 3840, 7680, 15,360 Hz; boost/cut range ± 15 dB; frequency response 10-100,000 Hz ± 1 dB; IM/harmonic distortion 0.02%/< 0.01% at 1 V output; hum and noise -96 dB at 1 V output; input/output level 8/8 V maximum; input/output impedance 100k/100 ohms; inputs/outputs 2 main, 2 tape monitor/2 main, 2 tape out; power consumption 7 W; 18 $\frac{1}{2}$ "W x 6 $\frac{1}{2}$ "D x 3 $\frac{1}{2}$ "H; 10.5 lb \$199

ONKYO

PE-33 Graphic Equalizer

Stereo 10-band graphic equalizer with LED slide controls behind door. Features LED EQ flow indicator; EQ

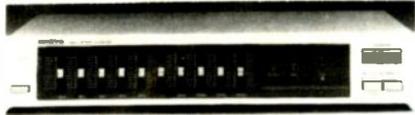
NEED MORE INFORMATION?

Write directly to the manufacturer or distributor. A list of names and addresses starts on page 188.

routing. Center frequencies 32, 64, 125, 250, 500, 1k, 2k, 4k, 8k, 16k Hz; boost/cut range ± 12 dB; S/N ratio 100 dB; THD 0.01% \$200

E-08 Audio Equalizer

Ten-band graphic equalizer with LED slide indicators. Features LED EQ flow indicator; EQ routing. Center



frequencies 32, 64, 125, 250, 500, 1k, 2k, 4k, 8k, 16k Hz; boost/cut ± 12 dB; S/N ratio 100 dB; THD 0.01% \$180

JC PENNEY

MCS 3035 Graphic Equalizer

Stereo 10-band graphic equalizer with LEDs in slide control handles. Features rotary input attenuator; normal/reverse, dB range, EQ receive, tape monitor switches; brushed-aluminum front panel; audio cables. Center frequencies 31, 64, 125, 250, 500, 1k, 2k, 4k, 8k, 16k Hz; boost/cut range ± 12 or ± 6 dB \$200

MCS 3032 Graphic Equalizer

Stereo 5-band graphic equalizer with variable range indicator. Features REC OUT/SOURCE, tape monitor, EQ position switches; variable range control; brushed-aluminum front panel; audio cables. Center frequencies 63, 240, 1k, 4k, 26k Hz; frequency range 5-100,000 Hz; THD 0.02%; S/N ratio 95 dB; $16\frac{1}{4}'' \times 10'' \times 3\frac{1}{2}''$ H \$160

PHASE LINEAR

180 Dimensional Sonic Localizer

Designed primarily for headphones to improve sonic imaging. THD + noise < 0.009% at 0.5 V output; S/N ratio 83 dB A weighted at < 0.5 V output; input impedance 20k ohms; maximum output 10 V rms into 10k ohms; $8.1'' \times 6\frac{3}{4}'' \times 2\frac{1}{2}''$ H \$150

Model 220 CX Decoder

Designed to decode CBS CX-encoded phonograph records to provide noise reduction. Features bypass, tape-monitor switches. THD + noise < 0.08% at 0.5 V output, 20-20,000 Hz; S/N ratio 85 dB at < 8.5 V output; input sensitivity/impedance 150 mV rms average / > 50k ohms; output level/impedance > 10 V rms maximum into 8 ohms / < 10k ohms; power consumption 1.5 W; noise reduction 20 dB; $8.1'' \times 6.75'' \times 2.25''$ H \$120

PIONEER

SG-9 Stereo Graphic Equalizer

Stereo 12-band graphic equalizer with tape monitor, off/on/record switch. Center frequencies 16, 32, 64, 125, 250, 500, 1k, 2k, 4k, 8k, 16k, 32k Hz; boost/cut range ± 10 dB; THD 0.005% at 1 V; $16\frac{1}{8}'' \times 14'' \times 5\frac{1}{8}''$ H; 15.5 lb \$395

SG-300 Graphic Equalizer

Stereo 7-band graphic equalizer with LED in each slide control handle. Center frequencies 60, 150,



400, 1k, 2.4k, 6k, 15k Hz; boost/cut range ± 10 dB; frequency response 5-70,000 Hz ± 1 dB; THD 0.005% \$180
SG-3. Similar to SG-300 \$180

SR-9 Reverberation Unit

Stereo reverberation unit with off/on/record mode switch, 2 tape monitors. Reverb time 0.3-3.0 sec; THD

0.05% at 1 kHz, 1 V output; S/N ratio 90 dB \$200

RG-9 Dynamic Expander

Dynamic expander with fluoroscan meter, displays. Features input level control. Dynamic expansion 4, 7, 10, 13, 16 dB; attack/release time 0.3/1.20 msec; THD 0.05% at 1 kHz, 16 dB; S/N ratio 115 dB at 6.5 V, 1 kHz, 16 cB \$200

RG DYNAMICS

PRO-20 Dynamic Processor

Stereo dynamic processor designed to boost power, reduce noise, restore transient response, eliminate tape hiss, reveal details, enhance FM reception, improve record sound reproduction. Features input level control; maximum/minimum noise reduction, tape monitor on/off, tape and main on/off dynamic processing switches; dual 4-20 dB LED level displays. Total dynamic processing range 20 dB; downward/upward processing range -3 to -8/0 to +12 dB; attack/decay time 0.6 msec/80 msec-3 sec (program controlled); maximum output level/impedance 6.5 V/50k ohms at 1 kHz; minimum input: 80 mV; THD 0.04% at 1 kHz, 1 V, maximum processing; IM distortion 0.05% at 60 and 2k Hz mixed 1:1; hum and noise maximum/minimum 90/100 dB below 1 V output; frequency response 20-20,000 Hz ± 1 dB; input/output impedance 80k/300 ohms; power consumption 3 W; $17'' \times 12'' \times 3\frac{1}{2}''$ H (optional rack-mount kit available) \$449

RG X-15 Dynamic Processor

Stereo dynamic signal processor similar to PRO-20 except over narrower control range. Features main output, tape recorder process/bypass, tape monitor in/out switches; 6-15-dB dynamic processing control; dual 6-15-dB LED level displays. Total dynamic processing range 15 dB; downward/upward processing range -6/0 to +9 dB; attack/decay time 0.6 msec/80 msec-3 sec (program controlled); maximum output signal level/impedance 6 V/50k ohms at 1 kHz; minimum input 80 mV; THD 0.12% at 60 and 2k Hz mixed 1:1, 1 V output; hum and noise maximum/minimum -90/-100 dB; frequency response 20-20,000 Hz ± 1 dB; input/output impedance 100k/300 ohms; power consumption 3 W; $13\frac{1}{2}'' \times 9'' \times 2\frac{1}{2}''$ H \$279

ROTEL

RE 860 Graphic Equalizer

Stereo 10-band graphic equalizer. Features tape monitor; tape dub 1 to 2, 2 to 1; bypass switch; $430 \text{ mm} \times 290 \text{ mm} \times 88 \text{ mm}$ \$200

RE 840 Graphic Equalizer

Stereo 7-band graphic equalizer. Features tape monitor facility; defeat switch; $430 \text{ mm} \times 290 \text{ mm} \times 88 \text{ mm}$ H \$135

SAE

E-101 Parametric Equalizer

Computer direct-line parametric equalizer with digital display, 2 bands with 10 memories/band. Bandwidth



adjustable 0.3-3.5 octaves; boost/cut range ± 16 dB; rated output 2.5 V rms; THD 0.02%; S/N ratio 95 dB; $19'' \times 12\frac{1}{2}'' \times 3\frac{1}{2}''$ H \$650

180 Parametric Equalizer

Two-band stereo parametric equalizer with adjustable bandwidth (0.3-3.6 octaves), center frequency in each control group. Features tape equalization facilities, level match controls; frequency response 20-20,000 Hz ± 0.25 dB; THD and IM distortion 0.02%; S/N ratio 90 dB; $4\frac{3}{4}'' \times 17\frac{1}{2}'' \times 3\frac{1}{2}''$ D \$300

4000 Electronic Crossover

Two-band crossover with independent high-low balance controls for each channel; independent high-pass and low-pass controls; THD and IM distortion 0.02%; S/N ratio 95 dB; frequency response 20-20,000 Hz ± 0.25 dB; insertion loss 1 dB; input/output impedance 67k/600 ohms; rack mountable; $19'' \times 3\frac{1}{2}'' \times 3\frac{1}{2}''$ D \$275

5000A Click and Pop Filter

Filter is designed to eliminate or considerably reduce audible effects of scratches, grit, mistracking, static, imperfections, normal wear of records during normal play, tape recording. Frequency response 20-20,000 Hz ± 1 dB; S/N ratio > 96 dB; THD and IM < 0.1%; $10\frac{1}{2}'' \times 9\frac{1}{2}'' \times 3''$; 8 lb \$225

SANSUI

SE-9 Graphic Equalizer

Microprocessor-controlled stereo graphic equalizer with unique motorized fader-setting system, 4-curve memory storage, spectrum-analyzer display, pink-noise generator, external electret condenser microphone. All 16 (8 bands \times 2 channels) frequency controls dual slide potentiometers, one section boosting/cutting band by ± 12 dB, the other producing varying dc voltage for physically positioning sliders. Using the automatic adjustment procedure, fader-to-fader interaction is minimized. Automatic setup procedure requires only 30 seconds overall. Left/right frequency spectra shown on gas-display calibrated in 3-dB increments over 24-dB range. Under, over LEDs warn of out-of-range conditions. Features 2-way dubbing, 2-deck monitoring. Center frequencies 80, 160, 315, 630, 1.25k, 5k, 10k Hz; in/out level 1 volt with flat control settings; THD 0.008%; frequency response 10-100,000 Hz +0/-1 dB; S/N ratio 105 dB; input/output impedance 30k/600 ohms
SE-9S. SE-9 with brushed-aluminum front panel \$700
SE-9B. SE-9 with matte black front panel, rack-mounting hardware \$700

SE-8 Graphic Equalizer

Ten-band stereo graphic equalizer with spectrum-analyzer display. Features 2-tape-deck monitoring facilities; analyzer calibration control; silver or rack-mount-



able matte black finish. EQ center frequencies 32, 63, 125, 250, 500, 1k, 2k, 4k, 8k, 16k Hz; boost/cut range ± 12 dB; THD 0.008%; S/N ratio 110 dB; frequency response 10-100,000 Hz $\pm 0/-1$ dB \$400
SE-7. Similar to SE-8 but minus spectrum analyzer display. SE-7S silver, SE-7B black finish \$300

RA-990 Reverberation Amplifier

Combines bucket-brigade time delay, reverberation system with 2-channel panpot mixing circuitry to recreate realistic acoustic ambience, provide special effects for sound reproduction, musical performances. Echo mode has adjustable 0.3 second decay time; Duet mode creates doubling effect with adjustable 30-100 msec second time delays. Individual panpots, balance control provide mixing; special effects added via combination of mic, line, tape inputs. Frequency response 10-80,000 Hz +0/-3 dB; THD < 0.025%; S/N ratio > 90 dB line. Available in black (RA-990B) or silver (RA-990S) finish \$240

SANYO

PLUS N33 Noise-Reduction System

Super D noise-reduction system uses companding scheme. Features phase-compensated band-splitting filter; Decliner 2:1 compansion; optimized level sensing; mic/line mixing; fluorescent peak-reading signal-level meters; MPX filter. Dynamic range 100 dB; frequency response 10-30,000 Hz ± 1 dB; THD 0.08% at rated output, 1 kHz; noise reduction 40 dB maximum using a tape deck with 50-dB minimum S/N ra-

12

SIGNAL PROCESSORS

tlo; mic level/impedance 0.3 mV/400-10,000 ohms; record/playback line Input level/impedance 100 mV minimum/50k ohms; encode output level/impedance 80 mV/2k ohms; decode output level/impedance 530 mV/2k ohms; 17 $\frac{1}{2}$ "W \times 10 $\frac{1}{4}$ "D \times 1 $\frac{1}{2}$ "H..... \$300

H.H. SCOTT

825Z Stereo Graphic Equalizer

Stereo 10-band graphic equalizer with low-noise operational amplifiers. Features advanced variable active bandpass/bandstop filters; equalizer bypass; tape monitor switch. Center frequencies 32, 64, 125, 250, 500, 1k, 2k, 4k, 8k, 15k Hz; boost/cut range \pm 12 dB; frequency response 10-45,000 Hz \pm 0.5 dB; THD 0.01% at 1V out; S/N ratio 87 dB; input/output impedance 50k/300 ohms; optional 19" rack mount; 17"W \times 10"D \times 3 $\frac{1}{2}$ "H... \$275

SOUND CONCEPTS

SD550 Ambience Restoration System

Stereo audio delay system; continuous delay variation 5-100 msec; continuous reverb variation 0-100%; high frequency rolloff from -3 to +6 dB; front mix level 0-100%; rear level 0-100%; 50- or 100-msec delay range; rear output delay or quad direct; front output direct or delay mix; input front or quad rear; input impedance 60k ohms minimum; output impedance 300 ohms maximum; frequency response 20-10,000 Hz \pm 1, -3 dB with 5 msec delay, zero dB high-frequency rolloff; dynamic range 90 dB minimum; S/N ratio 85 dB minimum, 90 dB weighted; 1% maximum distortion at 1 kHz, 1 V rms, consisting almost entirely of 2nd harmonic; 15 $\frac{1}{2}$ "W \times 9"D \times 3 $\frac{1}{2}$ "H..... \$739

IR2100 Image Restoration System

Expands stereo image beyond confines of space between speakers to reproduce sonic image presented to recording microphones; speaker/listener angle continuously adjustable 20°-100°; continuous adjustment of perimeter to central sound level balance; master volume control; connects in tape loop or between preamp and power amp; S/N ratio 80 dB; distortion 0.1% maximum; handheld with 15-ft remote cable; 6"H \times 3"W \times 1.5"D..... \$249
IR2200. Non-remote version of IR2100 with perimeter to central sound level brilliance control; connects in tape loop; has provisions for tape recorder, capability to record expanded image. S/N ratio 80 dB; distortion 0.1% maximum; 7"W \times 4"D \times 2"H. Factory assembled..... \$169
 Kit (KIR-1)..... \$95

VSP-1 Stereo Synthesizer

Provides interface to stereo system, creates spacious, realistic pseudostereo from mono sources; 10-band harmonically related frequency division. S/N ratio 80 dB; distortion 0.2% maximum; 7"W \times 4"D \times 2"H. Factory wired..... \$159
 Kit (KVSP-1)..... \$90

SX-80 Peak Expander/CX Decoder

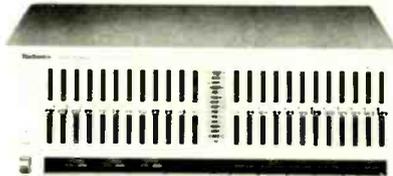
Adds 20 dB of dynamic range to CX-encoded records and videodiscs, 6-9 dB of upward expansion to nonencoded sources; connects into tape loop, provides recorder connections. Features tri-color LED for 0 VU calibration with standard record supplied. S/N ratio 80 dB; distortion 0.1% maximum; 7"W \times 4"D \times 2"H. Factory assembled..... \$119
 Kit (KXS-1)..... \$76

SOUNDCRAFTSMEN

AE2000 Real Time Analyzer/Equalizer

Stereo 10-band graphic equalizer with Differential/Comparator* Analyzer/Equalizer, pink-noise generator. Features 100-LED (10-octave) real-time dis-

play with adjustable decay rate; mic preamp; input for analysis of 3-head tape deck, other signal processor; Auto-scan mode; brushed-aluminum front panel; hardwood side panels. Center frequencies 32, 64, 125, 250, 500, 1k, 2k, 4k, 8k, 16k Hz; boost/cut range \pm 15 dB; display accuracy 0.1 dB; Auto-Scan sweep rate 0.1-10 seconds/octave; THD and IM dis-



ortion <0.01% at 2 V; S/N ratio 114 dB at maximum output; mic preamp input impedance 2K ohms; frequency response 20-20,000 Hz \pm 0.1dB. \$699
AS1000. Similar to AE2000 but without equalizer..... \$549
AS2420. Similar to AE2000 but with 100-LED display, Auto Scan..... \$499

CX* Preamp/Equalizer

Stereo 10-band graphic equalizer/preamplifier with CX phono noise-reduction system. Equalizer section features Differential/Comparator* True-Unity-Gain EQ circuitry for input to output balancing accuracy within 0.1 dB. Filter circuits have precision-wound passive coil inductors for gain of 15 dB each octave and lower noise. THD and IM distortion <0.01% at 2 V output, 114 dB S/N ratio at 10 V output. Preamp section has 4 independent mono phono preamps (2 stereo) each with variable \pm 20 dB gain adjustments; accepts moving-coil, moving-magnet, variable-reluctance cartridge, has switch for adjusting output 0.28-300 mV; adjustable cartridge loading 50-800 pF. Signal processor patch bay includes sub-sonic filter, signal processor loop, EQ, CX decoder, mono switch. Three tape decks can be accommodated with cross dubbing. Frequency response 5-100,000 Hz \pm 0.25 dB high-level, 20 to 20,000 Hz \pm 0.5 dB phono; THD and IM distortion 0.01% at 1 V; phono impedance 47k/100 ohms; phono S/N ratio 97 dB. Includes CX calibration record and frequency spectrum analyzer test record. Front panel rack mount, brushed aluminum with charcoal finish..... \$699
CX 4100. Same as CX 4200 but without adjustable phono gain, cartridge loading. Equalizer filter circuits utilize op-amp synthesized inductors. Equalizer controls have \pm 12 dB boost/cut range..... \$549
CX 4000. Same as CX 4100 but no equalizer. \$419

TG 3044 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, 1k, 1.6k, 2.5k, 4k, 6.3k, 10k, 16k Hz. Features EQ defeat; sub-sonic 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 IM distortion 0.01% at 2 V; S/N ratio 114 dB at 10 V output; input impedance 47k ohms. Front panel rack mount, black anodized aluminum..... \$649

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 uses precision wire wound passive coil inductors for high gain, low noise and distortion. Front panel controls include tape monitor, LED defeat/EQ defeat and EQ tape record. THD and IM distortion <0.01% at 2 V; S/N ratio 114 dB at 10 V; boost/cut range \pm 15 dB. Includes frequency spectrum analyzer test record, computone charts, cables. Front panel is rack mount, brushed aluminum with charcoal finish..... \$399
DC 2214. Same as DC 2215 except equalizer filter circuits have op-amp synthesized inductors. THD and IM distortion <0.01% at 2 V; S/N ratio 106 dB at 10 V; boost/cut range \pm 12 dB..... \$299
SE 450. Same as DC 2214 without differential/comparator* circuitry. Front panel available in Silver or Black anodized aluminum with black vinyl cabinet. Not rack mountable..... \$249

STANTON

BA-26 Pre-Preamplifier

Designed to amplify signals from any low-output, low-impedance cartridge to level of conventional magnetic cartridges. Flat response down to 5 Hz; insensitive to hum pickup; voltage gain 26 dB; frequency response 10-100,000 Hz \pm 5 dB; THD <0.08% at 200 mV output; separation 60 dB minimum; maximum input level 0.03 V rms at 1 kHz; output 0.8 V rms; input impedance 6k ohms; output impedance 1.2k ohms; powered by 3 C cells; 1.2 lb..... \$189

310 Professional Phono Preamp/EQ

Phono preamplifier/equalizer designed to correctly interface all Stanton, selected magnetic phono cartridges for optimum playback of records, calibration of audio systems. Features universal mounting brackets; instant selection of flat or NAB postemphasis curves; switchable rumble filter; individual gain adjust, high-frequency responses; trim of capacitive cartridge loading; 117/230-V 50/60-Hz operation, immunity to external ac fields. Output 20 dBm maximum; frequency response \pm 0.5 dB 20-20,000 Hz flat and NAB positions of mode selector; THD <0.05% at 20 dBm; output source impedance 5 ohms; designed for loads of 150 ohms or higher; gain adjustable 30-60 dB; maximum input level 120 mV at 1 kHz; input resistance 47k ohms; separation 60 dB minimum, 20-15,000 Hz; 7 $\frac{1}{4}$ "W \times 5"D \times 2 $\frac{1}{4}$ "H..... \$240

SUPEREX

GEM-1 Graphic Equalizer

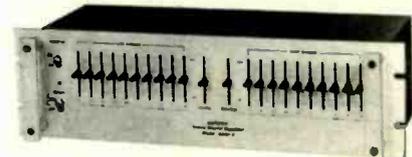
Stereo 5-band graphic equalizer module with 2 tape-deck switching with tape record/play EQ, tape monitor controls. Features programmable capability with optional Superex program cards. Center frequencies 60, 240, 1k, 3.5k, 10k Hz; boost/cut range \pm 12 dB; frequency response 10-150,000 Hz \pm 0.5 dB; HD 0.02% at 0 dB gain; rated output 2 V rms; dynamic range 8.5 V; S/N ratio 92 dB; input impedance 50k ohms; output impedance 600 ohms..... \$90

GEM-2 Graphic Equalizer

Provides equalization control at high, low ends (high treble, deep bass), mid-high range. Features exclusive 3 tape function system to permit recording with equalization, playing back with equalization, tape monitoring. Center frequencies 38, 68, 240, 1.6k, 15k Hz; frequency response 10-150,000 Hz \pm 0.5 dB; maximum gain/attenuation \pm 14 dB; gain at flat setting 0 dB; distortion at 1 kHz 0.02% at 0 dB gain; output 2 V rms; dynamic range 8.5 V rms (flat settings); S/N ratio 92 dB at rated output; input/output impedance 50k/600 ohms..... \$120

GEM-3 Graphic Equalizer

Stereo 10-band graphic equalizer with separate volume, balance controls. Center frequencies 31, 63, 125, 250, 500, 1k, 2k, 4k, 8k, 16k Hz; boost/cut



range \pm 14 dB; frequency response 20-20,000 Hz \pm 0.5 dB; HD 0.04%; S/N ratio 85 dB; input/output impedance 68k/600 ohms; output impedance 600 ohms..... \$240

GEM-4 Varigraphic Equalizer

Stereo bFET equalizer with variable center-frequency potentiometers that provide "parametric-like" control, true EQ curve modifier, total tape-recording flexibility with switching facilities for EQing during recording and/or playback. Features 5 slide/5 rotary controls per channel with frequencies at 33-78 Hz, 110-260 Hz, 470-1.1k Hz, 1.9-4.5 kHz, 6.8-16 kHz. Boost/cut range \pm 14 dB; frequency response 10-50,000 Hz \pm 2 dB; THD <0.01% at 1 kHz; S/N ra-

tio 94 dB; input/output impedance 100k/100 ohms; output 6 V rms maximum with 10k-ohm load; gain unity (0 dB) in flat positions; center Q 2.5; power consumption 3 W nominal; 19"W x 7.4"D x 5.3"H; 11 lb \$210

GEM-7 Parametric Equalizer

Stereo parametric equalizer in which each channel has 4 EQ sections, each with separate frequency, bandwidth level controls. Variable-frequency controls on each channel are logarithmically paired. Features biFET technology; complete tape deck switching capability with separate switching for recording with EQ, playing back with EQ, conventional monitoring function; handles, standard front-panel rack mount notches. Frequency selection continuously variable 30-820 Hz and 820-16k Hz; boost/cut range ± 18 dB (± 36 dB possible with 2 bands set for identical frequency), variable; bandwidth 0.16-2 octaves, variable; frequency response 5-100,000 Hz ± 2 dB with controls flat; THD < 0.01%; IM distortion < 0.005%; S/N ratio 89 dB; input output impedances 50k/100 ohms; output 6 V rms maximum with 10k-ohm load; gain 0 dB controls flat; power consumption 3 W; 19"W x 7.4"D x 5.3"H; 11 lb \$450

TEAC

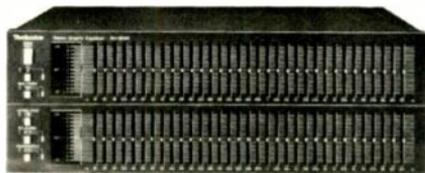
GE-20 Graphic Equalizer

Stereo 10-band graphic equalizer with high- and low-pass filters. Features input level control; LED input overload indicator; output level meter with output level control; operational amplifier-synthesized inductors. Center frequencies 31.5, 63, 125, 250, 500, 1k, 2k, 4k, 8k, 16k Hz; boost/cut range ± 10 dB; 12 frequency response 20-30,000 Hz ± 0.5 dB; THD 0.03%; S/N ratio 85 dB; input sensitivity/impedance 0.3 V, unbalanced/100k ohms; maximum output level +18 dB at 8 V \$350

TECHNICS

SH-8065 Graphic Equalizer

Stereo 33-band graphic equalizer with variable range indicators. Features variable range selector; tape-monitor switch; parallel left, right slide controls (left



channel on top, right channel on bottom). 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, 16k, 20k, 25k Hz; boost/cut range $\pm 3/\pm 12$ dB; frequency response 5-100,000 Hz -1 dB; THD 0.0025%, 20-20,000 Hz; S/N ratio 110 dB; input/output impedance 47k/600 ohms; input sensitivity/maximum output 1/8 V; gain 0 dB; line-level switch 150 mV/1 V; power consumption 28 W; 16 $\frac{1}{8}$ "W x 13"D x 6 $\frac{1}{2}$ "H; 14.6 lb \$500

SH-8020 Graphic Equalizer

Stereo 12-band graphic equalizer with tape monitor, EQ position switch. Features shock-noise muting; variable range display; LED in each slide control handle. Center frequencies 16, 31.5, 63, 125, 250, 500, 1k, 2k, 4k, 8k, 16k, 32k Hz; boost/cut range $\pm 12/\pm 3$ dB; frequency response 5-100,000 Hz -3 dB; S/N ratio 100 dB; THD 0.01%, 20-20,000 Hz; input sensitivity/impedance 0.5 V/47k ohms; maximum input/output 6/6 V; gain 0 dB; power consumption 12 W; 16 $\frac{1}{8}$ "W x 9 $\frac{1}{2}$ "D x 6 $\frac{1}{2}$ "H; 13.2 lb \$400

SH-8045 Graphic Equalizer

Stereo 12-band graphic equalizer with variable range display; EQ position switch; tape monitor. Center frequencies 16, 32, 63, 125, 250, 500, 1k, 2k, 4k, 8k, 16k, 32k Hz; boost/cut range $\pm 12/\pm 3$ dB; frequency response 5-100,000 Hz -1 dB; THD 0.005%, 20-20,000 Hz; S/N ratio 110 dB; input sensitivity/impedance 1 V/47k ohms; maximum input/output 8/8 V; rated output 1 V; power consumption 16 W; 16 $\frac{1}{8}$ "W x 9 $\frac{1}{2}$ "D x 2 $\frac{1}{2}$ "H; 5.7 lb \$200

ity/impedance 1 V/47k ohms; maximum input/output 8/8 V; rated output 1 V; power consumption 16 W; 16 $\frac{1}{8}$ "W x 9 $\frac{1}{2}$ "D x 2 $\frac{1}{2}$ "H; 5.7 lb \$200

SH-8015 Graphic Equalizer

Stereo graphic equalizer with illuminated display that indicates variable ranges. Features dual 5-band equalization for each channel (63, 240, 1k, 4k, 16 kHz ± 12 dB range); equalizer on/off switch; equalizer position switch; tape monitor switch with LED for monitoring signal source/tape deck output. Frequency response 5-100,000 Hz ± 3 dB; maximum output 6 V; THD 0.02%; input sensitivity 0.5V; S/N ratio 101 dB IHF A weighted at 1 V output; overall gain ± 0 dB; output voltage 0.5 V at 0.02% THD; power consumption 12 W; 15 $\frac{1}{8}$ "W x 10 $\frac{1}{4}$ "D x 3 $\frac{1}{2}$ "H \$200

SH-8015 Graphic Equalizer

Stereo 5-band graphic equalizer with variable range display. Features EQ position switch; tape/source monitor switch. Center frequencies 63, 240, 1k, 4k, 16k Hz; boost/cut range $\pm 12/\pm 3$ dB; frequency response 5-100,000 Hz -3 dB; THD 0.02%, 20-20,000 Hz; S/N ratio 95 dB at 1 V out; input sensitivity/impedance 0.5 V/47k ohms; maximum input/output 6/6 V; gain 0 dB; rated output 0.5 V; power consumption 12 W; 16 $\frac{1}{8}$ "W x 10 $\frac{1}{4}$ "D x 3 $\frac{1}{2}$ "H; 7.6 lb \$200

SH-8030 Space Dimension Controller

Space dimension controller designed to provide surround sound from 2 speaker systems. Features 5-band graphic equalizer; dimension/signal-level display; tape monitor; ambient, echo controls; dimension on/off, effector position switches; phono/AUX selector; mic jacks with level, echo level control; mic 1 panpot; mixing balance control. Frequency response 7-150,000 Hz $+0/-3$ dB; S/N ratio 80 dB; THD 0.005% line in; EQ center frequencies 60, 250, 1k, 4k, 16k Hz; boost/cut range ± 12 dB; echo time 90 msec; sound image location 30° backward; input sensitivity/impedance 150 mV/30k ohms line in, AUX, tape, 2.5 mV/47k ohms phono; 1.5 mV/10k ohms mic 1 and 2; output level/impedance 150 mV/600 ohms line and rec out; maximum input at 1 kHz 5 V line in, 120 mV phono, 70 mV mic 1 and 2; maximum output 5 V; power consumption 25 W; 16 $\frac{1}{8}$ "W x 11 $\frac{1}{2}$ "D x 4 $\frac{1}{2}$ "H; 10.6 lb \$420

SH-8040 Space Dimension Controller

Designed to provide surround sound from 2 speaker systems. Features dimension/signal-level display; source/tape monitor switch; echo position switch; dimension echo, ambient controls; mic level control. Frequency response 20-150,000 Hz $+0/-3$ dB line-in and playback, 30-30,000 Hz mic; THD 0.05% line-in and playback, 0.06% mic; S/N ratio 101 dB line-in and playback, 62 dB mic; input sensitivity/impedance 0.5 V/22k ohms line in and playback, 1.6 mV/10k ohms mic; output level 0.5 V line in and rec out; maximum input 4.5 V line in and playback, 150 mV mic; maximum output 4.5 V; gain 0 dB; echo time 64 msec; sound image localization 30° backward; power consumption 11 W; 16 $\frac{1}{8}$ "W x 11 $\frac{1}{2}$ "D x 2 $\frac{1}{2}$ "H; 7.1 lb \$200

TELEDYNE BY OLSON

13 RA-739 Equalizer

Stereo 10-band graphic equalizer. Responses 20-140 Hz bass, 140-400 Hz midbass, 400-2600 Hz midrange; 2.6k-5.2k Hz upper-midrange, 5.2k-20k Hz high-range; Features rack-mountability; midnight black finish; 15"D x 13"W x 8"D \$130

13 RA-992 10 + 10 Band Stereo Graphic Equalizer

Graphic Equalizer with 10 adjustable frequency ranges. Frequency response 5-100,000 Hz; 16 $\frac{1}{2}$ "W x 10"D x 4 $\frac{1}{2}$ "H \$250

13 RA-606 Disco Mixer

Mixer for home or disco features turntable mixer with cue, microphone facilities; mic input 10k ohms; precise RIAA equalization for magnetic phono cartridges; automatic music level reduction; standard phono jacks; 9 $\frac{1}{2}$ "W x 5 $\frac{1}{2}$ "D x 4"H \$150

13 RA-868 Disco Mixer

Sound control center with disco mixer, 5-band graphic equalizer. Mixer features 2 turntables, 2 line inputs; volume controls for channels 1 and 2, mic 1 and 2, master level control with preset level indicators; fade, cue controls talkover switch and line-out level control. EQ center frequencies 60, 250, 1, 3.5k 12k Hz; 15 $\frac{1}{8}$ "W x 12 $\frac{1}{8}$ " x 2 $\frac{1}{4}$ "H \$300

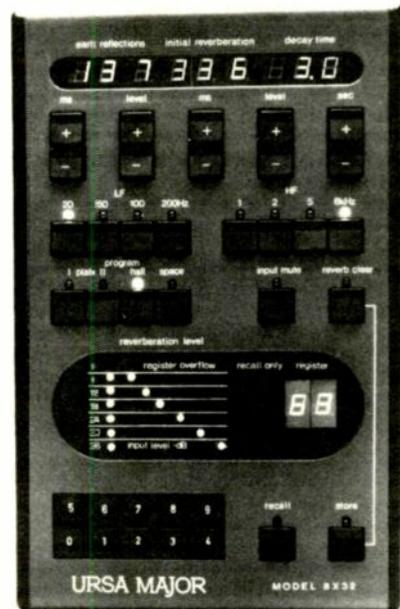
URSA MAJOR

Space Station SST-282 Digital Reverb System

Digital reverb, multitap digital delay, delay-effects system with PCM circuitry with RAM. Features reverb processors, adjustable controls for reverb parameters (initial delay pattern, decay time, high/low-frequency decay time, 8 additional delay tapes, mixer); 16 programs of delay times; reverb/echo feedback. Frequency range 20-7000 Hz; distortion 0.1%; dynamic range 80 dB; delay time 256 msec; reverb/echo decay time 3.5/10 sec \$2195

8X32 Digital Reverberation Unit

Compact unit provides control over all important parameters while synthesizing clean, natural reverb. LED numeric display gives confirmation of all parameter settings; unique LED displays show dynamic prop-



erties of input, reverberated signals. Features 32 registers that retain contents (up to 32 complete reverb characters), even with power off. Basic programs include Plate I, Plate II, hall, space. Early reflection/initial delay times variable 6-96 msec; early reflection/initial delay levels selectable in 8 steps; decay time variable 0.2-19.9 sec, depending on program selected; 3 values LF, 4 values HF decay. Bandwidth 8 kHz dynamic range 80 dB; sampling rate 20 kHz; 19"W x 10"D x 3 $\frac{1}{2}$ "H \$5995

VECTOR RESEARCH

VQ-100 Graphic Equalizer

Stereo 10-band graphic equalizer with low distortion, wide dynamic range. Features discrete circuit design; unity gain adjust to prevent overloading; separate left, right output level LEDs; subsonic filter; equalized tape recording capability; tape monitor function; accessory as outlet. Center frequencies 32, 63, 125, 250, 500, 1k, 2k, 4k, 8k, 16k Hz; boost/cut range ± 10 dB; gain 0 ± 1 dB; frequency response 5-100,000 Hz ± 1 dB; THD 0.005% at 2 V output; S/N ratio 80 dB unweighted at 2 V input; unity gain range 0 to -20 dB ± 1 dB; input/output impedance 22k/470 ohms; maximum output 10 V; separation 40 dB at 10 kHz; power consumption 22 W; 17 $\frac{1}{8}$ "W x 9 $\frac{1}{2}$ "D x 4 $\frac{1}{4}$ "H; 9 lb 11 oz \$250

(Continues on next page.)

12 SIGNAL PROCESSORS

YAMAHA

GE-5 Graphic Equalizer

Stereo 10-band graphic equalizer with Spatial Expansion



der system. Features preamp, tape switching; all special effects can be added to recordings \$245

12 MIXERS

BOZAK

CMA-10-2DL Stereo Mixer/Preamplifier

Designed for professional reproduction of live and recorded stereo programs. Features 4 stereo inputs; 2 mic/line inputs; 2-channel output; program and input-cueing monitor; broad dynamic range; modular construction; rack mountability or portability. Gain phono 1 & 2/Aux 1 & 2 (hi-Z)/mic 1 & 2 65 dBV maximum/25 dBV maximum/85 dB; frequency response 20-20,000 Hz ± 0.25 dB; output +24 dBm; input impedance magnetic phono/high-level/microphone 47k/50k/200 ohms; load impedance 600 ohms unbalanced, 200 ohms minimum; THD < 0.2% at +24 dBm, 20-20,000 Hz; noise equivalent to -125-dBm signal; power consumption 20 W; 19"W x 5 1/4"H; 31 lb \$950

DUBIE

CD-10 Sound Control System

Sound control system integrates up to 6 recorders and receiver/amplifier through one-time patch cord hookup; dubs, records, plays back, mixes sound-on-sound, monitors and fades; 6 solid state 4-position recorder controls; 8-position monitor select control; 2 fade controls; rear panel connections for recorders and amplifier/receiver. Maximum input signal 10 V at 1 kHz; frequency range dc-100,000 Hz on all functions; 4"H x 13 3/8"W x 5 3/4"D \$150
CD-5 Similar to CD-10 except 3 recorder capacity; 9 3/4"W x 4 3/4"D x 4"H \$100

GLI

3990 Preamplifier/Mixer

Preamp/mixer designed for creative audio, disco, disco-format broadcast use. Phono/Aux section; features 2 sets of line, phono inputs with separate level control, crossfader transition slide; special-effects third set of line/phono inputs; master level control with complete cueing capabilities; 2 sets of stereo main outputs and mono output. Frequency response 20-20,000 Hz ± 0.25 dB phono and Aux; HD and IM 0.01% phono and Aux; S/N ratio 80 dB below 10 mV unweighted phono; 90 dB Aux inputs 1 and 2, 96 dB Aux input 3; overload 320 mV at 1 kHz phono, 7 V Aux; slew rate 9 V/ μ sec phono and Aux; input impedance 47k ohms phono, 40k ohms Aux inputs 1 and 2, 50k ohms Aux input 3; phono subsonic filter 18 dB/octave at 18 Hz. Microphone section: features balanced differential input, bass equalization, optoelectronic talkover with adjustable program mute attenuator. Frequency response 20-20,000 Hz ± 0.25 dB; bass equalization ± 8 dB at 80 Hz; S/N ratio 80 dB below 10 mV; HD and IM distortion 0.01%; gain 60 dB signal processor out, 80 dB main out, 32 dB

input, 20 dB equalizer gain, 6 dB mix, 20 dB line amp; overload 315 mV; slew rate 9 V/ μ sec; program attenuation talkover -2 to -20 dB. Signal processor section features switchable signal processor section; input S/N ratio 100 dB below 100 mV; input impedance 100k ohms; output 1.75 V at 600 ohms, 10 V at S/N ratio 107 dB below 2 V out; output distortion 0.005%. Audition output section can be directly connected to integrated or power amplifier. Output 2 V at 600 ohms and 7 V at 10k ohms; HD and IM distortion 0.01%, 20-20,000 Hz; talkover muting 10.5 dB, audition output muted. Headphone amplifier S/N ratio 95 dB below 2 W into 9 ohms; maximum output 3 W continuous into 8 ohms with 0.1% HD and IM distortion; slew rate 12 V/ μ sec; frequency response 20-20,000 Hz ± 0.1 dB; rack mountable; 19"W x 7"H \$900

PMX-9000 Mixer/Equalizer

Combination mixer/graphic equalizer. Mixer features 2 sets switchable line, phono inputs each with slide control, cross fader transition slider, mic input channel with standby and talkover; complete cueing facilities with level, selector controls. S/N ratio 76 dB below 10 mV phono, 75 dB below clipping mic, 85 dB Aux; maximum input 220 mV at 100 Hz phono, 200 mV mic, 10 V Aux; input impedance 47k ohms phono, 600 ohms mic; phono subsonic filter 18 dB/octave at 20 Hz; mic talkover 14 dB program level reduction; equalizer center frequencies 60, 250, 1k, 3.5k, 12k Hz; boost/cut range ± 12 dB. Has bypass switch and switchable signal processor loop; illuminated VU meters with calibrated sensitivity control (-20 to +3 dB range); master level control; 2 sets main outputs; preset level indicators for all inputs, main outputs; rack mountable; 19"W x 8 3/4"H \$469

JVC

MI-5000 Master Mixer

Six-channel master mixer; each channel features 10-dB input level slide controls with 20-dB master input level control, independent pan pots, LED overload indicators, 4-position mic/att/phono/line select switches, echo switches with 3-second variable echo level control. Additional features include mix out/tape in monitor select switch; 2 VU meters; input jacks for phono, line, tape, mic; recording, monitor, headphone jacks. Minimum input/impedance 0.2 mV/200-5000 ohms (6-channel mix), 1.4 mV/47k ohms (phono), 80 mV/100k ohms (line/tape); rated output level/impedance 0.3 V/600 ohms (rec/monitor), 0.3 mW/8-1000 ohms (headphones); frequency response 20-30,000 Hz -3 dB (mic/line), 30-20,000 Hz ± 0.5 dB RIAA, 10-25,000 Hz -1 dB tape in; distortion 0.5%; S/N ratio 56 dB mic, 67 dB line, 65 dB phono \$430

LT SOUND

MX-8 Mixing Board

8 x 2 mic/line mixer uses 8 balanced ultra-low-noise solid-state microphone preamplifiers. Designed for studio, portable recording, PA use. Features gain control; echo; cue; solo; rotary fader control; 2 main outputs. Maximum output level +22 dBV; S/N ratio > 85 dB; low and high boost/cut 18 dB \$349

NAKAMICHI

MX-100 Microphone Mixer

Provides left, right, blend inputs, 2 outputs; 10k ohm input for low-to-medium impedance microphones; sensitivity 0.2 mV; overload 1 V (+74 dB); THD < 0.05% up to 10 kHz; requires PS-100 power supply; 7 1/2"W x 4"D x 2 1/2"H \$110

NEED MORE INFORMATION?

Write directly to the manufacturer or distributor. A list of names and addresses starts on page 188.

NUMARK ELECTRONICS

TC4100 Mixer/Comparator

Stereo tape deck comparator/mixer with tone calibrator. Mixes 4 line outputs, records on 4 tape decks simultaneously. Features volume control for all 4 channels; 400/8k-Hz tone generator/calibrator for setting bias, recording head azimuth \$249

RECOTON

MX-200 Stereo Disco Mixer

Stereo 5-channel disco, taping mixer. Features monitor switch with headphone jack; low-noise preamplifier for magnetic phono cartridges, low-impedance microphones; jack for supplied ac power adapter (normally operates on 2 9-V batteries). Input sensitivity/impedance 0.3 mV/600 ohms mic low, 3 mV/50k ohms mic high and magnetic phono, 150 mV/120k ohms all others; output level/impedance 0.3 V/50-500k ohms; distortion 0.5% at 0.2 V output; frequency response 20-20,000 Hz \$125

MX100 Stereo Mixer

Stereo 4-channel microphone mixer with independent channel controls of each. Features 1/4" phone plug inputs, phono-jack outputs; operation as 2- or 4-channel mixer with flip of switch; high/low impedance switch \$40

SHURE

M267 Professional Mixer

Professional mixer for recording or broadcast use. Features 4 low-impedance balanced inputs switchable to mike or line level; simplex (phantom) power on each input; fast-acting limiter; built-in battery supply, headphone amplifier with level control; illuminated VU meter with LED peak level indicator; low-cut filters; tone oscillator; battery check switch; mix bus jack; mic, line level outputs; master volume control; 120 V ac, 50/60 Hz, 9.5 W; battery power; 12 1/2"W x 9"D x 2 1/2"H \$395

M67 Professional Mixer

Professional mixer provides 4 low-impedance, transformer-coupled balanced microphone inputs, one convertible to line input. Balanced 600-ohm line, mic-level outputs; illuminated VU meter calibrated for +4 and +10 dBm output; very low noise and r-f susceptibility design; 120 V ac, 50/60 Hz; 11 3/8"W x 7 1/2"D x 2 3/4"H \$365

M268 Microphone Mixer

Five-channel mixer featuring 4 high/low-impedance microphone inputs, one Aux-level input; simplex (phantom) power on each mic input mix bus jack; regulated power supply; 120 V ac, 50/60 Hz, 5 W; 12 1/2"W x 9"D x 2 1/2"H \$250

M68FM Mixer

Five-channel mixer with 4 high/low-impedance inputs, 1 Aux-level input. Features master volume control; may be battery powered; 120 V ac 50/60 Hz, 3 W; 11 3/8"W x 5 1/2"D x 2 1/4"H \$205
M68, Same as M68FC except microphone input connectors are 3-pin male \$205

SONY

MX-670 Microphone Mixer

Six-in/2-out microphone mixer with full panning capability; for semiprofessional or advanced amateur stereo recording; has ac/dc power operation for on-location or studio recording. Features pan pot control; 2-position mic input attenuator; present indicators; cascade connector; built-in oscillator; master fader. Mic input sensitivity -72 dB at 0.2 mV (low impedance); line-in impedance 100k ohms, sensitivity -22 dB at 60 mV; phono in impedance 50,000 ohms, sensitivity -51 dB at 2.2 mV; mic attenuation off, -15 dB, -30 dB; output impedance (line out) 600 ohms low, 10k ohms high; headphone output impedance 8 ohms; frequency range 30-25,000 Hz; S/N ratio 60 dB; 17 1/2"W x 10"D x 3 3/8"H \$425

MX-510 Microphone Mixer

Five-in/2-out mixer. Features battery/ac-line power-

1983 STEREO BUYERS GUIDE



FREE INFORMATION SERVICE

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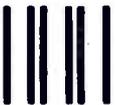
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- CARTRIDGE AND SPEAKER PHASING
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ing options; 5 mic inputs for low impedance mics; 3 line inputs for tape recorder, tuner, amplifier; 2 phono inputs for record player; pan pot control; slide master fader control; preset indicators; 2 VU meters. Sensitivity —72 dB at 0.2 mV (mic in, low impedance), —22 dB at 50 mV (line in), —51 dB at 2.2 mV (phono in RIAA); impedance 100k ohms line in, 50k ohms phono in; mic attenuation off —20 dB; output level/impedance —5 dB at 0.435 V/10k ohms line, —24 dB at 49 mV/8 ohms headphone; frequency response 30-25,000 Hz; S/N ratio 60 dB; 13 $\frac{3}{4}$ "W × 9 $\frac{1}{2}$ "D × 3"H. \$225

MX-10L "Sound Crew" Mixer

Stereo 4-input mixer with panning feature for precise stereo imaging, individual faders for optimum mixing of all sound sources, stereo master fader; mono/stereo output selector; battery or ac operation, latter with optional ac adaptor. \$125

MX-5 Microphone Mixer

Three-in/one-out microphone mixer for semiprofessional applications. Features preset indicators for reference during temporary level changes, auto input selector, distributor switch, and line input. Mic input sensitivity —51 dB at 2.2 mV (low impedance); line-in impedance 82k ohms; sensitivity —5 dB at 435 mV; line out load impedance 1k ohm; level out —60 dB at 0.775 mV; 9"W × 5 $\frac{1}{4}$ "D × 2 $\frac{1}{4}$ "H. \$45

TAPCO

Series 72 Mixing Consoles

Advanced mixing consoles with transformerless balanced inputs. Feature 8/12 or 16 channels; 60-mm slide faders; 3-control/4-frequency equalizer; send, return jacks in each channel; mic/line switching; rotary trim controls with LED overload indicators; optional ADR* (Adjustable Decay Reverb); monitor/effects bus sends; 48-V phantom power for condenser microphones; solo system with head amplifier; mono summing master; 2 effects return channels; effects return to monitor control.

7208. 8 channels \$1914
7212. 12 channels \$2394
7216. 16 channels \$2994

8201B Stereo Mixer

Stereo mixer with 8 transformer balanced inputs through XLR connectors. Features mic/line switching; separate monitor bus; input channel patching/direct outputs per channel; low-noise circuitry; rack-mountable chassis; unique accessible jack panel; phantom powering for condenser microphones; Differential Autopad circuitry for maximum headroom; balanced low-impedance mic input, line input, patching/direct output connectors in each channel for external signal processing; multi-track recording, remixing for monitor or cue, individual channel sends; gain, constant volume; ±18-dB bass, treble controls; independent monitor send, effects sent, mic/line input switching. \$1378

6200B Stereo Mixer

Stereo 6-channel mixer with transformer balanced inputs into XLR connectors. Features channel patching direct outputs per channel; effects sends; stacking jacks for slave mixers; stereo VU meters; 6 line/high-impedance inputs; rumble (low-cut) filter; Autopad* circuitry; rack-mountable chassis. \$658

6100RB Mono Mixer

Mono 6-input mixer with transformer balanced inputs into XLR connectors. Features monitor send; 3-control/5-frequency equalization per channel; internal spring reverb unit; input gain switch; input channel patching (channels 1 and 2); main and monitor VU meters; stacking jacks. \$835

6000R Mono Mixer

Mono 6-channel mixer with internal spring reverb unit. Features footswitch jack; master reverb contour tone control; channel on/off switches; microphone equalize (brightness) switch; effects/reverb sends. \$574

6000CF Mono Mixer

Mono 6-input mixer with low-impedance inputs into

XLR connectors. Features 6 high-impedance inputs through $\frac{1}{4}$ " phone plugs; AUX output with volume control; stacking jacks; separate bass, treble controls in each channel. \$418

TASCAM by TEAC

M-30 Audio Mixer

Audio mixer with 8 mic inputs (6 low-impedance balanced, 2 high-impedance unbalanced, doubling as direct boxes); 8 tape inputs; 8 line inputs; mic/remix (tape)/line input selector; mic attenuator (0/20/40); 2-band parametric equalizer (sweep type with variable level and frequency) for 60-1500 and 1000-10,000 Hz plus 12.5 kHz shelving type equalizer (15 dB); mute switch; direct out (post fade, post equalize); cue out (prefade, pre-equalize); accessory send/receive; input overload indicator; bus assign buttons; pan pot. Main section features 4 main program mixing buses; bus input to each main mixing bus; accessory send/receive for each bus; 4 bus outputs (one per bus); master fader; 4 VU meters with peak indicators; meter input selector for bus/monitor/submix; stereo headphones jack with gain control; monitor/submix signal selector. Bus mix section features 4 × 2 with gain and pan controls for each program bus with master stereo output control. Submix section features 8 × 2 submixer; pre/post/tape input selector; gain and pan controls; submix master gain control; stereo submix output; stereo submix input. Other features include 2 patchable stereo phono preamplifiers (RIAA standard). Frequency response 30-20,000 Hz 2 dB; S/N ratio (at nominal input level) 1 mic or 1 line to 1 bus >75 dB weighted, >70 dB unweighted; crosstalk (adjacent buses or inputs) >60 dB at 1 kHz; THD <0.1% at 1 kHz, nominal input level, measured at bus output; fader attenuation >60 dB; power supply 15 V dc; 18.25"W × 20.5"D × 6.3"H; 35.4 lb. \$1300

System 20 Mixing Console

Professional-style audio mixing console consisting of 4 modular assemblies.

MM-20. Main mixing chassis with 2 mic and 4 line inputs. Features transformer-isolated mic preamps; tape/mic (live) overdub capability; headphone monitoring, corrective EQ; XLR mic input connectors; —20-dB mic attenuator switches; trim pots; accessory send/receive jacks; W-pot pre/post fader; direct output; pan pots; bus input jacks; master monitor, headphone level controls; dc outputs for other modules. Mic input impedance/nominal level 600 ohms balanced/—60 dBV (1 mV); line input impedance/nominal level 50k ohms/—10 dBV (0.3 V); headphone output impedance/nominal power 8 ohms/100 mW; frequency response 30-20,000 Hz ±3 dB; S/N ratio A weighted/unweighted mic 65/60 dB, line 75/70 dB; crosstalk >60 dB at 1 kHz; THD <0.1% at 1 kHz; fader attenuation 60 dB or more; trim range ±10 dB (line/mic); power consumption 15 W at 120 V ac, 60 Hz; 16.9"W × 15.8"D × 4.2"H; 9.2 lb. \$395

EX-20. Expander module adds 4 transformer-isolated mic inputs to MM-20 complete patch bay. Features 4 mixing positions; accessory patch points direct outputs. Specifications the same as for MM-20 except power consumption 170 mA at +12 V dc (obtained from MM-20); 9.6"W × 4.4 lb. \$325

PE-20. 4-input/4-output/4-channel parametric equalizer for System 20. EQ frequencies; low 60-1.5k Hz adjustable, middle 1-8 kHz adjustable, 10 kHz fixed; ±12-dB boost/cut range; S/N ratio >80 dB; crosstalk >60 dB; THD <0.1% at 1 kHz; input impedance/nominal level >100k ohms/—10 dBV (0.3 V); power consumption 120 mA at ±12 V dc regulated (obtained from MM-20); 15.8"D × 9.6"W × 4.2"H; 4.62 lb. \$350

MU-20. Four VU-meter assembly with peak level indicators for System 20. Features —20 to +5-VU range; peak indicator level 10 dB above 0 VU; power obtained from MM-20; 16.4"W × 3.1"H, 2.2 lb. \$150

Model 2A Audio Mixer

Features 6 inputs (microphone and/or line in any combination); 4 outputs; level controls for each input channel; master output level control; cue output jack on each input channel. accessory send/receive patch

points on each output bus for reverb, graphic-equalizer, limiter, compressor, noise-reduction units and other signal processors; 4 AUX outputs in parallel; 4 line outputs; selectable high-cut filters at 5 kHz or 10 kHz; low-cut filters at 100 or 200 Hz; color coded push-push channel assignment buttons; pan on each channel; 14 $\frac{3}{16}$ "D × 13 $\frac{1}{16}$ "W × 3 $\frac{17}{32}$ "H. \$495

Model 1 Studio Series Mixer

Eight-in/2-out line level mixer; independent gain, pan for each input channel; master gain; foldback for each channel; AUX outputs in parallel with line outputs; separate bus inputs; contains 1-W amplifier with level control for 2 stereo headphone feeds. Line in (×8), bus in (×2) impedance 30k ohms and nominal input level —10 dB; line out, AUX out (×2), cue out (×8) load impedance 10k ohms, nominal output level —10 dB; headphones (×2) load impedance 8 ohms; S/N ratio 78 dB weighted; frequency response 30-20,000 Hz ±1 dB; crosstalk —50 at 1 kHz; THD 0.3% maximum; power consumption 8W; 17 $\frac{1}{4}$ "D × 4 $\frac{1}{4}$ "H. \$200

MB-20 Meter Bridge

For line-level applications; complements Model 2A audio mixer; 4 VU meters; LED peak level indicator; built-in 4 × 2 monitor mixer; headphone amplifier; independent monitor switches; variable input sensitivity selector. \$250

TEAC

M-35 Mixing System

Modular mixing system can be expanded from 8 × 4 to 20 × 4. Comes with 8 input, 4 submaster, 1 master modules, space for optional talk-back module. Modules offer flexible subsystem capabilities—cue system 16 × 1, echo system 8 × 1, monitor system 8 × 2 (bus/tape selectable), solo 8 × 1. Input module has mic/tape/line selector; cue send (pre fade, pre-equalize); echo send (post fade, post equalize); 4-range, variable level/frequency sweep-type parametric equalizer with low frequency selectable between 60-400 Hz or 400-1500 Hz, high frequency selectable between 1500-7500 Hz and 7500-12,500 Hz; solo; direct out; bus assignment (4); pan; overload indicator; input fader; balanced low-impedance XLR connector; accessory send/receive patch points phono jacks; line-in phono jack; direct out phono jack. Submaster module features bus/tape monitor consisting of concentric gain and pan controls with bus/off/tape-monitor selector (2); tape cue that combines with input module cue send (2); echo receive button and level control with effects return variable, selectable between bus, monitor; submaster fader; effects receive phono jack; bus-in phono jack; 2 tape-in phono jacks; AUX output paralleled with line-output phono jack; 0 dBV (0.775 V)/—10 dBV (0.3 V) level switch. Master module features headphone select switch, level control; studio select switch, level control; control room select switch, level control; solo level control; master fader. Other features include: 4 VU meters with peak LED indicators; 1 VU meter with peak LED for monitoring cue out/off/effects out (echo send) functions; cascaded patch points for interfacing M-35EX expander or any other compatible submixer; talkback module; cue push switch, level control; slate push switch, level control; slate tone switch. Frequency response 20-30,000 Hz ±1 dB; S/N ratio at nominal input level 1 line to 1 bus = 80 dB weighted, 68 dB unweighted, 1 mic to 1 bus = 65 dB weighted, 60 dB unweighted; crosstalk to adjacent buses or inputs >60 dB at 1 kHz; THD at nominal input level <0.05%, measured at bus output; fader attenuation >60 dB; power supply ±15 V dc; 24.4"D × 23.6"W × 7.3"H; 61.6 lb. \$2300

M-35EX. 8-input expander for M-35. Comes with 8 input modules, can accept up to 4 additional input modules. When fully loaded, M-35EX increases capacity of M-35 to 20 × 4, 28 × 1 (cue), 20 × 1 (echo), 20 solo positions, 20 direct outputs, 20 equalization sections. \$1650

201C. Input module. \$195

209. Optional talkback module. \$120

(Continued on page 173.)

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(Continued on page 226.)

RADIO/TAPE

Sparkomatic										
Model	Price (\$)	Output	Frequency Range (Hz)	FM Sensitivity*	Capture Ratio	FM Selectivity (dB)	Tape Wow & Flutter (%)	Tape Frequency Range (Hz)	Tape S/N (dB)	Features
SR 3400	270		20-20k	1μV ¹	N.A.	N.A.	0.3	N.A.	40	Digital frequency/time display AM/FM-stereo tuning, local/DX, FM-mute, high-filter switches; fader control; cassette player; key-off eject.
SR 340	240	10W	40-15k	1μV ¹	N.A.	N.A.	0.3	N.A.	40	Same as SR 3400 except lower power.
SR 3300	250	40W	20-20k	1μV ¹	N.A.	N.A.	0.3	N.A.	40	Slide-rule AM/FM-stereo tuning; local/DX, FM-mute, high-filter switches; fader control; auto-reverse cassette player; key-off eject.
SR 330	220	10W	40-15k	1μV ¹	N.A.	N.A.	0.3	N.A.	40	Same as SR 3300 except lower power.
SR 3100	220	40W	20-20k	1μV ¹	N.A.	N.A.	0.3	N.A.	40	Slide-rule AM/FM-stereo tuning; local/DX, FM-mute, high-filter switches; fader control; cassette player; key-off eject.
SR 310	190	10W	40-15k	1μV ¹	N.A.	N.A.	0.3	N.A.	40	Same as SR 3100 except lower power.
SR 305	150	40W	20-20k	4μV ¹	N.A.	N.A.	0.3	N.A.	48	Slide-rule AM/FM-stereo tuning; 5-band ±12-dB graphic equalizer; local/DX switch; FM muting; loudness switch; cassette player.
SR 303	150	8W	60-12k	7μV ¹	N.A.	N.A.	0.3	N.A.	38	Slide-rule AM/FM-stereo tuning; local/DX switch; fader control; auto-reverse cassette player.
SR 302	150	8W	60-12k	7μV ¹	N.A.	N.A.	0.3	N.A.	38	Slide-rule AM/FM-stereo tuning; local/DX switch; cassette player.
SR 202	150	8W	60-12k	7μV ¹	N.A.	N.A.	0.3	N.A.	38	Slide-rule AM/FM-stereo tuning; local/DX switch; 8-track cartridge player.
SR 306	130	40W	20-20k	4μV ¹	N.A.	N.A.	0.3	N.A.	38	Digital frequency display AM/FM-stereo tuner; local/DX switch; cassette player.
SR 304	120	8W	75-10k	8μV ¹	N.A.	N.A.	0.3	N.A.	35	Slide-rule AM/FM-stereo tuning; auto tape stop; cassette player. For import and compact cars.
SR 301	120	8W	60-12k	7μV ¹	N.A.	N.A.	0.3	N.A.	38	Slide-rule AM/FM-stereo tuning; local/DX, FM mute-switches; cassette player.
SR 201	120	8W	60-12k	8μV ¹	N.A.	N.A.	0.3	N.A.	35	Slide-rule AM/FM-stereo tuning; local/DX switch; 8-track cartridge player; key-off eject.
SR 300	90	7.5W	75-10k	8μV ¹	N.A.	N.A.	0.3	N.A.	35	Slide-rule AM/FM-stereo tuning; local/DX switch; cassette player.
SR 200	90	7.5W	75-10k	8μV ¹	N.A.	N.A.	N.A.	N.A.	N.A.	Same as SR 300 except has 8-track cartridge player.

*FM Sensitivity: 1 = Usable; 2 = 50-dB Quieting

COMPONENTS

Sparkomatic									
Model	Price (\$)	Type*	Output Power (W/channel)	Frequency Response (Hz ±3 dB)	TMD (%)	S/N Ratio (dB)	Dimensions (inches)	Center Frequencies (Hz)	Features
GE 1000	200	3	501	20-20k	0.01	N.A.	9½ × 7½ × 2½	60, 150, 400, 1k, 2.4k, 6k, 15k	Booster amplifier/graphic equalizer; 12-LED 3-color peak power meters; EQ boost/cut range ±12 dB; fader control.
GE 50	70	3	201ch	20-20k	1	N.A.	4¾ × 4¾ × 1¾	60, 250, 1k, 3.5k, 10k	Booster amp/EQ; dual 5-LED power meters; EQ boost/cut range ±12 dB; Fader control.
LC 102	50	3	40	20-20k		N.A.	6¾ × 5½ × 1" × ¾	low, mid, high	Booster amp/EQ; power meter (analog); EQ boost/cut range ±12 dB.
LC 100	90	1	151 ch.	20-20k	1	N.A.	5½ × 4¼ × 1¾	N.A.	Booster amp/speakers system; power meter (analog); coaxial 6" × 9" woofer/3" tweeter system; base and treble controls.
LC 52	30	1	201 ch.	20-20k	10	N.A.	4⅞ × 4 × 1⅜	N.A.	Booster amp.

*Type: 1 = Booster; 2 = Graphic Equalizer; 3 = Amplifier/Equalizer

SPEAKERS

Sparkomatic									
Model	Price (\$)	Driver Size* (inches)	Frequency Range (Hz)	Sensitivity (dB SPL (W/m))	Maximum Power (watts)	Magnet (ounces)	Mounting Depth (inches)	Remarks	
SK 6950	100 pr	6 × 9W 3M 1½T	50-20k	92	100 rms	20W	4	Deck-mount 4-way system; 2 tweeters (9¼" × 6½" × 4").	
SK 6900	90 pr	6 × 9W 1½T	40-18k	96.6	40 rms	20W 3M	3½	Deck-mount 3-way system (10⅞" × 6½" × 3½").	
SK 6922T	70 pr	6 × 9W 3M 1½T	30-17k	96.6	40 rms	20W	3½	Deck-mount 3-way system (9¼" × 6½" × 3½").	
SK 6920C	48 pr	6 × 9W 3T	30-15k	95.3	25 rms	20W	3⅝	Deck-mount coaxial system (9¼" × 6½" × 3⅝").	
SK 4120C	48 pr	4 × 10W 2T	50-15k	95	25 rms	20W	3⅝	Deck-mount coaxial system (10" × 4¼" × 3⅝").	
SK 690	30 pr	6 × 9W	50-12k	94	15 rms	10W	3⅝	Deck-mount dual-cone speaker; high-frequency whizzer cone (9⅝" × 6⅝" × 3⅝").	

(Continued on page 195.)

RADIO/TAPE

Alpine

Model	Price (\$)	Output	Frequency Range (Hz)	FM Sensitivity*	Capture Ratio (dB)	FM Selectivity (dB)	Tape Wow & Flutter (%)	Tape Frequency Range (Hz)	Tape S/N (dB)	Features
7308	800	2.2W	70-20k	14.1 dBf ¹	60	0.09	40-18k	60 NR	Synthesizer AM/FM-stereo tuning; digital frequency display; 10 presets; auto local/DX switching; Bi-level ² capability; auto replay cassette player; Dolby NR; Music Sensor ³ ; key-off eject.	
4146	800	2.2W	70-20k	16.3 dBf ¹	2	80	40-16k	65 NR	Synthesizer tuning; digital frequency display; 10-station memory; fader; B-level capability; engine noise suppressor; auto-reverse cassette player; Dolby NR.	
7136	450	2.2W	70-20k	16.3 dBf ¹	2	80	40-16k	65 NR	Synthesizer tuning; digital frequency display; 10-station preset; bi-level capability; fader; auto-reverse cassette player; Dolby NR; key-off eject; engine-noise suppressor.	
7337	450	500 mV	N.A.	16.3 dBf ¹	2	80	40-18k	65 NR	Synthesizer tuning; digital frequency display; auto mute; local/DX switch; engine noise suppressor; 10-station preset; tuner/preamp; auto-replay cassette player; Dolby NR.	
7206	430	8W	40-20k	14.1 dBf ¹	1.5	75	40-18k	65 NR	Slide-rule tuning; auto local/DX switching; mute switch; noise eliminator; auto-replay cassette player; Music Sensor-Cassette Glide; Dolby NR; key-off eject.	
7307	400	500 mV	N.A.	14.1 dBf ¹	1.5	75	40-18k	65 NR	Slide-rule tuning; auto local/DX switching; auto-replay cassette player; Dolby NR; Music Sensor; Cassette Glide; Electronic Glide Eject; key-off eject.	
7135	350	2.2W	70-20k	16.3 dBf ¹	2	80	40-16k	55	Slide-rule tuning; digital frequency display; auto mute; local/DX switch; engine noise suppressor; 10-station preset; auto-reverse cassette player; Music Sensor; Cassette Glide.	
7138	350	2.2W	70-20k	16.3 dBf ¹	2	80	40-16k	65 NR	Synthesizer tuning; digital frequency/time display; local/DX switch; bi-level capability; engine noise suppressor; auto-reverse cassette player; Dolby NR; Tone Tenor; Auto load.	
7123	330	2.2W	70-20k	14.1 dBf ¹	1.5	75	40-18k	65 NR	Slide-rule tuning; auto local/DX switching; bi-level capability; afc; FM mute; auto-replay cassette player; Dolby NR; Cassette Glide; ignition-off eject.	
7128	300	2.2W	40-20k	16.3 dBf ¹	2	80	40-16k	50	Synthesizer tuning; digital frequency/time display; 10 presets; local/DX switch; bi-level capability; Tone Tenor; auto-reverse cassette player; Cassette Glide.	
7327	300	500 mV	N.A.	16.3 dBf ¹	2	60	40-18k	65 NR	Slide-rule tuning; toner/preamp only; auto-replay cassette player; Dolby NR; Cassette Glide; Music Sensor.	
7121	280	2.2W	70-20k	16.3 dBf ¹	2	60	40-16k	65 NR	Slide-rule tuning; afc; mute switch; auto local/DX switch; cassette player; Dolby NR; ignition off eject; bi-level capability; Music Sensor.	
7140	270	2.2W	70-20k	16.3 dBf ¹	2	60	40-16k	55	Slide rule tuning; music sensor; bi-level capability; fader; afc; local/DX switch; auto-reverse cassette player.	
7225	250	8W	40-20k	16.3 dBf ¹	2	60	40-16k	55	Slide-rule tuning; local/DX switch; fader; afc; engine noise suppression; bi-level capability; auto-reverse cassette player.	
7217	240	8W	40-20k	15.3 dBf ¹	2.2	70	40-16k	55	Slide-rule tuning; afc; local/DX switch; cassette player; Cassette Glide.	
7120	230	2.2W	70-20k	16.3 dBf ¹	2	60	40-16k	55	Slide-rule tuning; auto local/DX switching; FM mute; auto-reverse cassette player; bi-level ² capability; Tone tenor.	
7124	220	2.2W	70-20k	16.3 dBf ¹	2	50	40-16k	55	Slide-rule tuning; auto local/DX switching; mute switch; bi-level capability; Tone Tenor; auto-reverse cassette player; auto load.	
7125	200	2.2W	70-20k	16.3 dBf ¹	2	60	40-15k	55	Slide-rule tuning; afc; auto local/DX switching; auto-reverse cassette player; Cassette Glide; auto load.	

*FM Sensitivity: 1 = Usable: 2 = 50-dB Quieting

SPEAKERS

Alpine

Model	Price (\$)	Driver Size* (inches)	Frequency Range (Hz)	Sensitivity (dB SPL/W/m)	Maximum Power (watts)	Magnet (ounces)	Mounting Depth (inches)	Remarks
6227	200 pr	5 1/4 W	70-35k ±3 dB	86	80	10W	1 3/16	2-way system; ribbon tweeter.
6112	160 pr	12W	20-400	N.A.	150	40W	N.A.	Subwoofer; mechanical low-pass filter.
6110	140 pr	10W	25-400	N.A.	120	30W	N.A.	Same as 6112.
6106	130 pr	4T	5k-50k	94	80	N.A.	N.A.	Ribbon tweeter; built-in crossover; low-profile flush mount.
6207	130 pr	5 1/4 W 1T	50-20k	90	80	15W	1 3/4	2-way system; built-in crossover.
6302	120 pr	6 1/2 W	55-20k	90	50	10W	4	3-way system.
6217	110 pr	4W 1T	80-20k ±3 dB	86	60	10W	1 1/8	2-way system; built-in crossover.
6108	100 pr	8W	35-400	N.A.	80	20W		Subwoofer; mechanical low-pass filter.
6209	100 pr	6 × 9W 2T	45-25k ±3 dB	93	80	20W		2-way system; ferrofluid hybrid-dome tweeter.
6214	100 pr	4 × 10W 1T	60-20k ±3 dB	91	60	10W	2 7/16	Coaxial 2-way system.
6205	90 pr	6 × 9W	50-18k	91	40	30W	1 3/16	Coaxial 2-way system; pole-mounted cone tweeter.
6226	90 pr	6 1/2 W 1T	45-20k ±3 dB	91	80	10W	2 7/16	Coaxial 2-way system.
6203	80 pr	6 1/2 W	70-20k	90	40	10W	2 7/16	Coaxial 2-way system; pole-mounted tweeter.
6206	80 pr	5 1/4 W 1/8 T	50-20k	90	50	10W	2	Coaxial 2-way system; pole-mounted tweeter.
6236	80 pr	5 1/4 W 1T	50-20k ±3 dB	91	60	10W	1 3/16	Coaxial 2-way system.

(continues)

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SPEAKERS

Alpine

Model	Price (\$)	Driver Size* (inches)	Frequency Range (Hz)	Sensitivity (dB SPL/W/m)	Maximum Power (watts)	Magnet (ounces)	Mounting Depth (inches)	Remarks
6216	70 pr	4W 1T	60-20k ±3 dB	89	40	10W	1 7/8	Coaxial 2-way system.
6202	60 pr	4W	100-18k	88	20	N.A.	1 5/8	2-way system; pole-mounted cone tweeter.
6130	45 pr	3 1/2	130-20k ±3 dB	88	20	6	1 7/16	Dual-cone speaker.
6104	30 pr	4 × 6	100-15k	88	20	N.A.	1 3/4	Dual-cone speaker; 1 1/2" whizzer.

*Driver Size; W = Woofer; M = Midrange; T = Tweeter

TAPE PLAYERS

Alpine

Model	Price (\$)	Type*	Frequency Response (Hz)	S/N Ratio (dB)	Wow & Flutter (%)	Crosstalk (dB)	Dimensions (inches)	Features
5400	300	1	40-16k ±3 dB metal	65 NR on	0.1	N.A.	6w × 5 3/4 D × 2 1/2 H	Auto-reverse cassette player; equalizer (60, 250, 1k, 3.5k, 10k Hz ±12 dB); Dolby NR; metal capable.
7115	150	1	40-16k ±3 dB metal	55	0.14	N.A.	6 1/4 D × 5 1/2 W × 2 H	Auto-reverse cassette player; output power 2.2 W/channel at 0.8% THD; metal capability.

*Type: 1 = Cassette; 2 = 8-Track Cartridge

COMPONENTS

Alpine

Model	Price (\$)	Type*	Output Power (W/channel)	Frequency Response (Hz ±3 dB)	THD (%)	S/N Ratio (dB)	Dimensions (inches)	Center Frequencies (Hz)	Features
3502	350	50/ch	10-100k	0.04	100	8 × 7 7/8	N.A.		Bridgeable amplifier; pulse-regulated power supply; remote on/off.
3002	250	1	50/ch	10-60k	0.2	N.A.	8 × 7 7/8 × 2 7/8	N.A.	Pulse-regulated power supply; auto remote on; input sensitivity control; inputs for preamp and speaker out.
3508	250	1	30/ch	10-70k	0.04	97	7 7/8 × 6 1/4 × 2	N.A.	Bridgeable amplifier; pulse-regulated power supply; remote on/off.
3506	200	1	20/ch	10-70k	0.04	97	7 7/8 × 6 1/4 × 2	N.A.	Bridgeable amplifier; pulse-regulated power supply; remote on/off.
3006	70	1	18/ch	20-20k	0.08	N.A.	6 × 4 × 1 3/8	N.A.	Auto remote power on; inputs for preamp and speaker out
3000	220	3	18X 4 ch	20-20k	0.8	N.A.	7 1/8 × 5 5/8 × 1 5/8	60, 250, 1k, 3.5k, 10k	Biamp switch; digital time delay gain and min/max controls; fader; LED clipping indicators; sensitivity control; inputs for preamp and speaker out.
3316	200	2	line level	20-30k	0.02	100	6 1/4 × 4 3/4 × 1	Same as 3000	10-LED signal level meter; subwoofer output; EQ defeat;
3023	150	3	18/ch	20-20k	0.8	N.A.	6 5/8 × 5 7/8 × 1 3/16	Same as 3000	10-LED power meter; EQ defeat switch; fader; remote on/off.
3011	150	2	line level	20-20k	N.A.	N.A.	5 7/8 × 3 1/8 × 1 1/16	Same as 3000	Biamp switch; sensitivity control; fader; auto remote power on; preamp only; LED signal-level meters.
3004	120	3	18/ch	20-20k	0.8	N.A.	7 1/8 × 5 5/8 × 1 5/8	Same as 3000	Booster amp/5-band equalizer; EQ defeat switch; sensitivity control; auto remote power on; inputs for preamp and speaker out.
3650	130	—	—	10-50k	0.02	100	6 1/4 × 4 3/4 × 1 3/16	N.A.	Active electronic dividing network; frequency selector; frequency multiplier; remote on/off; input mode switch; crossovers 80, 160, 320, 1.6k, 3.2k, 6.4k at 12 dB/octave.

*Type: 1 = Booster Amplifier; 2 = Graphic Equalizer; 3 = Amplifier/Equalizer

RADIO/TAPE

Alwa

Model	Price (\$)	Output	Frequency Range (Hz)	FM Sensitivity*	Capture Ratio (dB)	FM Selectivity (dB)	Tape Wow & Flutter (%)	Tape Frequency Range (Hz)	Tape S/N (dB)	Features
CTR-70	270	8W	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	In-dash synthesizer AM/FM-stereo tuning; digital frequency display; 6 AM/6 FM presets; auto-reverse cassette player; metal capability. For X-body cars.
CTR-50	200	8W	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	In-dash slide-rule AM/FM-stereo tuning; local/DX switch; auto-reverse cassette player. For X-body cars.
CTR-30	180	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	In-dash slide-rule AM/FM-stereo tuning; local/DX switch; silent auto-reverse cassette player; ultra-compact size (6 1/4"W × 6 1/4"D × 1 3/4"H).
CTR-20	125	5W	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	In-dash slide-rule AM/FM-stereo tuning; auto-stop cassette player; ultra-compact size (6 1/4"W × 4 3/4"H).

*FM Sensitivity: 1 = Usable; 2 = 50-dB Quieting

(Continued on page 196.)

SPEAKERS**Spartanatic**

Model	Price (\$)	Driver Size* (inches)	Frequency Range (Hz)	Sensitivity (dB SPL/W/m)	Maximum Power (watts)	Magnet (ounces)	Mounting Depth (inches)	Remarks
SK 650	75 pr	6W, 1½M 1T	70-20k	92	100 rms	20W	2¾	Door-mount 4-way system (6¼" × 6¼" × 21¼").
SK 622T	55 pr	6W, 2M 1T	50-17k	96.6	40 rms	20W	2¾	Door-mount 3-way system (6¼" × 6¼" × 2¾").
SK 620C	40 pr	6W, 2T	50-15k	95	25 rms	20W	2¾	Door-mount coaxial system (6¼" × 6¼" × 2¾").
SK 610	30 pr	6W	70-12k	92	15 rms	10W	2¼	Door-mount dual-cone speaker; high-frequency whizzer cone (6¼" × 6¼" × 2¼").
SK 22	10 pr	5W	90-8k	90	5 rms	3	1½	Door-mount speaker (41¼" × 41¼" × 1½").
SK 550	90 pr	5 × 7W 2M, 1½	60-20k	92	100 rms	20W	5½	Surface-mount 4-way system (8" × 6" × 5½").
SK 522T	60 pr	5 × 7W 2M, 1T	60-17k	96	40 rms	20W	5½	Surface-mount 3-way system (8" × 6" × 5½").
SK520C	45 pr	5 × 7W 2T	60-15k	95	25 rms	20W	5½	Surface-mount coaxial system (8" × 6" × 5½").
SK 510	30 pr	5 × 7W	60-12k	90	15 rms	10W	5½	Surface-mount dual-cone speaker; high-frequency whizzer (8" × 6" × 5½").
SK 203	14 pr	3 × 5½W	90-8k	90	5 rms	3	6⅝	Surface-mount speaker; ABS plastic housing (8" × 6⅝" × 3⅞").
SK 600	40 pr	1T	70-15k	94	15 rms	N.A.	1½	Compact door-mount coaxial system (6¼" × 6¼" × 1½").
SK 410	30 pr		90-15k	86	20 rms	N.A.	5	Compact surface-mount dual-cone speaker; high-frequency whizzer (6⅜" × 5½" × 5").
SK 400	25 pr		90-15k	86	20 rms	N.A.	1¾	Compact door-mount dual-cone speaker; high-frequency whizzer (4" × 4" × 1¾").
SK 355	14 pr	3½W	100-10k	88	5 rms	5W	1¾	Compact door-mount dual-cone speaker; high-frequency whizzer (3½" × 3½" × 1¾").
SK 313	14 pr	3W	125-8k	85	5 rms	3W	5⅞	Compact surface-mount speaker (5⅞" × 4⅞" × 3½").
SK 300	20 pr		90-15k	86	20 rms	N.A.	1½	Dash-mount stereo speaker; high-frequency whizzer (41¼" × 3½" × 1½").

Visonik/Alphasonic

D5000	138 ea	4W 1T	50-25k +4/-8 dB	N.A.	50	N.A.	N.A.	2-way system in cast-aluminum housing.
W700	115 ea	7W	40-16 Hz	N.A.	N.A.	67	N.A.	Low-distortion woofer.
D4200	90 ea	4W 1T	80-22k	N.A.	50	N.A.	1¼	2-way flush-mount system; fits 3⅞" hole.
D5200	98 ea	4W 1T	60-22k	N.A.	50	N.A.	1⅝	2-way flush-mount system; fits 3½" hole.
D4000	98 ea	4W 1T	50-22k	N.A.	50	N.A.	N.A.	Compact 2-way system in wedge metal cabinet.
DMT-1	68 ea	1½M 1T	800-19k	N.A.	N.A.	N.A.	N.A.	Flush-mount midrange tweeter system with sealed back.
W620G	54 ea	6W	45-3.5k	N.A.	N.A.	72	N.A.	Woofer.
W6920G	54 ea	6 × 9W	40-3k	N.A.	N.A.	72	N.A.	Woofer.
M55G	26.10	5M	1.1k-6k	N.A.	N.A.	N.A.	N.A.	Midrange driver with sealed back.
T35G	19.70 ea	3T	2.5k-18k	N.A.	N.A.	N.A.	N.A.	Phenolic ring dome tweeter with sealed back.
DT12G	13.30 ea	N.A.	3k-20k	N.A.	N.A.	N.A.	N.A.	Low-profile sealed-back dome tweeter.

*Driver Size: W = Woofer; M = Midrange; T = Tweeter

COMPONENTS**Zapca**

Model	Price (\$)	Type*	Output Power (W/channel)	Frequency Response (Hz ±3 dB)	THD (%)	S/N Ratio (dB)	Dimensions (inches)	Center Frequencies (Hz)	Features
PEQ	320	2	line level	10-43k	< 0.05	86	8¾"l × 4¼"W × 1⅞"H	50, 100, 200, 800, 1.6k, 3.2k, 6.4k, 12.8k	Stereo 9-band equalizer/preamplifier; EQ boost/cut range ±18 dB; adjustable input matching; volume control; output level switch; mounting bracket.
150 HA	625	1	75 × 2	5-200k -0.5 dB	0.03	> 106	8 × 7 × 2⅞	N.A.	Ultra-low-distortion class AB booster amplifier.
150H	450	1	75 × 2	5-200k -0.5 dB	0.2	> 106	8 × 7 × 2⅞	N.A.	Low-distortion class-B booster amplifier.
PX	400	2	line level	N.A.	0.02	N.A.	6½ × 4 × 2	N.A.	Paragraphic equalizer/active crossover; includes standard set filter modules.
PEX	204	N.A.	line level	N.A.	N.A.	N.A.	N.A.	N.A.	Passive electronic crossover; slope 12 dB/octave; allows biamplication with 2 or more 150H/HAs; supplied with 275-Hz filter module.
ESM	74	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Energy storage module for 150H; increases power to 165 W; extends full-power bandwidth to 16-20k Hz.
AGM	50	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Active 0-30 dB gain module; matches 150H/HA to low-level line-output cassette players.

*Type: 1 = Booster Amplifier; 2 = Graphic Equalizer; 3 = Amplifier/Equalizer

13 CAR STEREO EQUIPMENT

SPEAKERS

Altec Lansing

Model	Price (\$)	Driver Size* (inches)	Frequency Range (Hz)	Sensitivity (dB SPL / W/m)	Maximum Power (watts)	Magnet (ounces)	Mounting Depth (inches)	Remarks
SW-1	240 ea	6×9W	50-150 ±4dB	N.A.	40	N.A.	2 ³ / ₈	Woofer.
6×9-4B	240 pr	6×9W	60-18k ±5dB	95	75	N.A.	3 ³ / ₄	Full-range Super Duplex system.
6×9-4A	170 pr	6×9W	80-18k ±6dB	95	40	N.A.	3 ¹ / ₂	Full-range Duplex system.
6×9-4C	120 pr	6×9W	90-16k ±6dB	94	35	N.A.	2 ⁷ / ₈	Full-range Duplex II system.
SK-2	120 pr	5 ¹ / ₄ W	100-18k ±6dB	92	35	N.A.	2 ¹ / ₈	Full-range Duplex system.
SK-1	113 pr	5 ¹ / ₄ M	100-10k ±5dB	92	35	N.A.	2	Extended-range speaker.
TK-1	80 pr	3T	5k-18k	94	20	N.A.	7/8	Tweeter.
3-Way System	390	6×9W 5 ¹ / ₄ M 3T	50-18k ±5dB	92	20	N.A.	2 ³ / ₈	5-piece system consists of SW-1, 2 SK-1s, 2 TK-1s.

*Driver Size: W = Woofer; M = Midrange; T = Tweeter

6" x 9" x 5 1/4"



6 X 9-4A Duplex

6 X 9-4B Super Duplex

6 X 9-4C Duplex II

SK2-5 1/4" Duplex

Altec's new dimension in automotive sound.

Once there was only one way to hear great speakers in a car.



Now you've got a choice.

Times were when you had to either make great sacrifices or hear bad sound. But you need not suffer any more. Now you can choose from a whole range of great sounding, easy-to-install Voice of the Highway car speakers from Altec Lansing. They are to car sound what Voice of The Theatre® speakers (the big ones in the back seat) are to pro sound.

Voice of the Highway speakers are now available in all the popular sizes and at prices lower than you might think. Like the very affordable SK2, a 5¼" Duplex® speaker.

We think you'll agree that it's the best sounding speaker of its type.

It's just the thing for today's smaller cars.

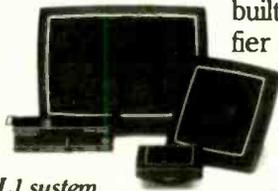
And we've got what are probably the best 6X9" speakers on the market. (Yea, that's what everybody says, but go listen.)

Now there are *three* 6X9" speakers to pick from: The original Duplex, the new popularly-priced Duplex II, and the high-performance Super Duplex.



The original. New SK2. New Duplex II. New Super Duplex.

Plus there's a whole new approach to car sound, the unique AL1 system. It's a five-piece three-way system that turns an ordinary car radio into a Bi-amped power house. It features the innovative Power Bass™, a *subwoofer* with built-in amplifier that delivers incredible bass. The PowerBass can even be added to the system you



AL1 system. The PowerBass.

added to the system you

have now.

For a thorough demonstration see your local Altec Lansing Auto Sound specialist.

**ALTEC
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Voice of the Highway™

1515 S. Manchester, Anaheim, CA 92803
CIRCLE NO. 10 ON READER SERVICE CARD

13 CAR STEREO EQUIPMENT

COMPONENTS

AudioMobile

Model	Price (\$)	Type*	Output Power (W/channel)	Frequency Response (Hz ±3 dB)	TMD (%)	S/N Ratio (dB)	Dimensions (inches)	Center Frequencies (Hz)	Features
SA 2000	600	1	100 x2	10-50k +0/-1 dB	0.2	> 100	7 ³ / ₄ Wx7 ⁵ / ₈ Lx4 ¹ / ₄ H	N.A.	Booster amplifier bridgeable for 200-W mono operation; regulated power supply; 2-second turn-on delay; full protection; speaker fuses; thermal shut-down.
SA 1000	400	1	50 x2	10-100k +0/-1 dB	0.2	> 100	7 ³ / ₄ Wx7 ⁵ / ₈ Lx4 ¹ / ₄ H	N.A.	Similar to SA 2000 except bridgeable for 100-W mono operation.
SA 400	170	1	20W x2	20-20k +0/-1 dB	0.05	> 100	5 ¹ / ₂ Wx4 ³ / ₄ W 2H	N.A.	Booster amp; handles 2-ohm loads; full protection.
SP 300	250	N.A.	5V max	10-50k +0/-1 dB	0.05	< 0.05	4.5x4.1x1.6	N.A.	Preamplifier; adjustable input sensitivity; miniature switching power supply; center-detented bass, midrange, treble controls.
BF 1	80	N.A.	2.5V max	10-50k +0/-1 dB	< 0.05	85	2.3x1.4x1.5	N.A.	Electronic crossover; 12-dB/octave constant-voltage filter design; low-pass output, stereo or mono for subwoofer.
CXE 2	200	N.A.	7V max	10-50k +0/-1 dB	0.005	85	5.8x3.5x1.6	N.A.	Adjustable left/right gain controls; adapts all AudioMobile booster amps to preamp or volume control output of any radio or tape player source.
AR-4	1900	N.A.	340	N.A.	N.A.	N.A.	N.A.	N.A.	"Amp-Rack" component system consisting of: 1SA 2000, 1 SA 1000, 1 SA 400, SP 300, CEX-2, Ac 504 (fader control).
AR-3	1650	N.A.	240	N.A.	N.A.	N.A.	N.A.	N.A.	"Amp-Rack" component consisting of: 2 SA 1000s, 1 SA 400, CXE-2, SP 300, AC 504.
AR-2	1340	N.A.	180	N.A.	N.A.	N.A.	N.A.	N.A.	"Amp-Rack" component system consisting of: 2 SA 400s, 1 SA 100, CXE-2, SP 300, AC 504.

*Type: 1 = Booster Amplifier; 2 = Graphic Equalizer; 3 = Amplifier/ Equalizer

RADIO/TAPE

Audiovox

Model	Price (\$)	Output	Frequency Range (Hz)	FM Sensitivity*	Capture Ratio (dB)	FM Selectivity (dB)	Tape Wow & Flutter (%)	Tape Frequency Range (Hz)	Tape S/N (dB)	Features
HCC-1200	657	N.A.	50-20k	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Synthesizer AM/FM-stereo tuning; 6 AM/6 FM presets; digital frequency/time display; Super-Reach FM tuner; local/DX switch; 4-way balancing; preamp outputs; cassette player; Dolby N.R.
AVX-955	442	6.5W ch	N.A.	N.A.	N.A.	0.35	50-10k	N.A.	N.A.	Synthesizer AM/FM stereo tuning; 6 AM/6 FM presets; green LED-frequency/time display; local/DX switch; auto-reverse cassette player; designed for imported cars.
HCC-1026	390	10W ch	40-15k	N.A.	N.A.	0.25	30-15k	50 NR	on	Slide-rule AM/FM stereo tuning; preamp outputs; FM muting; loudness button; fader, bass, treble, balance controls; auto-reverse side-load cassette player; Dolby NR; 70/120-msec EQ selector
AVX-955	380	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Synthesizer AM/FM stereo tuning; digital frequency/time display; Auto-reverse cassette player.
HCM-003	350	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	In-dash AM/FM stereo radio/auto-reverse cassette player; 4-way balance, bass, treble controls; high-blend and loudness switches; metal-tape capability; Dolby N.R.
HHC-565	370	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	In-dash AM/FM stereo radio/auto-reverse cassette player; 4-way balance, bass, treble controls; stereo high blend and loudness switches; selectable tape EQ; Dolby N.R.
AVX-680	320	40W total	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	AM/FM stereo radio/cassette player/booster amplifier; booster on/off switch; bass,treble,4-way balance controls; auto/manual eject.
AVX-685	270	20W ch	50-10k	5uV ¹	N.A.	N.A.	N.A.	N.A.	N.A.	In-dash AM/FM stereo radio/cassette player/equalizer (60,250,1k,3.5k,10k, Hz); Super-Reach FM tuner; front-to-rear fader; FM muting.
AVX-690	270	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	AM/FM stereo radio/auto-reverse cassette player/booster amp/equalizer (60,250,1k,3.5k,10k Hz).
AVX-900	260	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Synthesizer AM/FM stereo tuning; digital frequency/time display; 4-way balance control; local/DX switch; cassette player.
HCC-551	240	6W ch	50-10k	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Slide-rule AM/FM stereo tuning; preamp outputs; loudness switch; auto-reverse cassette player.

(continues)

RADIO/TAPE

Audiovox

Model	Price (\$)	Output	Frequency Range (Hz)	FM Sensitivity*	Capture Ratio	FM Selectivity (dB)	Tape Wow & Flutter (%)	Tape Frequency Range (Hz)	Tape S/N (dB)	Features
AVX-620	200	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	AM/FM stereo radio/auto-reverse cassette player.
AVX-730	190	6W total	N.A.	N.A.	N.A.	N.A.	0.3	50-10k	N.A.	Slide-rule AM/FM stereo tuning; audiolock FM tuning; 4-way balance control; cassette player; "superflex" installation.
AVX-605A	164	4.5W ch	N.A.	5uV ¹	N.A.	N.A.	0.35	50-10k	N.A.	Slide-rule AM/FM stereo tuning, local/DX switch; side-load cassette player.
HCC-500	150	5W ch	N.A.	5uV ¹	N.A.	N.A.	0.35	5-10k	N.A.	Slide-rule AM/FM stereo tuning; local/DX switch; FLL MPX decoder; cassette player.
TP-707	100	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Package system consisting of AM/FM stereo radio/cassette player, power amplifier; stereo speaker system.
TP-747	226	50W total	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Package system consisting of AM/FM stereo radio/cassette player; booster amp/3-band equalizer; 6"x9" coaxial speaker systems.
TP-727	314	40W total	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Same as TP-727 except 40 watts total power, auto-reverse cassette player.
TP-808	335	50W total	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Same as TP-727 except has 5-band EQ; auto-reverse cassette player; 5 1/4" coaxial speaker systems.

*FM Sensitivity: 1 = Usable; 2 = 50-dB Quieting

SPEAKERS

Audiovox

Model	Price (\$)	Driver Size* (inches)	Frequency Range (Hz)	Sensitivity (dB SPL/W/m)	Maximum Power (watts)	Magnet (ounces)	Mounting Depth (inches)	Remarks
TRYVOX-9	47	6x9(W)	N.A.	N.A.	N.A.	N.A.	N.A.	3-way system.
TRYVOX-15	43	6(W)	N.A.	N.A.	N.A.	N.A.	N.A.	3-system.

*Drive Size: W = Woofer; M = Midrange; T = Tweeter

TAPE PLAYERS

Audiovox

Model	Price (\$)	Type*	Frequency Response (Hz)	S/N Ratio (dB)	Wow & Flutter (%)	Crosstalk (dB)	Dimensions (inches)	Features
3200	150	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Auto-reverse cassette player.

*Type: 1 = Cassette; 2 = 8-Track Cartridge

RADIO/TAPE

Autotek

Model	Price (\$)	Output	Frequency Range (Hz)	FM Sensitivity*	Capture Ratio	FM Selectivity (dB)	Tape Wow & Flutter (%)	Tape Frequency Range (Hz)	Tape S/N (dB)	Features
CSR3500	330	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Slide-rule AM/FM-stereo tuning; local/DX switch; automatic control stereo, soft mute; interference absorption circuit; dynamic noise reduction; metal-cable auto-reverse cassette player; Dolby NR; auto load.
CSR3300	300	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Slide-rule tuning; local/DX switch; FM muting; metal-capable auto-reverse cassette player; Dolby NR; auto load; key-off eject.
CSR2300	260	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Slide-rule tuning; local/DX switch; FM muting; metal-capable auto-reverse cassette player; Dolby NR; auto load; key-off eject.
CSR2200	210	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Same as CSR2300 except no locking fast forward/rewind.
CSR3150	210	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Slide-rule tuning; local/DX switch; 4-way fader; auto-reverse cassette player; auto load; key-off eject; mini chassis.
CSR3050	170	6.5W	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Slide-rule tuning; Bio Pruf circuitry; 4-way fader; Automatic Control Stereo, soft mute; cassette player; high power; mini chassis.

*FM Sensitivity: 1 = Usable; 2 = 50-dB quieting

SPEAKERS

B&W

Model	Price (\$)	Driver Size* (inches)	Frequency Range (Hz)	Sensitivity (dB SPL/W/m)	Maximum Power (watts)	Magnet (ounces)	Mounting Depth (inches)	Remarks
LM-1	295	4W 7/8T	N.A.	N.A.	—	N.A.	N.A.	Monitor system; minimum power 10 W, no upper limit; full enclosure; protected against overload.
LM-1 (DM)	265	4W 7/8T	N.A.	N.A.	—	N.A.	N.A.	Same as LM-1 but panel mount.

*Driver Size: W = Woofer; Midrange; T = Tweeter

RADIO/TAPE

Blaupunkt

Model	Price (\$)	Output	Frequency Range (Hz)	FM Sensitivity* (dB μ V ₁)	Capture Ratio (dB)	FM Selectivity (dB)	Tape Wow & Flutter (%)	Tape Frequency Range (Hz)	Tape S/N (dB)	Features
Berlin 8000	1395	20W	N.A.	0.95 μ V ₁	N.A.	> 80	< 0.2	30-15k	> 56	Remote-control AM/FM-stereo/LW/SW tuning; 7 presets; fader; FM NR on noise suppression; sound ambient level sensor (SALS); 4 output channels; auto-reverse cassette player; Dolby NR.
CR-3001	630	15W	20-30k	19.2 dB μ V ₁	1.5	65	0.15	55-16.2k @70 μ s	65 NR	Synthesizer AM/FM-stereo tuner, digital frequency/time display; 6 AM/6 FM presets; 4 output channels; auto-reverse cassette player; Dolby NR; 70/120- μ s tape EQ switch
CR-3001H	520	line level	N.A.	19.2 dB μ V ₁	1.5	65	0.15	55-16.2k @70 μ s	65 NR	Synthesizer AM/FM-stereo tuner; digital frequency/time display; 12 presets; auto-reverse cassette player; Dolby NR; 70/120- μ s EQ switch.
CR-5001	450	15W	20-30k	21.3 dB μ V ₁	1.5	70	0.15	55-16.2k @70 μ s	65 NR	Synthesizer AM/FM-stereo tuner; digital frequency/time display; auto-reverse cassette player; Dolby NR; 4 output channels; 70/120- μ s EQ switch.
CR-3003	450	IV 7.5W	20-27k	19.2 dB μ V ₁	1.7	65	0.15	45-15.6k @70 μ s	60	Synthesizer AM/FM-stereo tuning; digital frequency/time display; Dynamic Noise Reduction (DNR) radio/tape; 12 presets; motionized loading auto-reverse cassette player; 70/120- μ s EQ switch.
CR-2010	400	IV 7.5W	20-27k	19.2 dB μ V ₁	1.7	65	0.15	45-15.6k @70 μ s	60 NR	Synthesizer AM/FM-stereo tuning; digital frequency/time display; 6 AM/6 FM presets; auto-reverse cassette player; Dolby NR; 70/120- μ s EQ switch.
R-2001	351	7.5W	31-24.5k	18.6 dB μ V ₁	1.8	65	0.15	60-14k @70 μ s	61 NR	Slide-rule AM/FM-stereo tuning; auto-reverse cassette-player; Dolby on NR; 70/120- μ s EQ switch.
CR-4000	344	7.5W	31-26.5k	21.2 dB μ V ₁	1.5	65	0.15	55-16.2k @70 μ s	65 NR	Synthesizer AM/FM-stereo tuning; auto-reverse cassette player; dolby NR; 70/120- μ s EQ switch.
CR-2002	290	7.5W	31-24.5k	19.2 dB μ V ₁	1.5	65	0.15	55-16.2k @70 μ s	61 NR	Synthesizer AM/FM-stereo tuning; auto-reverse cassette player; Dolby on NR; 70/120- μ s EQ switch.

*FM Sensitivity: 1 = Usuable; 2 = 50-dB Quieting

SPEAKERS

Blaupunkt

Model	Price (\$)	Driver Size (inches)	Frequency Range (Hz)	Sensitivity (dB SPL (W/m))	Maximum Power (watts)	Magnet (ounces)	Mounting Depth (inches)	Remarks
BC 60	65 pr	6	50-20k	89	30 rms	10	N.A.	Impedance 4 ohms.
BC 52	55 pr	5 1/4	55-20k	85	30 rms	10	2	Impedance 4 ohms.
BC 45	50 pr	4 1/2	70-18k	85	30 rms	10	2 1/16	Impedance 4 ohms.
BC 460	48 pr	4x6	50-12k	88	25 rms	5 W	1 1/2	Impedance 4 ohms.
BC 40	45 pr	4	60-12k	88	25 rms	5 W	1 1/2	Impedance 4 ohms.
BC 35	40 pr	3 1/2	100-16k	86	25 rms	5 W	1 3/4	Impedance 4 ohms.
7 606777000	50 pr	3 1/16 W	40-12k	N.A.	30 rms	8.5 W	1 1/4	Woofers, 4 ohms; crossover 40-600 Hz
7 606807000	59 pr	3 1/16 W	40-12k	N.A.	30 rms	8.5 W	1 1/4	Woofers, 8 ohms; crossover 40-600 Hz
7 606776000	54 pr	3 1/4 M	80-16k	N.A.	30 rms	8.5 M	1 1/4	Midrange, 4 ohms; crossover 600-4k Hz
7 606783000	48 pr	3 T	2k-20k	N.A.	30 rms	3 T	3/4	Tweeter, 4 ohms; crossover 4k-20k Hz

*Driver Size: W = Woofer; M = Midrange; T = Tweeter

COMPONENTS

Blaupunkt

Model	Price (\$)	Type*	Output Power (W/channel)	Frequency Response (Hz \pm 3 dB)	THD (%)	S/N Ratio (dB)	Dimensions (inches)	Center Frequencies (Hz)	Features
BPA 260	320	1	30 rms	10-40k -3 dB	0.1	90	7 1/16 x 10 3/8	N.A.	Booster amplifier; 4 output channels; digital pulse power supply; adjustable input sensitivity.
BPA 260	320	1	60 rms	10-40k -3 dB	0.1	90	7 1/8 x 10 3/8 x 2 1/4	N.A.	Same as BPA 430 except 2 output channels.
BEA-150	170	3	20 rms	15-40k -3 dB	0.1	N.A.	5 1/2 x 5 1/2 x 1 9/16	60, 250, 1k, 3.5k, 10k	Booster amp/equalizer; EQ boost/cut range \pm 12 dB; EQ defeat switch; fader; 4 output channels.
BE-55	100	2	line level	50-30k -3 dB	0.07	N.A.	5.5 x 3.7 x 1.6 3.5k, 10k	60, 250, 1k	Stereo equalizer; fader; mute switch.

*Type: 1 = Booster Amplifier; 2 = Graphic Equalizer; 3 = Amplifier/ Equalizer

RADIO/TAPE

Bose

Model	Price (\$)	Output	Frequency Range (Hz)	FM Sensitivity*	Capture Ratio (dB)	FM Selectivity (dB)	Tape Wow & Flutter (%)	Tape Frequency Range (Hz)	Tape S/N (dB)	Features
CRC	575	line	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Microprocessor-controlled synthesizer AM/FM-stereo tuner/pre-amp/cassette player; 12-station presets; LED digital frequency/time display; FM muting; local/DX and blend switches; metal-capable auto-reverse cassette player; Dolby N.R.

*FM Sensitivity: 1 = Usable; 2 = 50-dB Quieting

SPEAKERS

Bose

Model	Price (\$)	Driver Size* (inches)	Frequency Range (Hz)	Sensitivity (dB SPL/W/m)	Maximum Power (watts)	Magnet (ounces)	Mounting Depth (inches)	Remarks
1401 ⁺	470	4 1/2(W)	N.A.	N.A.	N.A.	N.A.	1 1/2	Direct/Reflection stereo speaker system with 1401 booster amplifier (4 x 25W); active electronic EQ; Spatial Control [™] ; low-frequency control; high-frequency switch; 2 Direct/reflecting speakers with energy controls, 2 door-mount speakers.

*Driver Size; W = Woofer; M = Midrange; T = Tweeter

SPEAKERS

Canton

Model	Price (\$)	Driver Size* (inches)	Frequency Range (Hz)	Sensitivity (dB SPL/W/m)	Maximum Power (watts)	Magnet (ounces)	Mounting Depth (inches)	Remarks
AC 200	350 pr	4W, 7/8T	48-25k	N.A.	N.A.	N.A.	N.A.	Stereo speaker/5-W/channel amplifier system; separate woofer and tweeter amps.

*Driver Size; W = Woofer; M = Midrange; T = Tweeter

RADIO/TAPE

Clarion

Model	Price (\$)	Output	Frequency Range (Hz)	FM Sensitivity*	Capture Ratio (dB)	FM Selectivity (dB)	Tape Wow & Flutter (%)	Tape Frequency Range (Hz)	Tape S/N (dB)	Features
PE 959A MK-II	729	500 mV	N.A.	17 dBf ²	2	70	0.13	30-15k ±3 dB	57 NR	Synthesizer AM/FM-stereo tuning; digital frequency/time display; 5 AM/5 FM presets; Signal Actuated Stereo Control (SASC); metal-ready auto-reverse cassette player; Dolby NR; EQ accessory terminal.
9300T	409	500 mV	N.A.	17 dBf ²	2	70	0.13	30-15k ±3 dB	57 NR	Synthesizer AM/FM-stereo tuning; digital frequency/time display; 5 AM/5 FM presets; soft muting; auto local/DX switching; SASC; FM noise canceller; metal-ready auto-reverse cassette player; Dolby NR.
7500R	329	12W	50-15k	17 dBf ²	1.5	70	0.13	30-15k ±3 dB	56 NR	Slide rule AM/FM stereo tuning; auto local/DX switching; SASC; FM noise canceller; automatic program control (APC); 4-way balancing; metal-ready auto-reverse cassette player; Dolby NR; EQ terminal.
5700R	309	3.2W	50-15k	17 dBf ²	1.5	70	0.15	30-14k ±3 dB	56 NR	Synthesizer AM/FM-stereo tuning; digital frequency/time display; 5 AM/5 FM presets; auto local/DX switching; SASC; FM noise canceller; auto-stop metal-ready cassette player; 4-way balancing.
2500R	299	6W	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Slide-rule AM/FM-stereo tuning; pushbutton tuning; auto local/DX switching; APC; SASC; FM noise canceller; 4-way balancing; metal-ready auto-reverse cassette player; Dolby NR; under-dash unit.
5500R/5550R	229	3.2W	50-15k	17 dBf ²	1.5	70	0.15	30-14k ±3 dB	56 NR	Slide-rule AM/FM stereo tuning; auto local/DX switching; SASC; FM noise canceller; APC; 4-way balancing metal-ready auto-reverse cassette player; compact (5500R), mini (5550R) chassis versions.
5300R	229	3.2W	50-15k	17 dBf ²	1.5	70	0.15	30-14k ±3 dB	56 NR	Similar to 5500R except fully manual tuning (no tuning pushbuttons).
5100R/5150R	179	3.2W	50-15k	17 dBf ²	1.5	65	0.15	30-14k ±3 dB	56 NR	Similar to 5500R except no APC; compact (5100R) chassis versions.
3700R	169	3.2W	50-15k	18 dBf ²	2	65	0.25	40-12k ±3 dB	50	Slide-rule AM/FM-stereo tuning; auto local/DX switching; SASC; auto-stop cassette player.
3500R/3550R	159	3.2W	50-15k	18 dBf ²	2	65	0.25	40-12k ±3 dB	50	Similar to 3700R except no SASC; has auto-reverse cassette player; compact (3500R), mini (3550R) chassis versions.
2100R	139	6W	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Slide-rule AM/FM-stereo tuning; auto local/DX switching; SASC; 4-way balancing; auto-stop cassette player; under-dash unit.
3100R/3150R	109	3.2W	50-15k	18 dBf ²	2	65	0.25	40-12k ±3 dB	50	Similar to 3500R/3550R except auto-stop cassette player; compact (3100R), mini (3150R) chassis versions.

*FM Sensitivity: 1 = Usable; 2 = 50-dB Quieting

SPEAKERS

Clarion,

Model	Price (\$)	Driver Size* (inches)	Frequency Range (Hz)	Sensitivity (dB SPL/W/m)	Maximum Power (watts)	Magnet (ounces)	Mounting Depth (inches)	Remarks
SD-5000	189 pr	6×9W	N.A.	N.A.	60	20W	2 ¹⁵ / ₁₆	Omnidirectional rear-deck mounting system; direct-radiating midrange and tweeter towers with Positive-Lock adjustment.
SD-1000	179 pr	6×9W 3M	N.A.	N.A.	120	14W 2.5W	3 ¹ / ₄	Modular system; polycarbonate ferrofluid tweeter; woofer and midrange/tweeter modules separate.
SK-99B	139 pr	5W 2 ¹ / ₂ M 1T	N.A.	N.A.	25	20W 3M	2	
SD-980	119 pr	6×9W	N.A.	N.A.	80	20W	3 ¹ / ₈	Multiaxial rear-deck-mount system; post-mount midrange and tweeter.
SD-630	99 pr	6 ¹ / ₂ W	N.A.	N.A.	60	15W	2 ⁹ / ₁₆	Multiaxial door- or rear-deck-mount system; post-mount midrange and piezoelectric tweeter.
SD-970	89 pr	6×9W	N.A.	N.A.	60	20W	3 ¹ / ₈	Coaxial rear-deck-mount system; post-mount tweeter.
SK-107	79 pr	7W	N.A.	N.A.	30	12	2 ¹⁹ / ₁₆	Door- or rear-deck-mount woofer.
SD-620	69 pr	6 ¹ / ₂ W	N.A.	N.A.	40	10W	2 ¹ / ₄	Coaxial rear-deck- or door-mount system; post-mount tweeter.
SD-520	59 pr	5W	N.A.	N.A.	30	6W	1 ¹¹ / ₁₆	Low-profile door-mount coaxial system; post-mount tweeter.
SD-420	59 pr	4W	N.A.	N.A.	30	6W	1 ¹⁹ / ₁₆	Coaxial door-mount system; post-mounted tweeter.
SD-610	39 pr	6 ¹ / ₂	N.A.	N.A.	40	10	2 ¹ / ₄	Dual-cone door- or rear-deck-mount speaker.
SD-410	39 pr	4	N.A.	N.A.	30	6	1 ³ / ₁₆	Dual-cone door-mount speaker.
SD-50C	39 pr	5	N.A.	N.A.	30	4.5	1 ³ / ₁₆	Full-range door-mount speaker.
SD-310	39 pr	3 ¹ / ₂	N.A.	N.A.	20	5.5	1 ⁹ / ₁₆	Dual-cone dash- or door-mount speaker.

*Driver Size; W = Woofer; M = Midrange; T = Tweeter

TAPE PLAYERS

Clarion,

Model	Price (\$)	Type*	Frequency Response (Hz)	S/N Ratio (dB)	Wow & Flutter (%)	Crosstalk (dB)	Dimensions (inches)	Features
PE869A	249	1	30-14k ±3 dB @70μs	65 NR on	0.13	N.A.	6 ⁵ / ₁₆ D×5 ¹ / ₂ W×2H	High-power amp (20 W/ch); auto-reverse cassette player; Dolby NR; metal capability; loudness, bass, treble, balance control, 3-color; 5-LED power meters.
PE828A	119	1	50-10k ±3 dB	50	0.2	N.A.	6D×5 ¹ / ₂ W×1 ⁷ / ₈ H	Auto-reverse cassette player/amplifier (6 W/ch); tone and balance controls; compact size.
PE881A	59	1	40-12k ±3 dB	50	0.2	N.A.	6D×5 ¹ / ₂ W×1 ⁷ / ₈	Auto-stop cassette player/amp (6 w/ch); compact size.
PE450A	59	2	50-10k ±3 dB	50	0.2	N.A.	6D×5 ¹ / ₂ W×1 ⁷ / ₈ H	8-track cartridge player; 6-watt/channel amplifier; tone and balance controls; compact chassis.

*Type: 1 = Cassette; 2 = 8-Track Cartridge

COMPONENTS

Clarion,

Model	Price (\$)	Type*	Output Power (W/channel)	Frequency Response (Hz ±3 dB)	THD (%)	S/N Ratio (dB)	Dimensions (inches)	Center Frequencies (Hz)	Features
300EQB3	189	3	33×2	20-20k ±1.5 dB	1.0	75	6 ¹ / ₄ D×6 ¹ / ₄ W×1 ⁷ / ₈ H 3.5k, 10k	60, 250, 1k,	Booster amplifier/equalizer (±12-dB range); EQ defeat switch; dual 3-color LED power meters; fader; low/high-level inputs; floating input capability; overload protection; compact size.
150EQB2	149	3	27×4	20-20k ±1.5 dB	-1.0	75	6 ¹ / ₂ D×5 ¹ / ₂ W×1 ⁷ / ₈ 3.5k, 10k	60, 250 1k,	Similar to 300EQB3 but has 4 lower-power outputs; no power muters.
100EQB4	89		15×2	20-20k ±1.5 dB	1.0	75	5 ¹ / ₂ W×5 ¹ / ₂ D×1 ⁷ / ₈ H 1k, 3.5k, 10k	60, 250,	Similar 150EQB2 except only 2 output channels; no high/low-level inputs; floating input capability; compact size.
1800A MKII	289	1	15×2 45×2	20-20k ±1.5 dB	1.0	80	11 ⁷ / ₈ D×7 ³ / ₈ W ×2 ³ / ₄ H	N.A.	Switchable biamp capability booster amp; high/low-level inputs; remote on/off; overload protection (15 W/ch front, 45 W/ch rear speakers.)
800A MKII	109	1	27×2	20-20k ±1.5 dB	1.0	75	6 ³ / ₈ D×5 ¹ / ₂ W ×1 ¹ / ₂ H	N.A.	Switchable biamp-capability booster amp; 4 inputs (2L + 2R) for 4-way balancing; remote on/off, high/low level inputs; overload protection; compact size.

COMPONENTS

Clarion

Model	Price (\$)	Type*	Output Power (W/channel)	Frequency Response (Hz ±3 dB)	THD (%)	S/N Ratio (dB)	Dimensions (inches)	Center Frequencies (Hz)	Features
400A	59	1	13×2	20-20k ±1.5 dB	1.0	75	6 ³ / ₈ D × 4 ¹ / ₄ W × 1 ¹ / ₈ H	N.A.	Booster amp; high/low-level inputs; remote on/off; overload protection; compact size; designed for 2-speaker applications but can be used in 4-speaker setups with optional fader.

*Type: 1 = Booster Amplifier; 2 = Graphic Equalizer; 3 = Amplifier/Equalizer

RADIO/TAPE

Concord

Model	Price (\$)	Output	Frequency Range (Hz)	FM Sensitivity*	Capture Ratio (dB)	FM Selectivity (dB)	Tape Wow & Flutter (%)	Tape Frequency Range (Hz)	Tape S/N (dB)	Features
HPL-130	530	12W	20-20k	11.2 dBf ¹	N.A.	N.A.	0.08 ±2 dB	30-20k	N.A.	Synthesizer AM/FM-stereo tuning; local/DX; FM high-blend muting; loudness switches; 3-way bass equalizer; bass, treble, fader controls; 6 AM/6 FM presets; digital frequency/time display; cassette player; Dolby B NR; aux in/out switch for optional Dolby C or dbx NR module.
HPL-515	470	12W	20-20k	11.2 dBf ¹	N.A.	N.A.	N.A. ±2 dB	30-20k	N.A.	Synthesizer AM/FM-stereo tuning; scan tuning; digital frequency/time display; 2 sets line-out jacks; biamp capability; 3-way bass EQ; metal-ready cassette player; Dolby NR.
HPL-118F	430	12W	20-20k	11.2 dBf ¹	N.A.	N.A.	N.A.	N.A.	N.A.	Synthesizer AM/FM-stereo tuning; scan tuning; digital frequency/time display; 2 sets line-out jacks; biamp capability; 3-way bass EQ; metal-ready cassette player; Dolby NR.
HPL-120	430	25W	N.A.	11.2 dBf ¹	N.A.	N.A.	N.A.	N.A.	N.A.	Synthesizer AM/FM-stereo tuning; scan tuning; digital frequency/time display; FM muting; local/DX switch; 3-way bass EQ; preamp outputs; metal-ready cassette player; Dolby NR.
HPL-118	380	12W	30-20k	11.2 dBf ¹	N.A.	N.A.	0.08 ±2 dB	30-20k	N.A.	Slide-rule AM/FM-stereo tuning; FM high blend; FM muting; 3-way bass equalizer; bass, treble, loudness, fader controls; aux in/out switch (for Dolby cor dbx NR module); auto-eject cassette player; Dolby B NR.
HPL-508	370	800 mV	N.A.	11.2 dBf ¹	N.A.	N.A.	N.A.	30-20k ±2 dB	N.A.	Slide-rule AM/FM-stereo tuning; FM muting; auto local/DX switching; FM noise reduction; biamp capability; 3-way bass EQ; loudness and fader controls; metal-ready cassette player.
HPL-115	350	25W	N.A.	11.2 dBf ¹	N.A.	N.A.	N.A.	30-15k	N.A.	Slide-rule AM/FM-stereo tuning; Station Lock Tuning; local/DX switch; 3-way bass EQ; loudness and balance controls; preamp outputs; metal-ready cassette player; Dolby NR.
HPL-112	280	10W	N.A.	11.2 dBf ¹	N.A.	N.A.	N.A.	30-15k	N.A.	Slide-rule AM/FM-stereo tuning; Station Lock Tuning; local/DX switch; loudness, bass, treble, balance controls; preamp outputs; metal-ready cassette player; Dolby NR.
HPL-101	250	5W	N.A.	11.2 dBf ¹	N.A.	N.A.	N.A.	N.A.	N.A.	Slide-rule AM/FM-stereo tuning; bass, treble, loudness controls; metal-ready auto-eject cassette player.
HPL-119	550	12W X4	30-20k	11.2 dBf ¹	N.A.	N.A.	N.A.	30-20k ±2 dB	N.A.	Full AM/FM-stereo/cassette/amplifier system consisting of HPL-118F and 2 HPA-25 plug-in power modules.

*FM Sensitivity: 1 = Usable; 2 = 50-dB Quieting

SPEAKERS

Concord

Model	Price (\$)	Type*	Frequency Response (Hz)	S/N Ratio (dB)	Wow & Flutter (%)	Crosstalk (dB)	Dimensions (inches)	Features
HPS-201	200 pr	6×9W 2T	30-20k	N.A.	20	20W	3 ³ / ₄	Equadyne coaxial system; pole-mounted tweeter; built-in 20-watt amplifier; all-band equalization circuitry; moisture-resistant woofer; hard-dome tweeter.
HPS-271	160 pr	6×9W 2T	40-20k	N.A.	120	19W 4T	2 ³ / ₄	2-way system; bump capability; ferrofluid hard-dome tweeter.
HPS-268MT	145 pr	4 1T	75-25k	N.A.	N.A.	8	2	Full-range driver/tweeter system on mounting plate; hard-dome tweeter; fits 4" × 10" cutout.
HPS 266	140 pr	6 ¹ / ₂ W 2T	40-10k	N.A.	120	14W	2 ³ / ₄	Coaxial 2-way system; hard-dome ferrofluid coaxial tweeter.
HPS-267	110 pr	6 ¹ / ₂ W	35-4k	N.A.	120	14W	2 ³ / ₄	High-performance woofer.
HPS-265	110 pr	6 ¹ / ₂ W 2 ¹ / ₄ T	40-20k	N.A.	80	14W	2 ³ / ₄	Coaxial 2-way system; biamp capability; ferrofluid sealed-cone tweeter.
HPS-260	100 pr	6 ¹ / ₂ W 2T	40-20k	N.A.	50	14W	2	Coaxial 2-way system; cone tweeter.
HPS-152	90 pr	5W 2T	N.A.	N.A.	30	6W	1 ¹ / ₂	Coaxial 2-way system.
HPS-151	80 pr	5W	N.A.	N.A.	30	6W	1 ¹ / ₄	Full-range speaker.
HPS-311	240	N.A.	40-25k	N.A.	N.A.	N.A.	2 ³ / ₄	Stereo 3-way speaker consisting of 2 each HPS-267 and HPS-268MT.

*Driver Size; W = Woofer; M = Midrange; T = Tweeter

13 CAR STEREO EQUIPMENT

COMPONENTS

Concord

Model	Price (\$)	Type*	Output Power (W/channel)	Frequency Response (Hz ±3 dB)	THD (%)	S/N Ratio (dB)	Dimensions (inches)	Center Frequencies (Hz)	Features
HPA-70	370	1	70×2	10-70k	<0.5	>90	9w×5½D×2½H	N.A.	High-and low-level inputs; automatic equalization; remote on/off; short-circuit and thermal protection; noise filter; 4/8-ohm speaker switch.
HPA-45	170	1	35×2	15-20k	<0.5	>86	6W×5½D×2½H	N.A.	Similar to HPA-70 except lower power; no noise filter or thermal protection.
HPA-41	150	1	35×2	15-20k	<0.5	>86	6W×5½D×2½H	N.A.	Similar to HPA-70 except no auto EQ, speaker switch.
HPA-25	120 pr	1	12×1	10-100k	0.8	80	3¾W×1¼H×1¼D	N.A.	Basic mono booster amp; packed in pairs for stereo.
HPQ-90	130	N.A.	—	—	—	—	5W×3¾D×1¾H	N.A.	dbx II tape NR module; noise reduction 33 dB; dynamic range 100 dB.

*Type: 1 = Booster Amplifier; 2 = Graphic Equalizer; 3 = Amplifier/ Equalizer

RADIO/TAPE

Craig

Model	Price (\$)	Output	Frequency Range (Hz)	FM Sensitivity* (dBf)	Capture Ratio (dB)	FM Selectivity (dB)	Tape Wow & Flutter (%)	Tape Frequency Range (Hz)	Tape S/N (dB)	Features
T687	600	12.5W	35-20k	20.9 dBf	2	60	0.2	N.A.	N.A.	Slide-rule AM/FM-stereo tuning; 5 AM/5 FM presets; Dolby FM/tape NR; auto-reverse cassette player; 4 output channels.
T693	450	12W	35-20k	20.2 dBf	1.5	50	0.15	N.A.	N.A.	Same as T687 except 6 AM/FM presets; 2 output channels.
T690	300	12W	120-20k	17.6 dBf	1.7	65	0.15	N.A.	N.A.	Auto-reverse cassette player; Dolby NR; line-level outputs.
T560	280	4W	100-20k	17.8 dBf	2.5	65	0.15	N.A.	N.A.	Auto-reverse cassette player; Dolby NR; Electronic Search and Play (ESP); fader. For imported and X-body cars.
R230	280	N.A.	30-25k	28.8 dBf	2.5	70	0.24	N.A.	N.A.	Auto-reverse cassette player; Dolby NR; power-load transport; local/DX switch; FM muting.
T619	250	12W	80-20k	18.8 dBf	2	65	0.18	N.A.	N.A.	Auto-reverse cassette player; ESP; Dolby NR; power-off eject.
T692	250	12W	120-20k	20 dBf	1.5	65	0.15	N.A.	N.A.	Similar to T690 except no station presets.
R200	250	N.A.	30-25k	20.8 dBf	2.8	70	0.24	N.A.	N.A.	Same as R230 except no FM mute.
T641	220	12W	100-20k	21.3 dBf	2	60	0.15	N.A.	N.A.	Auto-reverse cassette player; power-off eject; fader control; line-level outputs.
T691	190	12W	120-20k	20.8 dBf	2.8	65	0.15	N.A.	N.A.	Same as T560 except no auto-reverse player; no Dolby NR.
T530	190	4W	100-20k	18 dBf	2.5	65	0.15	N.A.	N.A.	Same as T560 except no ESP.
T618	190	12W	100-20k	21.8 dBf	2.4	60	0.1	N.A.	N.A.	Similar to T641 except no preset tuning.
T640	170	4W	200-20k	18.3 dBf	N.A.	60	0.15	N.A.	N.A.	Auto-reverse cassette player; power-off eject; local/DX switch.
T614	155	4W	100-20k	22.7 dBf	1.8	60	0.12	N.A.	N.A.	Same as T618 except no auto-reverse transport.
T617	150	4W	100-20k	23.4 dBf	N.A.	60	0.12	N.A.	N.A.	Auto-reverse cassette player; power cassette loading; power-off eject; local/DX switch.
T501	130	4W	200-10k	19.9 dBf	1.5	60	0.17	N.A.	N.A.	Auto-reverse cassette player; key-off eject; local/DX switch.
T624	130	4W	70-20k	17.7 dBf	3.6	60	0.2	40-14k	50	Slide-rule tuning; local/DX switch; soft muting; fader; auto-reverse cassette player.
T500	100	3.5W	200-10k	24.3 dBf	2.5	60	0.2	N.A.	N.A.	Same as T501 except no auto-reverse transport.
S611	100	4W	200-15k	19.9 dBf	N.A.	50	0.15	N.A.	N.A.	8-track cartridge player; local/DX switch.
T610	100			18 dBf	2.8					Similar to T560 except no ESP, no bass, treble controls.
T623	80	4W	400-20k	23.3 dBf	3	60	0.2	63-14k -7 dB	50	Slide-rule tuning; local/DX switch; cassette player.

*FM Sensitivity: 1 = Usable; 2 = 50-dB Quieting

TAPE PLAYERS

Craig

Model	Price (\$)	Type*	Frequency Response (Hz)	S/N Ratio (dB)	Wow & Flutter (%)	Crosstalk (dB)	Dimensions (inches)	Features
T104	155	1	45-10k ±3 dB	58 NR on	0.15	-55	5 ³ / ₄ D × 5 ¹ / ₂ W × 1 ³ / ₄ H	Auto-reverse transport; bass treble, balance controls; preamp outputs; Dolby NR; output power 4 W/channel.

*Type: 1 = Cassette; 2 = 8-Track Cartridge

RADIO/TAPE

Fujitsu Ten

Model	Price (\$)	Output	Frequency Range (Hz)	FM Sensitivity*	Capture Ratio	FM Selectivity (dB)	Tape Wow & Flutter (%)	Tape Frequency Range (Hz)	Tape S/N (dB)	Features
CE-4130	780	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Microcomputerized synthesizer AM/FM stereo tuning; digital frequency/time display; 5 AM/5 FM presets; 60/250/1k/3.5k/10k-Hz EQ; soft mute; local/DX switch; metal-ready auto-reverse cassette player; Dolby NR.
CE-4133	780	N.A.	N.A.	24 dB ²	3	64	0.09	30-14k @70 μs	50	Under-dash unit; synthesizer AM/FM-stereo tuning; digital frequency/time display; 5 AM/5 FM presets; 60/250/1k/3.5k/10k-Hz EQ; metal-ready, auto-reverse cassette player; Dolby NR; auto search; remote-control option.
EP-820	600	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Under-dash unit; synthesizer AM/FM-stereo tuning; digital frequency/time display 7AM/7FM presets; 60/250/1k/3.5k/10k-Hz EQ; metal-ready, auto-reverse cassette player; Dolby NR.
CR-1130	320	25W	40-20k ±3 dB	20 dB ¹	N.A.	60	0.09	40-14k ±3 dB	53	Slide-rule AM/FM-stereo tuning; soft muting; automatic separation control; 7-watts × 4-channel option; metal-ready cassette player; Dolby NR; universal chassis.
CR-1031	290	4W	40-20k B ±3 d	20 dB ¹	N.A.	60	0.09	40-14k ±3 dB	53	Slide-rule AM/FM-stereo tuning; soft muting; bass and treble controls; metal-ready auto-reverse cassette player; Dolby NR; universal chassis.
CR-1033	290	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Slide-rule AM/FM-stereo tuning; soft muting; bass, treble controls; automatic separation control; metal-ready auto-reverse cassette player; Dolby NR; universal chassis.
CR-1134	290	25W	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Slide-rule AM/FM-stereo tuning; automatic separation control; fader; 7-watts × 4-channel option; metal-ready auto-reverse cassette player; Dolby NR; universal chassis.
CE-4431	280	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Mini-AM/FM-stereo/cassette player; digital frequency display; local/DX switch; FM noise blanker; 6 AM/6 FM presets; metal-ready auto-reverse cassette player.
CR-1030	250	4W	40-20k ±3 dB	20 dB ¹	N.A.	60	0.09	40-14k ±3 dB	53	Slide-rule AM/FM-stereo tuning; automatic separation control; soft muting; metal-ready auto-reverse cassette player; universal chassis.
CR-1032	250	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Slide-rule AM/FM-stereo tuning; soft mute; loudness switch; automatic separation control; metal-ready auto-reverse cassette player; Dolby NR; high filter; universal chassis.
DP-646	250	44W total	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Slide-rule AM/FM-stereo tuning; soft mute; anti-roll system; automatic separation control; metal-ready auto-reverse cassette player.
DP-640S ₄	185	5W	30-20k	24 dB ²	N.A.	64	0.2	40-10k ±3 dB	52	Slide-rule AM/FM-stereo tuning; FM noise blanker; anti-roll system; auto-reverse cassette player; universal chassis.
GP-1010	180	4W	63-20k ±3 dB	26 dB ¹	N.A.	70	0.15	63-14k ±3 dB	53	Slide-rule AM/FM-stereo tuning (dial in cassette player door); local/DX switch; FM noise blanker; universal chassis.
GP-1011	180	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Slide-rule AM/FM-stereo tuning (dial in cassette player door); universal chassis.
DP-7872	175	line level	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Slide-rule AM/FM stereo tuner/preamp; auto-reverse cassette player; noise blanker; universal chassis.
DP-1006	150	5W	30-20k	23 dB ²	N.A.	N.A.	0.15	60-12.5k	50	Slide-rule AM/FM-stereo tuning; noise blanker; balance control; cassette player; universal chassis.
DP-620	150	5W	150-20k	24 dB ²	N.A.	64	0.12	60-8k ±3 dB	50	Slide-rule AM/FM-stereo tuning; FM noise blanker; balance control; cassette player; universal chassis.
DP-1000	130	5W	30-20k	23 dB ²	N.A.	N.A.	0.15	60-12.5k	50	Slide-rule AM/FM-stereo tuning (dial in cassette player door); loudness switch; metal capability; designed for X-body and import cars.

*FM Sensitivity: 1 = Usable; 2 = 50-dB Quieting

NOTICE TO READERS

Prices of items described are suggested prices only and are subject to change without notice. Actual selling prices are determined by the dealer.

SPEAKERS

Fujitsu Ten

Model	Price (\$)	Driver Size* (inches)	Frequency Range (Hz)	Sensitivity (dB SPL/W/m)	Maximum Power (watts)	Magnet (ounces)	Mounting Depth (inches)	Remarks
SG 1002	59.95	4	N.A.	N.A.	70	N.A.	N.A.	Door-mount speaker.
SG-1602	57.00	6½	N.A.	N.A.	30	N.A.	N.A.	Flush-mount double-cone speaker.
SG-1301	54.50	5½	N.A.	N.A.	30	N.A.	N.A.	Flush-mount double-cone speaker.
SG-1003	42.50	4	N.A.	N.A.	30	N.A.	N.A.	Door-mount speaker.

*Drive Size; W = Woofer; M = Midrange; T = Tweeter

COMPONENTS

Fujitsu Ten

Model	Price (\$)	Type*	Output Power (W/channel)	Frequency Response (Hz ±3 dB)	THD (%)	S/N Ratio (dB)	Dimensions (inches)	Center Frequencies (Hz)	Features
PA-160	260	1	70×4	N.A.	N.A.	N.A.	N.A.	N.A.	Booster amplifier with IC and BTL circuitry; high/low-level inputs; 4 output channels.
QM-104	120	1	22×4	N.A.	N.A.	N.A.	N.A.	N.A.	Booster amp with 4-speaker capability; BTCL circuitry; 4 output channels.
PA-150	104	1	20×4	N.A.	N.A.	N.A.	N.A.	N.A.	Booster amp with IC and BTL circuitry; high/low inputs; fader control; 4 output channels.
PA-130	76	1	20×2	N.A.	N.A.	N.A.	N.A.	N.A.	Booster amp with IC and BTL circuitry; high/low level inputs; 2 output channels.

*Type: 1 = Booster Amplifier; 2 = Graphic Equalizer; 3 = Amplifier/Equalizer

TAPE PLAYERS

Fujitsu Ten

Model	Price (\$)	Type*	Frequency Response (Hz)	S/N Ratio (dB)	Wow & Flutter (%)	Crossstalk (dB)	Dimensions (inches)	Features
SP-572	120	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Under-dash auto-reverse cassette player; loudness switch; tape anti-tangle mechanism; anti-roll system; locking fast forward/rewind; program selector.
SP-60	110	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Compact cassette player; auto eject; tone control; balance control; automatic power on/off.

*Type: 1 = Cassette; 2 = 8-Track Cartridge

RADIO/TAPE

Fultron

Model	Price (\$)	Output	Frequency Range (Hz)	FM Sensitivity*	Capture Ratio (dB)	FM Selectivity (dB)	Tape Wow & Flutter (%)	Tape Frequency Range (Hz)	Tape S/N (dB)	Features
19-900	380	4W	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Synthesizer AM/FM-stereo tuning; LED digital frequency/time display; 6 AM/6 FM presets; preamp outputs; auto FM muting; local/DX switch; auto-reverses cassette player; dynamic noise reduction (DNR).
16-700	200	4W	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Slide-rule AM/FM-stereo tuning; preamp outputs; bass, treble, balance, fader controls; auto-reverse cassette player; DNR.
16-5700	170	4W	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Same as 16-700.
16-6100	150	4W	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Slide-rule AM/FM-stereo tuning; FM muting; tone, balance, fader controls; cassette player.
16-5500	140	4W	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Slide-rule AM/FM-stereo tuning; FM muting; local/DX switch; balance and tone controls; auto-reverse cassette player.
16-5600	120	4W	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Slide-rule AM/FM-stereo tuning; FM muting; local/DX switch; 8-track cartridge player.
16-5080	100	4W	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Slide-rule AM/FM-stereo tuning; local/DX switch; balance and tone controls; cassette player; designed for small cars.
16-5000	90	4W	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Slide-rule tuning; local/DX switch; FM muting; balance and tone controls; cassette player; designed for small cars.

*FM Sensitivity: 1 = Usable; 2 = 50-dB Quieting

SPEAKERS

Genesis

Model	Price (\$)	Driver Size* (inches)	Frequency Range (Hz)	Sensitivity (dB SPL/W/m)	Maximum Power (watts)	Magnet (ounces)	Mounting Depth (inches)	Remarks
A5-165	250 pr	6½W 1T	N.A.	N.A.	N.A.	N.A.	N.A.	Separate-component 2-way system; response corrected tweeter.
AM-165	210 pr	6½W 1T	N.A.	N.A.	N.A.	N.A.	N.A.	2-way system; response-corrected tweeter (9¾" × 7").
AM-135	160 pr	5½W 1T	N.A.	N.A.	N.A.	N.A.	N.A.	2-way system; response corrected tweeter.

*Driver Size: W = Woofer; M = Midrange; T = Tweeter

SPEAKERS

Infinity

Model	Price (\$)	Driver Size* (inches)	Frequency Range (Hz)	Sensitivity (dB SPL/W/m)	Maximum Power (watts)	Magnet (ounces)	Mounting Depth (inches)	Remarks
I-CAR	189 pr	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Mountable in all applications with included spacer kit.

*Driver Size; W = Woofer; M = Midrange; T = Tweeter

SPEAKERS

JBL

Model	Price (\$)	Driver Size* (inches)	Frequency Range (Hz)	Sensitivity (dB SPL/W/m)	Maximum Power (watts)	Magnet (ounces)	Mounting Depth (inches)	Remarks
T545	220 pr	6 × 9W 2½T	40-18k	92	100	64	3¼	3-way system.
T540	180 pr	6 × 9W 2½T	40-18k	92	100	64	3¼	2-way system.
T420	150 pr	6½W 1T	70-18k	90	75	37	2¼	2-way system.
T205	120 pr	4½W 1T	90-18k	88	60	24	1¾	2-way system.

*Driver Size: W = Woofer; M = Midrange; T = Tweeter

RADIO/TAPE

Jensen

Model	Price (\$)	Output	Frequency Range (Hz)	FM Sensitivity*	Capture Ratio (dB)	FM Selectivity (dB)	Tape Wow & Flutter (%)	Tape Frequency Range (Hz)	Tape S/N (dB)	Features
RE520	420	10W	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Synthesizer AM/FM-stereo tuner; 5 AM/5 FM presets; digital time/frequency display; scan tuning; auto tape reverse; Dolby NR; auto tape search; dual level outputs; fader; universal chassis.
RE518	400	10W	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Synthesizer AM/FM-stereo radio; digital time/frequency display; 5 AM/5 FM presets; local/DX switch; fader control; auto tape reverse; Dolby NR; cassette player; universal chassis.
RE512	370	10W	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Same as RE 518 except no Dolby NR; mini chassis.
RE425	350	10W	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	AM/FM-stereo radio; Dolby FM/tape NR; FM muting; auto local/DX switching; high blend; preamp outputs; fader control; full-logic cassette player; standard chassis.
RE508	300	10W	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	AM/FM-stereo radio; synthesizer tuning; 4 AM/4 FM presets; auto local/DX switching; cassette player; universal chassis.
T415	300	line level	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	AM/FM-stereo tuner (needs booster amp); Dolby FM/tape NR; high blend; solenoid eject; auto-reverse; cassette player; standard chassis.
R406	290	10W	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	AM/FM-stereo radio; high blend; auto local/DX switching; FM muting; fader; cassette player; standard chassis.
R401	260	10W	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	AM/FM-stereo radio; FM muting; auto eject; cassette player; standard chassis.
R220	250	10W	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	AM/FM-stereo radio; dual-level outputs with fader; loudness compensation; auto tape reverse; auto tape load/eject; cassette player; mini chassis.
JR115	240	10W	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	AM/FM-stereo radio; auto local/DX switching; auto tape reverse; player cassette player; standard chassis.
R210	200	8W	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	AM/FM-stereo radio; auto local/DX switching; auto loudness control; fader control; cassette player; mini chassis.
JR110	200	8W	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	AM/FM-stereo radio; cassette player; mini chassis.
JR105	170	10W	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	AM/FM-stereo radio; auto local/DX switching; cassette player; universal chassis.
R200	150	8W	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	AM/FM-stereo radio; auto local/DX switching; cassette player; mini chassis.
JR100	150	8W	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	AM/FM-stereo radio; auto local/DX switching; cassette deck; mini chassis.

*FM Sensitivity: 1 = Usable; 2 = 50-dB Quieting

13 CAR STEREO EQUIPMENT

SPEAKERS

Jensen

Model	Price (\$)	Driver Size* (inches)	Frequency Range (Hz)	Sensitivity (dB SPL/W/m)	Maximum Power (watts)	Magnet (ounces)	Mounting Depth (inches)	Remarks
J2000	270 pr	4½W	40-16k ±3 dB	N.A.	50	N.A.	N.A.	Mini 2-way system; 4½" passive radiator; aluminum cylinder; swivel mount (12¾" × 5¼" dia.)
J2033	180pr	6×9W	38-40k ± dB	N.A.	100	20	N.A.	Triax® 3-way system; piezoelectric tweeter; bramp capability (9½" × 6⅝" × 3⅞").
J2130	180 pr	4×10W	43-40k ± dB	N.A.	50	20	N.A.	Tnax® 3-way system; piezoelectric tweeter; bramp capability (10¾" × 4½" × 3½").
J1242	160 pr	6×9W	40-20k ±3 dB	N.A.	55	20	N.A.	Quadvox 4-way system; piezoelectric tweeter (9" × 6½" × 4").
J1279	150 pr	6½W	52-40k ±3 dB	N.A.	75	N.A.	N.A.	Triax® 3-way system; piezoelectric tweeter; midrange; shallow dept (6½" × 4¼" × 1¾").
J2037	130 pr	6×9W	38-20k ±3 dB	N.A.	90	20	N.A.	2-way system (9½" × 6½" × ¾").
J1065	130 pr	6×9W	40-20k ±3 B	N.A.	50	20	N.A.	Triax® 3-way system; piezoelectric tweeter (9" × 6⅝" × 3¾").
J1365	130 pr	6×9W	40-20k ±3 dB	N.A.	50	N.A.	125/32	ThinMount™ Triaxial® 3-way system (10¾" × 6¾" × 125/32").
J1101	130 pr	4×10W	45-20k ±3 dB	N.A.	45	20	N.A.	Triax® 3-way system; piezoelectric tweeter (10¼" × 4½" × 3½").
J1201	120 pr	6½W	55-20k ±3 dB	N.A.	50	N.A.	N.A.	2-way system; grille-mounted tweeter (6½" × 6½" × ¾").
J2041	100 pr	5¼W	58-40k ±3 dB	N.A.	75	N.A.	N.A.	Piezoelectric tweeter; Lock-fast™ grille (5½" × 5½" × 2¾").
J2126	95 pr	4½W	63-40k ± dB	N.A.	50	N.A.	N.A.	Piezoelectric tweeter; shallow mounting depth; lock-fast™ grille (4¾" × 4¾" × 2¾").
J1069	85 pr	6×9W	40-18k ±3 dB	N.A.	45	20	N.A.	2-way system (9" × 6⅝" × 3¾").
J1369	85 pr	6×9W	50-16k ±3 dB	N.A.	50	N.A.	125/32	ThinMount 2-way system (10¾" × 6¾" × 125/32").
J1104	85 pr	4×10W	45-18k ±3 dB	N.A.	45	20	N.A.	Piezoelectric tweeter (9¼" × 4½" × 3½").
J1188	85 pr	6½W	58-18k ±3 dB	N.A.	45	N.A.	N.A.	Shallow mounting depth; fits 5¼" cutout.
J1077	80 pr	5¼W	60-18k ±3 dB	N.A.	45	N.A.	20	Piezoelectric tweeter.
J1186	77 pr	4½W	56-18k ±3 dB	N.A.	40	N.A.	N.A.	Piezoelectric tweeter; surface or flush mount.
J1093	72 pr	4½W	65-18k ±3 dB	N.A.	40	N.A.	N.A.	Piezoelectric tweeter; shallow mounting depth.
J1292	60 pr	5¼	70-14k ±3 dB	N.A.	40	N.A.	13/16	ThinMount™ full-range speaker (5½" × 5½" × 1" × 8").
J1294	55 pr	N.A.	1.7k-24k ±3 dB	N.A.	75	N.A.	N.A.	Soft-dome tweeter; fits 3½" or 4" × 6" cutout.
J1283	50 pr	4	80-12k ±3 dB	N.A.	30	N.A.	13/8	ThinMount™ full-range speaker (4" × 4" × 13/8").
J1245	40 pr	6½	50-14k ±3 dB	N.A.	40	N.A.	N.A.	Surface or flush mount.
J1134	38 pr	4×6	70-14k ±3 dB	N.A.	15	N.A.	N.A.	Dual-cone speaker (9" × 6¾" × 3¾").
J1117	33 pr	3½	80-12k ±3 dB.	N.A.	12	N.A.	N.A.	Dual-cone dashboard replacement speaker (4¼" × 3¾" × 1½").
J1350	33 pr	3½W	80-15k ±3 dB	N.A.	25	N.A.	N.A.	High-power dual-cone dashboard speaker (4¾" × 3¾" × 1½").

*Driver Size: W = Woofer; M = Midrange; T = Tweeter

COMPONENTS

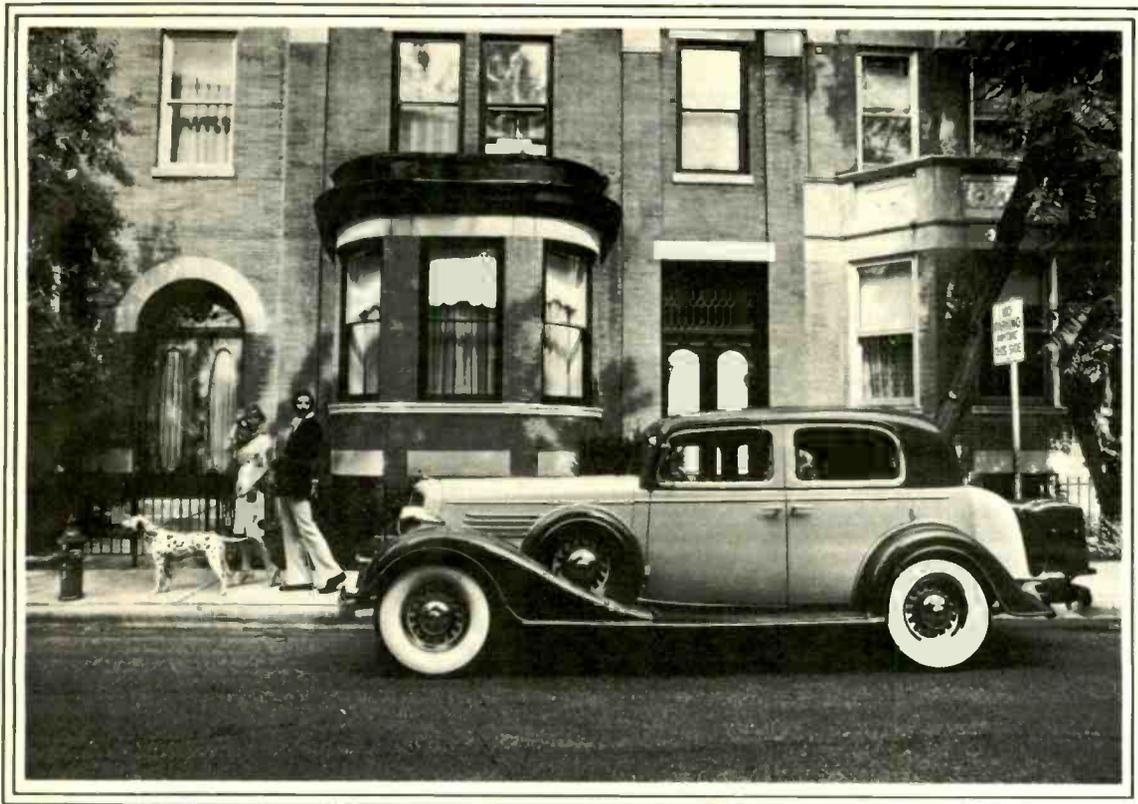
Jensen

Model	Price (\$)	Type*	Output Power (W/channel)	Frequency Response (Hz ±3 dB)	THD (%)	S/N Ratio (dB)	Dimensions (inches)	Center Frequencies (Hz)	Features
EQA3000	140	3	34	N.A.	0.3	80	6⅞" × 6¼" × 2½"	N.A.	Equalizer-booster amplifier.
A30	80	1	30	N.A.	0.3	80	9⅝" × 7¼" × 2½"	N.A.	Booster amplifier.

*Type: 1 = Booster Amplifier; 2 = Graphic Equalizer; 3 = Amplifier/Equalizer

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CIRCLE NO. 18 ON READER SERVICE CARD

RADIO/TAPE

JIL

Model	Price (\$)	Output	Frequency Range (Hz)	FM Sensitivity*	Capture Ratio	FM Selectivity (dB)	Tape Wow & Flutter (%)	Tape Frequency Range (Hz)	Tape S/N (dB)	Features
CD-83F	550	775 mV	N.A.	20 dB ¹	1	75	0.18	30-15k	50	Synthesizer AM/FM-stereo tuner/preamp; digital frequency/time display; 6 AM/6 FM presets; dynamic noise reduction (DNR) for FM and tape; auto-reverse, metal-capable cassette player; key-off eject.
CD-82FN	350	775 mV	N.A.	20 dB ²	1	75	0.18	30-15k	50	Slide-rule AM/FM-stereo tuner/preamp; local/DX and loudness switches; FM high blend; bass and treble controls; fader; DNR; auto-reverse metal-capable cassette player; key-off eject.
CD-80N	280	775 mV	N.A.	20 dB ²	1	75	0.18	30-15k	50	Similar to CD-82FN except no high blend or fader.
CD-72	250	8W ch	N.A.	20 dB ¹	1	75	0.18	30-15k	60	Slide-rule AM/FM-stereo tuning; local/DX and loudness switches; DNR; preamp outputs; fader; cassette player.

*FM Sensitivity: 1 = Usable; 2 = 50-dB Quieting

COMPONENTS

JIL

Model	Price (\$)	Type*	Output Power (W/channel)	Frequency Response (Hz \pm 3 dB)	THD (%)	S/N Ratio (dB)	Dimensions (inches)	Center Frequencies (Hz)	Features
AP-40F	120	1	20x4	20-50k -5 dB	0.5	> 60	N.A.	N.A.	Booster amplifier with bridged circuit; short-circuit protection; 4 output channels.
AP-40	70	1	20x2	20-50k -5 dB	0.5	> 60	N.A.	N.A.	Same as AP-40F except 2 output channels.

*Type: 1 = Booster Amplifier; 2 = Graphic Equalizer; 3 = Amplifier/Equalizer

TAPE PLAYERS

Kenwood

Model	Price (\$)	Type*	Frequency Response (Hz)	S/N Ratio (dB)	Wow & Flutter (%)	Crosstalk (dB)	Dimensions (inches)	Features
KZC-657	300	1	30-16k normal	60 NR on	0.12	N.A.	N.A.	Under-dash auto-reverse metal-ready cassette player/amplifier (20 W/ch); Dolby NR preamp outputs; loudness switch; base, treble, balance controls; buy-off eject.
KXC-757	269	1	30-16k normal	60 NR on	0.12	N.A.	6 $\frac{3}{4}$ W x 6 $\frac{1}{2}$ D x 2 $\frac{1}{8}$ H	Under-dash auto-reverse metal-ready cassette player; headphone jack; Dolby NR; cassette standby (with KTC-767 tuner); bass and treble controls.

*Type: 1 = Cassette; 2 *Type: 1 = Cassette; 2 = 8-Track Cartridge

RADIO/TAPE

Kenwood

Model	Price (\$)	Output	Frequency Range (Hz)	FM Sensitivity*	Capture Ratio	FM Selectivity (dB)	Tape Wow & Flutter (%)	Tape Frequency Range (Hz)	Tape S/N (dB)	Features
KRC-1022	650	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Synthesizer AM/FM-stereo tuning; 6 AM/6 FM presets; automatic noise reduction system (ANRS); Automatic Broadcasting Sensor System (ABSS); local/DX switch; digital display; auto-reverse cassette player; Dolby NR.
KRC-922	550	N.A.	N.A.	14.8 dB ¹	N.A.	N.A.	0.12	30-15k \pm 2 dB on	70 NR	Same as KRC-1022 except 5 AM/5 FM presets.
KRC-722	500	N.A.	N.A.	14.8 dB ¹	N.A.	N.A.	0.12	30-15k \pm 2 dB on	70 NR	Same as KRC-922 except no auto seek/scan tuning, loudness control.
KRC-512	429	5W	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Synthesizer AM/FM-stereo tuning; 5 AM/5 FM presets; digital frequency display; auto local/DX switching; preamp outputs; metal-ready auto-reverse cassette player; Dolby NR; mini chassis.
KRC-511	429	4W	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Similar to KRC-512 except has auto load.
KRC-411	369	4W	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Similar to KRC-511 except no loudness control; Dolby NR; designed for X-body and import cars.
KRC-322	369	20W	N.A.	15.8 dB ¹	N.A.	N.A.	0.15	30-12.5k	60 NR on	Slide-rule AM/FM-stereo tuning; local/DX switch; bass, treble, balance, fader controls; ANRC; auto-reverse cassette player; metal capability.

(continues)

RADIO/TAPE

Kenwood

Model	Price (\$)	Output	Frequency Range (Hz)	FM Sensitivity*	Capture Ratio (dB)	FM Selectivity (dB)	Tape Wow & Flutter (%)	Tape Frequency Range (Hz)	Tape S/N (dB)	Features
KRC-312	330	line level	N.A.	15.8 dBf ¹	N.A.	N.A.	0.15	30-12.5k	60 NR on	Same as KRC-322 except no metal capability; requires separate booster amplifier.
KRC-311	279	4W	N.A.	N.A.	N.A.	70	0.12	30-16k normal	52	Slide-rule AM/FM-stereo tuning; balance, tone, fader controls; cassette player.
KRC-212	249	N.A.	N.A.	15.8 dBf ¹	N.A.	N.A.	0.12	30-16k normal	N.A.	Slide-rule AM/FM-stereo tuning; bass and treble controls; preamp outputs; ANRC; metal-ready auto-reverse cassette player; mini chassis.
KRC-211	200	N.A.	N.A.	0.15 μV ¹	N.A.	N.A.	0.12	30-16k ±3 dB	N.A.	Slide-rule AM/FM-stereo tuning; ANRC; bass and treble controls; loudness switch; balance control; auto local/DX switching; preamp outputs; auto-reverse cassette player.

*FM Sensitivity: 1 = Usable; 2 = 50-dB Quieting

COMPONENTS

Kraco

Model	Price (\$)	Type*	Output Power (W/channel)	Frequency Response (Hz ±3 dB)	THD (%)	S/N Ratio (dB)	Dimensions (inches)	Center Frequencies (Hz)	Features
KE-7	170	3	40×2	25-40k	10	N.A.	200D×180W×65H (mm)	60, 150, 400, 1k, 2.4k, 6k, 15k	Booster amplifier/equalizer (±12-dB range); fader control; power supply; dual edgewise power meters; headphone jack.
KE-6	90	3	30×2	N.A.	N.A.	N.A.	N.A.	60, 250, 1k, 3.5k, 10k	Booster amp/EQ; front-to-rear fader control; power meter.
KE-5	80	3	30×2	N.A.	N.A.	N.A.	N.A.	60, 250, 1k, 3.5k, 10k	Booster amp/EQ; fader control.
KE-4	80	3	25×2	N.A.	N.A.	N.A.	4½D×4W×1¼H	60, 250, 1k, 3.5k, 10k	Booster amp/EQ; dual 5-LED power meters; fader control.

*Type: 1 = Booster Amplifier; 2 = Graphic Equalizer; 3 = Amplifier/Equalizer

SPEAKERS

Kraco

Model	Price (\$)	Driver Size* (inches)	Frequency Range (Hz)	Sensitivity (dB SPL/W/m)	Maximum Power (watts)	Magnet (ounces)	Mounting Depth (inches)	Remarks
THP543	130 pr	5¼W	55-20k	N.A.	80	20W 1M	3¾	3-way system; horn-loaded dome tweeter.
THP693	130 pr		6×9W	N.A.	100	20W 1M 0.5T	3¾	3-way system; horn-loaded dome tweeter.
THP692	110 pr	6×9W 1½T	45-18k	N.A.	80	20W 1T	3¾	3-way system; cone tweeter.
THP542	90 pr	5¼W 1½T	55-18k	N.A.	70	20W 1T	2¾	2-way system; cone tweeter.

*Driver Size; W = Woofer; M = Midrange; T = Tweeter

RADIO/TAPE

Kraco

Model	Price (\$)	Output	Frequency Range (Hz)	FM Sensitivity*	Capture Ratio (dB)	FM Selectivity (dB)	Tape Wow & Flutter (%)	Tape Frequency Range (Hz)	Tape S/N (dB)	Features
KHP-1087	280	12W	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Slide-rule AM/FM-stereo tuning; auto high blend; 4 AM/4 FM presets; bass and treble controls; auto-reverse cassette player; Dolby NR; custom designer kit with 4 reversible faceplates.
KID-597	280	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Slide-rule AM/FM-stereo tuning; auto high blend; FM muting; local/DX switch; fader; auto-reverse cassette player; custom designer kit with 4 reversible faceplates.
ETR-1089	280	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Synthesizer AM/FM-stereo tuning; 5 AM/5 FM presets; digital frequency/time display; auto high blend; auto-reverse cassette player; custom designer kit with 4 reversible faceplates.
KGE-803	250	20W	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Slide-rule AM/FM-stereo radio/auto-reverse cassette player/equalizer (60, 250, 1k, 3.5k, 10k Hz); high blend; balance and fader controls; custom designer kit.

(continues)

13 CAR STEREO EQUIPMENT

RADIO/TAPE

Kraco

Model	Price (\$)	Output	Frequency Range (Hz)	FM Sensitivity*	Capture Ratio (dB)	FM Selectivity (dB)	Tape Wow & Flutter (%)	Tape Frequency Range (Hz)	Tape S/N (dB)	Features
KGE-800	240	20W	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Slide-rule AM/FM-stereo tuner/equalizer (60, 250, 1k, 3.5k, 10k Hz)/amplifier/8-track cartridge player; illuminated tuning dial in cartridge door.
KGE-801	200	20W	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Same as KGE-800 except has auto-stop cassette player.
KXI-89	190	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Slide-rule AM/FM-stereo tuning; local/DX and FM mute switches; fader; auto-reverse cassette player.
KXI-87	170	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Slide-rule AM/FM-stereo tuning; local/DX switch; fader; auto-reverse cassette player; mini size to fit small cars.
KID-575A	170	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Slide-rule AM/FM-stereo tuning; local/DX switch; balance and fader controls; 8-track cartridge player.
KID-558B	170	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Slide-rule AM/FM-stereo tuning; local/DX and FM mute switches; balance and tone controls; auto-stop cassette player; designed for X-body and import cars.
KID-587	160	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Slide-rule AM/FM-stereo tuning; local/DX and FM mute switches; balance and tone controls; auto-reverse cassette player; manual tape select; tape program switch.

*FM Sensitivity: 1 = Usable; 2 = 50-dB Quieting

RADIO/TAPE

Lake

Model	Price (\$)	Output	Frequency Range (Hz)	FM Sensitivity*	Capture Ratio (dB)	FM Selectivity (dB)	Tape Wow & Flutter (%)	Tape Frequency Range (Hz)	Tape S/N (dB)	Features
5600	270	25W	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Slide-rule AM/FM-stereo tuning; local/DX and FM mute switches; equalizer (60, 250, 1k, 3.5k, 10k Hz); EQ bypass switch; fader; auto-reverse cassette player.
1505	270	25W	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Synthesizer AM/FM-stereo tuning; LED digital frequency/time display; equalizer (60, 250, 1k, 3.5k, 10k Hz); 4-way fader; auto-reverse cassette player.
5000	190	20W	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Slide-rule AM/FM-stereo tuning; local/DX switch; FM muting; equalizer (60, 250, 1k, 3.5k, 10k Hz); EQ bypass switch; cassette player; chrome trim; fader.
2700	180	6W	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Slide-rule AM/FM-stereo tuning; local/DX switch; tone control; fader; auto-reverse cassette player.
2000	175	6W	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Slide-rule AM/FM-stereo tuning; LED bargraph power meters; loudness switch; auto-reverse cassette player.
300	150	36W total	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Synthesizer AM/FM-stereo tuning; LED digital frequency display; local/DX switch; cassette player.
2300	140	6W ch	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Slide-rule AM/FM-stereo tuning; local/DX switch; auto-reverse cassette player;
800	120	6W ch	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Slide-rule AM/FM-stereo tuning; local/DX switch; LED bargraph power meter; cassette player.
700	100	6W ch	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Slide-rule AM/FM-stereo tuning; local/DX switch; cassette player.
10	100	6W ch	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Slide-rule AM/FM-stereo tuning; cassette player; fits X-body and most import cars.
104	100	5W ch	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Slide-rule AM/FM-stereo tuning; local/DX switch; 8-track cartridge player.
6040	350	60W total	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Car component system with slide-rule AM/FM-stereo radio, cassette player; booster amplifier/equalizer. Includes mounting bracket.

*FM Sensitivity: 1 = Usable; 2 = 50-dB Quieting

SPEAKERS

Lake

Model	Price (\$)	Driver Size* (inches)	Frequency Range (Hz)	Sensitivity (dB SPL/1W/1m)	Maximum Power (watts)	Magnet (ounces)	Mounting Depth (inches)	Remarks
69200	100 pr	6x9W	N.A.	N.A.	200	30W	N.A.	3-way system.
777	100 pr	N.A.	N.A.	N.A.	100	N.A.	N.A.	3-way enclosed system; mini diecast cabinet; mounting bracket (6" x 4 1/2" x 4 1/2").
L95	100 pr	6x9W	N.A.	N.A.	40	40W	N.A.	3-way bridgeless-construction system.
6120	90 pr	5 1/4 W	N.A.	N.A.	120	30W	N.A.	3-way system.

(continues)

SPEAKERS

Lake

Model	Price (\$)	Driver Size* (inches)	Frequency Range (Hz)	Sensitivity (dB SPL/W/m)	Maximum Power (watts)	Magnet (ounces)	Mounting Depth (inches)	Remarks
6923	80 pr	6×9W 3M 2T	40-20k	N.A.	25	20W	N.A.	Tri-mode 3-way system.
773	70 pr	3W 1¾M	150-18k	N.A.	25	5.3W	N.A.	3-way enclosed system; mini diecast cabinet.
L65	60 pr	1T 6½W 2T	N.A.	N.A.	20	20W	N.A.	Coaxial 2-way system.
L64	50 pr	4W	N.A.	N.A.	10	8W	1¼	Full-range speaker.

*Driver Size; W = Woofer; M = Midrange; T = Tweeter

COMPONENTS

Lake

Model	Price (\$)	Type*	Output Power (W/channel)	Frequency Response (Hz ±3 dB)	THD (%)	S/N Ratio (dB)	Dimensions (inches)	Center Frequencies (Hz)	Features
1012	130	3	60 total	N.A.	N.A.	N.A.	N.A.	30, 60, 120, 4k, 250, 500, 1k, 2k, 8k, 16k	Booster amplifier 110-band ±12 dB graphic equalizer; booster defeat switch; dual LED power muters; front-to-rear fader.
7100	120	3	25×4	N.A.	N.A.	N.A.	N.A.	60, 150, 400, 1k, 2.4k, 6k, 15k	Booster amp/7-band EQ; dual 5-LED power meters; front-to-rear fader.
701	120	3	120 total	N.A.	N.A.	N.A.	N.A.	60, 150, 400, 1k, 2.5k, 8.5k, 16k	Mini booster amp/EQ; fader.
9560	200	3	60 total	N.A.	N.A.	N.A.	N.A.	N.A.	Booster amp/5-band EQ with sonic security system; fader; booster bypass switch. Alarm activates car horn or siren.

*Type: 1 = Booster Amplifier; 2 = Graphic Equalizer; 3 = Amplifier/ Equalizer

SPEAKERS

Lear Jet

Model	Price (\$)	Driver Size* (inches)	Frequency Range (Hz)	Sensitivity (dB SPL/W/m)	Maximum Power (watts)	Magnet (ounces)	Mounting Depth (inches)	Remarks
6950	80 pr	6×9W	40-20k	N.A.	120	20	N.A.	3-way system; 4/8 ohms.
6540	70 pr	5¼W	50-18k	N.A.	120	15	N.A.	3-way system; 4/8 ohms.

*Driver Size; W = Woofer; M = Midrange; T = Tweeter

RADIO/TAPE

Lear Jet

Model	Price (\$)	Output	Frequency Range (Hz)	FM Sensitivity*	Capture Ratio (dB)	FM Selectivity (dB)	Tape Wow & Flutter (%)	Tape Frequency Range (Hz)	Tape S/N (dB)	Features
A-15	400	22/Ch.	N.A.	N.A.	N.A.	N.A.	N.S.	N.A.	N.A.	PLL AM/FM-stereo tuning; 6 AM/6 FM presets; digital frequency/time display; dynamic noise reduction (DNR); Local/DX switch; auto tape reverse; cassette player; universal chassis.
A-30	250	22/Ch.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Slide-rule AM/FM-Stereo tuning; local/DX switch; graphic equalizer (60, 250, 1k, 3.5k, 10k, Hz±12dB); auto tape reverse; cassette player; universal chassis.
A-25	250	7/Ch.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Slide-rule AM/FM-stereo tuning; local/DX switch; auto tape reverse; tape DNR; cassette player; universal chassis.
A-69	190	15/Ch.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Slide-rule AM/FM-stereo tuning; local/DX switch; auto tape reverse; cassette player; universal chassis.
A-73	190	8/Ch.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Slide-rule AM/FM-stereo tuning; local/DX switch; auto tape eject; cassette player; universal chassis.
A-31	180	15/Ch.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Slide-rule AM/FM-stereo tuning; local/DX switch; auto tape eject; cassette player; Universal chassis.
6317	160	4/Ch.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Slide-rule AM/FM-stereo tuning; auto-reverse cassette player; compact chassis.

(continues)

RADIO/TAPE

Lear Jet

Model	Price (\$)	Output	Frequency Range (MHz)	FM Sensitivity*	Capture Ratio (dB)	FM Selectivity (dB)	Tape Wow & Flutter (%)	Tape Frequency Range (MHz)	Tape S/N (dB)	Features
A-76	120	6	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Slide-rule AM/FM-stereo tuning; local/DX switch; cassette player; universal chassis.
6374	120	7/Ch.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Slide-rule AM/FM-stereo tuning; local/DX switch; cassette player; compact chassis, flat nose.
6335	110	7/Ch.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Slide-rule AM/FM-stereo tuning; local/DX switch; cassette player; universal chassis.

*FM Sensitivity: 1 = Usable; 2 = 50-dB Quieting

COMPONENTS

Lear Jet

Model	Price (\$)	Type*	Output Power (W/channel)	Frequency Response (Hz ±3 dB)	THD (%)	S/N Ratio (dB)	Dimensions (inches)	Center Frequencies (Hz)	Features
6860	150	3	20	20-20k	10	N.A.	6 ⁷ / ₈ × 4 ³ / ₄ × 1 ³ / ₄	60, 250, 1k, 3.5k, 10k	Twin 5-LED peak power meters; 5-band EQ/booster amp; EQ defect switch; EQ boost/cut range ±12 dB; fader control; 4 channel outputs.
6856	100	3	30	60-15k	N.A.	N.A.	6 × 5 ¹ / ₈ × 1 ¹ / ₄	60, 150, 400, 1k, 2.5k, 6k, 15k	Twin 5-LED peak power meters; 7-band EQ/booster amp; EQ defect switch; EQ booster/cut range ±12 dB; fader control.
6857	90	3	25	60-10k	N.A.	N.A.	5 ³ / ₄ × 4 ³ / ₄ × 1 ¹ / ₄	60, 250, 1k, 3.5k, 10k	Single 5-LED peak power meter; 5-band EQ/booster amp; EQ defeat switch; EQ boost/cut range ±12dB, fader control.
6022	50	1	30	50-15k	N.A.	N.A.	4 ³ / ₄ × 4 × 1 ³ / ₄	N.A.	Illuminated VU meter; bass and treble controls.
6021	30	1	20	50-15k	N.A.	N.A.	4 × 4 × 1 ¹ / ₈	N.A.	

*Type: 1 = Booster Amplifier; 2 = Graphic Equalizer; 3 = Amplifier/Equalizer

SPEAKERS

Linear Power

Model	Price (\$)	Driver Size* (inches)	Frequency Range (Hz)	Sensitivity (dB SPL/W/m)	Maximum Power (watts)	Magnet (ounces)	Mounting Depth (inches)	Remarks
Bass Vent	200	8W × 2	150 on down	90	150 rms total	N.A.	8	Subwoofer system; preferred crossover 70-150 Hz; drivers housed 10" × 10" × 8" wood cabinet; requires 6" × 1 ³ / ₄ " slot in rear deck.
BV Combo	500	8W × 2	15 on down	90	N.A.	N.A.	N.A.	Bass Vent and 2601 booster amplifier package.

*Driver Size: W = Woofer; M = Midrange; T = Tweeter

COMPONENTS

Linear Power

Model	Price (\$)	Type*	Output Power (W/channel)	Frequency Response (Hz ±3 dB)	THD (%)	S/N Ratio (dB)	Dimensions (inches)	Center Frequencies (Hz)	Features
300	700	1	150	12-150k ±1 dB	0.15	95	N.A.	N.A.	Booster amplifier.
1501	430	1	75	12-150k ±1 dB	0.15	95	N.A.	N.A.	Booster amp.
2601	350	1	30	12-150k ±1 dB	N.A.	N.A.	N.A.	N.A.	Booster amp can be used as 30-W/channel stereo or 6-W single-channel stereo.
901	280	1	45	12-150k ±1 dB	0.15	95	N.A.	N.A.	Booster amp.
601	200	1	30	12-150k ±1 dB	0.15	95	N.A.	N.A.	Booster amp.
EQ1	200	2	5 V Max	5-30k ±1 dB	0.005	N.A.	4 ¹ / ₂ W × 4 ¹ / ₂ D × 1 ³ / ₄ H	70, 180, 300, 1.2k, 2.7k, 10k	Preamplifier/graphic equalizer with ±6 dB boost/cut range.
XO-1	110	N.A.	5V max	4-250k ±1 dB	0.1	N.A.	N.A.	N.A.	Electronic crossover/preamp; crossover points 50-6k Hz in 1/3-octave steps; crossover slope 12 dB/octave.

*Type: 1 = Booster Amplifier; 2 = Graphic Equalizer; 3 = Amplifier/Equalizer

RADIO/TAPE

Marantz

Model	Price (\$)	Output	Frequency Range (Hz)	FM Sensitivity*	Capture Ratio (dB)	FM Selectivity (dB)	Tape Wow & Flutter (%)	Tape Frequency Range (Hz)	Tape S/N (dB)	Features
CAR 340	350	4W	N.A.	42.1 dbf ²	2	70	0.15 ±dB	40-13k 60 NR	Slide-rule AM/FM-stereo tuning; FM muting; fader; preamp outputs; met-al-capable auto-reverse cassette player; Dolby NR; I.M.A.	
CAR 322	250	4W	N.A.	42.1 dbf ²	2	70	0.15 ±dB	40-13k 60 NR	Similar to CAR 340.	
CAR 302	250	4W	N.A.	42.1 dbf ²	2	65	0.15 ±dB	40-13k 56 NR	Slide-rule tuning; FM muting; fader; A.I.R.; cassette player; Dolby NR.; auto eject.	
CAR 330	200	4W	N.A.	45.2 dbf ²	2	65	0.1 ±dB	40-13k 52	Slide-rule muting; A.I.R.; C.M.S.; cassette player; auto eject.	
CAR 312	200	4W	N.A.	44.3 dbf ²	2	60	0.15 ±dB	40-12k 50	Slide-rule tuning; compuskip; I.M.A.; C.M.S.; cassette player.	
CAR 310	195	4W	N.A.	45.2 dbf ²	2	60	0.15 ±dB	40-13k 48	Slide-rule tuning; FM muting; C.M.S.; cassette player; auto eject.	
CAR 320	165	4W	N.A.	44.3 dbf ²	2	60	0.15 ±dB	40-12k 50	Slide-rule tuning; I.M.S.; C.M.S.; auto-reverse cassette player; auto eject.	

*FM Sensitivity: 1 = Usable; 2 = 50-dB Quieting

SPEAKERS

Marantz

Model	Price (\$)	Driver Size* (inches)	Frequency Range (Hz)	Sensitivity (dB SPL/W/m)	Maximum Power (watts)	Magnet (ounces)	Mounting Depth (inches)	Remarks
MZS 693	140 pr	6×9W	50-20k	N.A.	100	20W		3-way system; piezoelectric tweeter; ferrofluid midrange.
MZS 630	120 pr	5¼W	100-18k	N.A.	100	20W		3-way system; dome tweeter; ferrofluid midrange.
MZS 692	100 pr	6×9W	60-18k	N.A.	100	20W		2-way system; ferrofluid cone tweeter.
MZS 620	90 pr	5¼W	120-18k	N.A.	50	4W		2-way system; piezoelectric tweeter.
SS 140	45 pr	4	120-14k	N.A.	10	10		Full-range speaker.

*Driver Size: W = Woofer; M = Midrange; T = Tweeter

COMPONENTS

Midland

Model	Price (\$)	Type*	Output Power (W/channel)	Frequency Response (Hz ±3 dB)	THD (%)	S/N Ratio (dB)	Dimensions (inches)	Center Frequencies (Hz)	Features
SA 250	170	3	15 Ch	15-20k	0.8	92	6¾W×5½D×1¾H	50, 150, 350, 1k, 2.5k, 6k, 16k	Booster amplifier/equalizer; dual 2-color LED peak power meters; Fader; EQ bypass; line output; dual-input mode switch; auto turn-on voltage sensing.
SA 2040	125	1	10×4	5-120k	0.5	92	9¾D×2¾W×2H	N.A.	Dual stereo power amplifier; auto turn-on voltage sensing; dual-input mode switch.
SA 2020	65	1	10 Ch	5-120k	0.5	92	6D×2¾W×2H	N.A.	Stereo version of SA 2040.

*Type 1 = Booster Amplifier; 2 = Graphic Equalizer; 3 = Amplifier/Equalizer

RADIO/TAPE

Marantz

Model	Price (\$)	Output	Frequency Range (Hz)	FM Sensitivity*	Capture Ratio (dB)	FM Selectivity (dB)	Tape Wow & Flutter (%)	Tape Frequency Range (Hz)	Tape S/N (dB)	Features
67-300	100	6W	N.A.	6µV ¹	N.A.	45	0.35	N.A.	50	Slide-rule AM/FM-stereo tuning; local/DX switch; auto-stop cassette player.
67-350	150	4.8W	N.A.	15 µV ¹	N.A.	60	0.35	N.A.	50	Slide-rule AM/FM-stereo tuning; local/DX switch; auto-reverse cassette player.
67-420	150	20W	N.A.	5 µV ¹	N.A.	60	0.25	N.A.	50	Slide-rule AM/FM-stereo tuning; local/DX and FM mute switches; 5-band equalizer (60, 250, 1k, 3.5k, 10k Hz ±12 dB); balance and fader controls; auto-stop cassette player.
67-434	100	4.8W	N.A.	6 µV ¹	N.A.	45	0.35	N.A.	50	Slide-rule AM/FM-stereo tuning; local/DX switch; auto-stop cassette player.
67-450	300	20W	N.A.	5 µV ¹	N.A.	60	0.2	N.A.	50	Synthesizer AM/FM-stereo tuning; 6 AM/6 FM presets; digital frequency/time display; dynamic noise reduction; auto-reverse cassette player.
67-456	120	4.8W	N.A.	6 µV ¹	N.A.	45	0.35	N.A.	50	Slide-rule AM/FM-stereo tuning; local/DX switch; bass, treble, balance, fader controls; auto-stop cassette player.
67-458	150	4.8W	N.A.	5 µV ¹	N.A.	45	0.32	N.A.	45	Slide-rule AM/FM-stereo tuning; FM muting; local/DX switch; balance and fader controls; auto-reverse cassette player.
67-463	140	4.8W	N.A.	5 µV ¹	N.A.	45	0.25	N.A.	45	Slide-rule AM/FM-stereo tuning; local/DX switch; balance and fader controls; auto-stop cassette player.

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13 CAR STEREO EQUIPMENT

RADIO/TAPE

Midland

Model	Price (\$)	Output	Frequency Range (Hz)	FM Sensitivity*	Capture Ratio	FM Selectivity (dB)	Tape Wow & Flutter (%)	Tape Frequency Range (Hz)	Tape S/N (dB)	Features
67-470	160	4.8W	N.A.	5 μ V ¹	N.A.	45	0.25	N.A.	45	Slide-rule AM/FM-stereo tuning; local/DX switch; bass, treble, balance, fader controls; auto-eject cassette player.
67-476	180	4W	N.A.	5 μ V ¹	N.A.	60	0.25	N.A.	50	Slide-rule AM/FM-stereo tuning; local/DX switch; balance and fader controls; auto-reverse cassette player.
67-533	100	4.8W	N.A.	6 μ V ¹	N.A.	45	0.35	N.A.	50	Slide-rule AM/FM-stereo tuning; local/DX switch; balance control; 8-track cartridge player.
KAS-88	180	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Total sound system consisting of in-dash AM/FM radio/auto-reverse cassette player, booster amp, 2 slim-line speakers.

*FM Sensitivity: 1 = Usable; 2 = 50-dB Quieting

TAPE PLAYERS

Midland

Model	Price (\$)	Type*	Frequency Response	S/N Ratio (dB)	Wow & Flutter (%)	Crosstalk (dB)	Dimensions (inches)	Features
65-501	40	2	100-8k -6 dB	45	0.25	45	7 $\frac{1}{4}$ D x 5 $\frac{1}{8}$ W x 2H	Component 8-track cartridge player; volume tone, balance slide controls.

*Type: 1 = Cassette; 2 = 8-Track Cartridge

SPEAKERS

Mr. Audio

Model	Price (\$)	Driver Size* (inches)	Frequency Range (Hz)	Sensitivity (dB SPL/W/m)	Maximum Power (watts)	Magnet (ounces)	Mounting Depth (inches)	Remarks
6924	48 pr	6 x 9W 3M 1&2T	40-22k	N.A.	30	20W	N.A.	4-way flush-mount system.
6923	40 pr	6 x 9W 3M 2T	40-20k	108	30	20W	N.A.	3-way flush-mount system.
6922	35 pr	6 x 9W 3T	50-18k	108	25	20W	N.A.	2-way flush-mount system.
5222	29 pr	5 $\frac{1}{4}$ W 2T	50-20k	N.A.	25	20W	N.A.	Coaxial flush-mount 2-way system.
6912	27 pr	6 x 9W 3T	50-18k	104	20	10W	N.A.	2-way flush-mount system.

*Driver Size; W = Woofer; M = Midrange; T = Tweeter

RADIO/TAPE

Mitsubishi

Model	Price (\$)	Output	Frequency Range (Hz)	FM Sensitivity*	Capture Ratio	FM Selectivity (dB)	Tape Wow & Flutter (%)	Tape Frequency Range (Hz)	Tape S/N (dB)	Features
CZ-747	500	40W	N.A.	N.A.	2	86	0.15	30-15k \pm 3 dB	57 NR	Synthesizer AM/FM-stereo tuning; digital frequency/time display; 5 AM/5 FM presets; Dolby FM/tape NR; bass, treble, fader, balance controls; metal-ready auto-reverse cassette player.
RX-791	350	10W	N.A.	N.A.	N.A.	86	0.15	50-12.5k \pm 3 dB	57 NR	Slide-rule AM/FM-stereo tuning; bass, treble, balance, fader controls; Stereo Reception Control; FM ignition-noise killer; auto-reverse cassette player; Dolby NR.
RX-735	320	8W	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Synthesizer AM/FM-stereo tuning; digital frequency/time display 6 AM/6 FM presets; local/DX switch; FM muting; fader and balance controls; auto-reverse cassette player; 4-speaker capability.
RX-79	290	18W ch	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Slide-rule AM/FM-stereo tuning; 4-speaker capability; bass, treble, balance, fader controls; auto-reverse cassette player.
CZ-725	230	N.A.	N.A.	N.A.	2	80	0.15	50-12.5k on	57 NR	Super-compact in-dash AM/FM-stereo radio; slide-rule dial; local/DX switch; bass, treble, fader, balance controls; low-level outputs; auto-reverse cassette player; Dolby NR.
RX-726	200	7W	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Super-compact in-dash AM/FM-stereo radio with slide-rule dial; local/DX, balance, fader controls; metal-ready auto-reverse cassette player.

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RADIO/TAPE

Mitsubishi

Model	Price (\$)	Output	Frequency Range (Hz)	FM Sensitivity*	Capture Ratio	FM Selectivity (dB)	Tape Wow & Flutter (%)	Tape Frequency Range (Hz)	Tape S/N (dB)	Features
RX-711	180	8W	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Slide-rule AM/FM-stereo tuning; dial in cassette door; local/DX switch; balance, loudness, fader controls; auto-stop cassette player.
RX-103	170	7W	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Under-dash AM/FM-stereo radio/cassette player; slide-rule dial; bass, treble, balance controls; ignition noise killer.
RX 723	160	7W	N.A.	N.A.	2	68	0.15	50-15k	50	Super-compact in-dash AM/FM-stereo radio with slide-rule dial; auto-stop cassette player; local/DX switch; balance, loudness, fader controls.

*FM Sensitivity: 1 = Usable; 2 = 50-dB Quieting

SPEAKERS

Mitsubishi

Model	Price (\$)	Driver Size* (inches)	Frequency Range (Hz)	Sensitivity (dB SPL/W/m)	Maximum Power (watts)	Magnet (ounces)	Mounting Depth (inches)	Remarks
SX-40SA	190 pr	4W 1T	N.A.	N.A.	100	10W 5T	N.A.	Acoustic-suspension 2-way system; tweeter attenuator control; diecast aluminum cabinet.
SG-69TB	140 pr	6x9W	50-20k	N.A.	100	17.4W	N.A.	3-way system; cone-type midrange and tweeter.
SG-69CB	100 pr	6x9W	N.A.	N.A.	40	20.7W	N.A.	Coaxial 2-way system.
SG-40CB	100 pr	4x10W	50-20k	N.A.	50	9.8W	N.A.	Coaxial 2-way system.
SG-13CD	80 pr	5 1/4 W	N.A.	N.A.	30	5.5W	N.A.	Coaxial 2-way door-mount system; waterproof cover.
SG-13WD	60 pr	5 1/4 W	N.A.	N.A.	30	2.8	1	Dual-cone speaker; waterproof cover.
SG-12MA	55 pr	5	40-12k	N.A.	30	2.8	1	Full-range speaker.
SG-10WE	50 pr	4	N.A.	N.A.	20	5.3	N.A.	Dual-cone speaker.
SR-35WA	35 pr	3 1/2	N.A.	N.A.	20	5	N.A.	Dual-cone front-tray-mount speaker.
SB-2SA	40 pr	5/8 T	5k-20k	N.A.	20	N.A.	N.A.	Stalk-mount supertweeter; signal indicator.

*Driver Size; W = Woofer; M = Midrange; T = Tweeter

TAPE PLAYERS

Mitsubishi

Model	Price (\$)	Type*	Frequency Response (Hz)	S/N Ratio (dB)	Wow & Flutter (%)	Crosstalk (dB)	Dimensions (inches)	Features
GX-102	170	1	N.A.	N.A.	N.A.	N.A.	N.A.	N.A. Under-dash unit; 7-W/channel power amplifier; auto-reverse cassette player; metal capability; bass and treble controls; locking fast forward/rewind.
CX-21	140	1	N.A.	N.A.	0.15	N.A.	N.A.	N.A. Under-dash unit; auto-reverse cassette player; auto-eject; dolby NR; program selector switch; locking fast forward/rewind.
GX-101	100	1	N.A.	N.A.	N.A.	N.A.	N.A.	N.A. Similar to GX-102 except single-direction cassette player; no bass or treble controls.

*Type: 1 = Cassette; 2 = 8-Track Cartridge

SPEAKERS

Panasonic

Model	Price (\$)	Driver Size* (inches)	Frequency Range (Hz)	Sensitivity (dB SPL/W/m)	Maximum Power (watts)	Magnet (ounces)	Mounting Depth (inches)	Remarks
EAB-009	300 pr	6 1/2 W 8T	35-25k	N.A.	60	13.5 W	N.A.	Honeycomb 2-way system.
EAB-080	180 pr	8	30-20k	N.A.	100	20	N.A.	Coaxial 2-way system.
EAB-920	170 pr	6x9 W	30-25k	N.A.	100	30	N.A.	3-way, 4-drives system.
EAB-940	120 pr	6x9 W	40-25k	N.A.	100	20	N.A.	Coaxial 2-way system; dome tweeter.
EAB-930	110 pr	5 1/4 W	50-20k	N.A.	100	20	N.A.	Coaxial 2-way system; horn tweeter.
EAB-069	90 pr	6 1/2 W	40-25k	N.A.	60	10	N.A.	Coaxial 2-way system; horn tweeter.
EAB-692	90 pr	6x9 W	40-25k	N.A.	30	20	N.A.	Coaxial 2-way system; tweeter.
EAB-063	85 pr	6 1/2 W	40-25k	N.A.	25	20	N.A.	Coaxial 2-way speaker; tweeter.
EAB-412	80 pr	4x10 W	60-25k	N.A.	25	10	N.A.	Coaxial 2-way system; tweeter.
EAB-062	75 pr	6 1/2 W	45-25k	N.A.	25	10	N.A.	Coaxial 2-way system; tweeter.
EAB-049	70 pr	4 W	50-25k	N.A.	30	6.5	N.A.	Coaxial 2-way system; horn tweeter.
EAB-691	65 pr	6x9	45-20k	N.A.	30	10	N.A.	Dual-cone speaker; high-frequency whizzer.
EAB-411	65 pr	4x10	60-20k	N.A.	25	10	N.A.	Dual-cone speaker; high-frequency whizzer.
EAB-061	60 pr	6 1/2	45-20k	N.A.	25	10	N.A.	Dual-cone speaker; water shield.
EAB-050A	53 pr	5	50-16k	N.A.	25	4.7	N.A.	Dual-cone super-thin speaker; waterproof cone.
EAB-040	50 pr	4	70-18k	N.A.	25	4	N.A.	Dual-cone speaker; waterproof cone.
EAB-911	40 pr	5	50-15k	N.A.	20	7	N.A.	Single-cone speaker; water shield.
EAB-915	40 pr	4	60-15k	N.A.	20	7	N.A.	Single-cone speaker; water shield.
EAB-909	35 pr	5	50-15k	N.A.	8	3	N.A.	Single-cone speaker; water shield.
EAB-914	35 pr	4	65-14k	N.A.	8	3	N.A.	Single-cone speaker; water shield.
EAB-030	30 pr	3 1/2	100-20k	N.A.	20	3.2	N.A.	Dual-cone speaker; high-frequency whizzer.

*Driver Size; W = Woofer; M = Midrange; T = Tweeter

RADIO/TAPE

Panasonic

Model	Price (\$)	Output	Frequency Range (Hz)	FM Sensitivity*	Capture Ratio (dB)	FM Selectivity (dB)	Tape Wow & Flutter (%)	Tape Frequency Range (Hz)	Tape S/N (dB)	Features
RM-710	1400	60W ch	20-40k	15 dBf ¹	N.A.	N.A.	0.13	30-14k	63 NR	PLL synthesizer AM/FM-stereo tuning system; digital frequency/time display; 6 AM/6 FM presets; local/DX switch; Impulse noise quieting (INQ); stereo preamp; fader control; 5-band equalizer; stereo power amp; soft-touch cuts-reverse metal-capable cassette player; tape program sensor; Dolby NR; overhead cockpit design with 4-position dome light.
RM-310	600	23W ch	15-20k	15 dBf ¹	N.A.	N.A.	0.15	45-12k	55	AM/FM-stereo tuning; 3 station-reference guides; local/DX switch; impulse noise quieting; stereo preamp; 3-band equalizer; stereo power amp; cassette player; overhead cockpit design with 4-position dome light.
CQ-5900	450	7.5W ch	40-35k	19 dBf ¹	N.A.	N.A.	0.18	40-12.5k	60 NR	Synthesizer AM/FM-stereo tuning; digital frequency/time display; local/DX switch; FM optimizer INQ; fader control; auto-reverse metal-capable cassette player; Dolby NR.
CQ-S820	350	7.5W ch	40-35k	19 dBf ¹	N.A.	N.A.	0.18	80-10k	60 NR	Synthesizer AM/FM-stereo tuning; digital frequency/time display; local/DX switch; FM optimizer; INQ; fader; metal-capable cassette player.
CQ-S761	290	7.5W ch	40-35k	15 dBf ¹	N.A.	N.A.	0.18	40-12.5k	60 NR	Slide-rule AM/FM-stereo tuning; FM optimizer; INQ; fader; metal-capable auto-reverse cassette player; Dolby NR.
CQ-S756	270	7.5W ch	40-35k	15 dBf ¹	N.A.	N.A.	0.18	40-12.5k	60 NR	Slide-rule AM/FM-stereo tuning; FM optimizer; INQ; fader; metal-capable auto-reverse cassette player; Dolby NR.
CQ-S768	290	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Slide-rule AM/FM-stereo tuning; Ambience circuitry; FM optimizer; fader; INQ; auto-reverse cassette player; compact chassis.
CQ-S742	260	7.5W ch	20-35k	15 dBf ¹	N.A.	N.A.	0.18	40-12.5k	60 NR	Slide-rule AM/FM-stereo tuning; FM optimizer; INQ; fader; metal-capable auto-reverse cassette player; Dolby NR.
CQ-S747	250	20W ch	20-40k	15 dBf ¹	N.A.	N.A.	0.13	80-12.5k	60 NR	Slide-rule AM/FM-stereo tuning; FM optimizer; INQ; fader; metal-capable auto-reverse cassette player; Dolby NR.
CQ-S703	230	7.5W ch	40-20k	15 dBf ¹	N.A.	N.A.	0.12	40-12.5k	50	Slide-rule AM/FM-stereo tuning; FM optimizer; INQ; fader; Ambience circuitry; cassette player.
CQ-S700	230	7.5W ch	40-35k	15 dBf ¹	N.A.	N.A.	0.18	40-12.5k	50	Slide-rule AM/FM-stereo tuning; FM optimizer; fader; INQ; auto-reverse cassette player.
CQ-S708	220	7.5W ch	40-20k	15 dBf ¹	N.A.	N.A.	0.12	40-12.5k	50	Slide-rule AM/FM-stereo tuning; FM optimizer; INQ; Ambience circuitry; fader; cassette player.
CQ-S717	220	7.5W ch	40-35k	15 dBf ¹	N.A.	N.A.	0.18	40-12.5k	50	Slide-rule AM/FM-stereo tuning; FM optimizer; INQ; auto-reverse cassette player.
CQ-S661	200	7.5W ch	40-35k	15 dBf ¹	N.A.	N.A.	0.13	80-12.5k	60 NR	Slide-rule AM/FM stereo tuning; FM optimizer; INQ; cassette player.
CQ-S686	200	7.5W ch	40-35k	15 dBf ¹	N.A.	N.A.	0.18	80-10k	50	Slide-rule AM/FM-stereo tuning; FM optimizer; INQ; fader; cassette player.
CQ-S680	200	7.5W ch	40-35k	15 dBf ¹	N.A.	N.A.	0.18	80-10k	50	Slide-rule AM/FM-stereo tuning; FM optimizer; INQ; fader; cassette player.
CQ-S678	190	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Slide-rule AM/FM-stereo tuning; FM optimizer; INQ; Ambience circuitry; cassette player.
CQ-S646	170	7.5W ch	50-35k	15 dBf ¹	N.A.	N.A.	0.13	80-10k		Slide-rule AM/FM-stereo tuning; FM optimizer; INQ; cassette player.
CQ-6800	150	5W ch	N.A.	10 dBf	N.A.	N.A.	<0.13	40-10k	>45	Slide-rule AM/FM-stereo tuning; local/DX switch; cassette player.

*FM Sensitivity: 1 = Usable; 2 = 50-dB Quieting

COMPONENTS

Panasonic

Model	Price (\$)	Type*	Output Power (W/channel)	Frequency Response (Hz ±3 dB)	THD (%)	S/N Ratio (dB)	Dimensions (inches)	Center Frequencies (Hz)	Features
CY-SB25	80	1	25	20-40k	N.A.	N.A.	5 1/2 x 4 3/16 x 1 1/2	N.A.	Booster amplifier

*Type: 1 = Booster Amplifier; 2 = Graphic Equalizer; 3 = Amplifier/Equalizer

TAPE PLAYERS

Panasonic

Model	Price (\$)	Type*	Frequency Response (Hz)	S/N Ratio (dB)	Wow & Flutter (%)	Crosstalk (dB)	Dimensions (inches)	Features
CX-1000	90	1	40-10k	45	0.3	N.A.	6D x 5 1/2 W x 1 1/4 H	Compact under-dash cassette player; balance, tone, volume controls; full auto eject; locking fast forward/rewind; output power 5 W/channel.

*Type: 1 = Cassette; 2 = 8-Track Cartridge

RADIO/TAPE

Pioneer

Model	Price (\$)	Output	Frequency Range (Hz)	FM Sensitivity*	Capture Ratio (dB)	FM Selectivity (dB)	Tape Wow & Flutter (%)	Tape Frequency Range (Hz)	Tape S/N (dB)	Features
KEX-65	420	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Synthesizer AM/FM-stereo tuning; Supertuner® II; 10 FM/5 AM presets; Pulse Noise Suppressor (PNS); digital frequency/time display; auto-reverse metal-capable cassette player; Dolby NR.
UKE-7100	400	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Synthesizer AM/FM-stereo tuning; digital frequency/time display; 10 FM/5 AM presets; FM muting; PNS; auto-reverse cassette player; Dolby NR; Music Search, key-off pinchroller release.
KEX-50	380	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Synthesizer AM/FM-stereo tuning; Supertuner® II; digital frequency/time display; 10 FM/5 AM presets; PNS; metal-capable auto-replay, auto-eject cassette player; Dolby NR; key-off pinchroller release.
KE-6100	350	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Synthesizer AM/FM-stereo tuning; digital frequency/time display; 10 FM/5 AM presets; PNS; auto-replay metal-capable cassette player; Dolby NR; auto eject; fader.
KE-5100	300	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Synthesizer AM/FM-stereo Supertuner® II; digital frequency/time display; 10 FM/5 AM presets; PNS; loudness switch; fader; auto-replay, auto-eject cassette player.
KEX-20	300	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Slide-rule AM/FM-stereo Supertuner® II feather-touch 10 FM/5 AM preset tuning; auto FM muting; PNS; auto-replay cassette player; metal capability; Dolby NR; Music Search; tape guard; key-off pinchroller release.
UPX-9600	300	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Slide-rule AM/FM-stereo Supertuner® II; radio interplay; PNS; auto muting; bass, treble, loudness controls; auto-reverse cassette player; Dolby NR; Music Search; tape guard; key-off pinchroller release.
UKE-3100	280	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Synthesizer AM/FM-stereo tuning; LED frequency display; 10 FM/5 AM presets; auto FM muting; auto-replay, auto-eject cassette player; Music Search; tape guard; key-off pinchroller release.
UKP-7600	280	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Slide-rule AM/FM-stereo Supertuner® II; PNS; bass, treble, loudness controls; auto-reverse cassette player; Music Search; tape guard; key-off pinchroller release.
KP-7500	260	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Slide-rule AM/FM-stereo Supertuner® II; auto FM muting; PNS; fader; auto-reverse cassette player; Dolby NR; metal capability; tape guard.
KE-2100	250	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Slide-rule AM/FM-stereo Supertuner® II; FM mute switch; local/DX switch; auto-replay, auto-eject cassette player.
UKP-5600	250	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Slide-rule AM/FM-stereo Supertuner® II; auto FM muting; PNS; bass, treble, loudness controls; auto-replay, auto-eject cassette player; Music Search; tape guard.
UKP-7200	240	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Slide-rule AM/FM-tuning; auto FM muting; loudness, tone, volume, balance controls; auto-reverse cassette player; Music Search; tape guard; key-off pinchroller release.
KP-6500	220	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Slide-rule AM/FM-stereo tuning; auto FM muting; Supertuner® II; PNS; loudness control; fader; auto-replay, auto-eject cassette player.
UKP-5200	210	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Slide-rule AM/FM-stereo tuning; auto FM muting; loudness, volume, tone, balance controls; auto-replay, auto-eject cassette player; Music Search; tape guard; key-off pinchroller release.
KP-8500	200	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Slide-rule AM/FM-stereo tuning; Supertuner®; auto FM muting; local/DX switch; auto-replay cassette player; auto ejects; Dolby tape/FM NR; volume, tone, balance control.
KP-500	190	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Rotary Supertuner® FM-stereo tuning; PLL MPX decoder; FM muting; bass and treble controls, loudness switch; auto-eject cassette player.
KP-5500	190	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Slide-rule AM/FM-stereo tuning; Supertuner®; muting switch; auto-replay, auto-eject cassette player.
UKP-4200	190	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Slide-rule AM/FM-stereo tuning; loudness, volume, tone, balance controls; auto-reverse cassette player; Music Search; tape guard; key-off pinchroller release.
KP-3500	180	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Slide-rule AM/FM-stereo tuning; local DX switch; PNS; auto-replay, auto-eject cassette player; volume, tone, balance controls; DIN nosepiece.
KP-4500	170	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Slide-rule AM/FM-stereo tuning; auto FM mute; auto-reverse cassette player; tape guard; loudness switch; volume, tone, balance controls.
UKP-2200	170	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Slide-rule FM/FM-stereo tuning; auto-replay, auto-eject cassette player; Music Search; tape guard; loudness, volume, tone balance controls; key-off pinchroller release.
KP-2500	150	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Slide-rule AM/FM-stereo tuning; auto-replay, auto-eject cassette player; volume, tone, balance controls.
KPX-600	140	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Under-dash Supertuner/cassette player; PLL MPX decoder; FM muting; loudness, bass, treble, balance controls; auto tape replay.
KP-1500	130	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Mini in-dash AM/FM-stereo radio/cassette player; FM muting.
TP-6006	130	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	In-dash AM/FM-stereo radio/B-track cartridge player; local/DX switch; one-switch mode control; auto/manual program change.

*FM Sensitivity: 1 = Usable; 2 = 50-dB Quieting

SPEAKERS

Pioneer

Model	Price (\$)	Driver Size* (inches)	Frequency Range (Hz)	Sensitivity (dB SPL/W/m)	Maximum Power (watts)	Magnet (ounces)	Mounting Depth (inches)	Remarks
TS-165	70 pr	6 1/2 W, 2T	N.A.	N.A.	20	20	N.A.	Door mount.
TS-164	65 pr	6 1/2	N.A.	N.A.	20	10	N.A.	Door mount.
TS-1622	60 pr	6 1/2	N.A.	N.A.	20	8.5	N.A.	Dual-cone speaker; water resistant; thin door mount.

(continues)

SPEAKERS

Pioneer

Model	Price (\$)	Driver Size* (inches)	Frequency Range (Hz)	Sensitivity (dB SPL/W/m)	Maximum Power (watts)	Magnet (ounces)	Mounting Depth (inches)	Remarks
TS-165	70 pr	6½W,2T	N.A.	N.A.	20	20	N.A.	Door mount.
TS-164	65 pr	6½	N.A.	N.A.	20	10	N.A.	Door mount.
TS-1622	60 pr	6½	N.A.	N.A.	20	8.5	N.A.	Dual-cone speaker; water resistant; thin door mount.
TS-162 DX	56 pr	6½	N.A.	N.A.	20	10	N.A.	Same as TS-1622.
TS-160 DX	43 pr	6½	N.A.	N.A.	20	7.3	N.A.	Dual-cone speaker; door mount.
TS-160	43 pr	6½	N.A.	N.A.	20	N.A.	N.A.	Same as TS-160 DX.
P-16L	30 pr	6½	N.A.	N.A.	8	3.7	N.A.	Black leatherette finish; door mount.
TS-2000	200 pr	8W,2½T	N.A.	N.A.	60	20	N.A.	Cross-axial design; tweeter diffuser; 6"×9" hole.
TS-1600	170 pr	6½W 2¼T	N.A.	N.A.	60	10	N.A.	Same as TS-2000 except no hole mounting.
TS-M6	100 pr	2½M	N.A.	N.A.	20	4	N.A.	2-way (midrange/adjustable-angle horn tweeter) system.
TS-MZ	50 pr	N.A.	N.A.	N.A.	20	3	N.A.	Tweeter; adjustable level; dual mounting.
TS-T3	50 pr	3½T	N.A.	N.A.	60	6.5	N.A.	Component tweeter; terminals for multi-amping.
TS-87	30 pr	3½	N.A.	N.A.	20	2.4	N.A.	In-dash full-range speaker.
TS-108	70 pr	4 W	N.A.	N.A.	20	6.5	N.A.	Coaxial system with horn tweeter; door mount.
TS-107	55 pr	4	N.A.	N.A.	20	6.5	N.A.	Dual-cone speaker; mesh grille; door mount.
TS-106	50 pr	4	N.A.	N.A.	20	7	N.A.	Mesh grille; door mount.
TS-100DX	39 pr	4	N.A.	N.A.	8	7	N.A.	Slotted round grille; door mount.
TS-100	35 pr	4	N.A.	N.A.	8	7	N.A.	Slotted square grille; door mount.
P10-L	27 pr	4	N.A.	N.A.	8	3.7	N.A.	Black Leatherette finish; door mount.
TS-1222	55 pr	5½	N.A.	N.A.	20	6.7	N.A.	Thin dual-cone speaker; water-resistant cone; door mount.
TS-1211	50 pr	5½	N.A.	N.A.	20	4.2	N.A.	Same as TS-1222 except single cone.
TS-121	45 pr	5½	N.A.	N.A.	20	4	1	Radial slotted grille; door mount.
TS-120	40 pr	5½	N.A.	N.A.	8	3	N.A.	Similar to TS-121.
TS-168	125 pr	6½W 2¼M	N.A.	N.A.	40	10	N.A.	Crossovers 6.7/10 kHz; horn tweeter; door mount.
TS-1644	90 pr	1½T 6½W	N.A.	N.A.	25	8.5	N.A.	2-way system; coaxial horn tweeter; water resistant; mesh grille; thin door mount.
TS-167	80 pr	6½W,2T	N.A.	N.A.	20	10	N.A.	Mesh grille; door mount.
TS-205	200 pr	8W,2½M ½T	N.A.	N.A.	60	20	N.A.	Coaxial 3-way system; bridgeless construction; fits 6"×9" opening; rear-deck mount.
TS-202	200 pr	8 W	N.A.	N.A.	60	20	N.A.	Coaxial 2-way system; bridgeless construction; fits 6"×9" hole.
TS-698	170 pr	6×9W 2½M ½T	N.A.	N.A.	60	20	N.A.	Bridgeless construction 3-way system.
TS-W203	150 pr	8 W	N.A.	N.A.	60	20	N.A.	Component woofer; compatible with TS-T3; fits 6"×9" opening.
TS-695	150 pr	6×9W 2½M 1½T	N.A.	N.A.	40	20	N.A.	Bridgeless 3-way system; crossovers 5 and 13.5 kHz.
TS-697	140 pr	6×9W 2½T	N.A.	N.A.	60	20	N.A.	Bridgeless coaxial system.
TS-696	120 pr	6×9W 2½M	N.A.	N.A.	40	20	N.A.	Bridgeless 2-way system; crossover 4 kHz.
TS-694	86 pr	6×9 W 2½T	N.A.	N.A.	20	20	N.A.	Coaxial 2-way system.
TS-692	64 pr	6×9	N.A.	N.A.	20	20	N.A.	Dual-cone speaker.
TS-691	50 pr	6×9	N.A.	N.A.	20	10	N.A.	Dual-cone speaker.
TS-571	60 pr	5×7W	N.A.	N.A.	20	10	N.A.	Coaxial tweeter.
TS-411	70 pr	4×10W	N.A.	N.A.	20	10	N.A.	Bridgeless 2-way system.
TS-462	50 pr	4×6W	N.A.	N.A.	20	3	N.A.	Dual-cone dash-mount speaker.
TS-Z80	400 pr	6½W 1T	N.A.	N.A.	60	14	N.A.	Multi-purpose diecast aluminum-cabinet system; for hatchback cars, outdoors; carrying handle.
TS-X11	300 pr	4¾W 1¾M,1T	N.A.	N.A.	60	12	N.A.	Surface-mount 2-way system; diecast aluminum housing.
TS-X9	200 pr	3¾W,1T	N.A.	N.A.	40	7W,5.6T	N.A.	Surface-mount 2-way system; diecast aluminum housing.
TS-X6	110 pr	4W,2½T	N.A.	N.A.	20	5W,2.5T	N.A.	Surface-mount 2-way system; 4" passive radiator.
TS-X5	100 pr	4	N.A.	N.A.	20	7.6	N.A.	Surface-mount speaker.
TS-X1	75 pr	3½	N.A.	N.A.	20	2.4	N.A.	Mini surface-mount speaker.
TS-35	45 pr	N.A.	N.A.	N.A.	40	5	N.A.	Surface-mount speaker.
TS-5	30 pr	5¼	N.A.	N.A.	8	3	N.A.	Surface-mount speaker.

*Driver Size: W = Woofer; M = Midrange; T = Tweeter

COMPONENTS

Pioneer									
Model	Price (\$)	Type*	Output Power (W/channel)	Frequency Response (Hz \pm 3 dB)	THD (%)	S/N Ratio (dB)	Dimensions (inches)	Center Frequencies (Hz)	Features
AD-360	150	1	45	50-20k	5	N.A.	N.A.	N.A.	High-power booster amp; protection circuits; auto power on/off.
GM-120	150	1	30	20-30k	0.3	> 80	N.A.	N.A.	High-power booster amplifier.
BP-320	70	1	12	50-20k	5	N.A.	N.A.	N.A.	Booster amplifier; protection circuits; auto power on/off.
GM-4	70	1	10	30-30k	0.8	> 70	N.A.	N.A.	Booster amplifier; power LED; thin, flat shape.
GM-2	45	1	2.8	40-30k	0.8	> 70	N.A.	N.A.	Booster amplifier; thin, flat shape.
BP-720	170	3	10	50-20k	5	> 70	N.A.	60, 100, 250, 1k, 3.5k, 10k	Booster amp/equalizer with IC echo; fader; EQ defeat switch; EQ boost/cut \pm 12 dB.
CD-5	130	2	line level	20-30k	N.A.	> 70	N.A.	60, 100, 250, 1k, 3.5k, 10k	Equalizer with dual amplifier balance; EQ boost/cut \pm 12 dB.
BP-520	110	3	line level	50-20k	5	> 70	N.A.	60, 100, 250, 1k, 3.5k, 10k	Booster amplifier/equalizer; fader; EQ defeat; EQ boost/cut \pm 12 dB.

*Type: 1 = Booster Amplifier; 2 = Graphic Equalizer; 3 = Amplifier/Equalizer

TAPE PLAYERS

Pioneer								
Model	Price (\$)	Type*	Frequency Response (Hz)	S/N Ratio (dB)	Wow & Flutter (%)	Crosstalk (dB)	Dimensions (inches)	Features
KP-909G	380	1	N.A.	N.A.	N.A.	N.A.	N.A.	Under-dash auto-reverse 3-motor cassette player-multiplay music play microprocessor-tape guard; Dolby NR; metal capability; feather-touch logic control; key-off soft eject.
KP-707G	200	1	N.A.	N.A.	N.A.	N.A.	N.A.	Under-dash auto-reverse cassette player; tape guard; Dolby NR; metal capability; feather-touch controls; audio attenuator; bass, treble, loudness control.
KP-404G	160	1	N.A.	N.A.	N.A.	N.A.	N.A.	Under-dash auto-replay cassette deck; music search; tape guard; Dolby NR; metal capability; auto eject; key-off pinch-roller release; loudness, volume, balance controls.
KP-202G	140	1	N.A.	N.A.	N.A.	N.A.	N.A.	Under-dash cassette player; music search; tape guard; metal capability; key-off pinch-roller release; auto eject; loudness, bass, treble; balance, volume controls.
KP-575	130	1	N.A.	N.A.	N.A.	N.A.	N.A.	Compact under-dash cassette player; auto reverse; tape guard; loudness, volume tone, balance controls.
KP-373	115	1	N.A.	N.A.	N.A.	N.A.	N.A.	Compact under-dash cassette player; auto replay; loudness switch auto/manual eject.

*Type: 1 = Cassette; 2 = 8-Track Cartridge

SPEAKERS

Poly/Power								
Model	Price (\$)	Driver Size* (inches)	Frequency Range (Hz)	Sensitivity (dB SPL/W/m)	Maximum Power (watts)	Magnet (ounces)	Mounting Depth (inches)	Remarks
PP4000	28	4	250-11k	N.A.	40	10	N.A.	Full-range speaker.
PP5250	30	5 1/2	150-9.5k		60	10	N.A.	Full-range speaker.
PP5250w	33	5 1/4	150-11k		40	10	N.A.	Dual-cone speaker.
PP6500	40	6 1/2 W	45-3k	94	70	12	N.A.	Woofer.
PP6900	45	6 x 9W	40-3k	96	100	12	N.A.	Woofer.
PP6920	70	6 x 9W	40-3k	97	125	20	N.A.	Woofer.
PP8000	50	8W	35-2.5k	97	100	12	N.A.	Woofer.
PP8020	75	8W	35-2.2k	97	125	20	N.A.	Woofer.
PP10020	90	10W	30-1.9k	98	125	20	N.A.	Woofer.
PP12020	110	12W	30-1.5k	98	125	20	N.A.	Woofer.
PP15030	150	15W	N.A.	N.A.	150	20	N.A.	Woofer.
PP5250ca	57	5 1/4 W	N.A.	N.A.	25	10W	N.A.	Coaxial 2-way system; aluminum tweeter.
PP6500ca	60	6 1/2 W	N.A.	94	50	12W	N.A.	Coaxial; 2-way system; aluminum tweeter.
PP6900c	65	6 x 9W 3T	40-10k	96	75	12W	N.A.	Coaxial 2-way system; paper tweeter.
PP6900ca	70	6 x 9W	75-14k	96	75	12W	N.A.	Coaxial 2-way system; aluminum tweeter.
AL3000	25	3T	N.A.	N.A.	30	2.5T	N.A.	Aluminum tweeter.
AL1500	20	1 1/2 T	N.A.	N.A.	25	1.4T	N.A.	Aluminum tweeter.
PP3500	20	3 1/2 (M)	N.A.	N.A.	30	1.4(M)	N.A.	Midrange driver with 2 ears; GM replacement.
PP4000	28	4(M)	N.A.	N.A.	40	10(M)	N.A.	Midrange driver.
PP5250	30	5 1/4 (M)	N.A.	N.A.	60	10(M)	N.A.	Midrange driver.

*Driver Size; W = Woofer; M = Midrange; T = Tweeter

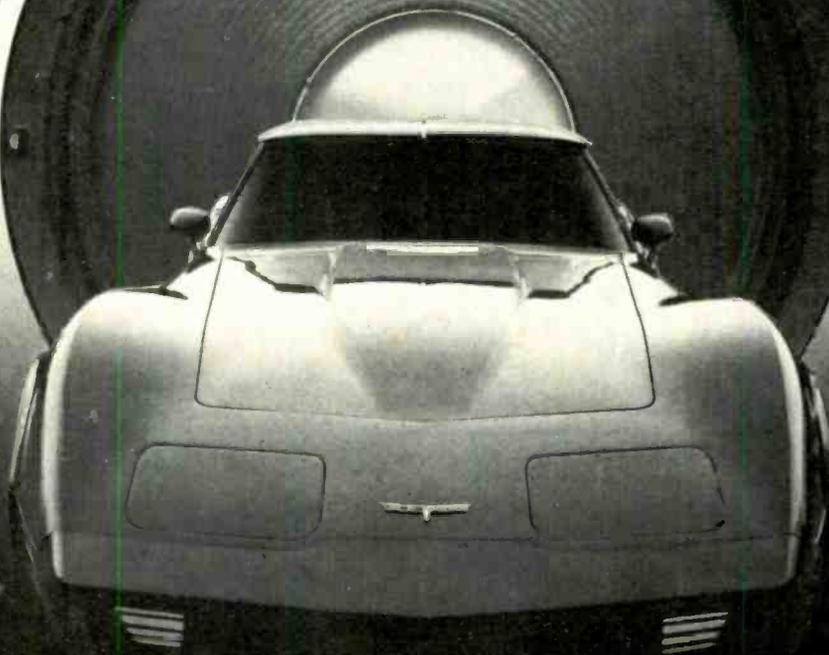
SPEAKERS

Pyle

Model	Price (\$)	Driver Size* (inches)	Frequency Range (Hz)	Sensitivity (dB SPL/W/m)	Maximum Power (watts)	Magnet (ounces)	Mounting Depth (inches)	Remarks
F69C200-FCD	59.95	6×9W	50-20k	106	60 rms	20W	3 ⁷ / ₈	
F69C290-FCD	69.95	6×9W	50-20k	108	70 rms	30W	4	Same as F69C200-FCD, except has biamp capability.
F69C100-FT	48.50	6×9W	55-20k	105	40 rms	10W	3 ³ / ₄	Coaxial system with direct radiating tweeter.
F69C200-FT	55.95	6×9W	50-20k	106	60 rms	20W	3 ⁷ / ₈	Same as F69C100-FT.
F69C290-FT	65.95	6×9W	50-20k	108	70 rms	30W	4	Same as F69C100-FT, except has biamp capability.
F52C100-FP	37.50	5 ¹ / ₄ W	60-40k	103	30 rms	10W	3	Coaxial system with piezoelectric tweeter.
F52C165-FP	46.50	5 ¹ / ₄ W	55-40k	104	40 rms	16W	3 ¹ / ₄	Same as F52C100-FP, except has biamp capability.
F410C100-FP	39.95	4×10W	55-40k	104	30 rms	10W	3 ³ / ₈	Same as F52C100-FP.
F410C160-FP	46.95	4×10W	55-40k	105	35 rms	16W	3 ¹ / ₂	Same as F52C100-FP, except has biamp capability.
F35C30-WF	19.95	3 ¹ / ₂	100-18k	100	20 rms	3	1 ¹ / ₂	Dual-cone speaker; biamp capability.
F35C55-WF	21.50	3 ¹ / ₂	90-18k	102	20 rms	5.5	1 ⁵ / ₈	Dual-cone speaker; biamp capability.
F4C99-F	21.95	4	70-18k	103	25 rms	10	1 ⁷ / ₈	Full-range speaker.
F45C99-F	22.25	4 ¹ / ₂	60-18k	103	25 rms	10	2 ¹ / ₈	Full-range speaker.
F52C100-WF	22.95	5 ¹ / ₄	60-18k	103	30 rms	10	2 ³ / ₈	Dual-cone speaker.
F65C120-WCR	27.95	6 ¹ / ₂	60-18k	105	35 rms	12	2 ⁵ / ₈	Dual-cone speaker.
F46C55-WF	21.50	4×6	80-18k	102	25 rms	5.5	1 ⁷ / ₈	Dual-cone speaker.
F57C100-WF	24.25	5×7	60-18k	103	30 rms	10	2 ¹ / ₂	Dual-cone speaker.
F69C100-WF	24.50	6×9	55-18k	104	40 rms	10	3	Dual-cone speaker.
F69C180-WF	28.50	6×9	50-18k	105	40 rms	10	3 ¹ / ₂	Dual-cone speaker.
F410C100-WF	25.50	4×10	55-18k	103	30 rms	12	2 ⁵ / ₈	Dual-cone speaker.
PK69C200-FCD	150 pr	6×9W	50-20k	106	60 rms	20W	N.A.	With compression tweeter.
PK69C290-FCD	180 pr	6×9W	50-20k	108	70 rms	30W	N.A.	With compression tweeter.
PK69C100-FT	120 pr	6×9W	55-20k	105	40 rms	10W	N.A.	With direct-radiating tweeter.
PK69C200-FT	146 pr	6×9W	50-20k	106	60 rms	30W	N.A.	With direct-radiating tweeter.
PK69C290-FT	176 pr	6×9W	50-20k	108	70 rms	30W	N.A.	With direct-radiating tweeter.
PK52C100-FP	100 pr	5 ¹ / ₄ W	60-40k	103	30 rms	10W	N.A.	With piezoelectric tweeter.
PK52C165-FP	120 pr	5 ¹ / ₄ W	55-40k	104	40	16W	N.A.	With piezoelectric tweeter.
PK410C100-FP	106 pr	4×10W	55-40k	104	30	10W	N.A.	With piezoelectric tweeter.
PK410C160-FP	125 pr	4×10W	55-40k	105	35	16W	N.A.	With piezoelectric tweeter.
PK4C99-F	70 pr	4	70-18k	103	25	10	N.A.	Dual-cone full-range speaker.
PK52C100-WF	76 pr	5 ¹ / ₄	60-18k	103	30	10	N.A.	Dual-cone full-range speaker.
PK69C100-WF	79 pr	6×9	55-18k	104	40	10	N.A.	Dual-cone full-range speaker.
PK69C180-WF	86 pr	6×9	50-18k	105	40	20	N.A.	Dual-cone full-range speaker.
PK410C100-WF	80 pr	4×10	55-18k	103	30	10	N.A.	Dual-cone full-range speaker.
W52C165-F	28.50 ea	5 ¹ / ₄ W	50-8k	101	40 rms	16	2 ³ / ₄	Woofer.
W65C200-F	32.95 ea	6 ¹ / ₂ W	40-7.5k	102	60 rms	20	3 ¹ / ₄	Woofer.
W65C200-F4	33.75 ea	6 ¹ / ₂ W	40-7k	102	60 rms	20	3 ¹ / ₄	Woofer (4 ohms).
W65C200-F4D	40.90 ea	6 ¹ / ₂ W	35-5k	101	60 rms	20	3 ¹ / ₄	Subwoofer (4 ohms); dual voice coil.
W8C200F	36.50 ea	8W	30-7k	103	70 rms	20	3 ⁵ / ₈	Woofer.
W8C200-F4	36.95 ea	8W	30-6.5k	103	70 rms	20	3 ⁵ / ₈	Woofer (4 ohms).
W8C290-F4D	48.95 ea	8W	25-4.5k	102	75 rms	30	3 ³ / ₄	Subwoofer (4 ohms) dual voice coils.
W8C300-F	47.50 ea	8W	24-4.5k	104	80 rms	30	3 ³ / ₄	Woofer.
W8C300-F4	47.95 ea	8W	25-4k	104	80 rms	30	3 ³ / ₄	Woofer (4 ohms).
W10C200-F	39.95 ea	10W	25-6.5k	104	75 rms	20	4 ³ / ₈	Woofer.
W10C200-F4	40.50 ea	10W	25-6k	104	75 rms	20	4 ³ / ₈	Woofer (4 ohms).
W10C300-F	50.95 ea	10W	20-4.5k	105	85 rms	30	4 ³ / ₄	Woofer.
W12C200-F	45.50 ea	12W	20-6k	105	80 rms	20	5 ¹ / ₄	Woofer.
W12C200-F4	45.95 ea	12W	20-5.5k	105	80 rms	20	5 ¹ / ₄	Woofer (4 ohms).
W12C300-F	55.50 ea	12W	20-4.5k	106	90 rms	30	5 ¹ / ₄	Woofer.
W69C200-F	37.50 ea	6×9W	40-7k	104	60 rms	20	3 ¹ / ₂	Woofer.
W69C200-F4	37.95 ea	6×9W	40-6.5k	104	60 rms	20	3 ¹ / ₂	Woofer (4 ohms).
W69C290-F	44.50 ea	6×9W	35-7k	105	70 rms	30	4	Woofer.
W69C290-F4	44.95 ea	6×9W	35-6.5k	105	70 rms	30	4	Woofer.
W69C290-F4D	49.50 ea	6×9W	30-4.5k	104	70 rms	30	4	Subwoofer.
W410C160-F	28.95 ea	4×10 W	40-8k	103	35 rms	16	3 ¹ / ₈	Woofer.
W4C55-F4S	23.75 ea	4W	50-4.5k	99	30 rms	5.5	1 ⁷ / ₈	Woofer (4 ohms).
W52C165-F4S	30.95 ea	5 ¹ / ₄ W	30-4k	100	45 rms	16	2 ³ / ₄	Woofer (4 ohms).
W65C170-F4S	34.95 ea	6 ¹ / ₂ W	25-3.5k	101	65 rms	16	3	Woofer (4 ohms).
M5C99-F	23.95 ea	5(M)	700-14k	102	40 rms	10	2 ¹ / ₈	Direct-radiator midrange driver.
M5C160-F	26.75 ea	5(M)	500-10k	103	50 rms	16	2 ¹ / ₄	Direct-radiator midrange driver.
M5C160-CR	27.50 ea	5(M)	500-14k	103	50 rms	16	2 ¹ / ₄	Direct-radiator midrange driver.
P-T17C55-X	42.95 ea	1 ³ / ₄ T	4k-20k	100	30 rms	5.5	1 ¹ / ₄	Direct-radiator tweeter.
P-T3C24-X	34.50 ea	3T	4k-20k	102	45 rms	2.4	1 ¹ / ₄	Direct-radiator tweeter.
P-T3PA	26.95 ea	2 ¹ / ₂ T	3k-40k	99	70 rms	—	3 ¹ / ₄	Piezoelectric tweeter.
P-T3PAS	28.95 ea	3 ³ / ₄ T	3k-20k	99	70 rms	—	1 ¹ / ₈	Piezoelectric tweeter.
H35A15-X	22.50 ea	3 ¹ / ₂ T	3k-20k	99	35 rms	1.47	3 ⁴ / ₈	Square horn tweeter.
HT35P	22.50 ea	3 ¹ / ₂ T	4k-40k	101	70 rms	—	1 ⁴ / ₈	Square piezoelectric tweeter.
P-CD4C30-X	44.50 ea	3 ¹ / ₂ T	4k-20k	101	35 rms	-3	1 ¹ / ₂	Round compression tweeter.
P-CD4C80-X	47.50 ea	4T	4k-20k	103	40 rms	8	2 ¹ / ₂	Round compression tweeter.

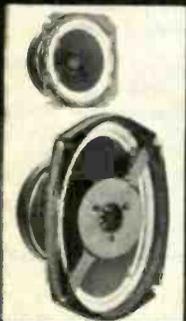
*Driver Size; W = Woofer; M = Midrange; T = Tweeter

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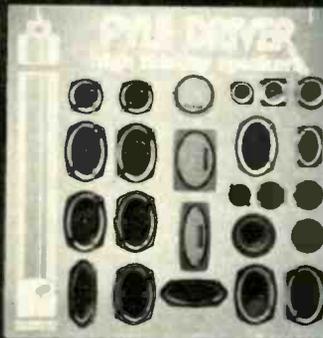


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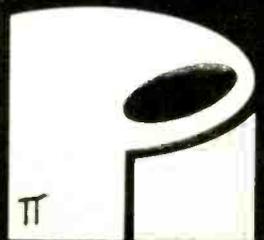
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13 CAR STEREO EQUIPMENT

RADIO/TAPE Realistic

Model	Price (\$)	Output	Frequency Range (Hz)	FM Sensitivity*	Capture Ratio (dB)	FM Selectivity (dB)	Tape Wow & Flutter (%)	Tape Frequency Range (Hz)	Tape S/N (dB)	Features
12-1889	180	7W Ch	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	In/under-dash unit; Synthesizer AM/FM-stereo; LED digital frequency/clock display; cassette player; key-off eject; speakers.

*FM Sensitivity: 1 = Usable; 2 = 50-dB Quieting

TAPE PLAYERS Realistic

Model	Price (\$)	Type*	Frequency Response (Hz)	S/N Ratio (dB)	Wow & Flutter (%)	Crosstalk (dB)	Dimensions (inches)	Features
12-1892	100	1	N.A.	N.A.	N.A.	N.A.	N.A.	In-dash cassette player; autostop in play; locking fast forward; output power 4 W/channel.

*Type: 1 = Cassette; 2 = 8-Track Cartridge

COMPONENTS Rockford Fosgate

Model	Price (\$)	Type*	Output Power (W/channel)	Frequency Response (Hz \pm 3 dB)	THD (%)	S/N Ratio (dB)	Dimensions (inches)	Center Frequencies (Hz)	Features
RX5	960	3	50x4	20-20k 10.5 dB	0.05	80	N.A.	45, 125, 725, 3k, 10k	Booster amp/equalizer with dbx NR; 10-LED power meter; 4 output channels; noise reduction 30 dB; separate EQ/preamp and booster-amp units.
PR2100	810	3	50x4	20-20k \pm 0.5 dB	0.05	80	N.A.	Bass, mid, treble	Booster amp/3-band equalizer; 2 each low-and high-frequency amplifiers; 11-LED power meter; separate preamp/EQ and power-amplifier units.
RX-1	660	3	50x2	20-20k \pm 0.5 dB	0.05	80	N.A.	Same as RX5	Same as RX5 except 2 output channels.
PR252	480	3	50x2	20-20k \pm 0.25 dB	0.05	80	N.A.	Bass, mid, treble	Same as PR2100 except 2 output channels.
PR250	420	1	50x2	20-20k \pm 0.25 dB	0.05	80	N.A.	N.A.	Booster amplifier/EQ; rotary volume and high-and low-frequency controls; separate booster-amplifier and compact preamp/control units.
PR235	270	1	34x2	20-20k \pm 0.25 dB	0.05	80	N.A.	N.A.	Booster amplifier; bass and treble controls; high- and low-level inputs; single integrated unit.
PR220	170	1	20x2	20-20k \pm 0.25 dB	0.05	80	N.A.	N.A.	Similar to PR235 except lower power.
PUNCH 100	350	1	50x2	20-20k \pm 1 dB	0.05	N.A.	N.A.	N.A.	Booster amplifier; bass and treble controls; low- and high-level inputs.
PUNCH 40	200	1	20x2	20-20k \pm 1 dB	0.05	N.A.	N.A.	N.A.	Same as system 100 except lower power.
SYSTEM 100	650	1	50x2	20-20k \pm 1 dB	0.05	N.A.	N.A.	N.A.	Complete amplifier/speaker system. Consists of PUNCH 100 amp and SYSTEM 100 speakers.
SYSTEM 40	450	1	20x2	20-20k \pm 1 dB	0.05	N.A.	N.A.	N.A.	Complete amplifier/speaker system. Consists of PUNCH 40 amp and System 40 speakers.

*Type: 1 = Booster Amplifier; 2 = Graphic Equalizer; 3 = Amplifier/ Equalizer

SPEAKERS Rockford Fosgate

Model	Price (\$)	Driver Size* (inches)	Frequency Range (Hz)	Sensitivity (dB SPL/W/m)	Maximum Power (watts)	Magnet (ounces)	Mounting Depth (inches)	Remarks
System 100	300	6x9W 5 1/4M	N.A.	94W,91M 90 T	80 ch 26W 10M	N.A.	N.A.	System consists of 2 each woofers, Midranges; ferrofluid drive tweeters; crossover 150 and 3.5k Hz.
System 40	250	6x9W 5 1/4M 3/4T	N.A.	93W,91M 91T	40 ch 10W 10M	N.A.	N.A.	System consists of 2 each woofers, midrange, tweeters; crossovers 150 and 6k Hz

*Driver Size: W = Woofer; M = Midrange; T = Tweeter

RADIO/TAPE

Sanyo

Model	Price (\$)	Output	Frequency Range (Hz)	FM Sensitivity*	Capture Ratio	FM Selectivity (dB)	Tape Wow & Flutter (%)	Tape Frequency Range (Hz)	Tape S/N (dB)	Features
FTX180	400	15W	30-20k ±3 dB	17.6 dBf ²	2	70	0.15	63-14k ±3 dB	50	Synthesizer AM/FM-stereo tuning; liquid crystal display (LCD); 5 AM/5 FM presets; switchable Dolby B/C NR; metal-ready auto-reverse cassette player; 100/200/300-Hz selectable rollover.
FTX160	350	15W	30-20k ±3 dB	12.8 dBf ²	2	70	0.15	63-14k ±3 dB	50	Similar to FTX180 except no AM/FM presets.
FT590	380	500 mV	30-20k ±3dB	20.2 dBf ²	2	70	0.15	63-14k ±3 dB	50	AM/FM-stereo indio; 5 AM/5 FM presets; digital frequency displays (LCD); FM optimizer; Dolby FM/Tape Nr; biamp capability; normal/CrO ₂ /FeCr/metal selector; cassette player.
FTX140	300	15W	30-20k ±3 dB	12.8 dBf ²	2	70	0.15	63-14k ±3 dB	50	Slide-rule AM/FM-stereo tuning; AMSS; FM optimizer; local/DX switch; metal-ready auto-reverse cassette player; Dolby B/C NR.
FTC120	270	15W	30-20k ±3 dB	12.8 dBf ²	2	70	0.15	63-14k ±3 dB	50	Ultra-compact version of FTX140, except lower power.
FT30	250	4W 500mV	30-20k ±3dB	21.6 dBf ²	2	70	0.15	63-14k ±3 dB	50	AM/FM-stereo radio; slid-rule dial; local/DX switch; fader control; FM optimizer; automatic tape reverse; Dolby NR; normal/CrO ₂ /FeCr/metal selector; cassette player.
FTC18	200	500 mV	30-20k ±3 dB	21.6 dBf ²	2	60	0.15	63-14k ±3 dB	50	AM/FM-stereo radio; slide-rule dial; local/DX switch; FM optimizer; automatic tape reverse; Dolby NR; normal/CrO ₂ /FeCr/metal selector; cassette player.
FTV96	200	9.5W	50-20k ±3 dB	22.2 dBf ²	2	60	0.13	80- 12.5k	50	AM/FM-stereo radio; slide-rule dial; local/DX switch; fader control; automatic tape reverse; normal/CrO ₂ /metal selector; cassette player.
FTV92	200	9.5W	50-20k ±3dB	21.6 dBf ²	2	70	0.15	63- 12.5k	50	AM/FM-stereo radio; slide-rule dial; FM optimizer; local/DX switch; fader control; automatic tape reverse; AMSS; cassette player.
FTC 66	200	3W 500 mV	50-20k ±3 dB	21.6 dBf ²	2	70	0.15	63-14k ±3 dB	50	AM/FM-stereo radio; slide-rule dial; FM optimizer; local/DX switch; fader control; automatic tape reverse; Dolby NR; AMSS; tape protection; cassette player.
FTC15	180	4W	50-20k ±3 dB	21.6 dBf ²	2	55	0.15	63- 12.5k	50	AM/FM-stereo radio; slide-rule dial; FM optimizer; fader control; auto tape reverse; AMSS; cassette player.
FT240	180	3.5W	50-20k ±3 dB	21.6 dBf ²	2	70	0.15	63- 12.5k ±3 dB	50	AM/FM-stereo radio; slide-rule dial; FM optimizer; fader control auto tape reverse; Dolby NR; AMSS; cassette player.
FTC27	170	9W	50-20k ±3 dB	20.2 dBf ²	3	60	0.1	80-10k ±3 dB	50	AM/FM-stereo radio; slide-rule dial; FM optimizer; local/DX switch; auto tape reverse; Dolby NR; cassette player.
FTC12	150	2.4W	100-20k ±3 dB	20.2 dBf ²	3	60	0.1	80-10k ±3 dB	50	AM/FM-stereo radio; digital frequency/time display; local/DX switch; automatic tape reverse; cassette player.
FT510	150	9.5W	50-20k ±3 dB	23.8 dBf ²	3	60	0.1	80-12k ±3 dB	50	AM/FM-stereo radio; slide-rule dial; loudness control; automatic tape reverse; AMSS; cassette player.
FTC13	140	4W	50-20k ±3 dB	21.6 dBf ²	3	55	0.15	63- 12.5k	45	AM/FM-stereo radio; slide-rule dial; fader controls; auto tape reverse; cassette player.
FTV82	130	3W	150-20k ±3 dB	23.8 dBf ²	3	60	0.1	80-10k ±3 dB	50	AM/FM-stereo radio; slide-rule dial; local/DX switch; fader control; auto tape reverse; cassette player.
FTC26	130	9.5W	100-20k ±3 dB	20.2 dBf ²	3	60	0.1	80-10k ±3 dB	50	AM/FM-stereo radio; slide-rule dial; local/DX switch; auto tape reverse; cassette player.
FTC8	130	2.4W	100-20k ±3 dB	21.6 dBf ²	3	55	0.1	80-10k ±3 dB	50	AM/FM-stereo radio; slide-rule dial; local/DX switch; fader control; auto tape reverse; AMSS; cassette player.
FTV77	110	9W	50-20k ±3 dB	21.6 dBf ²	3	55	0.1	80-10k ±3 dB	50	AM/FM-stereo radio; slide-rule dial; local/DX switch; auto tape reverse; cassette player.
FTC36	100	3W	100-20k ±3 dB	21.6 dBf ²	3	60	0.2	150- 10k	50	AM/FM-stereo radio; slide-rule dial; local/DX switch; auto tape reverse; cassette player.
FT526	100	2.4W	100-20k ±3 dB	21.6 dBf ²	3	60	0.15	100- 10k	50	AM/FM-stereo radio; slide-rule dial; local/DX switch; auto tape eject; AMSS; cassette player; compact chassis.
FTC24	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	Mini AM/FM-stereo radio; slide-rule dial; local/DX switch; auto tape eject; cassette player.
FTC2	70	3.8W	100-15k ±3 dB	26.2 dBf ²	4	35	0.2	60-8k ±3 dB	35	AM/FM-stereo radio; slide-rule dial; local/DX switch; auto tape stop; cassette player.
FTC1	60	3W	30-15k ±3 dB	26.2 dBf ²	4	55	0.2	60-8k ±3 dB	50	AM/FM-stereo radio; slide-rule dial; local/DX switch; auto tape stop; cassette player.

*FM Sensitivity: 1 = Usable; 2 = 50-dB Quieting

SPEAKERS

Sanyo

Model	Price (\$)	Driver Size* (inches)	Frequency Range (Hz)	Sensitivity (dB SPL/W/m)	Maximum Power (watts)	Magnet (ounces)	Mounting Depth (inches)	Remarks
SP90	220 pr	4W,1T	80-20k	85	50 rms	12.6W 5T	N.A.	Enclosed system with 5" passive radiator; tweeter level control; can be biamplified (9 ³ / ₄ " x 7" x 5 ³ / ₄ ").
SP69A	200 pr	6x9W 1 ³ / ₁₆ T	40-20k	94	60 rms	30W 5.9T	N.A.	Massive cast frame with finned heat sink; ABS plastic grille.
SP88	100 pr	4W,2T	80-20k	N.A.	15 rms	6.5W 0.6T	N.A.	Enclosed system; bass-reflex ABS cabinet; wire mesh grille (7 ³ / ₄ " x 5 ¹ / ₈ " x 4 ² / ₃₂ ").
SP778	100 pr	6x9W	50-20k	N.A.	30 rms	20W 15M 0.6T	3 ³ / ₄	Mini-horn tweeter; full-range, biamp connectors.
SP9046H	100 pr	6 ¹ / ₂ W 2 ¹ / ₄ T	60-20k	N.A.	50 rms	20W 1.5T	2 ⁷ / ₁₆	
SP412	90 pr	4x10W	70-20k	N.A.	15 rms	15W 0.5M 0.6T	3	Mini-horn tweeter.

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Ed Meyer is a member of The Acoustical Society of America. An engineer by profession. A frequent audio consultant to government and industry. And president of Myer-Emco audio showrooms of Washington, D.C.

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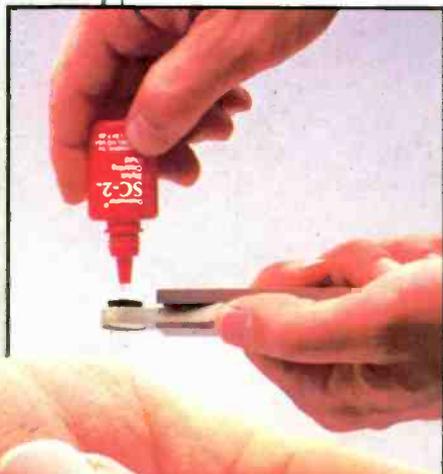
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