

Stereo Reviews

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STEREO DIRECTORY & BUYING GUIDE 1974

Over 1500 Models • Latest Prices • 4-Channel Section

PLUS: Julian Hirsch on
HOW TO SELECT HI-FI EQUIPMENT





DIRECT DRIVE DC MOTOR

+



+

Dolby

+CrO₂ =

| | |
|-----------------------|-----------------|
| Frequency Response | 20Hz-17kHz |
| Wow & Flutter | Less than 0.10% |
| Signal to Noise Ratio | More than 60dB |

We made up the formula. But we didn't have to make up the specs. Because they're from our RS-276US cassette deck and they really speak for themselves. But the features that make them possible are worth a closer look.

The direct drive DC motor puts the capstan right on the motor shaft. Does away with gears or belts. And substantially reduces wow and flutter.

And our patented HPF™ recording/playback head means reliable high frequency response. Because its super-hard composition resists wear for ten years.

There's Dolby* to deal with tape hiss. And it's adjustable for any kind of tape.

And the recording bias can be switched to take advantage of the superior frequency response of CrO₂ tapes.

Some of the other outstanding features are solenoid-operated function controls. Locking pause control. Photo-electronic Auto-Stop. Three-digit tape counter with Memory Rewind. And optional remote control.

The RS-276US. The concept is simple. The execution is precise. The performance is outstanding. The name is Technics.

*Dolby is a trademark of Dolby Laboratories Inc.


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Technics

by Panasonic



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The sound you buy now
is the sound you'll hear
three years from now.
Hitachi guarantees it.

Hitachi guarantees that nothing will go wrong with our Maxi-Fi[®] tuners, amplifiers, receivers or loudspeakers for three years after you buy them.

If anything does, bring it in and we'll fix it free. Parts and labor.

Three years is a lot longer than most manufacturers give you. And we go even further on the transistors. We guarantee them for five.

For a very good reason.

Practically everything that goes into a Hitachi is made by Hitachi. Our own transistors. Our own IC's.

Many stereo companies make few, if any, parts of their own.

Hitachi believes in realistic sound. Nothing to get in the way of pure, natural sound.

Like distortion or coloration.

Those transistors we were talking about, for instance, we developed a new type called LTP (for Low Temperature Passivity). They reduce amplifier noise to practically nil. And increase FM tuner sensitivity at the same time.

We also did away with input and output transformers on many of our models in favor of ITL-OTL circuitry. Doing away with one of the major causes of frequency distortion and deterioration.

Our patented gathered-edge woofers are more flexible than conventional bellows-type suspension speakers. And our damped bass reflex enclosure, with a special ducted port, produces a deep, rich sound without that "boxed-in" effect familiar to so many bookshelf speaker systems.

For more about Hitachi Maxi-Fi components, write for our brochure, Dept. SR-5, Hitachi Sales Corp. of America, 48-50 34th Street, Long Island City, N.Y. 11101.

Quality always comes first at
 **HITACHI**



IMPROVE YOUR HEARING.

Sometimes high fidelity people lose sight of what it's all about: Sound.

The ultimate test of any piece of high fidelity equipment is what you hear.

That's why, of all the statements made by equipment reviewers about our Garrard Zero 100, the most significant were these:

"Using identical virgin records, and virgin styli in identical good cartridges, the Zero 100 on occasion sounded markedly 'crisper' than other turntables." *Rolling Stone*.

"A listening test proves to bring new life to many records, noticeably reducing distortion on the inner grooves." *Radio Electronics*.



"From about 7 in. diameter to runout, the Zero 100 delivers considerably less distortion and greater definition than with the same pickup mounted in a standard arm. The improvement in sound quality is notably impressive."

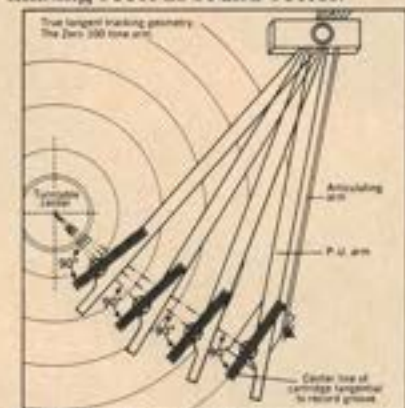
Elementary Electronics.

"The articulated arm of the Zero 100 produced less distortion, and therefore greater definition, on high-level, musically complex passages, from the inner grooves."

Hi-Fi Stereo Buyers' Guide.

That's what reviewers actually

heard when they tested the first automatic turntable with Zero Tracking Error. This is, to our knowledge, the first time a turntable has been given credit for making records sound better.



Cartridges and other components, yes. But never a turntable — until the Zero 100.

By this time you probably know how we achieve Zero Tracking Error. The principle of the articulating arm, continually adjusting the angle of the cartridge so it is always at a 90° tangent to the grooves, is a simple one. But the ingenious engineering and the development of the precision pivots to make the principle work, took several years.

But enough from us. Let's go back to what the reviewers say about the Zero 100.

"It probably is the best arm yet

offered as an integral part of an automatic player." *High Fidelity*.

"All of these features combined into one automatic turntable make news, even though some are found on other units. Only in the Zero 100 are they all put together." *Audio*.

When *Audio* talks about "all of these features" they're referring to such things as our magnetic control, anti-skating, variable speed control, illuminated strobe, viscous-damped cueing, 15° vertical tracking adjustment, patented Garrard Synchro-Lab synchronous motor and our exclusive two-point record support in automatic play.

But all of this gets back to our original point. It is the sound that makes the difference. After all, a \$200 record player should give you a really meaningful difference. And the high fidelity experts agree that people who own a Zero 100 will hear better than people who don't.

There is a Garrard for every music system. For full details on the entire Garrard line, write to: British Industries Company, Dept. H 93, Westbury, N.Y. 11590.

GARRARD ZERO 100

The only automatic turntable with Zero Tracking Error.

Dist. By British Industries Co., A Division Of Aomet, Inc.
Mfg. By Plessey Ltd.



STEREO DIRECTORY & BUYING GUIDE 1974

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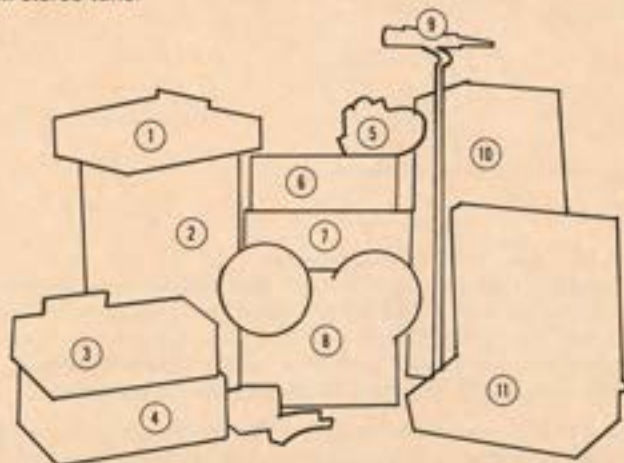
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STEREO DIRECTORY & BUYING GUIDE

COVER

Equipment pictured on the front cover exemplifies the wide range of hi-fi components available today. They also illustrate a host of representative component types that may be combined to form a four-channel/two-channel system (assuming duplicate speaker systems off-camera). The components shown are:

- BSR 710/X automatic turntable package
 - Altec 891A bookshelf speaker system
 - Teac 450 stereo cassette deck
 - JVC 4-channel integrated amplifier
 - David Clark 4CH-A 4-channel headphones
 - Sony SQD-2020 "SQ" decoder
 - Onkyo T-4055 AM-FM stereo tuner
 - Revox A-77 MkIII Dolby-B tape deck
 - Sennheiser MD-4210 mike & floorstand
 - ESS amt 1 Heil speaker system
 - Empire Troubador II manual turntable package
- Tapes are by BASF, Maxell, and TDK.



Why you should buy the best turntable you can afford.

Chances are you've already put more money into your record collection than into the rest of your entire component system.

That's reason enough to make sure that nothing happens to your records when you play them.

Remember, records are made of soft vinyl, and they're played with a diamond-tipped stylus. And there's nothing harder on this earth than a diamond.

If that stylus can't respond easily and freely to all the contours of the record groove, there's trouble. Especially with the sharp and fragile curves which produce the high frequencies. Instead of going around these peaks, the stylus will simply lop them off. And with those little bits of vinyl go the high notes, your record and your investment.

There's still more to consider. The record must rotate at precisely the right speed, or pitch will be off. The motor must be quiet and free of vibration, or rumble will be added to the music.

In short, the turntable should neither add sounds to a record, nor take any away. And that's the kind of turntable you should want.

To get that kind of turntable, we suggest you ask someone you know and trust who really knows components. A friend. A record reviewer. An audio engineer, or a good audio dealer.

And if you'd like to read more about turntables, we'll send you two booklets that someone else wrote. One tells you what to look for in turntables. The other tells you what independent test labs have reported about the Duals they've evaluated.

We'll leave it to you to decide if you can afford anything less than a Dual.



How Dual protects your records.



The tonearms of the Dual 1218 and 1229 are mounted in gyroscopic gimbals, the best known scientific means for balancing a precision instrument that must remain balanced in all planes of motion.

Unlike conventional tonearms, the 1218 and 1229 track records at the original cutting angle. The 1229 tonearm parallels single records; moves up to parallel, changer stack. In the 1218, a similar adjustment is provided in the cartridge housing.



In all Dual models, stylus pressure is applied around the pivot, maintaining perfect dynamic balance of the tonearm.

For perfect tracking balance in each wall of the stereo groove, separate anti-skating calibrations for conical and elliptical styli are provided on all Duals.



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

DIRECTORY OF HI-FI MANUFACTURERS

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

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HOW TO CHOOSE HI-FI EQUIPMENT

Here is a component-by-component examination of important specifications and features to consider when buying stereophonic or quadraphonic equipment.

BY JULIAN HIRSCH / Hirsch-Houck Laboratories

Shopping for a stereo hi-fi system does not have to be an agonizing experience. If you understand the basic functions of the system components, and realistically assess your own needs and budget limitations, the selection process becomes more rational.

Every stereo system requires one or more program inputs (FM or AM radio, phonograph, or tape), an amplifier and control system, and at least two speakers. Frequently, the electronic components are combined in a single unit (the receiver), into which the speakers and record player are plugged to complete the system. For several years the so-called "compact" system was popular, since its receiver and record player (as well as a tape deck, in some models) were mounted on a single base for the ultimate in efficient space utilization. Currently the trend

appears to be toward separating the phonograph or tape deck from the receiver or amplifier, and fewer compact systems remain on the market.

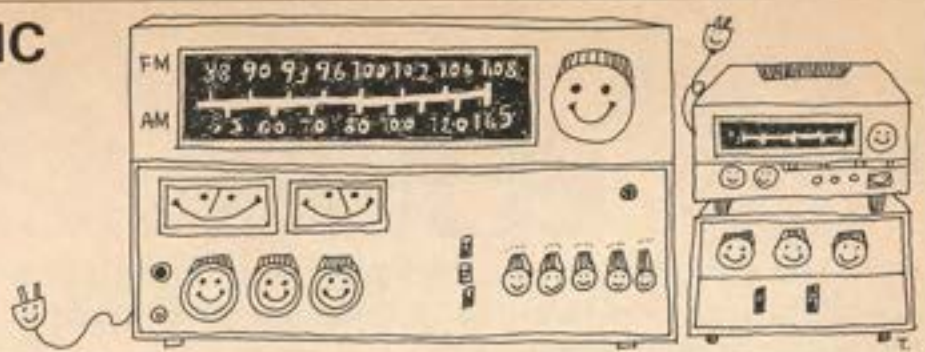
One combination to be avoided is the single unit "radio-phonograph" (sometimes combined with TV), in which the speakers share the same cabinet with the other components. Despite the impressive appearance of some of these systems, their performance is almost always well below minimum "hi-fi" standards, and on a dollar-for-dollar basis they are no match for a system of separate components.

The following sections describe the basic functions of each component, comment on the significance of some of their competitive features, and guidelines for making a selection from among the many products offered.

(Continued overleaf)



THE ELECTRONIC COMPONENTS amplifiers, tuners, receivers



THE HEART of a music system is its *amplifier*, which serves a dual function. It is a *preamplifier* and control center, which selects the desired program source and adjusts its volume and tonal balance and a *power amplifier* which transforms the weak input signals to the higher power levels required by the loudspeakers. The size and weight of very powerful amplifiers may require them to be packaged separately from the preamplifier, but normally the two sections are combined in a single *integrated amplifier*.

Certain basic control functions are common to all stereo amplifiers. These include an input switch to select one of several possible input sources, a volume or level control, a balance control to adjust the relative amplification of the two channels, and tone controls. Most amplifiers also have a *mode* switch, which channels a mono input through both outputs, parallels the stereo inputs to form a mono signal, and sometimes can reverse the left and right stereo channels. Most amplifiers have provisions for driving two pairs of speakers, separately or simultaneously (some can even control three pairs). A stereo headphone jack, for low-impedance phones, is also a common feature. Tape monitoring facilities are included on all but the least expensive amplifiers. They supply the selected signal to a tape recorder, unmodified by volume or tone controls, and re-insert the recorder's playback amplifier output into the signal path for monitoring a program while it is being recorded (with a suitably equipped tape recorder). Some more expensive amplifiers can control two tape recorders, or interconnect them for copying from one to the other. The controls of stereo amplifiers normally operate on both channels simultaneously.

At least one magnetic-cartridge input and one high-level (AUX) input are always provided. Frequently there are two or three high-level inputs (for tuner, tape player, TV, etc.) and sometimes two separate phono inputs as well as microphone inputs. The output of a magnetic phono cartridge, which is only a few millivolts, must be amplified and equalized with a special frequency response characteristic. This is done by a phono preamplifier stage. A well-designed phono preamplifier not only supplies the needed amplification and equalization without adding audible noise, but is able to handle relatively high signal levels (as from a heavily recorded disc) without distortion.

The usual bass and treble tone controls can increase or decrease the amplifier's response at low and high frequencies without affecting the mid-range. A few preamplifiers have separate tone controls for the two channels, but most operate on both channels simultaneously. There is a trend in more expensive amplifiers toward increased flexibility, usually in the form of a third control operating only at middle frequencies. Variations on this include switches to change the frequencies at which the controls become effective, or the use of as many as four to seven controls operating in different frequency ranges.

Some amplifiers have *filters* that sharply attenuate very low and very high frequencies, removing rumble or hiss with a minimum effect on the program itself. These vary in effectiveness, and relatively few amplifiers have the steep cut-off slopes (12-dB-per-octave or more) required for good filter ac-

tion. Fortunately, modern recordings and turntables rarely require the use of a filter.

Since a preamplifier or integrated amplifier is also a system control center, it has one or more a.c. outlets into which a tuner, record player, or tape deck can be plugged. Some of the outlets are controlled by the preamplifier's power switch, while others are "live" whenever the unit is plugged into the power line. Check to see that enough outlets are provided for the other components of your system.

Typical power amplifiers require an input of one or two volts to develop their full output, and preamplifiers usually can deliver several volts without distortion. The necessary signal connections are made internally in integrated amplifiers, but many have separate preamplifier outputs and power amplifier inputs. These are normally joined by jumper plugs or a switch, and can be separated for connecting special accessories, such as an electronic crossover or active speaker equalizer.

The power amplifier, per se, needs no controls (although some separate units have input level control and power switches). Interpreting power output ratings can be difficult, due to the use of several different rating systems. For example, depending on the system employed, a given amplifier might carry the following ratings:

| | |
|--|--|
| IHF Dynamic Power | 100 W/ch (4 ohms) 65 W/ch (8 ohms) |
| Continuous Power (rms) (1 kHz, one channel driven) | 69 W/ch (4 ohms) 48 W/ch (8 ohms) |
| Continuous Power (rms) (1 kHz, both channels driven) | 50 W/ch (4 ohms) 40 W/ch (8 ohms) |
| Continuous Power (rms) (20-20,000 Hz, both channels driven) | 37 W/ch (8 ohms) less than 0.5% THD |

The IHF Dynamic Power is the highest output available during a brief period (about 30 milliseconds), and is always higher than the Continuous Power Output, which is sometimes erroneously called "rms power," and which must be maintained for at least 30 seconds. The Continuous Power rating, with both channels driven, is the most rigorous and realistic, and should be specified at a stated percentage of distortion over the full audio range of 20 Hz to 20,000 Hz. Most amplifiers can deliver more power to 4-ohm loads than into 8 ohms, and will develop more power at a middle frequency such as 1000 Hz than at the frequency extremes. Driving both channels also reduces the maximum power, compared to single-channel operation. Be sure, when comparing amplifier ratings, that the same test conditions apply throughout.

The *power bandwidth* rating of an amplifier is another indication of its ability to deliver power over a wide frequency range. In the example we have used, the amplifier might have a power bandwidth rating of 10 Hz to 60,000 Hz (8 ohms) with 0.5% THD. This is based on the rated mid-range (1000 Hz) output power of 40 watts per channel. The power bandwidth limits are *half-power* frequencies, at which the amplifier

can deliver 20 watts per channel with 0.5% distortion. The power bandwidth of an amplifier can also be inferred from a comparison between its power rating over the full audio range, and that at middle frequencies.

The actual power required in a given system is a function of the speaker efficiency, room size and furnishings, the type of music you prefer, and your own personal taste. When in doubt, consult a competent audio specialist; speaker manufacturers will usually suggest suitable amplifier power ratings for their products. Here, it is better to err on the side of higher power.

The distortion of a component hi-fi amplifier, even a relatively low-priced model, is rarely audible. The usual practice of specifying a single value of distortion (e.g., 0.5%) at the amplifier's rated power output is not too informative, since it is more important that the distortion decrease at lower power levels, where most listening takes place. In fact, one is unlikely to hear any difference between otherwise similar amplifiers, whether their distortion is 0.5% or 0.05%, so undue emphasis should not be placed on this factor.

Another over-emphasized specification is frequency response. The most modest hi-fi amplifier has an adequately "flat" response. While a specification of ± 0.5 dB from 20 Hz to 20,000 Hz is undeniably more impressive than a ± 1 dB variation over the same range, it does not necessarily denote a better amplifier. In most cases, once an approximate price range and power output have been established, the operating features of an amplifier are likely to be more important than minor differences in performance specifications.

A caution is in order, however. The performance ratings referred to are based on Institute of High Fidelity (IHF) standards, which are adhered to by all reputable manufacturers of audio components. The low-priced systems, widely sold in department and appliance stores, are often rated by the much looser EIA standards, and should be viewed with suspicion.



THE FM TUNER selects one of the many signals intercepted by a receiving antenna, amplifies it millions of times, and converts its instantaneous frequency variations to an audio voltage which is the counterpart of the broadcast program.

Sensitivity—the ability to receive very weak signals—is one of the basic tuner specifications. The IHF Usable Sensitivity rating is commonly used for purposes of comparison. This is the minimum signal required (in mono reception) to achieve a total distortion and noise level of -30 dB (about 3%) in the tuner's audio output. The finest tuners have an IHF sensitivity of about 1.5 microvolts ($1.5\mu\text{V}$), and even the lower-priced component tuners are usually rated from 2 to 3 microvolts. Note that some European tuners rate the sensitivity for 20 dB of quieting, or with a 75-ohm antenna impedance instead of the 300 ohms used in this country. Both ratings give much lower numerical results than the IHF method, so be sure to compare tuner specifications only under the same test conditions.

For equivalent performance in stereo, about ten times as much signal input is required. Also, a -30 -dB noise level is too high for good listening quality. An additional rating, under consideration for a future revision of the IHF standard, is the input level required for a 50 dB signal-to-noise (S/N) ratio, which is a more realistic condition. Few tuner specifications now include this information, but typical modern tuners can deliver quiet stereo performance with inputs between 30 microvolts and several hundred microvolts.

In densely populated areas, served by a number of nearby

FM stations, received signal strength often is between several hundred and several thousand microvolts, and sensitivity is not an important consideration. In rural areas, on the other hand, very high sensitivity may be required.

Tuner distortion, usually rated in the mono mode at 100% modulation, may be as high as 1% in lower priced tuners, and less than 0.2% in the best units. In stereo, the distortion is usually somewhat higher. As is the case with amplifiers, a distortion of about 0.5% is unlikely to be audible, and even higher levels are unnoticeable with most broadcast material.

Alternate channel selectivity is the ability of a tuner to receive a station without interference from a much stronger signal removed in frequency by 400 kHz (the minimum channel spacing in any given geographical area). Obviously, this characteristic is much more important in urban areas than in the fringe areas served by only a few stations. Most low-priced tuners have an alternate channel selectivity rating of at least 40 dB, while the better ones are rated as high as 70 to 90 dB, and one or two of the most advanced designs can boast of more than 100 dB selectivity.

Even though, in most cases, either high selectivity or high sensitivity (but not both) is required in any given receiving situation, the higher-priced tuners generally are superior in both respects to the lower-priced models, as well as in their other performance characteristics.

The ability of a tuner to reject other interfering signals is indicated by several specifications, such as *spurious rejection*, *image rejection*, *i.f. rejection*, *AM suppression*, and *capture ratio*. All are expressed in decibels (dB) and, except for capture ratio, a larger number indicates better performance. Capture ratio describes the ability of a tuner to reject the weaker of two signals on the same channel, and to be totally "captured" by the stronger signal. A capture ratio of 3 dB or less is good, with the finest tuners reaching 1 dB.

An obvious situation calling for a good capture ratio is when the receiving site is equidistant from two major cities, with some channels occupied by stations in both cities. A directional antenna can help to reduce the level of the unwanted signal, but a complete "capture" of the tuner by the desired signal is necessary for interference-free reception. Less obvious, but probably more important, is the need to reject multiple signals from the same station, caused by reflections from buildings or natural objects. This *multipath* condition can cause severe distortion, especially in stereo reception, and a good (low) capture ratio is often the only way to obtain satisfactory results.

Stereo-FM tuners have special multiplex demodulators, whose function is to separate the detected audio signal into its left- and right-channel components. Stereo channel separation is usually specified at middle frequencies, such as 400 Hz, and almost always reduces at lower and higher frequencies. A mid-range separation of 30 dB is common and some tuners exceed this figure over much of the audible frequency range. If the separation exceeds about 15 to 20 dB from about 100 Hz to 8000 Hz, there will be little or no dilution of the stereo effect.

Technological improvements, especially in semiconductors, have been responsible for the dramatic improvement in tuner performance and reliability in recent years. Most tuners make some use of integrated circuits (IC's), which can replace a large number of transistors and other components with a great saving in space and assembly time. IC's are common in the i.f. amplifier sections of tuners, where they have superior gain and limiting characteristics. In the most recent tuners, a single IC serves as a multiplex demodulator, replacing a dozen transistors and providing better performance; in some the entire AM tuner section consists of a single IC. The widespread use of fixed filters for i.f. selectivity (ceramic, quartz crystal, or lumped constant LC) has virtually eliminated the need for tuner alignment over long periods of use.

Performance aside, the operating conveniences of a tuner may be decisive in determining its appeal to a prospective

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buyer. FM muting, which eliminates the loud hiss heard between FM stations when tuning, is now almost universal. However, in different tuners it varies widely in its effectiveness. Many emit a disturbing burst of noise, or a click or thump, when tuning a signal on or off, while others are totally silent in their operation. One or more tuning indicators, either meters, lamps, or both, are usually provided to assist in correct tuning of FM stations, but these also differ in their accuracy or ease of use. Either a "relative signal strength" or a "zero-center" type of tuning meter can be used as an FM tuning aid. The later is more accurate, but the former is more commonly used in lower priced tuners. The better tuners and receivers usually have both types. An accurately calibrated, readable tuning dial is especially important in urban areas (where up to 50 stations may be receivable) in order to correctly identify a station. Many tuners leave much to be desired in this respect. The digital readout of frequency, found on a few very expensive tuners, is an ideal (but very costly) solution to this problem.

Other features which may be of interest include a *stereo-only* operating mode (allowing the tuner to respond only to stereo broadcasts), multipath distortion indicators (with the tuner's meter, or with a cathode-ray tube, either built-in or in an accessory unit), and separate sets of audio outputs with fixed and adjustable levels. Some tuners have individual level adjustments for their AM and FM sections, simplifying the matching of levels from all program sources.

The electronic performance of a tuner may have to be judged by its published specifications, or by magazine test reports. However, its operating conveniences, such as those mentioned above and others, are best evaluated by the shopper himself. No special training or listening judgment is necessary to appreciate their significance.

AM coverage is included in most component-type tuners, largely as a convenience for those areas not adequately served by FM. Few tuners can produce more than mediocre sound quality from AM broadcasts, since their typical frequency response is less than 3000 or 4000 Hz. A few have an AM

response extending to 6000 or 7000 Hz, and are capable of excellent quality, sometimes approaching that of FM. Test reports or your own listening judgment are the only standards for judging AM quality, since manufacturers usually say little about this aspect of their tuners.



THE RECEIVER is a single unit, combining the tuner, preamplifier, and power amplifier. It is usually little larger, in front-panel dimensions, than either a tuner or preamplifier with comparable control features. The sharing of a common chassis, power supply, and cabinet results in an appreciable cost saving, compared to separate components with the same performance.

Almost every control feature and performance specification found in separate tuners, preamplifiers, or integrated amplifiers are also available in a receiver. The power output at the lowest audio frequencies may be slightly reduced, due to limited space for the bulky power-supply components. Until recently, receivers have been limited in power output to a maximum of about 60 watts per channel, for the same reason. However, there are now some receivers capable of delivering 80 to 100 watts per channel, which most people will find more than adequate.

Although a receiver occupies much less total volume than the equivalent separate components, its depth is considerable and may affect its applicability to certain types of installation. Offsetting its bulk is the elimination of most of the interconnecting cables required in a component stereo system. These cables are not only unsightly, but are responsible for many service problems from loose or intermittent contacts. All in all, most people will probably find the receiver to be the most convenient format for their electronic system components.

THE RECORD-PLAYING EQUIPMENT

changers, turntables, phono cartridges



THE RECORD PLAYER consists of three basic elements: a rotating platter to support the record, a tonearm to accurately position the phono cartridge as it follows the record groove, and a cartridge whose stylus traces the microscopic groove modulation and converts it to an electrical output.

TURNTABLE

The turntable must rotate at a constant speed, usually either $33\frac{1}{3}$ or 45 rpm. The obsolete speeds of $16\frac{2}{3}$ and 78 rpm are still available on some units. Not only must the average speed be correct, for reasons of accurate pitch and timing, but short-term fluctuations must be minimized. Depending on their rate of occurrence, they can cause the audible effects known as "wow" and "flutter." Both are often lumped in a single flutter measurement.

The turntable "platter" may be of simple pressed steel construction on lower-priced record changers but the better units are machined castings of aluminum or magnesium alloys. A good turntable requires precise (and therefore expensive)

machining of the platter and its central shaft or bearing. The platter is driven by a small motor, through an intermediate rubber idler wheel or flexible belt. Precision is also required in the motor and its mounting to reduce its mechanical vibration and to isolate it from the turntable and arm.

Most turntable motors are induction or synchronous types, or combine the absolute speed accuracy of the latter with the high starting torque of the former. Some single-play turntables are driven by very small, low-speed synchronous motors (similar to those used in electric clocks), whose speed of only 300 to 600 rpm places their vibration frequencies below the audible range.

A few deluxe turntables use electronically driven and controlled motors, whose speed is essentially independent of line voltage and frequency. Some of these motor actually turn at the record speed ($33\frac{1}{3}$ rpm) and are connected directly to the platter. The performance of electronically controlled turntables, which are usually rather expensive, ranks among the best.

Many turntables have a vernier speed adjustment, either

electrical or mechanical, with a range of several percent above and below the nominal speed. This is useful for matching the pitch to a live musical accompaniment, or making a slight adjustment in total playing time. In the most expensive turntables, this feature is accompanied by an illuminated stroboscope ring, visible while the turntable is in operation.

While each type of motor or drive system has its own advantages or disadvantages, it is generally true that the mechanical precision of the turntable's construction is the most important single factor determining its total performance. Of course, when the most advanced design is combined with the finest workmanship, the results are outstanding, and this is reflected in the over-\$300 price of some of the finest units.

The two major turntable performance specifications are *flutter* and *rumble*. The latter is the result of mechanical vibration transmitted from the motor to the turntable and arm. Obviously, a motor whose design and construction minimizes vibration is desirable, but correct mounting of the motor, platter, and arm are also very important. Many of the factors involved in reducing rumble, such as a high ratio of platter mass to motor mass, and a compliant coupling between motor and platter, are also effective in flutter reduction.

The audibility of flutter and rumble depends on many factors outside the record playing system itself. A restricted bass response in the loudspeakers can suppress a rumble level that might be intolerable with extended-range speakers. The filters provided on many amplifiers can also reduce rumble in many cases.

A rumble measurement relates its effect to that of a standard recorded level on a disc record and is expressed in decibels (dB) below that level. Inexpensive record players may have an *unweighted* rumble in the range of -20 to -25 dB, and medium-priced models tend to fall in the -25 to -30 dB range. The better turntables, either single play or multiple play, usually have a rumble level between -32 dB and -40 dB.

Since the lowest rumble frequencies are less audible than higher ones, a *weighting* network is sometimes used in this measurement to correlate the objective and subjective aspects of the rumble specification. Most high-quality turntables have a weighted rumble of -50 dB to -55 dB.

Nothing can be done to reduce flutter once it has been introduced into the system. Individual susceptibility to its effects varies widely, however, and certain types of program material are more revealing of small flutter percentages. Some people find as little as 0.1% flutter objectionable, especially on piano or organ music. Others are not bothered by 0.25% flutter or more, and even higher percentages may not be noticeable on voice recordings. In general, a flutter level under 0.15% should satisfy the critical listener, and even moderate-priced turntables do not exceed this level.

TOEARMS

For optimum record reproduction, the phono cartridge must be supported parallel to the surface of the record, tangent to the grooves, and exerting a constant and equal force on both walls of the "V" shaped record groove. It is the task of the tonearm to satisfy these conditions.

The low tracking force (1 gram or less) required by some cartridges calls for special tonearm characteristics. The pivot friction must not exceed a small fraction of the tracking force. Excessive arm mass can cause mistracking of warped records with a very compliant cartridge; insufficient mass (a rare condition) could aggravate rumble or acoustic feedback problems.

The requirement for tangency to the record groove arises from the use of a lathe screw-feed mechanism to carry the recording cutter head across the original disc recording. Conventional tonearms are pivoted at one end and move in an arc, allowing tangency at only one point on the record. To reduce the distortion caused by tracking error, it is customary to mount the cartridge at an offset angle to the line joining the stylus to the arm pivot. With an optimum offset angle and arm mounting position, tracking error can be reduced to zero at

two points on the record, and will be acceptably low elsewhere. A properly designed 8-inch arm (a typical length) has a tracking error less than 0.5 degree-per-inch of record radius over the surface of a 12-inch record.

A byproduct of an offset cartridge mounting is the so-called "skating force." Friction between the stylus and the record material produces a force component tending to move the pickup toward the center of the record. This, in effect, increases the tracking force against the inner groove wall and decreases it on the outer groove wall. To maintain equal tracking effectiveness for both stereo channels, an *anti-skating* system is incorporated into most tonearms (except those on the lowest-priced record changers). Various techniques, including springs, levers, hanging weights, and magnetic repulsion have been used effectively. Properly applied, all of them can provide optimum performance, within the limitations of the arm and cartridge design.

Over the years, numerous "radial" tonearms have been developed, to carry the cartridge along the same path followed by the cutting head. The most successful designs use a servo-mechanism to move the arm along a track, so that the inevitable frictional forces will not impede cartridge operation at the lowest tracking forces. Radial arms are not only essentially free of tracking error, but also have no skating force problem. One pivoted arm design varies the cartridge offset angle to reduce tracking error to insignificant levels, but is still subject to the skating effect.

Good tonearms use an adjustable counterweight to balance the cartridge mass, making the system less subject to physical shock and leveling inaccuracies. The required tracking force is then added by a spring or a small sliding weight. Usually a calibrated scale indicates the tracking force, with sufficient accuracy; when very low forces are used (such as 1 gram) it may be advisable to check the adjustment with a separate gauge.

Most tonearms have a cueing or arm-lift system, which raises and lowers the pickup without the need to touch the arm. A good cueing system should be damped for slow, smooth operation, and should not allow the arm to drift outward during its descent under the influence of the anti-skating force.

The cartridge itself is generally mounted on a separate, removable slide or insert. Often the cartridge position on the slide is adjustable, to obtain minimum tracking error with cartridges having slightly different stylus positions, relative to their mounting holes.

AUTOMATIC TURNTABLES

Originally, the term *automatic turntable* was applied to high-quality automatic record changers which could also be used in a single-play mode, while retaining the automatic start-up and shut-down feature of a record changer.

Today, this distinction, vis-a-vis the purely single-play record player, is somewhat blurred. A number of single-play units now have automatic motor shut-off systems. Some of these also lift the arm from the record at the end of play, or even return it to its rest, and a few can even initiate a complete playing cycle at the touch of a button or lever.

A few "top end" multiple-play automatic turntables can change the vertical angle of the pickup (relative to the record surface) to compensate for the added height of a stack of records. From a performance standpoint, this feature is of minor importance, although it may provide a worthwhile improvement in physical clearance between certain cartridges and the record during automatic operation.



THE PHONO CARTRIDGE contains two electric generators coupled to a single jewel stylus, which follows the undulations of the "V" shaped record groove. Each of the groove walls, carrying one of the two stereo program channels, moves the stylus independently and produces an electrical voltage at the corresponding output terminals of the cartridge.

There are two basic types of cartridges, classified as amplitude responding and velocity responding. The output of the former is proportional to the magnitude of the stylus motion, while the latter generates a voltage proportional to its velocity (the product of amplitude and frequency). Examples of amplitude responding cartridges include piezo-electric (crystal and ceramic), and strain-gage, and photo-electric designs. Magnetic cartridges, used almost exclusively in today's high-fidelity systems, are velocity responding.

Magnetic cartridges operate by varying the strength of a magnetic field surrounding a coil of wire or by varying the position of a small coil in a fixed magnetic field. Either of these actions will generate a voltage in the coil. Depending on their specific design, these may be known as moving iron, moving magnet, induced magnet, variable reluctance, or moving coil cartridges. Each has certain advantages and disadvantages, but all are capable of equivalent performance.

The output of a magnetic cartridge, being proportional to frequency, requires equalization to produce a flat frequency response. The cartridge output is also very low (a few millivolts), and the necessary amplification and equalization are supplied by the phono preamplifier section of the associated amplifier or receiver.

The mechanical design of the moving elements of the cartridge is usually more important than the method of transduction, although this is not always appreciated by the lay user. The stylus must be able to reverse its direction thousands of times each second, tracking the complex modulation on the groove walls exactly, yet must not damage or permanently alter the shape of the groove modulation pattern.

Diamond, which can be shaped and polished with high accuracy, is universally used for quality playback styli. The tiny jewel (which may be difficult to see with the unaided eye) is mounted with a precise orientation at one end of a light, hollow metal tube, pivoted near the other end. The deflection of the tube by the stylus motion moves a portion of the magnetic circuit (a magnet, armature, or coil) to generate the output voltage.

The dynamic contact force between the stylus and the groove (which determines the amount of tracking force needed) depends on several factors, among them the mass of the moving elements which must be accelerated during the rapid direction changes, and the compliance (the inverse of stiff-

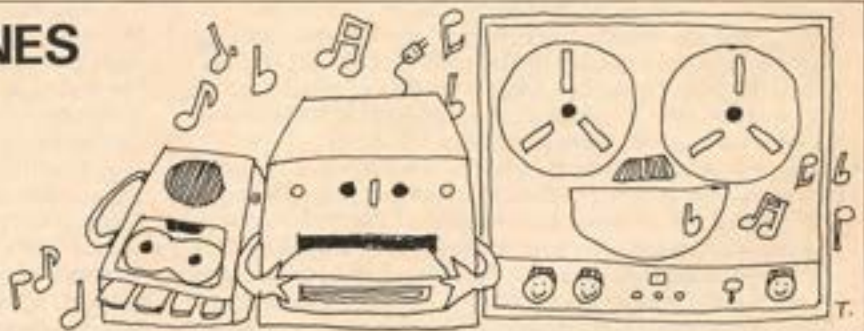
ness) of the stylus cantilever system. The best modern cartridges, designed to track at forces as low as 1 gram, often have an effective stylus mass of less than 1 milligram, and a compliance of 35×10^{-6} cm/dyne or more. Such cartridges are relatively delicate, and should be used only in properly designed tonearms. Cartridges designed for low- and medium-priced record players have sturdier and less compliant stylus systems, meant to operate at forces of 2 to 3 grams. Although there is sometimes surprisingly little difference in sound quality between a "3-gram" cartridge and one rated for "1-gram" operation, the latter can be expected to produce somewhat less record wear over a long period of time. Cartridges requiring a force of 4 grams or more should not be used for serious high-fidelity applications.

Although stylus mass and compliance ratings of cartridges are sometimes published, they are of limited usefulness in judging cartridge quality, since many other unspecified factors are involved. In the absence of other information, the manufacturer's rated range of tracking force is a good indication of overall cartridge performance (a lower force implying a generally superior product), although not necessarily of its listening quality compared to other cartridges.

The tracking ability of a cartridge refers to its ability to faithfully reproduce high recorded velocities (levels) over a wide frequency range at a given tracking force. Exceeding the tracking ability of a cartridge causes an unmistakable harsh, shattering sound. Sometimes, but not always, increasing the tracking force will help. Almost all cartridges operate best when used near the high end of the recommended range of forces. Few manufacturers provide specific information on tracking ability, but test reports such as those in *STEREO REVIEW* can serve as a useful guide.

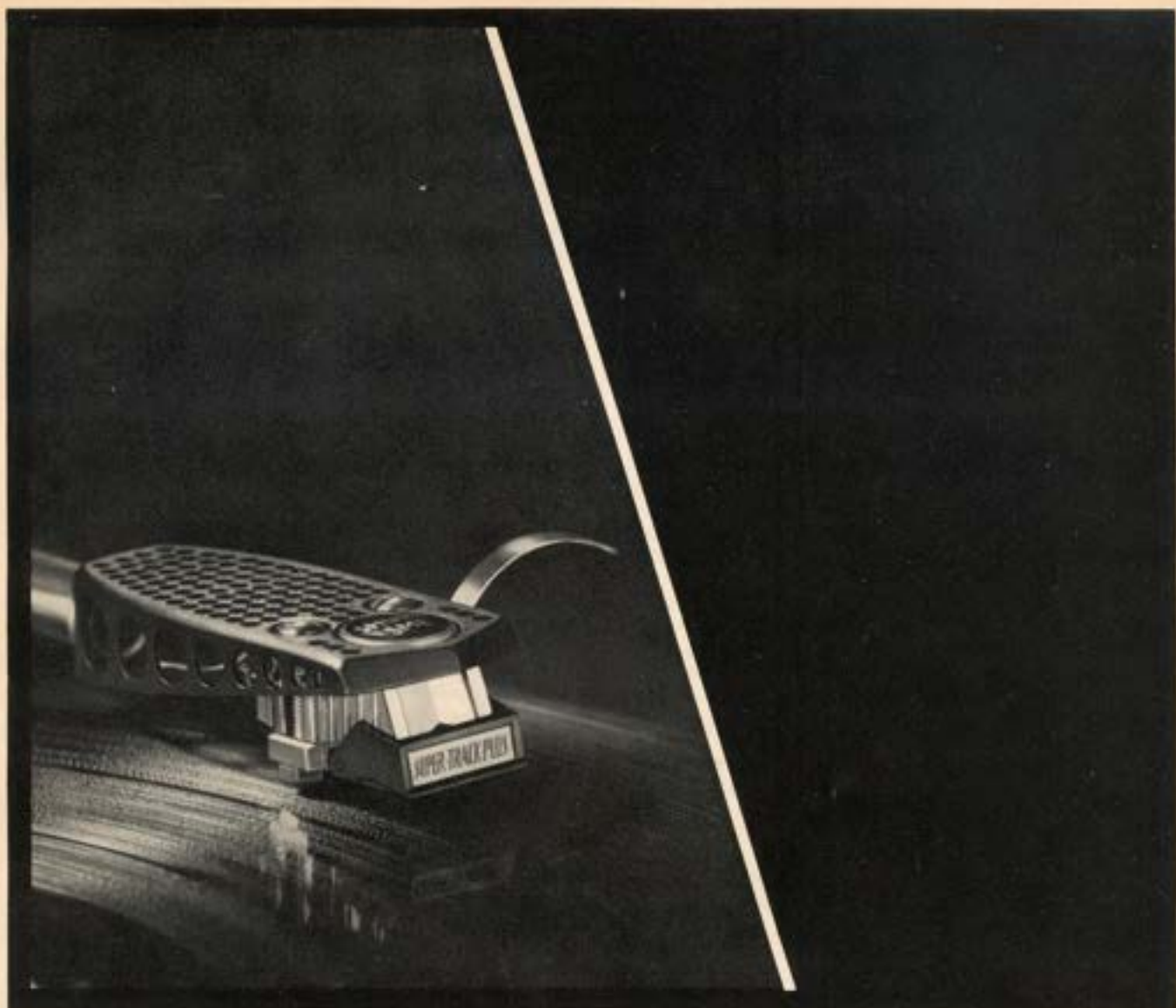
The shape of the tip of the stylus jewel, which is the only part to actually contact the record, is an important factor in cartridge performance. The standard stylus has a spherical tip, with a radius of 0.0007 inch (0.7 mil). More accurate tracking of very short recorded wavelengths (the higher frequencies, especially near the center of the record) is possible with a small tip radius, such as 0.5 mil. However, this causes a higher pressure per unit of area on the vinyl record, which can increase record wear unless a very low tracking force is used. A 0.5-mil stylus is not well suited to playing mono LP records. An excellent compromise, now widely used, is the elliptical stylus. Across the record groove, it has a radius of 0.7 to 0.9 mil, but along the length of the groove the radius is only 0.2 to 0.4 mil. The elliptical gives superior high-frequency performance without excessive record wear, as well as improved quality on mono discs. However, the most common elliptical size (0.2 x 0.7 mil) should not be used at a force exceeding 2 grams, limiting its use to the higher-priced cartridges.

THE TAPE MACHINES open-reel, cassette, 8-track cartridge



MAGNETIC TAPE, while not seriously challenging disc recording as a home entertainment medium, is still considered by many to be a fundamental part of a hi-fi system. The three tape formats in widest use—open reel, cassette, and 8-track cartridge—are very different in their characteristics and are incompatible with each other, although the same basic principles of operation are involved in all of them.

All popular magnetic tape systems use a thin plastic tape, coated on one side with finely distributed magnetic particles. As the tape passes over a recording head, the coating is magnetized along narrow parallel tracks, according to the electrical program signal. When the magnetized tape passes over the playback head, it induces a signal voltage, similar to the original program waveform, which can be amplified.



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Several years ago, we decided that our next challenge would be to go beyond the best there was. Our computers told us we had taken the existing cartridge structure and stylus assembly of the V-15 Type II Improved as far as we could, and that hereafter, any improvement in one performance parameter would be at the expense of performance in some other parameter.

Therefore, over the past several years, a wholly new laminated cartridge structure has been developed, as was an entirely new stylus assembly with a 25% reduction in effective

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OPEN REEL

The open-reel recorder uses reels of 1/4-inch-wide tape, usually 7 inches in diameter. Professional and serious amateur users prefer the 10 1/2-inch professional reel, which holds twice as much tape, but most home machines are not equipped to handle this size. Seven-inch reel holds from 1200 feet to 3600 feet of tape, depending on its thickness, with 1800 feet being one of the most popular lengths. Three tape speeds are in common use: 7 1/2 inches per second (ips), for the highest quality; 3 3/4 ips for less critical applications where tape economy is important; and 1 7/8 ips for voice recordings. Commercially duplicated tapes are available in both 7 1/2 and 3 3/4 ips speeds.

The tape width is divided into four tracks, two of which are recorded at a time for stereo. After playing the tape through, the supply and take-up reels are interchanged and the second pair of tracks is played. Some recorders reverse automatically and can play an entire tape with virtually no interruption. Many recorders can also record on a single track in mono, using four "passes" of the tape to double the program time.

Although open-reel tape is relatively inconvenient to handle and load into the recorder, it is capable of the highest quality and is favored by serious recordists. An important feature of open-reel tape is the ease with which it can be cut and spliced for editing into a final, polished form. Most tape machines used in the home can cover the entire audible frequency range at either 3 3/4 or 7 1/2 ips, with very little apparent difference in sound between them. The higher speed usually offers a better signal-to-noise (S/N) ratio, lower distortion, and less flutter, but uses twice as much tape for the same program time.

Most open-reel recorders have three heads (erase, record, and playback) and separate recording and playback preamplifiers. This allows the program to be monitored off the tape an instant after it has been recorded, insuring against the loss of a recording through operator error or equipment malfunction. A few recorders use a combined recording/playback head and lack this monitoring capability. Lower-priced recorders generally use a single motor to drive the tape capstan and the reel hubs, through a system of belts and clutches. More expensive machines usually have three motors, separately driving the reels and the tape capstan. The three-motor design produces lower flutter and faster high-speed tape winding, and in many cases can be remotely controlled through electro-mechanical solenoids.

Typical open-reel recorders have a flutter level of between 0.05% (for the most expensive "semi-pro" models) and 0.15% for the lower-priced home machines. The S/N ratio may be 45 to 50 dB in the lower price brackets, increasing to 60 to 70 dB in the finest recorders. The Dolby noise-reduction system, built into one or two of the most expensive units, can be added as an external accessory to any recorder and will improve the S/N ratio by about 8 to 10 dB.

Tape recorders vary widely in their special features, such as microphone mixing inputs, bias switches for high performance tapes, automatic reversing operation, and the convenience of creating special effects such as sound-on-sound and echo recordings.

CASSETTE

The cassette system is generally similar to the open-reel configuration, except that the compact cassette (only 4 x 2 1/2 x 3/8 inches) contains the supply and take-up hubs as well as the tape. When it is operating in the recorder, a capstan and pressure wheel drives the tape at 1 7/8 ips. The cassette is rugged, can be inserted or removed with exceptional ease at any time during its operation, and can store more program time for its size than any other medium used in the home. However, tape splicing and editing are impractical.

The cassette tape is only 0.15 inch wide, with four narrow tracks only about 0.02 inch wide. The S/N ratio is inherently worse than open-reel tape and the frequency range of modern cassette recorders has been achieved only by the development of new tape coatings and improved head design. Even

moderate-priced cassette recorders have a useful frequency range from about 40 Hz to 12,000 Hz and many are flat to 15,000 Hz or even higher. The S/N ratio of a cassette recorder is typically between 40 and 50 dB, about the same as the lower-priced open-reel machines operating at 3 3/4 ips. Noise-reducing circuits, such as the well-known Dolby system, are incorporated in most of the better-grade cassette machines, giving them a 60 dB or better S/N ratio. This not only rivals that of many very good open-reel machines (without Dolby), but is better than most LP records and FM-stereo broadcasts.

The limited access to the tape through the cassette openings has required the use of a combined record/playback head until recently, and off-the-tape monitoring has not been possible. A couple of new—and expensive—cassette recorders now have a dual-gap head which provides many of the advantages of three-head open-reel machines. Similarly, although most cassette tape transports use a single motor, there are now some available with two or three motors.

Aside from noise, which can be greatly reduced by the Dolby and other noise reduction systems, flutter is a major factor distinguishing the cassette from open-reel tape. Most good cassette machines have an unweighted flutter between 0.15% and 0.25%, slightly higher than that of a low-priced open-reel recorder operating at 3 3/4 ips. However, in the latest cassette transports, flutter has been reduced to 0.1% or less, comparable to many of the better home open-reel machines.

Although the frequency response, flutter, and noise level of the best cassette machines rivals those of good open-reel recorders, cassette recording levels must be controlled more carefully to avoid tape saturation at the higher frequencies. Improved tape formulations, such as extended-range ferric oxides, or chromium dioxide, can be used to advantage on recorders designed for their special characteristics.

Like open-reel recorders, cassette machines offer a wide choice of special features, including microphone input mixing, automatic recording level circuits, peak limiters, automatic tape reversal, and automatic operation with a clock timer.

8-TRACK CARTRIDGE

The 8-track cartridge is principally a source of music in automobiles, where its ease of loading and fully automatic operation are especially important. Tape cartridge players are also available for connection to home music systems, so that the same cartridges can be used in the car and in the home.

The cartridge is about 4 x 5 x 7/8 inches thick and contains a single pack of 3/4-inch wide tape. The tape is drawn from the center of the pack, passes across the head, and is rewound on the outside of the pack, forming a single endless loop. It is recorded with eight parallel tracks, grouped in pairs for stereo. After each complete circuit of the tape loop, a conducting foil at the splice causes the head to shift mechanically and play another pair of tracks. In this way, a single cartridge contains four sets of stereo programs (which can be entirely separate, or part of a single long program), which are automatically played in sequence. Most players can be set to shut off after playing all the track or to continue operating indefinitely.

Some cartridge transports have a "fast-forward" mode, but this is only about five times as fast as the normal playing speed. Rewinding is not possible. Pushing the cartridge into a slot on the player starts the system into operation and at the end of play it pops out and the player shuts down.

Almost all 8-track cartridges are commercially recorded. A few machines are designed to record as well as play back the cartridges, so that one can build up a personal library of music in cartridge form. The inability to move the tape rapidly in either direction is an inconvenience when recording, and editing is not possible. In most respects, the sound quality of a cartridge is inferior to that of a cassette, even though it operates at twice the tape speed. In an automobile, there is not any advantage to a wide frequency response or low noise level, so no special effort has been made to build these qualities into

the 8-track cartridge. Although the cartridge tape has special lubricating qualities to let it slip smoothly out of the center of the pack, its coating does not have the high performance characteristics of the better cassette tapes. Also, the slightly uneven withdrawal of the tape from the pack gives the cartridge system a somewhat higher flutter level than the cas-

sette, lowering the reproduction quality even further.

Even though the 8-track cartridge is not as "hi-fi" as the cassette, it is nonetheless capable of very impressive sound quality, with a frequency response typically reaching 8000 Hz to 10,000 Hz. Only the hiss remains as a reminder of its automotive origins.

THE 4-CHANNEL EQUIPMENT disc and tape systems amplifiers, receivers, decoders



JUST AS TWO-CHANNEL stereo added a new dimension of width to mono music reproduction, four-channel stereo provides a sense of depth. This can be used either to restore the "ambience" or reverberant sound of the concert hall or to create a "surround sound" effect in which instruments are heard around the periphery of the listening room.

Regardless of the recording technique, a four-channel system requires four more or less separate program channels, from the point of recording to the playback speakers. With magnetic tape, which is recognized as the ideal four-channel recording/playback medium, this is a straightforward process. The four tracks of an open-reel stereo recorder can be adapted to handle the four program channels, although this halves the total playing time of a given length of tape. There are several four-channel open-reel tape recorders on the market, and others which can play four-channel tapes but can record only in two channels. Aside from the relatively high cost of most of the tape decks, the chief drawback to the use of open-reel tape is the limited availability of commercially recorded four-channel tapes.

From a technical standpoint, the cassette is equally adaptable to storing four discrete program channels. However, only one such machine has been announced at this writing.

The largest source of four-channel programs on tape is the 8-track cartridge. By using four tracks at a time, the total playing time of a cartridge is halved, but in all other respects it is capable of the same performance as in the two channel mode. The "Q-8" cartridges, as they are known, are keyed to automatically switch the player to four-channel operation when they are inserted. Four-channel cartridge players are available for home and automobile installation.

Of course, one can record a four-channel disc on a stereo recorder, playing back the result through a four-channel receiver which will decode the channels for four-channel sound output. Naturally, full isolation of channels cannot be attained by this method.

The development of four-channel disc records has proceeded along two paths. A *discrete* disc system, with the full channel separation of the tape systems and the inherently high quality of disc records, has been developed by Victor Company of Japan and is now available in this country. The discrete disc system, called "CD-4" by its developers, does not significantly reduce the playing time of the disc, and the records are fully compatible for playback through two-channel and mono systems. However, the recorded frequency range extends to 45 kHz and a special phono cartridge is needed to play it. A demodulator unit is also required to extract the four channels from the cartridge output; these are available from several manufacturers, and are even built into some of the latest four-channel receivers.

In this country, CD-4 records have been issued by RCA (the "Quadradisc") as well as other record companies. There

is no presently approved method by which they can be broadcast in four-channel form; the only way to hear them properly is to play them on a suitably equipped four-channel home music system.

The bulk of four-channel records available in this country are of the so-called *matrix* type. The four channels are combined, with certain amplitude and phase relationships, to form two channels before they are recorded. The records are effectively two-channel records, which can be played or broadcast in the usual manner, using standard phono cartridges, and heard in stereo or mono form if desired.

At the point of playback, the two channels are processed in a decoding matrix, whose characteristics are complementary to those of the recording matrix. Four program channels can be recovered from the decoding matrix.

Unlike the discrete four-channel systems (tape or CD-4), matrix techniques do not provide complete isolation between channels. There are two major matrix systems in use—the CBS-developed SQ system, and the Sansui-developed QS system (also known as RM or Regular Matrix). Different compromises have been made by the designers of these systems to achieve their goals. Each is capable of good subjective results, making use of psycho-acoustic effects to provide an illusion of separation that they do not really have, but are not compatible with each other.

To enhance the apparent separation of the SQ system, "logic" circuits are employed in many decoders. By sensing the dominant channel and reducing the gains of the other channels on a dynamic basis, they can often give an effective illusion of "discrete" four-channel sound. However, should equal-amplitude signals be present in all channels, the logic technique is ineffective.

Sansui has also announced a new "Vario-Matrix" decoding system, claimed to achieve results equal to or superior to the logic-aided SQ system, without its audible side-effects. CBS, on the other hand, has introduced an advanced full-logic SQ system that is said to achieve especially accurate directional response.

Many four-channel amplifiers and receivers have built-in matrix decoders for both the SQ and RM systems. A few also contain CD-4 demodulators, making them compatible with all existing forms of four-channel disc recordings.

Once the four channels are available, a four-channel amplifier is essentially a pair of stereo amplifiers with most of the controls coupled. Aside from the added switching, the chief difference is the addition of a front-back balance control, in addition to the usual left-right balance controls. Four-channel receivers have the same features as two-channel receivers, with the addition of the two extra audio amplifiers and the decoding or demodulation circuits. Many four-channel receivers are designed so that their outputs can be "strapped" for stereo operation, using all four channels. These amplifiers can

usually deliver considerably more total power in the strapped mode than with the channels separated, and offer an attractive method of preparing for future conversion to four channels.

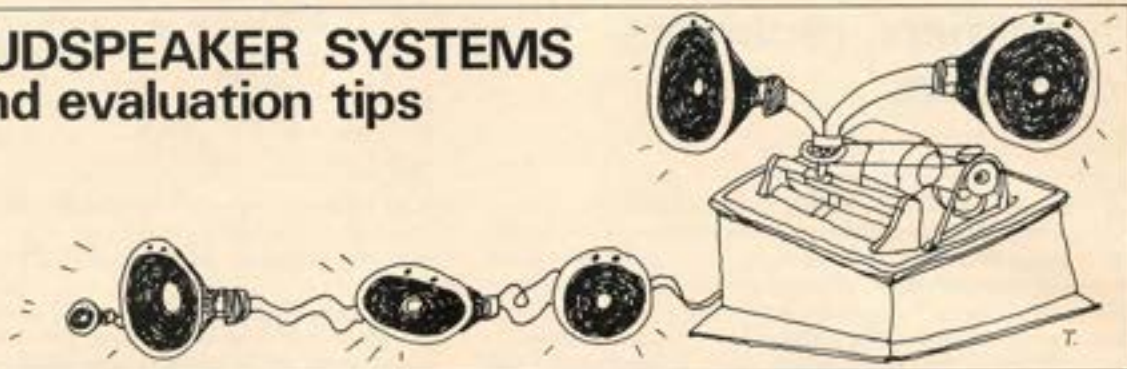
A four-channel system requires two additional speakers in the rear of the room. Ideally, they should be identical to the front speakers, or at least have similar sound characteristics. Good results are often possible, however, with different types of speakers in the front and rear of the room.

One advantage of the matrix decoders found in all four-channel receivers is that they can synthesize a four-channel effect from almost any two-channel program material. The sound is often comparable to that of special four-channel rec-

ords, although the specific directionality is unpredictable.

Owners of two-channel systems can convert to four-channels without obsoleting any of their present equipment. Adapters are available which contain the rear-channel amplifiers and a decoder, and serve as a master control for the system. Alternatively, if another stereo amplifier is available, a relatively inexpensive matrix decoder can be added to the present stereo amplifier or receiver and used as a control center. Finally, the inexpensive passive adapters, sold under such names as "Dynaquad," can be used with any two-channel system to synthesize an ambient effect, simply by the addition of two more speakers.

THE LOUDSPEAKER SYSTEMS types and evaluation tips



ALTHOUGH EACH COMPONENT of a high-fidelity system plays an important role, the ultimate listening quality is determined almost entirely by the loudspeakers. After all, no system can sound any better than its speakers will allow.

The electro-acoustic characteristics of a speaker can be described and defined through a number of measurements. However, it is difficult to correlate these measurements with the subjective sound character of the speaker. Unlike amplifiers and tuners, which usually sound identical if their measurements are similar, it is rare for two different speakers to have the same sound quality, no matter how closely their measured characteristics may agree.

Nevertheless, there is general agreement on the more important and desirable qualities of a high-fidelity speaker system. These include: uniform energy output and angular dispersion across a wide range of frequencies, low harmonic and IM distortion, and good transient response. Other speaker characteristics, not directly related to its sound, include: size, weight, efficiency (the electrical input required for a given sound level), maximum undistorted output, styling, and cost.

A speaker system consists of one or more drivers in an enclosure. Most drivers use a paper cone, moved by a voice coil operating in a powerful magnetic field. Reproduction of low audio frequencies requires a large cone area, able to move over a considerable distance. On the other hand, a high-frequency driver must have a very small cone (for good directional properties) and moves over a very small distance. Because of these disparate requirements, it is customary to divide the frequency range into two or more segments by means of a crossover network, which channels each band of frequencies to the appropriate driver or drivers.

Three-way systems, with separate low-frequency, middle-frequency, and high-frequency drivers, are usually (but not always) superior to two-way systems using similar drivers. There are numerous exceptions to this rule (and, indeed, to most "rules" of speaker design); for example, one highly successful speaker system uses no crossover networks, and operates a number of small drivers over the full frequency range. At the other extreme, there are some four-way and five-way systems, but these have no intrinsic superiority over a good three-way design.

The size of a speaker system is no indication of its quality (except that very small "bookshelf" speakers usually have a

limited bass response). All else being equal, a larger system can be more efficient, or play louder, than a smaller one—but it does not necessarily sound better, or even as good!

There are several schools of thought among speaker designers and users with regard to their optimum dispersion characteristics. Most speakers radiate forward into the listening area, with some tendency to "beam" the higher frequencies into a smaller solid angle, although some have better coverage than others. A more "open" quality can be achieved by reflecting some or all of the speaker's output from a wall or other surface before it reaches the listener, and a number of speakers are designed to operate in this fashion. Finally, there are some omnidirectional speakers, which radiate more or less uniformly in all directions. Each type has its special sound qualities, favored by some people and criticized by others. Before making a choice, it is advisable to listen critically to representative samples of each type, assuming that they are acceptable from styling or price considerations.

The sound of a speaker is more important than its operating principles or novel features. To provide a frame of reference as to how a speaker should sound, it is well to expose yourself to "live" music as frequently as possible, and to try to recall that sound when you listen to speakers. The differences will always far exceed the similarities, but a good speaker should add a minimum of coloration to the sound.

If you find a speaker whose sound pleases you, but which is too expensive or otherwise unsuitable, a lower-priced model from the same manufacturer will often have a similar sound quality, and can be compared to the more expensive speaker at the dealer's showroom. If at all possible, get your dealer to agree to a credit or exchange after a home trial period, since a speaker's sound is strongly influenced by the listening environment.

Some speakers, including a few very popular models, are deliberately designed to impress the listener with their over-emphasized bass or sizzling highs. These unnatural qualities eventually prove irritating, and generally cannot be corrected by anything less than a speaker replacement. A good speaker sounds smooth and unobtrusive, and can be heard for hours on end without fatigue or the urge to turn it off. Just as the listener is unaware of the presence of the amplifier or tuner, he should be able to forget that he is listening to a speaker. Speakers that satisfy this requirement, as well as many that do not, are available in all price ranges. □

Introducing Design 220

Emphasis:

⊕ Amplifier

Power, RMS: 25 watts per channel,
both channels driven into 8 ohms.

Frequency Response: +0, -1dB
from 2 Hz-200,000 Hz.

IM Distortion: 0.005% at rated output.

⊕ Phono Preamplifier

RIAA Equalization: Within ± 0.5 dB.


IM Distortion: Less than 0.01%
with 50 millivolts input.

⊕ FM Tuner

IHF Sensitivity: 1.9 microvolts or better.


IM Distortion: .05%

⊕ Price: \$275

 Spectrosonic Designs



CIRCLE NO. 48 ON READER SERVICE CARD

 Spectrosonic Designs 1301 Sixty-Fifth Street, Emeryville, Calif. 94608

Integral Systems

200 watts rms \$200



DESCRIPTION: The Integral Systems 200 watt basic amplifier is designed to provide ample power to play music at realistic levels through well designed contemporary loudspeakers. Conservative design and construction has been adopted to provide exceptional resistance to clipping on musical passages as well as the capability of continuous demanding usage. The amplifier design is direct coupled, fully complementary and utilizes newly developed dual darlington output devices. Over 750 square inches of heat sink provides the highest ratio of radiating surface to power output of any basic amplifier designed for home use. Each Integral Systems basic amplifier is run for 15 minutes at full rated power (200 RMS watts/8 ohms) without any additional cooling devices as a final check on the units performance. The Integral Systems 200 watt basic power amplifier is available with anodized chassis and 19 inch rackmount gold anodized front panel (model 200) and with aluminum chassis without front panel (model 200U).

Guaranteed Specifications

| | |
|--|--|
| Power output capability (120v/60Hz) | |
| 8 ohms | 100/100 watts rms 20 to 20,000Hz, full power may be sustained for over 15 minutes. |
| 4 ohms | 100/100 watts rms 20 to 20,000Hz, full power may be sustained for up to 1 minute without activating current limiting protection, 60/60 watts rms 20 to 20,000Hz over 15 minutes. |
| 4 ohms | one channel driven—150 watts rms 20 to 20,000Hz full power may be sustained for 15 minutes. |
| Distortion between 10mV and rated power, | |
| | Harmonic Distortion—0.2% 20-20,000Hz (typically 0.1%) Intermodulation Distortion—0.2% 60/7000 Hz, 4:1 |
| Damping Factor— | greater than 100 |
| Power Bandwidth | |
| | Full power—20 to 25000Hz Half power—5 to 60000Hz |
| Frequency Response at 1 watt output | |
| | 10--200,000Hz +1db |
| Dimensions | |
| | Model 200—19x12.87x5.25" Model 200U—16.62x12.75x5" |
| Price | |
| | Model 200 \$240 Model 200U \$200 |



model 10 preamplifier

| | |
|---|--|
| Output voltage, max, before clip: | 3.5V RMS |
| Distortion, 1M: | Less than 0.5% @ 1V RMS |
| High level inputs: | 0.2V/V output (nominal) |
| Phono inputs (1 kHz) & overload levels: | 4mV/140 mV RMS 1 mV/ 35 mV RMS |
| Tape output levels: | Same as inputs; phono gain 50 @ 1 mV |
| Input impedance: | 250,000 ohms, nominal |
| Bandwidth: | 20 Hz to 100 kHz @ +0.25 db |
| Tone controls: | |
| | Bass boost/cut: 11 db nominal, 100Hz Treble boost/cut: 18 db nominal, 10 Hz Hinge frequency: 850 Hz, nominal |
| Filters: | |
| | Low: -6 db @ 20 Hz, -34 @ 5 Hz, nominal High: 0 db, 9 kHz, -14db 10 kHz, nominal |
| Price: | Model 10 \$240 |

1

AMPLIFIERS & TUNERS

AUDIO RESEARCH

Dual 75A Stereo Power Amplifier

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



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

Dual 51 Stereo Power Amplifier

50 W/ch continuous power with both channels driven. Power bandwidth 20-20,000 Hz. HD 0.1% mid-band at rated output. Sensitivity: 1.25 V. 4, 8, 16 ohm outputs. Vacuum-tube design. 19" rack panel \times 7" \times 12" D \$695.00

SP-3 Stereo Preamp

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



1000 Hz. (S + N)/N (aux.) 90 dB. 15 1/2" \times 5" \times 12 1/2" D \$595.00

BGW

1000 Stereo Power Amplifier

250 W/ch continuous power into 8 ohms with both channels driven (500 W/ch into 4 ohms). Response 2-80,000 Hz +0, -3 dB; 20-20,000 Hz +0, -0.2 dB; hum & noise 100 dB below rated output into 8 ohms; input sensitivity 2 V for 40 V output (200 W, 8 ohms); damping factor 1000 at low frequencies; HD 0.1% at 250 W/ch. Features crowbar circuitry for surge protection; IC op amp front end; plug-in module construction. 19" standard rack panel with cast aluminum handles \times 7" \times 17" D. \$1200.00
1000R. Same as Model 1000 but 750 W/ch into 2 ohms for frequencies below 5000 Hz. \$1350.00

500 Stereo Power Amplifier

200 W/ch continuous rms power into 8 ohms with both channels driven (200 W/ch into 4 ohms). Response 2-125,000 Hz +0, -3 dB; 20-20,000 Hz +0, -0.2 dB; hum & noise 100 dB below rated output at 8 ohms; input sensitivity 1.25 V for 40 V out (200 W, 8 ohms); damping factor 1000 at low frequencies; HD 0.2% at 200

W/ch or less. Has crowbar circuit; IC op amp front end; plug-in modules. 19" standard rack panel \times 5 1/2" H \times 11" D \$599.00

500R Stereo Power Amplifier

200 W/ch continuous power into 8 ohms with both channels driven (300 W/ch into 4 ohms). Response 2-65,000 Hz +0, -3 dB; 20-20,000 Hz +0, -0.25 dB; hum & noise 100 dB below rated output into 8 ohms; input sensitivity 2 V for 40 V out (200 W, 8 ohms); damping factor 1000 at low frequencies into 8 ohms. Features



crowbar protection circuit; IC op amp front end; current limiting circuit; plug-in module construction. Welded steel chassis frame for rugged operational applications. 19" standard rack panel \times 5 1/2" H \times 11" D \$685.00
500R-7 Same except 19" \times 7" \times 11" D. \$695.00

250 Stereo Power Amplifier

Smaller version of the Model 500R. 100 W/ch into 8 ohms (150 W/ch into 4 ohms); HD 0.2% at rated power; response 5-65,000 Hz +0, -3 dB; 20-20,000 Hz +0, -0.25 dB; hum & noise 100 dB below rated output; input sensitivity 1.5 V in for 30 V out at \pm 1%; damping factor 500 at 500 Hz or less. 19" rack panel \times 5 1/2" H. \$430.00

BOSE

1801 Dual-Channel Power Amplifier

Will deliver 250 W/ch rms into an 8 ohm load; 400 W/ch rms into 4 ohm load; 800 W total into 4 ohms and 500 W total into 8 ohms. Response 30-10,000 Hz flat within \pm 0.25 dB; 10,000-15,000 Hz flat within \pm 0.7 dB; 20-30 Hz and 15,000-20,000 Hz within \pm 1.0 dB. Has indicators which incorporates the a.c. on/off switch and controls desired combination of VU meters and LED monitors in the display option; separate controls for each channel to provide a gain range of 0 to 30; input selector permits choice of two inputs and can also be used to switch between equalized and unequalized sources; main/remote speaker switching. Input sensitivity 1.5 V for 250 W output into 8 ohms. 7 1/2" \times 17" \times 17" D. \$1200.00



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

BOZAK

919 Stereo Preamplifier

Function selectors permit mixing of any combination of signals. Mode selectors allow all possible combinations of left, right, stereo, or mono channels including blend crossfeed. Inputs: three simultaneously; phono #1, microphone (continuously pannable from left to right), and programmable: phono #2, tape #1, tape #2, tuner, auxiliary \$695.00

929 Power Amplifier

Companion amplifier to 919 preamp. Response 5-100,000 Hz; THD 0.2%; IM 0.3%; damping factor 100. Power bandwidth 20-20,000 Hz \pm 0.2 dB. Noise 100 dB below rated output. Without meters \$695.00

CROWN INTERNATIONAL

D-150 Power Amplifier

120 W/ch dynamic output at 8 ohms. Response 4-100,000 Hz \pm 0.75 dB at 1 W. IM 0.05% at rated output. Sensitivity 1.2 V at 75 W, 8 ohms. 5 1/2" H \times 17" W \times 9" D \$399.00
Walnut cabinet \$33.00
Model FP. Front panel (required for cabinet or panel mount) \$30.00

DC300A Laboratory Power Amp

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



rated output. Sensitivity 1.75 V at rated output. Input adjustment on front panel. 7" H \times 19" W \times 9 1/2" D \$695.00
Walnut cabinet \$37.00

D-60 Power Amplifier

52 W/ch dynamic output at 8 ohms. Response 3.2-100,000 Hz \pm 1.2 dB at 1 W. IM 0.05% at rated output. Sensitivity 0.75 V at rated output.

For 4-Channel
Components . . .
See SECTION 9

Speakers that sound as good as they look!



Slim 2" profile **Sound Panels** by Magitran combine great looks with clean hi fi sound, and fit where other systems cannot. A selection of 13 different colorful Snap-On/Snap-Off grilles assures you that each **Sound Panel** will complement any decor. And the price is only **\$79.95** complete.

The perfect answer to speaker placement in out-of-the-way locations—or multiple speaker arrangements such as 4-channel

Sound Panels can be placed on ledges and shelves or stood on the floor. They may also be hung on walls or used as artistic room dividers. Each **Sound Panel** comes complete with floor and wall mounting hardware and choice of decorator grille.



Magitran **Sound Panels** have a frequency response of 40 to 20,000 Hz and a power handling capacity of 28 watts RMS (4-8 ohms). Size is 2" x 29 1/2" x 23 1/2" and weight is only 13 pounds. For more information and the name of the nearest dealer, write: The Magitran Company, 311 East Park Street, Moonachie, New Jersey 07074

The Magitran Company

1 Amplifiers

with front-panel adjustments. Stereo headphone output. 1 1/2" H x 17" W x 8 1/2" D. \$249.00
Walnut cabinet \$29.00

IC-150 Preamplifier

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



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

DYNACO

SCA-80Q Stereo Amplifier

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



ing 4-ch information from 2 channels. Preamp has most features of the company's PAT-4. 40 W/ch continuous sine wave into 8 ohms from 20-20,000 Hz at 0.5% HD with both channels driven. IHF bandwidth 8-50,000 Hz. Sensitivity, phono 3 mV; aux. 0.13 V. 13 1/2" x 10" x 4 1/2" Kit \$169.95
Assembled \$249.95

Stereo 400 Power Amplifier

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



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

PAS-3X Preamplifier

Vacuum-tube preamp with loudness compensation, independent tone controls, a stereo blend control, and tape monitoring facilities. 4 1/2" H x 13 1/2" W x 9" D Kit \$79.95

PAT-4 Preamplifier

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



dent tone controls, front panel input & output. 600 ohm output. 4 1/2" H x 13 1/2" W x 9" D. Kit \$94.95 Assembled \$159.95

Mark III Power Amplifier

Vacuum-tube mono power amplifier. 60 W output at 4, 8, or 16 ohms. Response 6-60,000 Hz ± 0.5 dB, IM 1% at rated output. Sensitivity: 1.6 V for rated output. 6 1/2" H x 9" W x 9" D. Kit \$99.95 Assembled \$129.95 With additional 70.7 V-output \$139.95 With 125- or 500-ohm output only \$149.95

Stereo 120 Power Amplifier

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



100,000 Hz at 0.5% THD. IM 0.5% at rated output. Hum & noise -95 dB at rated output. Sensitivity: 1.5 V for rated output. 4 1/2" H x 13 1/2" W x 10 1/2" D. Kit \$159.95 Assembled \$199.95

Stereo 70 Power Amplifier

Vacuum-tube stereo amplifier. 35 W/ch power output at 4, 8, or 16 ohms. Response 15-40,000 Hz ± 0.5 dB. IM & THD 1% at rated output. Sensitivity: 1.3 V for rated output. 6 1/2" H x 13" W x 19 1/2" D. Kit \$99.95

Stereo 80 Power Amplifier

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



0.1% at rated output. Sensitivity: 1.3 V for rated output. 4 1/2" H x 13 1/2" W x 9" D. Kit \$119.95 Assembled \$159.95

SCA-35 Integrated Amplifier

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



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

1974 EDITION

Kit \$99.95 All power and integrated amplifiers were measured with a continuous sine wave and on stereo designs both channels were driven.

ESS

500 Power Amplifier

250 W/ch continuous power into 8 ohms & at 0.1% THD. THD at 1 W is 0.01%. Response 5-



100,000 Hz ± 0.5 dB at 1 W. Damping factor 1000/1 at 20 Hz. 16 1/2" x 6" x 15" D. With meters \$695.00 Same model without meters \$625.00

Stereo Preamplifier

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



-80 dB phono. Input sensitivity: mag. phono 2.5 mV; aux. 250 mV. 16 1/2" x 6" x 9" D. \$395.00

HARMAN-KARDON

Citation 11 Stereo Preamp

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



loudness compensation, equalizer tone controls, multiple speaker switching, and headphone output \$350.00 Walnut cabinet \$35.00

Citation 12 Stereo Power Amp

60 W/ch rms at 8 ohms. Power bandwidth 5-35,000 Hz; response 5-75,000 Hz ± 0.5 dB. HD



& IM less than 0.8% at rated output; hum and noise -100 dB at rated output \$295.00 Kit version \$225.00 Citation 12 Deluxe. Same as Citation 12 but housed in deluxe enclosure \$340.00

HEATH

AA-29 Integrated Amplifier

Solid-state, 50 W/ch (dynamic) at 8 ohms inte-

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

Kit \$159.95 Walnut cabinet \$19.95

AA-14 Integrated Amplifier

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



tone controls and headphone output. 3 1/2" H x 12" W x 9 1/2" D.

Kit \$59.95 Walnut cabinet \$9.95

AA-15 Integrated Amplifier

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



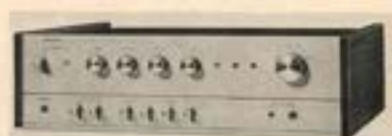
Hz; response 8-40,000 Hz ± 1 dB at 1 W. HD and IM 0.5% at 50 W; hum & noise -60 dB at phono input. Sensitivity: mag. phono 2.2 mV, aux. 200 mV, tape 200 mV. Has loudness compensation switch, ganged tone controls, stereo null balancing, multiple speaker switch, headphone output and tape monitoring facilities.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

Kit \$189.95 Walnut cabinet \$19.95

HITACHI

IA-600 Integrated Amplifier

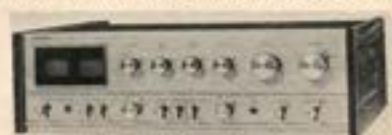
32 W/ch (IHF) into 8 ohms. Response 10-100,000 Hz ± 1 dB. HD 0.1% at rated output; hum &



noise -68 dB at phono input. Sensitivity: mag. phono 2.5 or 6.0 mV; aux. 200 mV, mike 2.5 or 6.0 mV. Features hi-cut filter, loudness compensation switch, ganged stepped tone controls, multiple speaker switching, and headphone output. Damping factor 50. Has tape monitoring facilities. 4 1/2" H x 16 1/2" W x 12 1/2" D \$219.95

IA-1000 Integrated Amplifier

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



noise -65 dB at phono input. Sensitivity: mag. phono 2.0-5.0 mV, aux. 140 mV, mike 5 mV. Has hi-cut and low-cut filters, loudness compensation switch, ganged tone controls, multiple

1

Amplifiers

speaker switching, headphone output, tape monitoring facilities, and VU meters. Damping factor 50. 5 1/2" H x 17 1/2" W x 13" D ... \$329.95

IA-1200 Integrated Amplifier

60 W/ch (IHF) into 8 ohms. Response 20-50,000 Hz ± 1 dB. HD 0.1% at rated output; hum &



noise -90 dB at phono input. Sensitivity: mag. phono 1.5-5.0 mV adjustable, aux. & tuner 150 mV, tape head & mike 1.5 mV. Has hi-cut and low-cut filters, independent tone controls, multiple speaker switching, center-channel output, headphone output, and tape-monitoring facilities. May be used as a 4-channel power amplifier. Damping factor 40. 5 1/2" H x 16 1/2" W x 12 1/2" D \$600.00

INTEGRAL SYSTEMS

200 Stereo Power Amplifier

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



power bandwidth 20-25,000 Hz full power, 5-60,000 Hz half power. HD 0.2% 20-20,000 Hz; IM dist. 0.2% any combination of frequencies between 20-20,000 Hz. Anodized chassis and 19-in rack-mount gold anodized front panel. 19" x 12 1/2" x 5 1/2" \$240.00
Model 200U. Same except with aluminum chassis without front panel. 16 1/2" x 12 1/2" x 5" \$200.00

100 Stereo Preamp

Designed to process a wide variety of audio signals. Control facilities include pushbutton in-



put selection, adjustable phono sensitivity, dual tape monitors, speaker switching, steep-sloped high & low filters, and loudness contour as well as tone, balance, and volume adjustments. On-off status is indicated by a low-voltage LED. Bandwidth 20-100,000 Hz ± 0.25 dB; input impedance 250,000 ohms nominal. IM dist. 0.05% at 1 V rms; max. output voltage before clipping 3.5 V rms. Inputs: high level 0.2 V/V output; phono (1 kHz) 4 mV/140 mV rms, 1 mV/35 mV rms; Comes with anodized chassis and 19-inch front panel \$240.00

JVC

VB-10 Power Amplifier

80 W/ch dynamic power into 8 ohms; 60 W con-



tinuous power into 8 ohms at 0.5% THD from 10-70,000 Hz. Output impedance 4 to 32 ohms. Power bandwidth 10-100,000 Hz. (S+N)/N -115 dB. Input sensitivity: 1 V. Has universal power supply and two VU output-level meters. 6" x 19" x 13 1/2" D \$599.95

VP-10 Preamplifier

Stereo design with 3 V output. Response (aux.) 10-100,000 Hz ± 0.25 dB. Input sensitivity: aux., tuner 170 mV; ceramic phono 120 mV; mag. phono 3 mV & 1 mV; tape head 1.2 mV; mike 2 mV. Features 7-section tone control with



centers at 60, 150, 400, 1000, 2400, 6000, and 15,000 Hz. Has universal power supply. 6" x 19" x 13 1/2" D \$599.95

VB-100 Power Amplifier

Stereo design with 70 W/ch dynamic power at 8 ohms (50 W/ch at 4 ohms); 50 W/ch continuous power into 4 or 8 ohms with one channel driven & at 0.07% THD. Power bandwidth 20-30,000 Hz; response 18-45,000 Hz ± 0.5 dB. (S+N)/N -110 dB. Input 0.8 V. Features dual VU meters for output balance; main/remote speaker selection. 5 1/2" x 8 1/2" x 12 1/2" D \$259.95

VP-100 Stereo Preamp

Response 18-50,000 Hz ± 0.5 dB. THD 0.03% at 1 V. (S+N)/N -100 dB (aux.). Input sensitivity;



mag. phono 1.2 mV; mike 1.2 mV; tape play, aux. 120 mV. Has 7-section tone control with centers at 60, 150, 400, 1000, 2400, 6000, and 15,000 Hz. 5 1/2" x 17" x 11 1/2" D \$259.95

VN-700 Integrated Amplifier

55 W/ch dynamic power at 8 ohms (70 W/ch at 4 ohms); 35 W/ch continuous power at 8 ohms (40 W/ch into 4 ohms) with both channels driven & at 0.05% THD. Power bandwidth 25-20,000 Hz at 8 ohms. Input sensitivity: mag. phono 2.5 mV; aux. & tape 200 mV. (S+N)/N -82 dB (aux.). Features dual facilities for tape monitoring & tape dubbing. Has 5-section tone control centering on 40, 250, 1000, 5000, and 15,000 Hz. 5 1/2" x 16 1/2" x 12 1/2" D \$299.95

VN-900 Integrated Amplifier

85 W/ch dynamic power at 8 ohms (110 W/ch at 4 ohms); 50 W/ch continuous power at 8 ohms (60 W/ch at 4 ohms) with both channels driven



& at 0.05% THD. Power bandwidth 20-20,000 Hz. Input sensitivity: mag. phono 2.5 mV; aux. & tape 200 mV. (S+N)/N -86 dB (aux.). Has 7-section tone control centering on 40, 150, 400, 1000, 2400, 6000, and 15,000 Hz. 5 1/2" x 16 1/2" x 12 1/2" D \$359.95

KENWOOD

KA-8004 Integrated Stereo Amp

60 W/ch continuous rms power into 8 ohms from 20-20,000 Hz with both channels driven



(190 W dynamic (IHF) power output with both channels driven). THD (8 ohms, 20-20,000 Hz) 0.4% at rated output; IM (60 Hz, 7 kHz = 4:1) 0.4% at rated output. Response 20-50,000 Hz ± 0.5 dB; power bandwidth (IHF) 10-50,000 Hz. Sensitivity: phono #1 & #2, mike 2.5 mV; tuner, aux. #1 & #2, tape play A, B 150 mV. Output: tape rec. A, B, 150 mV, 40 mV (DIN); preamp out 1.0 V. Includes bass & treble tone controls, loudness control, low-cut & high-cut filters, selector & mode switches, tape monitor switch, speaker selection. Has 3 switched and 1 unswitched a.c. outlets. 17 1/2" W x 6 1/2" H x 11 1/2" D \$389.95

KA-6004 Integrated Amplifier

110 W/ch dynamic power at 4 ohms; 40 W/ch continuous power with both channels driven at



8 ohms from 20-20,000 Hz. Power bandwidth 10-50,000 Hz; response 20-40,000 Hz ± 0.5 dB. HD 0.5% at rated output. Hum & noise 68 dB at phono input. Sensitivity: mag. phono (2) 2.5 mV; aux. (2)/tuner/tape play (A/B) 200 mV; mike 3 mV; Has main/remote speaker switch. Universal power supply. 17 1/2" W x 6 1/2" H x 11 1/2" D \$299.95

KA-4004 Integrated Amplifier

47 1/2 W/ch dynamic power at 4 ohms; 18 W/ch continuous power with both channels driven at



8 ohms from 50-20,000 Hz. Power bandwidth 10-50,000 Hz; response 20-40,000 Hz ± 0.75 dB. HD & IM 0.5% at rated output. Hum & noise 65 dB at phono input. Sensitivity: mag. phono (2) 2.5 mV; aux. (2)/tuner/tape play (2) 160 mV. Two-system tape facilities with mutual dubbing. Has main/remote speaker switch and universal power supply. 17 1/2" W x 6 1/2" H x 11 1/2" D \$189.95

KA-2002A Integrated Stereo Amp

13 W/ch continuous rms power into 8 ohms with both channels driven at 1000 Hz (38 W into 8 ohms dynamic power). THD & IM 0.8% at rated output into 8 ohms. Response 20-30,000 Hz ± 2 dB; power bandwidth 20-30,000 Hz. Speaker imp. 4-16 ohms. Input sensitivity: phono #1, #2

2 mV, 50,000 ohms; tuner, aux., tape play 150 mV, 50,000 ohms. Recording output: tape rec. 150 mV, DIN connector 30 mV. Has tone controls for bass & treble and loudness; push-button switches for loudness, mode, tape monitor, "on-off." Front-panel headphone jack. 13 1/2" W x 4 1/2" H x 9 1/2" D \$119.95

KM-8002 Power Amplifier

110 W/ch dynamic at 4 ohms. Response 20-50,000 Hz, ± 1 dB. HD & IM 0.3% at rated out-



put. Sensitivity: 100 mV or 1 V for rated output. Has low-cut filter, multiple speaker switching, headphone output, level input controls, and a phase reversal switch. Damping factor 45. 5 1/2" H x 16 1/2" W x 11 1/2" D. \$209.95

LAFAYETTE

LA-375 Integrated Stereo Amp

Features built-in 4-channel circuit for synthesizing all regular two-channel program sources.



20 W/ch at 4 ohms. Power bandwidth 35-30,000 Hz; response 20-20,000 Hz ± 1.5 dB. HD 0.07% at 1 W output. Sensitivity: mag. phono 3.5 mV (max. 40 mV); ceramic phono 120 mV; tuner 500 mV; aux. 250 mV. Features multiple speaker switching. 10 1/2" W x 3 1/2" H x 8 3/4" D \$89.95

LA-950 Integrated Stereo Amp

Features built-in 4-channel circuit for synthesizing all regular two-channel program sources.



40 W/ch at 4 ohms. Power bandwidth 15-30,000 Hz; response 20-20,000 Hz ± 1 dB. HD 0.07% at 1 W output. S/N -75 dB (high-level input), -63 dB (low-level input). Sensitivity: mag. phono 3.5 mV; ceramic phono 120 mV; tuner 500 mV; aux. 250 mV; tape play 500 mV. Features multiple speaker switching and tape monitoring facilities. 12" W x 3 1/2" H x 9 1/2" D \$129.95

LA-150 Integrated Stereo Amp

Features built-in 4-channel circuit for synthesizing all regular two-channel program sources. 80 W/ch at 4 ohms. Power bandwidth 13-35,000 Hz; response 22-20,000 Hz ± 1.5 dB. THD 1% at rated output; 0.05% at 1 W (1 kHz).



1974 EDITION

Channel separation 65 dB at 1 kHz. Input sensitivity: aux. 250 mV; tuner high 750 mV, tuner low 115 mV; mag. phono high 2.2 mV, low 7 mV; ceramic phono high 75 mV, low 240 mV. Hum & noise: aux./tuner -56 dB. Tape monitor circuit permits addition of LA-524 or LA-975 for playing discrete 4-ch and 4-ch SQ program sources. Has two front-panel mike/musical instrument input jacks; high-gain+low-gain tuner and phono inputs. 13" x 3 1/2" x 9 1/2" \$169.95

LEAK

Stereo 70 Integrated Amplifier

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



rated output; IM 0.3% at rated output. Hum & noise -66 dB (at aux. input). Sensitivity: mag. phono 2.0 or 10.0 mV; aux. 400 mV; tuner 25 or 60 mV. Has high-cut filter, ganged tone controls, multiple speaker switching, headphone output, and tape monitoring facilities. 4 1/2" H x 13" W x 8 1/2" D. \$299.00

MARANTZ

250 Power Amplifier

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



0.1% at rated output; IM 0.03% at rated output. Hum & noise -106 dB. Sensitivity: 1.5 V for rated output. Has 8 ohm output & output metering. Damping factor 100. 6 1/2" H x 15 1/2" W x 9 1/2" D \$495.00

240 Power Amplifier

125 W/ch continuous power into 8 ohms and at 0.1% THD with both channels driven (150 W/ch



at 4 ohms, 64 W/ch at 16 ohms). Power bandwidth 5-45,000 Hz; response 2-100,000 Hz ± 0.75 dB. (S+N)/N 106 dB. Input sensitivity 1.5 V. Has black anodized front panel. 15 1/2" x 6 1/2" x 9 1/2" D \$395.00

500 Power Amplifier

250 W/ch rms at 8 ohms. Power bandwidth 3-60,000 Hz; response 20-20,000 Hz ± 0.1 dB. HD & IM 0.05% at rated output; hum & noise -110 dB. Input sensitivity 1.5 V for rated output. Damping factor 500. Has power monitoring meters, 8 ohm output. 7" H x 17 1/2" W x 16" D \$1200.00

3300 Preamp/Control Center

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

free

1974

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CIRCLE NO. 37 ON READER SERVICE CARD

1

Amplifiers



input. Response 6-80,000 Hz $\pm 1\frac{1}{2}$ dB. THD 0.02%. Has high filter switchable at 5000 & 9000 Hz; low filter switchable at 50 & 100 Hz; front-panel tape dubbing jacks \$395.00

1030 Integrated Amplifier

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

1060 Integrated Amplifier

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

1120 Integrated Amplifier

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



at 16 ohms). Power bandwidth 10-40,000 Hz. Input sensitivity: mag. phono & mike 1.38 mV; aux 138 mV. Has main/remote speaker switch, slide-type tone controls, high & low filters, two tape monitor switches. $15\frac{1}{2}$ " \times $5\frac{1}{2}$ " \times $14\frac{1}{2}$ " D. Gold anodized front panel \$395.00

1200 Integrated Amplifier

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



& IM 0.15% at rated output; hum & noise -100 dB. Sensitivity: mag. phono 1.3 mV; aux 100 mV. Has high-cut & low-cut filters, loudness compensation switch, independent tone controls, multiple speaker switching, headphone output, tape monitoring facilities. Damping factor 100. $5\frac{1}{2}$ " H \times $15\frac{1}{2}$ " W \times $14\frac{1}{2}$ " D \$595.00

NIKKO

TRM-500 Integrated Stereo Amplifier

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



(other). Universal power supply. $15\frac{1}{2}$ " \times $11\frac{1}{2}$ " \times $8\frac{1}{2}$ " H. Comes in walnut-finished wood cabinet \$179.95

ONKYO

A-7055 Integrated Stereo Amp

26 W/ch continuous rms power into 8 ohms with both channels driven; 23 W/ch into 8 ohms with both channels driven 20-20,000 Hz. 0.5% distortion. THD 0.1% and IM 0.05%, both at rated output. Response 10-70,000 Hz ± 0 , -1 dB; power bandwidth 10-100,000 Hz (IHF -3 dB, THD 0.2%). Preamp input sensitivity: Phono #1 & #2 1.2, 2.4, 4.8 mV at 50,000 ohms; tuner, aux., tape play 100 mV at 100,000 ohms. THD 0.03% and IM 0.05%, both at rated output. Controls: power; speakers (off, A, B, A+B); selector; tape monitor; volume/balance; treble; bass; frequency shift; low- & high-filter; loudness; mode; amp muting; 3-position phono gain; and preamp/amp separating switch. $16\frac{1}{2}$ " W \times $5\frac{1}{2}$ " H \times $14\frac{1}{2}$ " D. Walnut-finished wood case \$219.95

A-7022 Integrated Stereo Amp

Same features and specifications as the A-7055 except 52 W/ch into 8 ohms with both



channels driven at 1 kHz. $16\frac{1}{2}$ " W \times $5\frac{1}{2}$ " H \times $14\frac{1}{2}$ ". Walnut-finished wood cabinet \$329.95

PHASE LINEAR

400 Power Amplifier

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



degrees at 20 kHz. Sensitivity 1.75 V. Light brushed gold, baked enamel, and black anodized panel. $19\frac{1}{2}$ " \times $7\frac{1}{2}$ " \times $10\frac{1}{2}$ " D. \$499.00
Cabinet \$37.00

700 Power Amplifier

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



Power at clipping 450 W/ch into 8 ohms; 730 W/ch into 4 ohms; 270 W/ch into 16 ohms. Response 0-0.25 MHz at 1 V with direct-coupled inputs. HD 0.25% (typically 0.01%). Phase shift leading 0 degrees at 20 Hz, lagging 10 degrees at 20 kHz. Sensitivity 1.14 V. Light brushed gold, baked enamel panel. \$779.00
Cabinet \$37.00

PILOT

210 Integrated Stereo Amplifier

25 W/ch continuous power at 8 ohms with both channels driven & at 0.5% THD. Power bandwidth 20-25,000 Hz; response 20-20,000 Hz ± 1.5 dB. Input sensitivity: mag. phono #1 & #2 2.5 to 4.5 mV; aux. #1 & #2 300 mV; tape output 250 mV. Hum & noise -75 dB. Has main/remote speaker switch and walnut veneer wood cabinet. $15\frac{1}{2}$ " \times $5\frac{1}{2}$ " \times $11\frac{1}{2}$ " D .. \$159.90

PIONEER

SA-5200 Integrated Stereo Amp

10 W/ch continuous power output at 8 ohms from 20-20,000 Hz with both channels driven; 15 W/ch at 4 ohms at 1000 Hz. IM & HD 0.8% continuous power output. Power bandwidth 10-40,000 Hz (IHF, with both channels driven) at 0.8% HD. Output: speaker A, B, A+B (4 to 16 ohms); headphone 4 to 16 ohms. Input sensitivity/imp.: phono 2.5 mV, 50,000 ohms; tuner, aux. #1 & #2, tape monitor, tape monitor (DIN) 150 mV, 100,000 ohms. Output level/imp.: tape rec. 150 mV, tape rec. (DIN) 30 mV, 80,000 ohms. Has individual bass & treble tone controls. Can handle two pairs of speaker systems, two auxiliary sound sources, a tuner, and a turntable. $16\frac{1}{2}$ " W \times $5\frac{1}{2}$ " H \times $12\frac{1}{2}$ " D .. \$129.95

SA-7100 Integrated Stereo Amp

20 W/ch continuous power output at 8 ohms from 20-20,000 Hz with both channels driven (24 W/ch at 4 ohms). Power bandwidth 5-70,000 Hz (IHF, with both channels driven) at 0.5% HD. Response 7-80,000 Hz ± 0 dB, -1 dB. IM & HD 0.5%. Output: speaker A, B, A+B (4 to 16 ohms); headphone 4 to 16 ohms. Input sensitivity/imp.: phono #1 & #2 2.5 mV, 50,000 ohms; mike 2.0 mV, 50,000 ohms; tuner, aux. #1 & #2 tape monitor #1 & #2, tape monitor (DIN) 150 mV, 100,000 ohms. Output imp.: tape rec. #1 & #2 150 mV; tape rec. #2 (DIN) 30 mV, 80,000 ohms; preamp out. 500 mV, 1500 ohms. Has bass & treble controls, loudness contour control. $16\frac{1}{2}$ " W \times $5\frac{1}{2}$ " H \times $13\frac{1}{2}$ " D. \$199.95

SA-8100 Integrated Stereo Amp

40 W/ch continuous power output at 8 ohms with both channels driven (45 W/ch at 4 ohms). Power bandwidth 5-40,000 Hz (IHF, with both channels driven). HD & IM 0.3%. Response 7-80,000 Hz ± 0 dB, -1 dB. Output: speaker A, B, A+B (4 to 16 ohms); headphone 4 to 16 ohms. Input sensitivity/imp.: phono #1 & #2 2.5 mV, 50,000 ohms; mike 2.0 mV, 50,000 ohms; tuner, aux. #1, tape monitor #1 & #2, tape monitor #2 (DIN) 150 mV, 100,000 ohms; aux. #2 150 mV to 15 V, 50,000 to 100,000 ohms.



the Sansui AU9500: hottest-selling integrated amplifier in the field.



AU7500



AU6500

Here's the power amplifier that not only boasts 85 hefty watts per channel, but also boasts a host of other fantastic features. It's designed and made for people who want only the best—and are willing to pay for it. And, judging by the way the AU9500 is selling, there must be a lot of those folks around.

The new Sansui AU9500 is the most advanced stereo product we make. Its superior performance characteristics include total harmonic distortion and intermodulation distortion below 0.1% throughout the entire audio spectrum and well beyond. Power bandwidth is extremely wide (5-40,000Hz) and RMS true power, conservatively rated, is 85 watts per channel into 8 ohms.

Among the many exciting features of the AU9500 are a wide variety of conveniences, such as a 4-channel adaptor switch, for QS, SQ, or CD-4 add-on units, the ability to handle up to four tape decks, and provision for tape-to-tape dubbing. Triple tone controls allow even the fussiest listener to adjust the AU9500's response to his taste.

As eye-catching as it is functional, the AU9500's elegant front-panel styling is a standout in any audio display. And it has two counterparts, the AU7500 and AU6500, which offer many of the same features, the same quality engineering and manufacturing, but slightly less power. All three are powerful, quality units that are unequalled for fine high fidelity reproduction.



SANSUI ELECTRONICS CORP.

Woodside, New York 11377 • Gardena, California 90247

SANSUI ELECTRIC CO., LTD., Tokyo, Japan • Sansui Audio Europe S. A., Antwerp, Belgium

1

Amplifiers

Has subsonic, low, and high filters; bass & treble tone controls; loudness contour control. 16 $\frac{1}{2}$ " W x 5 $\frac{1}{2}$ " H x 13 $\frac{1}{2}$ " D \$299.95

SA-9100 Integrated Stereo Amp

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

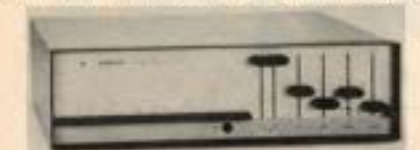


from 20-20,000 Hz. HD & IM 0.1% continuous power output. Power bandwidth 5-40,000 Hz at 0.1% HD. Response 7-80,000 Hz +0, -1 dB. Output: speaker A, B, C, A+B, A+C (4 to 16 ohms); headphone 4 to 16 ohms. Input sensitivity/imp.: phono #1 2.5 mV, 50,000 ohms; phono #2 2.5-10 mV, 25,000-50,000-100,000 ohms; mike 2.0 mV, 50,000 ohms; tuner, aux. #1, tape monitor #1 & #2, DIN 150 mV, 100,000 ohms; aux. #2 150 mV-1.5 V, 50,000-100,000 ohms; tape rec. #2 (DIN) 30 mV, 80,000 ohms; preamp out. 2 V, 8 ohms. Has subsonic, low, and high filters; bass & treble tone controls; loudness contour control. 16 $\frac{1}{2}$ " W x 5 $\frac{1}{2}$ " H x 13 $\frac{1}{2}$ " D \$399.95

RADFORD

SC24 mKII Preamp

Response 30-20,000 Hz ± 0.5 dB. THD 0.01% at 8 V output. Hum & noise -75 dB at phono input.



Sensitivity: mag. phono 2.0 mV; aux. 80 mV; tuner 80 mV; tape 80 mV. Has high-cut filter, ganged tone controls, headphone output, mid-range tone control, and tape monitoring facilities. 4 $\frac{1}{2}$ " H x 16 $\frac{1}{2}$ " W x 8 $\frac{1}{2}$ " D \$429.95

HD-60 Power Amplifier

60 W/ch rms power at 8 ohms with both channels driven. Power bandwidth 10-70,000 Hz ± 3 dB; 25-50,000 Hz ± 1 dB. THD 0.005% at 1 dB below clipping (ref. 1000 Hz). IM 0.02%. 1 V sensitivity for rated output. 16 $\frac{1}{2}$ " x 4 $\frac{1}{2}$ " x 8 $\frac{1}{2}$ " \$429.95

HD-2260 Integrated Amplifier

Combines basic performance parameters of HD-60 amplifier and HD-22 preamp. Has external link between preamp and power amp. sections \$650.00

HD-22 High-Definition Preamp

Features simplified controls. Has two tape monitors, tone-control defeat, up to 17 volts output, slide controls. 4 $\frac{1}{2}$ " x 16 $\frac{1}{2}$ " x 8 $\frac{1}{2}$ " \$395.00

RADIO SHACK

SA-500 Integrated Amplifier

15 W/ch rms at 8 ohms. Response 20-20,000



Hz. HD 1% at rated output. Has high-cut and low-cut filters, loudness switch, ganged tone controls, headphone output, and tape monitoring facilities. 3 $\frac{1}{2}$ " H x 14 $\frac{1}{2}$ " W x 11" D. Walnut case \$119.95

REVOX

A78 Integrated Amplifier

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



20,000 Hz ± 1 dB. HD 0.1% at 1000 Hz; less than 0.3% from 40 to 15,000 Hz at rated output. Sensitivity: mike 3 mV; mag. phono 3 mV; ceramic phono 230 mV; tuner 100 mV; tape 250 mV. Has tape monitoring input with before/after switch and switched outputs for two pairs of speakers. 16 $\frac{1}{2}$ " W x 6 $\frac{1}{2}$ " H x 9 $\frac{1}{2}$ " D \$449.00

ROTEL

RA-1210 Integrated Stereo Amplifier

60 W/ch continuous rms power into 8 ohms with both channels driven and at 0.5% THD. HD 0.3% 20-20,000 Hz at 55 W/ch; IM 0.1% at 55 W/ch. Response 3-1000,000 Hz +0, -3 dB; power bandwidth (IHF) 5-50,000 Hz at 8 ohms. Hum & noise: phono #1, phono #2 70 dB at 2 mV; tuner, aux. #1, aux. #2, tape in 80 dB. Has loudness switch; high filter; low filter; muting; bass & treble controls; front-panel headphone jack. Will handle two pairs of speaker systems; two tape recorders with monitoring & dubbing features; two record players. 16 $\frac{1}{2}$ " W x 12" D x 5 $\frac{1}{2}$ " H \$349.95

RA-810 Integrated Stereo Amplifier

40 W/ch continuous rms power into 8 ohms with both channels driven and at 0.5% THD. HD 0.3% 20-20,000 Hz at 40 W/ch; IM 0.1% at 40 W/ch. Response 4-75,000 Hz +0, -3 dB; power bandwidth (IHF) 5-50,000 Hz at 8 ohms. Hum & noise: phono #1, phono #2 65 dB; tuner, aux. #1, aux. #2, tape input 75 dB. Has full complement of inputs/outputs and controls. 16 $\frac{1}{2}$ " x 12" x 5 $\frac{1}{2}$ " H \$299.95

RA-611 Integrated Stereo Amplifier

30 W/ch continuous rms power into 8 ohms with both channels driven; HD 0.1% at kHz and 15 W/ch; Response 15-90,000 Hz; power bandwidth 15-50,000 Hz. (S+N)/N 65 dB phono; 75 dB aux. Has full complement of controls and inputs. Wood cabinet \$239.95

SAE

Mark IX Preamp-Equalizer

Features slide-type controls; 10 toroidal LC-type bandpass filters with 12 dB/octave slope. Equalizers have dual range ± 16 dB or ± 8 dB at 80, 320, 1280, 5000, and 15,000 Hz. Response high-level inputs 10-100,000 Hz ± 0.25 dB. HD 0.02% from 20-20,000 Hz & 2.5 V output. Max. output 18 V into high impedance. 17" x 7" x 5.75" H. \$400.00

Mark IB Preamp-Equalizer

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



Line/EQ Tape switch for equalized recordings; volume control range extender; tape copy control with provision for three tape recorders (six possible positions); two headphone output jacks; scope outputs for testing phase, stereo separation, or balance or level measurements; gain switch; four phono circuits for four separate phono preamps. 17" W x 10 $\frac{1}{2}$ " D x 5 $\frac{1}{2}$ " H \$650.00
Mark IM. Same as Mark IB except has no tone controls but features two high-accuracy VU



meters instead which display the unit's output in volts. Has meter-range switch \$500.00

Mark IV C Stereo Power Amplifier

100 W/ch into 8 ohms; 125 W/ch into 8 ohms max. rms power output before clipping. HD (rms) 0.1% (20-20,000 Hz) both channels driven to 100 W rms (per channel); IM 0.1% at 100 W/ch. Response 20-20,000 Hz ± 0.1 dB at 1 W; 20-20,000 Hz ± 0.1 dB at 100 W. Power bandwidth 8-50,000 Hz 3 dB down. (S+N)/N 100 dB below 100 W/ch. Input required: 1 V rms for 100 W, 100,000 ohms. 17" W x 5 $\frac{1}{2}$ " H x 13 $\frac{1}{2}$ " D. Walnut cabinet \$400.00
Mark IV CM. Same except has two VU meters to monitor power output. 17" W x 5 $\frac{1}{2}$ " H x 15" D. Does not include cabinet \$500.00

Mark XXX Stereo Preamp

Response 10-100,000 Hz ± 0.25 dB (high-level inputs); 20-20,000 Hz ± 1 dB (phono inputs). HD (rms) 0.03% 20-20,000 Hz at 2.5 V; IM 0.03% at rated output. (S+N)/N 72 dB below 10 mV (phono); 90 dB below rated output (high-level). Gain: phono 57 dB at 1 kHz; high-level 15 dB. Maximum output 9 V into 100,000 ohms. 15" W x 4 $\frac{1}{2}$ " H x 8" D \$225.00

Mark XXXI Stereo Power Amplifier

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



ohms; 70 W/ch max. rms power output before clipping. HD (rms) 0.1% 20-20,000 Hz both channels driven at 50 W. IM 0.1% at 50 W. Response 20-20,000 Hz ± 0.1 dB at 1 W; 20-20,000 Hz ± 0.1 dB at 50 W. (S+N)/N 100 dB below 50 W. 1 V rms input required for 100 W. 15" W x 4 $\frac{1}{2}$ " H x 8" D \$225.00
Mark XXXI Mono. Same as Mark XXXI except 60 W rms power output; 75 W max. rms power before clipping; 60 W input required \$150.00

SANSUI

AU101 Integrated Stereo Amplifier

22 W/ch dynamic power at 8 ohms (25 W/ch at 4



ohms); 15 W/ch continuous power at 8 ohms (18 W/ch at 4 ohms) and at 0.8% THD. Power bandwidth 25-40,000 Hz; response 20-60,000 Hz ± 2 dB at 1 W. Input sensitivity: mag. phono 3 mV; mike 4 mV; aux., tape monitor & tape recorder 200 mV. Has universal power supply. 16" x 4 1/2" x 11" D \$109.95

AU505 Integrated Stereo Amplifier

35 W/ch dynamic power at 8 ohms (45 W/ch at 4 ohms); 25 W/ch continuous power at 8 ohms (35 W/ch at 4 ohms). With both channels driven power is 23 W/ch rms at 8 ohms & 12 W/ch at 0.5% THD from 20-20,000 Hz. Power bandwidth 25-40,000 Hz at 8 ohms; response 20-60,000 Hz ± 3 dB at 1 W. Input sensitivity: mag. phono 3 mV; mike 4 mV; tuner, aux., tape monitor 200 mV. Has universal power supply. 16" x 4 1/2" x 11" D \$169.95

AU-9500 Integrated Stereo Amplifier

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



0.1%; IM 0.1%. Power bandwidth (IHF) 5-40,000 Hz; response 15-40,000 Hz $\pm 0, -1$ dB. Has two phono inputs, two tape monitors (direct dubbing), NR adapter, and 4-ch adapter inputs. Direct-coupled both channels driven. 19 1/4" x 5 1/2" H x 13 1/4" D \$519.95

AU-7500 Integrated Stereo Amplifier

63 W/ch (IHF) power at 8 ohms; 43 W/ch continuous power into 8 ohms. THD at rated output 0.1%; IM 0.1%. Power bandwidth (IHF) 5-40,000 Hz; response 10-30,000 Hz at 1 W. Has two phono inputs, two tape monitors (direct dubbing), 4-ch adapter input; mike input. Direct-coupled both channels driven. 17 1/2" W x 5 1/2" H x 12 1/4" D \$299.95

AU-6500 Integrated Stereo Amplifier

47 W/ch (IHF) power at 4 ohms; 32 W/ch continuous power into 8 ohms. THD at rated output 0.1%; IM 0.1%. Power bandwidth (IHF) 5-40,000 Hz; response 10-30,000 Hz at 1 W. Has two phono inputs; tape monitor; 4-ch adapter input; tuner & aux. inputs. Direct-coupled both channels driven. 17 1/2" W x 5 1/2" H x 12 1/4" D \$249.95

SCOTT, H.H.

490 Integrated Amplifier

70 W/ch continuous sine-wave into 8 ohms with both channels driven. Power bandwidth 15-40,000 Hz; response 15-30,000 Hz ± 1 dB, HD 0.5% at rated output; hum & noise -75 dB. Sensitivity: mag. phono 4 mV; tape 550 mV; mike 5.5 mV. Has high-cut filter, loudness compensation switch, independent tone controls, multiple-speaker switching, headphone output, VU meters, 20-dB muting switch, and tape monitoring facilities. Damping factor 30. 6" H x 17 1/2" W x 15 1/2" D \$299.90



SHERWOOD

S9400 Integrated Stereo Amplifier

80 W/ch dynamic power at 8 ohms & 0.8% THD; 50 W/ch rms continuous power with both chan-



nels driven & at 8 ohms (40 W/ch from 20-20,000 Hz; 60 W/ch into 4 ohms). Power bandwidth 5-45,000 Hz at 1% HD; response (aux.) 20-20,000 Hz $\pm 1/2$ dB. Input sensitivity: mag. phono #1 & #2 1.8 mV; aux. #1 & #2 200 mV; mic. 2.1 mV. Input impedance: mike 50,000 ohms. Has preamplified center-channel output; main/remote speaker capability; built-in Dynaquad circuit for synthesizing regular 2-channel stereo program material. Walnut cabinet. 5 1/2" x 17 1/2" x 14" D. \$259.95

SONY

TA-1150 Integrated Amplifier

50 W/ch dynamic power at 8 ohms (75 W/ch at 4 ohms); 30 W/ch continuous rms power at 8 ohms from 20-20,000 Hz with both channels



driven and 0.2% HD. HD 0.1% at 1 W. Has input/output jacks for connecting a 4-channel matrix decoder. 15 1/2" x 15 1/2" x 12 1/2" D \$249.50

TA-2000F Stereo Preamp

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



Sensitivity: mag. phono 1.2 mV; aux. 110 mV. Has high-cut & low-cut filters, ganged tone controls, headphone output, tape monitoring facilities, microphone input on front panel, and VU meters. 5 1/2" H x 15 1/2" W x 12 1/2" D . \$579.50

TA-1130 Integrated Amplifier

115 W/ch dynamic power at 4 ohms. Power bandwidth 7-30,000 Hz; response 10-200,000 Hz -2 dB, HD & IM 0.1% at rated output. Hum & noise -110 dB at phono input. Sensitivity: mag. phono 1.2 mV; aux., tuner & tape 130 mV. Has high-cut and low-cut filters, loudness compensation switch, ganged stepped tone controls, multiple speaker switching, headphone output, and tape monitoring facilities. Damping factor 100. 5 1/2" H x 15 1/2" W x 12 1/2" D. \$399.50

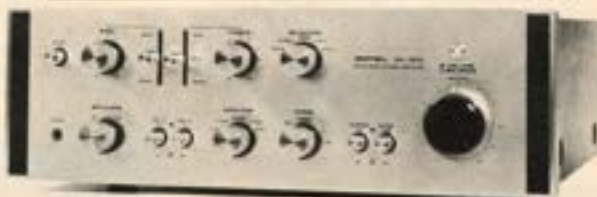
TA-3130F Stereo Power Amplifier

70 W/ch rms at 8 ohms. Power bandwidth 7-30,000 Hz; response 10-200,000 Hz -2 dB, HD & IM 0.1% at rated output. Hum & noise -110 dB at rated output. Has level input adjustment. Damping factor 200. 5 1/2" H x 12 1/2" W x 7 1/2" D

ROTEL

THE ALTERNATIVE

READ THE APRIL '73 STEREO REVIEW FOR A DEFINITIVE CRITIQUE ON THE RA-1210



RA-1210

THE STEREO AMPLIFIER: RMS power, 60W/channel with both channels driven into an 8 ohm load. Two separate power supplies each with its own power transformer. Power Bandwidth of from 5-50KHz and a THD of below 0.3% from 20-20KHz. Add to this 2dB step controls, 3 stage differential pre-amplifier, adjustable input sensitivity/impedance on phono 2, plus tape monitoring and dubbing for two sets of tape recorders.



THE EVERYTHING LINE FROM ROTEL
ROTEL of America, Inc., 2642 Central Ave., Yonkers, N.Y. 10710

CIRCLE NO. 44 ON READER SERVICE CARD

1 Amplifiers

\$249.50

TA-3200F Stereo Power Amplifier

160 W/ch dynamic power at 8 ohms. Power bandwidth 5-35,000 Hz; response 5-200,000



Hz—2 dB. HD & IM 0.1% at rated output. Hum & noise—110 dB at rated output. Has multiple speaker switching and level input adjustment. Damping factor 170. 5 1/2" H x 15 1/2" W x 12 1/2" D \$369.50

TA-1055 Integrated Amplifier

23 W/ch continuous rms power at 8 ohms; 20 W/ch 40-20,000 Hz at 8 ohms. Power bandwidth 8-40,000 Hz; response 10-60,000 Hz ±3 dB. HD & IM 0.5% at rated output. Damping factor 22 (1 kHz, 8 ohms). Features loudness, bass & treble tone controls; 6 dB/octave high filter above 5 kHz. 4 1/2" H x 16 1/2" W x 11 1/2" D. \$169.50

SUPERSCOPE

A-235 Integrated Stereo Amplifier

5 W/ch continuous power into 8 ohms and at 1% THD; HD 0.5% at 5 W. Response 30-40,000 Hz; power bandwidth 30-50,000 Hz at 8 ohms. Has push-button "on-off" switch with pilot light; stereo headphone jack; stereo balance control; bass & treble controls; input selector switch for tuner, phono, tape, or aux. positions. Output for one pair of stereo speakers. 14 1/2" W x 4 1/2" H x 7 1/2" D \$79.95

A-260 Integrated Stereo Amplifier

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



addition of pair of speakers. Response 20-25,000 Hz ±1 dB; power bandwidth 20-50,000 Hz. Has straight-line tone and balance controls; tape monitor switch; main/remote speaker switches; selector switch for tape, tuner, phono, mike, or aux. positions; mike inputs for home recording or p.a.; stereo headphone jack; and illuminated function indicators. 14 1/2" x 5 1/2" x 11 1/2" D \$169.95

A-245 Integrated Stereo Amplifier

10 W/ch continuous power into 8 ohms and at

1% THD; HD 0.8%. Response 10-36,000 Hz; power bandwidth 13-23,000 Hz at 8 ohms. Has tape monitor switch; input selector switch for tuner, phono, or aux. positions; main/remote speaker switch. Speaker outputs for main and remote, speaker pairs. 14 1/2" x 4 1/2" x 7 1/2" D \$99.95

TEAC

AS-100 Integrated Stereo Amplifier

30 W/ch continuous power at 8 ohms with both channels driven & at 0.2% THD. Power bandwidth 10-40,000 Hz; response (amp. section) 5-200,000 Hz ±1 dB; response (preamp section) 10-50,000 Hz ±0.5 dB. (S + N)/N—90 dB. Input



sensitivity; mag. phono #1 & #2 2 mV; tuner 150 mV; aux. #1 & #2 150 mV; tape deck play 150 mV. Has dual speaker connections and 2-dB stepped tone controls. 5 1/2" x 16 1/2" x 13" D. \$299.50

TOSHIBA

SB-500 Integrated Stereo Amplifier

35 W/ch continuous power at 8 ohms with both channels driven and 0.2% THD; HD & IM 0.2% at rated output. Response 10-70,000 Hz ±1 dB; power bandwidth 10-40,000 Hz (IHF, 0.2%). Imp. 4-16 ohms. Preamp input sensitivity; phono #1, mag. 2.5 mV, 47,000 ohms; condenser cartridge 30 mV, 70,000 ohms; phono #2 2.5 mV, 47,000 ohms; aux, tape, tuner 150 mV. response 20-30,000 Hz; THD 0.03% at rated rms output. Has bass, treble, and loudness controls; input for 4-channel adapter. Walnut cabinet. 15 1/2" W x 5" H x 2 1/2" D. \$239.95

YAMAHA

CA1000 Integrated Stereo Amplifier

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



respectively. Power bandwidth 10-60,000 Hz; (S + N)/N 70 dB (phono); phono sensitivity 0.1-3.0 mV. Has two tape, two phono, and two aux. tuner inputs; bass & treble controls; low and high filters \$569.95
CA800. Same as CA1000 except 45 W/ch and 3.0 mV phono sensitivity \$469.95

CA600 Integrated Stereo Amplifier

27 W/ch continuous rms power into 8 ohms at 0.1% THD. THD & IM at 1 W 0.08% and 0.05%, respectively. Power bandwidth 10-60,000 Hz; (S + N)/N 65 dB (phono); phono sensitivity 3.0 mV \$299.95

1 Tuners

ALTEC

724A AM-FM Tuner/Preamp

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

DYNACO

FM-5 FM Stereo Tuner

Response 30-52,000 Hz ±1 dB. 40 dB stereo separation at 1000 Hz. FM sensitivity 1.75 μV



at 30 dB quieting; 1.5 dB capture ratio, THD 0.5%, 65 dB S/N. Has 55 dB 38-kHz subcarrier and 19 kHz suppression and 80 dB SCA carrier suppression. 2 V output. Features stereo indicator light, signal-strength meter, interstation muting, ceramic i.f. filters, and automatic tuning for exact center-of-channel. 4 1/2" H x 13 1/2" W x 9" D Kit \$159.95
 Assembled \$249.95

AF-6 AM-FM Stereo Tuner



The FM section is similar to that used in the Model FM-5. Kit \$225.00
 Assembled \$325.00

HARMAN-KARDON

Citation 14 FM Tuner

Stereo design with built-in Dolby noise-reduction circuit. Features inter-station muting, qui-



eting-type tuning meter, and center-channel tuning meter. Has special 400-Hz tone generator to be used to set recording level when recording off-the-air. Sensitivity 2 μV for 30 dB quieting; (S + N)/N—70 dB; image rejection—90 dB. Dist. 0.2% in stereo \$525.00
 Optional cabinet \$35.00

Citation 15 FM Tuner

Stereo design featuring inter-station muting, quieting-type tuning meter, center-channel tuning meter, and noise filter. Has a special 400-Hz tone generator to be used to set recording level when recording off-the-air. Sensitivity 2 μV for 30 dB quieting; (S + N)/N—70 dB,

ALWAYS take along your copy of this Directory when shopping for hi-fi components. It is a comprehensive reference to complete technical details and prices . . . and when writing to manufacturers, tell them you saw it in the Stereo Directory & Buying Guide.

Whatever your world of sound, find it in our world of tapes.



You're particular about sound. You want the very best reproduction you can get.

But you know different types of recording require different types of tape.

There's music you have on while you're working, and there's the music you really sit down and listen to. Very closely and critically.

Recording voices calls for a different kind of tape. And recording sounds may call for yet another.

But no matter what you're recording, "Scotch" makes a tape for it that's unsurpassed.

Consider our 206 and 207 *High Output/Low Noise*, for example. These are our best reel-to-reel tapes. They provide an improvement of 3 db in signal-to-noise over standard tapes, resulting in an actual 50% increase



in output. Or consider "Scotch" *High Energy*, our finest cassette tape. It's designed for your most important cassette recording needs.

Remember, "Scotch" tapes are the overwhelming choice of professional studios for master recording.

So no matter what kind of recording you're doing, and no matter whether it's reel-to-reel, 8-track cartridge or cassette, there's only one name you need to remember: "Scotch."

You're particular about sound. But no more than we.

"SCOTCH" IS A REGISTERED TRADEMARK OF 3M CO.

3M
COMPANY

"Scotch" Brand Tapes.
Better tapes you just can't buy.

1 Tuners

image rejection -90 dB. Dist. 0.2% on stereo
 \$395.00
 Optional cabinet \$35.00

HEATH

AJ-1510 Digital FM Tuner

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



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

AJ-15 FM Tuner

Stereo design featuring solid-state circuitry. Sensitivity 1.8 μ V (IHF). Response 20-15,000



Hz \pm 1 dB. 40 dB stereo separation at 1000 Hz. Capture ratio 1.5 dB. 0.5% HD; 50 dB SCA suppression. 1.5 V output. Features stereo indicator light, signal-strength meter, center-of-carrier meter, inter-station muting, multi-path indicator. Has crystal i.f. filters. 4 $\frac{1}{2}$ " H x 16 $\frac{1}{2}$ " W x 12 $\frac{1}{2}$ " D.

Kit \$199.95
 Walnut cabinet \$19.95

AJ-14 FM Tuner

Stereo design featuring solid-state circuitry. Sensitivity 5.0 μ V. 30 dB stereo separation at 1000 Hz. Capture ratio 3 dB. HD less than 1.0%. Has stereo beacon, stereo phase control.

Kit \$57.95
 Walnut cabinet \$9.95

AJ-29 AM-FM Tuner

Stereo design. Tuner matches the tuner section of the AR-29 receiver. Pre-assembled, factory aligned FM front-end provides 1.8 μ V sensitivity for 30 dB quieting. Computer-designed nine-pole LC filter in i.f. strip gives 70 dB selectivity. "Mute" function attenuates between-station noise on FM without affecting sensitivity.

Kit \$179.95
 AE-19 cabinet \$19.95

HITACHI

FT-600 AM-FM Tuner

Stereo design. Features FM sensitivity 1.8 μ V for 30 dB quieting. Stereo separation 40 dB at 1 kHz; (S + N)/N 70 dB at 1 mV input. Has muting switch, noise filter, and large signal meter.
 \$229.95

JVC

VT-900 FM Stereo Tuner

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



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

VT-700 AM-FM Stereo Tuner

Basically the same design as the Model VT-900



except has conventional tuning dial instead of digital frequency readout. \$249.95

KENWOOD

KT-8005 AM-FM Stereo Tuner

Stereo design. FM usable sensitivity (IHF) 1.5 μ V; (S + N)/N 75 dB; capture ratio (IHF) 1 dB; stereo separation 40 dB at 100-10,000 Hz. Frequency response 50-15,000 Hz \pm 0.5 dB; HD (stereo at 400 Hz, 100% mod.) 0.3%; image rejection 100 dB. Has switches for AM, FM, FM Mono, Stereo Only, Power, MPX Filter; Multi-path, muting. Controls for output level, volume, tuning and function indicator. Features a double-switching demodulator circuit which, together with two cascaded carrier leak filters,



eliminates phase drift between main and sub-signals to provide sharp stereo separation at all frequencies. 17 $\frac{1}{2}$ " W x 6 $\frac{1}{2}$ " H x 11 $\frac{1}{2}$ " D \$389.95

KT-6005 AM-FM Tuner

Stereo design. FM sensitivity 1.5 μ V for 30 dB quieting. Response 20-15,000 Hz \pm 0.6 dB; cap-



ture ratio 1.3 dB. HD 0.5% (S + N)/N -70 dB at 50 μ V. Has signal-strength and zero-center meters, inter-station muting, universal power supply. 17 $\frac{1}{2}$ " x 6 $\frac{1}{2}$ " x 11 $\frac{1}{2}$ " D. Walnut cabinet \$289.95

KT-4005 AM-FM Tuner

Stereo design. FM sensitivity 1.9 μ V for 30 dB quieting. Response 20-15,000 Hz \pm 0.85 dB; capture ratio 2.0 dB. HD 0.7%. (S + N)/N -70



dB at 50 μ V. Has signal-strength and zero-center tuning meters, inter-station muting, and universal power supply. 17 $\frac{1}{2}$ " x 6 $\frac{1}{2}$ " x 11 $\frac{1}{2}$ " D. Walnut cabinet \$189.95

KT-2001A AM-FM Stereo Tuner

Stereo design. FM usable sensitivity (IHF) 2.0 μ V; HD 0.5% (S + N)/N 60 dB; capture ratio 4 dB; image rejection 60 dB; stereo separation 30 dB at 1000 Hz, 20 dB at 10,000 Hz. Has push-button selectors for AM, FM-Auto, and FM-Mono; extra-wide dial scale; and heavy fly-wheel tuning knob. 13 $\frac{1}{2}$ " W x 4 $\frac{1}{2}$ " H x 9 $\frac{1}{2}$ " D. \$119.95

LAFAYETTE

LT-725A AM-FM Stereo Tuner

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



40 dB stereo separation at 400 Hz. Capture ratio 1.5 dB; (S + N)/N 75 dB. HD 0.25%. Has stereo indicator light, signal-strength meter, center-of-carrier meter, and inter-station muting. Gold panel. 3 $\frac{1}{2}$ " H x 12" W x 9 $\frac{1}{2}$ " D .. \$149.95

LT-670B AM-FM Stereo Tuner

AM-FM stereo design. FM sensitivity 3.5 μ V for 20 dB quieting. Response 50-15,000 Hz. 30 dB stereo separation at 400 Hz. Capture ratio 5.0 dB; (S + N)/N 50 dB. HD 0.7%. 1.0 V output. Has a stereo indicator light and 4-ch FM detector output jack. Gold panel. 3 $\frac{1}{2}$ " H x 10 $\frac{1}{2}$ " W x 8 $\frac{1}{2}$ " D \$109.95

LT-D10 AM-FM Stereo Tuner

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



ter, and FM mute. Features FM detector output for the addition of discrete 4-ch adapter at later date. Walnut finished cabinet with blackout dial. 15 $\frac{1}{2}$ " x 11 $\frac{1}{2}$ " x 4 $\frac{1}{2}$ " (less knobs) \$229.95

LEAK

Stereofetic FM Stereo Tuner



SERIES II... a new listening experience by **BOSE**

INTRODUCING THE NEW...

BOSE 901 SERIES II

The original BOSE 901 was the product of a twelve year research program on acoustics.* The large sales that have grown from the worldwide acceptance of the 901 now support what we believe is the industry's most sophisticated team of researchers, dedicated to improving home music systems. All forms of loudspeakers, new and old, are studied.

The concepts of direct and reflected sound, acoustically-coupled full-range speakers, active equalization, and flat power radiation have emerged from the research as fundamental for optimum music reproduction. We doubt that these will change.

However, what is changing is the accuracy with which we can realize these concepts in a producible speaker design and the adaptability of the design to a wider range of home environments. The 901 SERIES II represents the combination of all the technological advances that have emerged from our research department over the past five years.

The 901 SERIES II features a completely new equalizer design. It provides a type of equalization for program source variations not available on other speakers. The new equalizer also enables the 901 SERIES II to adapt to a much wider range of room environments. The 901 SERIES II can even be played in front of drapes and still reproduce music with the proper frequency balance.

The new cone formulation in the 901 drivers provides an unprecedented uniformity of response. BOSE now employs a blue coloring and the BOSE logo to distinguish the basic cone material for special quality control measures, starting right with the manufacture of the cone material.

The 901 SERIES II carries a FIVE-YEAR warranty covering parts and labor on both the electronic active equalizer and on the speakers.

BOSE 501 SERIES II

The Design Goals of the new 501 SERIES II:

- To duplicate as many of the sonic characteristics of the 901 SERIES II as possible, within the cost constraint that dictates the use of a woofer-tweeter approach.
- To match the frequency balance of the 901 SERIES II as closely as possible, so that the 501 and 901 can be used together to produce a Direct/Reflecting® QUADRAPHONIC system that represents a large advance over conventional,

direct-radiating QUAD systems.

- To increase the high-frequency power handling capability beyond that of the original BOSE 501.

How the goals were achieved:

- By designing a new tweeter that has *double* the magnet size of the original design.
- By using four additional circuit components in the crossover network.
- By 100% selection and matching of the woofers and tweeters with the SYNCOM™ II computer – the unique computer designed and constructed by BOSE Corporation and put into service in August, 1973, to achieve a new level of speaker performance.

The Performance: You must be the judge. If our efforts have succeeded, you will know immediately when you A-B the 501 SERIES II with any other speaker up to the price of the 901 SERIES II.

*If you would like to know about the research that developed the 901, and about the state-of-the-art of sound recording and reproduction, you will want to read Dr. Bose's articles in the June and July '73 issues of TECHNOLOGY REVIEW. A 20 page combined reprint of these articles is available from BOSE for \$.50. Also we'll send you a complimentary copy of the 16 page, full-color 1801 amplifier brochure and information on the new BOSE 901 and 501 SERIES II speakers. Write Dept. CS and request the "complete literature package."



BOSE

The Mountain, Framingham, Mass. 01701

1

Tuners

Solid-state FM stereo unit. Sensitivity $2.0 \mu\text{V}$ for 30 dB quieting. Response 40-15,000 Hz ± 1 dB; 30 dB stereo separation at 1000 Hz. 3.5 dB capture ratio. Distortion less than 0.25%. 60 dB S/N ratio; output 0.9 V. Features stereo beacon, signal-strength meter, and inter-station muting. $4\frac{1}{2}'' \text{H} \times 11\frac{1}{2}'' \text{W} \times 7\frac{1}{4}'' \text{D}$ \$225.00

MARANTZ

120 AM-FM Stereo Tuner

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



0.25% stereo; S/N 60 dB. Features stereo beacon, signal-strength meter, center-of-carrier meter, and inter-station muting. $5\frac{1}{2}'' \text{H} \times 15\frac{1}{2}'' \text{W} \times 12'' \text{D}$ \$429.00

115B AM-FM Stereo Tuner

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



1 kHz; AM suppression 50 dB. Features a phase-lock loop multiplex decoder for maximum separation and minimum distortion on FM stereo broadcasts; "four-channel-ready" output jack for connecting outboard broadcast decoder. Has two illuminated tuning meters and "Gyro-Touch" tuning wheel \$279.95

105 AM-FM Stereo Tuner

Similar in appearance to Model 115B. FM sensitivity $3.5 \mu\text{V}$ for 30 dB quieting. Capture ratio 3.0 dB. Image rejection -50 dB. Has 300 & 75 ohm antenna inputs; signal-strength tuning meter. $14\frac{1}{2}'' \text{H} \times 4\frac{1}{2}'' \text{W} \times 12'' \text{D}$ \$149.95

NIKKO

FAM-500 AM-FM Stereo Tuner

FM sensitivity (IHF) $2.0 \mu\text{V}$; image rejection 80 dB; (S+N)/N 60 dB; capture ratio 2 dB; distortion 0.5% at 1000 Hz; stereo separation 38 dB at 1000 Hz. Features FM muting, signal-strength and center-tuning meters, terminals for 4-channel adapter, tape output jack, and overload protection circuits. $15'' \text{W} \times 12\frac{1}{2}'' \text{D} \times 8\frac{1}{2}'' \text{H}$. Has blackout linear-scale dial and needle illumination \$159.95

ONKYO

T-4055 AM-FM Stereo Tuner

FM sensitivity $1.7 \mu\text{V}$; response 20-15,000 Hz; stereo separation 40 dB at 400 Hz. Has a 4-channel terminal on rear panel for reception of discrete 4-ch broadcasts, illuminated signal-strength and center-tuning meters, lighted dial and pointer on the linear FM scale. Image rejection



90 dB; i.f. rejection 95 dB; alternate channel attenuation 80 dB; capture ratio 1.2 dB; HD 0.5% stereo. Outputs include two oscilloscope jacks for FM antenna multipath orientation. Front-panel controls include mode selection, tuning, on-off, FM muting, noise filter, level balance, and audible switch for FM antenna orientation. Walnut finished wood cabinet. $16\frac{1}{2}'' \text{W} \times 14'' \text{D} \times 5\frac{1}{2}'' \text{H}$ \$199.95

PILOT

211 AM-FM Stereo Tuner

FM sensitivity $1.8 \mu\text{V}$ for 30 dB (S+N)/N; selectivity 60 dB. Response 20-15,000 Hz ± 1 dB. Dist. 0.5%; (S+N)/N -50 dB; capture ratio 1.8 dB. Image rejection -80 dB. Features FM inter-station muting and a center-channel tuning meter. Walnut veneer wood cabinet. $15'' \times 5\frac{1}{2}'' \times 11\frac{1}{2}'' \text{D}$ \$199.90

PIONEER

TX-6200 AM-FM Stereo Tuner

FM sensitivity (IHF) $1.9 \mu\text{V}$; capture ratio (IHF) 1.5 dB; selectivity (IHF) 60 dB. (S+N)/N 70 dB. Image rejection at 98 MHz 60 dB; spurious rejection 75 dB. Response 20-15,000 Hz ± 0.2 dB, -2.0 dB. Stereo separation 40 dB at 1000 Hz. Antenna input 300 ohms balanced, 75 ohms unbalanced. Features junction-type FET front end, IC 5-stage limiter, two phase-linear ceramic filters, high-performance IC in multiplex circuit plus low-pass filter for suppressing carrier leakage. Has large center-tuning meter, linear dial scale, plus fixed and variable output level controls. $16\frac{1}{2}'' \text{W} \times 5\frac{1}{2}'' \text{H} \times 13\frac{1}{2}'' \text{D}$ \$129.95

TX-7100 AM-FM Stereo Tuner

Features dual-gate MOSFET in front-end and 5-stage limiter. FM usable (IHF) sensitivity $1.9 \mu\text{V}$; capture ratio 1 dB; selectivity 60 dB. (S+N)/N 70 dB. Image rejection 80 dB at 98 MHz; spurious & i.f. rejection 100 dB. Response 20-15,000 Hz ± 0.2 dB, -2.0 dB. Stereo separation 40 dB at 1000 Hz. Antenna input 300 ohms balanced, 75 ohms unbalanced. Has switchable muting and MPX noise filter. $16\frac{1}{2}'' \text{W} \times 5\frac{1}{2}'' \text{H} \times 13\frac{1}{2}'' \text{D}$ \$179.95

TX-8100 AM-FM Stereo Tuner

Features a new i.f. IC and phase-linear ceramic filters. Usable FM sensitivity (IHF) $1.8 \mu\text{V}$; cap-



ture ratio 1 dB; selectivity 80 dB. (S+N)/N 70 dB. Image rejection at 98 MHz 85 dB; spurious & i.f. rejection 100 dB. Response 20-15,000 Hz ± 0.2 dB, -2.0 dB. Stereo separation 40 dB at 1000 Hz. Antenna input 300 ohms balanced, 75 ohms unbalanced. Has switchable muting and MPX noise filter. $16\frac{1}{2}'' \text{W} \times 5\frac{1}{2}'' \text{H} \times 13\frac{1}{2}'' \text{D}$ \$229.95

TX-9100 AM-FM Stereo Tuner

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



ture ratio 1 dB; selectivity 90 dB. (S+N)/N 75 dB. Image, i.f., and spurious rejection 110 dB. Response 20-15,000 Hz ± 0.2 dB, -2.0 dB. Stereo separation 40 dB at 1000 Hz. Antenna input 300 ohms balanced, 75 ohms unbalanced. Has 2-step level switch, "on-off" MPX noise filter. Overall size $16\frac{1}{2}'' \text{W} \times 5\frac{1}{2}'' \times 13\frac{1}{2}'' \text{D}$ \$299.95

RADFORD

FMT-4 FM Stereo Tuner

Designed to match styling of the company's SPA50 power amp & SC24 preamp. FM sensitiv-



ity $1.2 \mu\text{V}$ for 30 dB quieting; capture ratio 1 dB. THD at 100% modulation 0.5% in stereo mode. (S+N)/N -70 dB; alternate channel rejection 100 dB. Has 75 & 300 ohm inputs, remote tuning, four preset tuning positions. Separation -30 dB at 100 Hz; -40 dB or better from 1000-10,000 Hz. Output 0-2 V ... \$475.00
FMT-5. Same, except has external styling to match mkII amplifier and preamp ... \$475.00

RADIO SHACK

TM-90 AM-FM Stereo Tuner

FM sensitivity $3 \mu\text{V}$. Has stereo indicator light, center-of-carrier meter, push-button mode



selector, blackout dial, and inter-station muting. Walnut cabinet \$119.95

TM-100 AM-FM Stereo Tuner

FM sensitivity $5 \mu\text{V}$ for 20 dB quieting. Has stereo indicator light, center-of-carrier meter. Walnut vinyl cabinet \$49.95

TM-175 B AM-FM Stereo Tuner

Features FET front-end; $5 \mu\text{V}$ sensitivity; tuning meter for center-of-channel for FM, signal-



strength for AM. Has vernier circular tuning dial; rear panel output volume controls; stereo/mono switch; pilot and stereo indicator lights. Stereo separation 25 dB. $7'' \times 10'' \times 14''$ \$69.95

REVOX

A76 FM Stereo Tuner

Sensitivity 1 μ V for 30 dB quieting. Response 30-15,000 Hz \pm 1 dB; capture ratio 1 dB. Distortion 0.2% (S+N)/N 70 dB; pilot suppression 40 dB. Output 1 V. Has signal-strength meter, center-tuning indicator, multi-path indicator, inter-station muting, and preset output level controls. 16 $\frac{1}{2}$ " W \times 6 $\frac{1}{2}$ " H \times 9 $\frac{1}{2}$ " D \$599.00

ROTEL

RT-1220 AM-FM Stereo Tuner

FM sensitivity (IHF) 1.5 μ V; HD 0.5% (S+N)/N 70 dB; capture ratio 1.0 dB; selectivity 90 dB; stereo separation 40 dB at 1 kHz. Has MOSFET front-end; ceramic i.f. filters; illuminated linear dial scale; illuminated signal-strength and center-tuning meters; rotary FM muting control with three settings; 300-ohm balanced and 75-ohm unbalanced antenna connections 16 $\frac{1}{2}$ " W \times 12" D \times 5 $\frac{1}{2}$ " H \$299.95
RT-622. Similar to RT-1220 except 1.7 μ V FM sensitivity; (S+N)/N 65 dB; selectivity 60 dB \$239.95

SAE

Mark VI FM Digital Tuner

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



nals on a 3" rectangular scope. Has "Stereo Only" position which mutes all except stereo transmissions. Sensitivity 1.6 μ V for 30 dB quieting. Capture ratio 1.9 dB. Response 20-15,000 Hz \pm 0.5 dB. A 14-pole Butterworth-type toroid phase-linear i.f. filter provides 75 dB selectivity. 17" W \times 10 $\frac{1}{2}$ " \times 5 $\frac{1}{2}$ " \$950.00
 Optional walnut cabinet \$30.00

SANSUI

TU-9500 AM-FM Stereo Tuner

FM sensitivity 1.7 μ V (IHF); THD 0.2% mono, 0.3% stereo. (S+N)/N 75 dB; capture ratio 1.5 dB (IHF); selectivity 80 dB. Stereo separation 40 dB at 400 Hz; 3 dB at 10,000 Hz. Has center-channel and signal-strength meters and stereo indicator. 19 $\frac{1}{2}$ " W \times 5 $\frac{1}{2}$ " H \times 13 $\frac{1}{2}$ " D \$299.95

TU-7500 AM-FM Stereo Tuner

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



dB (IHF); selectivity 70 dB. Stereo separation 40 dB at 400 Hz. Has signal-strength and center-channel meters and stereo indicator. 17 $\frac{1}{2}$ " W \times 5 $\frac{1}{2}$ " H \times 12 $\frac{1}{2}$ " D \$249.95

TU-505 AM-FM Stereo Tuner

FM sensitivity 2.5 μ V (IHF); THD 0.6% mono, 0.8% stereo. (S+N)/N 65 dB; capture ratio 35 dB at 400 Hz. 16 $\frac{1}{2}$ " W \times 4 $\frac{1}{2}$ " H \times 11" D \$159.95

SCOTT, H. H.

431 AM-FM Stereo Tuner

Sensitivity 1.7 μ V for 30 dB quieting. Response 50-15,000 Hz. Stereo separation 35 dB; cap-



ture ratio 2.5 dB. HD 0.8%; (S+N)/N 65 dB; pilot suppression 60 dB. Has stereo indicator light, signal-strength meter, center-of-carrier meter, interstation muting, and multipath indicator. 6" H \times 17 $\frac{1}{2}$ " W \times 15 $\frac{1}{2}$ " D \$219.90

433 AM-FM Stereo Tuner

Sensitivity 1.9 μ V for 30 dB quieting. Response 50-15,000 Hz. Stereo separation 35 dB; cap-



ture ratio 1.8 dB. HD 0.25%; (S+N)/N 67 dB; pilot suppression 60 dB. 2.5 V output. Has stereo beacon, signal-strength meter, inter-station muting, multipath indicator, punched-card station selection, card-programmed digital frequency synthesizer, automatic scanning, and digital frequency readout. 6" H \times 17 $\frac{1}{2}$ " W \times 15" D \$549.50

SEQUERRA

Model 1 FM-Stereo Tuner

FM sensitivity (IHF) 2 μ V; stereo quieting 46 dB for 5 μ V; HD (stereo) 0.2% at 100% modulation 20-6000 Hz, 0.5% at 100% modulation 15,000



Hz left or right channel; selectivity first alternate channel 130 dB; adjacent channel 20 dB; image rejection 100 dB; spurious response 100 dB. Stereo separation 50 dB at 1 kHz, 33 dB at 15,000 Hz left or right channel. SCA rejection 66 dB. Response \pm 0.4 dB referenced to 75 μ s de-emphasis. Has twelve push-button controls and one tuning knob. Has Dolby-B noise-reduction circuit. 16 $\frac{1}{2}$ " \times 5 $\frac{1}{2}$ " \times 14 $\frac{1}{2}$ " front panel \$1800.00
 Walnut case \$85.00
 Clear anodized panel \$25.00
 19-inch rack panel and frame \$150.00
 Panoramic adapter \$400.00
 Remote push-button tuning assembly \$150.00

SHERWOOD

S-3300 FM Stereo Tuner

Response 20-15,000 Hz \pm 0.5 dB; 40 dB stereo separation at 1000 Hz. FM sensitivity 1.8 μ V for 30 dB quieting; capture ratio 2 dB. THD 0.15%. Has stereo indicator light, center-of-carrier



meter, and inter-station muting. 4" H \times 14" W \times 10 $\frac{1}{2}$ " D \$197.50

SEL-300 AM-FM Stereo Tuner

FM sensitivity 1.5 μ V for 30 dB quieting. Has stereo indicator light, signal-strength meter,



center-of-carrier meter, inter-station muting, multi-path indicator output, 12-pole toroidal i.f. filters, and 7-segment digital station frequency readout \$499.00

S-2400 AM-FM Stereo Tuner

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



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

SONY

STC-7000 AM-FM Tuner/Preamp

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



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

ST-5150 AM-FM Tuner

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



tivity \sim 70 dB. HD 0.5% in stereo. Has multipath scope outputs, inter-station muting, and two meters. 15 $\frac{1}{2}$ " \times 5 $\frac{1}{2}$ " \times 13 $\frac{1}{2}$ " D ... \$249.50

ST-5130 AM-FM Stereo Tuner



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CIRCLE NO. 24 ON READER SERVICE CARD

1 Tuners

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

ST-5055 AM-FM Stereo Tuner

FM sensitivity 2.2 μ V (IHF); image rejection 45 dB; spurious rejection 75 dB; capture ratio 1 dB; selectivity 70 dB. (S + N)/N 68 dB. HD 0.6% stereo. Features black-out linear dial scale with illuminated pointer; muting circuit; tuning meter. 4 $\frac{1}{2}$ " H x 16 $\frac{1}{2}$ " W x 11 $\frac{1}{2}$ " D. \$169.50

SUPERSCOPE

T-210 AM-FM Stereo Tuner

FM usable sensitivity 5 μ V (IHF); (S + N)/N 60 dB; HD 1% at 1 kHz; image rejection 40 dB; capture ratio 6 dB. Features signal-strength tuning meter; push-button on/off switch which does not affect other pre-set controls; mode switch; flywheel tuning. 14 $\frac{1}{2}$ " W x 4 $\frac{1}{2}$ " H x 7 $\frac{1}{2}$ " D. \$99.95

T-220 AM-FM Stereo Tuner

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



THD 1% stereo; Response 20-15,000 Hz \pm 1.5 dB; Has full complement of controls. 13 $\frac{1}{2}$ " W x 5 $\frac{1}{2}$ " H x 12 $\frac{1}{2}$ " D. \$159.95

TEAC

AT-100 FM Stereo Tuner

Sensitivity 2 μ V for 30 dB (S + N)/N; capture ratio 1.5 dB; image rejection -90 dB. Selectivity



ty -65 dB (\pm 400 kHz). (S + N)/N -70 dB (1 mV input, 100% modulation). Has fixed and variable output of 1 V. Features FM inter-station muting; dual tuning meters (center-of-channel & signal-strength). 5 $\frac{1}{2}$ " x 16 $\frac{1}{2}$ " x 13" D. \$229.50

TOSHIBA

ST-500 AM-FM Stereo Tuner

FM sensitivity 1.8 μ V for 30 dB (S + N)/N; S/N -66 dB; capture ratio 1.5 dB. Selectivity -80 dB; image rejection -80 dB; i.f. rejection -80 dB; AM suppression -50 dB. Has 75 & 300 ohm antenna inputs; output 600 mV fixed & 0 -2 V variable. Features signal-strength & center-of-channel tuning meters, ceramic filter, FM muting. 15 $\frac{1}{2}$ " x 4 $\frac{1}{2}$ " x 12" D. Walnut cabinet. \$229.95

STEREO DIRECTORY & BUYING GUIDE

Should you buy a receiver? A separate amp and tuner? Stereo or four-channel? Sony knows why. Only you know which.

Consider the wide selection of Sony components described here. Think about your listening needs, the space in your room and your budget. Do you want to get into four channel now? Or, do you want to start with stereo unit that's ready for four channel anytime you want it. You'll find that Sony offers many very practical and reasonably priced solutions.

Example: A 4-channel receiver with extra power for stereo. The Sony SQR-6650 is the ideal choice for 4-channel or stereo. It has two built-in decoding circuits: one for SQ and one for all the



other matrix systems on the market. It also has facilities for derived 4-channel from stereo broadcasts and recordings, and for playback of 4-channel cartridges and tapes. Its simplified controls include 4 VU meters for system balancing.

It's also a great stereo receiver. Flick a switch, and the four channel, 32 watt (RMS at 8 ohms) amplifier becomes a 50 watt stereo amplifier (25 + 25W RMS) thanks to Double Stacked Differential Circuitry. And FM reception is superb: 2.2uV IHF sensitivity, 70dB selectivity for example. The SQR-6650 hardly costs more than stereo receivers of comparable specs. With cabinet, \$329.50.

Example: The Sony SQ four-channel disc system. Add a Sony SQ decoder to your hi-fi system, and



you'll get true four-channel sound from the wide variety of SQ records and broadcasts, plus quadraphonic enhancement of stereo records, tapes and broadcasts.

There are two Sony SQ decoders. The SQD-2020 is the first popularly priced decoder to offer dual logic circuits. It has circuitry to enjoy 4-channels from SQ and other available matrix sources. All you need is a basic power amplifier and two additional speakers. The SQD-2050 has front-to-back logic and requires only an integrated amplifier to drive the rear speakers. SQD-2020 \$229.50. SQD-2050 \$99.50.

Example: A tuner that eliminates man-made interference. The Sony ST-5130 FM stereo/FM-AM tuner has Impulse Noise Suppression—a new circuit that eliminates noise from fluorescent lights, ignition and other FM static sources. Add that to a circuit with MOS-FET transistors in mixer and r.f. stages, and with 8 solid-state IF filters, and you get performance: 1.5 uV IHF sensitivity, 75dB S/N ratio, 1.0dB capture ratio and fully 100dB re-

jection of images, i.f. and spurious signals. AM performance is of equal calibre. And features include two tuning meters, a headphone



outlet with volume control, and switchable high-blend, muting, and AFC. \$349.50.

The amp that achieves true integration. The Sony TA-1130 integrated amplifier features a FET front end that gives this integrated package a preamp stage that does full justice to its output section. The FET's (developed by Sony for



this application) keep the preamp sensitive enough to handle lowest-output cartridges, yet let it accept the highest-output ones without overloading. The output section delivers 50+50W RMS at 8 ohms 20Hz to 20kHz. Control facilities include a front-panel Aux input, plus a provision to use the preamp and power amplifier sections separately. \$399.50.

No nonsense tuner offers top quality without frills—doesn't cost a bundle. The Sony ST-5150 FM stereo FM-AM tuner measures up beautifully against today's finest tuners in terms of low distortion, interference rejection, selectivity,



separation. For example: high sensitivity 2.0dB IHF, image rejection (70dB), selectivity (70dB IHF) and capture ratio (1.0dB). And it has all the features you need to make the most out of this impressive performance: signal strength and center-channel meters plus multipath scope outputs for more accurate tuning, a high-blend switch, defeatable muting and a 75 ohm coax antenna connector. \$249.50.

First stereo integrated amplifier designed for today's 4-channel era. The Sony TA-1150 has built-in circuitry and switching specifically designed for an SQ 4-channel decoder, or decoders for any other quadraphonic disc system. You can even put your SQ decoder and your rear channel amplifier out of sight and control the volume of all four channels with the TA-1150's master volume control. It also has two sets of stereo tape outputs and monitor connections (with direct dubbing provisions). The amplifier



section puts out 30+30W RMS at 8 ohms 20Hz to 20kHz. Very clean watts, too, thanks to Sony's Direct-Coupled Circuitry. It's an ideal mate for the ST-5150. \$249.50.

Frill-free tuner with impressive specifications. The Sony ST-5055 FM Stereo FM-AM tuner. A 1dB capture ratio, excellent sensitivity. Features including switchable muting, high blend switch, both fixed and variable outputs. An illuminated tuning meter, black-out dial



scale with linear FM calibrations and illuminated pointer combine with smooth, precise flywheel tuning to pinpoint stations for optimum reception. With cabinet, \$169.50.

Frill free amplifier with plenty of power. The Sony TA-1055 delivers 20+20W RMS per channel from 40Hz to 20kHz into 8 ohms. Circuit features—from an IC phono preamp to direct coupled differential output that make every one of those watts a delight to listen to. Luxury features include dual tape monitor



circuits (one can be used for SQ or any other matrix decoder) with direct tape-to-tape copying, front panel aux and microphones inputs and connections and switching for two pairs of stereo speakers. With cabinet, \$169.50.

We left the power to the people. Sony STC-7000 FM stereo/FM-AM tuner/preamp. Combines a super tuner and a preamp with the widest possible flexibility. There's no power amplifier section, leaving the choice of power output completely up to you. Consider these impressive specifications: 100dB selectivity, 1.7uV IHF sensitivity, and a signal-to-noise ratio of 70dB. A top quality component, \$589.50.



Sony receivers satisfy a wide variety of listening needs. Sony STR-7065 (60+60W RMS from 20Hz to 20kHz at 8 ohms with less than 0.2% distortion) plucks stations from even the most crowded dials with its excellent sensitivity and remarkable 1dB capture ratio! You can click in your choice of three speaker pairs, monitor two tape recorders, dub directly and mix one or two stereo microphones. Function indicator lights and a preamp-out/amp-in connection are welcome conveniences. With cabinet, \$499.50.



The Sony 7055 has all the features of the 7065 except mic mixing, function lights signal strength meter. A bit less power, (35+35W 20Hz to 20kHz at 8 ohms, less than 0.2% distortion), and an exceptional tuner section. With cabinet, \$399.50.



The Sony 6046A represents a new standard in its power output and price category. Output is 20+20W RMS (20Hz to 20kHz at 8 ohms with THD less than 0.8%). A tuner section 2.2uV sensitivity, and 1.5 dB capture ratio! Features include microphone input and line mixing facilities, tape monitoring, function indicator lights and choice of two speaker pairs. With cabinet, \$249.50.



The STR-6036A is conservatively rated at 15+15W RMS (20Hz to 20kHz at 8 ohms). It has all the facilities of the 6046A except the mic mixing control and function lights. A remarkable 1.5 dB capture ratio is a clue to the tuner's impressive performance. With cabinet, \$199.50.



Visit your Sony dealer today to see and hear these quality Sony stereo components. While you're there, be sure to audition Sony turntables and speaker systems. Sony Corporation of America, 9 West 57th Street New York, New York 10019.

SONY

*All prices suggested retail.

Would you be more impressed if we advertised on TV?

Manufacturers are constantly faced with an agonizing choice: How much do you spend **on** the product and how much do you spend promoting it?

With products like receivers, which require a great deal of handcrafting, whatever is spent on advertising must literally come out of the product itself.

It must be obvious to you that Sherwood isn't widely known.

At the same time you see our competitors spending a great deal of money to advertise in very expensive places: The Johnny Carson Show, The Today Show, in Playboy, Penthouse, Time, etc.



Advertising dollars must come right out of the product.

Example: one of the two top hi-fi component manufacturers [and advertisers] in this field boasts that their \$200 receiver puts out 10 + 10 watts RMS power @ 8 ohms from 40-16,000 Hz. The walnut case is extra.

Compare that to our S7100A spec: 18 + 18 watts from 40-20,000 Hz. And we include the walnut case. For only \$219.95.

Another major manufacturer gives you 17 + 17 watts RMS [@ 1 KHz] and charges \$260. Our S7100A offers 22 + 22 watts for \$40 less.

We put our marketing dollar into improving the receiver and rely on the equipment to speak for itself.

And that, obviously, is what's been happening. Our S7100A was recently given a "Best Buy" rating by a leading consumer testing publication.

(For a recent review of the S7100A, see Stereo & HiFi Times Spring issue. Or write to us: Sherwood Electronic Laboratories, 4300 North California Avenue, Chicago, Illinois 60618.)

We may not be a household word. But with people into hifidelity, we've been getting a good reception.

Sherwood

The word is getting around.



Power Bandwidth, 15-50 KHz.-0.9% dist.

FM Sensitivity [IHF]: 1.9 uv [-30 dB noise & dist.]

Capture Ratio: 2.8 dB.

Harmonic Distortion: 0.9% @ 8 ohms rated output, 0.20% @ 10 watts

Power Output—RMS, both channels driven.
27 watts x 2 @ 4 ohms, 1 KHz.
22 watts x 2 @ 8 ohms, 1 KHz.
14 watts x 2 @ 8 ohms, 20-20,000 Hz.
18 watts x 2 @ 8 ohms, 40-20,000 Hz.

Walnut case, included in the price.

2

RECEIVERS

AKAI

AA-930 AM-FM Stereo Receiver

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



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

AA-910 AM-FM Stereo Receiver

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



(1000 Hz, 5 W); power bandwidth (IHF) 20-45,000 Hz at 1% dist.; response 20-70,000 Hz, -3 dB. Input sensitivity: phono 3 mV, 50,000 ohms; mike 6.5 mV, 50,000 ohms; tape monitor (DIN/PIN) 150 mV, 100,000 ohms. FM tuner sensitivity (IHF) 2 μ V; HD 0.8% stereo. (S + N) / N 70 dB; selectivity 65 dB; capture ratio (IHF) 2.5 dB. 18" W x 6.6" H x 14.5" D \$229.95
AA-910D. Same as AA-910 except includes built-in Dolby circuit \$299.95

ALTEC

725A AM-FM Receiver

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



714A AM-FM Receiver

Similar to Model 725A except 44 W/ch continuous sine wave. Power bandwidth 15-45,000 Hz. HD 0.5%. FM sensitivity 1.9 μ V for 30 dB quieting; capture ratio 2 dB (IHF). 16 1/2" x 5 1/2" x 13 1/2" D \$449.00
 Oiled walnut cabinet \$29.95

710A AM-FM Stereo Receiver

30 W/ch continuous rms power into 8 ohms with both channels driven from 30-20,000 Hz and at



0.5% THD. Response 20-20,000 Hz \pm 1 dB; power bandwidth 30-20,000 Hz (S + N)/N (aux.) 75 dB. FM sensitivity 2.5 μ V for 30 dB quieting; capture ratio 2.5 dB \$375.00

704 AM-FM Stereo Receiver

12 1/2 W/ch continuous rms power into 8 ohms with both channels driven from 40-20,000 Hz and at 0.5% THD. Response 20-20,000 Hz \pm 1 dB; bandwidth 40-20,000 Hz. (S + N)/N (aux.) 72 dB. FM sensitivity 2.5 μ V for 30 dB quieting; capture ratio 3 dB \$249.00

BANG & OLUFSEN

Beomaster 4000 AM-FM Stereo Receiver

60 W/ch dynamic power (200 W total music output); THD less than 0.1%. Darlington-cou-



pled output stage. Features sockets for headphones; volume and balance controls; tone filters; loudness control (with automatic adjustment of tone at high and low volumes). Has slide-rule dials; illuminated tuning indicator; signal-strength indicator. Compact design with black aluminum front, wooden top and sides. Cabinet available in rosewood, teak, or oak. \$520.00

3002 AM-FM Stereo Receiver

40 W/ch dynamic power at 8 ohms (75 W/ch at 4 ohms); 30 W/ch continuous power at 8 ohms (40 W/ch at 4 ohms) and at 0.6% THD. 25 W/ch continuous at 8 ohms from 20-20,000 Hz. Power bandwidth 10-30,000 Hz; response 20-40,000 Hz \pm 2 dB. FM sensitivity 2 μ V for 30 dB quieting. Has main/remote speaker switch; signal-strength and center-of-channel tuning meters; and 300 & 75 ohm antenna inputs. 22 1/2" x 3 3/4" x 10 1/2" \$400.00

BENJAMIN

R2X40 AM-FM Stereo Receiver

Features a Glowpoint dial point that lights at the center of each FM channel; audio is muted until that point is reached. 55 W/ch dynamic power at 8 ohms (75 W/ch at 4 ohms); 40 W/ch rms continuous power at 8 ohms (50 W/ch at 4 ohms). HD 1.0%. Response 20-20,000 Hz \pm 1 dB; power bandwidth 10-40,000 Hz. FM sensitivity 1.7 μ V for 30 dB quieting; capture ratio 2 dB. Has two phono, a tape monitor, and main amplifier inputs; two tuning meters (signal-strength & center-of-channel). \$399.50

CONCORD

CR-100 AM-FM Stereo Receiver

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

CR-550 AM-FM Stereo Receiver

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

CR-250 AM-FM Stereo Receiver

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



For 4-Channel Components. . .
 See SECTION 9

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

CR-200 AM-FM Stereo Receiver

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

DOKORDER

MR-900 AM-FM Stereo Receiver

100 W/ch continuous power output into 8 ohms (105 W/ch IHF). THD & IM at rated output 3%. Frequency response (high-level input) 30-40,000 Hz; power bandwidth 30-45,000 Hz. FM usable sensitivity (IHF) 1.5 μ V; THD 0.5% at 400 Hz, 100% mod; (S+N)/N 60 dB; capture ratio 1.5 dB. Stereo separation 35 dB at 1000 & 10,000 Hz. Features terminals for two sets of stereo speakers, 2-ch aux. and 2 phonos; push-button FM stereo sw., FM tuning meter, and



stereo indicator; inter-station muting circuit. "Kangaroo Pouch" control console folds away to create uncluttered front-panel. 20" W x 6 1/2" H x 14" D \$439.95

FISHER

170 AM-FM Stereo Receiver

18 W/ch dynamic power into 8 ohms (24 W/ch into 4 ohms); 14 W/ch continuous rms power into 8 ohms (16 W/ch into 4 ohms) with both channels driven and at 0.1% THD. Power bandwidth 40-20,000 Hz at 4 ohms. FM sensitivity 2.5 μ V for 30 dB quieting; capture ratio 3 dB. Input sensitivity: mag. phono 2.5 mV; aux. & tape monitor 200 mV. Features tape monitor, speaker selector switch, and is supplied with walnut vinyl cabinet. 16 1/2" x 5 1/2" x 12" D. \$199.95

180 AM-FM Stereo Receiver

Similar to Model 170 except power rating 25 W/ch dynamic into 8 ohms (32 W/ch into 4 ohms); 18 W/ch continuous rms into 8 ohms (21 W/ch into 4 ohms). Has inter-station FM muting \$249.95

HARMAN-KARDON

230A AM-FM Stereo Receiver

17 1/2 W/ch dynamic power into 4 ohms. Response 10-70,000 Hz at 1 W output. FM sensi-

tivity 2.7 μ V for 30 dB quieting. Has tape monitor facilities and main/remote speaker switch. \$179.95
Optional cabinet \$9.95

330A AM-FM Stereo Receiver

45 W/ch dynamic power into 4 ohms. Response 7-50,000 Hz \pm 1 1/2 dB at 1 W output. FM sensi-



tivity 1.9 μ V for 30 dB quieting. Has tape monitoring facilities and main/remote speaker switch. 13" x 15 1/2" x 4 1/2" \$239.95
Optional cabinet \$24.95

630 AM-FM Stereo Receiver

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

930 AM-FM Stereo Receiver

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



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

HEATH

AR-1500 AM-FM Receiver

Stereo design. 90 W/ch dynamic power into 8 ohms (120 W/ch into 4 ohms; 50 W/ch into 16 ohms); 60 W/ch continuous power into 8 ohms (100 W/ch into 4 ohms, 40 W/ch into 16 ohms). Power bandwidth 8-30,000 Hz at 0.25% THD. Response 5-120,000 Hz \pm 0, -3 dB at 1 W. Input sensitivity: mag. phono 1.8 mV, tape, aux, tape



monitor 140 mV. FM sensitivity 1.8 μ V for 30 dB quieting. Capture ratio 1.5 dB. 18 1/2" x 5 1/2" x 13 1/2" D.
Kit \$379.95
Wired \$649.95
ARA-1500-1 Walnut cabinet \$24.95

AR-1302 AM-FM Receiver

Stereo design. 20 W/ch continuous sine-wave into 8 ohms at 0.25% THD with both channels driven (20 W/ch into 4 ohms, 15 W/ch into 16 ohms). 30 W/ch dynamic power into 8 ohms (20 W/ch into 4 ohms, 17 W/ch into 16 ohms). Power bandwidth 5-30,000 Hz. Response 6-35,000 Hz \pm 1 dB. Input sensitivity: mag. phono 2.4 mV, aux. 180 mV. FM sensitivity 1.6 μ V for 30 dB quieting. Capture ratio 2.5 dB (IHF). Features signal-strength and center-of-channel meters; main/remote speaker selection or cen-

ter-channel output. FM i. f. board pre-assembled and aligned. 117/230 V, 50-60 Hz operation. 16 1/2" x 5 1/2" x 14 1/2" D.

Kit \$239.95
Cabinet \$19.95

AR-29 AM-FM Receiver

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

Kit \$299.95
Cabinet \$19.95

AR-14 FM Receiver

Stereo design. 15 W/ch dynamic power. Response 12-60,000 Hz \pm 1 dB. FM sensitivity 5 μ V for 30 dB quieting. Capture ratio 3 dB (IHF). Pre-assembled front end. 15 1/2" x 3 1/2" x 12" D.
Kit \$99.95
Walnut veneer cabinet \$12.95
Beige steel cabinet \$3.95

HITACHI

SR-600 AM-FM Stereo Receiver

35 W/ch continuous sine-wave into 8 ohms at 0.5% THD with both channels driven; dynamic



power 50 W/ch into 8 ohms. Power bandwidth 20-30,000 Hz; response 20-50,000 Hz. Input sensitivity: 2 or 5 mV; mag. phono 100 mV. FM sensitivity 2.8 μ V for 30 dB quieting; capture ratio 2.5 dB (IHF). Has main/remote speaker switch. 16 1/2" x 6" x 12 1/2" D. \$259.95

SR-301 AM-FM Stereo Receiver

25 W/ch dynamic power into 8 ohms at 0.5% THD; 15 W/ch continuous rms power. Features



signal-strength meter, inter-station FM muting, (S+N)/N 60 dB. Has wood side pieces. \$199.95

SR-700 AM-FM Stereo Receiver

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



signal-strength meter, FM inter-station muting. \$289.95

SR-800 AM-FM Stereo Receiver

45 W/ch dynamic power into 8 ohms at 0.5% THD; 40 W/ch rms power. Features signal-strength meter, center-of-channel tuning me-

ter, FM inter-station muting. \$329.95

SR-1100 AM-FM Stereo Receiver

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



ters in i.f., dual tuning meters (signal-strength and center-of-channel), FM inter-station muting, and mike input. \$419.95

JVC

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

VR-5660 FM Stereo Receiver

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



ohms (150 W/ch at 4 ohms); 80 W/ch continuous power at 8 ohms (100 W/ch at 4 ohms) with both channels driven & at 0.4% THD. Power bandwidth 10-40,000 Hz. FM sensitivity 1.7 μ V for 30 dB quieting; capture ratio 0.7 dB. 6 $\frac{1}{2}$ " x 20 $\frac{1}{2}$ " x 15 $\frac{1}{2}$ " D \$749.95

VR-5551 AM-FM Stereo Receiver

85 W/ch dynamic power at 8 ohms (120 W/ch at 4 ohms); 50 W/ch continuous power at 8 ohms



(65 W/ch at 4 ohms) with both channels driven & at 0.5% THD. Power bandwidth 15-30,000 Hz. FM sensitivity 1.6 μ V for 30 dB quieting; capture ratio 0.7 dB. Features mike input (with mixing), two tuning meters, and provisions for three sets of speakers. 5 $\frac{1}{2}$ " x 19 $\frac{1}{2}$ " x 14 $\frac{1}{2}$ " D. With cabinet \$469.95

VR-5511 AM-FM Stereo Receiver

24 W/ch dynamic power at 8 ohms (30 W/ch at 4 ohms); 16 W/ch continuous power at 8 ohms (20 W/ch at 4 ohms) with both channels driven & at 0.8% THD. Power bandwidth 30-30,000 Hz. FM sensitivity 2.5 μ V for 30 dB quieting; capture ratio 4 dB. Has signal-strength tuning meter and main/remote speaker switch. Design similar to Model VR-5551. 16 $\frac{1}{2}$ " x 5 $\frac{1}{2}$ " x 13" D \$249.95

VR-5521 AM-FM Stereo Receiver

34 W/ch dynamic power at 8 ohms (50 W/ch at 4 ohms); 22 W/ch continuous power at 8 ohms (24 W/ch at 4 ohms) with both channels driven & at 0.5% THD. Power bandwidth 20-30,000 Hz. FM sensitivity 2 μ V for 30 dB quieting; capture ratio 2 dB. Has mag. phono (2.5 mV) and aux. & tape (120 mV) inputs; main/remote speaker switching; signal-strength meter. Design similar in styling to VR-5551. 18" x 5 $\frac{1}{2}$ " x 14 $\frac{1}{2}$ " D \$329.95

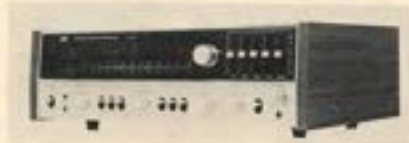
VR-5541 AM-FM Stereo Receiver

55 W/ch dynamic power at 8 ohms (80 W/ch at 4 ohms); 34 W/ch continuous power at 8 ohms

(50 W/ch at 4 ohms) with both channels driven & at 0.8% THD. Power bandwidth 15-30,000 Hz. FM sensitivity 1.7 μ V for 30 dB quieting. Has dual tuning meters and three sets of speaker connections. Styling similar to VR-5551. 10 $\frac{1}{2}$ " x 5 $\frac{1}{2}$ " x 14" D \$429.95

VR-5535(L) AM-FM Stereo Receiver

28 W/ch continuous rms power 20-20,000 Hz into 8 ohms and at 0.5% THD. IHF power bandwidth 10-25,000 Hz. Pure complementary OCL power amplifier. SEA control. FM usable sensitivity 2.0 μ V; capture ratio 2.0 dB; image rejection 55 dB; stereo separation 35 dB. Has high filter & low filter, FM muting, two tuning meters, source indicator lights, mike mixing facilities. Four-channel ready for future 4-ch FM broadcasts and will handle matrixed and CD-4 sources with appropriate adapters . . . \$399.95



tion 55 dB; stereo separation 35 dB. Has high filter & low filter, FM muting, two tuning meters, source indicator lights, mike mixing facilities. Four-channel ready for future 4-ch FM broadcasts and will handle matrixed and CD-4 sources with appropriate adapters . . . \$399.95

VR-5525(L) AM-FM Stereo Receiver

Same as the VR-5535(L) except 18 W/ch continuous rms power into 8 ohms and at 0.5% THD. Does not have low filter. FM usable sensitivity is 2.2 μ V; capture ratio 2.5 dB; stereo separation 33 dB. \$349.95

VR-5515. Same as VR-5525 except 15 W/ch; IHF power bandwidth 15-25,000 Hz; no filters. Has FM line antenna \$279.95

KENWOOD

KR-2300 AM-FM Stereo Receiver

14 W/ch continuous rms with both channels



The Finer Things In Life

Jaguar XJ-12—one of the finest cars made today. If you want to buy one, you have to find a Jaguar dealer. They're not on every corner, as are some car dealers. But when you want the best, you go out of your way to obtain it.

Fairfax FX-300—recently tested and top rated by one of the leading consumer reporting magazines among 20 of the most popular speaker systems in the \$85 to \$120 price range. Not every high fidelity dealer can sell you a **Fairfax FX-300** though. You'll have to visit the dealer we've selected to carry the Fairfax line. But then, isn't the best worth going out of your way for?

The **FX-300** is a two-way, two-speaker system with a ducted port. It uses a heavy-duty 10-inch bass driver and a 3-inch wide-dispersion tweeter. Frequency response is an honest 24 to 20,000 Hz, and power capacity is 40 watts rms (7 watts min.) into 8 ohms. The cabinet of selected walnut veneers—we do our own veneering—measures 22 x 14 x 10 $\frac{1}{4}$ inches and is 1-inch thick on all sides.

If we can build the top rated **FX-300** for only \$109.95, think of what our other seven models must sound like from \$69.95 to our \$399.95 Wall of Sound I. Visit a Fairfax dealer and let your ears judge for themselves.

To find out which dealer in your area has been chosen to carry the Fairfax line of speakers, call (201) 485-5400 or write for a full line catalog; Fairfax Industries, Inc., 900 Passaic Avenue, East Newark, New Jersey 07029.

the **SUPERSOUND** line





driven and at 8 ohms. FM sensitivity (IHF) 2.5 μ V; (S+N)/N 60 dB; stereo separation 30 dB at 1 kHz; spurious signal rejection 80 dB. Features a full complement of controls including terminals for Phono, Aux., and Tape; mike mixing; terminals for two sets of stereo speakers; FET front-end \$199.95

KR-6170 AM-FM Stereo Receiver

33 W/ch continuous rms output into 8 ohms with both channels driven (39 W/ch into 4



ohms). HD & IM 0.5% at rated output. Response 20-40,000 Hz \pm 1.5 dB (high-level input); power bandwidth 17-30,000 Hz. FM usable sensitivity (IHF) 1.9 μ V; (S+N)/N 60 dB; capture ratio 4.0 dB; stereo separation 30 dB (at 1 kHz); HD 0.8% (stereo); image rejection 60 dB; Features an electronic rhythm composer circuit which makes available the sound of five different percussion instruments (bass drum, conga, claves, high-hat cymbal, and snare drum) in 12 different rhythmic patterns; tempo control (40 to 200 beats per minute); rhythm mode selector (left, right, stereo, reverse, mono, mixing left and right channels); high and low rhythm tone controls; remote-control foot switch to start or stop circuit. Has reverb section which can add reverb to any source selected by input selector switch; reverb level controls; special "pre-cut" switch for quasi-4-ch sound effects. Walnut cabinet. 21 $\frac{1}{2}$ " W x 6 $\frac{1}{2}$ " H x 16 $\frac{1}{2}$ " D \$549.95

KR-7200 AM-FM Receiver

Stereo design. 55 W/ch continuous power both channels driven at 8 ohms from 20-20,000 Hz; 260 W dynamic at 4 ohms (210 W at 8 ohms).



Power bandwidth 10-30,000 Hz; response 20-40,000 Hz \pm 2 dB. Sensitivity: mag. phono 2.5 mV; aux. (2)/tape play (A/B) 180 mV; mike 1.25 mV. FM sensitivity 1.6 μ V for 30 dB quieting; capture ratio 1.5 dB. Has three pairs of speaker terminals, two-system tape with front-panel jacks for deck B, mike mixing any mode with front-panel mike input level control. 17 $\frac{1}{2}$ " W x 5 $\frac{1}{2}$ " H x 14" D. Walnut cabinet ... \$499.95

KR-6200 AM-FM Receiver

Stereo design. Similar in appearance to Model KR-7200. 45 W/ch continuous power both channels driven at 8 ohms from 20-20,000 Hz; 240 W dynamic at 4 ohms (190 W at 8 ohms). Power bandwidth 13-30,000 Hz; response 20-

40,000 Hz \pm 2 dB. Sensitivity: phono 2.5 mV; aux. (2)/tape play (A/B) 180 mV; mike 3.0 mV. FM sensitivity 1.7 μ V for 30 dB quieting; capture ratio 1.5 dB. Has three pairs of speaker terminals, two-system tape with front-panel jacks for deck B. 17 $\frac{1}{2}$ " W x 5 $\frac{1}{2}$ " H x 14" D. Walnut cabinet \$419.95

KR-5200 AM-FM Receiver

Stereo design. 30 W/ch continuous power both channels driven at 8 ohms from 20-20,000 Hz;



140 W dynamic at 4 ohms (115 W at 8 ohms). Power bandwidth 17-30,000 Hz; response 20-40,000 Hz \pm 2 dB. Sensitivity: phono 2.5 mV; aux. (2)/tape play (A/B) 125 mV; mike 3 mV. FM sensitivity 1.8 μ V for 30 dB quieting; capture ratio 2 dB; selectivity 60 dB. Has three pairs of speaker terminals, two-system tape with front-panel jacks for deck B. 17" W x 5" H x 14" D. Walnut cabinet \$359.95

KR-4200 AM-FM Receiver

Stereo design. 19 W/ch continuous power both channels driven at 8 ohms from 50-20,000 Hz;



82 W dynamic at 4 ohms (62 W into 8 ohms). Power bandwidth 25-25,000 Hz; response 22-35,000 Hz \pm 2 dB. Sensitivity: phono 3 mV; aux. (2) 180 mV; tape play (A/B) 200 mV. FM sensitivity 2.0 μ V for 30 dB quieting; capture ratio 3 dB; selectivity 50 dB. Has two pairs of speaker terminals, 2-system tape. 17 $\frac{1}{2}$ " x 5 $\frac{1}{2}$ " x 13 $\frac{1}{2}$ " D. Walnut cabinet \$289.95

KR-3200 AM-FM Receiver

Stereo design. 13 $\frac{1}{2}$ W/ch continuous power both channels driven at 8 ohms from 50-20,000



Hz; 60 W dynamic at 4 ohms (42 W at 8 ohms). Power bandwidth 25-25,000 Hz; response 25-35,000 Hz \pm 2 dB. Sensitivity: phono 3 mV; aux. 180 mV; tape play 200 mV. FM sensitivity 2.3 μ V for 30 dB quieting; capture ratio 3.5 dB; selectivity 50 dB. Has two pairs of speaker terminals. 17 $\frac{1}{2}$ " x 5 $\frac{1}{2}$ " x 13 $\frac{1}{2}$ " D. Walnut cabinet \$239.95

KR-2300 AM-FM Receiver

14 W/ch continuous rms power into 8 ohms with both channels driven at 1000 Hz. Response (tuner, aux., tape play) 25-50,000 Hz \pm 2 dB; THD at rated power 1.0%; power bandwidth 30-50,000 Hz. FM usable sensitivity (IHF) 2.5 μ V; HD 1% (stereo at 400 Hz); (S+N)/N 60 dB; capture ratio 4 dB; image rejection 50 dB; stereo separation 30 dB at 1 kHz. Includes special mike mixing circuit to blend live mike source with any other program source; control center for full stereo system; outputs for two sets of stereo speakers with front-panel selector for A, B, A+B, phono; bass & treble tone controls. 17 $\frac{1}{2}$ " W x 5 $\frac{1}{2}$ " H x 13 $\frac{1}{2}$ " D \$199.95

KIRKSAETER

RTX 120.85 FM Stereo Receiver

85 W/ch continuous power at 8 ohms with both channels driven. THD at 1 kHz 0.09% at full power. Sensitivity: phono 2.4 mV; tape head 2.1 mV; Aux. input 260 mV, tape input & output 650 mV; mike input 1.5 mV. Scratch filter (20 kHz) -27 dB; rumble filter (20 Hz) -20 dB. (S+N)/N 90 dB at 20 Hz. FM (IHF) sensitivity 1.5 μ V; (S+N)/N 65 dB; capture ratio 2.5 dB; stereo THD 0.8%; stereo separation 36 dB at 1 kHz. Inputs: mike; phono #1 (DIN & RCA); Ext.-Aux. (DIN); phono #2 (DIN); tape head right & left (RCA); tape playback (DIN & RCA). Outputs: headphones A & B; 4-channel sound (DIN); tape record; audio output left & right supplementary power modules; three unswitched a.c. outlets; power connection. 19 $\frac{1}{2}$ " W x 5 $\frac{1}{2}$ " H x 14 $\frac{1}{2}$ " \$749.95

RTX 85.55 FM Stereo Receiver

Similar to RTX 120.85 except 65 W/ch continu-



ous power at 8 ohms with both channels driven. Tape input & output 570 mV \$649.95

Both units are equipped to provide synthesized 4-channel sound from all stereo sources. Both are housed in selected grain natural walnut cabinets. Decorator matte white or matte black finishes available for additional cost of \$25.00

KLH

52 AM-FM Receiver

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



0.8% HD. Power bandwidth 20-20,000 Hz at 8 ohms; response 20-20,000 Hz at 1 W. FM usable sensitivity 1.8 μ V for 30 dB quieting. Sensitivity: mag. phono 3.5 mV; aux. & tape monitor 500 mV. FM capture ratio 2.0 dB. Has signal-strength & center-of-channel tuning meters and ceramic filters in i.f. stages. 17 $\frac{1}{2}$ " x 5 $\frac{1}{2}$ " x 13" D. Walnut grained cabinet \$289.95

55 AM-FM Receiver

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



bandwidth 20-20,000 Hz into 8 ohms; response 20-20,000 Hz at 1 W. FM usable sensitivity 2.5 μ V for 30 dB quieting; capture ratio 4 dB. Input sensitivity: mag. phono 2.5 mV; aux. & tape monitor 250 mV. Has four-stage i.f. with two ceramic filters. 16 $\frac{1}{2}$ " x 5 $\frac{1}{2}$ " x 13" D. Walnut grained cabinet \$199.95

51 AM-FM Receiver

20 W/ch into 8 ohms with both channels driven. Power bandwidth 20-20,000 Hz; response 10-



35,000 Hz at 1 W. Input sensitivity: mag. phono 2.5 μ V; aux. 170 mV. HD 0.5% at rated output. FM sensitivity 2.4 μ V for 30 dB quieting; capture ratio 3 dB. Features tape recording & monitoring facilities; ceramic filters. 6 1/2" x 16 1/2" x 12 1/4" D. Oiled walnut cabinet \$259.95

LAFAYETTE

LR-200A AM-FM Stereo Receiver

30 W/ch at 4 ohms and 1% THD. 2.5 μ V FM sensitivity for 30 dB quieting. Response 20-20,000 Hz \pm 1.5 dB at 1 W output. (S+N)/N -75 dB (high-level input); -60 dB (low-level input). Has built-in circuit for synthesizing 4-ch sound from regular 2-channel program sources. 14 1/2" W x 4 1/2" H x 10 1/2" D \$199.95

LR-2500 AM-FM Stereo Receiver

70 W/ch at 4 ohms and 1% THD at 1 kHz. 1.65 μ V FM (IHF) sensitivity. Response 20-20,000 Hz \pm 0.75 dB; power bandwidth 18-55,000 Hz. Hum & noise: high-level inputs -75 dB; low-level -68 dB. Input sensitivity: mag. phono 2.5 mV (high), 6 mV (low); aux. 250 mV; mike 6 mV; tape play 500 mV. Has illuminated input and function indicators; illuminated signal-strength and center-scale tuning meters; two volume-level position for rear speakers. Includes circuit for synthesizing 4-ch sound from regular 2-ch program sources. Comes in walnut-finished wood cabinet with extruded aluminum front panel. 19 1/2" W x 13 1/4" D x 5 1/4" H ... \$379.95

LR-910 AM-FM Stereo Receiver

35 W/ch at 4 ohms and 1% THD at 1 kHz. 1.75 μ V FM (IHF) sensitivity. Response 20-20,000



Hz \pm 1 dB; power bandwidth 15-30,000 Hz. Input sensitivity: aux. 250 mV; phono 2.5 mV (high), 6 mV (low); tape play 500 mV. Includes illuminated signal-strength tuning meter; automatic FM stereo indicator; speaker mode selector switch; circuit for synthesizing 4-ch sound from regular 2-ch program sources. Wood cabinet. 4 1/2" H x 17 1/4" x 12 1/4" D \$279.95

LR-810 AM-FM Stereo Receiver

26 1/2 W/ch at 4 ohms and 1% THD at 1 kHz. FM sensitivity (IHF) 1.75 μ V. Response 20-20,000 Hz \pm 1 dB at 1 W. Includes circuit for synthesizing 4-ch sound from regular 2-ch sources; speaker mode selector switch; automatic FM stereo indicator; push-button function switches; interstation muting circuit. 14 1/2" W x 4 1/2" H x 10 1/2" D \$229.95
Oiled walnut wood cabinet \$19.95

LEAK

Delta 75 AM-FM Receiver

35 W/ch continuous power into 8 ohms (40

1974 EDITION



W/ch into 4 ohms; 25 W/ch into 15 ohms). 100 W (IHF) music power into 8 ohms. Distortion 0.07% into 8 ohms. Response 12.5-50,000 Hz -3 dB. Phono input imp. 47,000 ohms magnetic; 33,000 ohms ceramic. Sensitivity for 35 W rms output into 8 ohms 2.5 mV (magnetic) and 20 mV (ceramic) both at 1000 Hz. Tape input imp. 50,000 ohms (phono socket), 150,000 ohms (DIN). FM sensitivity (IHF) 2.2 μ V into 75-

ohm input. HD 0.5%. Tuner response 40-15,000 Hz \pm 1 dB. Inputs: 75 ohms unbalanced, 300 ohms balanced \$595.00

MAGNAVOX

8898 AM-FM Digital Receiver

Features frequency readout digital tuning. 75 W/ch dynamic power into 8 ohms; 50 W/ch con-



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At Discwasher, we've joined precise, scientific technology with the beauty of hand-crafted wood. The Discwasher handle is made from carefully selected solid walnut. Each walnut block is skillfully shaped into a distinctive, graceful object of functional contour and beautiful grain. Then we hand-rub each handle to a fine, mellow, burnished glow.

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CIRCLE NO. 14 ON READER SERVICE CARD

tinuous into 8 ohms with both channels driven & at 0.5% THD. Power bandwidth 15-20,000 Hz. FM sensitivity 3 μ V for 30 dB quieting; capture ratio 4 dB. Input sensitivity: mag. phono 2 mV; ceramic phono & aux. 150 mV; tape monitor 400 mV. 18" x 15 1/2" x 5 1/2". Walnut cabinet \$579.95

MARANTZ

2220 AM-FM Stereo Receiver

20 W/ch continuous power at 8 ohms with both channels driven; THD & IM 0.5%. Response 20-



20,000 Hz ± 0.5 dB (high-level input). FM sensitivity 2.1 μ V for 30 dB quieting; THD 0.5% stereo; capture ratio 3 dB; stereo separation 40 dB at 1 kHz; Has provisions for record changer, tape decks, phones. Simulated walnut metal cabinet \$299.95

2270 AM-FM Stereo Receiver

70 W/ch continuous sine-wave into 8 ohms with both channels driven at 0.3% THD. Power bandwidth 10-40,000 Hz; response 10-50,000 Hz ± 1 dB at 1 W output. Input sensitivity 1.8 mV. FM sensitivity 2.3 μ V for 30 dB quieting; capture ratio 1.6 dB (IHF). Has 3-zone tone controls, tape monitoring facilities, isolated preamp/amp inputs & outputs. 16 1/2" x 5" x 14" D \$599.95
Walnut cabinet optional extra.

2230 AM-FM Stereo Receiver

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

2245 AM-FM Stereo Receiver

45 W/ch continuous sine-wave into 8 ohms with both channels driven at 0.3% THD. Power bandwidth 10-40,000 Hz; response 15-40,000 Hz ± 1 dB at 1 W output. FM sensitivity 2.5 μ V for 30 dB quieting; capture ratio 1.8 dB (IHF). Has 3-zone stepped tone controls, isolated preamp/amp inputs & outputs. 16 1/2" x 5" x 14" D \$499.95
Walnut cabinet optional extra.

19 FM Stereo Receiver

FM only. 50 W/ch continuous sine-wave into 8 ohms with both channels driven at 0.15% THD. Power bandwidth 10-40,000 Hz; response 8-80,000 Hz ± 1.5 dB at 1 W output. FM sensitivity 1.8 μ V for 30 dB quieting; capture ratio 1.9 dB (IHF). Has built-in scope for center-of-channel,



signal-strength, multi-path, audio display, stereo separation, and phasing indication. 18 1/2" x 5 1/2" x 16" D \$1200.00
Walnut cabinet optional extra.

2010 AM-FM Stereo Receiver

10 W/ch rms continuous power into 4 or 8 ohms (5 W/ch into 16 ohms) at 1% THD and from 40-



16,000 Hz with both channels driven. Response 20-20,000 Hz ± 1.5 dB; power bandwidth 20-22,000 Hz. FM sensitivity 2.8 μ V for 30 dB quieting; capture ratio 2.5 dB. Input sensitivity: mag. phono 2.2 mV, aux. 150 mV. Has signal-strength meter & main/remote speaker switch. 14 1/2" x 4 1/2" x 12" D \$199.95
Walnut cabinet optional extra.

NIKKO

STA-8080 AM-FM Stereo Receiver

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



(main input) and 20-50,000 Hz (Aux. input); power bandwidth 10-40,000 Hz ± 1 dB at 0.5% THD. Dist. 0.5% at rated output. (S+N)/N 65 dB (phono input), 80 dB (other). FM sensitivity (IHF) 2 μ V; 80 dB image rejection. (S+N)/N 60 dB. 300 ohm balanced, 75 ohm unbalanced antenna imp. Has tape output terminals for two sets of tape decks; FM muting switch; linear dial scale and twin tuning meters; double-rotary tone-control switch. Universal power supply. 18" W x 14 1/2" D x 5 1/2" H. Has blackout dial and gold-trimmed panel and knobs \$369.95

STA-7070 AM-FM Stereo Receiver

34 W/ch at 8 ohms with both channels driven (43 W/ch at 4 ohms). Response 10-50,000 Hz (main input) and 20-50,000 Hz (Aux. input); power bandwidth 10-40,000 Hz ± 1 dB at 0.5% THD. IM & HD 0.5% at rated output. FM sensitivity (IHF) 2 μ V; 80 dB image rejection; (S+N)/N 60 dB; capture ratio 2.5 dB. Has tape output terminals for two sets of tape decks; FM muting switch; linear dial scale and signal-strength meter. Universal power supply. 18" W x 14 1/2" D x 5 1/2" H. Blackout dial and gold-trimmed panel and knobs \$319.95

STA-5010 AM-FM Stereo Receiver

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



system broadcast adapter; tape output jacks for two tape decks; FM muting switch; loudness control switch; headphone jack, DIN connector; tape selector & monitor switch. 17 1/2" W x 15" D x 5 1/2" H \$229.95

STA-4010 AM-FM Stereo Receiver

12 W/ch at 8 ohms with both channels driven (13 W/ch at 4 ohms). Response 10-50,000 Hz ± 1 dB (main input), 20-30,000 Hz (Aux. input); power bandwidth 30-20,000 Hz ± 1 dB at 1% THD. IM dist. 0.5% at 1 W output. FM sensitivity (IHF) 3.5 μ V; image rejection 50 dB; (S+N)/N 60 dB; capture ratio 4.5 dB. Stereo separation 30 dB at 1000 Hz. Has provisions for mike, mixing, and level control; features loudness control; front-panel headphone jack; tape monitor jack, dual tone controls. Oiled finish walnut case. 17 1/2" W x 15" D x 5 1/2" H \$189.95
STA-2010. Similar to STA-4010 except 6 W/ch at 8 ohms (7 W/ch at 4 ohms) with both channels driven \$159.95

ONKYO

TX-555 AM-FM Stereo Receiver

60 W/ch dynamic power into 8 ohms (70 W/ch into 4 ohms); 40 W/ch continuous power into 8



ohms (50 W/ch into 4 ohms) and at 0.3% THD. Power bandwidth 15-35,000 Hz; response 10-35,000 Hz ± 1 dB at 1 W. FM sensitivity 2 μ V for 30 dB (S+N)/N; capture ratio 1.5 dB. Input sensitivity: mag. phono 2.5 mV; aux. #1 & #2 100 mV. Features main/remote speaker switch, tape inputs, a six-element ceramic i.f. stage filter, FM inter-station muting, and 75 & 300 ohm antenna inputs. 18 1/2" x 15 1/2" D x 5 1/2" H \$399.95

TX-666 AM-FM Stereo Receiver

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



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

TX-440 AM-FM Stereo Receiver

28 W/ch continuous rms power into 8 ohms with both channels driven at 1 kHz. Power bandwidth 20-20,000 Hz; response 20-30,000 Hz. FM sensitivity 2.0 μ V; capture ratio 2 dB; selectivity 65 dB; (S+N)/N 70 dB. HD 0.8% stereo. Response 20-15,000 Hz ± 1.5 dB. Features linear dial scale, two tuning meters (signal-strength and center tuning), FM muting, mike mixing circuitry, tape-to-tape record & monitoring, two a.c. outlets. 18 1/2" W x 14 1/2" D x 5 1/2" H. \$329.95

PILOT

252 AM-FM Stereo Receiver

Power amplifier is same as the 25 W/ch Model

FIRST AGAIN.

All systems in one big, beautiful package. The 900+ multichannel receiver by Harman/Kardon.



Harman/Kardon Inc., 55 Ames Court, Plainville, N.Y. 11803, U.S.A. Also available in Canada.

210. FM sensitivity 2.5 μ V for 30 dB (S+N)/N. Selectivity -45 dB. Response 20-15,000 Hz; (S+N)/N -60 dB; capture ratio 2.5 dB. Supplied with walnut veneer wood cabinet. 18" x 5 1/2" x 13 1/2" D \$249.90

253 AM-FM Stereo Receiver

35 W/ch continuous power at 8 ohms with both channels driven & at 0.5% HD. Power bandwidth 15-30,000 Hz; response 20-20,000 Hz \pm 1 dB. Input sensitivity: mag. phono #1 & #2 2.5 to 4.5 mV; mike 1 mV; aux. 300 mV; tape output 250 mV. The AM-FM tuner circuitry is the same as in the Model 211 stereo tuner. With walnut wood cabinet. 18" x 5 1/2" x 13 1/2" D .. \$399.90

254 AM-FM Stereo Receiver

Same as the Model 253 AM-FM receiver except has greater power output: 65 W/ch continuous power at 8 ohms with both channels driven. Power bandwidth 10-40,000 Hz. Features mike mixing and two tuning meters. With cabinet. 18 1/2" W x 6 1/2" H x 17 1/2" D \$429.90

PIONEER

SX-424 AM-FM Receiver

Stereo design 18 1/2 W/ch dynamic power into 8 ohms (25 W/ch into 4 ohms); 12 W/ch continu-



ous power into 8 ohms with both channels driven (13 W/ch into 4 ohms) and at 1% HD. Power bandwidth 20-45,000 Hz at 8 ohms & 1% HD. Response 20-70,000 Hz \pm 3 dB. FM usable sensitivity 2.3 μ V for 30 dB quieting; capture ratio 3.5 dB. Input sensitivity: mag. phono 3 mV; mike 6.5 mV; aux., tape monitor, tape monitor DIN 180 mV. Tape rec. output 180 mV; tape rec. output DIN connection 36 mV. Has universal power supply & main/remote speaker facilities. 17" x 5 1/2" x 13 1/2". \$199.95

SX-525 AM-FM Receiver

Stereo design 16 W/ch dynamic power into 8 ohms (36 W/ch into 4 ohms); 17 W/ch continu-



ous power into 8 ohms with both channels driven and at 1% HD (21 W/ch into 4 ohms). Power bandwidth 10-45,000 Hz at 8 ohms & 1% HD. Response 15-30,000 Hz \pm 1 dB. FM usable sensitivity 2.2 μ V for 30 dB quieting; capture ratio 3 dB. Input sensitivity: mag. phono 2.7 mV; mike 6 mV; aux. tape monitor #1 & #2 200 mV. Tape rec. output #1 & #2 200 mV (tape rec. output DIN connection 30 mV). Has large tuning meter, linear dial scale, FM muting, main/remote speaker switching, and universal power supply. 17 1/2" x 5 1/2" x 14 1/2" D. \$259.95

SX-626 AM-FM Receiver

Stereo design 38 W/ch dynamic power into 8 ohms (55 W/ch into 4 ohms); 27 W/ch continuous power into 8 ohms with both channels driven & at 1% HD (30 W/ch into 4 ohms). Power bandwidth 10-70,000 Hz at 8 ohms & 1% HD.

Response 5-80,000 Hz \pm 1 dB. FM usable sensitivity 2 μ V for 30 dB quieting; capture ratio 2.5 dB. Input sensitivity: mag. phono #1 & #2 2.5 mV; mike 2.2 mV; aux., tape monitor #1 & #2 200 mV. Tape rec. output #1 & #2 200 mV (DIN connection 35 mV). Has FM muting, main/remote speaker switching, and universal power supply. 17 1/2" x 5 1/2" x 14 1/2" D. \$329.95

SX-727 AM-FM Receiver

Stereo design 61 W/ch dynamic power into 8 ohms (97 1/2 W/ch into 4 ohms); 40 W/ch contin-



uous power into 8 ohms with both channels driven & at 0.5% HD. (50 W/ch into 4 ohms). Power bandwidth 10-60,000 Hz at 8 ohms & 0.5% HD. Response 7-80,000 Hz \pm 1 dB. FM usable sensitivity 1.8 μ V for 30 dB quieting; capture ratio 2 dB. Input sensitivity: mag. phono #1 & #2 3 mV; mike 2.7 mV; aux., tape monitor #1 & #2 200 mV. Tape rec. output #1 & #2 200 mV (DIN connection 35 mV). Features tape-to-tape duplication, two tuning meters (signal-strength and center-of-channel), a linear-scale FM dial, main/remote speaker switching, and FM muting. Has universal power supply. 19 1/2" x 5 1/2" x 15 1/2" D. \$399.95

SX-828 AM-FM Receiver

Stereo design 90 W/ch dynamic power into 8 ohms (135 W/ch into 4 ohms); 60 W/ch continuous power into 8 ohms with both channels driven & at 0.5% HD (75 W/ch into 4 ohms). Power bandwidth 10-60,000 Hz into 8 ohms & at 0.5% HD; response 5-80,000 Hz \pm 1 dB. FM usable sensitivity 1.7 μ V for 30 dB quieting; capture ratio 1.5 dB. Input sensitivity: phono #1 & #2 2.7 mV; mike 2.6 mV; aux., tape monitor #1 & #2 200 mV. Tape rec. output #1 & #2 200 mV (DIN connection 35 mV). Features ceramic filters & IC's in i.f. section, FM muting, dual tuning meters (signal-strength and center-of-channel), linear-scale FM dial, tape-to-tape duplicating, main/remote speaker switching, and universal power supply. 19 1/2" x 6" x 14 1/2" D. \$469.95

RADIO SHACK

STA-200 AM-FM Stereo Receiver

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



power bandwidth 20-20,000 Hz. S/N phono 50 dB; aux. 60 dB. THD 1% at rated output. Input sensitivity: phono 2.5/5 mV; aux. 200 mV. FM sensitivity 2 μ V (IHF); separation 30 dB; image rejection 100 dB; capture ratio 3 dB. Outputs: FM detector jack for 4-ch adaptability. Has 25 front- and rear-panel controls. OTL amplifier and regulated power supply. 6 1/2" x 18 1/2" x 13 1/2". \$439.95

STA-150 AM-FM Stereo Receiver

32 1/2 W/ch continuous rms power at 8 ohms; 50 W/ch (IHF) at 8 ohms. Response 20-20,000 Hz; power bandwidth 15-70,000 Hz. HD 1% at rated output; hum & noise phono low -68 dB, phono high -70 dB. Sensitivity: phono low 2.5 mV, phono high 5.0 mV, tape/aux. 200 mV. FM sensitivity 1.6 μ V (IHF); stereo separation 45 dB at 1 kHz; (S+N)/N 70 dB. OTL amplifier.



Complete complement of controls. 5 1/2" x 19 1/2" x 14 1/2" \$349.95

STA-80 AM-FM Stereo Receiver

24 W/ch continuous rms power at 8 ohms; 38 1/2 W/ch (IHF) at 8 ohms. Response 20-20,000 Hz \pm 1 dB. HD 1% at rated power. Power bandwidth 20-50,000 Hz. Hum & noise 60 dB phono, 80 dB aux. Sensitivity: phono 2.8 mV, tape/aux. 200 mV. FM sensitivity 2.5 μ V (IHF); selectivity 50 dB; separation 36 dB at 1 kHz; capture ratio 2 dB; image rejection 50 dB. (S+N)/N 65 dB. 5" x 17 1/2" x 12 1/2". \$249.95

STA-46 AM-FM Stereo Receiver

12 1/2 W/ch continuous rms power at 8 ohms; 18 W/ch (IHF) at 8 ohms. Response 20-25,000



Hz \pm 1 dB; power bandwidth 25-25,000 Hz. HD 0.8%; IM 1%. Hum & noise -65 dB. Input sensitivity 2.5 mV phono. FM sensitivity 3.0 μ V; stereo separation 34 dB. (S+N)/N 55 dB. Has full range of controls. Brushed aluminum front panel, walnut wood case. 17" x 12" x 5". \$189.95

ROTEL

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

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

RX-200A. 200 W/ch dynamic power (10 W/ch rms) at 8 ohms. Features tape monitor & has matrix switch for simulated 4-channel reproduction \$199.95

RX-400A. 20 W/ch dynamic power (10 W/ch rms) at 8 ohms. Has signal-strength meter for AM and switch for simulating 4-channel reproduction. Has tape monitor \$239.95

RX-600A. 30 W/ch rms continuous power at 8 ohms & 0.2% THD with both channels driven.



Has tape monitor, split electric power supply, mag. & ceramic phono inputs, and both signal-strength and center-of-channel tuning meters. \$349.95

SANSUI

Seven AM-FM Stereo Receiver

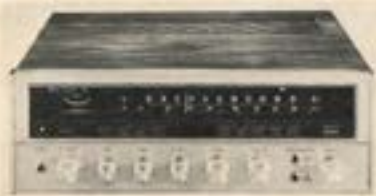
80 W/ch dynamic power at 4 ohms; 36 W/ch continuous power at 8 ohms with both channels driven & at 0.3% THD from 20-20,000 Hz. Power bandwidth 10-35,000 Hz at 8 ohms; response 15-40,000 Hz \pm 1.25 dB. FM sensitivity 1.8 μ V for 30 dB quieting; capture ratio 1.5 dB.



Has dual power supplies; FM inter-station muting; signal-strength and center-of-channel tuning meters; two-deck tape monitor; and 3-system speaker selection \$469.95

Six AM-FM Stereo Receiver

60 W/ch dynamic power at 4 ohms; 27 W/ch continuous power at 8 ohms with both channels



driven at 0.3% THD from 20-20,000 Hz. Power bandwidth 10-35,000 Hz at 8 ohms; response 20-40,000 Hz ± 1.25 dB at 1W. FM sensitivity 2 μ V for 30 dB quieting; capture ratio 2 dB. Has dual power supplies, signal-strength tuning meter, two-deck tape monitor, and a 3-set speaker selector switch \$399.95

350A AM-FM Stereo Receiver

20 W/ch continuous sine wave into 8 ohms with both channels driven & at 1% THD (22 W/ch into 4 ohms); 23 W/ch dynamic power into 8 ohms (27 W/ch into 4 ohms). Power bandwidth 30-30,000 Hz; response 30-30,000 Hz ± 1 dB at 1 W. Input sensitivity: mag. phono 2.2 mV; aux. 150 mV. FM sensitivity 3 μ V for 30 dB quieting; capture ratio 3 dB (IHF). Has main/remote speaker switch, tape monitor, universal power supply. 16 $\frac{1}{2}$ " x 5 $\frac{1}{2}$ " x 12 $\frac{1}{2}$ " D. Walnut cabinet \$239.95

210 AM-FM Stereo Receiver

10 W/ch continuous sine wave into 8 ohms with both channels driven & at 1% THD. (11 W/ch into 4 ohms); 11 W/ch dynamic power into 8 ohms (17 W/ch into 4 ohms). Power bandwidth 30-25,000 Hz; response 25-30,000 Hz ± 2 dB. Input sensitivity: mag. phono 3 mV; aux. 180 mV. FM sensitivity 5.5 μ V for 30 dB quieting. Has tape monitor and universal power supply. 17 $\frac{1}{2}$ " x 5" x 11 $\frac{1}{2}$ " D. Housed in a walnut cabinet \$149.95

Eight Deluxe AM-FM Receiver

60 W/ch continuous power into 8 ohms at 0.2% THD and 0.3% IM. 200 W (IHF) power. Re-



sponse 10-40,000 Hz ± 1 , -1.5 dB. FM sensitivity (IHF) 1.7 μ V. Has two tape monitors; provision for noise-reduction system; is 4-channel ready. 17 $\frac{1}{2}$ " x 5 $\frac{1}{2}$ " x 12 $\frac{1}{2}$ " D. ... \$599.95

771 AM-FM Stereo Receiver

40 W/continuous power into 8 ohms at 0.5% THD and 0.5% IM. 120 W (IHF) power. Amplifier is direct-coupled. Response 20-40,000 Hz ± 2 dB. FM sensitivity 2.0 μ V. Has two tape monitors; provision for 4-ch adapter; three sets of speakers; onboard noise-reduction system; and mike input. 18 $\frac{1}{2}$ " x 5 $\frac{1}{2}$ " x 11 $\frac{1}{2}$ " D. \$469.95

561 AM-FM Stereo Receiver



30 W/ch continuous power into 8 ohms at 0.5% THD and 0.5% IM. 100 W (IHF) power. Amplifier is direct-coupled. Response 20-40,000 Hz ± 2 dB. FM sensitivity 2.2 μ V. Has two tape monitors; outputs for two sets of speakers; 4-ch ready. 17 $\frac{1}{2}$ " x 5 $\frac{1}{2}$ " x 11 $\frac{1}{2}$ " D. ... \$289.95

SCOTT, H.H.

357B AM-FM Stereo Receiver

25 W/ch continuous power into 8 ohms with both channels driven & at 0.6% THD (30 W/ch



into 4 ohms). Power bandwidth 20-20,000 Hz. Sensitivity: mag. phono #1 & #2 2.5 & 4.5 mV; tape & aux. 300 mV. FM sensitivity 2.5 μ V for 30 dB quieting; capture ratio 2.5 dB (IHF). Has main/remote speaker switches. 17 $\frac{1}{2}$ " x 5 $\frac{1}{2}$ " x 12 $\frac{1}{2}$ " D \$239.95

477 AM-FM Stereo Receiver

70 W/ch continuous power into 8 ohms with both channels driven & at 0.5% THD (100 W/ch



into 4 ohms). Power bandwidth 15-40,000 Hz. Sensitivity: mag. phono #1 & #2 4 & 8 mV; tape & aux. 550 mV; mike 5.5 mV. FM sensitivity 1.9 μ V for 30 dB quieting; capture ratio 2.5 dB (IHF). Six-way speaker switching for up to 3 pairs. 17 $\frac{1}{2}$ " x 6" x 15 $\frac{1}{2}$ " D \$445.00

377B AM-FM Stereo Receiver

40 W/ch continuous power into 8 ohms with both channels driven & at 0.5% THD (50 W/ch into 4 ohms). Power bandwidth 15-20,000 Hz. Sensitivity: mag. phono #1 & #2 3.6 & 6 mV; tape & aux. 450 mV; mike 10 mV. FM sensitivity 1.9 μ V for 30 dB quieting; capture ratio 2.5 dB (IHF). Has main/remote speaker switches. 17 $\frac{1}{2}$ " x 5 $\frac{1}{2}$ " x 13 $\frac{1}{2}$ " D \$339.95

387B AM-FM Stereo Receiver

55 W/ch continuous power into 8 ohms with both channels driven & at 0.5% THD (85 W/ch into 4 ohms). Power bandwidth 10-38,000 Hz. Sensitivity: mag. phono #1 & #2 4.2 & 8.5 mV; tape & aux. 700 mV; mike 5.5 mV. FM sensitivity 1.9 μ V for 30 dB quieting; capture ratio 2.5 dB (IHF). Has main/remote speaker switches. 17 $\frac{1}{2}$ " x 5 $\frac{1}{2}$ " x 13 $\frac{1}{2}$ " D \$380.00

SHERWOOD

SEL-200 FM-Stereo Receiver

FM-stereo design. 60 W/ch continuous sine-wave into 8 ohms with one channel driven & at 0.2% THD; 85 W/ch into 4 ohms; 70 W/ch dynamic power into 8 ohms; 112 W/ch into 4 ohms. Power bandwidth 8-35,000 Hz at 1% HD;

response 20-20,000 Hz ± 1 dB. Input sensitivity: variable 1.6-7.2 V; mag. phono 200 mV. HD 0.1% at 10 W. FM sensitivity 1.5 μ V for 30 dB quieting; capture ratio 1.7 dB (IHF). Has 9-pole Legendre toroidal FM i.f. filter; main/remote



speaker facilities; metal cabinet \$599.00
Optional oiled walnut cabinet \$29.95

S-7900A AM-FM Stereo Receiver

60 W/ch (rms) at 8 ohms from 20-20,000 Hz with both channels driven at 0.3% THD (120 W



rms total). Direct-coupled output circuitry with electronic relay protection. Has switch for external connection of 4-channel decoder (doubles as a second tape monitor). Built-in Dynaquad 4-channel matrixing circuit for synthesizing regular 2-channel stereo program material. Has center-tune meter; ceramic filter. FM sensitivity 1.7 μ V for 30 dB quieting; capture ratio 1.9 dB (IHF). Metal cabinet \$459.95
Optional walnut cabinet (16 $\frac{1}{2}$ " x 5 $\frac{1}{2}$ " x 14" D) \$24.95
S-8900A. Same as S-7900A except FM only \$429.95

S-7200 AM-FM Stereo Receiver

32 W/ch rms at 8 ohms from 20-20,000 Hz with both channels driven and at 0.79% THD (64 W rms total). Direct-coupled output circuitry with electronic relay protection. Front panel has switch for external connection of 4-channel decoder (doubles as second tape monitor). Features front-panel tape dubbing, center-tune meter for FM, ceramic filter, and signal-strength meter for AM. FM sensitivity 1.8 μ V for



30 dB quieting; capture ratio 1.9 dB (IHF). Walnut case. 17 $\frac{1}{2}$ " x 5 $\frac{1}{2}$ " x 14" D \$339.95

S-7100A AM-FM Stereo Receiver

22 W/ch rms at 8 ohms & 1 kHz with both channels driven & at 0.9% THD (44 W rms total).



Direct-coupled amplifier. Has front-panel tape dubbing facilities; multiple speaker switching (A, B, or A+B); ceramic i.f. filters; signal-strength meter. FM sensitivity 1.9 μ V for 30 dB quieting. Walnut case. 17 $\frac{1}{2}$ " x 5 $\frac{1}{2}$ " x 13 $\frac{1}{2}$ " D \$219.95

S-7050 AM-FM Stereo Receiver

10 W/ch rms at 8 ohms & 1 kHz with both channels driven & at 1.0% THD (20 W rms total). Direct-coupled amplifier. Has provision for two sets of speakers. FM sensitivity 3.5 μ V for 30 dB quieting. Walnut case \$174.95

SONY

HST-230A AM-FM Stereo Receiver

20 W/ch dynamic power at 8 ohms. Input sensitivity: mag. phono 3.5 mV; ceramic phono 300 mV; tape 400 mV. Has tape monitor & main/remote speaker switch. 16 1/2" x 4 1/2" x 12 1/2" D \$149.95

STR-6036A AM-FM Stereo Receiver

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



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

STR-7055 AM-FM Stereo Receiver

35 W/ch continuous power output into 8 ohms (20-20,000 Hz); 45 W/ch into 8 ohms (1 kHz); HD & IM 0.2% at rated output. FM sensitivity 2.0 μ V (IHF); selectivity 70 dB; capture ratio 1.0 dB; image rejection 70 dB. (S+N)/N 70 dB. Has full complement of controls. Two pairs of inputs and outputs for monitoring two recorders; accepts any 4-ch decoder. Oiled walnut cabinet. 6 1/4" H x 18 1/2" W x 14 1/2" D .. \$399.50
STR-7065. Similar to STR-7055 except 60 W/ch and includes mike input and mixing facilities. Oiled walnut cabinet. 5 1/4" H x 17 1/2" x 9" D \$499.50

SUPERSCOPE

R-330 AM-FM Stereo Receiver

9 W/ch continuous power into 8 ohms with both channels operating; THD 1.0% at 1 kHz. Response 15-45,000 Hz \pm 3 dB; power bandwidth 30-30,000 Hz. FM usable sensitivity 5 μ V; (S+N)/N 55 dB; stereo separation 32 dB at 1 kHz; capture ratio 4 dB. Has volume controls, mode selector switch, loudness and tape monitor switches, balance control, main/remote speaker switch, stereo headphone jack, signal-strength tuning meter, FM stereo indicator light, output for 4-ch FM decoder when 4-ch multiplex FM broadcasting is approved. 16 1/2" W x 5 1/2" H x 12 1/2" D \$179.95

R-340 AM-FM Stereo Receiver

12 W/ch continuous power into 8 ohms with both channels driven; THD 1.0% at 1 kHz. Response 30-20,000 Hz \pm 1 dB; power bandwidth 30-30,000 Hz. FM usable sensitivity 2.8 μ V (IHF); stereo separation 32 dB at 1 kHz; capture ratio 2.5 dB; spurious rejection 45 dB. Includes Quadraphase circuit to simulate 4-ch from standard stereo sources with addition of two speakers. 16 1/2" W x 5" H x 5 1/2" D \$219.95

R-350 AM-FM Stereo Receiver

Similar to R-340 except 25 W/ch; response 20-



20,000 Hz \pm 1 dB; power bandwidth 15-40,000 Hz. FM usable sensitivity (IHF) 2.8 μ V; stereo separation 35 dB at 1 kHz; capture ratio 3.0 dB; spurious rejection 84 dB (FM). Includes Quadraphase \$279.95

SYLVANIA

CR2741W AM-FM Receiver

Features PQ4 circuitry to simulate 4-channel reproduction, outputs for four speakers, 25 W/ch (IHF) dynamic power into 8 ohms (32 1/2 W/ch into 4 ohms), 12 W/ch rms continuous power into 8 ohms (16 W/ch into 4 ohms). THD 1% at rated output. Response 25-20,000 Hz +0, -3 dB. Power bandwidth 25-20,000 Hz. FM sensitivity 2.5 μ V for 30 dB quieting. Capture ratio 5.5 dB. 17 1/2" x 12" x 5" H. Walnut-grained vinyl. \$179.95

CR2742A AM-FM Receiver

Has PQ4 circuitry to simulate 4-channel reproduction, outputs for four speakers, 40 W/ch (80 W total) dynamic (IHF) power into 8 ohms (75 W/ch into 4 ohms), 25 W/ch rms continuous power into 8 ohms (30 W/ch into 4 ohms). THD 0.5% at rated output (0.1% at 1W). Response 17-35,000 Hz +0, -3 dB. Power bandwidth 17-30,000 Hz. FM sensitivity 1.9 μ V for 30 dB quieting. Capture ratio 1.5 dB. 16 1/2" x 13" x 5 1/2". Walnut-grained vinyl. \$219.95

CR2743A AM-FM Receiver

Features PQ4 circuitry for simulated 4-channel reproduction, outputs for four speakers, 80 W/ch (160 W total) dynamic (IHF) power into 8 ohms (150 W/ch into 4 ohms). 50 W/ch rms continuous power into 8 ohms (60 W/ch into 4 ohms). THD 0.5% at rated output (0.1% at 1 W). Response 17-35,000 Hz \pm 1.5 dB. Power bandwidth 17-30,000 Hz. FM sensitivity 1.9 μ V for 30 dB quieting. 16 1/2" x 15 1/2" D x 5 1/2". Walnut cabinet. \$299.95

TANDBERG

TR-1020 AM-FM Stereo Receiver

52 W/ch dynamic power into 8 ohms (75 W/ch into 4 ohms); 40 W/ch continuous power into 8 ohms (52 W/ch into 4 ohms) with both channels driven & at 0.2% THD (38 W/ch from 20-20,000 Hz). Response 12-70,000 Hz \pm 0.75 dB. FM sensitivity 2 μ V; capture ratio 1.8 dB. Input sensitivity; mag. phono 4 mV; tape #1 & #2 260 mV. Has tape monitor; main/remote speaker switch; and a signal-strength meter that can also be used to read power output. 17" x 5 1/2" x 12" \$499.90

TECHNICS BY PANASONIC

SA-5200 AM-FM Stereo Receiver

18 1/2 W/ch dynamic power at 8 ohms (24 W/ch at 4 ohms); 14 W/ch continuous power at 8 ohms (16 W/ch at 4 ohms) and at 0.8% THD. Power bandwidth 7-30,000 Hz. FM sensitivity 1.9 μ V for 30 dB quieting; capture ratio 2 dB. Input sensitivity; mag. phono 3 mV; mike 2.5 mV; tape play #1 & #2 200 mV. Features dual power supplies; dual tape monitor with tape-to-tape dubbing; main/remote speaker switch. Has built-in "speaker matrix" for 4-channel enhancement. 16 1/2" x 5 1/2" x 14 1/2" D. \$199.95

TELEDYNE

RA-655 AM-FM Stereo Receiver

20 W/ch dynamic power (IHF) at 1 kHz with

both channels driven. Power bandwidth 20-36,000 Hz; response 17-20,000 Hz at 1 W rms +1 dB. FM sensitivity (IHF) 3 μ V; THD at 100 μ V 0.35%; (S+N)/N 63 dB; FM selectivity 45 dB; stereo channel separation at 1 kHz 32 dB; FM image rejection 55 dB. Has a built-in "Phase-Power" 4-channel synthesizer which extracts ambience information from all conventional 2-channel stereo material. Inputs: magnetic phono, auxiliary, tape monitor. Outputs: speakers (4-16 ohms); headphones 4-16 ohms; tape (high imp.). 18 1/2" W x 4 1/2" H x 11 1/2" D \$149.95

RA-618 AM-FM Stereo Receiver

Similar to Model 655 except 60 W/ch dynamic (IHF) power at 1 kHz with both channels driven. 18 1/2" W x 4 1/2" H x 11 1/2" D \$189.98

RA-777 AM-FM Stereo Receiver

Similar to Model RA-655 except 80 W/ch dynamic (IHF) power at 1 kHz with both channels driven. Response 20-20,000 Hz at 1 W rms +1 dB. FM (S+N)/N 60 dB. Has a preamplified tape input (5-pin DIN connector). 17 1/2" W x 5 1/2" H x 15 1/2" D \$249.98

TOSHIBA

SA-400 AM-FM Stereo Receiver

15 W/ch continuous sine-wave into 8 ohms with one channel driven and at 0.8% HD; 20 W/ch dynamic power into 8 ohms at 0.8% HD. Power bandwidth 20-40,000 Hz; response 20-40,000 Hz +0, -3 dB at rated output. Input sensitivity: 3 mV; mag. phono 200 mV. HD 0.2% at 1 W output. FM sensitivity 2.5 μ V for 30 dB quieting. Has connection and switch for 4-channel adapter, remote/main speaker switch, several IC's, and connections for equalizer or electronic crossover. 16 1/2" x 4 1/2" x 11 1/2" D \$199.95

SA-500 AM-FM Stereo Receiver

90 W/ch dynamic power at 8 ohms and 0.4% THD; 70 W/ch continuous power at 8 ohms and 0.4% THD, with each channel driven individually. Response 20-40,000 Hz \pm 1 dB (aux. input); power bandwidth 8-80,000 Hz. (S+N)/N -65 dB phono; -75 dB aux. FM sensitivity 1.8 μ V for 30 dB (S+N)/N; capture ratio 1.5 dB. Input sensitivity; mag. phono 2.5 mV; condenser phono 40 mV; tape play & aux. 150 mV. Has 75 & 300 ohm antenna inputs, FM muting, tape monitor, main/remote speaker switch. Walnut cabinet. 17 1/2" x 4 1/2" x 14" \$349.95

YAMAHA

CR1000 AM-FM Stereo Receiver

72 W/ch continuous rms power at 8 ohms with both channels driven. THD 0.1% at rated output (1 kHz). Power bandwidth 15-60,000 Hz. FM sensitivity (IHF) 1.5 μ V; THD 0.2% stereo; image rejection 120 dB; capture ratio 1.0 dB. Has high & low filters; mid-range tone control; two meters \$799.95
CR-800. Same as CR1000 except 45 W/ch; FM



sensitivity 1.7 μ V; 100 dB image rejection; \$549.95

CR-600. Same as CR1000 except 27 W/ch; FM sensitivity 2.0 μ V; THD 0.5% stereo; image rejection 80 dB; capture ratio 2.0 dB \$449.95

CR-400. Same as CR1000 except 18 W/ch; power bandwidth 20-50,000 Hz; FM sensitivity 2.5 μ V; THD 0.5% stereo; image rejection 55 dB; capture ratio 2.0 dB \$299.95



The only Dolbyized[®] reel-to-reel recorder with GX heads on the market today...

One of a kind. And without competition. AKAI's new GX-285D.

The first—and only—Dolbyized reel-to-reel stereo tape deck with GX heads available in the U.S. today.

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Buy the BSR 710 or 810.

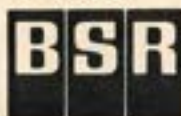


Either way you'll get the shaft.

The BSR 810 and 710 have their brains in their shaft. A carefully machined metal rod holding eight precision-molded cams. When the cam shaft turns, the cams make things happen. A lock is released, an arm raises and swings, a record drops, a platter starts spinning, the arm is lowered, the arm stops, the arm raises again, it swings back, another record is dropped onto the platter, the arm is lowered again, and so on, for as many hours as you like.

Deluxe turntables from other companies do much the same thing, but they use many more parts—scads of separate swinging arms, gears, plates, and springs—in an arrangement that is not nearly as mechanically elegant, or as quiet or reliable; that produces considerably more vibration, and is much more susceptible to mechanical shock than the BSR sequential cam shaft system.

When you buy a turntable, make sure you get the shaft. The BSR 710 and 810. From the world's largest manufacturer of automatic turntables.



BSR (USA) Ltd.
Blauvelt, New York 10913

3

RECORD PLAYERS

ACOUSTIC RESEARCH

AR-XB Manual Turntable

Two-speed (33 & 45 rpm) manual turntable. Comes with tonearm. Features synchronous



motor, belt drive, 3.3-lb platter, viscous-damped cueing, and removable cartridge shell. Comes complete with base and dust cover. 5 1/2" H x 16 1/2" W x 12 1/2" D \$99.95
XB Universal. Same except 50/60 Hz, 220 V/110 V operation \$106.95
AR-XB91. Same as AR-XB except comes with premounted Shure M91ED cartridge. \$154.90

BANG & OLUFSEN

Beogram 3000 Automatic Turntable

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



for manual operation. Constant-voltage asynchronous motor; built-in self adjusting anti-skating. Rumble 60 dB (DIN B); wow & flutter $\pm 0.15\%$ peak value (DIN); fine-speed adj. 6%. Adjustable counterweight on tonearm; adjustable stylus pressure 0 to 3.5 g. Comes with SP 12A elliptical, naked-diamond stylus. Low-profile, functional design. Hinged dust cover which can be removed if desired. Will play all size records with dust cover closed \$250.00
 Accessory preamp (Type 8905306) available extra.

BSR McDONALD

610A/X Automatic Turntable

For 7", 10", 12" records at 33, 45, or 78 rpm. Features stereo muting switch, synchronous

motor, stylus pressure control, viscous damped cue & pause control, dual-range anti-skate control, and slide-in cartridge head. Pop filter included. Supplied with Shure M-93E elliptical mag. cartridge, base, and dust cover. 15 1/2" W x 14 1/2" x 7 1/2" \$131.80

510A/X Automatic Turntable

Similar to Model 610A/X except lighter weight turntable and does not include stereo muting switch. With Shure M-75ECS mag. cartridge, base, and dust cover. \$106.80

310A/XE Automatic Turntable

Similar to Model 510A/X except economy design with 4-pole induction motor and standard anti-skate, cue, and pause controls. With ADC-KBE mag. cartridge, base, and dust cover. \$86.80

810 Turntable

Two-speed (33 1/3 & 45 rpm) manual/changer combination. Supplied with tonearm. Features anti-skating control, synchronous motor, direct drive, record repeat, cueing and pitch controls. Stylus pressure adjustable from 0 to 4 g. 7 1/2 lb platter. Removable cartridge shell. ... \$159.95
Model 810X. Same as Model 810 except has walnut base, dust cover, and comes with Shure M-91ED cartridge. \$249.80

710 Turntable

Similar to Model 810 except has lighter turntable and different tonearm gimbal ... \$129.95
Model 710X. Same as Model 710 except supplied with walnut base, dust cover, and Shure M-91E mag. cartridge \$205.80

CONNOISSEUR

BD2/C Turntable

Integrated turntable with SAU2 arm and pick-up assembly. Has push-button speed control; hydraulic lift and lowering of tonearm; anti-vibration springs; lightweight cartridge shell with self-cleaning contacts. Two-speed (33 & 45 rpm); 60-Hz synchronous constant speed 450 rpm; belt drive. Rumble -50 dB (RIAA); hum -80 dB; wow & flutter 0.1%. Has 10 1/2" aluminum platter. 13 1/2" x 15 1/2" x 4 1/2" H (including



dust cover). Comes with arm, base, dust cover but without cartridge \$139.95
SAU2. Tonearm with head shell \$50.45
HS. Head shell for SAU2 tonearm \$5.40

DUAL

All Dual models offer the following features: dynamically balanced tonearm which does not require critical leveling of chassis; direct-dial setting for stylus force; anti-skating; 6% pitch control for all three speeds (33, 45, 78); automatic and manual operation in both single- and multiple-play modes; interchangeable single- and multiple-play spindles; self-stabilizing multiple-play spindles hold up to six records; records removable from platter without removing spindle; silicone-damped cueing system which operates with both manual and automatic starts; jam-proof slip-clutch engagement between tonearm and cycling mechanism; quick-release cartridge holder with stylus overhang adjustment. All prices are less base and cartridge.

1229 Professional Automatic Turntable

Additional features include: mode selector which lowers tonearm base to parallel tonearm



to record for correct vertical stylus tracking in single-play mode, raises tonearm base to parallel tonearm to center of stack in multiple-play mode. Tonearm suspension centers tonearm within four-point "ring-in-ring" gyroscopic gimbal. Tonearm tracks down to 1/4 gram. Damped counterbalance with coarse and fine adjust, tracking pressure dial calibrated in tenths of a gram. Separate anti-skating scales for conical and elliptical styli. Synchronous/continuous-pole motor. Built-in illuminated strobe with adjustable viewing angle. 12", 7-pound platter. Cue control system with silicone damping in both directions. Four-point-damped spring suspension. 14 1/2" x 12" plus 1" at rear and right for tonearm overhang. 5" above, 3" clearance below mounting board \$225.00
DCB-6. Danish-style combination base and dust cover \$39.95
WB-19X. Deluxe oiled-walnut base with flip-open accessory panel \$29.95
DC-9X. Deluxe dust cover with lift-open front \$39.95
WB-19. Oiled walnut base \$14.95
DC-9. Smoke-tinted dust cover \$14.95

1218 Auto/Professional Turntable

Additional features include: four-point "ring-in-ring" gyroscopic gimbal tonearm suspension. Tracking angle selector for single- and multiple-play. Tracking down to 1/2 gram. Damped counterbalance with coarse and fine adjustments. Separate anti-skating scales for conical and elliptical styli. Synchronous/bi-torque motor. 4-lb platter. 13" x 10 1/2" plus 1" at rear and right for



tonearm overhang, 5" above and 2 1/2" below mounting board \$169.50

1216 Auto/Standard Turntable

Additional features include: tracking as low as 7/8 g, 4-lb one-piece die-cast platter. Separate anti-skating scales for conical and elliptical stylus. 12 1/2" x 10 1/2", 5" above 2 1/2" below mounting board \$139.50

1214 Automatic Turntable

Additional features include: tracking as low as 1 gram. Fine-adjust damped counterbalance.



3 1/2-lb platter, 12 1/2" x 10 1/2", 5" above and 2 1/2" below mounting board \$109.50

Accessories for 1218, 1216, 1214

DCB-5, Danish-style combination base and dust cover \$39.95
MB-10, Molded base \$8.95
WB-12, Oiled walnut base \$12.95
DC-4, Smoke tinted dust cover \$12.95

701 Automatic Single-Play Turntable

All-electronic direct-drive brushless d.c. motor with regulated power supply. An exclusive overlapping coil design provides gapless rotating magnetic field. Two Hall-effect generators for electronic self-regulating speed monitoring. Motor rotates at actual record speed: 33 1/3 or 45 rpm; top of shaft functions as record spindle. Separate 8% pitch-control for each speed. Illuminated strobe with adjustable viewing angle. 12" one-piece dynamically balanced die-cast platter; combined rotating weight (platter



plus rotor) 9.7 lbs. Gimbal-mounted 8 1/2" tonearm. Two anti-resonance filters integral with counterbalance, tuned to tonearm/cartridge system and chassis. Stylus pressure 0-3.0 g, calibrated in 10ths of a gram. Separate anti-skating scales for conical and elliptical stylus. Cueing system damped in both directions. Rumble: -70 dB. Wow & flutter: 0.03%. 16.5" x 14.4" x 5.8". With base and dust cover \$350.00

ELAC/MIRACORD

50H Mark II Automatic Turntable

Three speeds (33, 45, & 78 rpm); rumble -40 dB (NAB); wow 0.06%; flutter 0.02%. Stylus



force adjustable 0 to 6 1/2 g ±0.1 g. Mounting clearance 5 1/2" above board, 2 1/2" below. Has hysteresis motor and anti-skating device, cueing lever, and built-in lighted stroboscope. 14 1/2" W x 12 1/2" D. Without base or cartridge. \$225.00

625 Automatic Turntable

Features 4-pole synchronous motor, cueing lever, and anti-skating device. Four speeds (16,



33, 45 & 78 rpm). Will handle 7", 10" & 12" records. Rumble -38 dB (NAB); wow 0.07%; flutter 0.03%. Stylus force calibration 0 to 6 1/2 g ±0.1 g. Space required above mounting board 5 1/2", below 2 1/2". Less base & cartridge. \$119.95

650 Automatic Turntable

Four-speed (16, 33, 45 & 78 rpm) manual/changer combination. Has 4-pole motor. Features anti-skating device, cueing control, 0 to 6 1/2 g stylus pressure adjustment, and removable cartridge shell. Wow 0.07%; -38 dB rumble. 8 1/2" H x 13 1/2" W x 11 1/2" D. \$149.50
Molded base. \$6.95

660H Automatic Turntable

Four-speed (16, 33, 45 & 78 rpm) manual/changer combination. Has hysteresis motor, cueing control, anti-skating device, removable cartridge shell, overhang adjustment, and adjustable stylus pressure 0 to 6 1/2 g. Less base. \$175.00
Molded base. \$6.95

760 Automatic Turntable

Features 4-pole induction motor. Operates at 78, 45, and 33 rpm. Will handle 7", 10", or 12" records. Rumble 44 dB (NAB); wow 0.06%; flutter 0.02%. Tracking error less than 0.4 degree per inch. Stylus force adjustment calibrated 0-6 1/2 g (accurate to within 0.1 g). Speed adjustable over a 6% range for semitone of pitch adjustment. 12" die-cast platter; dynamically balanced tonearm. 14 1/2" W x 12 1/2" D x 5 1/2" above motorboard, 2 1/2" below \$189.50

770H Automatic Turntable

Three-speed (33, 45 & 78 rpm) manual/changer combination. Features variable speed control, hysteresis motor, anti-skating device, cueing control, tracking angle adjustment, and adjustable stylus pressure from 0 to 6 1/2 g. Wow 0.05%; -42 dB rumble. Has removable cartridge shell, overhang adjustment, and an elapsed time indicator. 9 1/2" H x 14 1/2" W x



12 1/2" D. \$265.00
Wood vinyl-covered base. \$11.00

EMPIRE

Troubadour II 598 Turntable

Two-speed (33, 45 rpm) manual turntable. Has anti-skating device, hysteresis synchronous



motor, belt drive, cueing control, and removable cartridge shell. Wow & flutter 0.01%; stylus pressure adjustable from 0 to 4 g; rumble -90 dB. Has built-in 45-rpm spindle, 12" platter. 16" W x 13 1/2" D x 3 1/2" above mtg. board, 3 1/2" below. Comes with 1000ZE/X low-tracking cartridge, base, and Plexiglas cover \$349.95

GARRARD

Zero 100C Turntable

Two-speed (33 & 45 rpm) manual/changer combination. Features an articulated tonearm



system; built-in record counter (a stylus timer); and damped cueing in the upward direction of the tonearm as well as in descent. Has synchronous motor, direct drive, anti-skating device, cueing control, tracking-angle adjustment, and pitch control. Stylus pressure adjustable from 0 to 3 g. Removable cartridge shell and overhang adjustment. 7 1/2" H x 15 1/2" W x 14 1/2" D. \$209.95

Zero 92 Turntable

Features same articulated tonearm system as 100C and damped cueing; 15-degree vertical tracking adjustment, cartridge overhang adjustment and anti-skating adjustments, two-point record support, stylus-force adjustment,



Stanton. Benchmark for an Industry.



Stanton's 681 Series is the Calibration Standard to recording engineers such as Robert Ludwig.

Whatever the requirements for recording and playback, Stanton's Series 681 cartridges are the Calibration Standard. And there is a 681 model engineered specifically for each of these critical applications. That's why Stanton is truly the Benchmark for the industry.

The Stanton 681A—For Cutting Head Calibration. With Stanton's Model 681A, cutting heads can be accurately calibrated with the cartridge, for it has been primarily designed as a calibration standard in recording system checkouts. Frequency response is factory calibrated to the most rigid tolerances and the flattest possible response is assured for precise alignment of recording channels.



The Stanton 681EE—for Critical Listening.

Stanton's Model 681EE is designed for low-distortion tracking with minimum stylus force, regardless of the recorded velocity or the distance of the groove from the disc center. High compliance, low mass and low pressure assure perfect safety even on irreplaceable records.

All Stanton Calibration Standard cartridges are guaranteed to meet the specifications with exacting limits. Their warranty comes packed with each unit—the calibration test results for that individual cartridge.

For complete information and specifications write Stanton Magnetics, Inc., Terminal Drive, Plainview, L.I., New York.



All Stanton cartridges are designed for use with all two- and four-channel matrix derived compatible systems.

interchangeable spindles, and a Synchro-Lab motor, kinetically matched turntable, and three separate control tabs. \$169.95

82 Turntable

Has identical head arrangement for cartridges and uses same cartridge clip as 100C and 92.



Includes stylus overhang & 15 degree vertical tracking adjustments, stylus-force adjustment and anti-skating adjustments, damped cueing in both directions, interchangeable spindles, two-point record support, and Synchro-Lab motor. Has white unit plate, clear plastic gimbal surround, and new extruded aluminum tonearm. \$119.95

70 Turntable

Features same support platform system as more expensive models. Has low-mass extruded-aluminum tonearm; fully adjustable stylus-pressure setting with gauge; suspended counterweight; spring-type anti-skating device; cueing and pause control fully damped in downward direction. \$89.95

62 Turntable

Similar to the Model 70 except has a heavy-duty



four-pole induction surge motor. \$69.95

42C Pre-Pack Turntable Kit

Designed to be plugged into music sources without preamps. Comes with Tetrax cartridge with diamond stylus; cueing and pause control with damped drop; low-mass aluminum tonearm with fixed counterweight; adjustable anti-skating control; pre-mounted cartridge prefixed to correct tracking force; Garrard base. \$73.00

74M Pre-Pack. Same features as 42C except with Shure M91ED magnetic cartridge; low-mass extruded aluminum tonearm with dynamic counterbalance; 15-degree tracking angle and cartridge overhang adjustments; adjustable stylus-force and anti-skating adjusting; Synchro-Lab motor; Garrard base. \$151.85

SLX-2 Turntable

Three-speed (33, 45 & 78 rpm) manual/changer combination. Supplied with tonearm. Has synchronous motor and belt drive. Features record repeat, cueing control, and fixed shell with cartridge. 8" H x 16" W x 15 1/2" D. Comes with base and dust cover. \$69.50

GLENBURN

2110 Record Changer

Four-speed record changer with Shure M-75 stereo magnetic cartridge and diamond stylus,



base and dust cover. Features cue and pause control; built-in linear anti-skate; 11" platter with cushioned mat; interchangeable automatic and single-play center spindles; ball-race pivoted tonearm; automatic tonearm locking rest. Driven by a high-torque induction motor. Will handle up to 8 records. 13 1/2" x 11 1/2" x 4" above motorboard (2" below) \$74.00

1100 Record Changer

Four-speed record changer with ceramic cartridge and diamond stylus. Features cue and pause control; swing-away control arm; 45 rpm adapter spindle; built-in linear anti-skate; external stylus pressure control. Comes with molded base, tinted dust cover, a.c. and audio cords. \$49.95

1100S Record Changer

Designed as a replacement unit. Comes with ceramic cartridge, diamond stylus, and connecting cables. \$34.50

HITACHI

PS-3500 Automatic Record Changer

4-speed design with 4-pole motor, Shure M-75CS dynamic cartridge. Features cue & pause



control, anti-skating mechanism. Supplied with walnut cabinet, hinged dust cover, and leather-covered front panel. \$79.95

JVC

VL-8 Manual Turntable

Two-speed (33 & 45 rpm) with 12" platter. S + N/N - 60 dB; wow & flutter 0.05% (W rms). Has adjustable stylus pressure and static balance type tonearm. 7 1/2" x 19 1/2" W x 16 1/2" D. \$259.95



LENCO

L-78 Single-Play Turntable

Four-speed (16, 33, 45 & 78 rpm) design with continuously variable speed from 30 to 86 rpm. Will handle 7", 10", or 12" records. Rumble (NAB) -40 dB; wow & flutter 0.06%. Features electronic shut-off and arm lift; balanced tonearm; automatic viscous-damped cueing; anti-skating; low-mass cartridge head; high-mass base suspension system. Tonearm 8"; turntable diameter 11 1/2". Motor is 4-pole constant-velocity type with conical shaft. \$179.50

L-85 Single-Play Turntable

Two speed (33 & 45 rpm) design with $\pm 3\%$ speed adjustment. Wow & flutter $\pm 0.08\%$



weighted; rumble -63 dB weighted. Has 16-pole synchronous motor with belt drive. Stylus force adjustment 0-5 g. 12 1/2" platter. Has built-in illuminated stroboscope, anti-skating device, four viscous-damped suspension spring, automatic shut-off, and automatic arm lift. Mounting clearance above board 2 1/2", below 2 1/2". 16 1/2" x 12 1/2" \$249.50

B-52 Single-Play Turntable

Four-speed (16, 33, 45, 78 rpm) design with capability for continuous selection of any speed from 30 to 86 rpm. Has automatic viscous damped cueing lever. Wow & flutter 0.12%; rumble -37 dB. 11.8" platter. Anti-skating device. 14 1/2" W x 11 1/2" x 5 1/2" \$89.50

L-75 Single-Play Turntable

Four-speed (16, 33, 45, 78 rpm) design with capability for continuous selection of any speed from 30 to 86 rpm. Features low-mass cartridge head, anti-skating device, automatic viscous-damped cueing lever. 12", 8.8 lb. platter. Wow & flutter 0.06%; rumble -38 dB. 17 1/2" W x 13 1/2" x 6 1/2". With walnut base and hinged dust cover. \$149.50

PERPETUUM-EBNER

All PE automatic turntables provide the following features: Fully automatic and manual single play. Self-stabilizing changer spindle holds up to six records. Single-play spindle rotates with platter. "Fail-safe" feature prevents tonearm from descending to platter unless a record is on the turntable. Stylus pressure dialed directly from 0-6 grams. Cue-control damped in both directions. 6% pitch control for all speeds (33, 45, 78 rpm). Automatic record-size scanner. Adjustable stylus overhang. Prices are less base and cartridge.

PE-3060 Turntable

Has, in addition, a double-ring gimbal-mounted



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Pride of accomplishment. It begins in our labs with the creation of an audio component so radically different that no one thought of it before, much less considered making it available in kit form. It carries through to a cozy basement workshop where a customer's hand reaches to press the power button on a just-finished AJ-1510, the world's most advanced FM stereo tuner. The digital readout lights to life and the sound comes through with startling brilliance. And at that moment another Heathkit builder feels the same thrill felt by the design engineer when he hit the switch on this piece of circuitry that up till then had worked only in his mind.

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tubular tonearm that tracks as low as 0.5 g. Anti-skating separately calibrated for conical and elliptical styli. Vertical tracking angle adjustment for single and multiple play. Heavy-duty induction/synchronous motor. Die-cast 10% dynamically balanced 4.4-lb platter \$169.95

PE-3012 Turntable

Has, in addition, a one-piece die-cast tonearm which tracks as low as 1 1/2 g. Laminated 10% inch, 3-lb platter \$89.95

PE-3015 Turntable

Has, in addition, a one-piece counterbalanced tonearm tracking as low as 1 g. Anti-skating



synchronized with tracking pressure. Die-cast 10% dynamically balanced 4.4-lb platter \$129.95

PHILIPS

GA212 Automatic Turntable

Servo-controlled, 2-speed (33 & 45 rpm) belt-driven design for single play, complete with



tonearm, hinged but removable dust cover, slide-out cartridge plate, and stroboscopic ring. Features anti-skating device, hydraulically damped cueing control. Has two independent potentiometers for speed calibration ($\pm 3\%$). Drift 0.2%; wow & flutter 0.1%; rumble -40 dB NAB weighted. Stylus force range 0.5-4 g. Arm resonance 7 Hz. 11 1/2" platter. 110 to 240 V, 50/60 Hz operation. 6 1/2" x 13 1/2" D x 15 1/2" W. With dust cover \$164.50

308 Automatic Turntable

Two-speed (33 & 45 rpm) design. Drift 0.2%; wow & flutter 0.2%; rumble -38 dB NAB weighted. Stylus force range 2-4 g. Tonearm resonance 7 Hz. 10" platter. Has hydraulically damped arm lift for cueing, anti-skate device, slide-in cartridge plate. Drive system is a dynamically balanced low-speed sync motor with belt drive. 5 1/2" x 12" D x 14 1/2" W. With dust cover \$99.50

PIONEER

PL-12D Manual Turntable

Belt-driven with 4-pole synchronous motor.

Features 33- & 45-rpm operation. Wow & flutter 0.1% (W rms). S/N 47 dB. 12" die-cast platter. Comes with static-balanced S-shaped tonearm, base, and free-stop dust cover. Stylus pressure from 0.75 g. Has anti-skating control, cueing device, direct-reading counterweight, lateral balancer, and stylus position gauge (overhang indicator). 16 1/2" W x 6 1/2" H x 14 1/2" D. \$99.95

PL-51 Manual Turntable

Has brushless d.c. servo-controlled motor; direct-drive system. Operates at 33 & 45 rpm



(electronic speed change). Speed change control range within $\pm 2\%$. Wow & flutter 0.05% (W rms). S/N 55 dB. 12 1/2" aluminum alloy die-cast platter. 8 1/2" static-balanced S-shaped pipe arm with plug-in head shell; 1/2" overhang. Has anti-skating control, lateral balancer, stylus pressure direct-readout counterweight. Comes with wooden cabinet and metal base with free-stop dust cover. 18 1/2" W x 7 1/2" H x 16 1/2" D \$249.95

PL-A35 Automatic Turntable

Features 33 & 45 rpm operation. Belt-driven with dual motor design (a 4-pole synchronous for rotating platter & a gear motor for all automatic operations). Provides automatic repeat & tonearm return. Complete with oil-damped cueing and anti-skating devices. Comes with base & dust cover. Wow & flutter 0.10% (W rms); tracking force 1.5 to 2.1 g. 12" platter. 18 1/2" W x 7 1/2" H x 16 1/2" D. \$149.95

PL-61 Manual Turntable

Features 33 & 45 rpm belt-driven operation and a X10 speed ultra-slow d.c. brushless Hall motor. Wow & flutter 0.05% (W rms). Has S-shaped static balanced tonearm with magnetic anti-skating device, stroboscope, oil-damped cueing device. Free-stop dust cover & walnut cabinet. 50-60 Hz operation. 19 1/2" W x 8" x 16 1/2" D. \$299.95

RABCO

ST-4 Manual Turntable

Two-speed (33 & 45 rpm) design with servo-driven straight-line-tracking tonearm; synchronous motor; belt drive. Integrated turntable and tonearm mechanism maintains correct tangent to record. Rumble -60 dB. Has removable cartridge shell; 1/4 g minimum tracking force. 6" H x 18" W x 15 1/2" D. Supplied with base \$199.00

RADIO SHACK

LAB-36A Record Changer

Three-speed (33, 45 & 78 rpm) manual/changer combination. Has 4-pole motor, anti-skating device, 0 to 6 g stylus-pressure adjustment, and removable cartridge clip (with Shure cartridge). Comes with tonearm and base. 6 1/2" H x 15 1/2" x 13 1/2" D \$79.95

Realistic/Miracord 40C Changer

Three-speed (33, 45 & 78 rpm) manual/changer combination. Has cueing control and removable

cartridge shell with Shure cartridge. Comes with tonearm and base. 4 1/2" H x 16 1/2" W x 14 1/2" D \$134.50

Realistic/Miracord 45 Changer

Four-speed (16, 33, 45 & 78) manual/changer combination. Has anti-skating device, cueing control, and removable cartridge shell with Shure cartridge. Supplied with tonearm and base \$164.95

REK-O-KUT

CVS-12 Turntable

Variable speed (16 to 100 rpm). Features a 4-pole motor and direct drive. Wow & flutter 0.09%; rumble -35 dB. 5" H x 15" W x 16" D. Supplied without base or tonearm .. \$169.50
BH-CVS-12. Optional base \$24.95

B12-71 Turntable

Three-speed (33, 45, 78 rpm) design. Has hysteresis synchronous motor. Wow & flutter



0.05%; -65 dB weighted rumble. Supplied without base or tonearm \$194.50
BH-1271. Optional base \$24.95

SANSUI

SR-1050C Manual Turntable

Two-speed (33 & 45 rpm) design. Has synchronous motor, anti-skating device, belt drive, and cueing control. For manual operation only. Wow & flutter 0.07%; rumble -40 dB. Has tonearm, 2 1/2 lb platter, removable cartridge shell cartridge, and base. 7 1/2" H x 17 1/2" W x 13 1/2" D \$139.95

SR-2050C Manual Turntable

Two-speed (33 & 45 rpm) design. Has synchronous motor, belt drive, anti-skating device, automatic lift, and cueing control. For manual operation only. Wow & flutter 0.07%; rumble -40 dB. Comes with tonearm and base, removable cartridge shell and cartridge. 3 lb platter. 7 1/2" H x 17 1/2" W x 13 1/2" D \$169.95

SANYO

TP-80SA Stereo Turntable

Two speed (33 & 45 rpm) design with 4-pole hysteresis synchronous motor; belt drive; cast aluminum platter; tonearm has adjustments for static balance and tracking force (0.5 to 4 g). "S" bend tonearm. Wow & flutter 0.1%. Can be operated manually or programmed for automatic tonearm return and automatic stop at end of disc. Comes with dust cover. Walnut cabinet. 18 1/2" x 15" x 7 1/2" \$199.95

SONY

PS-2251 Turntable/Arm

Two-speed (33 & 45 rpm) unit with direct-drive a.c. servo-motor. Speed control range $\pm 4\%$; wow & flutter 0.07% weighted (DIN); (S+N)/N 67 dB weighted. Tonearm is 13 1/2" static-balanced type; stylus force adjustment 0-3 g; anti-skate adjustment range 0-330 mg; viscous-damped cue control; stylus overhang gauge. 19 1/2" x 7 1/2" x 15 1/2". Comes with tonearm, wood base, and removable dust cover. \$349.50

TECHNICS BY PANASONIC

SP-10 Single-Play Turntable

Two speeds (33 & 45 rpm). Has d.c. servo motor, direct drive, and pitch control. Features built-in illuminated strobe speed indicator; 12" 6-lb platter. Build-up time within 1/2 rotation. Wow & flutter 0.03%; rumble -65 dB. Supplied without tonearm. 4" H x 14" W x 14" D. \$369.95

SP-1100A Turntable With Arm

Features direct-drive, slow-speed brushless d.c. motor with electronic speed control regulation



without belts, idlers, or pulleys. Two speeds (33 & 45 rpm). Variable pitch, $\pm 5\%$, independently adjustable for each speed. Dynamically balanced turntable has 13 1/2" platter, weighs 4.4 lbs. Wow & flutter 0.03% W rms; rumble -70 dB (DIN B). Build-up time within 1/2 rotation. Tonearm is static-balanced low-mass tubular with 9 1/2" pivot-to-stylus distance. Direct-reading tracking force adjustment from 0 to 5 g. Anti-skating control; viscous-damped cueing; universal-type cartridge head shell. Has built-in illuminated speed strobe. Dust cover included \$329.95

SP-1200 Turntable With Arm

Same as SP-1100A except has 13" diecast aluminum platter weighing 3.86 lbs and a 8 1/2" tonearm. Has hinged, removable plexiglass dust cover \$269.95

THORENS

TD-125B Manual Turntable

Three speeds (33 1/3, 45, 78). Supplied without tonearm. Has synchronous motor, belt drive, solid-state electronic pitch control. Manual operation only. Wow & flutter 0.08%. Rumble -48 dB. 8 lb platter. 5" H x 18" W x 14" D. Supplied with base \$275.00
Model TD-125AB. Same except equipped with Ortofon tonearm \$375.00

TOSHIBA

SR-40E Automatic Turntable

Two-speed (33 & 45 rpm) automatic turntable. Has anti-skating device, hysteresis motor, belt drive, and cueing control. Wow & flutter 0.1%; stylus pressure 1 1/2 - 2 1/2 g; -45 dB rumble; 2 lb platter. Comes with tonearm, fixed shell with high-compliance ceramic cartridge, and built-in IC amplifier. 7 1/2" H x 18 1/2" W x 15 1/2" D. Supplied with base \$199.95

SR-50 Turntable

Two-speed (33 & 45 rpm) design with d.c. servo motor, belt drive, automatic stop/rise, and cueing control. Wow & flutter 0.08%; stylus pressure 0-3 g; rumble -55 dB; 2 lb platter. Comes with tonearm, fixed shell with photoelectric cartridge, and FET rumble filter. 7 1/2" x 22 1/2" x 15 1/2" D. With base. \$449.95

SR-80 Automatic Turntable

Two-speed (33 & 45 rpm) belt-driven design with electret condenser cartridge (Type C-4025). Has S-shaped pipe tonearm with tracking error of ± 1.5 degrees. Wow & flutter 0.1% (W rms). Stylus 0.5-mil round diamond. Output 200 mV at 5 cm/sec at 1000 Hz. Compliance

25×10^{-6} cm/dyne (d.c.); 8×10^{-6} cm/dyne (100 Hz). Stylus pressure 2.5 ± 0.5 g. Response 20-20,000 Hz; (S + N)/N -50 dB. Features automatic return & cut, cueing control, walnut base, and dust cover. Overall size 9 1/2" x 7 1/2" x 15 1/2" \$299.95

V-M

1585 Automatic Turntable

Two-speed (33 & 45 rpm) manual/changer combination. Has synchronous motor and belt drive. Wow & flutter 0.15%. Stylus pressure adjustable from 1 1/2 to 2 1/2 g. Features removable cartridge shell and photoelectric end-of-record tonearm tripping. 6 1/2" x 19" W x 15" D. Comes without cartridge, base, or dust cover. \$129.95

1579CB Record Player

Two-speed (45 & 33 rpm) design with 11 1/2" platter. Shure magnetic cartridge with diamond stylus, and 12" tonearm. Wow 0.3%; flutter 0.15%. 5.5 mV output; 1 1/2-2 1/2 g tracking force. Has cue control and walnut base. 19" W x 4 1/2" x 15" \$129.95

YAMAHA

YP-700 Turntable

Two-speed (33 & 45 rpm), belt-driven unit with 4-pole synchronous motor. Flutter 0.05% at 33 rpm; stylus force range 0-4 g. Has 12" diam. platter; S-type static balance tonearm; automatic cut & return; anti-skate by weight; viscous cueing; universal cartridge shell. Supplied with dust cover and cartridge. 6 1/2" H x 18 1/2" W x 19 1/2" D. \$239.95

WE PLAY IT STRAIGHT

Master records are made by machines that drive the cutting head in a straight line across the record. But when you play your disc with a conventional pivoted arm system, the revolving groove pulls the stylus towards the center. This is called, "skating force."

Skating force causes wear on the inner wall of the groove and the stylus, and results in a loss of separation as well as distortion levels simply not acceptable to the serious listener.

Most good pivoted arm systems do have anti-skating devices. But they can only be set for "average" skating force ... and an anti-skating device that remains constant cannot fully compensate for all of the varying forces exerted during the playing of a record. Even the total elimination of tracking error does not eliminate the inherent problem of the pivoted arm — skating force.

The RABCO pickup moves in a straight line. The record is played precisely as it was originally cut. There is no anti-skating device for one simple reason: The RABCO system eliminates skating force.



The RABCO SL-8E is a straight tracking tone arm for your turntable. The RABCO ST-4 is a professional turntable with the RABCO tone arm system.









We want to tell you more about how we eliminate both skating force and tracking error. Drop us a note and we'll send full information straight away.

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| <p>XV-15200E DCF 200</p>  <p>MANUAL/AUTOMATIC</p> | <p>XV-15150 DCF 150</p>  <p>MANUAL/AUTOMATIC</p> | <p>XV-15140E DCF 140</p>  <p>CHANGER</p> | <p>XV-15100 DCF 100</p>  <p>CHANGER</p> |

There's a "right" Pickering cartridge for every record player, and only Pickering has developed a way for you to be absolutely certain you select the "right" cartridge for your high fidelity music system.

It is a simple way for you to precisely match one of our XV-15 (100% Music Power) cartridges to whatever kind of record player you have or plan to buy. It's called Dynamic Coupling Factor - DCF for short.

We have taken virtually every record player and pre-analyzed the vital variables affecting cartridge design and those related to the engineering features of the various turntables and changers. So, no matter what

equipment you own or plan to purchase, there is a Pickering XV-15 cartridge exactly "right" for it. The DCF number enables you to select the proper Pickering XV-15 cartridge in relation to a particular type of playback equipment to achieve maximum performance.

If you're ready to buy your next cartridge, be certain you end up with the Pickering XV-15 cartridge that's best for your system. *Have your Pickering high fidelity dealer show you our DCF Chart, or write Pickering & Co., Inc., Dept. SD, 101 Sunnyside Boulevard, Plainview, N. Y. 11803.*

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The **100%** Music Power Cartridges

All Pickering cartridges are designed for use with all two and four-channel matrix derived compatible systems.

4

PHONO CARTRIDGES

ADC

Q Series Stereo Cartridges

Low-cost version of the XLM, featuring induced magnet system and controlled electrodynamic damping. Output at 5.5 cm/sec 4.5 mV; channel separation 25 dB (nominal); recommended load imp. 47,000 ohms.

Q-30. Response 10-20,000 Hz ± 3 dB; tracking force range 1-2 g; compliance cm/dyne $\times 10^{-4}$ 30; 0.0005" spherical stylus tip. Replacement stylus R-Q36 \$19.50

Q-32. Response 10-20,000 Hz ± 3 dB; tracking force range 1-2 g; compliance cm/dyne $\times 10^{-4}$ 30; 0.0007" \times 0.0003" elliptical stylus tip. Replacement stylus R-Q32 \$29.50

Q-36. Response 10-22,000 Hz ± 3 dB; tracking force range $1\frac{1}{2}$ -1 g; compliance cm/dyne $\times 10^{-4}$ 35; 0.0007" \times 0.0003" elliptical stylus tip. Replacement stylus R-Q36 \$39.50

Q-40. Response 20-20,000 Hz ± 2 dB; tracking force range $1\frac{1}{2}$ -1 g; compliance cm/dyne $\times 10^{-4}$ 35; 0.0007" \times 0.0003" elliptical stylus tip. Replacement stylus R-Q40 \$49.50

K Series Stereo Cartridges

Designed to be used with automatic turntables and changers. Induced-magnet systems. 47,000 ohm load imp.

K8. Output at 5.5 cm/sec. 5 mV; tracking force range 2-4 g; response 15-18,000 Hz ± 4 dB; channel separation 20 dB; compliance 18 (cm/dyne $\times 10^{-4}$); 0.0007" spherical stylus. \$24.95

K7E. Output 5 mV; tracking force $1\frac{1}{2}$ -3 g; response 15-18,000 Hz ± 4 dB; channel separation 20 dB; compliance 20; 0.0008" \times 0.0004" elliptical stylus \$29.95

K5E. Output 4.5 mV; tracking force range 1-2 g; response 10-20,000 Hz ± 3 dB; channel separation 25 dB; compliance 25; 0.0007" \times 0.0003" elliptical stylus \$39.95

K3E. Output 4.5 mV; tracking force range 1-2 g; response 10-20,000 Hz ± 2.5 dB; channel separation 25 dB; compliance 30; 0.0007" \times 0.0003" stylus \$49.95

XLM Phono Cartridge

Induced magnet type; output 4 mV at 5.5 cm/sec; response 10-25,000 Hz ± 2 dB. Tracking force .6 g. Channel separation 30 dB from



50-15,000 Hz; compliance 50×10^{-4} cm/dyne. Replacement stylus RXL \$50.00

VLM Phono Cartridge

Same styling as XLM except for 1 g tracking force. Response 10-22,000 Hz ± 2.5 dB. Channel separation 30 dB from 50-15,000 Hz. Compliance 40×10^{-4} cm/dyne. Replacement stylus #RVL \$40.00

550XE Phono Cartridge

Induced magnet type; output 5.0 mV at 5.5 cm/sec; response 10-20,000 Hz ± 2 dB. Has



0.3 \times 0.7 mil elliptical stylus. Tracking force 1 to 2 g; tracking angle 15°. Channel separation nominally 20 dB from 50-12,000 Hz. Compliance 35×10^{-4} cm/dyne. Replacement stylus #R-50XE \$35.00

220XE Phono Cartridge

Induced magnet type; output 6.0 mV at 5.5 cm/sec; response 10-18,000 Hz ± 3 dB. 0.3 \times 0.7 mil elliptical stylus with 1 to 2 g tracking force. 15° tracking angle. Channel separation nominally 20 dB from 50-10,000 Hz. Compliance 20×10^{-4} cm/dyne. Replacement stylus #R-20XE \$22.00

220X Phono Cartridge

Similar to 220XE but with 0.7 mil spherical stylus. Replacement stylus #R-20X \$16.00

AUDIO TECHNICA

AT10 Stereo Cartridge

Response 20-20,000 Hz; has 0.7-mil spherical stylus; output 4.8 mV at 5 cm/sec; channel separation 20 dB at 1 kHz; channel balance 2.0 dB; tracking force 2 1/2-4 g. Has slip-on stylus guard \$24.95

AT11. Same as AT10 except response 15-25,000 Hz and tracking force 2-3 g. \$34.95

AT11E Stereo Cartridge

Response 15-28,000 Hz. Has 0.4 \times 0.7 mil el-

lptical stylus; tracking force 2-3 g. Output 4.8 mV at 5 cm/sec; channel separation 20 dB at 1 kHz; channel balance 2.0 dB. Has slip-on stylus guard \$44.95

AT12E Stereo Cartridge

Response 15-30,000 Hz. Has 0.4 \times 0.7 mil elliptical stylus; tracking force 1 1/2-2 g. Output 3.5 mV at 5 cm/sec; channel separation 22 dB at 1 kHz; channel balance 2.0 dB. Has slip-on stylus guard \$54.95

AT-13E Stereo Cartridge

Response 10-45,000 Hz. Has 0.2 \times 0.7 mil elliptical stylus; tracking force 1-2 g. Output 3.5 mV at 5 cm/sec; channel separation 25 dB at 1 kHz; channel balance 2.0 dB. Has flip-guard stylus guard \$64.95

BANG & OLUFSEN

SP-10 Phono Cartridge

Moving-iron type. Output 1 mV/cm/sec. Response 15-25,000 Hz ± 3 dB. Has 0.6-mil spherical stylus; tracking force 1 to 1 1/2 g. 15-degree tracking angle. Channel separation 25 dB at 1000 Hz. Compliance 25×10^{-4} cm/dyne. Replacement stylus #5429 \$75.00

SP-12 Phono Cartridge

Moving-iron type. Output 1 mV/cm/sec. Response 15-25,000 Hz ± 3 dB. Has 0.2 \times 0.7-mil elliptical stylus; tracking force 1 to 1 1/2 g. 15-degree tracking angle. Channel separation 25 dB at 1000 Hz. Compliance 25×10^{-4} cm/dyne. Replacement stylus #5430 \$85.00

SP-14 Phono Cartridge

Moving-iron type. Output 1 mV/cm/sec. Response 15-25,000 Hz ± 4 dB. Has 0.6-mil spherical stylus; tracking force 1 1/2 g. 15-degree tracking angle. Channel separation 20 dB at 1000 Hz. Compliance 15×10^{-4} cm/dyne. Replacement stylus #5434 \$45.00

ELAC

STS-244-17 Phono Cartridge

Moving-magnet type. Output 1.8 mV/cm/sec.



For 4-Channel Components . . .

See SECTION 9

Response 20-20,000 Hz. Has 0.7-mil spherical stylus. Tracking force 1 to 3 g. Channel separation 22 dB at 1000 Hz; compliance 18×10^{-4} cm/dyne. \$24.95
Model STS-244-E. Same except has 0.2×0.8 mil elliptical stylus. \$35.00

STS-344-17 Phono Cartridge

Moving-magnet type. Output 1.1 mV/cm/sec. Response 10-22,000 Hz. Has 0.7-mil spherical stylus. Tracking force 1 to 2 g. Channel separation 24 dB at 1000 Hz; compliance 25×10^{-4} cm/dyne. \$45.00
Model ST-344-E. Same except has 0.2×0.8 mil elliptical stylus. \$60.00

STS-444-12 Phono Cartridge

Moving-magnet type. Output 1.1 mV/cm/sec. Response 20-22,000 Hz. Has 0.5-mil spherical stylus. Tracking force $1\frac{1}{2}$ to 1.5 g. Channel separation 26 dB at 1000 Hz; compliance 33×10^{-4} cm/dyne. \$65.00
Model STS-444-E. Same except has 0.2×0.8 mil elliptical stylus. \$80.00

EMPIRE

100ZE/X Phono Cartridge

Moving-magnet type. Output 5 mV. Response 4-40,000 Hz. Has 0.2×0.7 mil miniature nude elliptical stylus. Tracking force $\frac{1}{2}$ to $1\frac{1}{2}$ g. 15-degree tracking angle. Stereo separation 35 dB. Compliance 35×10^{-4} cm/dyne. Replacement stylus #S100ZE/X-ERD \$99.95

999VE/X Phono Cartridge

Similar to 100ZE/X except response 6-35,000 Hz. Tracking force $1\frac{1}{2}$ g. Replacement stylus #S999VE/X-ERD \$79.95

999TE/X Phono Cartridge

Moving-magnet type. Output 6 mV. Response 6-32,000 Hz. Has 0.2×0.7 mil nude elliptical stylus. Tracking force $\frac{1}{2}$ to $1\frac{1}{2}$ g. Stereo separation 35 dB. Replacement stylus #S999TE/X-ERD \$64.95

999E/X Phono Cartridge

Response 10-30,000 Hz. Tracking force $1\frac{1}{2}$ g. Has 0.2×0.7 mil elliptical stylus. Stereo separation 30 dB. Replacement stylus #S999E/X-ERD \$39.95

999SE/X Phono Cartridge

Moving-magnet type. Output 8 mV. Response 8-32,000 Hz. Has 0.2×0.7 mil nude elliptical stylus; tracking force $\frac{1}{2}$ to $1\frac{1}{2}$ g. 15-degree tracking angle. Stereo separation 35 dB. Compliance 30×10^{-4} cm/dyne. Replacement stylus #S999SE/X-ERD \$49.95

909E/X Phono Cartridge

Similar to 909/X with 0.3×0.7 mil elliptical stylus but 12-25,000 Hz response. Tracking force $1\frac{1}{2}$ g. Replacement stylus #S909E/X-ERD \$29.95

Rex 66/X Stereo Cartridge

Response 10-30,000 Hz; tracking force $1\frac{1}{2}$ to 3 g.



Has 0.7-mil spherical diamond stylus. Stereo separation 30 dB. Replacement stylus #S66/X-ERD Red \$19.95
66E/X. Response 8-30,000 Hz; tracking force $1\frac{1}{2}$ to 3 g. Has 0.3×0.7 mil elliptical diamond stylus. Stereo separation 30 dB. Replacement stylus #S66E/X-ERD Black \$29.95
66PE/X. Response 8-34,000 Hz; tracking force $1\frac{1}{2}$ to 3 g. Has 0.2×0.7 mil elliptical hand-polished diamond stylus. Stereo separation 30 dB. Replacement stylus #S66PE/X-ERD White. \$44.95

909/X Phono Cartridge

Moving-magnet type. Output 8 mV. Response 15-25,000 Hz. Has 0.7 mil spherical stylus; tracking force $1\frac{1}{2}$ to 2 g. 15-degree tracking angle. Stereo separation 30 dB. Compliance 15×10^{-4} cm/dyne. Replacement stylus #S909/X-ERD \$24.95

90EE/X Phono Cartridge

Moving-magnet type. Output 8 mV. Response 15-25,000 Hz. Has 0.3×0.7 mil elliptical stylus; tracking force $1\frac{1}{2}$ to 3 g. 15-degree tracking angle. Stereo separation 30 dB. Compliance 10×10^{-4} cm/dyne. Replacement stylus #S90EE/X-ERD \$24.95

ORTOFON

SL-15E Moving Coil Cartridge

Total cartridge weight 7 grams. Features elliptical, diamond stylus; tracking force range $1\frac{1}{2}$ to 2 g. Response 10-40,000 Hz. Output impedance 2 ohms and in most applications will require use of STM-72 transformer \$89.95
STM-72 Transformer. Designed for use with SL-15E cartridge. Input impedance 2 ohms; load impedance 47,000 ohms \$35.00

M-15E Super-Magnetic Cartridge

Features the VMS (pat. pending) principle for highest trackability and lowest distortion. De-



signed for low-mass tonearms. Includes a user replaceable stylus with hand-polished, whole-diamond tip and a hinged stylus guard. Tracking force range 0.75-1.5 g. Output voltage 0.8 mV/ch at 1 kHz per cm/sec \$79.95
M-15 Super. Same as M-15E except with spherical stylus \$69.95

F-15E Magnetic Cartridge

Features VMS principle, but with lower compliance and higher tip mass for automatic turntables and older transcription tonearms. Tracking force range 1-2 g \$39.95
F-15. Same as F-15E but with spherical stylus \$29.95

ALWAYS

take along your copy of this Directory when shopping for hi-fi components. It is a comprehensive reference to complete technical details and prices.

PICKERING

V-15 Micro IV AC Phono Cartridge

Output 8.0 mV at 5.5 cm/sec. Response 20-17,000 Hz. Has 0.7 mil spherical stylus; tracking force 5 ± 2 g. Channel separation 26 dB. Features Dustamatic brush. Replacement stylus #DIV-AC \$24.95

V-15 Micro IV ACE Phono Cartridge

Output 8.0 mV at 5.5 cm/sec. Response 20-17,000 Hz. Has 0.5×0.7 mil elliptical stylus; tracking force 4 ± 1 g. Channel separation 26 dB. Has Dustamatic brush. Replacement stylus #DIV-ACE \$29.95

V-15 Micro IV AM Phono Cartridge

Output 6.0 mV at 5.5 cm/sec. Response 20-20,000 Hz. Has 0.7 mil spherical stylus; tracking force 2 ± 1 g. Channel separation 30 dB. Features Dustamatic brush. Replacement stylus #DIV-AM \$34.95

V-15 Micro IV AME Phono Cartridge

Output 5.5 mV at 5.5 cm/sec. Response 20-20,000 Hz. Has 0.4×0.7 mil elliptical stylus; tracking force $1\frac{1}{2}$ to $1\frac{1}{2}$ g. Channel separation 30 dB. Features Dustamatic brush. Replacement stylus #DIV-AME \$49.95

V-15 Micro IV AT Phono Cartridge

Output 8.0 mV at 5.5 cm/sec. Response 20-18,000 Hz. Has 0.7 mil spherical stylus; tracking force 3 ± 1 g. Channel separation 28 dB. Features Dustamatic brush. Replacement stylus #DIV-AT \$29.95

V-15 Micro IV ATE Phono Cartridge

Output 6.5 mV at 5.5 cm/sec. Response 20-18,000 Hz. Has 0.4×0.7 mil elliptical stylus; tracking force 3 ± 1 g. Channel separation 28 dB. Features Dustamatic brush. Replacement stylus #DIV-ATE \$39.95

XV-15/100 Phono Cartridge

Output 8.0 mV at 5.5 cm/sec. Response 10-20,000 Hz. Has 0.7 mil spherical stylus; tracking force 5 ± 2 g. Channel separation 35 dB. Features Dustamatic brush. Replacement stylus #D100 \$29.95

XV-15/140E Phono Cartridge

Output 8.0 mV at 5.5 cm/sec. Response 10-20,000 Hz. Has 0.5×0.7 mil elliptical stylus; tracking force 4 ± 1 g. Channel separation 35 dB. Features Dustamatic brush. Replacement stylus #D140 \$34.95

XV-15/150 Phono Cartridge

Output 8.0 mV at 5.5 cm/sec. Response 10-25,000 Hz. Has 0.7 mil spherical stylus; tracking force 3 ± 1 g. Channel separation 35 dB. Features Dustamatic brush. Replacement stylus #D150 \$34.95

XV-15/200E Phono Cartridge

Output 8.0 mV at 5.5 cm/sec. Response 10-25,000 Hz. Has 0.4×0.7 mil elliptical stylus; tracking force 3 ± 1 g. Channel separation 35 dB. Features Dustamatic brush. Replacement stylus #D200 \$49.95

XV-15/350 Phono Cartridge

Output 6.0 mV at 5.5 cm/sec. Response 10-25,000 Hz. Has 0.7 mil spherical stylus; tracking force 2 ± 1 g. Channel separation 35 dB. Features Dustamatic brush. Replacement stylus #D350 \$39.95

XV-15/400E Phono Cartridge

Output 5.5 mV at 5.5 cm/sec. Response 10-





Facts not double talk about the empire cartridge

From the critics...

"Separation was tops... square wave response outstanding. We tracked as low as 1/4 gram."

Audio Magazine, U.S.A.

"The I.M. distortion at high velocities ranks among the lowest we have measured. A true non-fatiguing cartridge."

Stereo Review, U.S.A.

"A design that encourages the hi-fi purist to clap his hands with joy."

Records and Recording Magazine, Great Britain

"One of the world's greatest cartridges." Dealer's Choice, Scotty's Stereo

Sound Magazine, Canada

"Among the very best. The sound is superb. Frequency response was flat within $\pm 1\frac{1}{2}$ dB from 20-20,000Hz. Compliance measured 35 x 10⁻⁶ cm/dyne."

High Fidelity, U.S.A.

"A real hi fi masterpiece. A remarkable cartridge unlikely to wear out discs any more rapidly than a feather held lightly against the spinning groove."

Hi-Fi Sound, Great Britain

"Grand Prize for cartridges in first all Japan Stereo Component competition."

Radio Gijutsu Magazine, Japan

From the public...

"They last a very long time... my first one 12 years", G.M., Hayward, Calif. • "It's 'State of the Art' in performance", D.D., Toledo, Ohio • "The best available", T.D., Utica, N.Y. • "It's fantastic — nothing like it", R.S., N.Y., N.Y. • "Incomparable quality", R.A., Sharon, Pa. • "Made in U.S.A.", H.H., Phila., Pa. • "Your cartridge improved the sound of my system by at least 100 percent", D.D., Riverdale, Md. • "Sounds are clearer, more distinct, really great", L.M., A.P.O., N.Y., N.Y.

EMPIRE Write for your free "Empire Guide to Sound Design"

Mfd. U.S.A.

Empire Scientific Corp. 1055 Stewart Avenue, Garden City, New York 11530



Phono Cartridges

25,000 Hz. Has 0.4 x 0.7 mil elliptical stylus; tracking force 1 1/2 ± 1/2 g. Channel separation 35 dB. Features Dustomatic brush. Replacement stylus #D400 \$54.95

XV-15/750E Phono Cartridge

Output 4.4 mV at 5.5 cm/sec. Response 10-25,000 Hz. Has 0.3 x 0.7 mil elliptical stylus; tracking force 1/2 to 1 1/2 g. Channel separation 35 dB. Features Dustomatic brush. Replacement stylus #D750 \$65.00

XV-15/1200E Phono Cartridge

Output 4.4 mV at 5.5 cm/sec. Response 10-30,000 Hz. Has 0.2 x 0.7 mil elliptical stylus; tracking force 3/4 + 1/2, -1/4 g. Channel separation 35 dB. Features Dustomatic brush. Replacement stylus #D1200 \$79.95

REK-O-KUT

F3 Stereo Cartridge

Response 20-20,000 Hz ±1 dB; 10-35,000 Hz ±3 dB. No resonance peaks 10-35,000 Hz. 1M dist. 1% over full frequency range. Channel separation 25 dB 100-10,000 Hz; 20 dB 20-20,000 Hz. Channel balance ±1 dB on both channels. Tracking force 1.5-3.5 g ... \$29.95
F3-S. Stylus \$9.95

SHURE

M3D Phono Cartridge

Moving-magnet type. Output 5.0 mV at 5 cm/sec. Response 20-15,000 Hz. Has 0.7-mil spherical stylus. Tracking force adjustable 3 to 6 g. Replacement stylus #N3D. \$15.75

M7/N21D Phono Cartridge

Moving-magnet type. Output 4.0 mV at 5 cm/sec. Response 20-20,000 Hz. Has 0.7-mil spherical stylus. Tracking force less than 2 1/2 g; compliance 9×10^{-6} cm/dyne. Replacement stylus #N21D. \$17.95

M44E Phono Cartridge

Moving-magnet type. Output 1.8 mV/cm/sec. Response 20-20,000 Hz. Has 0.4 x 0.7 mil elliptical stylus. Tracking force 1 1/4 to 4 g. 15-degree tracking angle. Channel separation better than 25 dB at 1000 Hz. Compliance 15×10^{-6} cm/dyne. Replacement stylus #N44E \$24.95

M55E Phono Cartridge

Moving-magnet type. Output 6.6 mV at 5 cm/sec. Response 20-20,000 Hz. Has 0.2 x 0.7 mil elliptical stylus. Tracking force 1/2 to 2 g; 15-degree tracking angle. Channel separation 25 dB at 1000 Hz. Compliance 25×10^{-6} cm/dyne. Replacement stylus #N55E. \$29.95

M75B, Type 2 Phono Cartridge

Has good trackability at moderate tracking forces between 1 1/2 and 3 g. Designed for moderately priced equipment. Response 20-20,000 Hz. Output 5 mV/ch at 1000 Hz and 5 cm/sec. Has 0.6-mil spherical stylus. \$33.45
Model 75EJ, Type 2. Same except with biradial 0.7 x 0.4 mil elliptical stylus. \$44.95

M91E Phono Cartridge

Moving-magnet type. Output 5.0 mV at 5 cm/sec. Response 20-20,000 Hz. Has 0.2 x 0.7 mil elliptical stylus. Tracking force 3/4 to 1 1/2 g. Channel separation better than 25 dB at 1000 Hz. Will track 18 cm/sec at 10,000 Hz. Replacement stylus #N91E. \$49.95
Model M75G, Type 2. Same except with 0.6-mil spherical stylus. \$38.45

M93E Phono Cartridge

Moving-magnet type. Output 6.2 mV at 5

cm/sec. Response 20-20,000 Hz. Has 0.4 x 0.7 mil elliptical stylus. Tracking force 1 1/2 to 3 g. Channel separation better than 25 dB at 1000 Hz. Will track 13 cm/sec at 10,000 Hz. Replacement stylus #N93E. \$39.95

M75ED, Type 2 Phono Cartridge

Tracking force 0.75 to 1.5 g. Response 20-20,000 Hz. Output 5.0 mV/ch at 1000 Hz and 5 cm/sec peak velocity. With biradial 0.2 x 0.7 mil elliptical stylus. \$54.95
Model M91GD. Same except with 0.6-mil spherical stylus. \$44.95

V-15, Type III Phono Cartridge

Moving-magnet type. Output 3.5 mV at 5 cm/sec. Response 10-25,000 Hz. Has 0.2 x 0.7



mil elliptical stylus. Tracking force 3/4 to 1 1/4 g. Channel separation better than 28 dB at 1000 Hz. Will track 38 cm/sec at 1000 Hz. Replacement stylus #VN35E. \$72.50

STANTON

500A Phono Cartridge

Output 1.0 mV/cm/sec at ±2 dB. Response 10-20,000 Hz ±2 dB. Has 0.7-mil spherical stylus;



tracking force 2 to 5 g. Channel separation 35 dB. Replacement stylus D5107A \$30.00

500AA Phono Cartridge

Output 1.0 mV/cm/sec at ±2 dB. Response 10-20,000 Hz ±2 dB. Has 0.5-mil spherical stylus; tracking force 1 to 2 1/2 g. 35 dB channel separation. Replacement stylus D5105AA \$35.00

500AL Phono Cartridge

Output 1.0 mV/cm/sec at ±2 dB. Response 20-17,000 Hz ±2.5 dB. Has 0.7-mil spherical stylus; tracking force 3 to 7 g. Channel separation 28 dB. Replacement stylus D5107AL ... \$30.00

500E Phono Cartridge

Output 1.0 mV/cm/sec at ±2 dB. Response 10-

20,000 Hz ±2 dB. Has 0.4 x 0.8-mil elliptical stylus; tracking force 2 to 5 g. Channel separation 35 dB. Replacement stylus D5100E \$35.00

500EE Phono Cartridge

Output 1.0 mV/cm/sec at ±2 dB. Response 10-20,000 Hz ±3 dB. Has 0.3 x 0.7-mil elliptical stylus; tracking force 1 to 2 g. Channel separation 35 dB. Replacement stylus D5100EE \$40.00

681A Phono Cartridge

Output 1.1 mV/cm/sec at ±2 dB. Response 10-10,000 Hz ±0.5 dB. Has 0.7-mil spherical stylus; tracking force 1 1/2 to 3 g. Channel separation 35 dB. Unit individually calibrated at factory. Replacement stylus D6807A \$66.00

681EE Phono Cartridge

Output 0.82 mV/cm/sec at ±2 dB. Response 10-10,000 Hz ±0.5 dB. Has 0.2 x 0.7-mil elliptical stylus; tracking force 3/4 to 1 1/2 g. Channel separation 35 dB. Unit individually calibrated at factory. Replacement stylus D6800EE ... \$72.00

681SE Phono Cartridge

Output 1.1 mV/cm/sec at ±2 dB. Response 20-10,000 Hz ±0.5 dB. Has 0.4 x 0.8-mil elliptical stylus; tracking force 2 to 4 g. Channel separation 35 dB. Unit individually calibrated at factory. Replacement stylus D6800SE \$66.00

600A Phono Cartridge

Features reduced tip mass for improved frequency response; will withstand rugged han-



dling. 0.7-mil stylus; tracking force 2-4 g. D6071A replacement stylus \$45.00
600E. Same except 0.4 x 0.7 mil elliptical stylus; tracking force 1 1/2-3 g. D6004E replacement stylus \$50.00
600EE. Same except 0.3 x 0.7 mil elliptical stylus; 1-2 g tracking force. D6003EE replacement stylus \$55.00

TOSHIBA

C-401S Condenser Cartridge

Electret design with its own equalization amplifier. Response 20-35,000 Hz; output 40 mV at 5 cm/sec at 1000 Hz. HD 0.8% (1 kHz, 5 cm/sec). Output impedance 10,000 ohms. Compliance 30×10^{-6} cm dyne (d.c.); 12×10^{-6} cm/dyne (100 Hz). Stylus 0.3 x 0.8 mil elliptical diamond; stylus pressure 1.5-2 g. Includes S2-200 power pack/equalizer amplifier. 30 mV input; 200 mV output at 50,000 ohms. S/N -70 dB. Has one IC and is battery operated (two 9 V batteries, 14 mV drain). 2" x 3 1/2" x 4 1/2" ... \$129.95

AN IMPORTANT WORD ABOUT PRICES . . .

Although we have made every effort to obtain current prices on all products listed in this Guide, because of the dollar devaluations, the lifting of price controls, and the "floating" of Japanese and European currencies, ALL prices are subject to some adjustment. The prices you will find listed are the latest manufacturers and/or importers were able to supply before press time . . . and are subject to change.



They're talking about Capitol 2 recording tape.

Musicians, high-fidelity perfectionists, music lovers of all sorts, are talking about Capitol 2, the world's best iron-oxide tape.

Cassette users rave about the frequency response (20-22,000 Hz), the backcoating that makes the cassette jamproof, and the new package (Stak-Pak™) that ends cassette clutter.

Everyone's giving the Stak-Pak special mention. Probably because it's without a doubt the world's ultimate cassette storage method. Stak-Paks come with two Capitol 2 cassettes, and they slide or snap together to form a tiny chest of drawers, each with its own two labels.

Reel-to-reel bugs get excited about being able to buy a tape that's as good as the best tape the recording studios themselves use.

And 8-track cartridge people are delirious with the Capitol 2 Audiopak® High Output/Low Noise cartridge, already a standard of the music industry. It's even available in a newly engineered 100-minute playing time.

Visit your favorite tape store, and try the new Capitol 2 tape. So that the next time your friends start talking about tape, you'll have something significant to add to the conversation.



Capitol 2™
Gets the good sounds right.

Cassettes/Cartridges/Reel Tape
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Your audio specialist will help you choose from Crown's broad selection of models of components that best fit your needs and your finances. Whichever you select, you can be sure they are all matched pieces for a totally compatible system. And all are professional quality with painstaking craftsmanship. Anything less just wouldn't be Crown.



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OPEN-REEL TAPE MACHINES

AKAI

GX-260D Open-Reel Tape Deck

Stereo design featuring four heads, three motors, reverse in both record & playback, rear-



panel playback volume control, line/mike mixing, and sound-on-sound. Two speeds (7½ & 3¼ ips); (S+N)/N 48 dB; wow & flutter 0.1%; distortion 2.0%, all at 7½ ips. Normal and SRT tape selector switch \$579.95

4440D Open-Reel Tape Deck

Stereo design featuring three heads, two speeds (7½ & 3¼ ips), one motor, dual monitor-



ing, SOS, SWS and sound mixing, automatic shutoff, and pause control. (S+N)/N 50 dB; wow & flutter 0.12%; distortion 1.5%, all at 7½ ips \$349.95

4400 Open-Reel "Convert-a-Deck"

Stereo design featuring front-panel converter switch which changes unit from recorder to deck. Has SOS, SWS, sound mixing, dual monitoring, output level control, pause control with start button release, automatic shutoff. Two speeds (7½ & 3¼ ips), three heads, one motor. (S+N)/N 50 dB; wow & flutter 0.15%; distortion 1.5%, all at 7½ ips \$349.95

GX-400D Open-Reel Tape Deck

Stereo design featuring four heads, servo capstan motor with two outer rotor motors, reverse in both record & playback, pause control, playback volume control, line/mike mixing, SOS, normal and SRT tape selector switch, automat-



ic shutoff/stop. Features Akai's automatic distortion-reduction system. Three speeds (15, 7½, 3¼ ips); (S+N)/N 55 dB; wow & flutter 0.04%; distortion 1.0%, all at 15 ips. Takes 10½" reel \$1195.00

GX-220D Stereo Tape Deck

Three-speed (7½, 3¼, 1½ ips), 4-track, 3-motor, 3 head design with glass encased crystal ferrite heads. Will handle up to 7" reels. Response 30-24,000 Hz ±3 dB, wow & flutter 0.08%, (S+N)/N 50 dB, all at 7½ ips. Has VU meters, and counter. Features automatic reverse and shutoff, pause control, and sound-on-sound facilities. 17½" x 17" W x 9½" D \$529.95

1721W Tape Recorder

Two-speed (3¼ & 7½ ips), 4-track, 2-channel stereo or mono design. Wow & flutter 0.14% rms at 7½ ips. Response 30-21,000 Hz ±3 dB at 7½ ips. THD 2%. 5 W/ich dynamic power at 8 ohms (3 W/ich continuous). (S+N)/N -50 dB. Bias frequency 63 kHz. Has one record/playback & one erase head. Inputs: mike (0.5 mV) & line (150 mV). Two built-in 5" x 7" speakers. Features p.a. capability, automatic shutoff, equalizer preamp for direct phono input, selector switch for regular or low-noise tape, and tape monitoring facilities. Comes with pair of dynamic mikes with stands. 14½" x 14½" x 9½" \$299.95

1721L. Same except leatherette carrying case instead of wood \$299.95

GX-370D Tape Recorder Deck

Two-speed (3¼ & 7½ ips), 4-track, 2-channel



stereo or mono design. Wow & flutter 0.15% rms at 7½ ips. Response 30-21,000 Hz ±3 dB at 7½ ips. THD 1.5%. (S+N)/N -50 dB. Bias frequency 100 kHz. Has two record/erase heads & one playback head. Line output 1.23 V. Inputs: mike (0.8 mV) & line (150 mV). Features selector switch for regular or low-noise tape; automatic or manual reverse record/playback; three motors; automatic gain controls; automatic stop & shutoff; sound-on-sound and mixing facilities. Has universal power supply. 17½" x 20" x 9½" D \$799.95

4000DS Tape Recorder Deck

Two-speed (3¼ & 7½ ips), 4-track, 2-channel stereo or mono design. Wow & flutter 0.07% rms at 7½ ips. Response 30-26,000 Hz ±3 dB at 7½ ips. THD 1.5%. (S+N)/N -50 dB. Bias frequency 100 kHz. Has separate record, bias, and erase heads. Line output 1.23 V. Inputs: mike (0.8 mV) & line (60 mV). Features dual selector switch for regular or low-noise tape;



sound-on-sound; sound-with-sound; mixing; automatic shut-off; pause control. Universal power supply. 16" x 12½" x 7½" \$269.95

X-1810D Open-Reel/8-Track Deck

Combines a three-speed (1½, 3¼ & 7½ ips) 4-track stereo reel-to-reel tape recorder with an 8-track stereo tape recorder. Wow & flutter 0.08% rms at 7½ ips. Response 30-22,000 Hz ±3 dB at 7½ ips. THD 2%. (S+N)/N -50 dB. Bias frequency 65 kHz. Has three heads (4-track, 2-channel record/playback, 4-track erase & bias); 3 motors. Line output 1.23 V. Input:



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Open-Reel Tape Machines

mike (0.5 mV) & line (60 mV). Features cross-field head, automatic reverse, reel-to-reel automatic shut-off, pause control, switch for regular or low-noise tape, and universal power supply. With dust cover. 17½" x 18" x 9¾" D. \$499.95

GX-1900D Reel/Cassette Deck

Combines a two-speed (3½ & 7½ ips), 4-track, 2-channel stereo/mono reel-to-reel tape re-



recorder and a cassette stereo recorder. Will record both ways. Wow & flutter 0.12% rms at 7½ ips. Response 30-22,000 Hz ±3 dB at 7½ ips. THD 2%. (S+N)/N -50 dB. Has two heads (record/playback & erase). Output 1.23 V. Input: mike (0.5 V) & line (50 mV). Features automatic stop & shut-off, pause lever, and universal power supply. 15" x 18½" x 10" D. \$519.95

X-2000SD Reel/Cassette/8-Track

Combines a 3-speed (1½, 3½ & 7½ ips), 4-track stereo/mono record/play reel-to-reel tape recorder with crossfield heads; an 8-track stereo recorder; and a cassette stereo recorder. Records three ways. Wow & flutter 0.2% rms at 7½ ips. Response 30-20,000 Hz ±3 dB at 7½ ips. (S+N)/N -48 dB. Input: mike (0.5 V) & line (50 mV). Output 7 W with dynamic power (5 W with continuous). Bias frequency 80 kHz. Features automatic shut-off, pause control. 10½" x 13½" x 18½" D. Walnut cabinet. \$549.95

X-1800SD Open-Reel/8-Track Recorder

Combines a three-speed (1½, 3½ & 7½ ips) 4-track stereo/mono crossfield bias system reel-to-reel recorder with an 8-track stereo tape recorder. Wow & flutter 0.12% rms at 7½ ips. Response 30-23,000 Hz ±3 dB at 7½ ips; (S+N)/N -50 dB. Has mike (0.5 mV) & line (60 mV) inputs. 6 W with dynamic power output. Has self-contained speakers & universal power supply. 13½" x 15" x 9½" D. \$399.95

ASTROCOM/MARLUX

407A Stereo Tape Deck

Two-speed (7½, 3½ ips), 4-track, 3-motor, 4-head deck. Will handle up to 7" reel. Response



30-20,000 Hz, wow & flutter 0.07% at 7½ ips; (S+N)/N 50 dB. Has VU meters, automatic reverse and shutoff, pause control, echo effects, sound-on-sound, sound-with-sound, counter, solenoid control, and monitoring facilities. 14½" H x 21" W x 10½" D. \$459.95

CROWN INTERNATIONAL

CX722 Tape Recorder

Three-speed (15, 7½, 3½ ips), 2-track, 3-motor design. Will handle up to 10½" reels. Has three heads. Response 20-20,000 Hz ±2 dB. Wow & flutter 0.09% at 7½ ips. Features braking, automatic shut-off, two VU meters, pause control, and optional counter. \$1495.00
CX724. Same except 4-track version; response 20-25,000 Hz ±2 dB. \$1495.00

CX822 Tape Recorder

Three-speed (15, 7½, 3½ ips), 2-track, 3-motor design. Will handle up to 10½" reels. Response 30-30,000 Hz ±2.0 dB. Wow & flutter 0.06% at 15 ips. (S+N)/N 60 dB. Has braking, two VU meters, automatic shut-off, pause control, optional counter, optional remote control, and monitoring facilities. \$1995.00
 Four track version. \$1995.00
 Four-channel in-line version. \$2995.00

SX724 Tape Recorder

Two-speed (7½, 3½ ips), 2-track, 3-motor design. Will handle up to 10½" reels. Response 20-25,000 Hz ±2 dB. Wow & flutter 0.09% at 7½ ips. (S+N)/N 60 dB. Has braking, two VU meters, automatic shut-off, monitoring facilities, pause control, and optional counter. 15 and 1½ ips available. \$1095.00
SX724-P4C. 2- and 4-track version; plays 4-channel in-line. \$1495.00

DOKORDER

7100 Reel-to-Reel Tape Deck

Two-speed (7½ & 3½ ips), 3-head, 4-track stereo tape deck. Features a four-pole induction



and 2 six-pole eddy-current type induction motors; automatic tape lifters; automatic shut-off; tape selector switch; echo & sound-on-sound; tape/source monitor. Wow & flutter 0.08% W rms at 7½ ips. (S+N)/N 55 dB. Response 40-21,000 Hz at 7½ ips. \$399.95

7200 Tape Recorder Deck

Two-speed (7½ & 3½ ips), 4-track stereo record/play design. Wow & flutter 0.8% at 7½ ips. Response 40-20,000 Hz ±3 dB at 7½ ips. (S+N)/N -53 dB. Bias 130 kHz. Has mike (0.8 mV) & line (80 mV) inputs. Line output 0.775 V. Features automatic continuous playback, both directions; four heads (erase, record, forward play, reverse play); three motors; tape bias select switch for standard or low-noise tape; sound-on-sound; echo; sound-with-sound. Has tape monitoring facilities and pause switch. 16½" x 17½" x 6½" D. \$499.95

7500 Tape Recorder Deck

Two-speed (7½ & 3½ ips), 4-track record/play design. Wow & flutter 0.08% at 7½ ips. Response 40-20,000 Hz ±3 dB at 7½ ips. (S+N)/N -55 dB at 7½ ips. Bias 130 kHz. Has mike



(0.8 mV) & line (80 mV) inputs. Output 0.775 V. Features bidirectional recording and automatic repeat playback. Six heads (2 each erase, record, playback). Has 3 motors. Tape bias switch for standard or low-noise tapes. Features sound-on-sound, sound-with-sound, echo, and tape monitoring. 16½" x 17½" x 6½" D. \$599.95

9100 Tape Recorder Deck

Two-speed (7½ & 3½ ips), 4-track record/play design. Response 40-21,000 Hz ±3 dB at 7½



ips. (S+N)/N -55 dB at 7½ ips. Wow & flutter 0.06% at 7½ ips. Bias 100 kHz. Has mike (0.5 mV), line (77.5 mV), and mag. phono (2.5 mV) inputs. Line output 0.775 V. Features automatic reverse & repeat for record & playback. Has built-in head demagnetizer; 3 motors; six heads (2 each erase, record, playback); tape counter memory; photoelectric automatic shut-off. Bias control for various tapes with separate right & left channel adjustments. Has tape select switch; line, mike, or phono mixing; sound-on-sound facilities; echo; provision for optional remote control. Tape monitoring facilities. Universal power supply. 17½" x 20" H x 15½" D. \$799.95

FERROGRAPH

Series 7 Tape Recorders

Three speeds (7½, 3½, 1½ ips), 4 tracks. Has three heads and three motors, braking, VU meters, automatic shutoff, pause, sound-on-sound capability, bias adjust, and counter. Available in half-track and mono versions, with or without power amplifiers and portable cases. Cabinet available extra. \$650.00 to \$850.00

JVC

RD-1450 Tape Recorder Deck

4-track, 2-speed (7½ & 3½ ips), 2-channel stereo design. Similar in appearance to Model RD-1695. Response 30-20,000 Hz ±3 dB at 7½ ips; (S+N)/N -52 dB; wow & flutter 0.10% rms at 7½ ips. Has 95 kHz bias & erase; three heads (erase, record, playback). Input sensitivity:

mike 0.3 mV; aux. 77.5 mV. Line output 0-1.2 V. Features sound-on-sound, automatic stop, tape monitoring, and special switch for low-noise or standard tape. 12 $\frac{1}{2}$ " x 15 $\frac{1}{2}$ " x 6 $\frac{1}{2}$ " D. \$229.95

RD-1555 Stereo Recorder Deck

Four-track, 2-speed (7 $\frac{1}{2}$ & 3 $\frac{3}{4}$ ips), 2-channel stereo design with automatic reverse. Response 30-20,000 Hz \pm 3 dB at 7 $\frac{1}{2}$ ips; (S+N)/N -50 dB; wow & flutter 0.16% rms. Has three motors and four heads. Features direct-coupled pre-amps, solenoid motion controls, jack for optional remote control, sound-on-sound, and tape-selector switch. 17" x 16" x 8 $\frac{1}{2}$ " D. . . . \$499.95

RD-1553 Tape Recorder Deck

4-track, 2-speed (7 $\frac{1}{2}$ & 3 $\frac{3}{4}$ ips), 2-channel stereo design. Similar in style to Model RD-1552. Response 20-24,000 Hz \pm 3 dB at 7 $\frac{1}{2}$ ips; (S+N)/N -53 dB; wow & flutter 0.10% at 7 $\frac{1}{2}$ ips. HD 1.5% at 1 kHz. Has 95 kHz record bias & erase; three motors (capstan drive, supply, and takeup reels); mike (0.3 mV) & aux. (80 mV) inputs; and 0-1 V line output. Features built-in 1000-Hz signal oscillator for bias adjust; solenoid motion controls; jack for optional remote control; sound-on-sound and input mixing facilities. 17 $\frac{1}{2}$ " x 16 $\frac{1}{2}$ " x 8" D. . . . \$499.95

RD-1552 Tape Recorder Deck

4-track, 2-speed (7 $\frac{1}{2}$ & 3 $\frac{3}{4}$ ips), 2-channel stereo design. Response 20-24,000 Hz \pm 3 dB



at 7 $\frac{1}{2}$ ips; (S+N)/N -52 dB; wow & flutter 0.1% rms at 7 $\frac{1}{2}$ ips. HD 1.5%. Has 95 kHz record & erase bias. Inputs: mike (0.3 mV) & aux. (80 mV). Line output 0-1 V. Features three heads (record, erase & playback) and 3 motors (capstan drive, supply & take-up reels). Has solenoid motion controls, pause button, sound-on-sound, bias switch for low-noise or standard tapes, and input mixing facilities. 15 $\frac{1}{2}$ " x 17 $\frac{1}{2}$ " W x 8 $\frac{1}{2}$ " D. . . . \$399.95

RD-1695 Tape Recorder Deck

4-track, 3-speed (7 $\frac{1}{2}$, 3 $\frac{3}{4}$, & 1 $\frac{1}{2}$ ips), 2-channel stereo design. Response 30-18,000 Hz \pm 3 dB at



7 $\frac{1}{2}$ ips; (S+N)/N -52 dB; wow & flutter 0.13% rms at 7 $\frac{1}{2}$ ips. Has mike (0.5 mV) & aux. (80 mV) inputs. Line output 0-1 V. Has switch for either low-noise or standard tape; two heads (record/play and erase). 7 $\frac{1}{2}$ " x 15 $\frac{1}{2}$ " W x 12 $\frac{1}{2}$ " D. . . . \$179.95

MAGNAVOX

K8877 Tape Recorder Deck

Three-speeds (1 $\frac{1}{2}$, 3 $\frac{3}{4}$, 7 $\frac{1}{2}$ ips) stereo design. 4-tracks, 3 heads. Will handle up to 7" reels.



Has hysteresis motor. Response 50-15,000 Hz \pm 2 dB; wow & flutter 0.15%; (S+N)/N 45 dB. Features tape monitor, bias select, sound-on-sound, echo, and dual record-level meters. 15 $\frac{1}{2}$ " x 10" x 14". Walnut cabinet. . . . \$239.95

K8980 Tape Recorder Deck

Three-speed (1 $\frac{1}{2}$, 3 $\frac{3}{4}$, 7 $\frac{1}{2}$ ips) stereo design. Will handle up to 7" reels. Has two heads, four tracks. Induction motor. Response 50-15,000 Hz \pm 3 dB. Wow & flutter 0.15%. S/N 45 dB. Has two record-level meters. Features sound-with-sound. 15 $\frac{1}{2}$ " x 7 $\frac{1}{2}$ " x 13". Walnut cabinet. . . . \$159.95

K8981: Same except features low-noise/normal tape selection and sound-on-sound . . . \$179.95

PIONEER

T-6600 Tape Deck

Two-speed (7 $\frac{1}{2}$, 3 $\frac{3}{4}$ ips), 4-track, 4-head, sin-

gle-motor stereo unit. Will handle up to 7" reels. Response 50-15,000 Hz \pm 2 dB, wow & flutter less than 0.12% at 7 $\frac{1}{2}$ ips, (S+N)/N 55 dB. Has VU meters, automatic reverse and shutoff, pause control, and counter. 17" H x 17 $\frac{1}{2}$ " W x 7 $\frac{1}{2}$ " D. . . . \$349.95

T-6100 Tape Deck

Two-speed (7 $\frac{1}{2}$, 3 $\frac{3}{4}$ ips), 4-track, 3-head, single-motor stereo unit. Will handle up to 7"



reels. Response 50-15,000 Hz \pm 2 dB, wow & flutter 0.12% at 7 $\frac{1}{2}$ ips, (S+N)/N 55 dB. Has VU meters, automatic reverse and shutoff, pause control, and counter. 14 $\frac{1}{2}$ " x 15 $\frac{1}{2}$ " W x 6 $\frac{1}{2}$ " D. . . . \$279.95

RADIO SHACK

999B Stereo Tape Deck

Three speeds (7 $\frac{1}{2}$, 3 $\frac{3}{4}$, 1 $\frac{1}{2}$ ips); 4 tracks; 3 heads. Has two VU meters and level controls. Provisions for professional sound-on-sound recordings. Tape/source monitor. Response 40-20,000 Hz at 7 $\frac{1}{2}$ ips; wow & flutter 0.2%

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because Revox delivers what
all the rest only promise.



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5

Open-Reel Tape Machines



rms at 7 1/2 ips. Overall size 16" x 13 1/2" x 7 1/2"
..... \$199.95

909B Stereo Tape Recorder

Three speeds (7 1/2, 3 3/4, 1 1/2 ips); 4 tracks. Will take up to 7" reel. Response 50-18,000 Hz;



wow & flutter 0.25% at 7 1/2 ips. Has built-in electronics with 3 1/2 W/ch output. Supplied with speakers, microphones, VU meters, and counter. Permits sound-with-sound recording. Overall dimensions 14" H x 24 1/2" W x 7 1/2" D. Weight 26 lbs \$239.95

REVOX

A77 MkIII 1102 Tape Deck

Two-speed (3 3/4 & 7 1/2 ips or 7 1/2 & 15 ips), 2-track, 3-motor, 3-head deck. Will handle up to



10 1/2" reels. Response 30-20,000 Hz \pm 2.5 dB at 7 1/2 ips. Wow & flutter 0.08% peak at 7 1/2 ips. (S + N)/N 61 dB at 7 1/2 ips. Has a servo braking system, VU meters, automatic shut-off, relay and solenoid operation, full remote control, and off-the-tape monitoring. Options include plug-in 10 W/ch continuous power amplifiers, a suitcase version with built-in speakers, metal cage for rack or custom mounting. 16 1/2" H x 14 1/2" W x 7 1/2" D \$799.00

Model A77 MkIII 1104. A 4-track version of Model 1102. Same options available... \$799.00

A77 MkIII Dolby B Deck. Same as 1102 or 1104 but with Dolby B noise-reduction system. Has separate compressors and expanders for each

channel. (S + N)/N 70 dB (ASA A curve weighted) at 7 1/2 ips, 2-track. Corresponding improvements at other speeds and track width accompanied by a reduction in distortion... \$999.00

SANSUI

SD-7000 Stereo Tape Deck

Two-speed (7 1/2, 3 3/4 ips), 4-track, 3-motor, 4-head deck. Will handle up to 7" reels.



Response 20-20,000 Hz \pm 2 dB, wow & flutter 0.06% at 7 1/2 ips, (S + N)/N 60 dB. Has VU meters, automatic reverse and shutoff, pause control, sound-on-sound, sound-with-sound, counter, monitoring facilities, and solenoid operation. Also features automatic rewind, a sleep switch, and tape-tension adjustment. Remote control optional extra. Comes with dust cover. 21 1/2" H x 17 1/2" W x 10 1/2" D \$549.95

SONY/SUPERSCOPE

TC-270 Stereo Tape Recorder

Economy design featuring quarter-track stereo/mono play & record, three speeds (7 1/2, 3 3/4



& 1 1/2 ips), straight-line record & playback level controls, two VU meters, automatic end-of-tape shutoff, and sound-on-sound. 5 W/ch continuous power. Response 30-18,000 Hz \pm 3 dB at 7 1/2 ips. (S + N)/N 50 dB; wow & flutter 0.12% at 7 1/2 ips. Sensitivity: aux. 0.06 V; low-imp. mike -72 dB (can be used as phono input with optional RK-66 adapter). Has line output 0.43 V at 0 VU; two lid speakers. 8 ohms. 20 1/2" W x 15 1/2" D. Comes with carrying case \$299.95

TC-280 Stereo Tape Recorder Deck

Economy quarter-track stereo/mono design featuring three speeds (7 1/2, 3 3/4 & 1 1/2 ips), tape select switch, sound-with-sound, sound-on-



sound, dual VU record meters, pause control. May be operated vertically or horizontally. Response 40-18,000 Hz \pm 3 dB at 7 1/2 ips with regular tape (40-21,000 Hz \pm 3 dB with SLH-180 tape). (S + N)/N 52 dB with standard tape (55 dB with SLH-180 tape). Sensitivity: aux. 0.06 V; mike (low-imp) -72 dB (mike input can be used as mag. phono input with RK-66 optional adapter). Line output 0.775 V at 0 VU. Wow & flutter 0.10% at 7 1/2 ips. 15 1/2" x 7 1/2" x 14 1/2" D. Comes with walnut base \$199.95

TC-580 Tape Deck

Three-speed (7 1/2, 3 3/4, 1 1/2 ips), 4-track, 3-head, 3-motor stereo unit. Will handle up to 7" reels. Response 30-25,000 Hz \pm 3 dB; wow & flutter 0.06% at 7 1/2 ips; (S + N)/N 56 dB. Has VU meters, automatic reverse and shutoff, counter, monitoring facilities, solenoid operation. 18 1/2" H x 17 1/2" W x 8 1/2" D. \$579.95

TC-630 Tape Recorder System

Three-speed (7 1/2, 3 3/4, 1 1/2 ips), 4-track, 3-head, one-motor stereo unit. Will handle up to 7" reels. Response 30-22,000 Hz; wow & flutter 0.09% at 7 1/2 ips; Built-in electronics with 20 W/ch output. Supplied with speakers and microphones. Has VU meters, automatic shutoff, pause control, echo effects, sound-on-sound, counter, phono input, tone controls, monitoring facilities. Carrying handle included. 20" H x 17 1/2" W x 11 1/2" D \$499.95

TC-353-D Stereo Tape Deck

Features three speeds (7 1/2, 3 3/4, 1 1/2 ips) and three heads. Has line & mike mixing, pause control, automatic shutoff, VU meters. Sound-on-sound with optional Sony MX-6S mixer \$249.95

TC-640B Tape Deck

Two-speed (7 1/2, 3 3/4 ips), 4-track, 3-head stereo unit. Will handle up to 7" reels. Response 30-20,000 Hz \pm 3 dB; wow & flutter 0.07% at 7 1/2 ips; (S + N)/N 55 dB. Features VU meters, braking, automatic shutoff, pause control, echo effects, sound-on-sound, counter, monitoring facilities; and solenoid operation. 15 1/2" H x 14 1/2" W x 9 1/2" D \$449.95

TC-353 Stereo Tape Recorder/Speakers

Three-speed (7 1/2, 3 3/4, 1 1/2 ips), 3-head stereo tape recorder with integrated speakers. 7 W/ch dynamic power. Features separate record/playback preamps, sound-on-sound and echo, tape/source monitoring facilities, and a tape-select switch for use of high-output low noise tape or standard tape. Has VU meters, retractable pinch roller for easy tape threading, automatic tape lifters to protect heads during fast-



forward and rewind, non-magnetizing record head. Full complement of controls. Has p.a. capabilities, pause control with lock, built-in reel locks, four-digit tape counter, stereo headphone monitor jack. Can be operated vertically or horizontally. 20 1/2" x 13 1/2" x 10 1/2" D \$399.95

TC-377 Stereo Recorder Deck

Features 3-speed (1 1/2, 3 3/4 & 7 1/2 ips), 3-head, 4-track design. Response 30-20,000 Hz \pm 3 dB at 7 1/2 ips. (S + N)/N 52 dB (standard tape) 55 dB (SLH-180 tape). Has aux. (0.06 V sensitivity) & mike (-72 dB sensitivity) inputs & line output (0.775 V). Bias frequency 160 kHz. Wow & flutter 0.09% at 7 1/2 ips. Has two VU meters, one induction motor. Features mike-line record level mixing controls, tape select switch for Sony standard or low-noise, high-output tape. Has pause control and an automatic total mechanism shut-off. Reversible walnut base for verti-

cal or horizontal operation. Sound-on-sound capability with the MX-6S mixer. 16 1/2" x 8 1/2" x 15 1/2" \$329.95

TC-850-4 Tape Deck

Three speed (15, 7 1/2, 3 1/2 ips), 4-track, 4-head 3-motor stereo unit. Will handle up to 10 1/2"



reels. Response 30-22,000 Hz ± 2 dB; wow & flutter 0.03% at 7 1/2 ips; (S+N)/N 57 dB. Has VU meters, automatic shutoff, pause control, echo effects, sound-on-sound, bias adjust, counter, solenoid operation, monitoring facilities. Remote control optional extra. 19 1/2" H x 17 1/2" W x 10" D \$995.00
Model 850-2. Same as Model 850-4 except two-track \$995.00

TANDBERG

Series 11 Tape Recorder

Portable (15 V, ten 1 1/2-V cells), mono design. Three speeds (7 1/2, 3 1/2, 1 1/2 ips), and has three



heads. Will handle up to 7" reels. Has automatic level-input controls, mike & line mixing, and built-in speaker. Response 40-16,000 Hz ± 2 dB at 7 1/2 ips, wow 0.1% at 7 1/2 ips, (S+N)/N 58 dB unweighted. 13" W x 10" D x 4".

Model 11-1. Full-track \$449.95
Model 11-2. Two-track \$499.80
Model 11-1-P. Full-track with "Pilotone" head for film camera sync. Connects cable to camera, providing starting signal tone. Can also be used with Jensen 205S Synchronizer \$699.00
 A.c. power supply \$79.50

Series 15 Tape Recorder

Mono design with built-in 4" x 7" speaker. Three speeds (7 1/2, 3 1/2, 1 1/2 ips). Response 40-16,000 Hz ± 2 dB at 7 1/2 ips, wow 0.1% at 7 1/2 ips, (S+N)/N



N at max. record level 55 dB, 5 W/ch continuous output with both channels driven. Has 0.75 V preamp outputs, low-Z mike & high-and low-level inputs. 13 1/2" W x 11 1/2" D x 6 1/2".

Model 1541. Four-track \$313.50
Model 1541F With foot remote control \$418.00
Model 1521. Two-track \$287.00
Model 1521F. With foot remote control \$399.00

Series 14 Tape Recorder

Same as Series 15 except 2-speed (3 1/2 & 1 1/2 ips) design.

Model 1441. Four-track without case \$270.00
Model 1421. Two-track without case \$250.00

Series 4000X Tape Recorder

Stereo design with two built-in 7" x 4" speakers. Three speeds (7 1/2, 3 1/2, 1 1/2 ips). Has 4 heads including crossfield bias head. Features source/tape monitoring, sound-on-sound, add-a-track, full mono mixing, end-of-tape stop, mag. or ceramic phono inputs. Response 40-



20,000 Hz ± 2 dB, wow & flutter 0.07%, (S+N)/N 62 dB, 1/2-track weighted, all at 7 1/2 ips and 5% distortion. 10 W/ch continuous power output with both channels driven. 15 1/2" W x 12 1/2" D x 6 1/2". Walnut cabinet.

Model 4041X. Four-track \$469.00
Model 4021X. Two-track \$485.50

9000X Tape Recorder Deck

Three-speed (1 1/2, 3 1/2 & 7 1/2 ips) play/record stereo design. Wow (Wrms) 0.07% at 7 1/2 ips.



Response 40-22,000 Hz ± 2 dB at 7 1/2 ips. Sensitivity: mike (low imp.) 50 μ V; radio 5 mV; line 30 mV. Output: radio 0.75 V; line 1.5 V. Features crossfield heads; remote control of start/stop, fast forward/rewind, record & playback, mono mixing; A-B test; sound-on-sound; echo; peak record/playback meters; adjusted for low-noise, high-output tape. Supplied in half- and quarter-track versions. On request, can be equipped for 4-channel playback. Walnut cabinet. 15 1/2" x 7" x 16 1/2" D \$649.50

3300X Tape Recorder Deck

Three-speed (1 1/2, 3 1/2 & 7 1/2 ips) design featuring crossfield recording techniques; peak-reading record meters; four heads for sound-on-sound, sound-with-sound, and echo; input mixing; and photoelectric end stop. Has inputs for dynamic mike, receiver/tuner, and record



player. Supplied in half- or quarter-track versions. On request, can be equipped for 4-channel playback. Walnut cabinet (rosewood on special request). 15 1/2" x 7" x 16 1/2" D. \$399.90

TEAC

2300S Stereo Tape Deck

Two-speed (7 1/2 & 3 1/2 ips) four-track, two-channel deck. Features push-button transport control with logic circuitry; dual VU meters; separate bias/equalization switches; record/pause lights; total remote-control capability. Has dual-speed hysteresis synchronous capstan motor and two eddy-current induction reel motors. Response 25-24,000 Hz; wow & flutter 0.08% both at 7 1/2 ips. (S+N)/N 58 dB. 17 1/2" x 15 1/2" x 8 1/2" D \$429.50

3300S Stereo Tape Deck

Two-speed (7 1/2 & 3 1/2 ips), four-track, two-channel deck. Will handle up to 10 1/2" reels; offers remote-control capability; push-button transport control with logic circuitry; dual level bias oscillator for low-noise recording; d.c.-coupled equalization network. Features dual VU meters; pause control with indicator light; separate mike/line level controls; tape/source monitor switch; stereo headphone jacks; 4-digit resettable tape counter. 17 1/2" W x 17 1/2" H x 8 1/2" D \$629.50
3300S-2T. Same except two-track, two-channel with 15 or 7 1/2 ips speeds \$679.50

4300 Auto-Reverse Stereo Deck

Two speed (7 1/2 & 3 1/2 ips), three-motor, four-head stereo deck with automatic reverse. Fea-



tures push-button transport control, pause control with indicator light, dual VU meters; separate equalization switches; separate mike/line inputs; separate mike/line level controls. Will handle up to 7" reels; records in four-track, 2-channel stereo. Includes memory counter for automatic repeat and memory marker level guides. Response 30-28,000 Hz; wow & flutter 0.06% both at 7 1/2 ips. (S+N)/N 55 dB. 17 1/2" x 19 1/2" x 8 1/2" \$639.50

7300 Stereo Tape Deck

Two-speed (7½ & 3¼ ips), four-track, two-channel deck. Features direct-drive d.c. capstan/servo control motor; two d.c. reel motors; built-in mixer to blend up to 4 mikes or lines; separate master input level control for all mike/line inputs; separate output level control. Has two sets of output jacks; dual VU meters; 3-position bias/equalization switches; separate cue & edit facilities; push-button transport



control. Response 30-28,000 Hz; wow & flutter 0.04%, both at 7½ ips. (S+N)/N 58 dB. 17½" W x 21½" H x 8½" D \$979.50

7300-2T. Same except two-track, two-channel with 15 & 7½ ips operation. Response 25-30,000 Hz; wow & flutter 0.03%, both at 15 ips. (S+N)/N 60 dB \$1049.50

5300 Stereo Tape Deck

Two-speed (7½ & 3¼ ips), four-track, two-channel deck. Will handle 7" reels. Features direct-capstan drive servo-controlled motor; d.c. reel motors; automatic reverse; push-button transport control. Has separate bias & equalization switches; dual-scale VU meters; remote control for all functions including record & pause; memory marker level guides; solenoid-controlled pause/cue button. Response 30-28,000 Hz; wow & flutter 0.04%, both at 7½ ips. (S+N)/N 60 dB. 17½" W x 21½" H x 8½" D \$699.50

5500 Auto-Reverse Stereo Deck

Two-speed (7½ & 3¼ ips), four-track, two-channel deck with automatic reverse play. Features three motors, four high-density Permaflux heads, and dual-process Dolby noise-reduction system, permitting simultaneous Dolbyized recording with decoded tape monitoring; Dolby FM/Copy function; MPX filter switch; Dolby calibration oscillator; source/tape monitor switch. The 4-head machine with separate playback, reverse playback, record, and erase also has a "punch-in" feature which permits change from play to record mode without going through a stop; a four-digit resettable tape counter; memory marker level guides. Response 30-28,000 Hz; wow & flutter 0.04%, both at 7½ ips. (S+N)/N 65 dB (with Dolby). 17½" W x 21½" H x 8½" D \$859.50

4010GSL Stereo Tape Deck

Two-speed (7½ & 3¼ ips), 4-track, 3-motor stereo design. Has four hyperbolic ferrite heads. Will handle up to 7" reel. Response 30-22,000 Hz ±3 dB, wow & flutter 0.08%, at 7½ ips. (S+N)/N 55 dB. Has VU meters, automatic reverse and shutoff, echo effects, sound-



on-sound, bias adjustment, counter; pause control, and monitoring facilities. Remote control available optional extra. 17½" H x 17½" W x 9½" D \$599.50

4070G Stereo Tape Deck

Two-speed (7½ & 3¼ ips), 4-track, 3-motor stereo design. Has four high-density ferrite heads (6 head functions). Will handle up to 7" reel. Response 30-20,000 Hz ±3 dB, wow & flutter 0.05% at 7½ ips. (S+N)/N 58 dB. Has braking, VU meters, automatic reverse and shutoff, pause control, bias adjustment, counter, separate bias & equalizer switches and monitoring facilities. Remote control available optional extra. 17½" H x 18" W x 9½" D \$699.50

7010GSL Auto-Reverse Tape Deck

4-track, 2-channel stereo or mono with four heads (erase, record, playback, and reverse



playback). Two speeds (3¼ & 7½ ips), 3 motors. Will handle 7" & 10½" reels. Response 30-20,000 Hz ±3 dB at 7½ ips. (S+N)/N -58 dB; HD 1% at 1000 Hz at normal listening levels. Has mike (0.25 mV) and line (0.1 V) inputs. Line output 0.3 V. 21½" x 17½" x 9½" D \$1149.50

7030GSL Tape Deck

2-track, 2-channel stereo or mono with four heads (erase, record, playback, and 4-track playback). Two speeds (7½ & 15 ips), 3 motors. Will handle 7" & 10½" reels. Wow & flutter 0.06% at 7½ ips. Response 30-20,000 Hz ±3 dB at 7½ ips. (S+N)/N -60 dB. HD 1% at 1000 Hz at normal listening levels. Has mike (0.25 mV) and line (0.1 V) inputs. Line output 0.3 V. Similar in design and styling to Model 7010GSL. 21½" x 17½" x 9½" D ... \$1099.50

TECHNICS BY PANASONIC**RS-1030US 2/4 Track Tape Deck**

Two-speeds (15 & 7½ ips). Response 20-26,000 Hz at 15 ips (30-22,000 Hz ±3 dB); 20-23,000 Hz at 7½ ips (30-20,000 Hz ±3 dB). Two-track record/play, four-track (stereo) playback. Wow



& flutter 0.12% W rms at 7½ ips. (S+N)/N 55 dB (2-track). Accepts 10" or smaller reels. Four heads including three HPF ultra-long-life types. Low-noise/normal tape selector. Three motors, one dual-speed hysteresis synchronous for capstan drive. Tape tension selector, optional remote. Features automatic stop, tape pause, and 4-digit counter. 22" H x 17" W x 7½" D. \$899.95

RS-714US Tape Deck

Two-speed (7½, 3¼ ips), 4-track, 3-motor stereo design. Will handle up to 7" reels. Has 3 fer-



rite heads. Response 30-22,000 Hz at 7½ ips, wow & flutter less than 0.1% at 7½ ips. (S+N)/N better than 50 dB. Has VU meters, automatic shutoff, pause control, sound-on sound, counter, remote control (optional extra), solenoid operation, and monitoring. 20" H x 17" W x 7½" D \$499.95

Model RS-715US. Similar to RS-714US except this model includes an automatic reverse feature \$549.95

RS-736US Tape Deck

4-track, 3-speed (15, 7½, 3¼ ips), 3-head ste-



reo design. Wow & flutter 0.09% at 7 1/2 ips. Frequency response 20-28,000 Hz at 7 1/2 ips. Inputs: mike 20,000 ohms, max. sensitivity 0.3 mV; Phono #1 xtal 1 megohm, max. sensitivity 100 mV; Phono #2 mag 47,000 ohm, max. sensitivity 2 mV; Aux. #1 250,000 ohms, max. sensitivity 30 mV (3 V max. input); Aux. #2 50,000 ohms, max. sensitivity 100 mV (10 V max. input). Dual outputs both 1 V & 50,000 ohms (1 fixed, 1 variable). Features equalization switch for normal or low-noise tape. Separate record & playback amplifiers for echo effects, cueing and pause controls, sound-on-sound. With dust cover and adapter for 15 ips operation \$329.95

TELEX

Lab Series 2001 Tape Deck

Two-speed (7 1/2, 3 3/4 ips), 4-track, 3-head, 2-motor stereo design. Will handle up to 8 1/2"



reels. Response 45-18,000 Hz ± 2 dB, wow & flutter 0.18% at 7 1/2 ips, (S+N)/N 52 dB. Has VU meters, automatic shutoff, pause control, counter, solenoid operation, and monitoring facilities. 14 1/2" \times 19 1/2" \times 8" D \$799.95

433 Tape Recorder Deck

Quarter-track stereo design featuring sound-on-sound, reverb (echo), 2-channel input mixing, tape monitoring, and pause control. Three-speed (7 1/2, 3 3/4, 1 1/2 ips), 3-head, 3-motor design. Has automatic shutoff. Response 40-18,000 Hz ± 3 dB at 7 1/2 ips, (S+N)/N 54 dB, flutter & wow 0.2% at 7 1/2 ips. 15 1/2" W \times 14 1/2" H \times 8 1/2" \$379.95

423 Tape Deck

Basically same design as Model 433. Response 50-15,000 Hz ± 3 dB, (S+N)/N 50 dB, wow &



flutter 0.2%, all at 7 1/2 ips. THD 1.5%. 12 1/2" H \$274.95

WOLLENSAK

6150 Stereo Tape Deck

Three-speed (7 1/2, 3 3/4, 1 1/2 ips), 4-track, 3-head, 2-motor stereo deck. Response 35-20,000 Hz ± 2 dB, wow & flutter 0.12% at 7 1/2 ips, (S+N)/N 54 dB. Will handle up to 7" reels. Has VU meters, automatic shutoff, pause control, echo effects, sound-on-sound, sound-with-sound, bias adjust, counter, monitoring facilities, and phono input jack. 20 1/2" H \times 13 1/2" W \times 7 1/2" D. \$219.95

Now
that you've invested
a small fortune in
great sound equipment,
spend an extra few cents
for great sound.



Maxell Ultra Dynamic tape completes your tape system. It captures all the sound quality between your on/off switch and your speakers. That's because it's designed for high level recordings including the new 4-track systems.

It's made with something that's called super-corpuseular magnetic iron oxide plus our new binder system. That means you get an astonishing low noise-level, reduced distortion and a range that catches ultra-flute highs of 30,000 Hz down to the growls of 20 Hz.

Then there's the dropout problem in high performance recordings. A drop-

out is a hole in your sound quality. Now that you know, forget about it. Maxell Ultra Dynamic tape is virtually 100% free of dropouts.

You can get Maxell Ultra Dynamic recording tape in an attractive black vinyl library binding, complete with indexing materials.

Maxell Ultra Dynamic tape is available as UD 35-7 (1 mil thickness) in 1800 ft. length and UD 50-7 (1 1/2 mil thickness) in 1200 ft. length, both on 7 inch

reels. UD tape is also available on 10 inch reels.

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If you're looking for a great buy in a TEAC 450...

The only cassette deck in the world that can equal the precedent-shattering 0.07% WRMS record and playback wow and flutter of the TEAC 450 is the TEAC 360S. In fact, their performance specs are identical.

They differ only in breadth of features. And therefore in price. So if you don't *need* all the sophisticated mic-line mixing applications of the 450, don't get it. Get the 360S.

It has mic/line input/output mixing, a memory digital counter, a tape flow indicator, a peak level Light Emitting Diode, a removable head cover and 3-position bias and equalization switches. Not to mention Dolby* circuitry enhanced by 8 calibration controls and a Dolby tone generator. Quite a package.

Its incredible 0.07% wow and flutter makes the 360S a good deal better than anyone else's cassette deck. And its price makes it a good deal — better than our own 450.

Go top *that*.

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6

CASSETTE TAPE MACHINES

ADVENT

201 Dolbyized Cassette Deck

Play/record stereo design. Response 35-14,500 Hz at ± 2 dB. THD less than 1 1/2% with chromi-



um-dioxide tape; wow & flutter less than 0.15%; (S+N)/N 54 dB (Dolby off). Has VU meter, counter, automatic shutoff, pause control, and line inputs. 4 1/2" H x 13 1/2" W x 9 1/2" D. Oiled-walnut cabinet \$280.00

202 Dolbyized Cassette Playback Deck

Stereo cassette player. Features Dolby circuitry and standard playback equalization for chromi-



um-dioxide tape (regular equalization also provided). Response 30-15,000 Hz ± 2 dB; wow & flutter less than 0.2% DIN. Has hysteresis synchronous motor, automatic shut-off, digital counter. Overall size 3 1/2" H x 9 1/2" W x 10 1/2" D \$130.00

Model 202hp. Same except includes built-in headphone amplifier \$150.00

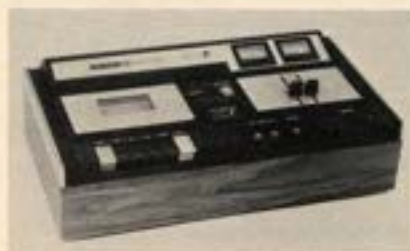
AKAI

CS-30D Stereo Tape Deck

Features digital tape counter, tape selector switch, tape run lamp, and dual VU meters. Response 40-15,000 Hz (chromium-dioxide tape), wow & flutter 0.15% rms; distortion 2% at 1000 Hz (0 VU). (S+N)/N 46 dB. Induction-type motor. 16.1" W x 5" H x 8.7" D .. \$159.95

CS-33D Dolbyized Cassette Deck

Stereo design with built-in Dolby circuit. Features digital tape counter, tape selector switch, tape run lamp, and two VU meters. Response 40-15,000 Hz (chromium-dioxide tape), wow &



flutter 0.15% rms; distortion 2% at 1000 Hz (0 VU). (S+N)/N 56 dB with Dolby. 16.1" W x 5" H x 8.7" D \$199.95

GXC-36D Cassette Deck

Features glass and crystal ferrite head; induction motor, pause control, tape selector switch



for low noise & chromium-dioxide tapes, automatic stop, OLS switch. (S+N)/N 44 dB; distortion 2.0%; wow & flutter 0.3% \$229.95

GXC-38D Cassette Deck

Features glass and crystal ferrite head, induction motor, Dolby, automatic stop, OLS switch,



pause control, tape selector switch for low noise & chromium-dioxide tapes. (S+N)/N 50 dB; wow & flutter 0.30%; distortion 2.0% \$269.95

GXC-65D Dolbyized Cassette Recorder



Features glass and crystal ferrite head, automatic distortion-reduction system, Dolby automatic change, "Invert-O-Matic" reverse cassette, tape selector (chromium-dioxide or low-noise), pause control, and two VU meters. Frequency response 30-16,000 Hz; wow & flutter 0.2% rms. (S+N)/N 50 dB. Overall distortion 1% \$349.95

GXC-46D Dolbyized Cassette Recorder

Similar to Model GXC-65D in that it has Dolby, glass-encased crystal ferrite heads, and automatic noise-reduction system. Does not have "Invert-O-Matic." With signals over 8000 Hz circuit adjusts recording level to prevent distortion. Response 30-16,000 Hz. Wow & flutter 0.12% weighted rms. (S+N)/N 50 dB (58 dB with Dolby). Has universal power supply. 16 1/2" x 5 1/2" x 12" \$319.95

CONCORD

Mark 7 Dolbyized Cassette Deck

Features stereo design with Dolby-type noise-reduction system providing (S+N)/N of 56 dB



(48 dB without Dolby). Response 30-15,000 Hz; HD 1.3% at -3 VU; bias 105 Hz; wow & flutter 0.13%. Input sensitivity: stereo mike 0.2 mV; stereo aux. 0.12 V. Output 1 V. Features "End-matic," which automatically disengages tape mechanism and will shut off motor in fast-forward or rewind operation; mechanical pause; dual bias (for standard & chromium-dioxide tapes); dual VU meter. 7 1/2" W x 11 1/2" D x 3 1/2" \$229.95

Mark 6. Same as Mark 7 except without Dolby system \$159.95

Mk IX Dolbyized Cassette Deck

Plays and records. Response 30-15,000 Hz, 1.5% THD, wow & flutter 0.2%, (S+N)/N 50 dB. Has VU meters, counter, eject button, automatic shutoff, pause control, monitoring facili-





Cassette Tape Machines

ties, mike and high- and low-level line inputs. For use with either chromium-dioxide or conventional tapes. Comes with dust cover. 4½" H x 10½" W x 10½" D \$289.95

F-106EB Stereo Cassette Deck

Features dual bias selection for standard or super-dynamic tapes, pause control, remote-control switch, automatic shutoff, automatic end-of-reel indicator, and dual record-level controls. Response 40-12,000 Hz, wow & flutter 0.2%, (S+N)/N 46 dB. Has mike & aux. inputs and line output. 10½" x 10½" x 3½" H. \$109.95

ELECTROPHONIC

C-2 Record/Play Stereo Deck

Stereo record/playback deck. Features push-button pop-up cassette system for instant load



and playback. Six push-button function controls for record, rewind, stop, play, fast-forward, and pause. Has automatic record-level control and tape counter. Two dynamic mikes with stands included \$79.95

FISHER

SR-110 Cassette Recorder Deck

Dolbyized record/play stereo design. Has separate control for chromium-dioxide tapes; ex-



panded-scale VU meters; independent record-level controls; auto-stop; counter on mike inputs. Response 30-12,000 Hz (CrO₂, 14,000 Hz); (S+N)/N 50 dB. Wow & flutter (weighted) 0.2% rms. Sensitivity: mike 0.2 mV (±3 dB) 0 VU at 1500 ohms; aux. 100 mV (±2 dB) for 0 VU at 5000 ohms. Output 1 volt (±2 dB) for 0 VU at 5000 ohms. 5½" x 15½" x 10½" D \$249.95

RC-80B Cassette Deck

Dolby-ized record/play stereo design. Has separate control for chromium-dioxide tapes, VU meters. Response (standard tapes) 30-12,000 Hz. 7½" W x 3½" H x 11½" D. With pair M-5 dynamic mikes \$249.95
18-W Walnut base \$9.95

50 Cassette/Phono/Tuner

Combines an AM/FM stereo tuner, an automatic turntable with magnetic cartridge, and a cassette stereo recorder. 50 W/ch dynamic (EIA) power @ 5% THD. Supplied with two M-5 dynamic microphones. Dust cover optional. 23½" W x 16" x 8" \$499.95

HARMAN-KARDON

HK1000 Dolbyized Cassette Deck

Stereo cassette recorder deck with built-in Dolby noise-reduction circuit. Has front-panel bias



switch for standard, low-noise, and chromium-dioxide tapes. Features memory relay, peak-reading VU meters, sliding controls for playback & record level, and microphone input. Response 30-15,000 Hz ±1.5 dB; wow & flutter 0.15 (weighted); speed variation 1%. Constant-current-drive record head \$329.95

HEATH

AD-110 Cassette Deck

Play/record stereo design. Response 30-12,000 Hz ±3 dB, 0.25% distortion, wow & flutter



less than 0.25%, (S+N)/N 45 dB. Has VU meters, eject button, pause control, mike & line inputs, and adjustable bias. 11" H x 13½" W x 3½" D. Walnut cabinet. Kit \$129.95

AD-1530 Dolbyized Cassette Deck

Combines a pre-assembled tape transport, a Dolby noise-reduction (B type) system, and



necessary preamps to record or play stereo cassette tapes. Has built-in test circuit to adjust Dolby system; a bias & equalizing switch for chromium-dioxide or standard tapes; VU meters; and mike inputs. Walnut cab \$249.95
Dust cover \$4.95

HITACHI

TRQ-262 Stereo Cassette Deck

Plays and records. 20-18,000 Hz response,



wow & flutter 0.15%, (S+N)/N 50 dB. Has VU meters, counter, eject button, automatic shutoff, pause control, monitoring facilities. Has provision for mike & line inputs. 3½" H x 13½" W x 9½" D \$149.95

TRQ-282 Stereo Cassette Deck

Plays and records. Response 40-12,000 Hz, wow & flutter 0.3%, (S+N)/N 46 dB. Has VU



meters, counter, eject button, pause control, monitoring facilities, mike & line inputs. 3½" H x 8½" W x 10½" D \$119.95

TRQ-252 Stereo Cassette Deck

Plays and records. Response 40-12,000 Hz, (S+N)/N 45 dB. Has VU meters, counter, eject button, mike inputs. 3½" H x 7½" W x 10½" D \$129.95

TRQ-2000 Dolbyized Cassette Deck

Features a cassette stereo tape recorder/player with Dolby circuitry. Has two VU meters, slide-



type volume controls, and walnut cabinet. \$239.95

JVC

CD-1665 Cassette Deck

Economy stereo record/play design. Response 40-13,000 Hz ±3 dB. (S+N)/N -50 dB; wow &



flutter 0.15% rms. Has record/play and erase heads. Inputs: mike (0.7 mV) & line (80 mV). Line output 0 to 0.6 V. 4½" x 11½" W x 9½" D \$99.95

CD-1655 Cassette Deck

Stereo record/play design. Response 30-15,000 Hz ±3 dB. Ferrite record/play heads. Tape selector switch for chromium-dioxide and standard tapes. Built-in noise-suppressor circuit, automatic stop, two VU meters, calibrated step recording-level controls. 4½" x 14½" x 9½" D \$129.95

CD-1666 Cassette Deck

Stereo record/play design. Response 30-16,000 Hz ±3 dB with chromium-dioxide tape (30-13,000 Hz with standard tape). (S+N)/N -50

LAFAYETTE



RK-725 Record/Playback Deck

Deck featuring a low-impedance stereo amplifier for stereo headphone listening. Response 50-13,000 Hz; (S+N)/N 45 dB; channel separation 30 dB. Input sensitivity: mike 1 mV; aux. 100 mV. Wow & flutter 0.25% rms. Has standard/chromium-dioxide level control; illuminated VU record-level meters; 3-digit tape counter with reset button; front panel left- and right-channel mike and input jacks; six push-button tape functions including pause. Walnut wood case, brushed aluminum front panel. 12 $\frac{1}{2}$ " x 9 $\frac{1}{2}$ " x 3 $\frac{1}{2}$ " \$99.95

RK-D50 Dolbized Cassette Deck

Record/playback deck with Dolby. Has push-button tape selectors for standard, chromium-dioxide, or UD tapes; memory rewind; sound-with-sound facilities; lockable pause control; two illuminated VU record-level meters; two peak record-level indicator lights; 3-digit tape counter with reset button; automatic shut-off. Has 4-pole hysteresis synchronous motor. Response 30-20,000 Hz \pm 3 dB; (S+N)/N 59 dB (Dolby in), 49 dB (Dolby out); channel separation 30 dB at 1 kHz. 14 $\frac{1}{2}$ " W x 3 $\frac{1}{2}$ " H x 10" D \$239.95
Dynamic mike for use with RK-D50... \$19.50

RK-760B Cassette Deck

Features dual-channel VU record-level meter; push-button tape selector for standard or chro-



mium-dioxide tapes; sound-with-sound mixing; automatic shut-off in all modes at end of tape; 3-digit tape counter with reset button; front-panel stereo headphone jack powered by low-level stereo preamp. Records and plays back 4-track stereo and 2-track mono. Response 30-12,000 Hz \pm 3 dB; (S+N)/N 48 dB; channel separation 30 dB at 1 kHz. 10 $\frac{1}{2}$ " W x 4 $\frac{1}{2}$ " H x 10 $\frac{1}{2}$ " D \$124.95
Dynamic mike for RK-760B \$8.60

dB; wow & flutter 0.15% rms; bias record & erase 95 kHz. Has record/play and erase heads. Inputs: mike (0.7 mV) & line (80 mV). Line output 0 to 1 V. Features two VU meters and bias switch for chromium-dioxide and standard tape. 15" x 4 $\frac{1}{2}$ " x 10 $\frac{1}{2}$ " D \$169.95

CD-1667 Cassette Deck

Same as CD-1666 in design and styling except has an automatic noise-reduction system (ANRS). \$229.95

CD-1669 Solenoid Cassette Deck

Response 30-16,000 Hz \pm 3 dB. (S+N)/N -60 dB; wow & flutter 0.13% rms. Ferrite record/play heads. Features both equalizer and tape bias switches; built-in automatic noise-reduction system; memory counter; dual-drive mechanism; memory counter; calibrated step recording-level and playback controls. 5 $\frac{1}{2}$ " x 16 $\frac{1}{2}$ " W x 12 $\frac{1}{2}$ " D \$429.95

CD-1668 Cassette Deck

Deluxe version of the Model CD-1667. Has dual drive mechanism to reduce wow & flutter



(0.13% rms). Memory counter, ferrite record/play heads, calibrated recording-level controls, automatic stop, and automatic eject. Overall size 17" x 5 $\frac{1}{2}$ " x 15" D \$299.95

KENWOOD

KX-700 Dolbized Cassette Deck

Record/play stereo design with Dolby circuitry (improving S/N 10 dB). Features bias selector



switch for regular, low-noise, or chromium-dioxide type tapes, two VU meters, slide-type controls, pause control, and automatic shutoff. Response 25-13,000 Hz, wow & flutter 0.15%, (S+N)/N 55 dB with Dolby. Has two microphone (0.11 mV) and two line (24.5 mV) inputs. Outputs 0.775 V. Universal power supply. 4 $\frac{1}{2}$ " x 15 $\frac{1}{2}$ " x 11 $\frac{1}{2}$ " D \$199.95

MAGNAVOX

8840 Cassette Recorder Deck

Stereo design. Response 60-10,000 Hz \pm 4 dB; wow & flutter 0.25%; (S+N)/N 40 dB. Features



fast-forward and pause control, automatic eject, mike inputs, and two record-level meters. 13 $\frac{1}{2}$ " x 9" x 4". Walnut cab. \$99.95

3701. Basically same as 8840 except has noise suppressor switch. Response 60-10,000 Hz \pm 3 dB; wow & flutter 0.2%; (S+N)/N 45 dB. 11 $\frac{1}{2}$ " x 9" x 3 $\frac{1}{2}$ " \$149.95

8842. Basically same as 3701 except has automatic noise-reduction system and standard/chromium-dioxide bias sw. Response 40-13,000 Hz \pm 3 dB; wow & flutter 0.18%; (S+N)/N 45 dB. 15 $\frac{1}{2}$ " x 10 $\frac{1}{2}$ " x 4 $\frac{1}{2}$ " \$199.95

8843 Cassette Recorder Deck

Stereo design. Response 40-15,000 Hz \pm 3 dB; wow & flutter 0.2%; (S+N)/N 45 dB. Features



automatic reverse, four-source mixing, standard/chromium-dioxide tape bias switch, noise filter, and six-element head. 17 $\frac{1}{2}$ " x 9 $\frac{1}{2}$ " x 5 $\frac{1}{2}$ ". Walnut cabinet \$249.95

8844 Cassette Changer Deck

Stereo design. Response 40-15,000 Hz \pm 3 dB; wow & flutter 0.2%; (S+N)/N 45 dB. Will auto-



matically change up to 12 cassette tapes. Has six-element head. Plays and records in two directions. 18 $\frac{1}{2}$ " x 10 $\frac{1}{2}$ " x 9" \$299.95

NAKAMICHI

1000 3-Head Cassette Deck

Stereo record/play deck has response of 35-20,000 Hz \pm 3 dB (CrO₂) tape. Wow & flutter less than 0.10% (weighted peak); (S+N)/N 60 dB (Dolby in); THD 2% at 1 kHz, 0 dB. Features three heads (erase, record, playback); record-head azimuth alignment beacon; Dolby noise-reduction circuit +DNL; closed-loop driven double capstans with staggered flywheels; two d.c. driving motors; two peak level meters; instantaneous spill-proof device; automatic shut-off, memory rewind, and automatic rewind;



variable pitch control, 3-point sound pickup for live recording; peak limiter; optional remote control. Inputs: mike 0.5 mV, 600 ohms; blend mike 0.5 mV, 600 ohms; line 100 mV, 100,000 ohms. Outputs: line 1.2 V (max.) variable; headphones 3 mW, 0 dB. 11 $\frac{1}{2}$ " H x 20 $\frac{1}{2}$ " W x 8 $\frac{1}{2}$ " D \$1100.00

Remote Control Box



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Cassette Tape Machines

Electronic touch control (duplicating control system on the 1000 & 700). Controls all tape motion, including record, within 15 feet \$49.00

700 3-Head Cassette Deck

Same as the Model 1000 except does not have



automatic rewind or DNL. 10¹/₂" H x 20¹/₂" W x 5¹/₂" D \$690.00

NORELCO

2100 Stereo Cassette Deck

Deck only. Plays and records. Has VU meters, counter, eject button, pause control, monitor-



ing facilities, mike & line inputs. Features Philips dynamic noise limiter. Provides for bias adjust. 3¹/₂" H x 12¹/₂" W x 10¹/₂" D . . . \$219.95

PIONEER

CT-3131 Cassette Deck

Stereo record/playback design featuring switch for standard or chromium-dioxide tape; automatic stop; a level memory marker; dual record-level meters; tape running pilot; and skip button. Wow & flutter 0.13%; (S+N)/N -48 dB for standard tape (50 dB for chromium-dioxide tape). Response 30-12,500 Hz for standard tape (30-15,000 Hz for chromium-dioxide tape). Sensitivity: line input 50 mV; mike 0.5 mV; line output 0.775 V. Has universal power-line inputs. 15¹/₂" x 3¹/₂" x 9¹/₂" D \$199.95

CT-4141 Dolbyized Cassette Deck

Stereo design featuring d.c. brushless motor. 85 kHz bias & a.c. erase. Bias change for standard & chromium-dioxide tape. Response 30-13,000 Hz with standard tape (30-16,000 Hz with chromium-dioxide tape). (S+N)/N 58 dB with Dolby. Wow & flutter 0.13%. Inputs: line



50 mV; mike 0.5 mV. Line output 0.775 V. 15¹/₂" W x 9¹/₂" D x 3¹/₂" H \$269.95

RADIO SHACK

SCT-6C Cassette Deck

Stereo record/play design. Has individual channel record-level controls, VU meters, mike and



auxiliary inputs, preamp outputs. Has Dolby noise-reduction circuit, tape bias switch for recording chromium-dioxide cassettes. Capable of sound-on-sound recording. Has dual illuminated record-level meters, pause control, and automatic end-of-tape shut-off. Response 30-14,000 Hz (with chromium-dioxide tape) ±2 dB; wow & flutter 0.14% rms. Oiled walnut cabinet with brushed aluminum trim. 16¹/₂" x 10¹/₂" x 4¹/₂" \$249.95

SCT-5C Cassette Recorder

Stereo record/play design. Has dual VU meters. Response 50-12,000 Hz ±2 dB (playback-



only response 40-14,000 Hz ±2 dB). Wow & flutter 0.2%. Overall size 13¹/₂" x 9¹/₂" x 3¹/₂" \$149.95

SCT-2C Cassette Recorder

Portable stereo design. Has dual VU meters, monitor switch, slide controls. Operates from



117-volt power source or six "D" cells. Supplied with two mikes (one with remote-control switch). Has two removable wing speaker systems. 11" x 8¹/₂" x 6¹/₂" \$149.95

SANSUI

SC-700 Cassette Recorder Deck

Stereo design with Dolby noise-reduction system. Input sensitivity: mike 0.5 mV; line 70 mV. Wow & flutter 0.12% weighted rms. Response 40-13,000 Hz with standard tape; 40-16,000 Hz with chromium-dioxide tape. (S+N)/N with low-noise tape 50 dB (with Dolby 56-58 dB). Bias frequency 100 kHz. Features 3 mike mixing, dual VU meters, and universal power supply. 15¹/₂" x 10¹/₂" x 4¹/₂" D \$259.95

SC-737 Cassette Recorder Deck

Stereo design with built-in Dolby circuits; provi-



sions for chromium-dioxide tape; MCF ferrite heads; constant and peak-reading VU meters; three mike inputs. Response 30-12,000 Hz (regular tape); 30-16,000 Hz (CrO₂) (S+N)/N 50 dB. Dolby out, but with chromium-dioxide tape. Radar-type tape-direction indicator. 18¹/₂" W x 4¹/₂" H x 11¹/₂" D \$299.95

SANYO

RD-4300 Dolbyized Cassette Deck

Stereo design with pause control, equalization adjustments for choice of tape, and two record-



level meters. Has tape monitoring facilities, cue control, and automatic shut-off. Response 40-15,000 Hz ±3 dB. (S+N)/N 50 dB. Wow & flutter 0.15%. Has mike & line inputs and built-in memory counter (will automatically rewind & stop at point of start). 17" x 9" x 5" . . . \$299.95

RD-4350 Dolbyized Cassette Deck

Stereo design with built-in memory counter; separate record/playback level controls; adjustable recording equalization controls; mike/aux. input control; lighted VU meters with push-button tilt-up mechanisms for easy viewing; and mechanical automatic stop. Response 40-15,000 Hz ±3 dB; (S+N)/N 50 dB; wow & flutter 0.15%. Has two mike inputs and two stereo line outputs. Dolby noise suppression circuit. 17" x 9" x 5" \$329.95

RD-4250 Dolbyized Cassette Deck

Features servo-controlled tape drive mechanism and ferrite heads; large VU meters; tape



counter; 7-button function control including both cue and pause functions; adjustable recording equalization; automatic stop. Has Dolby noise reduction circuit. Response 40-15,000 Hz ±3 dB; (S+N)/N 50 dB; wow & flutter 0.2%. Has two mike inputs and two stereo line outputs. 19" x 9" x 5" \$289.95

SONY/SUPERSCOPE

TC-10 Car Cassette Player

Stereo design. 12-V negative ground operation. 6 W/ch continuous. Response 50-10,000 Hz.

Wow & flutter 0.25%; (S+N)/N 45 dB. 3.2 ohms impedance. $7\frac{1}{2}'' \times 2\frac{1}{2}'' \times 7\frac{1}{2}''$ D. With mounting hardware but less speakers. \$109.95
TC-20. Same except deluxe styling and for both negative & positive ground operation. Wow & flutter 0.28%. $7\frac{1}{2}'' \times 2\frac{1}{2}'' \times 8\frac{1}{2}''$ D. \$129.95
TC-30. Same as TC-10 except has automatic reverse. (S+N)/N 50 dB. $7\frac{1}{2}'' \times 2\frac{1}{2}'' \times 9\frac{1}{2}''$ D. \$159.95

TC-134SD Dolbyized Cassette Deck

Features dual bias for standard or chromium-dioxide tape. Response 30-17,000 Hz with



chromium-dioxide tape. (S+N)/N 54 dB at 1 kHz & 59 dB at 5 kHz. Bias frequency 85 kHz. Wow & flutter 0.2%. Has line & mike inputs (0.06 V sensitivity), dual VU meters, line outputs (0.775 V sensitivity). Walnut base. $16\frac{1}{2}'' \times 4\frac{1}{2}'' \times 8\frac{1}{2}''$ D. \$239.95

TC-161SD Dolbyized Cassette Deck

Features dual bias for standard or chromium-dioxide tape. Response 20-18,000 Hz with



chromium-dioxide tape. (S+N)/N 54 dB at 1 kHz & 59 dB at 5 kHz. Wow & flutter 0.1%. Bias frequency 85 kHz. Has dual VU meters, illuminated cassette compartment, memory-type counter, headphone level switch. Has mike & line inputs (0.06 V sensitivity) and line output (0.775 V). Walnut base. $15\frac{1}{2}'' \times 5'' \times 10\frac{1}{2}''$ D. \$329.95

TC-121A Stereo Cassette Deck

Records/plays. Response 40-13,000 Hz; wow & flutter 0.22% (S+N)/N 45. Has low-imp. mike



input; 560,000 ohm imp. aux. input. Output: phono 100,000 ohms. Level 0.775 V. Includes stereo headphone monitor jack, record level indicator, pause control, and automatic shut-off. $13'' \times 3\frac{1}{2}'' \times 8\frac{1}{2}''$ D. \$114.95

TC-129 Stereo Cassette Deck

Records/plays. Response 40-14,000 Hz; wow & flutter 0.22%; (S+N)/N 45. Has low-imp. mike input; 560,000 ohm imp. aux. input. Output: phono 100,000 ohms imp. Level 0.775 V. Features straight-line record level controls; tape select switch; dual illuminated VU meter; three-digit tape counter; push-button operation; pause control with lock. Has stereo headphone jack; built-in dust cover; automatic shut-off; non-magnetizing record head. Walnut base. $13\frac{1}{2}'' \times 4'' \times 9\frac{1}{2}''$ D. \$149.95

TC-131SD Dolbyized Cassette Deck

Includes Dolby circuitry; has special tape select switch for chromium-dioxide or standard tapes; ferrite head; built-in peak limiter. Has straight-line record level controls, illuminated VU meters, automatic total mechanism shut-off (TMS); locking fast-forward and rewind; pause control with lock; 3-digit tape counter; record indicator pilot lamps; stereo headphone jack; non-magnetizing record head. Response 40-15,000 Hz; wow & flutter 0.22% (S+N)/N 48 dB. Overall size $15\frac{1}{2}'' \times 3\frac{1}{2}'' \times 9\frac{1}{2}''$. Walnut base. \$199.95

TC-152SD A.C./D.C. Cassette-Corder Deck

Operates from four "D" cells or 117 V a.c. line. Records/plays stereo. Has built-in mono amplifier and single speaker for monitoring (both channels simultaneously). Features a Dolby circuit for either record or playback. Response 40-15,000 Hz; wow & flutter 0.28% (S+N)/N 48 dB. Has tape select switch; automatic shut-off; battery check switch; line in/line out for deck operation; separate monitor/playback volume and tone controls; 3-digit tape counter; built-in peak limiter. Comes with two patch cords, four "D" cells, shoulder strap. \$299.95

TC-224 Portable Cassette-Corder

Records/plays discrete stereo without external speakers or microphones. Features two built-in condenser mikes and two separate built-in speakers. Has two VU meters; 3-digit tape counter; locking fast-forward and rewind; backspace review button; fast cueing; stereo headphone jack. Response 50-10,000 Hz. Operates from four "C" cells, 120 V, 50-60 Hz; or 6 V d.c. Has earphone, carrying case, hideaway handle. \$179.95

TC-124 Portable Cassette Recorder

117-V a.c. or 6 V d.c. (four "C" cells) stereo design. Response 50-10,000 Hz. (S+N)/N 45 dB, wow & flutter 0.28%. Has battery-strength and record-level indicator, line (0.06 V) & mike inputs, built-in mono speaker ($4'' \times 2\frac{1}{2}''$), and stereo speaker outputs. 1 Wch continuous output. Supplied with F-99 microphone with remote control, earphone, and carrying case. $6\frac{1}{2}'' \times 2\frac{1}{2}'' \times 9\frac{1}{2}''$ D. \$149.95

SUPERSCOPE

CD-301 Stereo Cassette Deck

Record/play deck. Response 40-10,000 Hz (standard tape); 40-14,000 Hz (chromium-dioxide tape); (S+N)/N -48 dB standard/-51 dB CrO₂ tapes. Features two slanted VU meters; limiter switch to limit maximum recording level; illuminated function indicators; headphone monitor jack; left and right mike inputs and record-level controls; record mode light; 3-digit tape counter; interlocked piano-key type controls. Comes with walnut base and two audio patchcords. Overall size $12\frac{1}{2}''$ W x $3\frac{1}{2}''$ H x $8\frac{1}{2}''$ D. \$99.95

CD-302 Stereo Cassette Deck

Similar to CD-301 except includes the Dolby noise reduction system. (S+N)/N -48 dB; Dolby in -60 dB; CrO₂ -51 dB. Has the same controls and features as the Model CD-301. \$149.95

SYLVANIA

CT160W Cassette Recorder Deck

Stereo design with dual VU level meters, automatic shut-off, and slide-type controls. Input sensitivity: mike 0.2 mV \pm 3 dB at 200 ohms; 100 mV \pm 3 dB at 100,000 ohms. Output 1 V \pm 3 dB. Response 30-12,000 Hz \pm 4 dB. Wow & flutter 0.2% rms. Supplied with two dynamic microphones & desk stands. $5\frac{1}{2}'' \times 11\frac{1}{2}''$ D x 8" H. Walnut cabinet. \$119.95

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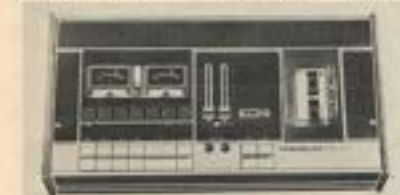


Cassette Tape Machines

TANDBERG

TCD-300 Cassette Recorder Deck

Features Dolby noise-reduction system; three motors; two peak-reading record meters; chromi-



um-dioxide/low-noise, high-output tape switch; automatic endstop. Wow & flutter 0.15% (Wrms). Response 50-12,000 Hz ± 2 dB. Has mike (0.1 mV), radio (5 mV), and line (40 mV) inputs. Output 0.775 V. Wall mountable. Walnut cabinet. 19" \times 4 1/2" \times 9 1/2" D .. \$399.90

TEAC

450 "Challenger" Cassette Deck

Features Dolby-B type noise-reduction system. Has switchable controls for bias and equaliza-



tion for various tape types; mike/line inputs (mixable); two separate erase and record/playback heads. (S+N)/N 51 dB (50 dB with Dolby); wow & flutter 0.07%. Response 30-10,000 Hz with standard tape (30-14,000 Hz with low-noise tape; 30-16,000 Hz with chromium-dioxide tape). Inputs: mike 0.25 mV; line 0.1 V. Output: 0.3 V. Has universal power-line inputs. 7" H \times 17 1/2" W \times 10 1/2" D \$399.50

AC-5 Car Cassette Player

Features continuous stereo playback; automatic reverse; universal mounting; and servo-controlled motor. Wow & flutter 0.25%. Frequency range 40-10,000 Hz. Output 6 W/ch dynamic (EIA) power at 5% THD, 12 V d.c. negative-ground operation. 2 1/2" \times 7" \times 8 1/2" D. Speaker optional \$159.50

AC-9 Car Cassette Player

Similar to AC-5 except higher fidelity. Has tone controls; fast-wind in both directions; automatic reverse; tape-travel indicating lamps. Speaker optional \$179.50

AC-10 Car Player/FM-Stereo Radio

FM-stereo receiver and stereo cassette player with built-in Dolby noise reduction system. Features continuous automatic reverse; Dolby "on/off" switch; straight-line volume, balance, and tone contrast; FM stereo switch; local/distant switch; plus quick-release mounting bracket for removing unit from car. 6 W/ch output at 4 ohms. FM sensitivity 10 μ V. Response 40-10,000 Hz. LS-1 car speakers optional extra. 8 1/2" W \times 3" H \times 8 1/2" D \$279.50

360S Dolbyized Stereo Cassette Deck

Features Dolby noise reduction system; wow & flutter 0.07%. Has 400-Hz Dolby calibration tone generator; MPX filter switch; 8 external Dolby calibration controls; automatic output stabilizing network; separate 3-position bias



and equalization switch; memory rewind counter; total automatic shut-off in record and play mode; dual VU meters. Response 30-16,000 Hz (40-15,000 Hz ± 3 dB); 30-13,000 Hz with CrO₂ tape (40-13,000 Hz ± 3 dB); (S+N)/N 60 dB (Dolby in); 50 dB (without Dolby). 17 1/2" W \times 4 1/2" H \times 10 1/2" D \$349.50

250S Dolbyized Stereo Cassette Deck

Features Dolby noise-reduction system; standard/chromium-dioxide tape selector switch;



straight-line record-type level control; dual VU meters; high-density "Permaflux" heads; and tape-run indicator light. Response 30-13,000 Hz; 30-15,000 Hz (with chromium-dioxide tape); (S+N)/N 58 dB (Dolby in). Wow & flutter 0.15%. 16 1/2" W \times 4 1/2" H \times 9 1/2" D \$279.50

160 Dolbyized Cassette Deck

Features Dolby noise-reduction system; high-density "Permaflux" heads; separate bias and equalization switches; straight-line level controls (two record, two output); two VU meters; tape-run indicator light; and 3-digit resettable tape counter. Has left and right low-imp. mike jacks; stereo headphone jack; pause control; two heads. Response 30-13,000 Hz with standard tape (30-14,000 Hz with chromium-dioxide tape); wow & flutter 0.15%. (S+N)/N 58 dB (with Dolby). 16 1/2" W \times 4 1/2" H \times 10 1/2" D \$229.50

140 Stereo Cassette Deck

Features dual VU meters, straight-line record-level controls; high-density "Permaflux" heads; separate equalization and bias switches; tape-run indicator; 3-digit resettable tape counter; left and right low-imp. mike jacks; 8-ohm stereo headphone jack; locking pause control; and automatic shut-off. Response 30-13,000 Hz (standard tape); 30-14,000 Hz (chromium-dioxide tape). (S+N)/N 50 dB; wow & flutter 0.15%. 16 1/2" W \times 4 1/2" H \times 10 1/2" D .. \$179.50

250 Dolbyized Cassette Deck

4-track, 2-channel stereo record/play design with Dolby noise-reduction circuits. Wow & flutter 0.15%. Response 30-13,000 Hz (30-16,000 Hz with chromium-dioxide tape). (S+N)/N -50 dB. Has mike (0.25 mV) and line (0.1 V) inputs and line output (0.3 V). Features selector switch for high density or chromium-dioxide tape. 4 1/2" \times 16 1/2" \times 9 1/2" D \$269.50

350 Dolby-ized Cassette Deck

Stereo design. Plays and records. Response 30-16,000 Hz, wow & flutter 0.13%, (S+N)/N 58 dB. Has hysteresis motor, VU meters, counter, eject button, automatic shutoff, pause con-



trol, monitoring facilities, and mike & line inputs. 4 1/2" H \times 16 1/2" W \times 9 1/2" D \$329.50

210 Cassette Deck

4-Track, 2-channel stereo record/play. Wow & flutter 0.15%. Response 30-12,500 Hz. (S+N)/N -50 dB. Has mike (0.25 mV) & line (9.1 V) inputs and line output (0.3 V). Features illuminated strobe tape-run indicator, showing direction & mode of tape travel. 4 1/2" \times 16 1/2" \times 9 1/2" D \$189.50

TECHNICS BY PANASONIC

RS-271US Cassette Recorder Deck

Dolbyized stereo design with standard and chromium-dioxide tape selection and HPF ul-



tra-longlife heads. Wow & flutter 0.2% (S+N)/N 55 dB (with Dolby), 45 dB (without). Response 20-13,000 Hz (standard tape), 20-14,000 Hz (chromium-dioxide). Has two VU meters, memory rewind, lockable pause control, automatic stop, mike/line selector, electronically controlled motor speed. 15 1/2" \times 10 1/2" \times 5" D \$249.95

RS-279US Cassette Recorder Deck

Dolbyized stereo design with standard and chromium-dioxide tape selection and HPF ul-



tra-longlife heads. Three-head system permits off-tape monitoring. Wow & flutter 0.1%. (S+N)/N 60 dB (with Dolby), 50 dB (without). Response 20-17,000 Hz (chromium-dioxide tape), 20-15,000 Hz (standard tape). Has two motors including electronically controlled direct drive for capstan, optional remote control, memory rewind, pause control, electronic autostop. Mike/line input selection. 5 1/2" H \times 16 1/2" W \times 13 1/2" D \$499.95

RS-276US Cassette Recorder Deck

Dolbyized with standard and chromium-dioxide tape selection. Wow & flutter 0.1%. (S+N)/N 50 dB (60 dB with Dolby). Response 20-15,000 Hz (standard tape), 20-17,000 Hz (chromium-dioxide tape). Has line & mike inputs, two-motor system including one direct drive, memory re-



wind, and optional remote control. 5 1/2" x 16 1/2" x 13 1/2" D \$399.95

RS-263US Cassette Recorder Deck
Dolbyized stereo design with standard tape & chromium-dioxide selection. Wow & flutter 0.2%. Response 30-13,000 Hz (standard tape); 30-14,000 Hz (chromium-dioxide). (S + N)/N 45 dB (55 dB Dolby). Has mike & line inputs, automatic stop, memory rewind and pause control. 14" x 5" x 9 1/2" D \$189.95

RS-277US Cassette Recorder Deck
Similar to RS-263US in performance but has



added features: automatic reverse, pause control, and output level adjust. 17 1/2" x 5 1/2" x 11 1/2" D \$299.95

TOSHIBA

PT-415 Cassette Deck
Stereo design featuring a Dynamic Noise Limiter (DNL); tape selector (standard or chromium-dioxide). Output 0-1 V. Response 30-15,000 Hz, with chromium-dioxide tape. Wow & flutter 0.1% rms weighted; (S + N)/N 50 dB (unweighted). Sensitivity: line 80 mV; mike 0.56 mV. Fast-forward and rewind 100 sec. Has universal line inputs. 14 1/2" x 4" x 10 1/2" \$199.95

PT-490 Dolbyized Cassette Deck
Features stereo play/record; mechanical automatic shut-off; 3-step tape selector (adjusts bias and frequency response), two record-level meters, and automatic reverse. Output 0 to 1 V. Frequency response 30-15,000 Hz. Wow & flutter 0.1% weighted rms. (S + N)/N 50 dB (60 dB with Dolby). Input sensitivity: line 80 mV; mike 0.56 mV (10,000 ohms). 16 1/2" x 5 1/2" x 11 1/2" \$329.95

PT-470. Same as PT-490 except does not have



automatic reverse \$249.95

WOLLENSAK

4765 Cassette Recorder Deck
Dolbyized design featuring beltless, direct dual-drive system; mike & line mixer switch for



sound-on-sound mixing; Dolby calibration oscillator; tape bias switch for standard and chromium-dioxide tapes; end-of-tape sensing; dual VU meters. Wow & flutter 0.15% (DIN) weighted. Sensitivity: mike 0.65 mV for 0 VU; line 150 mV; Output 1 V; headphone output 0.2 mV at 8 ohms. Response 35-14,000 Hz ±2 dB with standard tape. (S + N)/N 50 dB with Dolby off (60 dB at 4000 Hz with Dolby) \$329.95

4770 Cassette Recorder Deck
Has dynamic noise reduction circuit on playback and multi-function tape selector switch which adjusts bias, equalization, and VU meter level. Plays and records. Includes memory rewind, automatic shut-off, master record level, and pause lock \$219.95

4780 Cassette Recorder Deck
Has Dolby noise-suppression circuit and multi-function tape selector control which adjusts bias, equalization, and VU meter level. Plays and records. \$269.95

4350 Cassette Recorder
Records and plays. Has memory rewind and built-in condenser microphone. Will operate from "D" cells, car/boat batteries, or a.c. power lines. The memory circuit permits automatic rewinding to a pre-selected point on tape. Features automatic shut-off, remote control, and standby switch for pause control \$99.95

YAMAHA

TB-700 Dolbyized Cassette Deck
Stereo design. Response 30-13,000 Hz (standard tape); 30-16,000 Hz (chromium-



dioxide tape). Mike input 0.4 mV, 200-50,000 ohms imp; high-level 50 mV, 100,000 ohms (high), 14 mV, 100,000 ohms (low). Has two record meters; Dolby; automatic stop; limiter; ±5% pitch control; pause switch; 3-digit counter; 3-pos. tape selector; OTE headphone amplifier; ferrite heads; line input/mike mixing. (S + N)/N at 0 VU 58 dB (with Dolby), 48 dB (Dolby out). 4 7/8" H x 13 1/2" W x 9 1/2" D. \$339.95

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People who hear about the Linear Sound of EPI invariably ask, "How much?"

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Model 1000 is just one of eight Linear Sound speakers from EPI.

In the middle of the line, for example, you'll find our Model 400, "The Mini Tower," at \$389. Of this speaker, *Stereo Review* said, "The airy, open quality... in our view earns it a place in the select group of superb speaker systems."

Then, for the budget-minded, is our Model 50 at an attractive \$55 each.

Don't let the price fool you.

The EPI Model 50 produces a true linear sound. It has the same 1" air spring tweeter you'll find in the Tower and the same 6" long-throw woofer you'll find in the Mini Tower.

When *Audio Magazine* reviewed the Model 50, it recorded a response that "extended from 45 to 16,000 Hz ± 3 db, and dispersion was excellent." When *Audio* tested 14 small speakers for dispersion, our Model 50 beat the pack of them.

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OF EPI.** 



7

8-TRACK TAPE MACHINES

AKAI

CR-81D 8-Track Recorder Deck

Stereo design. Response 50-16,000 Hz ± 3 dB; wow & flutter 0.25% rms; (S + N)/N 47 dB. Has



line output 1.23 V. Inputs: mike 0.5 mV & line 50 mV. Has automatic stop and continuous playback, two VU meters, and input for optional remote control. Universal power supply. 13 1/2" x 5 1/2" x 10 1/2" D. \$199.95

BSR McDONALD

TD-8S 8-Track Playback Deck

Deck includes a 3-stage stereo preamp, 0.75 V



output. Comes with cabinet and connecting cables. 7 1/2" W x 10 1/2" x 3 1/2" \$49.95
TD-8SW. Same as TD-8S except has variable level-output control and wood-grain cabinet \$59.95

CHANNEL MASTER

6644 8-Track Play/Record Deck

Has push-button selector switches for fast-forward, automatic stop, pause, repeat, and re-



start, plus power "on-off." Includes right & left illuminated recording meters and right & left recording level controls; recording indicator light; automatic stop indicator light; automatic track changing; manual track selection; blackout track indicator lights. Has inputs for right & left microphones; output for stereo headphones. Comes with four patch cords. 4 1/2" H x 15 1/4" W x 10" D \$139.95
 Model 6497 stereo mike optional extra.

6613 8-Track Play Deck

Designed to be used with any stereo system;

variable output adjustable to amplifier input sensitivity. Features automatic track changing; manual track selection; blackout indicator lights. Has output jack with connecting cable. 4" H x 9" W x 9 1/2" D \$54.95

CONCORD

F-128 8-Track Stereo Deck

Records and plays. Has two VU meters, a three-digit tape counter, slide record-level con-



trols, fast-forward control, and headphone jack. Response 50-10,000 Hz, wow & flutter 0.3% rms, (S + N)/N 45 dB \$179.95

CD-8 8-Track Player Deck

Conventional design. Will play stereo cartridges. Has automatic & manual program selector and cartridge ejection. Wow & flutter 0.2%. Frequency range 100-8000 Hz. (S + N)/N 43 dB. Adjustable output 120 mV to 550 mV. 4 1/2" x 9 1/2" x 9 1/2" D \$54.95

DOKORDER

MC-60 8-Track Recorder Deck

Stereo design. Response 30-12,000 Hz; (S + N)/N 47 dB; wow & flutter 0.3% rms. Line



input 60 mV; output 0.775 V. Circuit uses 12 transistors, two IC's, and 16 diodes. Universal power supply. 18 1/2" x 14 1/2" D x 8 1/2" \$149.95

ELECTROPHONIC

TRD53 8-Track Record/Play Deck

For use with existing hi-fi systems. Has push-button controls for channel changing, fast-forward, and pause; twin level recording meters; slide-rule volume controls; automatic channel indicator lights. Has tape monitor jack, front-panel jacks for left and right microphones; play/record selector switch; "stop" indicator light. Comes with blank tape cartridge and two dynamic mikes with stands. Walnut finish. 15" W x 8 1/2" D x 4 1/2" H \$129.95

GLENBURN

SP-10-8-Track Playback Deck

Has solid-state, 3-stage stereo preamp (750 mV



output); integrated program-change mechanism with vertical head movement; high-speed, jam-proof tripping mechanism; illuminated program indicator; automatic and manual track switching; high-torque, heavy-duty a.c. synchronous motor; cartridge slot with dust cover. Comes complete with walnut cabinet, a.c. and audio connecting cables. 8 1/2" x 10" x 4". \$49.95

GRUNDIG

CR 815 8-Track Tape Deck

Response 50-10,000 Hz; 2% HD; (S + N)/N 38 dB. Has line and mike inputs; line and headphone outputs. Includes record-level meter. 15 1/2" x 4 1/2" x 10 1/2" D \$199.95

HEATH

GD-28 8-Track Stereo Deck

Home playback deck for use in component system. Response 50-10,000 Hz. Simulated



walnut-finished cabinet measures 10 1/2" x 4 1/2" x 8 1/2" \$59.95

HITACHI

TPQ-124 8-Track Player Deck

Home player deck for use in audio systems. Has select/eject controls, program indicator lights, and dust cover on loading slot. 11 1/2" x



7

8-Track Tape Machines

10" x 4" \$89.95

TRQ-134 8-Track Recorder Deck

Stereo design featuring dual VU meters, slide-



type controls, fast-forward, and automatic stop. Comes with walnut cabinet \$169.95

JVC

ED-1102 8-Track Tape Deck

Playback stereo design. Response 30-15,000 Hz; (S + N)/N -45 dB; wow & flutter 0.2% rms. Output 0.8 V. 3 1/2" x 6 1/2" W x 9 1/2" D \$49.95

ED-1261 8-Track Tape Deck

Record/play stereo design. Response 30-14,000 Hz ± 3 dB; (S + N)/N -50 dB; wow & flutter 0.2% rms. Record & erase bias 57 kHz. Has mike (0.8 mV) & line (80 mV) inputs. Line output 0 to 1 V. Has two VU meters, synchronous motor, pause button, and automatic start. 4 1/2" x 16 1/2" W x 10 1/2" D \$169.95

LAFAYETTE

RK-800B 8-Track Playback Deck

Stereo playback deck designed to be used with audio system. Response 30-12,000 Hz. Has repeat channel selector button; built-in solid-state stereo playback preamp; push-button track selector; illuminated track indicator lights; spill-proof capstan mechanism. 9" W x 4 1/2" H x 9 1/2" D \$59.95

RK-82 8-Track Playback Deck

Stereo playback deck designed to be used with audio systems. Response 50-8,000 Hz. Has push-button track selector; illuminated track indicator lights; dust-proof cartridge slot door. 8 1/2" W x 4 1/2" H x 8 1/2" D \$49.95

RK-885 8-Track Record/Playback Deck

Record/play deck designed to be used with any stereo receiver or amplifier with tape in/out jacks. Has mike input jacks for "live" stereo recording with optional microphones; dual VU meters; recording volume controls; mode switch; record indicator light; illuminated channel indicator lights. Comes with connecting cables. 13" W x 5 1/2" H x 8 1/2" D \$99.95
Microphone for RK-885 \$8.60

RK-890A 8-Track Deck

Stereo record/play design. Has stereo/mono mode switch, meter overload protection, sepa-



rate mike & aux. inputs and line-level outputs. Features sound-with-sound, dual VU meters. Sensitivity: mike 1 mV, aux. 100 mV. Response 30-12,000 Hz, wow & flutter 0.25%, output level 1 V max. With walnut metal case. 12" x 3 1/2" x 9 1/2" D \$159.95

LLOYD'S

Y639 8-Track Deck

Features stereo play/record design. Has two record-level meters, linear slide-type controls. Supplied with two microphones. 4 1/2" x 15" x 10 1/2" D \$129.95

MAGNAVOX

8869 8-Track Player Deck

Stereo design. Response 40-10,000 Hz ± 4 dB; wow & flutter 0.22%; (S + N)/N 40 dB. Features automatic program changer & continuous play. 9 1/2" x 3 1/2" H x 6 1/2" D. Walnut cabinet \$54.95

8830. Same except with automatic eject, program selector switch, and repeat play. 7 1/2" x 3 1/2" x 10" D \$64.95

3503 8-Track Recorder Deck

Stereo design. Response 40-10,000 Hz ± 4 dB; wow & flutter 0.2%; (S + N)/N 42 dB. Features mike inputs, automatic program changer, continuous play, program select & eject, and automatic level controls. 16 1/2" x 4 1/2" x 11" D. \$129.95

RADIO SHACK

TR-881 8-Track Recorder Deck

Has VU meters for each channel and independent record-level controls. Features pause control and "Auto-Stop" switch that stops tape after four programs during record. Has mike input. Response 50-12,000 Hz; wow & flutter 0.3% rms. Oiled walnut wood case with brushed aluminum panel. 17 1/2" x 5" x 9 1/2" \$109.95

TR-800 8-Track Recorder Deck

Has dual VU meters with "Glide Path" level controls, pause control, "Auto-Stop" switch,



and mike inputs. Response 50-15,000 Hz; wow & flutter 0.2% rms. Walnut wood cabinet with brushed aluminum front panel. 15 1/2" x 10 1/2" x 4 1/2" \$159.95

RCA

MYC555 8-Track Changer Deck

8-track stereo tape changer which plays up to five 8-track stereo cartridges in sequence automatically through any console or compact stereo system equipped with tape jacks. Can provide over six hours of uninterrupted music. Automatic and manual cartridge and track selection. Automatic shut-off after last cartridge. Walnut-grained vinyl cabinet on reinforced wood fiber. 8 1/2" x 12 1/2" W x 10 1/2" D \$189.95

SONY/SUPERSCOPE

TC-228 8-Track Recorder Deck

Stereo design. Response 30-13,000 Hz; (S + N)/N 45 dB. Bias frequency 95 kHz. Wow & flutter 0.17%. Has two VU meters, one d.c.-type motor. Aux. (70 mV sensitivity) & mike (-70 dB sensitivity) inputs & line output (0.5 V sensitivity). Features automatic total mechanism shut-off. Walnut case. 14 1/2" x 4 1/2" x 8 1/2" D \$189.95

TELEX

48H 8-Track Changer

Selects at random 16 hours of continuous, non-repetitive sound. Switches and selects 12 stereo 8-track cartridges. 5 W/ich continuous



into 8 ohms. Third harmonic distortion less than 2% at 4 W. Supplied with dust cover. 18 1/2" x 9" H x 16 1/2" D \$299.95
Optional matching speakers Sp 3-H Pair \$69.95
Model 48D. Deck only with 1 V preamp output. Response 40-12,000 Hz, (S + N)/N 42 dB, flutter 0.2% max. \$249.95

WEBCOR

1521 8-Track Stereo Player

Features 25 W/ich dynamic power at 5% THD (5 W/ich continuous power with both channels driven). Has conventional controls & comes with pair of SP-9 two-way bass-reflex speaker systems (each with 6 1/2" woofer & 2 1/2" h.f. radiator, mechanical crossover). Walnut grain. 13 1/2" x 4 1/2" x 9 1/2" \$89.95

WESTBURY

4101 Recorder/Player Deck

Records/plays. Features automatic eject, fast-forward, repeat and pause controls; slide con-



controls, record-level meters; repeat switch; eject at end 4 and end of each channel. Has indicator lamp; headphone jack. Wood cabinet. 14" x 11" x 5" \$109.95

WOLLENSAK

8055 8-Track Recorder Deck

Features record/play of 8-track stereo cartridges; automatic "on-off"; automatic eject



after playing one or all tracks; automatic record level; time counter; pause control; fast-forward; dual VU meters. Frequency response 30-15,000 Hz. Wow & flutter 0.25%. (S + N)/N 50 dB. Line output 1 V at 0 VU. Sensitivity: mike 25 mV; aux. 80 mV. 17 1/2" x 4 1/2" x 10 1/2". Walnut cabinet \$169.95

THE LAST LOUD- SPEAKER.

The news may already have reached you. We're a young company named Ohm Acoustics and we've developed the last loudspeaker.

We believe it's the last loudspeaker in the same sense as the wheel was the last device for transmitting rotary or rolling motion.

Of course, the wheel has been greatly improved since its debut in the Bronze Age. But only in construction. The design itself is unimprovable because it's inherently perfect.

The new Ohm F has the same mathematical finality. It's the absolute loudspeaker, utterly simple and complete. Only its physical makeup can evolve further; the concept is terminal.

The last loudspeaker was invented by a little-understood engineering genius, Lincoln Walsh, who patented it in 1969 (U. S. Patent 3,424,873) and died less than three years later. As exclusive licensees of the Walsh patent, we've spent the past two years developing construction techniques for the invention. The end result is the Ohm F.

The originality and stark simplicity of the Walsh design are apparent at a glance. A single, very steep 12-inch cone, oriented with its apex up and convex side out, is used to reproduce the en-

tire audio range from 30 to 20,000 Hz without crossovers. (Not to be confused with the 2-inch Walsh tweeter made by another company under license from Ohm.)

The cone is made of titanium, aluminum and paper, and it acts as a wave transmission line, completely discarding the classic piston theory of speaker design. Its output is a unique cylindrical wave front, which is kept in perfect phase with the input audio signal at all frequencies. This is "coherent sound", analogous to coherent light from a laser.

No other full-range speaker is a totally coherent sound source, with 360° direct radiation to boot. It's the theoretical ultimate.

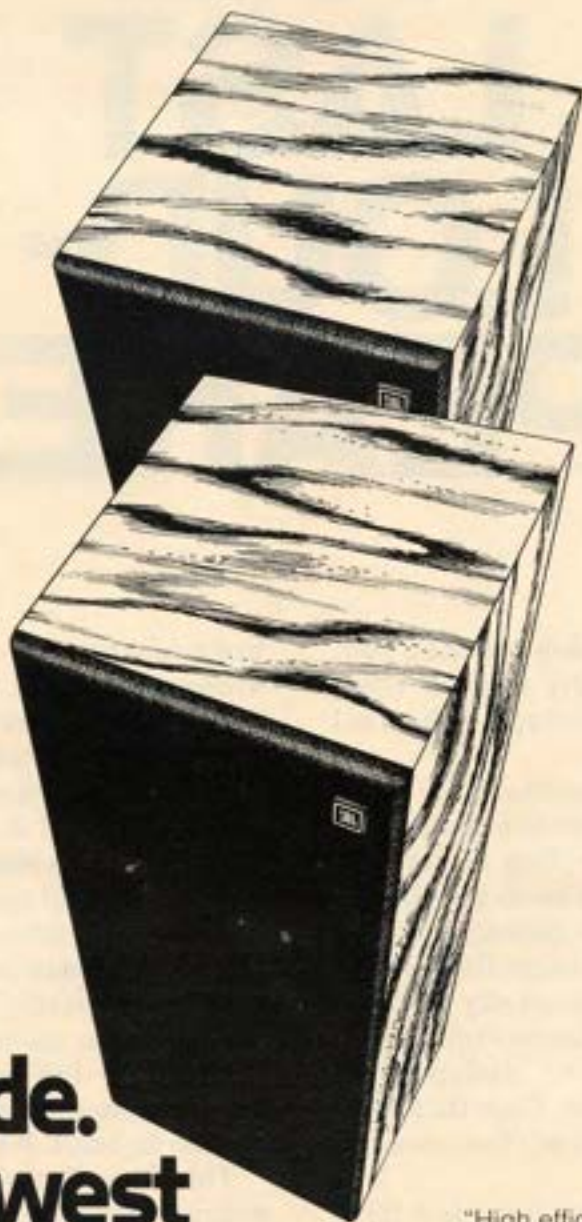
The Ohm F comes in a striking, tapered column cabinet, about 3½ feet high, and is priced at \$400. (Also available is the \$1000 laboratory prototype Ohm A, with an 18-inch Walsh driver that goes down to 20 Hz but requires 350 watts of power.)

As the years go by and the history of the wheel is repeated, the Walsh idea will inevitably filter down to the lowest price ranges.

Meanwhile, the Ohm F is here for those who want to be the first to own the last loudspeaker.

Ohm Acoustics Corp.,
241 Taaffe Place,
Brooklyn, N.Y. 11205.





Decade. JBL's newest loudspeaker.

(The price has been strategically placed in a later paragraph of this advertisement. We can't have you running into your JBL dealer's because of "price." That's not even the right reason.)

Some of us think Decade is the best two-way sound system we've ever made. If you'll forgive a few buzz words, we'll tell you why:

"Definition." That's a loudspeaker's capacity for letting the listener hear each part, every part of a whole sound. JBL's Decade has almost perfect definition.



What makes JBL loudspeakers so different from the rest?

Well, we grew up on the other side of the sound tracks, in the music business, making loudspeakers for recording engineers, professional musicians — people who listen to music for a living.

Would it impress you to know that the top professional recording studios like Warner Brothers and Capitol and Elektra and MGM use JBL loudspeakers to record, play back, mix down and master their music? It's true.

"High efficiency." Very important. Most loudspeakers are low efficiency speakers; they need a big amplifier to give you back a big sound. Not JBL. The big sound is built in, and a little amplifier goes a long way.

"\$129." That means if you've been saving up for a JBL loudspeaker, stop.

Come hear JBL's new Decade. Except for the price, it sounds expensive.



James B. Lansing Sound, Inc. / 3249 Casitas Avenue, Los Angeles 90039 High fidelity loudspeakers from \$129 to \$2,700.

8

STEREO COMPACTS

CONCORD

CS-302 Phono/Radio System

Combines an AM-FM stereo receiver with 15 W/ch dynamic power; a BSR 4-speed record



changer with a 4-pole motor, a ceramic cartridge, and diamond stylus; and a pair of separately housed speaker systems. Response 20-20,000 Hz ± 2 dB at 1% THD. FM sensitivity 2.5 μ V for 30 dB quieting. Has inputs for tape deck & aux. 16 1/2" x 9 1/2" x 17" D \$208.95

ELECTROPHONIC

W92612K Receiver/Phono/8-Track

Combines an AM-FM stereo receiver; a BSR record changer with diamond stylus; an 8-track recorder/player; two dynamic microphones with stands; and two 6" full-range speaker systems. Has stereo indicator light; rocker switches for a.f.c. and power; headphone and mike/guitar jacks; switch for connecting two additional speaker systems \$209.95

GQ94712 Receiver/Phono/8-Track

Combines an AM-FM stereo receiver; a Garrard record changer with counterbalanced tonearm, automatic cueing control, and diamond stylus; 8-track recorder/player; two dynamic microphones with stands; plus four air-suspension speaker systems, each with 6 1/2" duo-cone woofer & 3 1/2" duo-cone tweeter. Has rocker switches for a.f.c. and power; slide controls; headphone jack \$449.95

FISHER

30 Phono/Receiver System

Combines a precision automatic turntable with magnetic cartridge and diamond stylus; a 50 W/ch dynamic power amp with 5% THD at 8 ohms with both channels driven; and AM-FM tuner. Dust cover optional. Oiled walnut cabinet. 17 1/2" x 8 1/2" x 16" D. \$299.95

36 Phono/Receiver System

Combines a precision automatic turntable with magnetic cartridge, anti-skating device, cueing lever, and diamond stylus; and AM-FM stereo receiver. 50 W/ch dynamic power at 5% THD.

17 1/2" x 8 1/2" x 17 1/2" D. Dust cover optional. \$349.95

28 Phono/Receiver System

Combines a 4-speed automatic turntable with magnetic cartridge and diamond stylus, anti-skating device, cueing lever; and an AM-FM stereo receiver. 20 W/ch dynamic power at 5% THD. 17 1/2" x 8 1/2" x 15" D. Dust cover optional \$249.95

GRUNDIG

S850 AM-FM/8-Track System

Combines an AM-FM stereo receiver and an 8-track record/play tape system. Wow & flutter 0.2% rms (playback). (S+N)/N 45 dB (playback). Response 100-8000 Hz. Has two record-level meters. 20 1/2" x 5 1/2" x 20 1/2" D. \$259.95
\$860 Same except with a BSR 4-speed automatic turntable \$299.95

RTV 2508 AM-FM/8-Track System

Combines an AM-FM stereo receiver, an 8-track tape player, and a pair of separately housed speaker systems (10" x 16" x 6 1/2") each with 6 1/2" woofer & 2 1/2" tweeter. 7 W/ch dynamic power at 5% THD \$169.95
RTV 2508-P. Same except with a BSR 4-speed automatic turntable & dust cover \$199.95

Studio 2600 8-Track Music Center

Combines an AM-FM stereo receiver with two short-wave bands (3.5-8.5 & 9-22 MHz), a BSR C141 automatic turntable, and an 8-track stereo tape player. Comes with wood cabinet and dust cover \$329.95

HEATH

AD-27A Phono/Radio System

Combines a 4-speed BSR McDonald automatic turntable with Shure M75 mag. cartridge with



diamond stylus, a 15 W/ch (dynamic) power amp. (response 12-60,000 Hz ± 1 dB at 1% THD), an AM-FM tuner (5 μ V sensitivity for 30 dB quieting), in an oiled walnut cabinet with tambour doors. 12 1/2" x 14 1/2" x 7 1/2" D. Speakers not included.
Kit \$179.95

AD-17A Phono System

Combines a 4-speed BSR McDonald automatic



turntable with Shure mag. cartridge with 0.7-mil diamond stylus and a 10 W/ch continuous sine-wave power amp. at 1% THD (15 W/ch dynamic power). Response 12-16,000 Hz ± 1 dB at 1 W. Power bandwidth 5-90,000 Hz. Control center 21 1/2" x 8 1/2" x 14 1/2" D. Oiled walnut cabinet. Speakers not included.
Kit \$129.95

HITACHI

SDT-3420 AM-FM/Phono/Cassette Recorder

Combines an AM-FM stereo receiver with 5 W/ch dynamic power at 5% THD, a BSR auto-



matic record changer, a cassette recorder, and a pair of air-suspension speaker systems. Has separate tape record-level controls and comes with a dust cover \$299.95

ST-3401 AM-FM/Cassette Recorder/Player

Combines an AM-FM stereo receiver with 5 W/ch dynamic power at 5% THD with a cassette tape recorder. Has separate record-level controls, sleep switch, two VU meters. Supplied with two 2-way speaker systems \$259.95

SP-2900 8-Track Recorder/Receiver

AM-FM stereo receiver with a cartridge tape recorder and a pair of separately housed two-way speaker systems. 5 W/ch dynamic power at 5% THD. Features automatic stop/pause, fast-forward, tuning meter, and two VU meters. \$339.95

SDP-2820 8-Track/Phono System

Combines a cartridge tape player, a BSR automatic record changer, and a pair of separately housed speaker systems. Features 5 W/ch dynamic power at 5% THD. Supplied with dust cover \$279.95



Stereo Compacts

SD-2470 Phono System

Combines a 3-speed BSR automatic turntable with mag. cartridge and diamond stylus; a 15 W/ch dynamic power amp with 5% THD at 8 ohms; an AM-FM tuner, and a pair of two-way speaker systems. Has slide-type controls for balance, bass, and treble. Comes with hinged dust cover \$269.95

DPK-345 Phono System

Combines a Garrard deluxe automatic turntable with cue & pause lever and anti-skating mechanism; mag. phono cartridge; a pair of two-way air-suspension speaker systems; and an AM-FM stereo receiver. Features 22 W/ch rms power at 5% HD; FM interstation muting. Comes with hinged detachable dust cover. \$429.95

SD-3210 Phono System

Combines an AM-FM stereo receiver with 12 1/2 W/ch dynamic power at 5% THD; a deluxe BSR automatic turntable with cue & pause lever and automatic shut-off, anti-skating device, and magnetic cartridge; with a pair of two-way air-suspension speaker systems. With hinged detachable dust cover \$379.95

DPK-340 Phono System

Combines an AM-FM stereo receiver with 12 1/2 W/ch dynamic power at 5% HD; a BSR deluxe automatic turntable with cue & pause lever, anti-skating device, and magnetic cartridge; and a pair of separately housed 2-way air-suspension speaker systems. With hinged dust cover \$339.95

JVC

4400 Phono/AM-FM Receiver

Combines a 4-speed automatic turntable with magnetic cartridge and diamond stylus; a 12 W/ch continuous sine-wave power amplifier into 8 ohms (15 W/ch dynamic power into 8 ohms); an AM-FM tuner section; and a pair of speaker systems (16" x 9 1/2" x 7 1/2" D) each with 6 1/2" woofer and 2" tweeter. Control center 17 1/2" x 7 1/2" x 17 1/2" D \$249.95

MF-4451 Phono/Receiver System

Combines a 4-speed automatic record changer with 11" platter, a magnetic cartridge, and diamond stylus; an AM-FM stereo receiver; and a pair of separately housed acoustic-suspension



speakers (18 1/2" x 10 1/2" x 9" D) each with 8" woofer & 2" tweeter. 40 W/ch dynamic power at 4 ohms; 17 W/ch continuous power into 4 ohms and at 1% THD. FM sensitivity 2 μ V for 30 dB quieting. Features 5-section tone control centering on 60, 250, 1000, 5000, and 15,000 Hz and has a built-in 4-channel synthesizer for playing regular 2-channel stereo program material. With dust cover. 8 1/2" x 19 1/2" x 17 1/2" D \$329.95

MF-4440 Phono/Receiver System

Combines a 4-speed automatic record changer

with 11" platter, ceramic cartridge, and cueing lever; an AM-FM stereo receiver; and a pair of separately housed acoustic-suspension speaker systems (16" x 9 1/2" x 7 1/2" D) each with 6 1/2" woofer & 2" tweeter. 15 W/ch dynamic power at 8 ohms; 12 W/ch continuous power at 8 ohms & with 1% THD. FM sensitivity 2.8 μ V. Features 4-section tone control centering on 60, 250, 5000, and 15,000 Hz and a built-in 4-channel synthesizer for playing regular 2-channel stereo program material. 8 1/2" x 18" W x 17 1/2" D. With dust cover \$279.95

KLH

Thirty-Five Phono/Receiver System

Combines a 3-speed Dual automatic turntable with Pickering XV-15/350 magnetic cartridge with diamond stylus; 20 W/ch continuous sine-wave (into 8 ohms) power amp (both channels driven); an AM-FM tuner section; and a pair of KLH speaker systems. Features tape monitoring & recording facilities. Has outputs for remote and main speakers. Speaker cabinets 23 1/2" x 12 1/2" x 11 1/2" D, each with 12" acoustic-suspension woofer, 1 1/2" direct-radiator tweeter, and 1500 Hz LCR crossover. Control center 9" x 20 1/2" x 14 1/2" D. Oiled walnut enclosures \$549.95

Twenty-Six Phono Compact

Combines a 3-speed Garrard automatic turntable with Pickering V-15/AT-3 magnetic cartridge with diamond stylus; a 12 1/2 W/ch dynamic power amp; and a pair of KLH speaker systems, each with 8" acoustic-suspension woofer & 2" direct-radiator tweeter. Speaker cabinets 18" x 10 1/2" x 7 1/2" D. Control center 18" x 8 1/2" x 14 1/2" D. Has inputs for phono, tuner & tape. Oiled walnut cabinets .. \$249.95

Thirty-AM Phono/Receiver System

Combines a Garrard automatic 4-speed turntable with a viscous damped cueing lever, a Pickering V-15/AT-2 magnetic cartridge; an AM-FM stereo receiver and a pair of separately housed speaker systems 22 1/2" x 12 1/2" x 7 1/2" D, each with 10" woofer & 1 1/2" tweeter. Features 20 W/ch rms into 8 ohms with both channels driven (28 W/ch dynamic power) and at 1.0% HD. Power bandwidth 20-15,000 Hz into 8 ohms; response 20-20,000 Hz \pm 1 dB & at 1 W. FM usable sensitivity 2.5 μ V. Input sensitivity: aux. 350 mV; tape monitor 280 mV. 8 1/2" x 20 1/2" x 14 1/2" D with spindle installed. Supplied with base, less dust cover .. \$429.95
Model 30-FM. Same as Model 30-AM except does not have AM tuner \$399.95

Thirty-Four-AM Phono/Receiver

Combines a Garrard 4-speed automatic turntable with a viscous damped cueing lever, a Pickering V-15/AT-2 magnetic cartridge; an AM-FM stereo receiver; and a pair of separately housed two-way speaker systems each with 8" woofer & 1 1/2" tweeter (19 1/2" x 10 1/2" x 7 1/2" D). Features 10 W/ch rms continuous power into 8 ohms with both channels driven and at 0.5% HD. Power bandwidth 20-15,000 Hz into 8 ohms; response 20-20,000 Hz \pm 2 dB at 1 W. FM usable sensitivity 2 μ V for 30 dB quieting; capture ratio 2 dB. 8 1/2" x 20 1/2" x 14 1/2" D with a spindle installed. Supplied with base, less dust cover \$359.95
Model 34-FM. Same as Model 34-AM except without AM tuner \$329.95

LAFAYETTE

LRK-900A Cassette/Receiver System

Deck with power amplifier and AM-FM stereo tuner. Plays and records. 10 W/ch output. Wow & flutter 0.25%; (S+N)/N 48 dB. Has bias switch for standard or chromium-dioxide tapes, VU meters, counter, eject button, tone controls, automatic shutoff, pause control, monitoring



facilities, mike inputs, phono input, bias adjust, sound-with-sound. Has built-in circuit for 4-channel synthesizing of conventional 2-channel sources. Requires two additional speakers for 4-channel use. 4" H x 10 1/2" W x 11 1/2" D \$219.95

SR-80 8-Track/AM-FM Receiver

Combines an AM-FM stereo receiver, an 8-track cartridge recorder/player, with two acoustically matched wide-range speaker systems, each with 6 1/2" speaker with multicellular diffuser. Has inputs for attaching a record changer or another tape recorder; microphones. Has full complement of controls and separate record-level meters for left and right channels. Speakers 14 1/2" x 9 1/2" x 5 1/2" D. Control center 18" W x 10" D x 4 1/2" H \$179.95
Recording microphone for SR-80 \$19.50
SR-50. Same as SR-80 except comes with stereo cassette recorder/player \$179.95
Recording microphone for SR-80 \$19.50

LSC-9000 Cartridge/Phono/Tuner

Combines 4-speed Garrard 2025 automatic turntable with ceramic turnover cartridge and diamond stylus with 50 W/ch dynamic power amp, AM/FM stereo tuner, a pair of 3-way air suspension speaker systems, and an 8-track cartridge player. Speaker cabinets measure 14 1/2" x 11 1/2" x 6 1/2" D, each with 8" woofer and two 3 1/2" tweeters. Unit has slide-type controls for balance, volume, bass & treble. Mike input. Control center measures 23 1/2" x 9 1/2" x 15" D. Walnut vinyl cabinet includes a dust cover. \$249.95

SR-30 Cartridge Player/Receiver

8-track cartridge player combined with an AM/FM stereo receiver and matching speaker systems. Has separate slide controls for bass, treble, and balance, a front-panel headphone jack, FM stereo light, black out and illuminated slide-rule tuning dials, plus a full complement of inputs and outputs. \$99.95

LRK-855 8-Track/AM-FM Receiver

Combines an AM/FM stereo receiver and 8-track record/playback unit with built-in 4-channel circuits. Has adapter circuits for deriving 4-channel sound from 2-channel sources. Basically is a 2-channel stereo recorder and playback unit. 7 1/2 W/ch dynamic (IHF) power at 0.2% HD at 1 W output. Response 20-20,000 Hz \pm 1.5 dB. Input sensitivity; mag. phono 4 mV ceramic 130 mV, aux. 275 mV. FM sensitivity 3.5 μ V. 4 1/2" x 19 1/2" x 13 1/2" \$219.95

SCOTT, H. H.

2506 Phono Compact

Combines a Garrard automatic turntable with Pickering magnetic cartridge and diamond sty-



lus; 25 W/ch continuous power amp into 4 ohms & at 0.8 THD, power bandwidth 20-20,000 Hz, response 18-25,000 Hz \pm 1 dB; an AM-FM ste-

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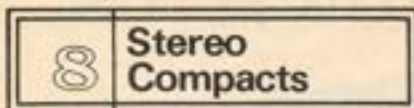
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reo tuner section with 2 μ V FM sensitivity for 30 dB quieting; and a pair of Scott speaker systems. Oiled walnut enclosures.
 With S-17 speaker systems \$439.95
 With S-15 speaker systems \$489.95

SONY

HP-610A Phono/Receiver System

Combines Dual automatic turntable with Pickering micro-magnetic cartridge, 0.7-mil diamond stylus, and Dustomatic brush; 20 W/ch continuous sine wave into 8 ohms with both channels driven; 33 W/ch dynamic power into 8 ohms at 5% THD. Response 30-50,000 Hz \pm 3 dB at 1 W output. AM-FM stereo tuner section has 2.5 μ V FM sensitivity for 30 dB quieting; and a pair of Model SS-160 3-way speaker systems (17 $\frac{1}{2}$ " x 19 $\frac{1}{2}$ " x 9 $\frac{1}{2}$ " D) each with 8" woofer, 4" mid-range & 2" tweeter. Has main/remote speaker & tape monitoring switches. Control center 20 $\frac{1}{2}$ " x 9 $\frac{1}{2}$ " x 17 $\frac{1}{2}$ " D. Comes with dust cover \$439.95

HP-510A Phono/Receiver System

Combines a 3-speed Dual automatic turntable with Pickering micro-magnetic cartridge, 0.7-mil diamond stylus, and Dustomatic brush; 15 W/ch continuous sine wave into 8 ohms with both channels driven; 26 W/ch dynamic power into 8 ohms at 5% THD. Response 40-40,000 Hz \pm 3.0 dB at 1 W output. AM-FM stereo tuner section has 2.5 μ V FM sensitivity for 30 dB quieting; and a pair of SS-510 2-way speaker systems (17 $\frac{1}{2}$ " x 10 $\frac{1}{2}$ " x 9 $\frac{1}{2}$ " D) each with 8" woofer & 2" tweeter. Has main/remote speaker & tape monitoring switches. Control center 17 $\frac{1}{2}$ " x 9 $\frac{1}{2}$ " x 16 $\frac{1}{2}$ " D. Comes with dust cover \$339.95

HST-129 AM-FM/Cassette Recorder

Combines an AM-FM stereo receiver with a cassette recorder, 5 W/ch dynamic (EIA) power at 5% THD. Input sensitivity: mag. phono 5 mV, ceramic phono 300 mV, Aux. 250 mV, 8 ohm output. FM sensitivity 2.2 μ V for 30 dB quieting. Has automatic or manual tape-track switching. Walnut cabinet. 5 $\frac{1}{2}$ " H x 21 $\frac{1}{2}$ " x 12 $\frac{1}{2}$ " D. \$199.95

HST-128. Same except with 8-track tape player. \$179.95

HP-219A AM-FM/Phono/Cassette

Combines an AM-FM stereo receiver, a cassette recorder, and a pair of SS-210A speaker systems (each with a 6 $\frac{1}{2}$ " woofer & 2" tweeter, 15" x 19 $\frac{1}{2}$ " x 8 $\frac{1}{2}$ " D) with a BSR automatic turntable and Sony VX-18P stereo phono cartridge. 18 W/ch dynamic power at 5% THD at 8 ohms. Response 40-40,000 Hz \pm 3 dB at 1 W. FM sensitivity 2.5 μ V for 30 dB quieting. Features automatic and manual tape program selection & tape monitor switch. Walnut cabinet. 9 $\frac{1}{2}$ " H x 23 $\frac{1}{2}$ " W x 17 $\frac{1}{2}$ " D. \$349.95

HP-149A AM-FM/Phono/Cassette

Combines an AM-FM stereo receiver, a cassette recorder, a BSR 4-speed micro-minichanger with ceramic stereo cartridge, with a pair of separately housed speaker systems (each with 6 $\frac{1}{2}$ " woofer & 2" tweeter, 14 $\frac{1}{2}$ " H x 9 $\frac{1}{2}$ " W x 5 $\frac{1}{2}$ " D). 5 W/ch dynamic (EIA) power at 5% THD at 8 ohms. Response 40-20,000 Hz \pm 3 dB at 1 W. 8" x 22 $\frac{1}{2}$ " x 12" D. \$239.95

HP-148A. Same except with 8-track tape player. \$219.95

HP-238 8-Track/Phono/Radio System

Combines an 8-track stereo tape recorder, wow & flutter 0.25%, fast-forward & rewind; a BSR 4-speed automatic turntable with automatic

shutoff, crystal cartridge, and hinged dust cover; an AM-FM stereo receiver, 18 W/ch dynamic power into 8 ohms and at 5% HD. Response 40-40,000 Hz \pm 3 dB at 1 W. Has main/remote speaker switch and is supplied with two Sony 2-way SS-210A speaker systems (each with 6 $\frac{1}{2}$ " woofer & 2" tweeter). Walnut-grained wood cabinets. 9 $\frac{1}{2}$ " x 23 $\frac{1}{2}$ " x 17 $\frac{1}{2}$ " D \$339.95

SONY/SUPERSCOPE

CF-620A Cassette Recorder/Radio

Cassette recorder combined with AM/FM stereo tuner. Plays and records. Response 30-12,000 Hz, wow & flutter 0.22%, (S+N)/N 46 dB. Supplied with mikes and speakers. 6 W/ch continuous power at 5% HD. Features VU meters, counter, eject button, pause control, monitoring facilities, mike & line inputs, bias adjust and automatic shut-off. 5 $\frac{1}{2}$ " H x 16 $\frac{1}{2}$ " W x 12 $\frac{1}{2}$ " D \$329.95

CF-550 Cassette Recorder/Radio

Combines AM/FM stereo receiver with cassette recorder. Has two built-in condenser mikes and four built-in speakers, built-in battery charger for optional NiCad battery (6 V) and automatic shut-off. Will operate from a.c. power line. Response 50-10,000 Hz. Has two line (0.06 V) and two mike inputs. 1 $\frac{1}{2}$ W/ch continuous power output at 5% THD. Portable design. 13 $\frac{1}{2}$ " x 9 $\frac{1}{2}$ " H x 4 $\frac{1}{2}$ " D \$249.95

SYLVANIA

MST3736W Phono/8-Track/Receiver

Combines a Garrard automatic turntable with Pickering magnetic cartridge, viscous-damped cue/pause control, and anti-skating device; an AM-FM stereo receiver; an 8-track stereo tape player; and a pair of sealed air-suspension speaker systems (18" x 11 $\frac{1}{2}$ " x 9" D) each with 8" woofer and two 3" tweeters. Has built-in Phase Q4 matrix to synthesize regular two-channel stereo program material. 20 W/ch dynamic power at 1% HD (12 $\frac{1}{2}$ W/ch continuous). Power bandwidth 25-20,000 Hz; response 25-20,000 Hz \pm 1 $\frac{1}{2}$ dB. FM sensitivity 2.5 μ V for 30 dB quieting; capture ratio 5.5 dB. Walnut cabinets with dust cover. Control center 9 $\frac{1}{2}$ " x 23 $\frac{1}{2}$ " x 15 $\frac{1}{2}$ " D \$329.95

MST2738W Phono/Cassette/Receiver

Combines a Garrard automatic turntable, a Pickering magnetic cartridge, viscous-damped



cue/pause control, an anti-skating device; an AM-FM stereo receiver; a stereo cassette recorder; and a pair of sealed air-suspension speaker systems (18" x 11 $\frac{1}{2}$ " x 9" D) each with 8" woofer & 3" tweeter. Has built-in Phase Q4 matrix to synthesize regular two-channel stereo program material. 20 W/ch dynamic power at 1% HD (12 $\frac{1}{2}$ W/ch continuous). Power bandwidth 25-20,000 Hz; response 25-20,000 Hz

For 4-Channel Components. . .
 See SECTION 9

\pm 1 $\frac{1}{2}$ dB. FM sensitivity 2.5 μ V; capture ratio 5.5 dB. Walnut cabinet with dust cover. Comes with pair of microphones. Control center 9 $\frac{1}{2}$ " x 23 $\frac{1}{2}$ " x 15 $\frac{1}{2}$ " D \$419.95

ACS16W Phono System

Combines a Garrard automatic turntable; an AM-FM stereo receiver; and a pair of separately housed AS1708W speaker systems. Features 12 $\frac{1}{2}$ W/ch continuous power at 1% HD (25 W/ch dynamic power at 1% THD). Power bandwidth 25-20,000 Hz. FM sensitivity 2.5 μ V for 30 dB quieting; capture ratio 5.5 dB. Turntable (9 $\frac{1}{2}$ " x 16 $\frac{1}{2}$ " x 14 $\frac{1}{2}$ " D) is mounted separate from receiver and has Pickering V15 magnetic cartridge, diamond stylus, viscous-damped cue/pause control, and anti-skating device. Features built-in Q4 matrix to synthesize four-channel reproduction from regular two-channel



stereo program sources. Speakers are air-suspension type (18" x 11 $\frac{1}{2}$ " x 9" D) each with 8" woofer & 3" tweeter. Receiver size 5 $\frac{1}{2}$ " x 17 $\frac{1}{2}$ " x 12" D. Walnut cabinets \$329.95

WEBCOR

10-5015 Phono/Receiver System

Combines a Garrard 4-speed automatic turntable with cueing lever & dust cover with an AM-FM stereo receiver and a pair of SP-36 speaker systems (each with 6 $\frac{1}{2}$ " woofer, 2 $\frac{1}{2}$ " high-freq. radiator, and 3" exponential horn mid-range). 25 W/ch dynamic power at 5% THD (5 W/ch rms) \$179.95

12-8608 8-Track/Phono/Receiver

Combines a Garrard 4-speed automatic turntable with cueing lever, dust cover; an AM-FM stereo receiver; an 8-track cartridge player; and a pair of SP-44 air-suspension speaker systems (each with 8" woofer, 2 $\frac{1}{2}$ " high-freq. radiator, 3" mid-range, and exponential horn with 1 $\frac{1}{2}$ " driver). 25 W/ch dynamic power at 5% THD (5 W/ch continuous power with both channels driven). Has main/remote speaker switch and storage for five 8-track tapes. 24" x 16" x 9". Walnut-grain wood cabinet \$289.95

YAMAHA

MSC3E Phono Compact

Combines a 3-speed Perpetuum-Ebner 2036 automatic turntable with Shure M75MB, Type 2 magnetic cartridge; 0.6-mil diamond stylus; 22



W/ch continuous sine-wave power amp into 8 ohms; 30 W/ch dynamic power into 8 ohms. Power bandwidth 10-30,000 Hz at 0.5% HD. HD 0.05% at rated output. Input sensitivity: mag. phono 3.5 mV; aux. 100 mV \$449.95



WE'RE NOT DIFFERENT

Like many other speaker manufacturers, we make acoustic suspension systems in walnut-veneered bookshelf cabinets. Ours share a clean, accurate sound, increasingly wide-range as you go up the line, but good sound is hardly unique either. Nevertheless, we think you'll find good reason to take home our speakers instead of someone else's, and the reason is unabashedly price. As you may have noticed, there's no direct correlation between sound quality and price; our prices are low because we emphasize efficient production and good engineering equally. We've even designed and built manufacturing equipment that will achieve lower production costs without the usual compromises, and our extensive testing procedures not only assure consistent sound quality, but minimize waste margins by eliminating inferior parts at the earliest possible stage.

We agree it's not easy to choose one speaker system over another. So if you're after the most good sound for your money, perhaps you'll appreciate just one clue: the name Quadraflex.

Model 33—2 way; 8", 3"—\$64.95

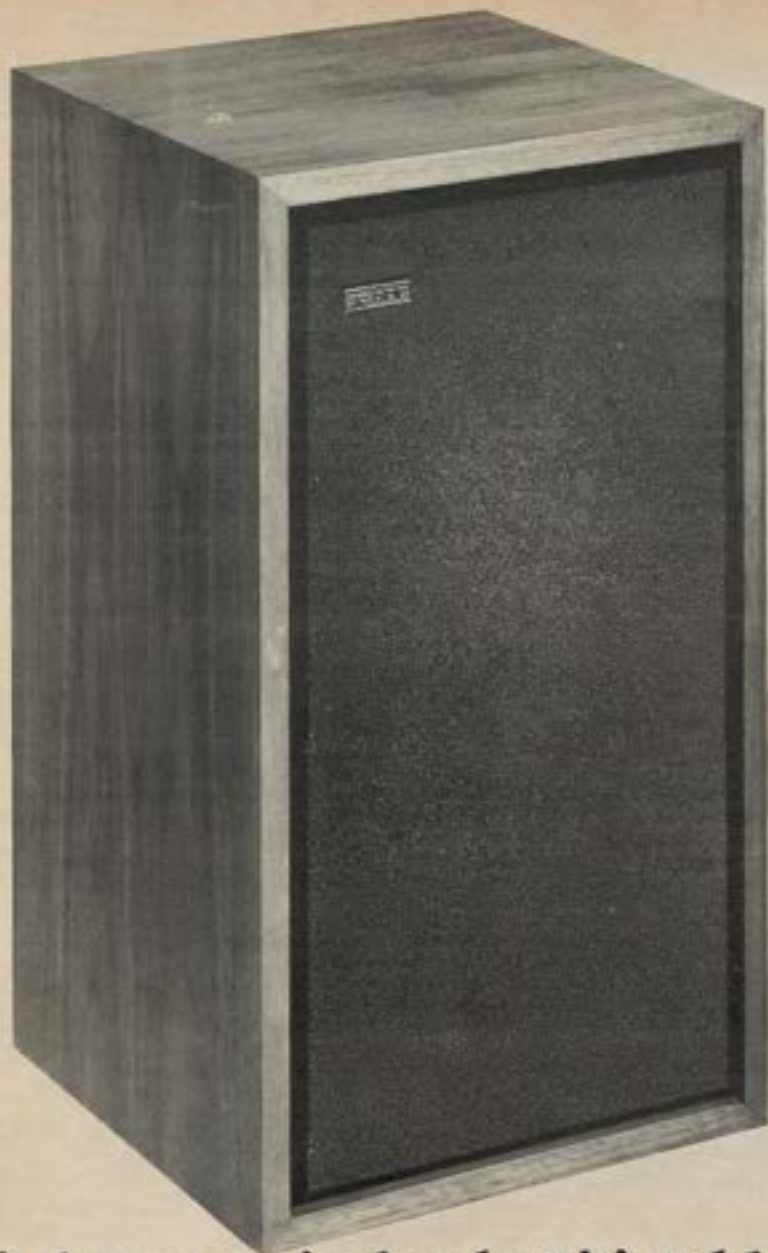
Model 44—2 way; 10", 3 1/2"—\$79.95

Model 55—3 way; 10", 4 1/2", 3"—\$119.95

Model 66—3 way; 12", 6", 3"—\$159.95

Quadraflex

1301 65th St., Emeryville, Ca 94608



The new ADC-XT 10.

If you believe, as we do, that the ultimate test of any speaker is its ability to produce a true audible analog of the electrical signal fed to it, you'll be very impressed with the new XT 10.

The XT 10 is a two way, three driver, system employing a newly developed ten inch, acoustic suspension woofer with an extremely rigid, light weight cone and a specially treated surround that permit exceptionally linear excursions.

Matching the XT 10's outstanding low frequency performance are two wide dispersion tweeters that extend flat frequency response to the limits of audibility (see accompanying frequency response curve) and significantly improve power handling capacity.

All three drivers are mounted in a beautifully finished, non-resonant, walnut enclosure. And in place of the conventional grille cloth is an elegant new foam grille.

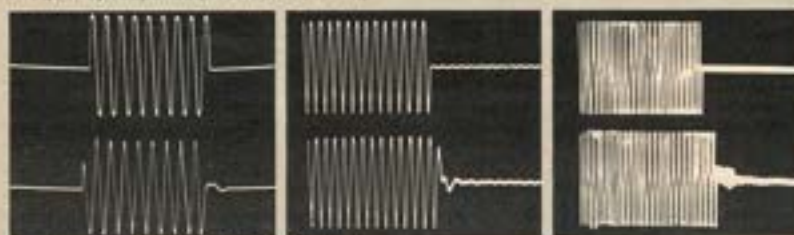
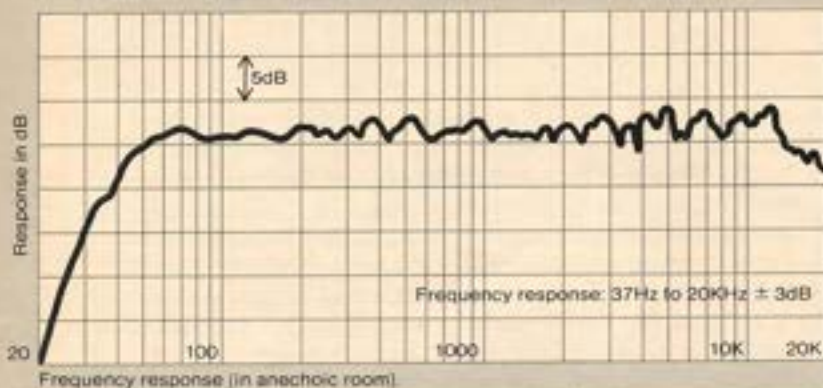
An extraordinarily accurate transducer, the XT 10 is characterized by very flat frequency response, excellent high frequency dispersion and extremely low distortion. Finally, it is distinguished by outstanding transient response assuring exceptional clarity and definition.

As a result, the ADC-XT 10 rivals and in many instances, surpasses the performance of units costing several times as much.

But why not experience for yourself what a truly well behaved speaker sounds like. Audition the XT 10 at your ADC dealer now.

For more detailed information on the ADC-XT 10 write: Audio Dynamics Corporation, Pickett District Road, New Milford, Conn. 06776.

It does precisely what it's told.



Tone bursts at 500Hz, 1200Hz, 15,000Hz
Virtually identical waveforms from signal generator above
and speaker below demonstrate superior transient response

CIRCLE NO. 8 ON READER SERVICE CARD

ADC Audio Dynamics
Corporation

9

4-CHANNEL EQUIPMENT

BGW

4X250 Four-Channel Amp

250 W/ch continuous rms power into 8 ohms with two channels driven; 200 W/ch into 4



ohms. Response 2-80,000 Hz +0, -3 dB; 20-20,000 Hz +0, -0.2 dB; noise & hum 100 dB below rated output into 8 ohms; input sensitivity 1.25 V for 40 V out (200 W, 8 ohms); damping factor 1000 at low frequencies into 8 ohms. Features crowbar circuit; FET front end; current-limiting circuit. 19" rack panel x 7" H x 17" D \$1450.00

4XPA 4-Ch Preamp

Response 20-20,000 Hz ± 0.1 dB at rated output; -3 dB down at 1 Hz and 100,000 Hz at rated output (high-level input). Features 12 linear slide switches for amplitude, 3 frequency-select rotary switches, and 1 equalization switch (Flat, In, Tape EQ). Mode switch selects mono, stereo, discrete 4-ch, SQ, DB4; joystick balance controls; relay-operated rotary speaker selector switch; scope display controls for intensity, centering, gain, and mode. Has filters for low-, mid-, and high frequencies each with ± 12 dB reciprocal boost and cut \$750.00
2XPA. Two-channel version \$500.00

HEATH

AA-2010 Four-Channel Amplifier

Will operate in mono, stereo, discrete 4-channel, or matrixed 4-channel with its built-in "uni-



versal" decoder. 50 W/ch (4 channels) dynamic power into 8 ohms (65 W/ch into 4 ohms, 30 W/ch into 16 ohms). Can be used to power two separate speaker systems or two 4-channel systems. Back-lighted front panel contains four calibrated VU meters with a meter-range switch covering three ranges: 0 VU at 35 W, 3.5 W, or 350 mW. Meters are used to balance output. Kit \$359.95
Walnut cabinet \$24.95

JVC

4VN-770 4-Channel Integrated Amp

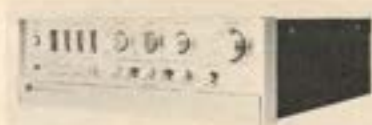
16 W/ch dynamic power at 8 ohms (25 W/ch at 4 ohms); 12 1/2 W/ch continuous power at 8 ohms with all four channels driven and at 0.5% THD. 100 W/ch dynamic power at 4 ohms with 2-channel power bridging (BTL). Power bandwidth 10-30,000 Hz. Input sensitivity: mag. phono 2.5 mV; aux. & tape monitor 75 mV. Fea-



tures jacks for 4-channel headphones, built-in 4-channel decoder and synthesizer & optional remote control \$279.95

4VN-990 4-Channel Integrated Amp

66 W/ch dynamic power at 8 ohms (70 W/ch at 4 ohms); 35 W/ch continuous power at 8 ohms



(38 W/ch at 4 ohms) with all four channels driven & at 0.5% THD. 155 W/ch dynamic power at 8 ohms with 2-channel power bridging (BTL). Power bandwidth 10-30,000 Hz. Input sensitivity: mag. phono #1 & #2 2.5 mV; aux. & tape monitor 150 mV. Features 5-position tone control network for front and rear channel centering on 40/250/1000/5000/15,000 Hz. Can reproduce all four-channel discrete program material. Has built-in 4-channel decoder and synthesizer for reproducing 4 channels from regular 2-channel program material. Jack for optional remote control. 16 1/2" x 5 1/2" x 15 1/2" \$479.95

VN-5101 4-Channel Add-On Amp

Basically a 2-channel amplifier with 4-channel inputs to be used with your present stereo system. 34 W/ch dynamic power into 8 ohms (50 W/ch at 4 ohms); 22 W/ch continuous power into 8 ohms (24 W/ch into 4 ohms) with both channels driven and at 0.5% THD. Power bandwidth 30-30,000 Hz. Features 5-position tone-control network centering on 40/250/1000/5000/15,000 Hz. Has built-in synthesizer to produce 4-channels from regular 2-channel program material. Has jack for optional remote control. 10 1/2" x 5 1/2" x 14" D \$239.95

LAFAYETTE

LA-222 4-Channel Amplifier

Has SQ-M decoding circuitry for playing all 4-ch



discs; four separate solid-state amplifiers. Will also play discrete 4-ch cartridges and tapes and derive 4-ch sound from 2-ch program sources (records or tapes). Power output 10 W/ch at 8 ohms. Response 20-20,000 Hz ± 1.5 dB at 1% THD at 1 kHz. Has full complement of inputs/outputs and controls. Walnut finished metal enclosure. 4 1/2" H x 13 1/2" W x 8 1/2" D \$129.95

LA-975 Integrated Amplifier

Features a 2-channel amplifier but does have an "SQ" logic decoder built-in for 4-channel sound (additional 2-channel amplifier required). 33 W/ch continuous power at 4 ohms. Power bandwidth 20-35,000 Hz; response 20-20,000 Hz ± 1 dB. HD 0.07% at 1 W output. (S + N)/N -75 dB (high-level input); -60 dB (low-level input). Sensitivity: mag. phono 4.5 mV; ceramic phono 135 mV; tuner, tape monitor, and source 500 mV; aux. 250 mV. Has multiple-speaker switching. Overall size 13" W x 4 1/2" H x 10 1/2" D \$169.95

LA-2525 4-Channel Amplifier

A full 4-channel amplifier with 7 1/2 W/ch dynamic (IHF) power. Response 20-20,000 Hz



± 1.5 dB. Includes matrixing circuit used to convert any 2-channel source material into 4-channel sound. Sensitivity: mag. phono 3.5 mV, ceramic phono 125 mV, tuner 500 mV, aux. 275 mV \$109.95

MARANTZ

4000 Preamp/Adapter

Designed to permit two-channel stereo systems to be converted to 4-ch operation with addition of pair of speakers. Serves as control center for volume, balance, mode, and features rear-





Amplifiers

channel tone controls. All existing preamp controls remain completely operable. Features Vari-Matrix, balance controls, low and high filters, four illuminated meters, and remote-control output \$249.95

2440 4-Channel Adapter/Power Amp

is a two-channel stereo power amplifier to be used with your present stereo system for 4-channel operation. Has four lighted level meters and circuits to synthesize regular stereo records. Will play any 4-channel discrete program material and has input for optional SQ decoder module. 20 W/ch continuous power into 4 or 8 ohms at 0.3% THD with both channels driven (10 W/ch into 16 ohms). Response 15-80,000 Hz ± 2 dB; power bandwidth 10-50,000 Hz. Has input for optional RC-4 remote-control unit; 4-channel headphone outputs; tape monitor. 16 1/2" x 5" x 14" D. Gold anodized front panel \$299.95

4060 4-Channel Integrated Amplifier

Complete four-channel control amp. Has circuits to synthesize 4-channel sound from 2-channel stereo records, all necessary balancing controls, input jack for optional SQ decoder, and remote-control. 15 W/ch continuous power at 4 & 8 ohms and at 0.9% THD with all channels operating (7 1/2 W/ch into 16 ohms). Response 20-20,000 Hz ± 1 dB. Input sensitivity: 1.8 mV; aux. 180 mV. Features main/remote speaker switch; 4-channel headphone jacks. 14 1/2" x 4 1/2" x 12" D. Gold anodized front panel \$249.95

4070. Similar to Model 4060 with addition of low-filter, preamp out, and main amp in jacks and ability to switch unit into BTL mode to obtain 35 W/ch continuous power in stereo mode \$299.95

4100 4-Channel Integrated Amplifier

Has complete 2- or 4-channel capability. 25 W/ch continuous power into 8 ohms and at 0.3% THD with all four channels driven (60 W/ch for 2-channel operation). Power bandwidth 15-50,000 Hz; response 15-80,000 Hz ± 2 dB. Input sensitivity: mag. phono 1.8 mV; aux. 180 mV. Has inputs for 4-channel discrete programs, and circuits for synthesizing 4-channel sound from 2-channel stereo records or tapes. Has input jacks for optional SQ decoder & remote-control; four lighted level meters; tape monitor for two tape decks. 15 1/2" x 5 1/2" x 14 1/2" D. Blackout meter panel & gold anodized front panel \$499.95

4140. Similar to Model 4100 with addition of mid-range tone control, output jacks for 4-ch



scope display, and slightly higher output power (70 W/ch continuous power) in BTL mode \$549.95

PHASE LINEAR

4000 Preamplifier

Features built-in SQ system with differential logic for enhanced 4-channel separation. Provisions included for external adapters for use with CD-4 discrete, other existing, and future 4-channel media. Joystick-controlled 4-channel balance. Response 20-20,000 Hz ± 1 dB (phono & high-level). Gain: phono 65 dB; high level 15



dB. Total noise: high level 95 dB below full output; phono 82 dB below full output. 6 dB octave boost below 50 Hz and above 7000 Hz, shelving +3 dB at 20,000 and +6 dB at 20 Hz. Downward expansion begins at -35 dB with ultimate limit -41 dB. Unlimiter window 35 dB wide, upper and lower thresholds simultaneously variable by means of front-panel unlimiter threshold control. Has two monitor switches permitting any input source to be recorded on either of two tape machines, play back selection of either machine, or copy of tape machine 1 to 2 while listening to third source. Switched outlets will handle up to 25 amps. 19" W x 7" H x 10" D \$599.00
Cabinet \$37.00

PILOT

310 4-Channel Integrated Amplifier

Can be used for 2- or 4-channels. 30 W/ch (120 W total) continuous power at 8 ohms with all



channels driven & at 0.5% THD. Power bandwidth 10-40,000 Hz; response 20-25,000 Hz ± 1 dB. Input sensitivity: mag. phono 2.5 to 4.5 mV; aux. 300 mV; mike 1 mV; tape output 250 mV. Features main/remote 2- and 4-channel speaker switch, mike mixing, built-in "Pilotone" for balancing four channels; four output level meters. Has 5-position mode switch for 4-channel discrete, CBS "SQ" decoder, Matrix-4 decoder, 2-channel stereo (double power), and mono operation. 18 1/2" x 6 1/2" x 17 1/2" D \$349.90

PIONEER

QM-800A 4-Channel Power Amp

Features 42 1/2 W/ch (170 W total) dynamic power at 8 ohms (60 W/ch into 4 ohms); 30 W/ch continuous power into 8 ohms with all four channels driven & at 0.5% HD (36 W/ch into 4 ohms). Power bandwidth 5-50,000 Hz at 8 ohms & 0.5% HD. (S + N)/N 90 dB. Response 8-60,000 Hz ± 0.5 dB. Input sensitivity: 500 mV at 50 kohms, 1 V at 80 kohms, and 2 V at 105 kohms. Has four level meters, universal power supply, speaker switch. Amp could be used as four separate channels, or as a 2-channel, 2-way multiamp system with an electronic crossover network \$349.95

QC-800A 4-Channel Preamp

Has built-in SQ decoder and regular matrix



decoder for synthesizing 4-channel reproduction from 2-channel discs or tapes. Design gives choice of three different 4-channel effects in addition to 4-channel discrete. Input sensitivity: phono #1 & #2 2.5 mV; tuner, aux. #1 & #2, tape monitor #1 & #2 150 mV. Recording output #1 & #2 150 mV. Has low and high filters, (S + N)/N (phono) 80 dB. Output voltage 2.5 V (4 V max.). Features tape-to-tape duplication and universal power supply. 17" x 5 1/2" x 13 1/2" D. \$269.95

QA-800A 4-Channel Integrated Amp

Features 36 W/ch (144 W total) dynamic power into 8 ohms (51 W/ch into 4 ohms); 20 W/ch continuous sine wave into 8 ohms with all four channels operating & at 0.5% HD (24 W/ch into 4 ohms). Power bandwidth 15-50,000 Hz at 8 ohms & 0.5% HD. Response 8-70,000 Hz ± 1 dB. Input sensitivity: mag. phono #1 & #2 2.5 mV; tuner, aux. #1 & #2, tape monitor #1 & #2 200 mV. Tape output #1 & #2 200 mV. Has SQ and regular matrix decoder built-in and will provide for four-channel discrete tapes or discs. Universal power supply. 17" x 5 1/2" x 13 1/2" D. \$399.95

RADIO SHACK

QA-681 4-Channel Integrated Amp

Has built-in SQ matrix decoder. 17 1/2 W/ch dynamic power (70 W total) at 8 ohms (12 1/2 W/ch



continuous). Power bandwidth 20-25,000 Hz. Sensitivity: mag. phono 5 mV. Has jacks for 4-channel headphones and front & rear speaker switches. Walnut wood case with aluminum front panel. 4" x 14 1/2" x 11 1/2" \$199.95

SANSUI

QA-7000 4-Channel Amplifier

20 W/ch continuous power into 8 ohms (27 W/ch (IHF) into 4 ohms); strappable for twice power per channel when operating in stereo mode. THD 0.1%; IM 0.15%. Power bandwidth (IHF) 10-30,000 Hz. Has built-in QS vario matrix decoder/synthesizer and Phase Matrix. Will provide decoded 4-channel signal to tape for dubbing "discrete." 17 1/2" W x 5 1/2" H x 12 1/2" D \$549.95

SCOTT, H.H.

499 4-Channel Stereo Amp

Continuous power output per channel with all channels driven, 35 W at 8 ohms. Frequency



response 15-30,000 Hz ± 1 dB. HD 0.5% at rated output, hum & noise (phono) -65 dB. Input sensitivity: high level (extra) 0.50 V, phono high 3.0 mV, phono low 6.0 mV, tape 1.0 mV, mike 10 mV. Designed to drive four speakers from a true 4-channel source such as a four-channel tape recorder but can be used to drive a pair of speakers from tape recorder or record player while the second pair of channels drives a pair of extension speakers. Features four independent VU meters, tape monitoring facilities,

loudness compensation, high and low filtering, four front-panel microphone jacks, and independent tone and volume controls for each of the four channels. 18 1/2" W x 11 1/2" D x 6 1/2" H \$459.90

SUPERSCOPE

QA-450 4-Ch Integrated Amplifier

Will reproduce SQ records, FM broadcasts, or tapes; simulate 4-ch reproduction from standard stereo sources. 10 W/ch continuous power with all channels driven; THD 1% at rated output. Response 20-20,000 Hz ± 1 dB. Features master 4-ch volume control; loudness control selector; tape monitoring; h. f. filter; simplified bass & treble controls. 14 1/2" W x 5 1/2" H x 12 1/2" D \$279.95

TOSHIBA

SB-404S 4-Ch. Integrated Amp

15 W/ch continuous power (60 W total) into 8 ohms and at 0.5% HD with each channel driven

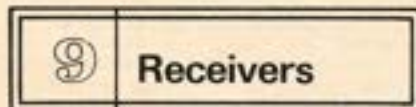


separately (26 W/ch for 2-channel stereo). 17 W/ch dynamic power (68 W total). HD 0.4% at rated output (0.1% at 2 W/ch). Response 10-55,000 Hz ± 1.5 dB; power bandwidth 10-30,000 Hz at 0.8% HD. Sensitivity: mag. phono 1 & 2 3 mV; condenser phono 30 mV; tuner 150 mV; aux. 1 & 2 150 mV; tape 500 mV. Has RM (Regular Matrix) and SQ decoders. Has universal line inputs. Overall size 15 1/2" x 4 1/2" x 11" \$299.95

YAMAHA

UD-500 4-Ch "Quadriser" Amplifier

15 W/ch continuous rms power into 8 ohms at 1 kHz; power bandwidth 25-35,000 Hz (4-ch discrete) at 0.5% dist.; response 30-40,000 Hz ± 2 dB (4-ch discrete); THD 0.05% at 1 kHz, 10 W (4-ch discrete); (S + N)/N 80 dB (4-ch discrete), 75 dB (4-ch Hall-Surround). Input sensitivity: 200 mV (2 ch/4 ch Rec. out), 30 mV (DIN Rec. out). "Quadriser" provides matrix surround sound; discrete; and Hall (phase shift 90 degrees L-R on rear speakers). 10 1/2" W x 11 1/2" D x 5 1/2" H \$224.95



AKAI

AS-980 Four-Channel Receiver

42 1/2 W/ch dynamic power (170 W total); 30 W/ch continuous power. Features built-in CD-4 demodulator with front-panel separation controls, SQ logic and regular matrix so that any type of 4-channel sound can be reproduced. Unit is equipped with bass & treble controls,



loudness control, low and high filter, AM-FM tuner, damper switches (to 10 dB or 20 dB), facilities for connecting three sets of speakers. Has two phono inputs: one set for CD-4 and one for normal 2-channel use; two tape inputs for dubbing from one tape recorder to another. Remote balance control and volume control optional \$799.95

AS-970 Four-Channel Receiver

25 W/ch continuous power. Features three separate 4-ch modes (discrete, SQ, RM) and individual CD-4 separation controls. Frequency response 20-50,000 Hz. Has slide-rule main balance control, three tape monitors, FM muting high & low filters, and tape dubbing facilities. Includes separate signal and tuning meters, an automatic preset volume control, separate left & right level meters, and front-panel remote control. FM sensitivity (IHF) 2.0 μ V; selectivity 70 dB; (S + N)/N 70 dB \$599.95

AS-960 Four-Channel Receiver

18 W/ch continuous power. Features three separate 4-ch modes (discrete, SQ, RM), individual channel balance controls, two tape monitors, FM muting, tape dubbing facilities, front-panel remote control, and illuminated mode indicator. Response 20-50,000 Hz. FM sensitivity (IHF) 2.3 μ V; (S + N)/N 70 dB; selectivity 70 dB. 19.2" W x 6.7" H x 16" D \$499.95

CONCORD

CR-400 4-Channel Receiver

9 1/2 W/ch continuous power at 8 ohms with all four channels driven (22 W/ch with two channels driven). Has SQ decoder, circuitry for simulated 4-channel reproduction of stereo records, and includes special inputs for use with an external CD-4 decoder. Response 25-40,000 Hz at 1 W output; power bandwidth 20-50,000 Hz. THD at rated output 1%. Input sensitivity: mag. phono 3 mV; aux. 130 mV. (S + N)/N (phono) 65 dB. Has separate bass and treble controls for front and rear speakers plus dual power switch which straps the channels together for stereo operation. FM sensitivity (IHF) 2.9 μ V; image rejection 51 dB; capture ratio 1.8 dB. (S + N)/N 65 dB. Stereo separation 35 dB. Features an illuminated balance display; headphone jacks; flywheel tuning; AM-FM tuning meter; mono/stereo indicator. 20 1/2" W x 5 1/2" H x 15 1/2" D \$299.95

DOKORDER

MR-940 AM-FM/4-Ch Receiver

30 W/ch continuous power into 8 ohms (58 W/ch in stereo mode). Has built-in E-V "Phase II" matrix decoder and facilities for connecting discrete 4-channel tape & disc sources. BTL switch bridges four separate amplifiers into two channels. FM usable sensitivity (IHF) 1.5 μ V; THD 0.5%; (S + N)/N 60 dB; capture ratio 1.5 dB. Response (high-level input) 30-40,000 Hz; power bandwidth 30-45,000 Hz. THD & IM 3% at rated output. Has terminals for 2-ch aux. & phono and 4-ch tape; automatic FM stereo



switching circuit. FM tuning meter, stereo indicator; inter-station muting circuit. "Kangaroo Pouch" control console folds away for uncluttered front-panel design. Front-panel headphone jack. 20" W x 6 1/2" H x 14" D ... \$539.95

FISHER

304 4-Channel AM-FM Receiver

Can be used for either 2- or 4-channel stereo. 25 W/ch dynamic power at 8 ohms (39 W/ch



into 4 ohms); 15 W/ch continuous power into 8 ohms (20 W/ch into 4 ohms). 0.5% THD from 20-20,000 Hz at rated power. Power bandwidth 12-30,000 Hz; response (aux.) 20-20,000 Hz ± 2 dB. Usable FM sensitivity 1.8 μ V for 30 dB quieting; capture ratio 1.2 dB. Power output when connected as a 2-channel amp is 38 W/ch continuous into 8 ohms with all channels operating and from 20-20,000 Hz at 0.5% THD. Has SQ decoder & dual monitor facilities. 21 1/2" x 6 1/2" x 16 1/2" D \$329.95

304-B 4-Channel AM-FM Receiver

20 W/ch continuous power into 8 ohms with all four channels driven; 48 W/ch in stereo mode.



Power bandwidth (IHF) 12-30,000 Hz. THD 0.5%; IM 0.3% at rated power. Input sensitivity: phono 2.7 mV; Aux. #1 & #2 200 mV; monitor & accessory 300 mV. Recorder output (30% FM modulation) 350 mV. Response: phono (RIAA equalized) 30-15,000 Hz; Aux. #1 & #2, monitor & accessory inputs 20-20,000 Hz. FM usable sensitivity (IHF) 1.8 μ V; HD 0.3%; (S + N)/N 70 dB; stereo separation (at 1 kHz) 38 dB; FM subcarrier suppression 50 dB; capture ratio (IHF at 1 mV) 1.2 dB. Has SQ decoder built-in and joy-stick master balance control. Has provision for accepting output of a CD-4 demodulator. Walnut cabinet with brushed aluminum front panel. 21 1/2" W x 6 1/2" H x 16 1/2" D \$399.95

404 4-Channel AM-FM Receiver

Same as Model 304 except power ratings: 38 W/ch dynamic into 8 ohms (50 W/ch into 4 ohms); 22 W/ch continuous into 8 ohms (28 W/ch into 4 ohms) at 0.5% THD from 20-20,000 Hz. For 2-channel stereo power is 44 W/ch continuous. Has joy-stick type master balance control, mid-range control & extra center-of-channel tuning meter \$429.95

504 4-Channel AM-FM Receiver

Same as Model 404 except power ratings: 50 W/ch dynamic into 8 ohms (80 W/ch into 4 ohms); 32 W/ch continuous into 8 ohms (40 W/ch into 4 ohms) at 0.5% THD and from 20-20,000 Hz. For 2-channel stereo power is 90 W/ch continuous. Has joy-stick type master balance control and additional tone controls \$529.95

4020 4-Channel AM-FM Receiver

10 W/ch continuous power into 8 ohms with all four channels driven; 60 W total IHF music power at 8 ohms. Has built-in SQ decoder. HD (at 1 kHz) 1%. IM 0.8%. Sensitivity: phono 2.5 mV; aux. & tape monitor 200 mV; recorder output (30% modulation) 350 mV. Response: phono (RIAA equalized ± 2 dB) 30-15,000 Hz; aux. & tape monitor (± 2 dB) 30-20,000 Hz. FM usable sensitivity (IHF) 2.5 μ V; HD 0.8%; (S +



Receivers



N/N 64 dB; stereo separation (1 kHz) 35 dB; capture ratio (IHF at 1 mV) 2.5 dB. 17 1/2" W x 5 1/2" H x 16 1/2" D. Walnut-grained wood cabinet \$299.95

4040 4-Channel AM-FM Receiver

15 W/ch continuous power into 8 ohms with all four channels driven; 85 W total IHF music power at 8 ohms. Has built-in SQ decoder, HD (at 1 kHz) & rated rms power 0.3%; IM 0.8%. All other specifications same as Model 4020. 19 1/2" W x 5 1/2" H x 16 1/2" D \$369.95

HARMAN-KARDON

50+ 4-Channel AM-FM Receiver

Has four separate power amplifiers that can be ganged for 2-channel stereo. 12 1/2 W/ch continuous power into 8 ohms with all four channels driven (18 W/ch for 2-channel stereo). THD 0.5% from 20-20,000 Hz. FM sensitivity 2.7 μ V for 30 dB quieting. Has SQ matrix decoder. \$289.95
Optional cabinet \$21.95

75+ 4-Channel AM-FM Receiver

Has four separate power amplifiers that can be ganged for 2-channel stereo. 18 W/ch continuous



power at 8 ohms with all four channels driven (45 W/ch for 2-channel stereo). HD 0.5% from 20-20,000 Hz. FM sensitivity 2 μ V for 30 dB quieting. Has SQ matrix decoder, main/remote speaker switch, and twin power supplies \$499.95
Optional cabinet \$35.00

100+ 4-Channel AM-FM Receiver

Has four separate power amplifiers that can be ganged for 2-channel stereo. 24 W/ch continuous into 8 ohms with all channels driven (57 1/2 W/ch for 2-channel stereo). HD 0.5% from 20-20,000 Hz. FM sensitivity 1.9 μ V for 30 dB quieting. Has SQ matrix decoder, main/remote speaker switch, two tuning meters, and twin power supplies \$599.95
Optional cabinet \$35.00

150+ 4-Channel AM-FM Receiver

Has four separate power amplifiers that can be ganged for 2-channel stereo. 30 W/ch continuous into 8 ohms with all channels driven (70 W/ch for 2-channel stereo). HD 0.5% from 20-20,000 Hz. FM sensitivity 1.8 μ V for 30 dB quieting. Has SQ matrix decoder, main/remote speaker switch, FM quieting, tuning meter. Design features twin power supplies for improved regulation \$699.95
Optional cabinet \$35.00

700+ 4-Channel AM-FM Receiver

Features built-in CD-4 discrete disc demodulator, an SQ decoder, and a "stereo-to-quad" circuit for enhancing stereo program material. 18



W/ch continuous power into 8 ohms with all four channels driven; power bandwidth 10-40,000 Hz into 8 ohms with all channels driven at 0.5% THD. Hum & noise 80 dB below rated output (unweighted) in stereo or 4-ch mode. FM sensitivity (IHF) 3.0 μ V; (S+N)/N 60 dB; capture ratio 2.5 dB; image and spurious response rejection -40 dB; stereo separation at 1 kHz 35 dB. Has \pm 12 dB bass boost & cut at 50 Hz; treble boost and cut at 10 kHz. 18 1/2" W x 16 1/2" D (including knobs) x 6 1/2" H (including feet) \$499.95

800+ 4-Channel AM-FM Receiver

Has same built-in 4-ch facilities as 700+. 22 W/ch continuous power into 8 ohms with all



four channels driven (50 W/ch in stereo mode both channels driven into 8 ohms); power bandwidth 10-40,000 Hz into 8 ohms with all channels driven at less than 0.5% THD. Hum & noise 85 dB below rated output (unweighted) in stereo or 4-ch mode. FM sensitivity (IHF) 2.0 μ V (S+N)/N 70 dB; capture ratio 2.5 dB; image rejection -50 dB; spurious response rejection -75 dB. Has same tone control features. 20 1/2" W x 17" D (including knobs) x 6 1/2" H (including feet) \$599.95

900+ 4-Channel AM-FM Receiver

Has same built-in 4-ch facilities as 700+. 32 W/ch continuous power into 8 ohms with all



four channels driven (90 W/ch both channels driven into 8 ohms). Hum & noise 90 dB below rated output (unweighted) in stereo or 4-ch mode. Response 4-70,000 Hz \pm 0.5 dB at normal power levels. FM sensitivity (IHF) 1.8 μ V; (S+N)/N 70 dB; capture ratio 1.6 dB; image & spurious response rejection 90 dB; Has \pm 12 dB boost & cut (bass at 50 Hz; mid-range at 1 kHz; treble at 10 kHz). 20 1/2" W x 17" D (including knobs) x 6 1/2" H (including feet) \$749.95
Above 3 receivers can accommodate additional speakers, turntables, two tape decks (either 2- or 4-ch), two- or four-channel headphones, plus miscellaneous accessories.

HEATH

AR-2020 Four-Channel Receiver

15 W/ch continuous power at 8 ohms with all channels driven. Will handle all matrix encoded sources. Power bandwidth 5-30,000 Hz. Frequency response 7.5-20,000 Hz \pm 1 dB. IM & HD 0.5% at rated power, 8-ohm load. (S+N)/N -60 dB at rated output. Has master volume, individual output level, front & back bass and treble controls; power, speaker, source (4 positions), and mode (4 positions) switches. Outputs: 4 speaker; headphones (1 pr. each front & back); one tape feed; 4-channel tape. Tuner section: 2 μ V (IHF) FM sensitivity, capture ratio 2 dB, HD 0.5%, channel separation at midband 35 dB min., antenna inputs 300 and 75 ohms. Features modular circuit-board construction, phase-locked loop multiplex demodulator. Has 2-ch. mag. phono & aux. inputs; 4-ch. tape & aux. inputs. 4 1/2" H x 19 1/2" W x 14" D. Walnut end panels included.
Kit \$240.00

JVC

4VR-5404 4-Channel AM-FM Receiver

10 W/ch continuous power at 8 ohms; power bandwidth 20-30,000 Hz. Capture ratio 2 dB; FM sensitivity 2.2 μ V. Can be used for discrete 4-channel reproduction and built-in matrix decoder for E-V, QS, RM, and SQ. 4 ch/2-ch tape monitoring, built-in joystick master balance control (PPC). 5 1/2" x 19" x 13 1/2". \$229.95
4VR-5406. Basically same as 4VR-5404 in design and styling except has built-in CD-4 discrete 4-channel record demodulator. Features automatic 4-ch/2-ch switching 5 1/2" x 19" x 13 1/2" D \$299.95

4VR-5414 4-Channel AM-FM Receiver

28 W/ch dynamic power at 8 ohms (30 W/ch at 4 ohms); 15 W/ch continuous power at 8 ohms



(20 W/ch at 4 ohms) with all four channels driven and at 0.5% THD. 65 W/ch dynamic power at 8 ohms with 2-channel power bridging (BTL). Power bandwidth 20-30,000 Hz. FM sensitivity 2 μ V for 30 dB quieting; capture ratio 2 dB. Input sensitivity: mag. phono 3 mV; aux. 150 mV; tape monitor 150 mV. Can be used for discrete 4-channel reproduction and has built-in synthesizer for converting regular 2-channel program material into 4 channel. Also has 5-position tone control network for centering the two front speakers on 40/250/1000/5000/15,000 Hz. Has input for 4-channel optional remote control unit. 19 1/2" x 5 1/2" x 14 1/2" D \$399.95

4VR-5445 4-Channel AM-FM Receiver

Basically same as Model 4VR-5414 in design & styling except has higher power and 5-position tone control network for both front & rear speakers. 34 W/ch dynamic power at 8 ohms (50 W/ch at 4 ohms); 21 W/ch continuous power into 8 ohms (23 W/ch into 4 ohms) with all four channels driven and at 0.5% THD. 68 W/ch dynamic power at 8 ohms with 2-channel power bridging (BTL). Power bandwidth 20-30,000 Hz. 22 1/2" x 5 1/2" x 14" \$529.95

4VR-5436 4-Channel AM-FM Receiver

Equipped with built-in CD-4 demodulator and features an FM Det. Out jack on the rear panel for connection of a demodulator for 4-ch FM broadcasting (when authorized). Also has one matrix decoder for SQ records and another to handle other encoded material. 14 W/ch contin-

uous rms power at 8 ohms with all four channels driven (20-20,000 Hz); 17 W/ch rms power at 1 kHz into 8 ohms. Full rms power bandwidth 20-20,000 Hz; IHF power bandwidth 20-20,000 Hz. FM sensitivity 2.0 μ V; selectivity 65 dB; FM capture ratio 2 dB; FM image rejection 55 dB; FM stereo separation 35 dB. Has two VU meters; bass/treble control; speaker selector switch; 2 auxiliary inputs; high/low cut filters. Walnut case; blackout dial \$499.95

4VR-5446 4-Channel AM-FM Receiver
Has same circuit options as 4VR-5436 except 20 W/ch continuous rms into 8 ohms with all four channels driven (22 W/ch rms power at 1 kHz). IHF power bandwidth 20-30,000 Hz. Has source indicator lights and a 7-position speaker selector switch. \$599.95

4VR-5456 4-Channel AM-FM Receiver
Has same circuit options as 4VR-5436 except 25 W/ch continuous rms into 8 ohms with all



four channels driven (31 W/ch rms power at 1 kHz). IHF power bandwidth 20-30,000 Hz. FM sensitivity 1.8 μ V; FM capture ratio 1.5 dB; image rejection 90 dB; FM stereo separation 38 dB. Has 7-position speaker selector switch \$699.95

KENWOOD

KR-9340 AM-FM 4-Channel Receiver
50 W/ch continuous rms power into 8 ohms with all four channels driven at 1000 Hz; 45 W/ch



from 20-20,000 Hz. Has built-in CD-4 decoder/demodulator, SQ, and regular matrix decoders, and discrete capability. Dual 4-channel tape system for 4-channel dubbing, with A-B monitor. Features input selector for AM, FM, phono #1 & #2, CD-4, 4-ch aux. Has full complement of 4-channel controls including separate front/rear bass & treble tone controls; full left/right, front/rear balance; and four separate VU meters. Includes signal-strength and center tuning meters and ultra-linear dial scale. FM muting, loudness, and high- and low-filter push-button controls. FM usable sensitivity (IHF) 1.8 μ V; (S+N)/N 75 dB; capture ratio 1 dB; selectivity (IHF) 80 dB; stereo separation (at 1 kHz) 40 dB; HD 0.5% stereo at 400 Hz; image rejection 90 dB. 21 1/2" W x 6 1/2" H x 14 1/2" D. \$749.95

KR-8340 AM-FM 4-Channel Receiver
Features 2/4 strapping to utilize full power in both 2- and 4-channel modes. 28 W/ch continuous rms power into 8 ohms with all channels driven at 1000 Hz (75 W/ch in 2-channel mode). Full 4-channel program capability with built-in SQ and RM decoders and discrete; CD-4 available with special adapter (Model KCD-4, option-



al extra). Has dual 4-channel tape system with A-B monitor; input selector for AM, FM, phono #1 & #2, CD-4, 4-ch. aux. Full complement of 4-channel controls; output terminals for two 4-ch speaker systems with A-B push-button controls. FM usable sensitivity (IHF) 1.9 μ V; (S+N)/N 70 dB; capture ratio 1 dB; selectivity (IHF) 80 dB; stereo separation (at 1 kHz) 35 dB; HD (stereo at 400 Hz) 0.5%; image rejection 80 dB. Response 10-20,000 Hz \pm 1 dB; power bandwidth (IHF) 10-60,000 Hz. 21 1/2" W x 6 1/2" H x 14 1/2" D. \$619.95

KR-6340 AM-FM 4-Channel Receiver
20 W/ch continuous rms power into 8 ohms with all four channels driven at 1000 Hz; 50 W/ch in 2-ch mode. Full 4-channel program capability with built-in SQ and RM decoders and discrete; CD-4 available with special adapter (Model KCD-2, optional extra). Has provision for 4-ch tape system with tape monitor; input selector for AM, FM, phono, CD-4, 4-ch aux. Full complement of 4-ch controls; output terminals for two 4-ch speaker systems with A-B push-button controls. FM usable sensitivity (IHF) 2.0 μ V; (S+N)/N 70; capture ratio 1.5 dB; selectivity (IHF) 70 dB; stereo separation (at 1 kHz) 40 dB; HD (stereo at 400 Hz) 0.5%; image rejection 70 dB. Frequency response 20-20,000 Hz \pm 1 dB; power bandwidth (IHF) 10-60,000 Hz. 19 1/2" W x 5 1/2" H x 14 1/2" D. \$474.95

KR-5340 AM-FM 4-Channel Receiver
15 W/ch continuous rms power into 8 ohms with all four channels driven at 1000 Hz; 30 W/ch in 2-ch mode. Full 4-ch program capability with built-in SQ and RM decoders and discrete; CD-4 available with special adapter (optional extra). Has provision for 4-ch tape system with tape monitor; input selector for AM, FM, phono, CD-4, and 4-ch aux. Full complement of 4-ch controls. FM usable sensitivity (IHF) 2.0 μ V; (S+N)/N 70; capture ratio 1.5 dB; selectivity (IHF) 70 dB; stereo separation (at 1 kHz) 35 dB; HD (stereo at 400 Hz) 0.5%. Frequency response 10-20,000 Hz \pm 1 dB; power bandwidth 10-60,000 Hz. 19 1/2" W x 5 1/2" H x 14 1/2" D. \$419.95

KLH

Fifty-Four 4-Channel AM-FM Receiver
25 W/ch (96 W total) continuous power into 4 or 8 ohms with all four channels driven (60 W/ch



into 8 ohms in 2-channel stereo mode). Power bandwidth 16-30,000 Hz into 8 ohms; response 20-20,000 Hz at 1 W. FM usable sensitivity 1.8 μ V for 30 dB quieting; capture ratio 2 dB. Input sensitivity: mag. phono 2.5 mV; aux. & tape monitor 250 mV. Has two ceramic filters in i.f. 17 1/2" x 5 1/2" x 14" D. Walnut grained cabinet \$525.00

LAFAYETTE

LR-4000 AM-FM 4-Channel Receiver
Features "SQ" wave-matching full logic circuitry; "Composer" derived 4-channel for regular 2-channel program sources. 47 1/2 W/ch continuous at 8 ohms & 1% THD. 75 W/ch dynamic power into 4 ohms. Power bandwidth 13-35,000



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Receivers

Hz; response 20-20,000 Hz ± 1.0 dB at 1 W output. Input sensitivity: mag. phono 4 mV; ceramic phono 140 mV; tape play 500 mV. (S + N)/N -70 dB (high-level input); -60 dB (low-level input). FM usable sensitivity 1.65 μ V for 30 dB quieting; capture ratio 1.5 dB. Has tape monitoring facilities (up to 4 channels); main/remote speaker switching for all four channels; 4-channel headphone jacks. Walnut cabinet. 21" W x 13" D x 5 1/2" H \$569.95

LR-220 AM-FM 4-Channel Receiver

Features "SQ-M" decoding circuitry; "Composer" derived 4-channel for regular 2-channel program sources. 17.2 W/ch dynamic power at 4 ohms & 1% THD; 8.8 W/ch continuous power (35.2 W total). 0.125% THD at 4 ohms. Input sensitivity: mag. phono 4 mV; ceramic phono 150 mV; high-level 275 mV. (S + N)/N -70 dB (high level input); -55 dB (low-level input). FM sensitivity 2.5 μ V for 30 dB quieting. Has 4-channel stereo headphone jacks; main/remote speaker switching for all four channels. Walnut cabinet. 15 1/2" W x 11 1/2" D x 4 1/2" H \$289.95

SQR-20 4-Channel Receiver System

Receiver features sensitive AM-FM stereo tuner, 4-channel "SQ" matrix decoder, "Com-



poser" derived 4-channel from 2-channel sources, discrete 4- & 2-channel when connected to a 4-channel tape source, and four separate amplifiers. Comes with four wide-range walnut speaker systems (8 1/2" W x 14 1/2" H x 5 1/2" D). 16 1/2" W x 10 1/2" D x 4 1/2" H. \$149.95

LR-441 AM-FM- 4-Channel Receiver

40 W/ch at 4 ohms with 1% THD at 1 kHz. Has built-in wavematching full-logic circuitry for playback of SQ records and 4-ch FM SQ broadcasts; Composer A circuitry for QS records and broadcasts; playback of CD-4 records with optional CD-4 demodulator. Plays discrete 4-ch tapes and provides derived 4-ch sound from conventional 2-ch sound sources. Frequency response 20-20,000 Hz at 1 W. FM usable sensitivity (IHF) 1.65 μ V; stereo separation 40 dB at 400 Hz. Has full complement of inputs/outputs and controls. Walnut-finished wood cabinet. 19 1/2" W x 5" H x 12 1/2" D \$479.95

LR-111 AM-FM 4-Channel Receiver

7 1/2 W/ch continuous rms power into 8 ohms at 1% THD at 1 kHz. Plays discrete, SQ, derived 4-channel as well as 4-ch SQ FM broadcasts. Response 20-20,000 Hz ± 1.5 dB at 1 W. FM sensitivity (IHF) 5 μ V; response 50-15,000 Hz ± 2 dB. FM detector output will accommodate discrete 4-ch FM adapter when available. Has full complement of controls. Walnut-finished wood cabinet. 16" W x 4 1/2" H x 12" D. \$229.95

LR-221 AM-FM 4-Channel Receiver

26 W/ch at 4 ohms with 1% THD at 1 kHz. Plays SQ encoded records and FM SQ broadcasts; has Composer A circuit for QS records and broadcasts; plays discrete 4-channel tapes and provides derived 4-ch sound from conventional 2-ch stereo program sources. Response 20-20,000 Hz ± 1.5 dB at 1 W. FM sensitivity 2.2



μ V; stereo separation 40 dB at 400 Hz. Has full complement of inputs/outputs and controls. Walnut finished wood cabinet. 11 1/2" D x 4 1/2" H x 17 1/2" W \$359.95

LLOYD'S

D795 AM-FM 4-Channel Receiver

Has company's "LGS" circuit for receiving AM-FM stereo and FM matrixed broadcasts; SQ matrix decoder; magnetic phono input for playing 4-ch discs through receiver. Discrete 4-ch input jacks provided for Q-8 tapes and CD-4 records. Features illuminated slide-rule dial, stereo indicator light, two front-panel headphone jacks for 2 sets of stereo or one set of 4-ch phones, four separate slide controls. Walnut grain cabinet. 19" x 5" x 11 1/2" \$229.95

M883 4-Ch Music System

Combines AM-FM stereo receiver; matrix decoder; 2/4 ch 8-track player; BSR record changer; and four separately housed speaker systems. Has four discrete output jacks for CD-4 records or 4-ch tapes. Front panel includes tuning meter, slide controls, and two headphone jacks for stereo or 4-ch headphones. Walnut grain enclosure and smoke-tinted dust cover. 23 1/2" x 9 1/2" x 5 1/2" \$329.95

MAGNAVOX

1002 AM-FM Stereo Receiver

37 1/2 W/ch dynamic power into 8 ohms; 25 W/ch continuous power into 8 ohms with both channels driven & at 0.5% THD. Power bandwidth 15-20,000 Hz; response 20-20,000 Hz ± 1 dB (aux.) at 1 W. FM sensitivity 3 μ V for 30 dB quieting; capture ratio 4 dB. Input sensitivity: mag. phono 2 mV; ceramic phono & aux. 150 mV; tape monitor 400 mV. Built-in 4-channel matrix decoder. 18" x 5 1/2" x 15 1/2" D. Walnut cabinet \$269.95

1003. Same as 1002 except power rating 50 W/ch dynamic & 30 W/ch. Has high filter. \$319.95

1004. Same as 1002 except power rating 75 W/ch dynamic & 50 W/ch. Has both low and high filters & thermal light to warn of overheating \$379.95

1000 AM-FM Stereo Receiver

15 W/ch dynamic power at 8 ohms; 12 W/ch continuous power at 8 ohms with both channels driven & at 0.5% THD. Power bandwidth 15-20,000 Hz; response 20-25,000 Hz ± 1 dB at 1 W. FM sensitivity 4 μ V for 30 dB quieting; capture ratio 4 dB. Input sensitivity: mag. phono 2 mV; ceramic phono & aux. 150 mV; tape monitor 400 mV. Features main/remote speaker switch, center-of-channel tuning meter, built-in 4-channel matrix decoder, and tape monitor. 16 1/2" x 5" x 16". Walnut cabinet \$179.95

1001. Same except for power rating. 25 W/ch dynamic & 16 W/ch continuous. Has both high and low filters \$219.95

MARANTZ

4300 4-Ch AM-FM Receiver

40 W/ch continuous power at 8 ohms with all channels driven; 0.15% THD & IM 20-20,000 Hz. Features Dolby B circuit for simultaneous recording and playback with any tape machine

and decoding of Dolby-encoded FM broadcasts. Has phase lock loop multiplex decoder and an FM Quadradial output jack. Separate tuner-preamp section permits use with additional external power amps. Has Vari-Matrix for stereo program enhancement. 4-ch ready for addition of SQ decoder and CD-4 demodulator. FM sensitivity 1.9 μ V (IHF); THD 0.3% stereo; capture



ratio 1.5 dB; spurious rejection 90 dB. Amp response 20-20,000 ± 0.25 dB (high-level input); power bandwidth 7-70,000 Hz. \$899.95

4270. Similar to Model 4300 but 25 W/ch; 0.3% THD & IM. Response 20-20,000 Hz ± 0.5 dB; power bandwidth 8-60,000 Hz \$699.95

4240. Similar to Model 4300 but 17 W/ch; 0.5% THD & IM. Response 20-20,000 Hz ± 1.0 dB; power bandwidth 10-60,000 Hz \$549.95

4230 4-Ch AM-FM Receiver

12 W/ch continuous power into 8 ohms with all channels driven; THD & IM 0.5%. FM sensitivity (IHF) 2.8 μ V. Response 20-20,000 Hz ± 1 dB; power bandwidth 15-50,000 Hz. Features Dolby noise reduction circuit, 4-ch balance controls, remote-control outlet, provisions for two tape recorders, provision for connecting decoders and demodulators \$449.95

4220. Similar to Model 4230 except 8 W/ch; THD & IM 0.9%. Power bandwidth 20-22,000 Hz. Does not include Dolby circuitry. \$299.95

4415 4-Channel Amp/Receiver

Provides essentially the same features and performance as the 4060 amp with the addition of



an AM-FM stereo tuner section. Sensitivity 2.8 μ V for 30 dB quieting; capture ratio 2.5 dB. 16 1/2" x 5" x 14 1/2" D \$399.95

4430 4-Channel Amp/Receiver

Provides essentially the same features and performance as the 4100 amp with the addition of



an AM-FM stereo tuner section. FM sensitivity 1.7 μ V for 30 dB quieting; capture ratio 1.6 dB. Has both signal-strength and center-of-channel meters. 16 1/2" x 5" x 14 1/2" D \$599.95

ONKYO

TS-500 4-Channel AM-FM Receiver

Has built-in QS (RM), SQ decoders and CD-4 demodulator; continuously variable 4-ch balance control, BTL strapping for 2-ch stereo. FM sensitivity (IHF) 2.0 μ V; capture ratio 2 dB; selectivity 65 dB; image rejection 70 dB; (S + N)/N 70 dB; HD 0.8% stereo; stereo separation 40 dB at 400 Hz. 25 W/ch rms at 8 ohms with all four channels driven (1 kHz); 20 W/ch from 20-20,000 Hz. Has full complement of inputs &

outputs. Features logic and analog computer circuitry which automatically demodulates and decodes any 4-ch program material in any sequence. 21" W x 14 1/2" D x 5 1/2" H \$700.00

PILOT

365 4-Channel AM-FM Receiver

15 W/ch (60 W total) continuous power at 8 ohms with all four channels driven & at 0.5% THD. Power bandwidth 20-25,000 Hz; response 20-20,000 Hz ± 1 dB. Input sensitivity: mag. phono 2.5 to 4.5 mV; aux. 300 mV; tape output 250 mV. FM sensitivity 2.5 μ V for 30 dB (S+N)/N; capture ratio 2.5 dB. Has same 5-position



switch as the Model 366 4-channel receiver and center-channel tuning meter. Walnut veneer wood cabinet. 18 1/2" x 6 1/2" x 17 1/2" D . . \$379.90

366 4-Channel AM-FM Receiver

30 W/ch (120 W total) continuous power at 8 ohms with all four channels driven & at 0.5%



THD. Power bandwidth 10-40,000 Hz; response 20-25,000 Hz ± 1 dB. Input sensitivity: mag. phono 2.5 to 4.5 mV; aux. 300 mV; mike 1 mV; tape output 250 mV. FM sensitivity 1.8 μ V for 30 dB (S+N)/N; capture ratio 1.8 dB. Features main/remote 4-channel speaker switch, mike mixing, tape monitor, "Pilotone" for balancing speakers. Has 5-position mode switch for discrete, CBS "SQ", Matrix-4 decoder, stereo (double power), and mono operation. With walnut veneer cabinet. 18 1/2" x 6 1/2" x 17 1/2" D \$499.90

PIONEER

QX-646 4-Ch. Stereo Receiver

Reproduces all regular matrix, SQ, and CD-4 program sources without additional components. FM usable (IHF) sensitivity 2.2 μ V; capture ratio 3 dB; selectivity 40 dB. (S+N)/N 65 dB. Image rejection 50 dB; i.f. rejection 85 dB; spurious rejection 80 dB. Stereo separation 40 dB at 1000 Hz. Antenna input; 300 ohms balanced, 75 ohms unbalanced. Has "on-off" muting switch. Continuous power output 10 W + 10 W/10 W + 10 W into 8 ohms with two channels driven. IHF music power output 80 W at 8 ohms (108 W at 4 ohms). HD & IM less than 1% continuous power output. Power bandwidth 15-20,000 Hz at 1% HD (IHF, 4-channels driven, 8 ohms). Output: speaker one pair (front) 4 to 16 ohms; two pairs (rear) 4 to 16 ohms; headphone (front) ch. 1, ch. 3. Input sensitivity/imp.: phono (2 ch.) 2.5 mV, 100,000 ohms; aux., tape monitor, DIN 180 mV, 90,000 ohms. Has bass & treble tone controls and loudness contour control. 20 1/2" W x 5 1/2" x H x 14 1/2" D: \$499.95

QX-747 4-Ch. Stereo Receiver

Continuous power output 20 W x 4 into 8 ohms with all four channels driven and from 20-20,000 Hz. Includes CD-4, regular matrix, and SQ decoders. Power bandwidth (IHF, 4-ch. driven) 7-40,000 Hz at 0.5% HD. Response (aux.) 10-25,000 Hz ± 1 dB. FM usable (IHF) sensitivity 1.9 μ V; capture ratio 1 dB; selectivity

60 dB. HD 0.2% mono, 0.4% stereo. . . \$599.95

QX-949 4-Ch. Stereo Receiver

Includes built-in CD-4 demodulator and decoders for regular matrix and SQ sources. Continu-



ous power output 40 W x 4 into 8 ohms with 4-ch. driven from 20-20,000 Hz. Power bandwidth (IHF, 4-ch. driven) 7-40,000 Hz at 0.3% HD. Response (aux.) 10-25,000 Hz ± 1 dB. FM usable (IHF) sensitivity 1.8 μ V; capture ratio 1 dB;

selectivity 80 dB. HD mono 0.2%; stereo 0.4%. Features include 4-channel level indicator; outputs for four pairs of speaker systems; output for three tape decks for tape-to-tape duplication. Will also handle two turntables and an additional aux. source. \$699.95

RADIO SHACK

QTA-751 4-Channel AM-FM Receiver

Features built-in 4-channel amp and matrix



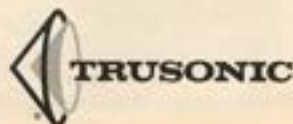
what is a JR-200M to an audiophile?

Sound is to the audiophile what salt is to pepper, diamond's to a girl, or an oasis to a desert. Each has a most important relationship. That's why an audiophile, a real sound expert prefers TRUSONIC JR-200M's magnificent studio quality reproduction. Clean, undistorted sound from this 12" 3-way speaker system again demonstrates the incomparable electronic technology of TRUSONIC. THE PRICE? You

can pay twice as much, but you won't find a better studio quality system. Write TRUSONIC for complete information on JR-200M.

Just a few of JR-200M's impressive engineering features are 12" woofer for distortion-free low frequency bass performance 5" mid-range speaker for clean voice and horn reproduction, and a horn-loaded dome radiator tweeter for high frequency. A carefully engineered crossover network, plus individual level controls to adjust midrange and tweeter sound independently, are included. Size is: 24" x 15 1/4" x 12" deep. Finish: Hand-rubbed oil finish, Walnut veneer.

NET \$149.95



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decoder, 20 W/ch dynamic power at 8 ohms (15 W/ch continuous). Response 20-20,000 Hz ± 1 dB; power bandwidth 20-25,000 Hz. HD 8% at full power, FM sensitivity 3.3 μ V for 30 dB quieting. Has tape inputs, outputs, and monitor. Separate aux. input for discrete 4-channel Q-8 cartridges or reel-to-reel tapes. Has 4-channel headphone jack. Semi-blackout dial. Walnut wood cabinet with gold front panel. 13" x 19" x 5 1/2" \$299.95

QTA-790 4-Channel AM-FM Receiver

36 W/ch continuous rms power at 8 ohms. Includes SQ decoder for matrixed 4-ch records,



tape, FM; and Aux-4 input for playing discrete 4-ch tapes, and an enhancer for 4-ch effect from stereo sources. Can be used as a stereo control center for four speaker pairs; and play two different stereo sources at once. Response 20-30,000 Hz; power bandwidth 18-45,000 Hz. Input imp. phono/aux./tape 50,000 ohms; input sensitivity, phono high 5.0 mV, low 2.5 mV, aux. 200 mV. Stereo separation 45 dB. FM sensitivity 2.0 μ V (IHF); (S + N)/N 60 dB; image rejection 78 dB; stereo separation 35 dB; HD 0.3%; capture ratio 1.5 dB. Features three FM tuning systems: wireless remote control, preset push-buttons, and manual. Full complement of controls including "Accu-Balance" for accurate channel balancing. Comes with hand-held remote-control transmitter, wood cabinet with brushed aluminum front panel. 5 1/2" x 18 1/2" x 16" \$598.00

ROTEL

RX-154A 4-Channel AM-FM Receiver

Can be used as a 2- or 4-channel receiver, 10 W/ch continuous power at 4 ohms for 4 ch. opera-



tion (20 W/ch for two channels) and 0.5% THD. Power bandwidth 30-30,000 Hz. FM sensitivity 4 μ V for 30 dB quieting; capture ratio 8 dB. Will play 4-channel discrete sources, 4-channel SQ matrixed discs or tapes, and will synthesize regular 2-channel stereo sources. Has 4-channel headphone jack. 17 1/2" x 5" x 12 1/2" D. Walnut cabinet \$289.95

RX-454 4-Channel Receiver

20 W/ch continuous rms power with all channels driven into 8 ohms (45 W/ch in stereo mode). HD 0.1% at rated output at 1 kHz; IM at rated output 0.2%. Response 15-90,000 Hz; power bandwidth (IHF) 20-50,000 Hz. Hum & noise: phono 65 dB; aux. & tape input 75 dB. FM usable sensitivity (IHF) 2.5 μ V; (S + N)/N 65 dB; selectivity 45 dB; spurious rejection 80 dB; I.F. rejection 70 dB; image rejection 60 dB. Separation 40 dB (1 kHz, 100% modulation); capture ratio 3 dB. Has dual front & back bass and treble controls; 4 individual volume controls; push-button tuning for main & remote speaker systems \$479.95

SANSUI

The company has a series of six different AM-FM 2- and 4-channel receivers, including decoder, synthesizer, amplifier, control centers. Each can decode all compatibly matrixed 4-channel recordings and broadcasts, synthesize 2 rear channels of ambient signals from conventional 2-channel recording to 4 channels. Will also play discrete 4-channel tapes.

QRX-6500 4-Channel Receiver

37 W/ch continuous power output at 8 ohms with 0.5% THD. Response 20-30,000 Hz ± 1 dB



(50 W/ch at 4 ohms); 70 W/ch dynamic (IHF) power at 4 ohms. FM sensitivity 1.8 μ V for 30 dB quieting. Has multi-system 4-channel speaker selectors and vario matrix ... \$749.95

QR-1500 4-Channel Receiver

15 W/ch continuous power output at 8 ohms (20 W/ch at 4 ohms) with 0.8% THD. 25 W/ch



dynamic (IHF) power at 4 ohms. Power bandwidth 20-30,000 Hz. FM sensitivity 3 μ V for 30 dB quieting \$339.95

QR-500 4-Channel Receiver

Economy version. 8 W/ch dynamic (IHF) power at 8 ohms (15 W/ch at 4 ohms). Power band-



width 30-30,000 Hz. FM sensitivity 5 μ V for 30 dB quieting \$229.95

MQ-2000 4-Channel Compact

Combines a Perpetuum-Ebner 2032 automatic turntable with Shure M75-6 magnetic cartridge, and an AM-FM 2- or 4-channel stereo receiver with integrated amplifier. 14 W/ch continuous (IHF) power at 8 ohms (15 W/ch at 4 ohms) at 1% THD. 18 W/ch dynamic (IHF) power at 4 ohms. Power bandwidth 30-30,000 Hz. FM sensitivity 5 μ V for 30 dB quieting. \$349.95

QRX-5500 4-Channel Receiver

25 W/ch continuous rms output with all chan-



nels driven into 8 ohms at 0.3% THD; IM 0.3%; hum & noise 80 dB (IHF). 220 W power (IHF). FM sensitivity 1.9 μ V. Has multi-system 4-ch speaker selector and vario matrix. Four VU meters. 23 1/2" W x 8" H x 14 1/2" D ... \$699.95

QRX-3500 4-Channel Receiver

22 W/ch continuous rms output with all channels driven into 8 ohms at 0.5% THD; Response



30-30,000 Hz ± 1.5 dB. 180 W power (IHF). FM sensitivity 2.2 μ V (IHF). Has vario matrix synthesizer/decoder; two 4-channel and one 2-channel tape monitors. 20 1/2" W x 7 1/2" H x 13 1/2" D \$579.95

QRX-3000 4-Channel Receiver

15 W/ch continuous rms output with all channels driven into 8 ohms at 0.5% THD and 0.5%



IM. 100 W power (IHF). Response 30-30,000 Hz ± 1.5 dB. FM tuner sensitivity 2.5 μ V (IHF). Has vario matrix synthesizer/decoder; two 4-channel and one 2-channel tape monitors. 19 1/2" W x 5 1/2" H x 13" D \$439.95

SANYO

DCX-3000K 4-Channel Receiver

Designed for both discrete and matrix 4-channel operation. Has SQ logic & Sanyo matrix decoders. Can be used as a 2- or 4-channel amplifier. AM-FM stereo receiver sensitivity 2.8 μ V for 30 dB quieting. HD 0.8%. (S + N)/N 60 dB. 5 W/ch (20 W total) continuous power into 8 ohms and at 1% HD (7 1/2 W/ch dynamic power into 8 ohms). Response 20-40,000 Hz; power bandwidth 30-15,000 Hz. Input sensitivity; mag. phono 2.5 mV; aux. 100 mV; tape 300 mV. Has remote speaker facility. 17 1/2" x 12 1/2" x 5". Walnut cabinet \$299.95

DCX-3300KA 4-Channel Receiver

Has all the features for 4-channel discrete and three matrix decoder circuits (SQ logic and variations). AM-FM stereo receiver with FM sensitivity 2.2 μ V. Selectivity 40 dB. 10 W/ch (40 W total) continuous power into 8 ohms & at 0.8% HD. Response 20-40,000 Hz; power bandwidth 20-34,000 Hz. Input sensitivity; mag. phono 3 mV; aux. 100 mV; tape 300 mV. Features four output-level meters; 2- or 4-channel operation; mike input. 17 1/2" x 12 1/2" x 5". Walnut cabinet \$449.95

DCX-2700K 4-Channel Receiver

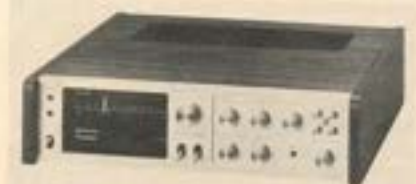
Designed for both discrete and matrixed 4-channel operation (SQ and matrix). FM sensitiv-



ity 2.7 μ V; HD 1%; (S + N)/N 45 dB stereo; selectivity 38 dB; stereo separation 30 dB. 7 1/2 W/ch continuous rms power at 1% THD; HD & IM 1% at rated output. Response 25-30,000 Hz; power bandwidth 30-30,000 Hz. Has individual channel level controls; master volume; bass & treble function selector; power switch; loudness switch; tape monitor; 2/4 channel selector. Outputs: 4 speaker; 2/4 ch recording, DIN connector. Inputs: mag. phono; 2/4 ch aux.; 2/4 ch tape; DIN connector. 18" x 14 1/2" x 5". Walnut cabinet \$269.95

DCX-3100K 4-Channel Receiver

Designed for both discrete and matrixed 4-channel operation (matrix, SQ logic, discrete).



FM sensitivity 2.2 μ V; HD 0.89%; (S + N)/N 50 dB stereo; selectivity 40 dB; stereo separation 30 dB. 15 W/ch continuous rms power at 0.8% THD. HD 0.5% and IM 1.0% both at rated output. Response 20-45,000 Hz; power bandwidth 25-45,000 Hz. Has same controls as DCX2700K with addition of mike level control. Outputs: 4 speaker; 2/4 ch recording; DIN connector. Inputs: mag. phono (2); 2/4 ch aux. (4); 2/4 ch tape (4); DIN connector (2); mike. Walnut cabinet. 19 1/2" x 13 1/2" x 5" \$349.95

DCX-3500K 4-Channel Receiver

Designed for SQ, discrete, and matrixed 4-channel operation. 20 W/ch continuous rms power at 0.8% THD. HD 0.5%, IM 1.0% both at rated output. FM sensitivity 2 μ V; HD 0.8%;



(S + N)/N 55 dB stereo; stereo separation 33 dB. Controls: tuning; individual channel level; master volume; bass & treble; function selector; power switch; loudness switch; tape monitor; mike level; 2/4 ch selector; speaker switch; CD-4 adjust (rear panel). Outputs: 4 speaker; 2/4 ch recording; DIN connector. Inputs: magnetic phono; 2/4 ch aux. (4); 2/4 ch tape (4); DIN connector; mike. 19 1/2" x 12 1/2" x 6" \$549.95

SONY

SQP-400A 4-Ch. Receiver/Phono

Combines an AM-FM stereo receiver with an FM sensitivity of 2.2 μ V for 30 dB quieting; 10 W/ch (40 W total) dynamic power at 8 ohms & 5% HD; a BSR 4-speed phono changer with crystal cartridge, a hinged dust cover, cue control; and four Sony SS-170 two-way speaker systems. Will play back SQ matrixed discs & 4-channel discrete tape programs. 9" x 20 1/2" x 15 1/2" D \$359.95

HQR-600 4-Ch AM-FM Receiver

Designed to receive FM 4-ch broadcasts; SQ, regular matrix, and discrete 4-ch program material; CD-4 demodulated discs with the addition of an adapter. FM sensitivity 2.2 μ V (IHF). Has meter for signal-strength and center-of-channel tuning; stereo indicator light; a.f.c.; separate bass & treble controls; loudness compensation for low-level listening. Features



push-button controls; input facilities for 2- and 4-ch tape decks; full tape-monitoring facilities. 6 W/ch continuous rms output into 8 ohms with all four channels driven. 8 ohms nominal impedance. Walnut finish cabinet included. \$229.50

SQR-6650 4-Channel Receiver

AM-FM stereo design with four separate power amplifiers that can be ganged for two-channel



operation. Has two matrix decoding circuits—one for SQ and one for all other designs. 8 W/ch continuous power at 8 ohms (25 W/ch for 2-channel operation). Has four VU meters for balancing. FM sensitivity 2.2 μ V for 30 dB quieting. -70 dB selectivity \$329.50

SYLVANIA

RQ3747 4-Channel Receiver

25 W/ch at continuous power (four channels) into 8 ohms from 20-20,000 Hz at less than 0.5% THD. 60 W/ch continuous power in spe-



cial stereo bridge mode. Includes an SQ matrix IC, two SQ positions for image placement control (standard SQ and SQ blend), plus provision for CD-4 discrete disc system with addition of special external discrete phono demodulator. Has master volume plus three separate balance controls for front left-right, rear left-right, and front-to-rear. Features dual FM tuning meters for center tune and signal-strength. Frequency response at tape input 20-30,000 Hz \pm 1.5 dB. Input sensitivity: phono 2.6 mV; tape & aux. 150 mV. Input imp.: phono 47,000 ohms; tape & aux. 50,000 ohms. Tape output level for rated aux. & phono input: 150 mV. (S + N)/N below rated output (20-20,000 Hz) at max. volume: phono 60 dB; tape & aux. 70 dB. FM sensitivity (IHF) 1.9 μ V; capture ratio 1.5 dB; image rejection 60 dB. Walnut veneer cabinet with extruded aluminum control panel. 6 1/2" H x 21 1/2" W x 15" D \$449.95

RQ3748 4-Channel Receiver

50 W/ch at continuous power (four channels) into 8 ohms from 20-20,000 Hz. 125 W/ch con-



tinuous power in special stereo bridge mode. Master volume control plus individual level controls for all four channels. Special image orientation control permits 90, 180, and 270 degree rotation of four channel sound image (changes the channel each speaker produces without rewiring). Other specifications same as RQ3747. Walnut veneer cabinet with extruded aluminum control panel. 6 1/2" H x 21 1/2" W x 15" D \$549.95

TECHNICS BY PANASONIC

SA-6400X 4-Channel Receiver

25 W/ch (100 W total) dynamic power into 8 ohms (37 1/2 W/ch into 4 ohms); 10 W/ch continuous power into 8 ohms (26 W/ch into 4 ohms) & at 0.5% THD. Power bandwidth 9-40,000 Hz; response (aux.) 20-50,000 Hz \pm 1 1/2 dB. FM sen-

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Receivers

sitivity 1.8 μ V for 30 dB quieting; capture ratio 1.5 dB. Input sensitivity: mag. phono & mike 3 mV; aux & tape monitor #1, #2, #3 200 mV. Features 75 & 300 ohm antenna inputs; main/remote speaker switch; remote control joystick-type balance control; built-in decoder. Will play all discrete and matrixed 4-channel program material. Has mike input with mixer. 17 $\frac{1}{2}$ " x 6 $\frac{1}{2}$ " x 16 $\frac{1}{2}$ " D \$429.95
SA-6800X. Same except for power rating of 50 W/ch dynamic into 8 ohms (75 W/ch at 4 ohms); 42 W/ch continuous at 8 ohms (53 W/ch at 4



ohms). Has extra center-of-channel tuning meter and mike input with mixer and position control to rotate mike source into any channel. \$599.95

SA 8000X 4/2-Ch. AM-FM Receiver

Features built-in CD-4 demodulator for playback of discrete phono discs plus a variable AFD matrix decoder/synthesizer that can be matched to any matrix system. BTL (balanced transformerless) amplifier design enables 2- or 4-channel stereo operation. Has four VU meters, 6-element ceramic i.f. filters in FM. FM sensitivity 1.9 μ V for 30 dB quieting. IHF dynamic power 40 W/ch (160 W total) into 4 ohms (160 W at 8 ohms in 2-channel (BTL) mode). With all channels driven continuous power is 18 W/ch (72 W total) at 4 ohms; 16 W/ch (64 W total) at 8 ohms. In 2-channel (BTL) operation, continuous power with both channels driven is 38 W/ch at 8 ohms. THD 0.5% at rated power. Power bandwidth 5-40,000 Hz. (S + N)/N 72 dB (phono), 94 dB (aux.) \$499.95

SA-6000X 4/2-Ch. AM-FM Receiver

Features variable AFD matrix decoder/synthesizer that can decode any matrix sys-



tem, plus inputs to accommodate any 4-channel discrete or 2-channel source. BTL (balanced transformerless) design enables 2- or 4-channel stereo operation. 6-element ceramic filters and monolithic IC's in FM i.f. strip. IHF dynamic power is 30 W/ch (120 W total) into 4 ohms. Continuous power with all channels driven is 16 W/ch (64 W total) at 4 ohms; 14 W/ch (56 W total) at 8 ohms. Continuous 2-channel (BTL) power is 48 W/ch at 8 ohms; 32 W/ch at 8 ohms with all channels driven (64 W total). THD 0.5% at rated power. Power bandwidth 7-35,000 Hz. (S + N)/N 72 dB (phono); 94 dB (aux.). FM sensitivity (IHF) 1.9 μ V for 30 dB quieting. \$349.95

SA-5600X 4/2-Ch. AM-FM Receiver

Accommodates all discrete 4-channel sources and includes 2-position matrix decoder for matching all matrix sources in use and for optimum synthesizing/enhancing. BTL (balanced



transformerless) power amplifier permits use of full power in either 4- or 2-channel modes. 6-element ceramic filters and monolithic IC's in i.f. section. IHF dynamic power 27 W/ch (108 W total) at 4 ohms. With all channels driven 14 W/ch (56 W total) at 4 ohms; 11 W/ch (44 W total) at 8 ohms. 2-channel (BTL) mode continuous power 40 W/ch at 8 ohms; 30 W/ch (60 W total) at 8 ohms with both channels driven. THD 0.5% at rated power. Power bandwidth 7-30,000 Hz. (S + N)/N 60 dB (phono); 75 dB (aux.). FM sensitivity (IHF) 1.9 μ V for 30 dB quieting. \$309.95

SA-5400X 4/2-Ch. AM-FM Receiver

Designed for any 4- or 2-channel application with complete discrete and matrix capability.



Two-position switch for decoding any matrix source or optimum synthesizing/enhancing. Two tape monitors. The i.f. stages have ceramic filtering and monolithic IC's. FM sensitivity 1.9 μ V for 30 dB quieting. IHF dynamic power 17 W/ch (68 W total) at 4 ohms in 4-channel mode. Continuous 4-channel power with all channels driven 9 W/ch at 4 ohms (36 W total); 8 W/ch at 8 ohms (32 W total). Continuous 2-channel (TL) power 25 W/ch with both channels driven; 18 W/ch (36 W total) at 8 ohms. THD 0.8% at rated power. Power bandwidth 7-28,000 Hz. (S + N)/N 75 dB (aux.); 60 dB (phono) \$259.95

SA-6700X 4/2-Ch. AM-FM Receiver

Features built-in AFD 4-ch scope for audio display to check signal distribution, separation, crosstalk, balance. Scope also serves as precise center-channel tuning indicator and multipath signal indicator. Also features variable AFD matrix decoder/synthesizer that can be set for any matrix system plus inputs to accommodate any 4-ch discrete or 2-ch sources. 240 W total (IHF) music power at 4 ohms; 45 W continuous rms power per channel at 4 ohms; 32 W at 8 ohms. With all four channels driven: 30 W/ch at 4 ohms; 23 W/ch at 8 ohms. THD 0.5% at rated



power. Power bandwidth 7-40,000 Hz. (S + N)/N 70 dB (phono), 90 dB (aux.). FM sensitivity (IHF) 1.8 μ V for 30 dB quieting. Ceramic filtering and monolithic IC's in FM \$569.95

TELEDYNE

RA-632 4-Channel Receiver

AM/FM-stereo design; 60 W/ch dynamic power



(240 W total) with one channel operating. Has universal type decoder for matrix or synthesized program material. Features a joystick-type control; main & remote speaker switch. Walnut finish cabinet \$249.98
RA-660. Similar to RA-632 in design and styling except has 20 W/ch dynamic power (80 W total) \$214.98

TOSHIBA

SA-304 4-Channel AM-FM Receiver

15 W/ch continuous power (60 W total) into 8 ohms at 0.8% THD and with each channel driven separately (20 W/ch for 2-channel operation). Response 20-40,000 Hz \pm 2 dB. Power bandwidth 20-30,000 Hz at 0.8% THD. Sensitivity: mag. phono 3 mV; aux. 150 mV. FM sensitivity 2.5 μ V for 30 dB quieting. Capture ratio 2.5 dB. Has built-in RM (Regular Matrix) and SQ 4-channel matrix decoder. Has input provisions for CD-4 discrete decoder. Has universal line inputs. 15 $\frac{1}{2}$ " x 4 $\frac{1}{2}$ " x 11 $\frac{1}{2}$ " \$329.95

SA-504 4-Channel AM-FM Receiver

35 W/ch (140 W total) continuous power into 8 ohms & at 0.4% THD and with each channel driven separately (70 W/ch for 2-channel stereo). Response 20-40,000 Hz \pm 1 dB; power bandwidth 10-80,000 Hz. FM sensitivity 1.8 μ V for 30 dB (S + N)/N; capture ratio 1.5 dB. Input sensitivity: mag. phono 2.5 mV; condenser phono 30 mV; aux. & tape 160 mV. Has built-in



RM & SQ 4-channel matrix decoder, FM muting, signal-strength & center-of-channel tuning meters, and tape monitor. Can be used for 4-channel discrete playback. 20" x 4 $\frac{1}{2}$ " x 14". \$539.95

V-M

1548 4-Channel Receiver

Combines an AM-FM stereo receiver, an 8-track 2- or 4-channel tape player with 4 channels of

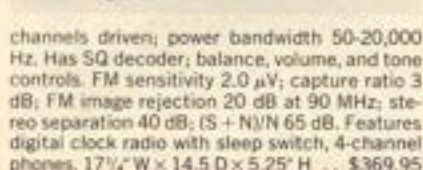


power amplification. 6 W/ch dynamic (EIA) power at 5% THD; 4 W/ch continuous power. Receiver sensitivity 15 μ V for 30 dB (S + N)/N. Wow & flutter (tape player) 0.3%. Supplied with walnut cabinet. Overall size 21 $\frac{1}{2}$ " x 5 $\frac{1}{2}$ " x 11 $\frac{1}{2}$ " D \$199.95
Model 1545 Receiver. Same as 1548 except without 8-track tape player. \$149.95
Model 1538. Same technical performance as 1548 except does not include the AM-FM receiver or 8-track player. 3 $\frac{1}{2}$ " x 14 $\frac{1}{2}$ " x 9 $\frac{1}{2}$ " D \$99.95

YAMAHA

CS-70R 2/4 Ch AM-FM Stereo Receiver

13 W/ch continuous rms power with all four channels driven; 28 W/ch into 8 ohms with two channels driven; power bandwidth 50-20,000 Hz. Has SQ decoder; balance, volume, and tone controls. FM sensitivity 2.0 μ V; capture ratio 3 dB; FM image rejection 20 dB at 90 MHz; stereo separation 40 dB; (S+N)/N 65 dB. Features digital clock radio with sleep switch, 4-channel phones. 17 1/2" W x 14.5" D x 5.25" H ... \$369.95



channels driven; power bandwidth 50-20,000 Hz. Has SQ decoder; balance, volume, and tone controls. FM sensitivity 2.0 μ V; capture ratio 3 dB; FM image rejection 20 dB at 90 MHz; stereo separation 40 dB; (S+N)/N 65 dB. Features digital clock radio with sleep switch, 4-channel phones. 17 1/2" W x 14.5" D x 5.25" H ... \$369.95

Tape Machines

AKAI

CR-80D-SS 4-Ch. 8-Track Recorder Deck

Features 2- or 4-channel play/record. Response 30-16,000 Hz \pm 3 dB. Wow & flutter 0.25% rms;



(S+N)/N 47 dB. Has four mike (0.5 mV) & line (50 mV) inputs; four record-level meters; universal power supply ... \$329.95

1730D-SS 4-Channel Tape Deck

Features surround stereo. Four-track, 4 & 2 channel play and record with two erase heads



(2-channel & full track) for compatibility with 2-channel stereo. Features automatic shutoff, pause control, universal voltage selector, and two speeds (7 1/2, 3 3/4 ips). Response 30-22,000 Hz \pm 3 dB, wow & flutter 0.12% rms, dist. 1.5%, all at 7 1/2 ips. Has mike (0.4 mV) and line (40 mV) inputs plus line (1.23 V) output. 16 1/2" x 18" x 9 1/2" ... \$399.95

GX-280D-SS 4-Channel Tape Deck

Play/record design for 2 and 4 channels. Features 4 heads, 3 motors, automatic reverse, and sound-on-sound facilities ... \$799.95

ASTROCOM/MARLUX

307 4-Channel Cassette Deck

Deck features play and record. Response



30-12,000 Hz, wow & flutter 0.14%, (S+N)/N 46 dB. Has hysteresis motor, four VU meters, counter, eject button, automatic reverse and shutoff, pause control, bias switch, mike & line inputs. Remote control optional extra ... under \$500.00

711 4-Channel Deck

Two-speed (7 1/2-3 3/4 or 15-7 1/2 ips), 4-head, 4-channel, 3-motor deck. Will handle up to 10 1/2" reels. Response 20-20,000 Hz at 7 1/2 ips, wow & flutter 0.07% at 7 1/2 ips, (S+N)/N 60 dB, 0.9% THD at 1 kHz & 0 VU. Has 4 low-impedance mike and 4 high-impedance line inputs; 4 low-impedance outputs with master gain control. Features synchronous recording on all 4 channels and has built-in mixing facility ... under \$2000.00

BSR McDONALD

TD-8QW 8-Track Stereo/4-Ch Deck

Deck automatically selects stereo or discrete 4-channel tapes. Includes 0.40 V stereo/4-ch



preamp. Comes with wood grain cabinet and connecting cables ... \$79.95

CONCORD

CD-8-4 4-Channel, 8-Track Tape Deck

Designed as either 2- or 4-channel cartridge tape player. Wow & flutter 0.15%. Response



100-9000 Hz; (S+N)/N 44 dB; 1.5% THD at 1000 Hz. Output adjust 500 mV. 4" H x 8 1/2" W x 10 1/2" D. Walnut cabinet ... \$114.95

CROWN INTERNATIONAL

CX844 Tape Recorder

Three-speed (15, 7 1/2, 3 3/4 ips), 4-channel, 4-track, 3-motor design. Will handle up to 10 1/2" reels. Has 3 heads. Response 20-25,000 Hz \pm 2 dB. Wow & flutter 0.09% at 7 1/2 ips. Features

braking, pause control, four VU meters, optional remote record, and automatic photocell shutoff ... \$2995.00

SX744 Tape Recorder

Two-speed (7 1/2 & 3 3/4 ips), 4-track, 4-channel, 3-motor design. Will handle up to 10 1/2" reels. Has 3 heads. Response 20-25,000 Hz \pm 2 dB. Wow & flutter 0.09% at 7 1/2 ips. Features braking, pause control, four VU meters, and automatic shut-off ... \$1995.00

DOKORDER

7140 2/4 Ch Stereo Tape Deck

Provides complete 4-channel record & playback facilities. Has three motors (synchronous capstan and eddy-current induction reel), mechanical speed change; solenoid operation. Tape speeds 7 1/2 & 3 3/4 ips; wow & flutter \pm 0.08%



max. at 7 1/2 ips. Will handle 5" & 7" reels; operates horizontally or vertically. Has three separate heads; full tape/source monitoring; NAB equalization. Response 30-22,000 Hz \pm 3 dB 40-20,000 Hz at 7 1/2 ips; (S+N)/N 55 dB at 7 1/2 ips; crosstalk 55 dB at 1000 Hz; stereo channel separation 45 dB at 1000 Hz. Includes Multi-Sync function which permits recording separate tracks individually and re-recording of any individual track in perfect sync with other three tracks. Built-in sound-on-sound, sound-with-sound, and echo circuitry. Includes four VU meters, quick-change heads, turntable height adjustments, automatic end-of-reel shut-off, and easy-threading operation. 15 1/2" W x 17 1/2" H x 6 1/2" D ... \$499.95

MC-70A 4-Ch/8-Track Player System

Will play either 4- or 2-ch tape cartridges automatically. Program selector indicator light



shows which channel is being played while selector switch makes program change fast. Has push-button repeat switch. Response 50-12,000 Hz, 20 W music power into 8 ohms; rms power 3 W/ch into 8 ohms. (S+N)/N 45 dB; crosstalk 40 dB. Four speaker systems included each with 5" full-range cone speaker; 5 W max. input; 8 ohms imp. Response 50-10,000 Hz. (8 1/2" W x 14 1/2" H x 4 1/2" D—front; 8 1/2" W x 14 1/2" H x 2 1/2" D—rear). Oiled finish on plywood. Control center 14 1/2" x 5 1/2" H x 8 1/2" D. ... \$149.95

ELECTROPHONIC

467XP 4-Ch Receiver/Tape Player

Features AM-FM stereo receiver; 8-track 2- or 4-



ch tape player; Garrard record changer with tonearm, cueing control, and diamond stylus; plus four pedestal-mounted sphere speaker enclosures. Has push-button controls for compatible 4-ch tapes, SQ matrix, and power "on-off." Features tuning meter, 5-pos. rotary switch for AM, FM, FM-stereo, phono, and tape; slide-rule controls for volume, bass, and treble. Control center 20 $\frac{1}{2}$ " W x 12 $\frac{3}{4}$ " D x 4 $\frac{1}{4}$ " H. Record changer base 16 $\frac{1}{2}$ " W x 14 $\frac{1}{2}$ " D x 7 $\frac{1}{2}$ " H. \$479.95

466D 4-Channel System

Combines an AM-FM stereo receiver and a 2- or 4-channel 8-track tape player for playing back 4-channel discrete tapes or "SQ" matrix program material. 50 W/ch (200 W total) dynamic power into 8 ohms at 5% HD. Supplied with four separately housed speaker systems (11" x 19" x 8 $\frac{1}{2}$ " D) each with duo-cone speaker and horn diffuser. Walnut finish. 20 $\frac{1}{2}$ " x 4 $\frac{1}{2}$ " x 12 $\frac{1}{2}$ " D \$359.95

FISHER

TX-420 4-Channel Converter

Designed to be used with present stereo systems to provide 4-channel reproduction. Has 4-



channel preamps and 2-channel stereo power amp. Includes a 4- or 2-channel 8-track cartridge player and decoding (matrixing) system for producing 4-channel material from 2-channel conventional or encoded sources. 18 W/ch (2 channels) dynamic power into 8 ohms (15 W/ch continuous) at 0.5% HD. Power bandwidth 30-20,000 Hz. Sensitivity: tuner & aux. inputs 200 mV. 16 $\frac{1}{2}$ " x 4 $\frac{1}{2}$ " x 11 $\frac{1}{2}$ " D \$299.95

40 4-Channel System

Combines an AM/FM stereo receiver, a 4-speed automatic turntable with magnetic cartridge, and a 4- and 2-channel 8-track tape cartridge player. Includes matrixing circuit to provide 4-channel reproduction from conventional 2-channel programs. 25 W/ch (100 W total) dy-



namic (EIA) power at 5% HD. FM sensitivity 2.5 μ V. 25" x 8 $\frac{1}{2}$ " x 17 $\frac{1}{2}$ " D \$499.95
PC4 Dust cover \$19.95

HARMAN-KARDON

8+ 4-Channel, 8-Track Deck

Designed for both 2- and 4-channel playback. Features automatic switching for stereo or quadraphonic. Track selector lights, powered ejection of cartridge. Response 30-12,000 Hz. Has heavy-duty a.c. motor. Supplied with cabinet \$89.95

HITACHI

TPQ-144 8-Track 4-Channel Deck

Designed for either 2- or 4-channel playback. Has four preamplifiers & walnut cabinet. \$129.95

CS-4000 4-Channel 8-Track Player

Automotive design featuring separate volume and tone controls, channel selector, 4-channel



indicator, 4-way balance controls. Has built-in 4-channel synthesizer to convert regular two-channel tapes into 4-channel. 7 W/ch dynamic power at 5% THD. Safety lock and key. 6 $\frac{1}{2}$ " x 2 $\frac{1}{2}$ " x 7 $\frac{1}{2}$ " D. \$129.95

CS-1440 8-Track Auto Player

Conventional design but has speaker matrix to synthesize regular 2-channel tapes into 4-channel or will play 2-channel across the front or rear speakers. Has safety lock and key \$74.95

JVC

4RD-1405 4-Channel Tape Deck

Will play/record 2- and 4-channel reel-to-reel tape. Two speeds (3 $\frac{3}{4}$ & 7 $\frac{1}{2}$ ips). Response 30-



18,000 Hz \pm 3 dB at 7 $\frac{1}{2}$ ips with low-noise tape. (S+N)/N -52 dB; wow & flutter 0.1% at 7 $\frac{1}{2}$ ips. 57 kHz bias & erase. Has two heads (record/play & erase), mike (0.5 mV) & line (80 mV) inputs, and line output (0-1.2 V). Features low-noise or standard tape switch. 7 $\frac{1}{2}$ " x 16" x 13 $\frac{1}{2}$ " D \$309.95

4RD-1401 4-Channel Tape Deck

Will play/record 2- and 4-channel reel-to-reel tapes. Two speeds (3 $\frac{3}{4}$ & 7 $\frac{1}{2}$ ips). Response 30-20,000 Hz \pm 3 dB at 7 $\frac{1}{2}$ ips with low-noise tape. (S+N)/N -53 dB; wow & flutter 0.1%



rms at 7 $\frac{1}{2}$ ips. 95 kHz bias & erase. Three heads (record, play & erase). Has mike (0.3 mV) & line (80 mV) inputs & line output (0-1 V). Features low-noise or standard tape switch. 16 $\frac{1}{2}$ " x 17 $\frac{1}{2}$ " x 7 $\frac{1}{2}$ " \$449.95

4ED-1203 4-Channel 8-Track Deck

Will play back 2- and 4-channel cartridge tapes. Response 30-12,000 Hz \pm 3 dB. (S+N)/N -50 dB from peak level; wow & flutter 0.25% rms. Has line output 0.8 V. 10 $\frac{1}{2}$ " x 4 $\frac{1}{2}$ " x 9 $\frac{1}{2}$ " D \$99.95

4ED-1205 4-Channel 8-Track Deck

Will play back 2- and 4-channel and record 2-channel cartridge tapes. Response 40-12,000



Hz \pm 3 dB. (S+N)/N -50 dB from peak level; wow & flutter 0.2% rms. Has line output (0-1 V) and mike (0.8 mV) & aux. (80 mV) inputs. Features fast-forward, four input-level controls, tape counter, automatic repeat and stop. 16 $\frac{1}{2}$ " x 4 $\frac{1}{2}$ " x 11" D \$229.95

LAFAYETTE

RK-84 4-Channel Tape Deck

Plays all 4- and 2-ch tape cartridges. Plugs into tape or aux. inputs of any 4-ch receiver or amplifier. Features 2- or 4-ch mode selector; 2- or 4-ch indicator lights; push-button track selector; individual channel indicator lights. Has four built-in stereo playback preamps. Max. output 0.5 V. Response 50-8000 Hz. 8 $\frac{1}{2}$ " W x 8 $\frac{1}{2}$ " D x 4 $\frac{1}{2}$ " H \$69.95

RK-48A 4-Channel Tape Deck

Can be used as a 2- or 4-channel stereo, 8-track playback tape deck. Features a "Continu-



ous Repeat" track selector button. Has 1 V output. Hum & noise -49 dB. 4 $\frac{1}{2}$ " x 9 $\frac{1}{2}$ " x 10 $\frac{1}{2}$ " D \$99.95

SQR-40 4-Ch, 8-Track/Receiver System

Receiver features sensitive AM-FM stereo

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tuner, 4-channel "SQ-M" decoder, "Composer" derived 4-channel from 2-channel sources, discrete 4- & 2-channel 8-track tape player, and four separate amplifiers. Comes with four wide-range walnut speaker systems (8 1/2" W x 14 1/2" H x 5 1/2" D), 21 1/2" W x 11 1/2" D x 4 1/2" H. \$189.95

PIONEER

RT-1020L Stereo Tape Deck

Three-motor, 3-head stereo tape deck with 4-channel reproduction capability. Has 4/8 pole two-speed hysteresis synchronous motor (capstan drive) and 6-pole inner-rotor induction motor (reel drive). Operates at 7 1/2 & 3 3/4 ips. Wow & flutter less than 0.08% (W rms) at 7 1/2 ips. (S+N)/N 55 dB; dist. less than 1%. Response 40-20,000 Hz ± 3 dB at 7 1/2 ips. Crosstalk 60 dB, stereo channel separation 50 dB both at 1000 Hz. Inputs: mike 0.25 to 80 mV; line 50 mV to 25 V; DIN 15 mV. Outputs: line 316 mV; DIN 316 mV; headphone 40 mV (4 to 16 ohms). Features 3-position bias selector, 2-position equalizer selector, lockable pause lever, 4-digit tape counter, independent left/right tape monitor switches, 4-ch./2-ch. playback mode selector, independent right/left recording mode selectors, 4-ch front, rear monitor mode



selector, independent mike & line recording level controls, output level controls. Will accept up to 10 1/2" reels. 17 1/2" W x 17" H x 8 1/2" D. \$599.95

QT-2100 4-Channel Tape Deck

8-track, 2- or 4-channel stereo playback design. Response 30-12,000 Hz, (S+N)/N 48 dB.



wow & flutter 0.2%. Output 0.775 V at 50,000 ohms. 17" W x 5 1/2" x 13" D. \$249.95

QT-6600 4-Channel Tape Deck

Reel-to-reel design for record/playback 4- or 2-channel stereo. One motor drive with automatic reverse. Two speeds (7 1/2, 3 3/4 ips), wow & flutter 0.12% at 7 1/2 ips. Response 50-15,000 Hz ± 2 dB 7 1/2 ips, (S+N)/N 55 dB. Has mike (0.3 mV) and line (30 mV) inputs. Output 0.775 V at 50,000 ohms. 17" W x 18 1/2" H x 8 1/2" D. \$599.95

RADIO SHACK

TR-284B Quadraphonic Player

8-track play only for 2- or 4-channel reproduction. Supplied with four separately housed speaker systems (7 1/2" x 5 1/2" x 9 1/2" each). Wal-



nut cabinets. 15" x 5" x 11 1/2" \$169.95

Auto Q8 4-Channel Car Player

Will play 4- or 2-channel 8 track tapes. Mounts under dash. 12-volt d.c. negative-ground operation. Supplied with mounting bracket but less speakers. 7" x 9" x 4" \$99.95

Q-800 4-Channel Tape 8-Track Deck

Will play 2- or 4-channel programs. Has "Auto-Stop." Tape head automatically senses and



adjusts to either 2- or 4-channel tapes. Walnut-grain wood cabinet with aluminum front panel \$99.95

494 4-Channel Deck

Three-speed (7 1/2, 3 3/4 & 1 1/2 ips), four-track, three-head design. Has four discrete channels, four VU meters, and level controls. Response

50-18,000 Hz; wow & flutter 0.13% rms at 7 1/2 ips. Records discrete 4-channel and standard 2-channel stereo. Walnut wood cabinet with brushed aluminum front panel. 16" x 14 1/2" x 6 1/2" \$299.95

RCA

YZD444 4-Channel 8-Track Player

4-channel, 8-track stereo player with separate bass, treble, and stereo balance controls; depth control for front-to-back balance. Automatic operation, automatic 2- and 4-channel sensing, and automatic or manual track selection. Jacks for external amplifier and speaker system. Four separate speakers systems (18" H x 11" W x 7" D) each with 8" woofer & tweeter. Housed in walnut veneer hardwood cabinets. Control center 4 1/2" H x 15 1/2" W x 11" D. \$199.95

12R800 4-Channel Car Player

Can be used for 4- or 2-channel 8-track cartridge playback. 4 W/ch dynamic power at 5% THD. Response 40-10,000 Hz ± 3 dB. Wow & flutter 0.4% rms. For use with 12-V negative-ground power sources. Size with bracket 2 1/2" x 10 1/2" x 7 1/2" D. \$119.95

SANSUI

QD-5500 2/4 Ch Record/Play Deck

Two-speed (7 1/2 & 3 3/4 ips) deck. Will record and play back 4-track stereo or 4-channel. Wow & flutter 0.07%. Response 15-25,000 Hz at 7 1/2 ips. (S+N)/N 60 dB. Has three heads, three motors, three-way mixing. Features four mike & four line inputs. Standby position for easy editing. Overall size 16 1/2" W x 21 1/2" H x 10 1/2" D \$749.95

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RD-8200 8-Track 2/4 Ch Player Deck

Will play 2- or 4-channel 8-track cartridges. Features fast-forward, automatic sensing sys-



tem for 2- & 4-channel cartridges. Response 50-12,000 Hz. (S+N)/N 45 dB. Wow & flutter 0.2%. 13" x 12 1/2" x 4 1/2" \$149.95

DXR-5111 4-Channel Music System

Combines an AM-FM 4-channel receiver and four separately housed (9" x 6" x 14") speaker systems, each with 6 1/2" speaker, 7 1/2 Wch (20 W total) dynamic power at 5% HD. Has SQ decoder and will accept 4-channel discrete tapes. 17" x 4" x 10 1/2" D \$189.95

DXR-5111P. Same except with separately housed 4-speed automatic turntable. \$239.95

DXL-5485 4-Ch AM-FM/8-Track System

Combines an AM-FM 4-channel receiver, a 2/4 channel 8-track tape deck, and four separately housed speaker systems (9" x 14" x 7" D) each with 6 1/2" speaker. Response of tape deck 50-12,000 Hz. Wow & flutter 0.25% max. (S+N)/N 50 dB. 10 W/ch (40 W total) dynamic power at 5% HD. Has SQ matrix decoder. 18 1/2" x 5" x 10 1/2" \$269.95

DXL-5486 2/4 Ch Music System

Combines an AM-FM stereo receiver, a 2/4-channel 8-track tape deck, SQ circuitry; four amplifiers; and four separately housed speaker systems (11 1/2" W x 7 1/2" D x 17 1/2" H) each with an 8" full-range air-suspension speaker, a mid-range whizzer, and a directional tweeter. 10 W/ch power output. Four-channel discrete tapes or CD-4 records (with adapter) are played through the system's four power amplifiers. Features bass & treble slide controls, 4-ch headphone output jacks; phono inputs; output jacks for 2- or 4-ch tape recording. \$299.95

GXT-4831 2/4 Ch Music System

Combines an AM-FM stereo receiver; 4-ch matrix decoder circuit; four power amplifiers; 2/4 ch 8-track tape deck; automatic record changer; and four separately housed bookshelf speaker systems (9 1/2" W x 7" D x 15 1/2" H) each with a full-range speaker. Will handle SQ records or 4-ch discrete 8-track tapes. 10 W/ch power output. Has inputs for 4-ch stereo playback from reel-to-reel tape recorders and outputs for tape recording from radio, built-in 8-track deck, or from the phonograph. 19 1/2" x 14 1/2" x 9 1/2" \$299.95

GXT-4621 2/4 Ch Music System

Combines an AM-FM stereo receiver; four amplifiers; matrix decoder circuit; cassette tape



deck; automatic 3-speed record changer; and four separately housed speaker systems (9 1/2" W x 7" D x 15 1/2" H) each with full-range speaker. The cassette deck will record in 2-ch stereo at the same time 2-ch stereo or 4-ch SQ stereo discs are played; recorded cassettes may be played back in 4-ch stereo. 10 W/ch power output. 19 1/2" x 14 1/2" x 9 1/2" \$329.95

DXT-5489 2/4 Ch Music System

Combines AM-FM stereo receiver; four amplifiers; SQ circuitry; 2/4 ch 8-track tape deck; Garrard automatic record changer; four separately housed speaker systems (11 1/2" W x 7 1/2" D x 17 1/2" H) each with an 8" full-range air-suspension speaker, a mid-range whizzer, and a directional tweeter \$349.95

GXT-4651 2/4 Ch Music System

Combines AM-FM stereo receiver, four amplifiers; decoder matrix circuitry; cassette tape deck; Garrard automatic record changer; four separately housed speaker systems (same as in DXT-5489). 12 1/2 W/ch power output. Features two recording level meters; automatic stop; automatic eject on cassette deck. 21 1/2" x 14 1/2" x 9 1/2" \$399.95

DXL-5491 2/4 Ch Music System

Combines AM-FM stereo receiver; four amplifiers; matrix circuitry; 8-track record deck; four



separately housed speaker systems (same as in DXT-5489). 20" x 12 1/2" x 6" \$399.95

GXT-4881 2/4 Ch Music System

Combines AM-FM stereo receiver; Garrard automatic record changer; 8-track tape deck; four amplifiers; decoder matrix circuitry; and four separately housed speaker systems (same as in DXT-5489). 12 1/2 W/ch power output. 21 1/2" x 14 1/2" x 9 1/2" \$449.95

DXT-5341 2/4 Ch Music System

Combines AM-FM stereo receiver; cassette tape deck; 8-track tape player; automatic record



changer; decoder matrix circuitry; four amplifiers; and four separately housed speaker systems (same as in DXT-5489). 12 1/2 W/ch power output. 20" x 14" x 10" \$499.50

D-8010 8-Track 2/4 Ch Player Deck

Will play both 2- and 4-ch 8-track cartridges. Features include automatic selection of correct playback circuits; channel indicator lights; program selector switch. Response 50-12,000 Hz; (S+N)/N 42 dB; wow & flutter 0.2%. 9" x 8 1/2" x 3 1/2" \$69.95

SONY/SUPERSCOPE

TC-277-4 Quadradial Tape Deck

Reel-to-reel, 3-speed (7 1/2, 3 1/2, 1 1/2 ips), 4-channel, in-line design. Response 50-16,000 Hz ± 3 dB at 7 1/2 ips; S/N 52 dB; wow & flutter 0.12% at 7 1/2 ips. Has two heads (4-channel erase & record/play), four inputs, and four line



outputs (1/ch). Input sensitivity 0.06 V. 15 1/2" x 7 1/2" x 15 1/2" H \$399.95

TC-854-4S 4-Channel Tape Deck

Three-motor, 3-speed (3 1/2, 7 1/2 & 15 ips) design with 10 1/2" reel capacity. Will record/play 2 or 4 channel. Features vari-speed pitch control and Sony's "Synchro-Trak" for precise synchronization of each track. Response 30-18,000 Hz ± 2 dB at 7 1/2 ips (S+N)/N 56 dB with standard tape (59 dB with SLH-180 tape). Wow & flutter 0.04% at 7 1/2 ips. Has four VU meters, sound-on-sound capabilities, record equalization switch for standard or low-noise, high-output tape. 17 1/2" x 22" x 10" D. \$1795.00

TC-84 4-Channel Cartridge Player

Features 2 or 4 channel playback for cars. Response 50-12,000 Hz; wow & flutter 0.25% (S+N)/N 45 dB. Designed for 12 V d.c. negative-ground operation. Has four individual level controls, one motor. 11 1/2" x 3" x 8 1/2" D. Supplied with mounting hardware \$169.95

SUPERSCOPE

QRT-440 4-Ch Receiver/8-Track

Will reproduce SQ records, FM broadcasts or tapes; simulate 4-ch reproduction from stan-



dard stereo sources. Will play Q-8 cartridges through built-in 8-track 2/4-ch tape player. FM usable sensitivity 5 μ V (IHF); stereo separation 32 dB at 1 kHz; response 20-12,000 Hz ± 1.5 dB; THD 1.5% stereo; capture ratio 5 dB. Has complete set of controls; signal-strength tuning meter; four-channel FM output. 18 1/2" W x 5 1/2" H x 14 1/2" D \$349.95

SYLVANIA

DMQ2784W 4-Ch. 8-Track Converter

Will play 2- or 4-channel 8-track tapes. Has two power amplifiers and is designed to be used with your present 2-channel stereo system for



4-channel output. 12 1/2 W/ch continuous power into 8 ohms and at 1% THD. Frequency range 25-35,000 Hz; power bandwidth 30-35,000 Hz. Wow & flutter (cartridge tape player) 0.3%. Has tape monitor switch, inputs for matrixed four-channel program sources, and tape outputs \$229.95

TEAC

3340S 4-Channel Tape Deck

Four-channel, three-motor, three-head stereo tape deck with 15 & 7 1/2 ips speeds. Features "Simul-Sync" which allows recording four discrete but fully synchronized channels on each track of a 4-track tape; permits synchronized overdubbing, professional mix-down and special effect tapes. Up to eight inputs (four mike, four line) can be recorded simultaneously. Push-button transport control with logic circuitry. Has 4/8 pole dual-speed hysteresis synchronous motor and two eddy-current induction reel motors. Hyperbolic-shape Permaflux heads, shielded for max. channel separation and protection from leakage flux fields. Unit includes separate bias level and EQ switches; total remote capability; four expanded-scale VU



meters; 2-ch/4-ch play switch; front & rear stereo headphone jacks; pause control with indicator light; Quik-Lok reel holders. Response 25-24,000 Hz at 15 ips; 25-22,000 Hz at 7 1/2 ips; wow & flutter 0.04% at 15 ips, 0.06% at 7 1/2 ips. (S+N)/N 55 dB. 17 1/2" W x 20 1/2" H x 8 1/2" D \$999.50

2340R 4-Channel Tape Deck

Four-channel, three-motor, three-head deck which includes 2-ch play with automatic reverse. Has front-panel bias switch; 8 source mixing ability (4 line, 4 mike); four separate VU meters; tape/source monitor switches; mike inputs; mike/line level controls; output level controls. Records 7 1/2 or 3 3/4 ips; will accept up to 7" reels; wow & flutter 0.08% at 7 1/2 ips; response 30-22,000 Hz at 7 1/2 ips. (S+N)/N 55 dB. 17 1/2" W x 18 1/2" H x 8 1/2" D \$869.50

TECHNICS BY PANASONIC

RS-740US 4-Channel Tape Deck

Two speeds (7 1/2, 3 3/4 ips). Response 30-20,000 Hz ± 3 dB at 7 1/2 ips, wow & flutter less than



0.1%. Has four independent VU meters, special front and rear separation controls, tape-bias adjustment switch, front or rear headphone monitoring and pause control, mike & line inputs, digital counter, and automatic shutoff,

3 heads \$449.95

RS-858US 4-Channel 8-Track Deck

Will record/play all 2- or 4-channel cartridge programs. Has four separate input level controls, four VU meters, mike & line inputs. Response 30-15,000 Hz; wow & flutter 0.2%. 8 1/2" x 21 1/2" x 11 1/2" \$279.95

TELEX

2 + 2 Tape Deck

Four- or two-channel reel-to-reel design. Can provide discrete 4-channel playback only. Has



3 motors, 3 speeds (7 1/2, 3 3/4, 1 1/2 ips), automatic shutoff/tape-break switch. Response 40-18,000 Hz ± 3 dB, (S+N)/N 48 dB, wow & flutter 0.2% at 7 1/2 ips. 16 1/2" W x 11" x 6 1/2" \$249.95

TOSHIBA

PT-844 2- and 4-Channel Tape Deck

Reel-to-reel type; 4 ch. record/playback. Three speeds (1 1/2, 3 3/4 & 7 1/2 ips), 3 heads. Response 30-20,000 Hz ± 3 dB with low-noise tape. (S+N)/N 50 dB, Wow & flutter 0.09% at 7 1/2 ips. Has regular & low-noise tape switch. 15 1/2" x 17 1/2" H x 8 1/2" D \$499.95

V-M

1547 4-Channel Tape Player Deck

Plays either 2- or 4-channel 8-track tape car-



tridges. Response 50-10,000 Hz. Has built-in preamp. \$79.95

WOLLENSAK

6154 4-Channel Deck

Three-speed (7 1/2, 3 3/4, 1 1/2 ips), 4-channel playback, 4-track stereo record/playback, 3-head, 2-motor deck. Will handle up to 7" reels. Response 35-20,000 Hz ± 2 dB, wow & flutter 0.12% at 7 1/2 ips, (S+N)/N 54 dB. Has braking, VU meters, automatic shutoff, pause control, echo effects, sound-on-sound, sound-with-sound, and phono input \$299.95

8054 4-Channel Player

Plays 8-track, 2- and 4-channel quadrasonic



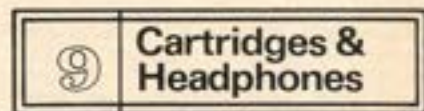
cartridges. Has a channel-selector key, automatic programming facilities for 2- or 4-channel, fast-forward. Response 30-15,000 Hz, wow & flutter 0.25%, (S+N)/N 52 dB \$119.95

8060 8-Track, 4-Channel Tape Deck

Record-play deck. Can record and play stereo and matrixed four-channel but play-only dis-



crete four-channel material. Has digital counter for accurately timing recordings, cueing, automatic eject, pause lock, fast-forward, and stereo headphone jack \$219.95



AUDIO-TECHNICA

AT125 Dual-Magnet Cartridge

Designed specifically for use with discrete four-channel discs (CD-4), matrixed four-channel as well as mono and stereo records. Frequency response 15-45,000 Hz; channel separation (at 1 kHz) 25 dB; channel balance 2 dB. Tracking force 1 1/2-2 g (recommended tonearm adjustment for Shibata stylus); dual-magnetic low-mass magnetic system. Comes with Shibata stylus, stylus guard \$64.95

AT145. Similar to AT125 except channel balance 1.5 dB \$75.00

AT155. Similar to AT125 except 1 kHz channel separation is 25 dB minimum; channel balance 1.5 dB \$100.00



AT205L. Similar to AT125 except response 5-50,000 Hz; channel balance 1.0 dB; and 1 kHz channel separation 25 dB minimum .. \$150.00

CLARK, DAVID

4 CH-A Headset

Combination design. Can be used as a regular 4-channel headset or with a decoder can be used to synthesize 4-channel response from any 2-channel program source. Has high-level output at 30 Hz and uniform frequency response up to 16,000 Hz \$80.00
With DC-2A decoder \$95.00



Cartridges & Headphones

FISHER

QP-44 2/4 Channel Stereo Headphones
Response 20-18,000 Hz. Switchable 2-channel/4-channel operation. Sensitivity: 10 mV for average listening. Max. power 0.2 W. 8 ohms. 10-ft coiled cord. 20 ounces \$69.95

HEAR MUFFS

QM-440 "Quadramuffs"
Features a velour-covered curved polyurethane cushion worn around the back of the head while



reclining. Contains four 3/4" dynamic drivers and is supplied with double stereo phone plugs. Response 20-18,000 Hz. 1.5 W power handling capacity. 8 ohms imp \$49.95
QM-442. Includes the QM-440 plus an "Autoquad" matrix decoder/synthesizer compatible with all major 4-channel encoding and features a front/rear balance control and "Quadsearch" function that indicates presence of 4-ch. material. Decoder comes with standard stereo plug and can be used with any stereo amp or receiver \$99.95

JVC

4MD-20X 4-Channel Cartridge
CD-4 design to be used with the RCA/JVC 4-channel disc and Shibata stylus. Response 20-60,000 Hz. Output 2 mV. Crosstalk 30 dB. Tracking force 1.5-2g \$69.95

5944 4-Channel Headphones
2- or 4-channel design. Response 20-20,000



Hz. HD 0.5% at 1 mV. Has a built-in phase changeover switch \$49.95

KOSS

4-Channel Quadrafones
All three versions are designed to be used for either 2- or 4-channel operation. Each earpiece has dual 1 1/2" dynamic drivers. These are connected in parallel for regular 2-channel stereo use. 3.2 to 600 ohm operation. Dist. 0.5% at

109 dB SPL. Capacity 5 V continuous with provision for 14 dB transient peaks. Has balance control on each earpiece. 22 ounces. **K/6LCO.** Response 20-17,000 Hz. Has foam-



filled vinyl ear cushions for ambient noise isolation averaging 18 dB \$45.00
K0/747Q. Response 20-19,000 Hz. Has fluid-filled ear cushions for 40 dB ambient noise isolation \$60.00
PRO/5Q. Response 20-20,000 Hz. Has fluid-filled ear cushions for 40 dB ambient noise isolation \$75.00

K2 + 2 4-Channel Headphones

Dynamic type. Features four separate drive elements (2 in each phone) for 4-channel reproduction, arranged in conventional 4-channel format. Has switch for conventional stereo operation. Frequency response 10-20,000 Hz. Sensitivity -87 dB \pm 3 dB SPL from each cup with 1 V continuous signal at 1000 Hz. Imped-



ance 300 ohms each driver. For use with 3.2 to 600 ohm source impedances. Power input 5 V continuous maximum per phone. 10-ft. coiled cord. 26 ounces. Fluid-filled ear cushions. Comes with carrying case \$85.00

LAFAYETTE

F-4400 4-Channel Headphones
Four separate 2 1/2" speakers, each in its own acoustically isolated chamber, deliver 4-channel sound from 4-channel amplifiers and receivers. Exclusive, patented baffle plate increases front-to-rear separation. Has 4-channel/2-channel switch. Built-in circuitry derives 4 channels from 2-channel sources. Frequency response 20-20,000 Hz. Impedance 4-16 ohms. Foam-filled vinyl leatherette earpieces and adjustable headband. With 9 1/2-ft cable, connectors. \$44.95

MICRO/ACOUSTICS

QDC-1q CD4 Phono Cartridge
Features a self-energized IC transducer which puts out a linear signal from 5-50,000 Hz; stylus bar directly attached to transduction IC to eliminate losses inherent in flux-field coupling. Response 5-20,000 Hz \pm 2 dB; 20,000-50,000 Hz \pm 2 dB. Tracking force range 0.9-1 1/2 g; channel separation 30 dB at 1 kHz, 20 dB at 10 kHz.



Output voltage: 3 mV each channel at 5 cm/sec peak recorded velocity. 47,000 ohms recommended load. Comes with "Quadra-Point" stylus \$120.00

MURA

QP-280 "Quadset" Headset
Has 4-channel/stereo switch; 10-ft coiled cord with dual plugs marked for easy identification. Response 20-20,000 Hz. Power rating 0.2 W; impedance 8-16 ohms. Custom leather-type padding on earcups and headband ... \$24.95

QP-300 Deluxe "Quadset"
Features two woofers and two tweeters in each earcup for a total of eight dynamic speakers. Electronic crossover network. Impedance 8-16 ohms. Frequency response 20-20,000 Hz \pm 5 dB. Maximum allowable input 500 mW. Comes with 6-ft cable, plugs marked for easy identification, and zipper carrying case \$69.95

RADIO SHACK

Nova-44 4-Channel Headphones
Quadraphonic/stereophonic dynamic design. Each earcup has separate speakers for two



channels. Dual plugs provided for stereo or 4-channel use. Ported earcups. Frequency range 20-20,000 Hz; 8 ohms. 15-ft coiled cord \$39.95

SCINTREX

HQ4 4-Channel Headphones



Has four separate drivers which will deliver sound from any discrete or matrixed four-channel source. Has quad/stereo switch for maximum utilization of the four drivers in the 2-ch stereo mode. Response 20-20,000 Hz; 20-16,000 Hz ± 6 dB. Impedance 4-300 ohms. Sensitivity 100 dB SPL 1.1 mW. Max. input 14 mW; max. output 110 dB. HD at 1 kHz 0.7%. Ambient noise isolation 40 dB. Has liquid-filled ear cushions 14-ft coiled cord with dual jacks. Black with chrome-plated headband. 24 ounces \$59.95

STANTON

780/4DQ Four-Channel Cartridge

Designed to play the new discrete 4-channel records as well as a standard stereo disc or 4-ch



matrix-derived compatible records. Response 10-50,000 Hz (when terminated in recommended load of 100 kohms and 100 pF). Tracking force 1-3 g; channel separation 35 dB. Output: 0.7 mV/cm/sec ± 2 dB. Inductance & resistance (each channel): 350 mH; 750 ohms. Features new "Quadrilateral" stylus \$125.00

Dynaphase Sixty-Five Four C

Has two speakers in each earpiece for 20-20,000 Hz response. Equipped with two plugs (blue for front, black for rear); earpieces marked "L" and "R" for accurate listening orientation. Sensitivity: 100 dB SPL (at 0.1 V input at 1 kHz each channel). Maximum power input 1.25 V rms continuous with provision for 10 dB SPL transient peaks. Dist. $\frac{1}{2}\%$ at 110 dB SPL. Input imp. (at 1 kHz) 15 ohms $\pm 20\%$. Vinyl-covered foam ear cushions; adjustable headband. 11-ft coiled cord with four-channel/stereo switch, front & rear plugs. 19 ounces \$64.95

SUPEREX

QT-4 "Quad-Tette" Headphones

Has four identical reproducers (two to an earcup) with frequency response of 25-17,000 Hz. 15-ft. cord. Ivory/Cordovan \$50.00

QT-4B "Quad-Tette" Headphones

Has four identical reproducers (two to an ear-



piece) with frequency response of 20-18,000 Hz. 15-ft. cord and 2-4 ch. sw \$65.00

TELEDYNE

PH-220 4-Channel Headphones

Features dual stereo plug system consisting of front and rear stereo connectors for 4-channel or one plug may be used for conventional 2-channel stereo listening. Two separate full-range driver elements in each earcup. Padded earcushions and fully adjustable cushioned headband \$44.98

TELEPHONICS

TEL-32Q Four-Channel Headphones

Each channel has individual woofer and tweet-



er. Response 20-20,000 Hz; dist. not measurable at 95 dB-SPL. 20 ounces \$47.75
Optional 4-ch balance controller \$28.50

TOSHIBA

HR-40 2-Ch/4-Ch Headphones

Features 4-channel/2-channel changeover system with two plugs (front & rear). Dynamic driv-



er 3" x 4". Frequency range 20-20,000 Hz; rated input power 1 mW/ch; imp. 4-16 ohms. Comes with 6.6-ft. cord. Weight 27 $\frac{1}{2}$ ounces \$54.95



Decoders & Miscellaneous

AUDIONICS

106C High-Definition SQ Decoder

Features discrete 4-channel and stereo inputs, tape monitor, duplicated DIN and RCA inputs and outputs. Close-tolerance phase-shift network, 20-18,000 Hz ± 10 degrees (typically 6 degrees). Response 5-100,000 Hz ± 1 dB. THD 0.025% S/N -80 dB with only 250 mV signal in.

Model AT15S cartridge shown in Model AT1009 tone arm.



THE HOT TIP IS SHIBATA ...and audio-technica!

The only phono stylus tip designed for the new discrete 4-channel records is the new Shibata multifaceted stylus.

It's the stylus we include on our AT12S, AT14S, AT15S & AT20SL Audio-Technica Dual Magnet* cartridges. To give you correct, long-lasting performance from discrete 4-channel records. And better sound from any matrix record or present stereo disc as well.

Audio-Technica Dual Magnet cartridges are brand new and loaded with features. Like a separate, independent magnetic system for each side of the stereo groove. And smooth response to 45,000 Hz and beyond. Plus very low moving mass for superior tracing ability.

Get a tip from leading audio showrooms throughout the country who are now stocking and recommending the Audio-Technica Dual Magnet cartridges. For every modern record you own.

audio-technica.

*U.S. Patent No. 3,700,790

AUDIO-TECHNICA U.S., INC., Dept. 103SG, 1655 W. Market St., Fairlawn, Ohio 44313

9 Decoders & Miscellaneous

Low-impedance output for placement up to 100 feet from control amplifiers. Switchable blend for up-date for full logic. Wired and tested. \$99.95

AUTOQUAD

I-CA Passive Matrix Decoder

Automatic passive matrix decoder designed to provide quasi-stereo reproduction from most



stereo systems by the addition of a pair of rear-channel speakers plus the decoder. Incorporates a "Quadserch" feature which permit user to seek out stations offering 4-channel material before switching to 4-ch position. Front-to-back ratio control for control of variations in program material and speaker placement. Nominal imp. 8 ohms. Operates with 4, 8, or 16 ohm imp. amps. Power handling ability 200 W rms. Decoding parameters compatible with all major encoding techniques. 5" x 5" x 3" H ... \$89.95

CARTER-CRAFT

34-300 4-Channel Synthesizer

Designed to be used in a car (12 V d.c.). Will synthesize any two-channel program material into 4 channels \$11.98
34-302. Same except designed for home use. 117 V a.c. \$24.89

CONCORD

CSQ-2-4 SQ Decoder

Designed specifically to reproduce SQ matrixed program material. Will also synthesize regular 2-channel stereo records. Gain 1.3 dB. Response 20-20,000 Hz. Input imp. 1 megohm. Dist. 1% THD max. Must be connected at output of a preamp. 3 1/2" H x 9 1/2" W x 7" D. Walnut cabinet \$87.95

DYNACO

Quadaptor

The simplest type decoder for recovering 4-channel information from 2 channels. Does not require two additional power amplifier channels. Provides level adjust for rear speakers. Unit connects between speakers and power-amp outputs. Is a passive device. 4 1/2" x 4 1/2" x 6 1/2" D. Kit \$19.95
 Assembled \$29.95

ELECTRO-VOICE

EVX-44 Universal 4-Channel Decoder

Automatically provides correct decoding of all types of matrixed 4-channel program material.

Provides optional front-to-rear separation enhancement. Connects into hi-fi system between preamp & power amp or through tape jacks. Has inputs for 2- and 4-channel tape sources. (S + N)/N 70 dB below 1/2 V. Gain is unity. Maximum input 4 V rms. Response 20-20,000 Hz ± 1 dB. 2 1/2" x 8" x 7" D. \$99.95

ESS

Satellite-4 Four-Ch. Speaker System

Has 12" woofer, four 6" mid-range, and four 2 1/4" cone tweeters; crossovers at 100 & 3000 Hz.



Power required: 15 W minimum; 50 W continuous. Response 30-20,000 Hz ± 3.5 dB. Designed specifically for 4-channel operation, i.e., four small mid/high-freq. speakers (10" x 10" x 7" D) are supplied plus a separate 100 W continuous bass amplifier, crossover with equalization, and woofer cube. 18" x 17" x 20" D \$579.00

HEATH

AD-2022 "Universal" Decoder

Provides 4-channel matrixed signals from any encoded material. Will also enhance current stereo records, tapes, and FM-stereo broadcasts with a simulated 4-channel effect. Designed to be inserted between your stereo system's separate preamp and amplifier or by using the amplifier's or receiver's tape monitor inputs. 110-120 V, 50-60 Hz.
 Kit \$39.95

JVC

4VC-5244 4-Channel Record Changer

CD-4 design with built-in 4-channel demodulator. Has 4-pole outer rotor motor. Response 20-



16,000 Hz. Output 300 mV at 5000 ohms. Semi-adjustable separation control. 7 1/2" x 15 1/2" x 17 1/2" D \$225.00

4DD-5 4-Channel Demodulator

Designed to be used with the CD-4 four-channel system. Can be added to any existing 2-channel



turntable & 4-channel reproducing system. Input 1.5 mV at 100,000 ohms impedance. Output 300 mV at 5000 ohms impedance. Response 20-16,000 Hz. Separation semi-adjustable. 3 1/2" x 6 1/2" x 11 1/2" \$99.95

LAFAYETTE

LA-524 4-Channel Decoder/Amplifier

Designed to convert regular 2-channel stereo systems into discrete and SQ matrix 4-channel



stereo systems. Features built-in SQ decoding circuit for playback of Columbia and other SQ-decoded discs; firm's 4-channel matrixing circuit for regular 2-channel stereo program sources. Requires separate 2-channel amp & speakers. Features master front-and rear-volume control. Has fused speaker outputs. 30 Wch dynamic power \$89.95

SQ-M 4-Channel Decoder

For reproducing 4-channel sound. Includes the company's "Composer Circuit" (similar to Dynaco system) to convert conventional 2-channel stereo sound sources into 4-channel reproduction. Also includes CBS matrixing circuits for playback of CBS 4-channel SQ Quadraphonic records. Has simulated walnut-finished case. 6" x 2 1/8" x 7 1/2" D \$44.95

QD-4 4-Channel Adapter

Synthesizes 4-channel sound from regular 2-channel stereo records, tapes. Does not require an additional stereo amplifier. Has 4-position function switch, rear level control, phono jacks. 5 1/2" W x 4 1/4" D x 2 1/2" H \$24.95

4-Channel Adapter for Cars

Derives 4-channel sound from present 2-channel car stereo tape system or FM radio. Front panel contains rear-level speaker control, 2- or 4-channel mode switch, and front (L & R) speaker-level controls. If present system has four speakers, only adapter is required; if two speakers, two more speakers must be added. For 12-V negative ground systems. Includes two 3-ft., two 6-ft., and two 15-ft. connecting cables. 5 1/2" W x 1 1/2" H x 2 1/2" D. #99-85128 \$7.95
 99-62994. Pair of 3" x 5" matching rear deck speaker systems \$6.95

SQW Decoder

Features full SQ logic (front/back logic and wavematching logic). Will also handle RM and other matrixes; derives 4-ch sound from 2-ch program sources. Has 2- and 4-ch inputs. Outputs: two sets of 4 outputs for decoded or discrete; 2-ch tape outputs. Controls: power "on-off", master volume, function switch tape/source, power indicator, tape/source indicator, and tape and source sensitivity slide switches \$99.95

CD-4 Decoder

Designed for Quadradiscs but will also handle direct and 2-channel sound. Has 2- and 4-ch inputs. Outputs: decoded 4-channel and direct phono. Controls: power "on-off," power indicator, mode selector switch, high-low slide switch, and CD-4 level adjust \$89.95

PIONEER

QD-240 CD-4 Disc Demodulator

Designed to be installed between stereo turntable and existing 4-channel receiver or ampli-



fier. Has separation adjustment meter on front panel. Comes with CD-4 test record for optimum separation and carrier level adjustment. Has 3-position function switch providing options of 2-ch., 4-ch. auto, or direct. The "auto" position provides automatic switching between 4- and 2-ch. discs. Input sensitivity 2.5 mV; 100,000 ohms imp. Output level 200 mV; output imp. 4700 ohms. HD 0.07% (S+N)/N 70 dB (IHF, A network). Response 20-15,000 Hz. Separation: left-to-right 50 dB; standard test signal at 1000 Hz front-to-rear 30 dB. 7 1/2" W x 5 1/2" H x 16" D. \$139.95

QD-210 SQ Decoder

Translates all SQ-encoded sound into four-channel stereo. Input sensitivity 200 mV; 0.3% HD. Response 20-20,000 Hz ± 2 dB (front side). Connects between preamp & power amp. Has tape and monitoring output jacks. Universal power supply. 5 1/2" W x 5 1/2" H x 13 1/2" D. \$99.95

QL-600A 4-Channel Amp Adapter

Designed as a 2-channel integrated amp to be used with your present stereo system to de-



velop four-channel reproduction. Includes decoding circuits for SQ and other matrixing sources and will synthesize regular stereo records. Has level meters & controls for all four channels. Connects between tape recorder terminals and tape monitor of your present stereo system. 18 W/ch dynamic power into 8 ohms; 10 W/ch continuous power into 8 ohms with both channels driven and at 0.5% HD (12 W/ch into 4 ohms). Power bandwidth 20-30,000 Hz at 8 ohms & 0.5% HD. Response 20-20,000 Hz ± 1 dB. Provides terminals for 4-channel discrete and 2-channel stereo. Has universal power supply. 17" x 5 1/2" x 13 1/2" D. \$229.95

SANSUI

QS-500 4-Channel Converter

Basic principle of decoding/synthesizing 2-channel program material or reproducing 4-channel discrete programs is the same as firm's 4-channel receiver design. Difference is that only 2 channels of power amplification are included. Designed to be used with present stereo systems for 4-channel reproduction. Has four VU meters for channel balancing, 2- and 4-channel tape monitoring, and provision for rotating channel outputs. 33 W/ch continuous (IHF) power at 8 ohms (40 W/ch at 4 ohms) at 0.5% THD; 60 W/ch dynamic (IHF) power at 4 ohms. Power bandwidth 20-40,000 Hz. \$289.95

QS-100 4-Channel Converter

Same as QS-500 except 15 W/ch continuous power at 8 ohms (18 W/ch at 4 ohms) at 0.8% THD; 25 W/ch dynamic power at 4 ohms. Power bandwidth 25-40,000 Hz. \$169.95

QS-1 Decoder/Synthesizer

Offers full facilities for 2- or 4-channel opera-



tion and system control, including four VU meters but without any power amplifiers. \$119.95

SANYO

DCA-1600X 4-Channel Decoder/Amp

Features a 2-channel amplifier & three different matrix circuits including the SQ logic decoder. 10 W/ch (20 W total) continuous power (20 W/ch dynamic power) into 8 ohms & at 0.8% HD. Response 10-100,000 Hz ± 2 dB. Input sensitivity: aux. #1 & #2 150 mV. 11 1/2" x 10" x 4 1/2" \$139.95

SONY

SQD-2020 4-Channel Decoder

Designed as a control center for 4-channel discrete tapes and has built-in SQ full-logic (gain-riding) matrix decoder. Features four VU monitor level/balance meters. (S+N)/N 80 dB. HD 0.1%. Sensitivity: input & 4-ch. 1, 2 250 mV; Rec/PB 2 & 4-ch. tapes 750 mV. Output: front 500 mV, back 550 mV & 2 V. SQ separation LF/RF, LF/LB, RF/RB 20 dB; CF/CB 15 dB. 5 1/2" x 15 1/2" x 12 1/2" \$229.50

SQD-2050 4-Channel Decoder

Designed to be used with existing stereo systems. Provides 4-ch reception of SQ, matrixed,



discrete, and 2-ch stereo enhancement with addition of second integrated amplifier and an extra pair of speaker systems. Master volume control adjusts level of all four output channels simultaneously. Features front-back balance control; tape in/out jacks for tape monitoring; front/back logic circuit to increase front/back separation when operated in SQ mode. Input required 250 mV. HD 0.2% (S+N)/N 80 dB. 6 1/2" x 4 1/2" x 12 1/2" \$99.50

TEAC

AN-300 4-Ch. Dolby Noise Attenuator

Has four separate Dolby-B type noise-reducing systems within a single housing. Features four VU meters. With channels operated in pairs the unit affords simultaneous decoded stereo monitoring or full 4-channel Dolby encoding. Has a standard 400-Hz recording calibration tone on all four channels and a 420-Hz pulse circuit for

easy identification of the calibration tone. Increased (S+N)/N of 10 dB at 10,000 Hz (5 dB at 1000 Hz). Sensitivity: tape and line 0.1 V. Outputs: record and monitor 0.3 V. Has multiplex filter. Response 20-20,000 Hz ± 1.5 dB; 6 1/2" H x 16 1/2" W x 10 1/2" D. \$399.50

AX-300 4-Channel Mike/Line Mixer

Has a preamplifier and features inputs for six



low-impedance microphones (four circuits mike/line switchable and two circuits mike only). Has six in and four out format. (S+N)/N is -62 dB (-72 dB line); mike (600 ohms unbalanced) input 0.1 V max.; line input 0.3 V (7 V max.). 6 1/2" x 16 1/2" W x 10 1/2" D. \$369.50

TECHNICS BY PANASONIC

SE-405H CD-4 Discrete 4-Ch. Demodulator

Low-distortion, high separation demodulator for playback of CD-4 discrete 4-channel recordings. Includes 4-channel semiconductor cartridge for mounting in any standard tonearm



and will also play 2-channel and all other discs. Phono cartridge response d.c. to 50,000 Hz. Demodulator audio response 20-16,000 Hz. Built-in equalizer/preamps. Inputs: phono #1 (semiconductor cartridge) 3 mV; phono #2 (magnetic cartridges) 1.5 mV. Input impedances: phono #1 4700 ohms, phono #2 100,000 ohms. Output 300 mV. Has 3-position mode selector including 4-Chan. Auto for demodulating CD-4 records or automatically switching to 2-channel stereo, depending on record being played; 4-Chan. Aux.; Conventional Stereo. Indicator automatically lights to indicate playing and demodulation of CD-4 record. Separation adjustment. 3 1/2" H x 8 1/2" W x 13" D. \$159.95

SH-3433 4-Channel Audio Scope

3-inch screen to view all 4-channel signal levels & phase relationships. Connects either at speaker terminals or outputs of any preamp. \$249.95

TOSHIBA

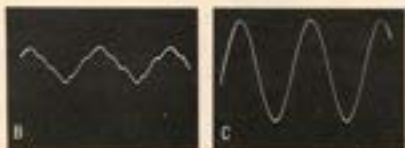
QM SC-410 4-Channel Adapter

Designed as a 2-channel stereo system with 15 W/ch rms continuous power for use with any conventional 2-channel stereo system to provide 4-channel sound reproduction. Can be used with both discrete or matrix inputs. Has matrix decoding circuits similar to Dynaco system. Will extract out-of-phase material from a 2-channel program source or any 4-channel encoded material. Features four choices of multi-channel listening: "Concert Hall," "Studio," "Surround," and "Stage," apparently derived from variations in mixing and high-frequency roll-off. \$169.95

These four major developments make the new BIC Venturi speakers totally unlike all others...and better.

Venturi Principle Bass Section

(patents pending) transforms the magnitude of air mass and energy in a way never before applied to acoustics. (Fig. A) The result is bass response hundreds percent more efficient and substantially purer in quality than is possible from any other speaker of comparable size.



B—Shows output of low frequency driver when driven at a freq. of 22 Hz. Sound pressure reading, 90 dB. Note poor wave form.
C—Output of Venturi coupled duct, (under the same conditions as Fig. B) Sound pressure reading 111.5 dB (140 times more output than Fig. B) Note non-distorted appearance.

Biconex Pyramidal Dispersion Horn

(patents pending) was developed to match the demanding capabilities of the Venturi bass section. It is far more efficient, can handle more power and covers a wider, uninterrupted frequency range than cones and domes. And, unlike other horn designs, it can't add metallic sound coloration and has truly wide angle dispersion in both the horizontal and vertical planes, for unrestricted system positioning.



Biconex horn

Dynamic Tonal Balance Compensation

(patents pending) adjusts speaker performance automatically (when desired) to provide aurally "flat" response at all listening levels in accordance with the Fletcher-Munsen hearing characteristics. This is accomplished in a manner which cannot be achieved by amplifier loudness or contour controls.

Extended Musical Dynamic Range

results from the unique combination of high efficiency and high power handling capability. Even the smallest model (Formula 2 at \$98.) can be used with amplifiers rated up to 75 watts RMS per channel. Formula 4 (\$136.) will handle 100 watts; the Formula 6 (\$239.) can take 125 watts. Yet any of these models can make a Titan of an amplifier rated as low as 15 watts RMS per channel!

A 12-page booklet is needed, at the very least, to properly describe what makes these BIC Venturi speaker systems so different, and we think you'll agree, better. So this is what we will send you, upon request. Or better still, visit your BIC Venturi dealer, and hear for yourself.



BRITISH INDUSTRIES Co., Inc.
Westbury, New York 11590.
A division of Avnet, Inc.,
Canada: C.W. Pointon,
Rexdale, Ontario.



BIC VENTURI

CIRCLE NO. 11 ON READER SERVICE CARD

10

SPEAKER SYSTEMS

ACOUSTIC FIBER

Nirvana 400 Speaker System

Acoustic-suspension, two-way system with 10" woofer & 3 1/2" tweeter; crossover at 1400 Hz. Capacity 27 W rms. Response 20-20,000 Hz. 8 ohms. Has high-frequency control. 23" x 15" x 12". Imitation fur exterior. \$125.00
Vinyl finish. \$119.00

Nirvana 600 Speaker System

Acoustic-suspension, 3-way system with a 12" woofer, 4 1/2" mid-range & 2" tweeter; crossovers at 900 & 5000 Hz. Capacity 30 W rms. Response 20-20,000 Hz. 8 ohms. Has high-frequency control. 26" x 16" x 15". Imitation fur exterior. \$160.00
Vinyl finish. \$150.00

ACOUSTIC RESEARCH

AR-2ax 3-Way System

Sealed acoustic-suspension 3-way bookshelf system with 10" woofer; 3 1/2" mid-range, and 1/2" dome-type tweeter. Response 43-20,000 Hz ± 5 dB (in test chamber); crossovers at 1400 and 5000 Hz. Has mid-range and tweeter level controls, 8 ohms impedance, 20 watts rms driving power recommended. 13 1/2" H x 24" W x 11 1/2" D. Walnut-grained finish \$139.00

AR-8 2-Way System

System is designed specifically for rock music reproduction. Has 10" acoustic-suspension woofer & 1 1/2" wide-dispersion cone tweeter. Free air resonance of woofer 26 Hz; 52 Hz in enclosure. Minimum recommended amplifier power 15 W (ch continuous rms). Crossover 1800 Hz. 8 ohms impedance. Has 3-pos. high-frequency level adjustment switch. 13 1/2" x 24" x 11 1/2" D. Walnut-grained finish \$119.00

AR-3a 3-Way System

Sealed acoustic-suspension 3-way bookshelf system with 12" woofer, 1 1/2" mid-range, and 1/2" dome-type tweeter. Response 30-20,000 Hz ± 5 dB (in test chamber); crossovers 575 and 5000 Hz. Has mid-range and tweeter level controls, 4 ohms impedance. 25 watts rms driving power recommended. 14" H x 25" W x 11 1/2" D. Walnut finish \$269.00

AR-4xa Speaker System

Improved version of the AR-4x. Has 8" acoustic-suspension woofer and improved 1 1/2" wide-dispersion tweeter. Free-air resonance of woofer 30 Hz; 65 Hz in enclosure. Minimum recommended amplifier power 15 W (ch continuous rms). Crossover 1600 Hz. Impedance 8 ohms. Has high-frequency level adjust. 10" x 19" x 9" D. Walnut-grained finish \$75.00

AR-5 3-Way System

Sealed acoustic-suspension 3-way bookshelf system with 10" woofer, 1 1/2" mid-range, and 1/2" dome-type tweeter. Response 43-20,000 Hz ± 5 dB (specialized test conditions); 650 and 5000 Hz crossovers. Has mid-range and tweeter level controls, 8 ohms impedance, less than 4% HD at 60 Hz at 15 W. 25 watts rms driving power

recommended. 13 1/2" H x 24" W x 11 1/2" D. Walnut finish \$189.00

AR-6 2-Way System

Sealed acoustic-suspension 2-way bookshelf system with 8" woofer and 1 1/2" cone-type tweeter; 5000 Hz crossover. Has tweeter level control, 8 ohms impedance. 20 watts rms driving power recommended. 12" H x 19 1/2" W x 7" D. Walnut-grained finish \$89.00

AR-7 2-Way System

Has 8" acoustic-suspension woofer & 1 1/2" wide-dispersion tweeter. Average free-air resonance of woofer 25 Hz; 68 Hz in enclosure. 15 W (ch continuous rms minimum recommended amplifier power. 2000 Hz crossover. 8 ohms impedance. Has 2-position high-frequency level adjust switch. 9 1/2" x 15 1/2" x 6 1/2" D. Walnut-



grained finish \$65.00

LST Laboratory Standard Transducer

Has flat profile from 30-20,000 Hz ± 2 dB. Features 12" acoustic-suspension woofer, four 1 1/2" mid-range hemispherical radiators, and four 1/2" hemispherical tweeters. Speakers are the same as in AR-3a. Crossovers at 575 and 5000 Hz. Has autotransformer for low- and high-frequency level adjust. 8 ohms impedance. Power handling ability (with FNM2 fuse) 180 W for 10 sec, 23 W long-term average. 27 1/2" W x 20" H x 9 1/2" D \$600.00

ADC

The Pritchard Speaker System

Multi-driver, direct-radiating two-way system with 12" low-frequency driver, two 1 1/2" wide-dispersion Mylar dome radiators, and two 1/2" wide-dispersion Mylar super-tweeters. Cross-



over 600 Hz. Response 25-25,000 Hz ± 3 dB. Imp. 6 ohms. Contour control provides four repeatable settings above 650 Hz. Features equal energy radiation in a forward horizontal direction over an included angle of 120 degrees at all frequencies. Sealed oiled walnut cabinet. 26" L x 14 1/2" H x 12" D. Removable grille. \$350.00

XT-10 Loudspeaker System

Two-way system with 10" high-compliance low-frequency driver and two 2 1/2" cone tweeters.



Response 37-20,000 Hz ± 3 dB. Impedance 8 ohms. Contour control permits anechoically flat response or down 3 dB at 10,000 Hz. Sealed oiled-walnut cabinet. 23 1/2" x 13" W x 11 1/2" D. \$115.00

303AX 2-Way System

Sealed enclosure, 2-way bookshelf system with 10" woofer and wide-dispersion tweeter. Response 37-20,000 Hz ± 3 dB (average living room); 1500 Hz crossover frequency; 3 dB change mid-range and tweeter level controls. 8 ohms impedance. Requires 10 watts driving power. Oiled walnut finish and removable grille cloth frame. 23 1/2" H x 13" W x 11 1/2" D. \$90.00

450A 2-Way System

Sealed enclosure, 2-way bookshelf system with 12" woofer and 1/2" super dome tweeter. Response 25-30,000 Hz ± 3 dB; modest mid-range and tweeter level adjustments. 6 ohms impedance. Requires 10 watts driving power. Oiled walnut enclosure. 25" H x 14" W x 12 1/2" D \$155.00

ADVENT

Advent Loudspeaker

Sealed enclosure, 2-way bookshelf system with 10" woofer & 2" impregnated-paper-cone tweeter. Response 20-15,000 Hz ± 5 dB; 1000 Hz crossover. Has tweeter control. 8 ohms impedance. Requires 20 W (rms) driving power. 14 1/2" H x 25 1/2" W x 11 1/2" D. Walnut. \$116.00
Same but vinyl enclosure. \$102.00

Smaller Speaker System

Sealed enclosure, 2-way bookshelf system. Response 20-15,000 Hz ± 5 dB. 4 ohms impedance. Requires 15 W (rms) driving power. 11 1/2" H x 20" W x 9 1/2" D. Vinyl-clad walnut. \$69.95

New Speaker System

Sealed enclosure, 2-way bookshelf system. 8

ohms impedance. Requires 10 W (rms) driving power. 11 1/2" x 19" x 7 1/2" D. White . . . \$58.00

AKAI

SW-125 Speaker System

Tuned, ducted port 3-way floor-standing system with 10" woofer, 5" mid-range, and horn-type 2" tweeter. Response 40-20,000 Hz; 1200 & 5000 Hz crossovers. 8 ohms impedance. Has tweeter control. 30 W dynamic maximum input power. 21" H x 13 1/2" W x 11 1/2" D. Walnut . . . \$145.00

SW-155 Speaker System

Tuned, ducted port 4-way floor-standing system with 12" woofer, 5" mid-range, 2 1/2" tweeter, and horn-type 2" super-tweeter. Response 25-21,000 Hz; 1200, 5000 & 15,000 Hz crossovers. Has mid-range and tweeter controls. 8 ohms impedance. 50 W (IHF) maximum input power. 25" H x 16" W x 11 1/2" D. Oiled walnut. \$175.00

SW-175 Speaker System

Sealed, 5-way floor-standing system with 15" woofer, 5 1/2" mid-range, two horn upper mid-range, 3" cone tweeter, and two dome-type 3 1/2" tweeters. Response 20-23,000 Hz; 600, 5000, 10,000 & 15,000 Hz crossovers. Has mid-range and tweeter controls. 8 ohms impedance. 80 W dynamic maximum input power. 24 1/2" H x 17" W x 11 1/2" D. Walnut . . . \$295.00

NDS-70 Six-Speaker System

Omnidirectional design with six 3" high-compliance full-range speakers. 6 ohms imp. Capacity



30 W. Response 70-18,000 Hz. Rated input 15 W. Cabinet is oiled walnut, hexagonal in shape, with a 3" speaker mounted on each of the six sides . . . \$125.00 pr.

SW-35 "Jet Stream" Speaker System

Uses 5 1/2" flanged speaker; response 40-18,000 Hz; 8 ohms imp. 15 W (music power) max. power input. 6.8" W x 17.2" H x 10.8" D. Walnut finished enclosure . . . \$90.00 pr.

SW-135 Three-Way Speaker System

Has 10" woofer, 5" mid-range, and 2 1/2" tweeter. Response 40-20,000 Hz; imp. 8 ohms. Max. power input 30 W. Crossovers at 1200 & 6000 Hz. 13.2" x 21.2" H x 10.8" D. Walnut finished sealed enclosure with wooden fretwork grille . . . \$130.00

SW-161 Four-Way Speaker System

Has 12" woofer, 6 1/2" mid-range, 2" horn-type tweeter, and 1" dome-type super-tweeter. Re-

sponse 30-20,000 Hz; 8 ohms imp. Max. power input 60 W. Crossovers at 600 Hz, 5000 Hz & 15,000 Hz. Walnut finished sealed enclosure. 16.2" W x 25.6" H x 12" D. Removable fretwork grille . . . \$200.00

ALTEC

Barcelona (2873A) Speaker System

Infinite-baffle system using components of "Voice of the Theatre" home series with special electronic crossover at 500 Hz (60 W power amp to bass & 30 W power amp to horn). 29 1/2" H x 38 1/2" W x 25" D. Walnut finish . . . \$850.00
873A. Same as 2873A except without amplifier but with standard crossover . . . \$625.00

Santana (879A) Speaker System

Sealed 2-way floor-standing system with 15" woofer & 3" tweeter. 8 ohms impedance. 45 W dynamic maximum input power. Oiled walnut finish with composition slate top . . . \$225.00

819A Stonehenge I System

Columnar bass-reflex enclosure with 12" high-compliance bass driver (82 sq. in. effective piston area) and 3.3 sq. in. direct radiator. Imp. 8 ohms. Power rating 45 W; crossover 1800 Hz.



Front-mounted network with continuously variable high-frequency attenuation control. Enclosure Atomosia teak veneers with fully finished speaker baffle and rear panel; integral snap-on grille covered in raw cocoa fabric. 37 1/2" H x 16" W x 14 1/2" D (including grille) . . . \$300.00

APL

101 Speaker System

Acoustic-suspension speaker system with 10" high-compliance woofer and 1 1/2" Mylar dome tweeter; RLC network with level control on tweeter with a 6-dB range. 8 ohms impedance. 15 W min. power; 75 W max. power. Oiled walnut. 25" H x 15" W x 10" D . . . \$139.00
 Walnut-grained vinyl . . . \$122.00

9 Reflecting Speaker System

Similar to Model 16 except uses nine 5 1/2" high-compliance drivers. 20 W min. rms power per channel; 110 W max. rms power per channel. Oiled walnut with dark brown monofilament nylon grille cloth. 25 1/2" x 19 1/2" W. With slate top . . . \$496.00
 Same but with walnut top . . . \$536.00

16 Reflecting Speaker System

Uses 16 identical, acoustically coupled full-range 4 1/2" high-compliance drivers placed in single airtight infinite baffle. The five vertical panels of the enclosure are cut from high-density 1/2" thick industrial particle board. Has pure resistive passive compensator network. Impedance 8 ohms. 30 W min. rms power per channel; 200 W max. rms power per channel. Oiled wal-



nut with dark brown monofilament nylon grille cloth. 25 1/2" H x 23 1/2" W x 22 1/2" D. With slate top . . . \$750.00
 Same but with walnut top . . . \$795.00

AUDIOANALYST

A-76 Two-Way Speaker System

Acoustic-suspension design with 10" woofer, 1 1/2" cone tweeter. Response 44-18,000 Hz ±3 dB; crossover 1800 Hz. Recommended amp. power 10 W min.; 100 W max. without fusing on normal music and speech. Impedance 8 ohms. Sealed walnut vinyl enclosure. Cork trimmed grille cloth and removable foam grille. 21" H x 12 1/2" W x 11 1/2" D . . . \$79.00

A-100 Three-Way Bookshelf System

Has 10" high-compliance woofer, 3" foam-damped cone mid-range, 2" wide-dispersion tweeter. Response 40-20,000 Hz ±3 dB. Dispersion 160 degrees. Max. power input 60 W. Impedance 8 ohms. Crossovers (LC) 1500 & 7500 Hz. Has mid-range and tweeter level switches. Oiled walnut cabinet; brown & black grille cloth. 24 1/2" H x 13 1/2" W x 12" D . . . \$129.00

A-200 Four-Way Speaker System

Floor-standing system with 12" high-compliance woofer, 5" mid-range in separate sub-chamber, 3 1/2" tweeter, two 2" wide-dispersion angle-mounted super-tweeters. Response 38-20,000 Hz ±3 dB; system resonance 46 Hz ±1 Hz. Crossovers (LC) 500, 2000 & 7500 Hz. Maximum power input 100 W; impedance 8 ohms; dispersion 180 degrees. Has mid-range and tweeter level switches. Oiled walnut. 27" H x 15" W x 12 1/2" D. Has black grille cloth . . . \$225.00

Pyramedia Speaker System

Uses nine drivers in omnidirectional configuration: 10" woofer, two 5" mid-range and six 1 1/2" tweeters. Response 36-20,000 Hz ±3 dB; crossovers (LCR) 450 & 2000 Hz. Recommended amp. power 10 W min.; 100 W max. Impedance 6 ohms. Pyramid in lacquer finish colors on functional chrome pedestal. 46" H (includes 18" pedestal) x 30" x 30". Special order . . . \$575.00

AUDIO PROJECT

Model Five Speaker System

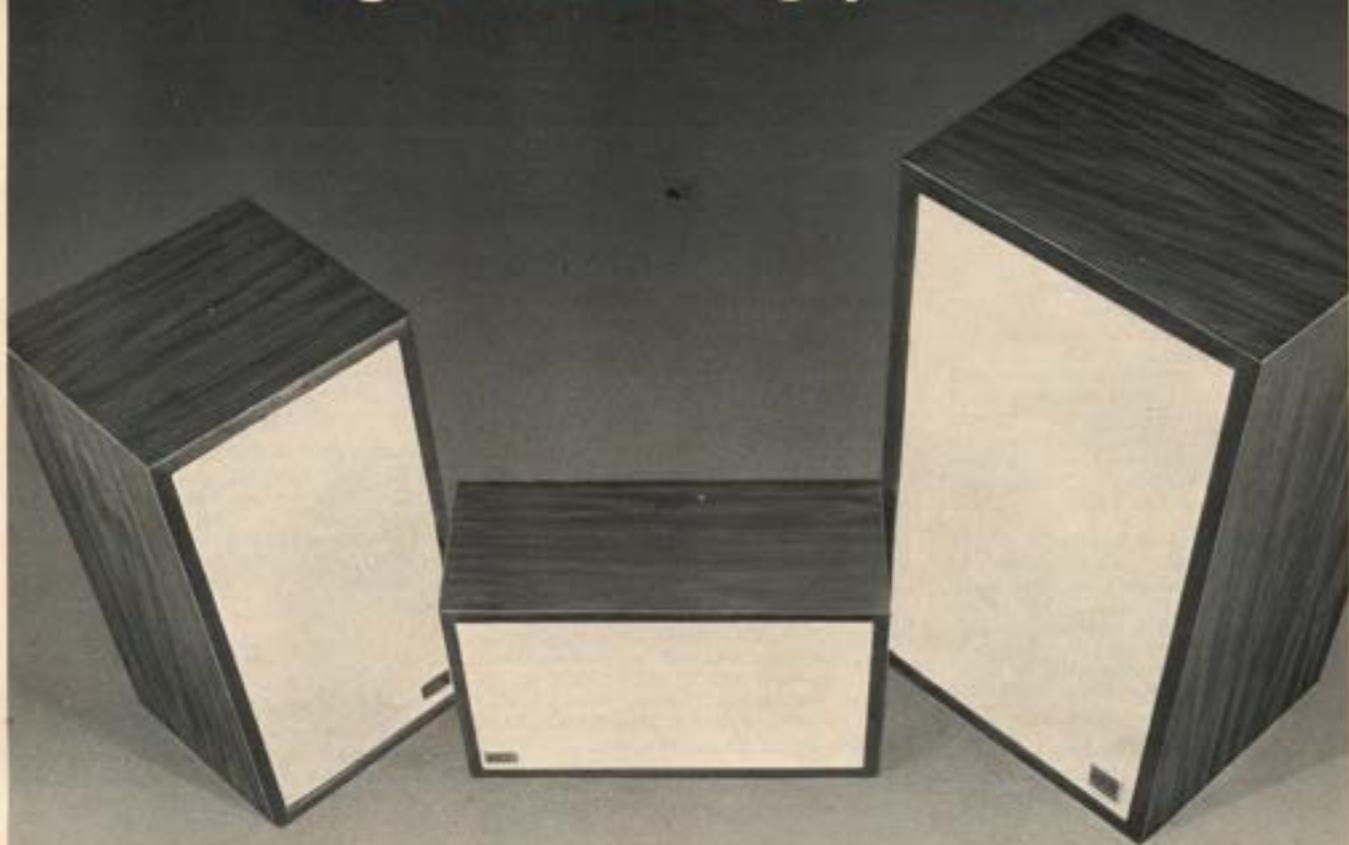
Features nine acoustically coupled ultra-high-compliance drivers and one high-definition piezoelectric h.f. unit. Response 25-22,000 Hz; 33-19,500 Hz -3 dB. Requires 30 W rms/ch minimum; 180 W rms/ch maximum. 8 ohms impedance. Has active audio compensation network for flat response; module is integral to system . . . \$500.00 pr.
 Stand . . . \$40.00 pr.

AUDIO RESEARCH

Magneplanar Tympani Systems

A new principle. Uses a magnetic field similar to

**\$1000 worth of electronics can sound like \$99.95
if you use the wrong speakers.**



AR lets you hear what you've paid for.

No matter how much you've paid for the electronics in your stereo system; even if you have a \$1,000 tape deck and a \$800 receiver, if you cut corners on your speakers, you may as well have bought a \$99.95 portable record player.

Because only AR speakers, priced from \$65 to \$600, have the wide, flat frequency response, minimal distortion, and high power handling capacity that can show how good the

rest of your stereo is.

If you thought it was important to pay the big dollars for a zillion-watt amplifier with frequency response from D.C. to ultrasonic, if you can appreciate what makes a tuner worth \$500, if you will gladly pay \$100 for a phono cartridge... you appreciate music—and technology—enough to insist on AR. The speakers preferred by professionals.



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electrostatics. Has Mylar diaphragm, a large area, is thin, and features bi-polar radiation. It is resistive (8 ohms), non-capacitive, and does not require high-voltage supply. Response 50-15,000 Hz ± 2 dB; 120-degree dispersion. Sensitivity: 75 W rms at 400 Hz for SPL of 105 dB at 39". 500 W dynamic power. LC crossover at 3200 Hz. Can be connected for bi-amplification at 1500 Hz crossover.

Tympani IA, 72" x 48" W x 1" D... \$1095.00 pr.
Tympani II, 72" x 32" W x 1" D... \$795.00 pr.
Tympani III, 72" x 48" W x 1" D... \$1395.00 pr.

AVID

103 Three-Way Speaker System

Uses matched high-compliance 10" woofer, 4 1/2" air-suspension cone mid-range, and a 1" dome tweeter; crossovers at 500 & 3500 Hz. Will handle 150 W; 20 W min. amplifier power. 8 ohms imp. Frequency range 35-18,000 Hz ± 5 dB. Has 5-pos. mid-range and high-frequency level switch and fuse overload protection. Features changeable grille cloths in eight decorator colors. 25" H x 15" W x 9 1/2" D. A 1 1/2" high floor stand is included. \$139.50

102 Two Way Speaker System

Two-way air-suspension speaker system with 10" high-compliance woofer and 1" dome tweeter; crossover 2200 Hz. Response 35-18,000 Hz ± 5 dB. Will handle 100 W; 15 W min. amplifier power. 8 ohms imp. Has 3-pos. high-frequency level switch. Features changeable grille cloths in eight decorator colors. 25" H x 15" W x 9 1/2" D. \$109.50

100 Two-Way Speaker System

Air-suspension system with 8" high-compliance woofer and 1 1/2" wide-distribution cone tweeter; crossover 2500 Hz. Will handle 75 W; 15 W min. amplifier power. 8 ohms imp. Response 40-18,000 Hz ± 5 dB. Has 3-pos. high-frequency control. Features changeable grille cloths in eight decorator colors. 24 1/2" x 13" W x 8 1/2" D. \$79.50

AZTEC

duLane Speaker System

Sealed, 3-way bookshelf system with 8" woofer, 8" mid-range, and 3" tweeter. Response 30-19,000 Hz; 900 & 5000 Hz crossovers. 8 ohms impedance. 50 W program material input. 13 1/2" H x 23" W x 9 1/2" D \$87.95

Minuet Speaker System

Sealed, 2-way bookshelf system with 8" woofer & 3" tweeter. Response 35-18,000 Hz; 4000 Hz crossover. 8 ohms impedance. 10 W program input. Oiled walnut finish. 11" H x 18" W x 9 1/2" D \$65.95

Picasso Speaker System

Sealed, 3-way bookshelf system with 10" woofer, 6" mid-range, and horn-type 2" x 6" tweeter. Response 30-20,000 Hz; 700 & 4000 Hz crossovers. Has tweeter level control, 8 ohms impedance. 50 W program input. Oiled walnut finish. Features "Density Loading." 13 1/2" H x 23 1/2" W x 11 1/2" D \$120.95

Mastisse Speaker System

Three-way system with 12" woofer, 6" mid-range, and 2" cone tweeter. Response 30-20,000 Hz. 8 ohms impedance. Has 3-way LRC crossover network and L-pad balance controls on mid-range and tweeter. Will handle 50 W program material. 25 1/2" H x 15 1/2" W x 11 1/2" D \$175.95

BANG & OLUFSEN

Beovox 2702 Speaker System

Sealed, 2-way bookshelf system with 7" woofer and dome-type 1 1/2" tweeter. Response 45-20,000 Hz. 4 ohms impedance. 45 W dynamic maximum input power. 8 1/2" H x 16 1/2" W x 8 1/2" D \$100.00

Beovox 5700 Speaker System

Sealed, 3-way floor-standing system with 10" woofer (with passive 10" bass radiator system), 2 1/2" dome mid-range, and 1/2" dome-type tweeter. Response 20-20,000 Hz. 8 ohms impedance. 100 W dynamic maximum input power. 26" H x 14 1/2" W x 11 1/2" D \$360.00

Beovox 4702 Speaker System

Sealed, 3-way bookshelf system with two 7 1/2" woofers, 5" dome mid-range, and 1 1/2" dome-type tweeter. Response 35-20,000 Hz. 4 ohms impedance. 100 W dynamic maximum input power. 11 1/2" x 22 1/2" W x 11 1/2" D \$220.00

Beovox 3702 Speaker System

Sealed, 3-way system with 8" woofer, 3 1/2" mid-range, and 1 1/2" dome tweeter. Response 40-20,000 Hz. 4 ohms. 1% HD. 19 1/2" x 9 1/2" x 9 1/2" D \$145.00
All speaker cabinets are available in Burmese teak or Brazilian rosewood finish. ... \$145.00

BIC VENTURI

Formula 2 Speaker System

Utilizes Venturi principle (operation as an acoustic transformer in bass range) with 8" heavy-duty woofer, Biconex horn/compression driver mid-range, and dome super tweeter. Max. rms amplifier power 75 W/ohm. Response 30-23,000 Hz. Has a continuously variable brightness control and an automatic dynamic tonal balance control with defeat switch. Dispersion 120° x 120°. Has removable reticulated foam grille available in black, brown, chocolate, beige, burnt orange, blue, or red. 19 1/2" x 12" x 11 1/2" D. \$98.00
VB-2. Optional base \$6.00

Formula 4 Speaker System

Same design as Formula 2 but with 10" woofer; response 25-23,000 Hz; and 100 W/ohm max. rms amplifier power. 25" x 13 1/2" x 13" D. Same grille options \$136.00
VB-4. Optional base \$7.50

Formula 6 Speaker System

Same design as Formula 2 but with 12" woofer; two mid-range; and two super tweeters. Response 20-23,000 Hz. 125 W/ohm max. rms amplifier power Dispersion 160° x 160°. Same grille options. 26 1/2" x 15 1/2" x 14 1/2" D \$239.00
VB-6. Optional base \$9.00

BOSE

501 Speaker System

Special Direct/Reflecting system with woofer and two tweeters balanced for a combination of direct radiated and reflected sound from wall behind speaker system. 4 ohms impedance. 20 watts (rms) driving power sufficient for most installations. Walnut enclosure. 24" H x 14 1/2" W x 14 1/2" D \$139.00

901 Speaker System

Special Direct/Reflecting system with nine full-range speakers arranged to provide 11% direct radiated and 89% reflected sound from wall behind speaker system. A solid-state active equalizer is included. Front-panel controls of equalizer permit adjustment to room acoustics. 8 ohms impedance. Each unit measures 12 1/2" H x 20 1/2" W x 12 1/2" D.
With walnut facing Pair \$525.00

BOZAK

Concerto V/B-302A Century System

Infinite baffle, three-way floor-standing system with 12" woofer, centrally mounted twin-cone tweeter, and 6 1/2" mid-range. Response 40-20,000 Hz. Imp. 8 ohms. Requires 20 W rms driving power. Walnut finish. 30" H x 24" W x 18 1/2" D. Also available in several other cabinet styles and wood finishes \$324.00

Symphony No. 1/B-4000A Modern

Infinite-baffle, 3-way floor-standing system with two 12" woofers, 6 1/2" mid-range, and eight tweeters. Response 35-20,000 Hz; 400 & 1500 Hz crossovers. 8 ohms impedance. Requires 30 W rms driving power. Walnut modern enclosure. 44" H x 26 1/2" W x 15 1/2" D. Other styles available \$572.25

Symphony No. 2/B-4005 Century

A 3-way horizontal low-boy version of Symphony No. 1. Essentially the same in performance and construction. It has a B-200YA sector-of-sphere tweeter array in place of the B-200Y line array. Response 35-20,000 Hz; crossovers 400 & 2500 Hz at 6 dB/octave. 8 ohms impedance. Capacity 100 W program. Matte walnut. 36" W x 20" D x 27 1/2" H. Also available wired for bi-amplification on special order \$594.50

Tempo B-301A Speaker System

Three-way bookshelf speaker featuring 12" high-compliance bass driver, a 4 1/2" driver mid-range section & a B-200Y high-frequency driver. Response 40-20,000 Hz; crossovers 1200 & 3600 Hz at 6 dB/octave. 8 ohms impedance. Capacity 40 W program. 23 1/2" W x 14 1/2" H x 11 1/2" D \$178.00

CARLU

FM-12-SS Four-Way Speaker System

Floor-standing system with 12" woofer, 8" rolled-edge mid-range, 4" upper mid-range, 3 1/2" tweeter, and crossover. Will handle up to 40 watts. Response 40-18,500 Hz. 8 ohms impedance. 34" H x 18" W x 12" D. Walnut finish \$99.95

Seven-Speaker System

A 360-degree system with five 2 1/2" tweeters, a 5" mid-range, and a 6" high-compliance woofer



plus crossovers. Response 20-30,000 Hz. Impedance 8 ohms. Will handle 50 watts. Grille available in black, orange, blue, or brown. 16" x 17 1/2" x 18 1/2" \$154.95
Model Six. Same except has three 3 1/2" tweeters, a 5" mid-range, a 6" woofer plus crossovers. Response 50-18,500 Hz. Impedance 8 ohms. Will handle 30 watts \$99.95
CH-67. Optional hanging kit for either model \$5.95

CELESTION

Ditton 66 Studio Monitor

Three-way system with 12" ultra-linear bass driver, 12" auxiliary bass radiator (ABR), pressure-type dome mid-range, and pressure-type tweeter. Response level 25-30,000 Hz (over-all 16-40,000 Hz); crossovers 500 & 5000 Hz. 80 W

maximum power. Impedance 4-8 ohms. Walnut cabinet. 40" x 15" x 11 1/2" \$486.00 pr.

Ditton 25 Speaker System

Has 12" bass driver plus 12" ABR, two treble speakers, and one super tweeter. Response 25-30,000 Hz. 60 W maximum power handling capacity. Impedance 4-8 ohms. Walnut cabinet. 32" x 14" x 11" \$332.65 pr.

Ditton 44 Monitor Speaker

Three-way system with 12" bass driver, mid-range, and super tweeter. Response 30-30,000 Hz. crossovers 500 & 5000 Hz. 44 W maximum power handling capacity. Impedance 4-8 ohms. Walnut cabinet. 30" x 14 1/2" x 10" . \$272.00 pr.

COLUMBUS II

Nina II Speaker System

Two-way design with an 8" bass driver & a 3 1/2" high-frequency speaker. Crossover at 2250 Hz. Response 45-18,000 Hz. 8 ohms. Capacity 25 W rms. 19" x 11" x 8 1/2" \$85.00

Pinta II Speaker System

Two-way design with 10" bass driver and two 3 1/2" speakers for mid-range and high frequencies. Crossover at 2250 Hz. Response 40-18,000 Hz. 8 ohms. Capacity 30 W rms. 22 1/2" x 13 1/2" x 11 1/2" \$130.00

Santa Maria II Speaker System

Three-way design with 12" woofer, 6" mid-range, and two 3 1/2" tweeters. Crossovers at 1250 & 7000 Hz. Response 32-18,000 Hz. 8 ohms. Capacity 40 W. 25" x 14 1/2" x 12" \$180.00 All three designs are air-tight, oiled-walnut finish on pressed board. Grille facings are a sculptured foam material and each has a 3-position high-frequency level control. The Santa Maria II also has a 3-position mid-frequency level control.

CONCEPT E.Q.

EQ-5 Speaker System

Consists of two 3-way bookshelf speakers and an active equalizer in walnut cabinets. Designed for amplifiers with 40 W rms power or more. Features a 12" acoustic-suspension woofer, a 5" mid-range & a dome-radiator tweeter. Active equalizer applies inverse curve for flat response (30-20,000 Hz ± 2 dB). Capacity 100 W; 8 ohms; crossovers at 800 & 4000 Hz. Input sensitivity 0.5 V (5 V max.); input impedance 500,000 ohms. HD 0.1% at 1.5 V output. Has mid-range and high-frequency level controls. Equalizer size 9" W x 3" x 8" D. Speakers are of oiled walnut with black reticulated foam grilles (can be spray painted any color). 25 1/2" x 15 1/2" x 10 1/2" D. Speakers only \$180.00 ea. Equalizer only \$125.00 System (2 speakers & equalizer) \$475.00

CORAL

BX-1401 7-Way Speaker System

Bass-reflex design with 15" woofer, 6 1/2" mid-range, 5" mid-range, two 2 1/2" cone-type tweeters, and two horn-type tweeters. Capacity 120 watts. Has two 3-step tone selectors. Response 25-25,000 Hz. Lattice-work grille. 25" x 16 1/2" x 10 1/2" \$269.50

BX-1500 6-Way Speaker System

Seven-speaker bass-reflex design with 15" woofer, 6 1/2" cone-type mid-range, 5" cone-type mid-range, horn-type mid-range, 3 1/2" cone-type tweeter, two horn-type tweeters. Capacity 150 watts. Response 20-25,000 Hz. Features special unit driver. Lattice-work grille. 27 1/2" x 19 1/2" x 15 1/2" \$369.95



The new LDL 749A.

Is it the world's best reflector speaker system?

Thanks to an improved, more linear transducer design, the new LDL 749A has the smoothest, most extended response of any reflector speaker on the market. Yielding crisper, clearer highs. And richer, fuller lows. It's an audible superiority you hear at once.

Or the world's best speaker system?

Hearing our new 749A for the first time, some people claim it's the best speaker they've ever heard, of any type. With its smooth overall response. Superior power-handling capabilities. And a precise combination of frontal and panoramically-reflected sound that duplicates the concert hall.

You decide.

While our 749A has raised a lot of eyebrows, only your ears can decide which speaker's best for you. With that in mind, we invite you to audition a pair at your LDL dealer. Could be you'll make our new speakers, your new speakers.


Linear
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CIRCLE NO. 29 ON READER SERVICE CARD

NOTICE TO OUR READERS

We consider it a valuable service to our readers to continue, as we have in previous editions of the STEREO DIRECTORY & BUYING GUIDE, to print the prices submitted by the manufacturers for items described as available at press time. With few exceptions, prices submitted by manufacturers should be considered "audiophile net."

We are aware that prices vary across

the country in different trading areas. It is obvious that we are not in a position to quote local prices for the various trading areas in the United States on each of the items listed.

We would like to point out that almost all manufacturers' and distributors' prices are subject to change without notice.

10

Speaker Systems

CREATIVE

11 Bookshelf Speaker System

Acoustic suspension, wide-range bookshelf speaker system. Response 50-17,000 Hz. Will handle 20 W continuous power. 8 ohms. 8 1/2" x 8 1/2" x 7". Sold in pairs \$24.95 ea.

22 Two-Way Speaker System

Two-way system with 6" woofer & 3" tweeter. Response 45-18,000 Hz; Crossover 400 Hz. Will handle 20 W continuous power. 8 ohms. 15" x 8" x 7". Sold in pairs \$39.95 ea.

66 Two-Way Speaker System

Two-way system with 8" woofer & 2 1/2" tweeter. Response 40-18,000 Hz; crossover 4000 Hz. Will handle 25 W continuous power. 8 ohms. 18" x 11" x 9". Sold in pairs \$64.95 ea.

77 Three-Way Speaker System

Three-way system with 10" woofer, 4" mid-range, and 2 1/2" tweeter. Response 35-19,000 Hz; crossover 4000 & 8000 Hz. Will handle 30 W continuous power. 8 ohms. 22" x 12 1/2" x 9 1/2". \$89.95

80 Three-Way Speaker System

Three-way system with 10" woofer, 10" compression horn, and 2 1/2" tweeter. Response 35-20,000 Hz; crossovers 4000 & 8000 Hz. Will handle 30 W continuous power. 8 ohms. Has mid-range and high-frequency trim controls. 22" x 12 1/2" x 9 1/2". \$109.95

88 Three-Way Speaker System

Three-way system with 12" woofer, 6" mid-range, and 2 1/2" tweeter. Response 30-20,000 Hz; crossovers 1000 & 4000 Hz. Will handle 40 W continuous power. 8 ohms. 23 1/2" x 14 1/2" x 12 1/2". \$139.95

90 Three-Way Speaker System

Three-way system with 12" woofer, 10" compression horn mid-range, and 2 1/2" tweeter.



Response 30-20,000 Hz; crossovers 4000 & 8000 Hz. Will handle 40 W continuous power. Has mid-range and high-frequency trim controls. 23 1/2" x 14 1/2" x 14 1/2". \$159.95

Autograph 99 3-Way System

Three-way floor-standing system with 15" woofer, 5" mid-range and 1" dome tweeter. Response 30-20,000 Hz; special computer-grade modular network with combination 6 dB and 12 dB slopes at 700 & 3000 Hz. Will handle 55 W continuous power. 8 ohms. Has mid-range & high-frequency trim controls. 25 1/2" x 20 1/2" x 17". \$225.00
With optional genuine Italian marble or smoked glass top \$249.95

Autograph 100 Lab-Type Monitor

Three-way system with 12" woofer, 5" mid-

range, and 1" dome tweeter. Response 30-20,000 Hz. Will handle 50 W continuous power. Crossover same as the Model 99. 8 ohms impedance. 23 1/2" x 14 1/2" x 12 1/2". \$189.95

CROWN INTERNATIONAL

"Auralinear" speakers. All electrostatic speakers feature fast-acting, solid-state protective circuits, together with thermal breakers. All systems feature satin-rubbed walnut finish with black decorator grille cloth and 10" long-throw woofer(s).

ES224

Two-enclosure system, floor-standing with 24 electrostatic elements, two 10" dynamic woof-



ers. 350 Hz crossover. 4 ohms nominal impedance. 150 W max. continuous sine-wave power or 1200 W music power capacity. Response 22-30,000 Hz. 60" H x 26" W x 16" D ... \$1165.00

ES-212

Two-enclosure system, floor-standing with 12 electrostatic elements, two 10" dynamic woofers. 375 Hz crossover. 4 ohms nominal impedance. 75 W max. continuous sine-wave power or 600 W music power capacity. Response 22-30,000 Hz. 42" H x 26" W x 16" D \$795.00

ES-26

Floor-standing system with six electrostatic elements and two 10" woofers. 1500 Hz crossover. 4 ohms nominal impedance. 75 W max. continuous sine-wave power or 300 W music-power capacity. Response 25-30,000 Hz. 27 1/2" H x 24" W x 12" D \$495.00

ES-14

Bookshelf or floor-standing system with four electrostatic elements and one 10" woofer. 1500 Hz crossover. 8 ohms nominal impedance. 40 W max. continuous sine-wave or 150 W music-power capacity. Response 30-30,000 Hz. 27 1/2" H x 18" W x 12" D \$335.00

All cone systems feature thermal-breaker protection; and mid- and high-frequency level controls.

C-8

Bookshelf or floor-standing system with two 10" woofers, two 5" mid-range, two tweeters, and two super-tweeters. Crossovers at 1500 & 7000 Hz. 4 ohms nominal impedance. Max. continuous sine-wave power 75 W or 200 W music-power capacity. Response 28-18,000 Hz. 27 1/2" H x 18" W x 12" D \$250.00

C-4

Bookshelf or floor-standing system with 10" woofer, 5" mid-range, one tweeter, and one super-tweeter. Crossovers at 1500 & 7000 Hz. 8 ohms nominal impedance. 40 W max. continuous sine-wave power or 150 W music-power

capacity. Response 32-18,000 Hz. 25" H x 14 1/2" W x 12" D \$148.00

DAHLQUIST

DQ-10 Five-Way Speaker System

"Phased Array" moving-coil speaker system with 10" woofer in a sealed air-suspension en-



closure, a 5" mid-bass driver; 2" soft-dome mid-range, 1/2" dome tweeter; and piezoelectric ceramic super tweeter; crossovers 400, 1000, 7000 & 12,000 Hz. Nominal impedance 8 ohms. Response 30-27,000 Hz. Recommended power input 30-100 W. Features continuously variable high-frequency contour control on rear for boost or cut. Grille cloth is black with solid walnut trim. 30 1/2" W x 31 1/2" H x 9" D ... \$350.00

DESIGN ACOUSTICS

Design-6 Speaker System

Three-way system with five 2 1/2" cone tweeters, a 5" mid-range driver, and 10" high-compliance woofer. Response 30-15,000 Hz ±3 dB. Vertical and horizontal dispersion 180 degrees. Crossovers 800 and 2000 Hz. Switch control of high, low, and mid-frequency levels. 20 W/ch minimum driving power. 8 ohms imp. 24 1/2" x 16 1/2" x 13 1/2". Walnut veneer cabinet with black grille. Removable grille cloth also available in azure, cocoa, crimson, gold, Mandarin, and white \$249.00

Design-12 Speaker System

A dodecahedron (12 sided) omnidirectional enclosure with 10" woofer, an enclosed heavily damped 5" mid-range driver, and nine high-frequency radiators. Enclosure volume is 2 1/4 cubic feet and is tuned with a tube to produce a Helmholtz resonance of 27 Hz. Crossover at 1500 Hz is between mid-range speaker & tweeter. Can be used with amplifiers up to 100 W/ch rms (20 W/ch rms should be minimum). Response 30-15,000 Hz ±2 dB. 8 ohms impedance. 30" H with pedestal. Lacquered walnut finish, walnut stem, black steel legs, and black grille cloth \$349.00
With chrome base instead of walnut & steel \$375.00
Black lacquer finish, chrome-plated base, azure grille cloth \$349.00
With lacquer finish, chrome-plated base, black grille cloth \$349.00

DYNACO

A-25 Speaker System

2-way bookshelf system with critically damped port 10" woofer and 1 1/2" soft-dome tweeter. 1500 Hz crossover. Has 5-position tweeter level control. 8 ohms impedance. 60 W maximum music input. Features aperiodic enclosure design. Comes with wall-mounting brackets. 11 1/2"

H x 20" W x 10" D. Oiled-walnut finish . . . \$89.00

A-50 Speaker System

Sealed, dual chamber aperiodic 2-way floor-standing system with two 10" woofers and 1 1/2" dome tweeter. 1000 Hz crossover. Has 5-position tweeter level control, 8 ohms impedance. 25 W recommended driving power; 75 W maximum music input. Features dual spectrum damping. 28" H x 21 1/2" W x 10" D. Oiled walnut finish \$189.00

A-10 Speaker System

2-way miniature bookshelf enclosure with critically damped port and 6 1/2" woofer and 1 1/2" dome tweeter. 2500 Hz crossover. 8 ohms impedance. 15 W recommended driving power. Up to 50 W music input. Features aperiodic design. Comes with wall-mounting brackets. 8 1/2" x 15" x 8" D. Sold in pairs only. \$104.00 pr.

A-35 Speaker System

Sealed, dual-chamber 2-way bookshelf system with 10" woofer and 1 1/2" soft-dome tweeter. 1200 Hz crossover. 8 ohms impedance. 20 W recommended driving power. Up to 60 W maximum music input. Features aperiodic design. 22 1/2" x 12 1/2" x 10" D. Comes with wall-mounting brackets \$120.00

ELECTRO-VOICE

Musicaster 1A Speaker System

Bass-reflex system with single 12" full-range dual-cone speaker. Response 80-10,000 Hz. 8 ohms impedance. 60 W peak max. input power. 21 1/2" H x 21 1/2" W x 8 1/2" D \$80.25

Musicaster IIA Speaker System

Similar to Musicaster IA but with tweeter to extend range to 16,000 Hz \$101.10

Sentry IA Speaker System

Bass-reflex 2-way wall-mounting system with 12" woofer and diffraction horn mid-range/tweeter. Response 30-20,000 Hz. 16 ohms impedance. 37" H x 21 1/2" W x 17" D. Walnut finish \$201.00
Sentry IIA. Same except floor model 32" H x 20" W x 13" D. \$201.00

Sentry III Professional Speaker System

3-way direct-radiator vented design with fourth-order Butterworth tuning. Has 15" woofer & mid-range/high-frequency horn array; 600 & 3500 Hz crossovers. Response 40-18,000 Hz; capacity 50 W. Has device that interrupts power to tweeter when power surges occur. Walnut cabinet with dark grille. 28 1/2" x 20 1/2" x 34 1/2" H \$600.00

Sonocaster I Outdoor Speaker

Sealed outdoor enclosure with single dual-cone 8" speaker. Response 70-13,000 Hz. 8 ohms impedance. Capacity 30 W peak. 16 1/2" H x 17" W x 8" D. Gray finished steel cabinet . . . \$27.95

EMPIRE

Grenadier 9500 MII Speaker System

Six-driver, 3-way design. Has two 12" woofers facing down in a horn-loaded configuration; two wide-angle lenses, each with ultrasonic domed tweeter & direct radiator mid-range. Built into an octagon-shaped enclosure. Power ratings 200 W rms from 20-450 Hz; 100 W rms from 450-5000 Hz; 40 W rms from 5000-20,000 Hz. Has built-in automatically resetting circuit breakers to prevent burn-out. Response 30-18,000 Hz ±5.5 dB. HD 0.1% at 1 W & 1000 Hz. 30" W x 20 1/2" D x 28" H. With marble top \$349.90
With walnut top. \$319.95

Grenadier 7500M Speaker System

Infinite-baffle, 3-way floor-standing system with 15" woofer, direct-radiator mid-range, and direct-radiator domed tweeter. Response 25-

20,000 Hz. Has tweeter level control, 8 ohms impedance. 100 W dynamic maximum input power. 26 1/2" H x 20" diameter.

Walnut finish with imported marble top \$199.95
With walnut-finish top \$184.95

Grenadier 6000 M Speaker System

Reflex-type, 3-way floor-standing system with 10" woofer (facing down), a direct-radiator mid-range, and direct-radiator ultrasonic tweeter. Response 30-20,000 Hz. Has tweeter level control, 8 ohms impedance, 75 W dynamic maximum input power. 24 1/2" H x 18" diameter. Walnut finish with imported marble top . . . \$119.95
With walnut-finish top \$109.95

Jupiter 6500 Indoor/Outdoor Speaker

Three-way reflex system with 12" woofer, mid-range radiator, and ultrasonic tweeter. Response 30-20,000 Hz. Has tweeter-level con-



rol. Gloss white finish \$139.95

Audioanalyst

SOUND OF ACCURACY

3 REASONS YOU ARE NO. 1 AT AUDIOANALYST



MODEL A-200
4-way, 12" system

1ST Audioanalyst engineers ignore any philosophy of so-called "commercial" sound and aim strictly for sound accuracy. Audioanalyst's flat response has been verified. (The Model A-100) ". . . is unusually flat toward the top for a bookshelf system in this price category."—Bob Long, High Fidelity Magazine, July 1973.

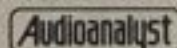
2ND Audioanalyst engineers are in control of a program of constant technical upgrading. Being small enough, innovations are quickly engineered into your loudspeakers.

3RD Audioanalyst quality control techniques hold speaker-to-speaker output to within plus/minus 1.5 dB.

Years of experience designing and building high accuracy loudspeakers present you with coloration-free and incredibly open sound reproduction. In short—we build for those of you who want to hear your music not your loudspeakers.

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SPECIALISTS IN ENVIRONMENTAL RESEARCH

10

Speaker Systems

EPI

M75 MicroTower System

Omnidirectional design. Suitable for front-, rear-, or four-channel use where space is at a premium. Recommended amplifier power 5 W min to 40 W max. Uniform reverberant response 50-10,000 Hz ± 3 dB. 32" H \times 8 1/2" \times 8 1/2". White or walnut finish \$60.00

100 2-Way Speaker System

Sealed, 2-way bookshelf system with 8" woofer & 1" tweeter. Response 30-18,000 Hz; 1800 Hz crossover. 8 ohms impedance. Requires 18 watts (rms) driving power; 60 watts (rms) maximum input power. 21" H \times 11" W \times 9" D. \$94.00

201 2-Way Speaker System

Similar to Model 100, but contains two 8" woofers and two 1" tweeters. The extra woofer and tweeter are angled toward ceiling. 29" H \times 18" W \times 11" D \$199.00

602 Speaker System

Forward- and rear-facing enclosure system with six drivers in three woofer-tweeter modules. Rear-facing modules are 90 degrees apart; each module contains 8" woofer and a wide-dispersion 1" tweeter. Response 40-18,000 Hz ± 3 dB. Has individual balance controls, 4 ohms impedance. 100 watts (rms) maximum input power. 16" H \times 24" W \times 15" D \$249.00

50 Speaker System

Combines a 6" acoustic-suspension woofer and a 1" inverted dome tweeter in a walnut cabinet measuring 12" \times 10" \times 18" D. Response 55-18,000 Hz ± 3 dB; crossover 1800 Hz (18 dB/octave). Recommended amp. 10-25 W (rms). 8 ohms impedance. Sold in pairs. \$110.00

150 Speaker System

Combines an 8" woofer and a 1" inverted dome tweeter in walnut cabinet 11" \times 15" \times 24" H. Response 40-18,000 Hz; crossover 1800 Hz. 8 ohms impedance. Recommended amp. 17-50 W (rms) \$139.00

202 Speaker System

Has same speakers as Model 201, but cabinet 15" \times 15" \times 24". Since woofer is mounted lower to the floor, system produces a heavier bass. Impedance 16 or 4 ohms. Recommended amp. 20-100 W (rms) \$219.00

400 Minitower System

Omnidirectional design. Is a slim column (14" on a side \times 36" high) with speaker modules radiating from all four sides equally. Contains four 6" woofers, four 1" tweeters. Response 30-18,000 Hz. Recommended amp. 30-200 W (rms). 8 ohms impedance \$389.00

1000 The Tower System

Omnidirectional design with four full-sized woofer-tweeter modules. Response 22-18,000 Hz. Tower is 6 1/2 feet tall. 8 ohms impedance \$1000.00

EQUASOUND

Ila Speaker System

Has a 10" woofer, a 4 1/2" mid-range, and one 1" tweeter. Crossovers at 1000 & 3000 Hz. Will handle up to 80 W rms with 20 W rms minimum required. Impedance 4 ohms. Response 30-20,000 Hz. Drivers are evenly separated on the front of the 3 1/2-foot high enclosure for improved spaciousness of reproduction. Top and



bottom walnut sections have grain patterns aligned around the system while the vertical side posts are solid walnut. 42" \times 12 1/2" \times 12 1/2".
Ila-B. Walnut/black \$250.00
Ila-R. Walnut/red \$250.00
Ila-W. Walnut/white \$250.00

ESS

Model seven Speaker System

Has 9" \times 12" flat piston woofer, a 5" mid-range, and a 2 1/4" cone tweeter; crossovers at 550 & 2700 Hz. Power required 30 W rms; capacity 350 W peaks without distortion. Response 35-20,000 Hz ± 3.5 dB. 27" \times 16" \times 14" D. \$239.00

Model nine Speaker System

Has 12" woofer, 5" mid-range, and 2 1/4" cone tweeter; crossovers at 550 & 2700 Hz. Power required 25 W rms; capacity 450 W peaks without distortion. Response 35-20,000 Hz ± 3.5 dB. 27" \times 16" \times 14" D \$199.00

Tempest Speaker System

Two-way system with 12" S-roll surround woofer and 1" Mylar dome tweeter; 1500 Hz LC crossover. Response 35-18,000 Hz ± 4 dB. Imp. 4 ohms. Power requirement 20 W rms minimum; will handle up to 200 W musical peaks without distortion. Distortion less than 1.5% at 90 dB out at any frequency or combination of frequencies between 80-18,000 Hz. Oiled walnut sides, laminated plastic ends. 27" H \times 15 1/2" W \times 12 1/2" D \$149.00

amt 1 Speaker System

Incorporates the Heil Air Motion Transformer which "squeezes" air instead of pushing it, creating five times more air movement, resulting in greater, more direct and near-massless transfer of energy. A two-way floor standing system with frequencies above 600 Hz reproduced by the Heil unit and a 10" woofer handling the lower frequencies. Response 45-24,000 Hz ± 2 dB. Power requirement 30 W rms minimum per channel; power handling 350 W musical peaks without distortion. 4 ohms imp. Hand-rubbed oiled walnut finish. 31" H \times 14 1/2" W \times 14 1/2" D \$299.00

EZEKIEL

I Speaker System

Acoustic-suspension 2-way system with 8" woofer and two 3" tweeters; 500 Hz crossover. Has tweeter balance control and fuse. 8 ohms impedance. Features mechanically damped transmission-type drivers. Walnut vinyl finish. 23 1/2" H \times 15 1/2" W \times 11 1/2" D \$109.00

II Speaker System

Acoustic suspension 2-way system with 10" woofer and four 3" tweeters; 450 Hz crossover. 8 ohms impedance. Has tweeter balance con-

trol and fuse. Walnut vinyl finish. 27 1/2" H \times 19" W \times 11 1/2" D \$199.00

III Speaker System

Acoustic-suspension 2-way system with 12" woofer and eight 3" tweeters; 400 Hz crossover. 8 ohms impedance. Has tweeter balance control and fuse. Oiled walnut finish. 36" H \times 22" W \times 11 1/2" D \$299.00

FAIRFAX

"Wall of Sound I" System

Features an "integrated cyclone" labyrinth system with six separate sound chambers. Has total of 12 speakers in 4-way system: six heavy-duty 8" bass drivers, two 5" mid-range, two 3 1/2" mid-high, and two ultra-high dome tweeters. Response 20-20,000 Hz. 6.5 ohms imp. Will handle up to 100 W input; min. power 20 W. Oiled-walnut veneer cabinet. 52" H \times 30" W \times 6 1/2" D \$399.95

"Wall of Sound II" System

Compact version of the "Wall of Sound I". Uses 8 speakers in a 4-way system: four 8" bass drivers, one 5" mid-range, two mid-high and one ultra-high tweeters. Response 20-20,000 Hz. Will handle up to 60 W input; minimum power 15 W. Oiled-walnut veneer cabinet. 39 1/2" H \times 23 1/2" W \times 6 1/2" D \$279.95

FE-8A 4-Way Speaker System

Sealed-cabinet design with four 8" bass drivers, one 5" mid-range, one 3" mid-high, and two ul-



tra-high dome tweeters. Continuously variable controls for mid-range, mid-highs, and ultra-highs. Response 20-20,000 Hz. Will handle 60 W input; min. 15 W. 8 ohms imp. Oiled-walnut veneer cabinet. Supplied with standard gold cloth grille or emerald green, turquoise blue, sun-burst yellow, and flame orange on special order and at slight additional cost. 28 1/2" H \times 20" W \times 12" D \$279.95

L-34A 4-Way Speaker System

Folded-horn labyrinth design with two 8" bass drivers, one 5" mid-range, and one ultra-high dome tweeter. Continuously variable controls for mid-range and highs. Response 20-20,000 Hz. 50 W input; 12 W min. power. 8 ohms imp. Oiled-walnut veneer cabinet. Same grille cloth options as FE-8A. 24" H \times 14" W \times 12" D \$189.95

FTA-2 3-Way Speaker System

Sealed-cabinet design with two 8" bass drivers, one 3 1/2" mid-high, and one ultra-high tweeter. Continuously variable control for mid-range and highs. Response 24-20,000 Hz. 50 W input; 10 W min. power. 8 ohms imp. Oiled-walnut veneer cabinet. 24" H \times 14" W \times 12" D \$139.95

FX-300 2-Way Speaker System

Ducted-port design with heavy-duty 10" bass driver and special 3" wide-dispersion tweeter. Continuously variable control for mid-range and highs. Response 24-20,000 Hz. 40 W input; 10 W min. power. 8 ohms imp. 22" H \times 14" W \times

10 1/2" D. Oiled-walnut veneer cabinet. \$109.95

FX-100B 2-Way Speaker System

Ducted-port design with heavy-duty 8" bass driver and special 3" tweeter. Continuously variable control for mid-range and highs. Response 32-20,000 Hz. 30 W input; 8 W min. power. 8 ohms imp. Oiled-walnut veneer cabinet. 22" H x 12" W x 10" D. \$89.95

F-2A 2-Way Speaker System

Ducted-port design with 8" bass driver and 3" tweeter. Continuously variable control for mid-range and highs. Response 35-20,000 Hz. 25 W input; 8 W min. power. 8 ohms. Oiled-walnut veneer cabinet. 18" H x 12" W x 9" D. \$69.95

FISHER

Studio Standard Speakers

Bookshelf design combining direct beaming and omnidirectional principles. Uses a special soft-dome mid-range speaker. 8 ohms. Walnut semi-gloss finish.

ST-500. 3-way, 4-speaker system with 12" woofer, soft-dome mid-range, and two 2" cone tweeters (angled lengthwise to cabinet); crossovers at 600 & 6000 Hz. Capacity 100 W rms for 2 sec. 26" x 15" x 12" \$199.95

ST-530. 3-way, 6 speaker design with 15" woofer, soft-dome mid-range, and four 2" cone tweeters (angled in pairs both directions); crossovers at 600 & 6000 Hz. Capacity 200 W rms for 2 sec. 27 1/2" x 16 1/2" x 13" \$249.95

ST-550. 4-way, 7 speaker design with 15" woofer, two soft-dome mid-range (1 side dispersion), two 2" cone tweeters, and two soft-cone side-dispersion speakers. Crossovers 600, 6000 & 1000 Hz (side dispersion). Capacity 300 W rms for 2 sec. 30" x 17" x 12 1/2" \$349.95

XP-7S Speaker System

Sealed 4-way bookshelf system with 12" woofer, 5 1/2" mid-range, 5 1/2" upper mid-range, and two 3" tweeters. Response 30-20,000 Hz; crossovers 350, 800, & 3500 Hz. 8 ohms impedance. 50 W dynamic maximum input power. 14" H x 24 1/2" W x 12" D. Walnut finish. \$169.95

XP-9S Speaker System

Sealed 4-way bookshelf system with 15" woofer, two 5" mid-range, 1 1/2" tweeter, and 1 1/2" super tweeter. Response 28-22,000 Hz; 500, 1200 & 5000 Hz crossovers. 60 W dynamic maximum input power. 16 1/2" H x 27 1/2" W x 13" D. Walnut finish. \$219.95

XP-44S Speaker System

Sealed 2-way bookshelf system with 6" woofer & 3" tweeter. Response 39-19,000 Hz; 1500 Hz crossover. 8 ohms impedance. 20 W dynamic maximum input power. 8 1/2" H x 15 1/2" W x 6 1/2" D. Walnut vinyl finish. \$49.95

XP-55S Speaker System

Sealed 2-way bookshelf system with 8" woofer & 3" tweeter. Response 37-20,000 Hz; 1500 Hz crossover. 8 ohms impedance. 30 W dynamic maximum input power. 10" H x 20" W x 7 1/2" D. Walnut vinyl finish. \$59.95

XP-56S 2-Way Speaker System

Bookshelf design with 8" woofer & 3" tweeter. Response 35-20,000 Hz; 1500 Hz crossover. 8 ohms impedance. 30 W dynamic maximum input power. 11 1/2" x 21" x 9". Walnut vinyl finish. \$89.95

XP-65S Speaker System

Sealed 3-way bookshelf system with 10" woofer, 5" mid-range, and 3" tweeter. Response 33-20,000 Hz; 600 & 3000 Hz crossovers. 8 ohms impedance. 30 W dynamic maximum input power. 13" H x 23" W x 10" D. Walnut finish. \$109.95

Sound Panels

Series of flat speaker systems designed to be hung on the wall like a picture. Response 40-

18,000 Hz; 25 W continuous rms power. 8 ohms impedance. 29 1/2" H x 23 1/2" W x 2 1/2" D. Available in eight different abstract or scenic designs. Sound dispersion 360 degrees. Can also be used on the floor, inserted in special feet (included with each Sound Panel) ... \$138.00

ST-425 Two-Way Speaker System

Has 10" woofer and 1" Mylar dome tweeter. Response 55-20,000 Hz; 2500 Hz crossover. Impedance 6-8 ohms. 15-20 W minimum amplifier input required. Has 3-position treble control. 20 W maximum power capacity. 12 1/2" x 22 1/2" x 10" D. Walnut vinyl. \$79.95

ST-445 Three-Way Speaker System

Has 10" woofer, 4 1/2" cone mid-range, and 1" Mylar dome tweeter. Response 50-20,000 Hz. Impedance 6-8 ohms. 22 W maximum power capacity; 15-20 W minimum amplifier input required. Crossovers at 650 & 5500 Hz. Has 3-position treble control. 13" x 23 1/2" x 11" D. Walnut vinyl. \$99.95

ST-465 Three-Way Speaker System

Has 12" woofer, 3 1/2" dome mid-range, and 1" Mylar dome tweeter. Response 40-20,000 Hz; crossovers at 450 & 5000 Hz. Impedance 6-8 ohms. Requires minimum of 25 W amplifier input; maximum power capacity 25 W. Has 3-position mid-range and treble controls. 14 1/2" x 24 1/2" x 11 1/2" D. Walnut vinyl. \$169.95

FRAZIER

F4-4 Super Midget IV System

Tuned ducted-port bookshelf system. Response 52-12,000 Hz. 8 ohms imp. Oiled walnut finish all four sides, brown fabric grille cloth. 15 1/2" x 7 1/2" x 9 1/2" \$50.00

F8-4SC Monte Carlo IV System

Two-way tuned ducted-port bookshelf system. Has 8" woofer & 3" tweeter with HF control. 8 ohms imp. Oiled walnut finish all four sides. Response 50-15,000 Hz. Brown fabric grille. 19" x 10 1/2" x 11 1/2" \$85.00

F-10-HA Mark IV-A System

Two-way tuned ducted-port bookshelf system. Has 10" woofer, special high-frequency horn, and HF control. 2000 Hz crossover. Response 40-15,500 Hz. 8 ohms imp. Oiled walnut finish all four sides, brown sculptured double-knit grille. 14" x 24" x 12" \$140.00

F-10-3Y Manhattan III System

Two-way tuned ducted-port floor-standing system. Has 10" woofer, special high-frequency horn, and HF control. 2000 Hz crossover. 8 ohms imp. Oiled walnut finish all four sides, brown fabric grille cloth. Response 35-17,000 Hz. 23 1/2" x 19" x 11 1/2" \$190.00

F-10W-37 Concerto System

Two-way tuned ducted-port floor-standing system. 10" woofer, special high-frequency horn, and HF control. 1500 Hz crossover. Response 30-17,000 Hz. Oiled walnut finish four sides, removable foam grille. 19" x 16" x 17". \$210.00
F10W-H-U Capsule. Same except flat black finish. \$150.00

F12-2-ST Mark V System

Three-way tuned ducted-port floor-standing or bookshelf system. Has 12" woofer, two specially isolated 4" mid-range, special high-frequency horn, and separate mid-range and HF controls. 800 & 3300 Hz crossovers. Response 30-17,000 Hz. Oiled walnut finish four sides, brown fabric grille cloth. 14" x 25 1/2" x 12". \$235.00
F12-2-ST-U. Same except in flat black finish. \$190.00

F12-2-H Seven System

Three-way tuned ducted-port floor standing system. Has 12" woofer, two specially isolated 4" mid-range, two special high-frequency horns, and separate mid-range and HF controls. 400 &

3000 Hz crossovers. 8 ohms imp. Response 30-18,000 Hz. Oiled walnut finish four sides, with floor base. Foam removable grille available in burnt orange, brown and black-on-black. 19" x 29" x 16" \$310.00

F12-2-HU. Utility version in flat black finish, no grille \$190.00

F12-8-WH Mark VI System

Three-way tuned ducted-port floor-standing system with 12" woofer, 8" mid-range, special high-frequency horn with separate mid-range & HF controls. 600 & 3000 Hz crossovers. 8 ohms imp. Oiled walnut finish. Response 25-17,500 Hz. Patterned grille cloth. 25 1/2" x 29" x 16 1/2" \$350.00

F8H-3X Black Box I Deluxe

8" woofer, 3" tweeter. Response 40-15,000 Hz. Flat black finish. Same size as Manhattan III \$100.00

F8H-3Y Black Box II Deluxe. 8" woofer, special high-frequency horn, HF control. Response 40-17,000 Hz. Flat black finish. Same size as Manhattan III \$125.00

F-815H Jr. Dixielander

Exponential low-frequency horn system with 8" woofer, special high-frequency horn. Response 50-16,000 Hz. Flat black finish. 20 1/2" x 20 1/2" x 15 1/2" \$135.00

F333-1037 Dixielander

Dual exponential horn system consisting of folded LF horn and straight exponential HF



horn, 10" woofer. Response 40-17,000 Hz. Utility grey finish. 22 1/2" x 26 1/2" x 15 1/2" ... \$310.00

F333-1290 Texas

Folded-horn LF system with 12" woofer and special HF horn system. Response 30-17,000 Hz. Utility grey finish. 36 1/2" x 33" x 24" \$470.00

F8-1K Patio Speaker System

Tuned ducted-port hanging speaker system designed to be mounted on flat wall, in a corner, or in ceiling corner at 45-degree angle. Has 8" woofer & 3 1/2" tweeter. Response 50-15,000 Hz. Multi-colored pigment flecked finish on off-white background. 15 1/2" x 15 1/2" x 8". \$60.00

HARMAN-KARDON

HK20 2-Way Speaker System

Sealed, 2-way bookshelf system with 8" woofer & 3" tweeter. Response 42-20,000 Hz; 2000 Hz crossover. Has tweeter control. 8 ohms impedance. 11 1/2" H x 17 1/2" W x 8 1/2" D. Walnut. \$55.00

HARTLEY

Concertmaster Jr. Speaker System

Infinite baffle, 2-way floor-standing system with 10" woofer and 1" dome tweeter; 2500 Hz cross-

over frequency. 8 ohms impedance. 30 W maximum input. Size with kickbase 30" H x 25" W x 14" D. Walnut \$320.00
Zodiac C. Same enclosure but with Zodiac components \$320.00

Holton Jr. Speaker System

Same basic design as Concertmaster Jr. except measures 30" H x 15" W x 13" D \$250.00

Concertmaster III Speaker System

Open back (SoundSorber), 3-way floor-standing system with 18" woofer, 10" mid-range, and 7" tweeter. Response 15-25,000 Hz; 300 and 3000 Hz crossover frequencies. 8 ohms impedance. 33 1/2" H x 29" W x 16" D. Walnut. \$695.00

Concertmaster IV. Same except Mediterranean styling. Walnut \$725.00

Concertmaster VI Speaker System

Doublet (SoundSorber), 4-way floor-standing speaker system with 24" woofer, 10" mid-range, 7" tweeter, 1" super tweeter. Response 15-25,000 Hz; crossovers 300 and 3000 Hz. Impedance 6-12 ohms. 40" H x 29" W x 18" D. \$795.00

Model V. Same but in Modern hand-rubbed walnut enclosure \$775.00

Zodiac 73 Speaker System

Infinite baffle, 2-way bookshelf or floor-standing system with 10" woofer with treated cone crossing at 2000 Hz and 1" dome tweeter. Response 30-22,000 Hz. 8 ohms impedance. For use with amplifiers of 10-50 W. 30" H x 15" W x 12" D. Oiled walnut \$120.00

Holton A Speaker System

Infinite baffle, 2-way system with 10" woofer and 1" dome tweeter. 8 ohms impedance. 30 W maximum input power. 34" H x 24" W x 13" D. Oiled walnut \$300.00

Zodiac A. Same cabinet but with Zodiac components \$200.00

HEATH

AS-101 2-Way Speaker System

Bass-reflex, 2-way floor-standing system with 15" woofer and Sectoral horn mid-range/tweeter. Response 30-20,000 Hz; 800 Hz crossover. Has horn-level control, 8 ohms impedance. 50 watts (rms) maximum input power. 29 1/2" H x 27 1/2" W x 19 1/2" D. Kit \$269.95

AS-102 3-Way Speaker System

Infinite-baffle, 3-way floor-standing system with 12" woofer, 6" mid-range, and two 2 1/2" tweeters. Response 28-20,000 Hz; 400 and 2500 Hz crossovers. Has tweeter control, 8 ohms impedance. 50 watts (rms) maximum input power. Mediterranean styling. Similar to Bozak system. 29 1/2" H x 27 1/2" W x 19 1/2" D. Kit \$239.95

AS-103 3-Way Speaker System

Sealed-enclosure, 3-way bookshelf system with 12" woofer, 1 1/2" mid-range, and dome-type 3/4" tweeter. Response 30-20,000 Hz ± 5.0 dB; 575 and 5000 Hz crossovers. Has mid-range and tweeter controls, 4 ohms impedance. 25 watts (rms) driving power. Similar to AR-3a. Kit \$189.95

AS-104 3-Way Speaker System

Infinite-baffle, 3-way speaker system with 10" woofer, 4 1/2" mid-range, 3 1/2" tweeter. Response 30-18,000 Hz. 10-100 watts maximum input power. 8 ohms. Walnut veneer cabinet. 24" W x 13 1/2" H x 11 1/2" D. Kit \$89.95

AS-105 2-Way Speaker System

Infinite-baffle, 2-way speaker system with 10" woofer, 3 1/2" tweeter. Response 30-18,000 Hz. 10-100 watts maximum input power. 8 ohms. 24" W x 13 1/2" H x 11 1/2" D.

AS-105U Kit, Unfinished \$64.95
 AS-105W Kit, Walnut \$69.95

HEGEMAN

H-1 Loudspeaker System

Two-way coaxially mounted system with 8" full-range high-compliance driver and 1" dome su-



per-tweeter. Floor-standing, closed-back baffle enclosure. Response 30-20,000 Hz; 5000 Hz crossover. Will handle up to 25 W rms continuous; 20 W amp. power recommended. 8 ohms imp. 11" x 8 1/2" x 26". Teak with charcoal grille \$114.00

HITACHI

SS-40 Speaker System

Two-way air-suspension design with 8" woofer & 2 1/2" tweeter. Capacity 20 W. Wood cabinet with walnut vinyl Pair \$109.95

HS-220 Speaker System

Two-way air-suspension design with 8" woofer & 2 1/2" tweeter. Capacity 20 W. Response 50-20,000 Hz. Wood cabinet with walnut vinyl \$65.00

HS-320 Speaker System

Damped bass-reflex two-way design with 8" woofer & horn-type tweeter. Capacity 20 W. Response 40-20,000 Hz. Wood cabinet with walnut vinyl \$95.00

HS-350 2-Way Speaker System

Damped bass-reflex design with the L-201 woofer and horn tweeter with acoustic lens. Response 40-20,000 Hz. Has tweeter-level control & walnut cabinet \$185.00

HS-500 Speaker System

Tuned ducted-port 2-way floor-standing system with 8" woofer and horn-type tweeter. Response 40-20,000 Hz; 3000 Hz crossover. Has tweeter control, 8 ohms impedance. 20 W (rms) maximum input power. 24 1/2" H x 14 1/2" W x 13 1/2" D. Walnut \$300.00

HS-420 3-Way Speaker System

Damped bass-reflex design with 10" woofer, 5" mid-range, and horn tweeter. Response 40-20,000 Hz. Wood cabinet with walnut vinyl \$140.00

IMF

Monitor Mk III Speaker System

Dual-transmission-line enclosure system. Four-

way floor-standing design with large oval woofer, damped 5" mid-range, and dome-type tweeter. Has mid-range and tweeter controls. Impedance 8 ohms. Requires 30 W (dynamic) driving power. Walnut Formica. 43" H x 20" W x 17" D \$950.00

TLS Studio Mk III Speaker System

Dual transmission-line enclosure system. Four-way floor-standing design with 8" woofer, 5" damped mid-range, and dome-type tweeter. Response 20-40,000 Hz ± 1.5 dB; crossovers at 375, 3500 & 13,000 Hz. Has mid- and tweeter controls. Requires 25 W (dynamic) driving power. Teak or walnut. 35 1/2" x 15" x 14" \$400.00

ALS-40 Speaker System

Free-standing or bookshelf speaker system. Features unique "active-line" design. 8" bass driver with foam surround, 8" sub-bass driver with roll surround, 5" mid-range with impregnated cone in separate line, and dome-type tweeter. Response 28-20,000 Hz ± 2 dB; crossovers at 180, 375 & 3000 Hz. Requires 25 W (dynamic) driving power. Teak or walnut. 26 1/2" x 13 1/2" x 13 1/2" \$300.00

Compact Loudspeaker

Bookshelf speaker with 6 1/2" bass driver with roll surround, 5" mid-range impregnated cone in separate line, 3" tweeter damped surround cone unit. Electrical crossover at 500 & 5000 Hz. Response 40-20,000 Hz; 100-15,000 Hz ± 1 dB. Requires 15 W (dynamic) driving power. Teak or walnut. 16 1/2" x 10 1/2" x 10" \$160.00

INFINITY

1001 Speaker System

Terminated-line, 2-way floor-standing system with woofer and two tweeters (one in rear of enclosure to provide "ambience"). Response 30-21,000 Hz ± 4.5 dB; 1300 Hz crossover. 6 ohms impedance. Requires 20 W rms power input. 26" x 18" x 12" D. Walnut \$139.00

Servo-Statik I Speaker System

Three-enclosure system. Floor-standing with 18" woofer in decorator commode with separate 110 W (rms) power amplifier and servo amplifier, two electrostatic mid-ranges, and tweeter screens. Response 15-30,000 Hz ± 2 dB; 100 & 1650 Hz crossovers. Requires 60 W rms driving power; 50 W rms maximum input power to elec-



trostatics. Bass commode 22" H x 22" W x 19" D. Electrostatic screens 37" H x 28" W x 6 1/2" D. Brazilian rosewood \$2100.00
 Servo-bass system including amplifier. In Brazilian rosewood \$1050.00

POS 1 Speaker System

Two-way design cube (13" x 13" x 12") with a 10" woofer and closely coupled 2" tweeter. Features transmission-line loading and a frequency-boost network for the tweeter. Response 45-19,000 Hz ± 4 dB; 1500 Hz crossover. 6 ohms. 15 W rms/ch minimum amplifier input. \$98.00

Monitor Speaker System

Three-way system with three different drive systems; a 12" woofer housed in a 2 1/2-cu ft tapered-transmission line enclosure; a specially designed 1 1/2" strengthened-dome mid-range; and a wave transmission line tweeter. Response

26-32,000 Hz \pm 4 dB; crossovers 500 & 3000 Hz. Nominal impedance 8 ohms. Max. amp. power 200 W/ch program material; minimum amp power 35 W rms/ch \$429.00

2000AXT-B Speaker System

Three-way floor-standing system with 12" woofer, 4" mid-range, and wave-transmission line tweeter. Crossovers 500 & 3000 Hz. 27 1/2" W x 20" W x 14" D. Walnut cabinet ... \$299.00

JANSZEN

130 High-Frequency Speaker System

Electrostatic bookshelf system with four radiators for add-on to existing woofer system. Response 700-20,000 Hz \pm 3 dB; 700 Hz crossover. 8 ohms impedance. 100 W rms maximum input power. 7 1/2" H x 22" W x 13" D. Walnut \$199.95

Z-410 Speaker System

Two-way acoustic-suspension design with 10" woofer & four electrostatic elements (64 sq. in). Response 35-20,000 Hz \pm 3 dB; 1800 Hz crossover. Capacity 75 W rms. 4 ohms impedance. Features vertical & horizontal dispersion. Walnut cabinet with various foam grilles. 13 1/2" x 24" x 11 1/2" D \$169.95

Z-412A Speaker System

Two-way acoustic-suspension design with 12" woofer & four electrostatic elements (64 sq. in). Response 33-20,000 Hz \pm 3 dB; 1800 Hz crossover. Capacity 100 W rms. 4 ohms. Has vertical and horizontal dispersion. Oiled walnut cabinet with foam front. 27" x 14 1/2" x 11 1/2" D \$229.95

Z-412HP. High-power/high-performance version of Z-412A. Capacity 150 W rms. 900 Hz crossover \$279.95

Z-824 Speaker System

Two-way acoustic-suspension design with two 12" HP woofers & eight electrostatic elements (128 sq. in). Response 32-20,000 Hz \pm 3 dB;



crossover 800 Hz. Capacity 300 W rms. 8 ohms. Light or dark oak cabinet. 48" x 16" x 16" D \$495.00

Z-210A Speaker System

Compact bookshelf speaker system. Two-way acoustic-suspension design with 10" woofer and two electrostatic elements (32 sq. in). Response 45-20,000 Hz \pm 3 dB; 1800 Hz crossover. Capacity 75 W rms. Impedance 6.9 ohms. Walnut cabinet with black foam front. 12.5" x 17.5" x 11" D \$109.95

Z-110 Speaker System

Two-way acoustic suspension design with 10" woofer and one electrostatic element/slant-blade refracting lens (16 sq. in). Response 35-20,000 Hz \pm 3 dB; 1800 Hz crossover. Capacity 50 W rms. Impedance 6.9 ohms. Features vertical or horizontal cabinet placement. Walnut cabinet with black foam front. 13 1/2" x 24" x 11 1/2" D \$129.95

JENSEN

Model 15 Speaker System

Four-way, five-speaker system with 15" woofer, an 8" mid-range driver, a 5" rear-damped tweeter,



and two Sonodome ultra-tweeters. Response 25-30,000 Hz. Power capacity 100 W; recommended minimum amp. power 10 W. Horizontal & vertical dispersion 170 degrees. THD 2% at 50 Hz, 1.2% at 100 Hz at 10 watts. Sensitivity: 1 W input produces 90 SPL at 6 feet. Has front-mounted balance controls for mid- and high frequencies plus bottom-mounted binding posts for concealed wiring. Finished on all four sides for use in any location. Simulated black slate top. 31" (including base) x 23" x 17" D \$396.00

Model 16 Speaker System

Full-range speaker system with 8", two-element driver. Response 40-18,000 Hz. Power capacity 30 W; recommended minimum amp. power 10 W. 8 ohms imp. 6000 Hz mechanical crossover. 120 degree dispersion. Removable sculptured dark brown grille cloth. 14 1/2" x 10" x 8 1/2" D \$39.00

Model 17 Speaker System

Two-way system with 8" woofer and 3 1/2" direct-radiator tweeter. Response 38-20,000 Hz. Power rating 35 W; 10 W recommended minimum amp. power. 8 ohms. 1200 Hz crossover. HF balance control. Removable sculptured dark brown grille cloth. 18 1/2" x 11" x 8 1/2" D. \$63.00

Model 3 Speaker System

Sealed two-way bookshelf system with 10" woofer & 3 1/2" tweeter. Response 36-20,000 Hz; 800 Hz crossover. Has 150-degree dispersion, a tweeter control. 8 ohms impedance. 12 1/2" H x 22 1/2" W x 10 1/2" D \$84.00

Model 4 Speaker System

Sealed three-way bookshelf system with 10" woofer, 5" mid-range, and dome-type tweeter. Response 36-30,000 Hz; 500 & 4000 Hz crossovers. Has mid-range and tweeter controls, 170-degree dispersion, and 8 ohms impedance. 13" H x 24" W x 12" D. Oiled walnut .. \$111.00

Model 5 Speaker System

Sealed three-way floor-standing system with 12" woofer, two 5" mid-range, and dome-type tweeter. Response 32-30,000 Hz; 500 & 4000 Hz crossovers. Has mid-range and tweeter controls, 170-degree dispersion, 8 ohms impedance. 26" H x 15" W x 13" D. \$162.00

Model 6 Speaker System

Sealed four-way floor-standing system with 15" woofer, 8" mid-range, 5" tweeter, and dome-type super tweeter. Response 27-30,000 Hz; 300, 1000 & 4000 Hz crossovers. Has mid-range and tweeter controls, 170-degree dispersion, 8 ohms impedance. 27" H x 20 1/2" W x 15" D \$219.00

JVC

VS-5313 Speaker System

Omnidirectional, sealed spherical two-way floor-standing system with two 5" woofers and two 2" horn-type tweeters in each sphere. Response 60-20,000 Hz \pm 3 dB; 5000 Hz crossover.

8 ohms impedance. 80 W peak maximum input power. 13 1/2" dia. Black metallic finish. \$194.95

VS-5307 Speaker System

Acoustic-suspension, 4-way floor-standing system with 12" woofer, 4" dome mid-range, 2" dome tweeter, and 2" cellular horn super-tweeter. Response 70-18,000 Hz \pm 3dB; 600, 4000 & 8000 Hz crossovers. Has mid-range and tweeter controls under grille. 8 ohms impedance. 60 W peak maximum input power. 26" H x 14 1/2" W x 12 1/2" D. Walnut \$249.95

VS-5332 Speaker System

Acoustic-suspension, 4-way floor-standing system with 12" woofer, 6 1/2" mid-range, 3 1/2" tweeter, and 2" horn super-tweeter. Response 50-17,000 Hz \pm 3 dB; 1500, 7000 & 10,000 Hz crossovers. Has mid-range and tweeter controls under grille. 8 ohms impedance. 80 W peak maximum input power. 24 1/2" H x 15 1/2" W x 13 1/2" D. Walnut \$149.95

VS-5342 Speaker System

Acoustic-suspension, 4-way floor-standing system with 12" woofer, horn-type mid-range, 3 1/2" cone tweeter, and 2" horn-type super-tweeter. Response 60-17,000 Hz \pm 3 dB; 1000, 7000 & 10,000 Hz crossovers. Has mid-range and tweeter controls. 8 ohms impedance. 80 W peak maximum input power. 28 1/2" x 16 1/2" W x 15 1/2" D. Walnut \$249.95

VS-5352 Speaker System

Acoustic-suspension, 4-way floor-standing system with 15" woofer, cellular horn mid-range, 6 1/2" upper mid-range, and two 2" cone tweeters. Response 60-20,000 Hz \pm 4 dB; 400, 1000 & 5000 Hz crossovers. Has mid-range and tweeter controls. 8 ohms impedance. 100 W peak maximum input power. 29 1/2" x 17 1/2" x 15 1/2" D. Walnut \$299.95

VS-5399 Two-Way Speaker System

Bass-reflex, 4-speaker slim column design. Has two 4 1/2" woofers and two 2" cone tweeters. Capacity 10 W rms. 8 ohms. 6000 Hz crossover. Speakers are mounted on two adjacent sides (90 degree angle). 27 1/2" H x 7 1/2" W x 7 1/2" D. Walnut finish \$89.95

VS-5308 Two-Way Speaker System

Acoustic-suspension design with 10" woofer & 2" soft-dome tweeter. Capacity 25 W rms. 8 ohms. Response 55-17,000 Hz \pm 3 dB; crossover 3000 Hz. Has tweeter level control and detachable front grille. 21 1/2" x 12 1/2" x 11 1/2" D. Walnut \$139.95

KIRKSAETER

Monitor 35 Two-Way System

Has 8" woofer plus 1" dome tweeter. Dispersion 180 degrees. Will handle 35 W music program. Response 30-20,000 Hz. Recommended amp. power 15-35 W rms. 4-8 ohms imp. Crossover 3500 Hz. 18" x 9" x 8" \$99.95

Monitor 40 Three-Way System

Features 8" woofer, 1.5" dome mid-range, and 1" dome tweeter. Dispersion 180 degrees. Will handle 40 W music program. Response 28-22,000 Hz. 4-8 ohms imp. Crossovers at 1200 & 5500 Hz. Recommended amp power 20-40 W rms. 18" x 9" x 8" \$159.95

Monitor 50 Three-Way System

Uses 10" woofer, 1.5" dome mid-range, and 1" dome tweeter. Dispersion 180 degrees. Will handle 50 watts music program. Response 22-22,000 Hz. Imp. 4-8 ohms. Recommended amp power 25-50 W rms. Crossovers at 1200 & 5500 Hz. 18" x 12.25" x 9.75" \$199.95

Monitor 70 Three-Way System

Has 12" woofer, 1.5" dome mid-range, and two 1" dome tweeters. 180 degree dispersion. Will handle 70 watts music program. Response 20-22,000 Hz. Imp. 4-8 ohms. Recommended amp power 30-70 W rms. Crossovers at 1200 & 5500

Hz, 22.5" x 13" x 11" \$299.95

Monitor 100 Double Three-Way System

Has two 10" woofers, two 1.5" dome mid-range, and two 1" dome tweeters. Dispersion 180 degrees. Will handle 100 watts music program. Recommended amp power 35-100 W rms. Response 18-22,000 Hz. Impedance 4-8 ohms. Crossovers at 1200 & 5500 Hz. 29.5" x 16.5" x 12" \$499.95

Each speaker is equipped with a 15-ft connecting cable. An additional 15-ft extension cord, with DIN female plug at one end and coded wire split-end at the other, is also supplied. All systems are housed in solid natural wood cabinets. Standard finish: selected grain walnut veneer. Matte black or matte white multicoat polyester on wood, with silver grille fabric, available optional extra.

KLEIN & HUMMEL

OY Monitor Speaker

Imported from West Germany. It is a wall-mounted design with two built-in 30 W (rms)



continuous sine wave (into 4 ohms) solid-state amplifiers. Response 40-16,000 Hz ± 2 dB. Has four individual speakers: one woofer driven by one of the amplifiers with electronic crossover at 500 Hz and two mid-range cone-type and one horn-type speakers driven by the second amplifier. Acoustic crossover for mid- and high-frequency speakers at 6000 Hz. Has level control and low- and high-frequency equalizer circuits. Input impedance 4700 ohms balanced & floating. Walnut finish. 19" x 12" x 9" D. \$822.00

KLH

Five 3-Way Speaker System

Sealed, 3-way bookshelf system with 12" woofer, two 3" mid-range, and 1 1/2" tweeter; 2500 & 7000 Hz crossovers. Has mid-range and tweeter controls; 8 ohms impedance. 13 1/2" H x 26" W x 11 1/2" D. Oiled walnut \$199.95

Six 2-Way Speaker System

Sealed, 2-way bookshelf system with 12" woofer & 1 1/2" tweeter. Has tweeter control. 8 ohms impedance. 12 1/2" H x 23 1/2" W x 11 1/2" D. Walnut or cherry \$139.95

Nine Speaker System

Electrostatic, floor-standing, full-range speaker system. 16 ohms impedance. Requires 40 W (IHF) driving power. 70" H x 23 1/2" W x 2 1/2" D. Mahogany or walnut. Should be used in pairs Each \$1395.00

Seventeen 2-Way Speaker System

Sealed, 2-way bookshelf system with 10" woofer & 1 1/2" tweeter. Has tweeter control. 11 1/2" H x 23 1/2" W x 8 1/2" D. Oiled walnut cabinet with removable grille cloth \$79.95

Thirty-Three Speaker System

Sealed, 2-way bookshelf system with 10" woofer

& 1 1/2" tweeter. 8 ohms impedance. 13 1/2" H x 23 1/2" W x 10 1/2" D. Oiled walnut .. \$99.95

Thirty-Two Speaker System

Sealed, 2-way bookshelf system with 8" woofer & 1 1/2" tweeter. 8 ohms impedance. 19 1/2" H x 10 1/2" W x 7 1/2" D. Oiled walnut. Sold in pairs only (2 per carton) \$110.00 pr.

Thirty-One Speaker System

Sealed 2-way bookshelf system with 8" woofer and 1 1/2" tweeter. 8 ohms impedance. Walnut grain enclosure with foam grille. 11" x 8 1/2" W x 17 1/2" D. Sold in pairs only (2 per carton) \$89.95 pr.

Thirty-Eight Speaker System

Sealed, 2-way bookshelf system with 10" woofer & 1 1/2" tweeter. 8 ohms impedance. 21 1/2" H x 12 1/2" W x 8 1/2" D. Oiled walnut. Sold in pairs only (2 per carton) \$135.00 pr.

Twenty-Eight Speaker System

Sealed enclosure system containing three separate 2-way systems with three 10" woofers, & three 1 1/2" tweeters. Radiates in three directions. 17" H x 26" W x 15" D. Oiled walnut. Pedestal mounting \$299.95

KLIPSCH

Cornwall II Speaker System

Tuned ducted-port, 3-way floor-standing system with 15" woofer, horn-loaded mid-range, and horn-type tweeter. Response 38-17,000 Hz ± 5 dB; crossovers 600 & 6000 Hz. 16 ohms impedance. 70 W dynamic maximum input power. 36" H x 25 1/2" W x 15 1/2" D. Furniture finishes. \$497.00

Heresy Speaker System

3-way floor-standing system with 12" woofer, horn-loaded mid-range, and horn-type tweeter. Response 70-17,000 Hz ± 5 dB; crossovers 700 & 6000 Hz. 16 ohms impedance. 25 W dynamic maximum input power. 21 1/2" H x 15 1/2" W x 13 1/2" D. Furniture finishes. \$276.00

Klipschorn (K-347) Speaker System

Folded corner horn, 3-way floor-standing system with 15" woofer, horn-loaded mid-range, and horn-type tweeter. Response 33-17,000 Hz ± 5 dB; crossovers 400 & 6000 Hz. 16 ohms impedance. 52" H x 31 1/2" W x 28 1/2" D. Oiled walnut (other finishes available) \$990.00

LaScala (K-447) Speaker System

Folded horn, 3-way floor-standing system with 15" woofer, horn-loaded mid-range, and horn-type tweeter. Response 45-17,000 Hz ± 5 dB; crossovers 400 & 6000 Hz. 16 ohms impedance. 70 W dynamic maximum input power. 34 1/2" x 23 1/2" W x 24 1/2" D. Theater black finish. \$625.00

Belle Klipsch Speaker System

Folded horn, 3-way floor-standing system with 15" woofer, horn-loaded mid-range, horn-type



tweeter. Response 45-17,000 Hz ± 5 dB; crossovers 400 & 6000 Hz. 16 ohms impedance. 70 W dynamic maximum input power. 35 1/2" H x 30 1/2" W x 18 1/2" D. Oiled walnut. \$841.00

LAFAYETTE

Criterion 333 Two-Way Speaker System

Acoustic-suspension bookshelf system with 8" woofer & 3" sealed-back tweeter. Response 40-18,000 Hz; 2000 Hz electrical crossover. Will handle 30 W. Finished all four sides; charcoal brown grille cloth. 18" W x 11" H x 10" D. \$34.95

Criterion 222 Two-Way Speaker System

Acoustic-suspension bookshelf system with 8" woofer & 2 1/2" cone tweeter. Response 55-18,000 Hz; 7000 Hz crossover. Will handle 25 W. Walnut-vinyl finish; charcoal brown grille cloth. 10" H x 13 1/2" W x 5 1/2" D \$24.95

Criterion 444 Three-Way Speaker

Acoustic-suspension bookshelf system with 8" woofer, 3 1/2" mid-range, and 1 1/2" dome tweeter. Response 40-19,000 Hz; crossovers 3000 & 10,000 Hz. Has high-frequency brilliance control. Will handle 30 W. Finished four sides in walnut-vinyl; charcoal brown grille cloth. 20" H x 11 1/2" W x 8 1/2" D \$44.95

Criterion 555 Three-Way Speaker

Acoustic-suspension bookshelf system with 10" woofer, 5" mid-range, and 3" tweeter. Has high-frequency brilliance control. Response 32-19,500 Hz; LC crossovers 800 & 3000 Hz. Will handle 50 W. Walnut-vinyl cabinet finished all four sides; charcoal brown grille cloth. 21" H x 12" W x 10" D \$59.95

Criterion 666 Three-Way Speaker

Acoustic-suspension bookshelf system with 10" woofer, 6" mid-range, and 2" direct-radiator



super tweeter. Response 28-20,000 Hz; crossovers 800 & 5000 Hz. Has mid-range and brilliance controls. Will handle 60 W. Oiled-walnut enclosure with charcoal brown grille cloth. 22" H x 14 1/2" W x 11" D \$79.95

Criterion 777 Three-Way Speaker

Acoustic-suspension bookshelf system with 10" woofer, 6" sealed-back mid-range, and 2" direct-radiator super tweeter. Has mid-range and brilliance controls. Response 20-20,000 Hz; crossovers 800 & 4000 Hz. Will handle 80 W. Oiled-walnut enclosure with 3-dimensional foam grille. 23" H x 15" W x 12" D \$99.95

Criterion 888 Four-Way Speaker

Acoustic-suspension bookshelf or floor-standing system with 12" woofer, 6" lower mid-range, 5" upper mid-range, and 2" direct-radiator super tweeter. Response 19-20,000 Hz; crossovers 400, 900 & 7000 Hz. Will handle 100 W. Has HF, upper mid-range, and lower mid-range controls. Finished all four sides. Oiled walnut cabinet with charcoal brown foam grille. 24" H x 15 1/2" W x 12" D \$159.95

Criterion 999 Four-Way Speaker

Acoustic-suspension floor-standing system with 15" woofer, 8" lower mid-range, 5" upper mid-range, and 2" direct-radiator super tweeter. Response 18-22,000 Hz; crossovers 400, 900 & 7000 Hz. Has HF, upper mid-range, and lower mid-range controls. Will handle 100 W. Oiled

walnut cabinet with charcoal brown foam grille. 30" H x 20" x 16" D. Has 1 1/2" wood base \$199.95

LANSING, JAMES B.

Aquarius 4 S109 Speaker System

Ported, 2-way floor-standing system with 8" horn-loaded woofer & 2" tweeter. 8 ohms impedance. Upward radiating bass driver and dispersed tweeter on upper rear panel. Power capacity 35 W continuous program. Recommended amp. power 1-75 W rms/ch. 40" H x 10" W x 10" D. Walnut or satin white \$186.00

Century L100 Speaker System

Ducted-port, 3-way bookshelf system with 12" woofer, 5" mid-range, and direct-radiator tweeter. Crossovers at 1500 & 6000 Hz. Has mid-range and tweeter controls. 8 ohms impedance. 50 W continuous program. Recommended amp. power 10-150 W rms/ch. Has front-mounted controls under grille. 14 1/2" x 23 1/2" W x 13 1/2" D. Oiled walnut. \$273.00

Flair L45 Speaker System

Ducted-port system which may be mounted horizontally or vertically. Has 15" woofer, 5" mid-range, & 1.4" tweeter. Crossovers at 1200 & 7500 Hz. Has a 3-position (or high-frequency level) control. 8 ohms impedance. 75 W continuous program. Recommended amp. power 10-150 W rms/ch. 21 1/2" H x 29 1/2" W x 17 1/2" D. Oiled walnut. \$426.00

C45. Flair enclosure only, available separately for installation of any one of seven optional JBL loudspeaker systems. Can be ordered uncut for installing custom combinations of components or for any of the company's component speaker systems: 001, 030, S1, S4, S12, S7, or S8 \$198.00

Lancer 55 Speaker System

Ducted-port, 2-way floor-standing system with 14" woofer & 2" tweeter; crossover at 2000 Hz. Has 3-position high-frequency level control. 8 ohms impedance. 35 W continuous power. Recommended amp. power 10-75 W rms/ch. 24 1/2" H x 17 1/2" W x 17 1/2" D. Oiled walnut. ... \$276.00

Lancer 101 Speaker System

Ducted-port, 2-way floor-standing system with 14" woofer & driver/horn/lens (LE175DLH) mid-range/tweeter; 1500 Hz crossover. Has horn level control. 8 ohms impedance. Power capacity 50 W continuous program. Recommended amp. power 10-150 W rms/ch. 25" H x 18" W x 13" D. Oiled walnut with marble top. \$408.00

Olympus S7R Speaker System

Ducted-port, 2-way floor-standing system with 15" woofer with 15" passive radiator & mid-range/tweeter driver with lens; 500 Hz crossover. Has horn level control. 8 ohms impedance. Power capacity 100 W continuous program. Recommended amp. power 10-150 W rms/ch. 27" H x 40" W x 20" D. Oiled walnut ... \$759.00

Studio Master L200 Speaker System

Ducted-port, 2-way floor-standing system with 15" woofer & compression driver with horn/lens assembly; 1200 Hz crossover. 3-position high-frequency level control. 8 ohms impedance. 100 W continuous program. Recommended amp. power 10-150 W rms/ch. 32 1/2" H x 24" W x 21 1/2" D. Oiled walnut \$597.00

Sovereign S7R S607 Speaker System

Ducted-port, 2-way floor-standing system with 15" woofer with 15" passive radiator and mid-range/tweeter driver with lens; 500 Hz crossover. Has horn-level control. 8 ohms impedance. Power capacity 100 W continuous program. Recommended amp. power 10-150 W rms/ch. 27" H x 39" W x 20" D. Oak .. \$759.00

Verona L71 Speaker System

Ducted port, 3-way floor-standing system with

15" woofer, 5" mid-range & 1.4" tweeter; 1200 & 7500 Hz crossovers. Has mid-range and tweeter controls. 8 ohms impedance. 50 W continuous program. Recommended amp. power 10-150 W rms/ch. 27 1/2" H x 36 1/2" W x 17 1/2" D. Pecan. \$495.00

C71. Enclosure of L71 available separately. Can be ordered cut for 001, 030, S1, or S12 loudspeaker systems. It can also be ordered uncut for installation of custom combinations of transducers \$267.00

Paragon Speaker System

Radial-refraction, 3-way floor-standing system with two 15" woofers, two horn-driver mid-range, and two ring-radiator tweeters; 500 & 7000 Hz crossovers. Has dual mid-range & tweeter controls. 8 ohms impedance. Features special dispersion surface to recreate stereo image. Power capacity 125 W continuous program. Recommended amp. power 10-150 W rms/ch. 36" H x 104" W x 24" D \$2700.00

Prima L25 Speaker System

Modular "thermoplastic" enclosure with ducted port. Available in six colors with complementary cloth grilles. Two-way system with 10" low-frequency speaker & 1.4" high-frequency direct radiator; 1500 Hz crossover. Has high-frequency level control. Power capacity 35 W continuous program. Recommended amp. power 10-60 W rms/ch. Optional storage module and equipment shelf available with matching interlocking surfaces for stacking with the enclosure. 15 1/2" H x 19" W x 14 1/2" D \$159.00

88 Plus L88P Speaker System

Ducted-port, 2-way bookshelf system with 12" low-frequency speaker & 1.4" direct radiator; 2000 Hz crossover. 8 ohms. Capacity 35 W continuous program. Recommended amp. power 10-75 W rms/ch. 14 1/2" H x 23 1/2" W x 12 1/2" D. Oiled walnut. Foam grille available in three colors. \$213.00

M12 Expander Kit. Designed to expand the 88 Plus into a 3-way system identical in performance & specifications to the L100 Century. Kit includes a 5" mid-range transducer, frequency dividing network, and level control \$69.00

L26 Decade Speaker System

Ducted-port, 2-way bookshelf system with 10" low-frequency and 1.4" high-frequency compo-



nents, 2000 Hz crossover with high-frequency level control. Stretch fabric grille available in orange, blue, white, or brown. Power capacity 35 W continuous program. Recommended amp. power 10-60 W rms/ch. Natural oak finish. 12 1/2" x 24" x 13 1/2" D \$129.00

LEAK

Sandwich 600 Speaker System

Three-way system with 13" bass driver with Sandwich cone, 3 1/2" mid-range with Sandwich cone, and 2" domed super-tweeter. 8-element crossover. Response 40-20,000 Hz. 8 ohms impedance. 25 Hz free-air resonance of bass

driver. 25 1/2" x 14 1/2" x 12 1/2" deep. Walnut finished (all four sides) with satin silver trim and brown grille cloth \$295.00

Sandwich Mk III Speaker System

Sealed enclosure, 2-way floor-standing system with 13" woofer and 1" tweeter. Response 30-20,000 Hz; 900 Hz crossover. Has tweeter control, 8 ohms impedance, and will handle 70 watts (rms) maximum input power. 26" H x 15" W x 12" D. Removable oiled-walnut grille. \$215.00

LESLIE

Plus 2 Model 450 Speaker System

Each cabinet includes a dome high-frequency radiator, two 6" x 9" mid-range, a 15" bass driv-



er, crossover networks, and 15" rotor and motor assembly. The system consists of two cabinets with one housing two 50 W rms power amps (one for each cabinet), and 360-degree random phase-shifting network. Designed to augment two-channel stereo by being added to present system. Can also be used as two of four speakers for four-channel system. High-imp. input. The omnidirectional low-frequency response of system breaks up standing waves. Walnut. 33" H x 29 1/2" W x 19 1/2" D \$995.00

Plus 2 Model 430 Speaker System

Same basic principle of operation as the Model 450 except two-way system with 12" bass speaker and high-frequency horn. 29 1/2" H x 24 1/2" W x 18 1/2" D \$695.00

MAGITRAN

DS-60 Sound Panel System

Features patented poly-planar multi-channel flat diaphragm reproducer which provides response 40-20,000 Hz. Will handle 60 W max. music power; 28 W continuous rms power. 4-8 ohms imp. Each panel comes with floor-standing and wall-mounting hardware. 5 W min. am-



plifier power. Features replaceable snap-on/snap-off grilles in 13 different decorative motifs 29½" H x 23½" W x 2" D \$79.95
DS-60P. Additional grilles: \$14.95

MAGNUM OPUS

Opus 24 24-Speaker System

Dynamic damping hemispheric dispersion system with four 12" woofers, four mid-range, eight dome tweeters, and eight cone tweeters. Mid-range and tweeters arranged in a hemispheric dispersion pattern. Continuously variable mid-range and tweeter controls on 12-dB networks. Impedance 4 ohms. Response 20-20,000 Hz. 200 W maximum capacity. 32" H x 36" W x 18½" D. Hand-rubbed oiled walnut cabinet \$1000.00

Opus 12 12-Speaker System

Dynamic damping hemispheric dispersion system with one 12" woofer, one 10" woofer, one mid-range, three dome tweeters, and six cone tweeters. Response 20-20,000 Hz. Impedance 8 ohms. 100 W maximum capacity. Continuously variable mid-range and tweeter controls on 12-dB networks. 32" H x 18" W x 18½" D. Hand-rubbed oiled walnut cabinet \$495.00

Opus 7 7-Speaker System

Dynamic damping hemispheric dispersion system with two 10" woofers, one mid-range, two dome tweeters, and two cone tweeters. Response 25-20,000 Hz. Impedance 4 ohms. Has continuously variable mid-range and tweeter controls on 12-dB networks. 100 W maximum capacity. 28" H x 15½" W x 13½" D. Hand-rubbed oiled walnut cabinet \$279.00

Opus 4. Same as Opus 7 except two 10" woofers, one mid-range, and one dome tweeter. Response 30-20,000 Hz. \$229.00

Opus 2 5-Speaker System

Acoustic-suspension system with one 10" woofer, two dome tweeters, and two cone tweeters. Response 33-20,000 Hz. Impedance 8 ohms. 50 W maximum capacity. Tweeter control on 6-dB network. Hand-rubbed oiled walnut finish. 24" H x 14½" W x 11" D \$139.00

Opus 1. Same as Opus 2 except with one 10" woofer and one dome tweeter. Response 35-20,000 Hz. Capacitive crossover \$99.00

Opus 1S. Same as Opus 1 except one 10" woofer and one cone tweeter. Response 35-18,000 Hz \$79.00

MARANTZ

Imperial 4G Speaker System

Sealed enclosure, 2-way bookshelf system with 8" woofer & 2" tweeter. Response 60-18,000 Hz; 2000 Hz crossover. 8 ohms impedance. 30 W (peak) maximum input power. 10½" H x 18½" W x 7½" D. Walnut \$59.00

Imperial 5 Speaker System

Tuned ducted-port, 2-way bookshelf system with 8" woofer & dome-type 3½" tweeter. Response 50-15,000 Hz ±3 dB; 2000 Hz crossover. Has tweeter control. 8 ohms impedance. 40 W (dynamic) maximum input power. 12" H x 23" W x 9½" D. Oiled walnut \$79.00

Imperial 5-G. Same as Imperial 5 but with acoustically transparent foam grille .. \$99.00

Imperial 6 Speaker System

Tuned ducted-port, 2-way floor-standing system with 10" woofer & 2" dome-type tweeter. Response 40-18,000 Hz; crossover 3000 Hz. Has tweeter control. 8 ohms impedance. 100 W (dynamic) maximum input power. 25½" H x 14½" W x 11½" D. Oiled walnut .. \$119.00

Imperial 6-G. Same as Imperial 6 but with acoustically transparent foam grille .. \$139.00

Imperial 7 Speaker System

Three-way bookshelf system with 12" woofer, 3½" mid-range, 1½" tweeter. Has 3-position HF level & 3-position mid-range level selector switches. Response 35-20,000 Hz ±5 dB. 30 W continuous power input; 100 W integrated program material; 8 ohms imp. 25½" H x 14½" W x 11½" D \$179.00

Imperial 8 Speaker System

Three-way floor-standing system with 12" woofer, a rotatable air-coupled array consisting of three mid-range transducers & two tweeters. Response ±2 dB 40-18,000 Hz; ±5 dB 30-20,000 Hz. Will handle 75 W continuous power (125 W integrated); 8 ohms impedance. 27" H x 18½" W x 14½" D \$299.00

Imperial 9. Similar to Imperial 8 except has two 10" woofers, four mid-range, and two tweeters.



Response ±1.5 dB 35-17,000 Hz; ±3 dB 30-18,000 Hz. Will handle 100 W continuous power (150 W integrated). 30½" H x 24" W x 18" D \$449.00

MARTIN

Crescendo Speaker System

3-way, sealed infinite baffle system with 12" woofer, 3½" mid-range, and wide-dispersion 2½" tweeter. Response 30-18,000 Hz; mid-range and tweeter level controls. 8 ohms impedance. Walnut formica finish. 14½" H x 25½" W x 12" D \$169.95

Laboratory MK II Speaker System

3-way, sealed infinite baffle system with 10" woofer, 3½" mid-range, and wide-dispersion 2½" tweeter. Response 35-18,000 Hz; mid-range and tweeter level controls. 8 ohms impedance. 50 watts (dynamic) maximum input power. Walnut formica finish. 12½" H x 21½" W x 10" D \$119.95

Magnificent Speaker System

3-way, floor-standing sealed infinite baffle system with two 12" woofers, 6" mid-range, and two wide-dispersion 2½" tweeters. Response 28-20,000 Hz; mid-range and tweeter level controls. 4 ohms impedance; 80 watts (dynamic) maximum input power. Walnut formica finish. 37½" H x 18" W x 14½" D \$319.95

Signature Speaker System

2-way, sealed infinite baffle system with 6" woofer and wide-dispersion 4" tweeter. Response 40-18,000 Hz; tweeter level control. 8 ohms impedance; 40 watts (dynamic) maximum input power. Walnut formica finish. 8½" H x 12" W x 9" D Pair \$89.95

Micro-Max Speaker System

2-way, sealed enclosure system with 8" woofer and wide dispersion 3" tweeter. Has tweeter balance control. 8 ohms impedance. Walnut formica finish. 10½" H x 18" W x 9½" D \$66.00

Spectrum Slope Speaker System

2-way, sealed infinite baffle system with two 8" woofers and two wide-dispersion 2½" tweeters. Response 35-18,000 Hz. 8 ohms impedance; 50 watts (dynamic) maximum input power.

Walnut formica finish. 12½" H x 21½" W x 10" D \$149.95

Super Spectrum Speaker System

3-way, sealed infinite baffle system with two 8" woofers, 3½" mid-range, and wide-dispersion 2½" tweeter. Response 30-18,000 Hz; mid-range and tweeter level controls. 4 ohms impedance; 60 watts (dynamic) maximum input power. Walnut formica finish. 12½" H x 21½" W x 10" D \$199.95

840 Sound Tower Column System

3-way column, sealed enclosure system with four 8" woofers, two 4" mid-range, and two flare dome 2" tweeters. Response 28-20,000 Hz; mid-range and tweeter level controls. 100 watts (dynamic) maximum input power. Walnut formica finish. 52" H x 16½" W x 7½" D ... \$350.00

MICRO/ACOUSTICS

Microstatic Speaker System

One-way miniature closed system with four tweeters. Response 3500-18,000 Hz ±2 dB. Dispersion 180 degrees. Has range selector and level control. 4 to 8 ohms impedance. 60 W maximum (rms) input power. For use with medium and low-efficiency systems to augment treble. 3½" H x 9½" W x 5½" D. Walnut . \$58.50

Full-Range Microstatic System

A bookshelf system with an array of five high-frequency drivers radiating 180 degrees and in both vertical and horizontal planes plus an MW-28 woofer. Response 35-18,000 Hz. Grille cloths available in burnt orange, blue, or brown. \$155.00

NATIONAL TEL-TRONICS

CK10-2 Speaker System Kit

Two-way system with 6½" woofer & 2" tweeter. Response 35-18,000 Hz. 8 ohms imp. Max. power input 20 W. 13" H x 8" W x 8" D .. \$34.95
 Pair of kits \$59.95

CK20-2 Speaker System Kit

Two-way system with 8" woofer & 2½" tweeter. Response 40-20,000 Hz. 8 ohms imp. Max. power input 60 W. 20" H x 10½" W x 9½" D \$59.95
 Pair of kits \$99.95

CK 20-3 Speaker System Kit

Three-way system with 8" woofer, 5" mid-range, and 2½" tweeter. Response 40-20,000 Hz. 8 ohms imp. Max. power input 80 W. 20" H x 10½" W x 9½" D. \$69.95
 Pair of kits \$119.95

CK50-4 Speaker System Kit

Four-way system with 10" woofer, 5" x 7" mid-range, and two 2½" tweeters. Response 30-18,000 Hz. 8 ohms imp. Max. power input 80 W. 26½" H x 15" W x 10½" D \$99.95
 Pair of kits \$179.95

OHM ACOUSTICS

Model A Speaker System

Air-suspension system. Floor-standing model with full-range omnidirectional coherent transmission-line radiator. 18" driver is ±4 dB from 25-20,000 Hz. Impedance 8 ohms. 48" H x 22" W x 22" D. Price depends on cabinetry and finish (walnut, oak, teak, rosewood available) \$775.00 to \$850.00

Model B Speaker System

Air-suspension, two-way floor-standing system with 12" woofer and 1" dome-type tweeter. Response 35-18,000 Hz ±4 dB; 1760 Hz crossover. Has tweeter control. 8 ohms impedance. Oiled walnut finish. 26" H x 15" W x 10½" D \$200.00

Model C Speaker System

Air-suspension, two-way system with 10" woofer and 1" dome-type tweeter. Response 40-18,000 Hz \pm 4 dB; 1700 Hz crossover. Has tweeter control. 8 ohms impedance. Oiled walnut. 25" H \times 14" W \times 9 1/2" D \$160.00

Model D Speaker System

Resistance-loaded, two-way reflex system with 10" woofer and 3" tweeter. Response 42-18,000 Hz \pm 4 dB; 1700 Hz crossover. Has tweeter control. 8 ohms impedance. Oiled walnut. 25" H \times 14" W \times 8" D \$115.00

Model E Speaker System

Air-suspension, two-way system with 8" woofer and 3" phenolic-surround cone tweeter. Response 48-18,000 Hz \pm 4 dB on axis. Crossover 1700 Hz. 8 ohms impedance. Has tweeter control. Walnut finished vinyl. 21 1/2" \times 11 1/2" \times 7 1/2" \$80.00

Model F Speaker System

Air-suspension system. Floor-standing model with full-range omnidirectional coherent transmission-line radiator. 12" driver is \pm 4 dB 33 to 20,000 Hz. Impedance 4 ohms. 43 1/2" H \times 17 1/2" \times 17 1/2". Oiled walnut or rosewood \$400.00 to \$500.00

ONKYO

15 Speaker System

Three-way linear-suspension bookshelf design with 10" woofer, 1 1/2" hemispheric dome mid-range, and 1" hemispheric dome tweeter. Capacity 40 W. Response 30-20,000 Hz; crossovers at 1000 & 7000 Hz. 5-position mid-range & tweeter level control. 10 W/ch rms minimum driving power. 8 ohms. 22 1/2" \times 12 1/2" \times 11 1/2". Walnut \$149.95

100 Studio Monitor Speaker System

Three-way, free-standing sealed enclosure with 14" woofer, sectoral horn (11" \times 4 1/2") mid-range, and sectoral horn (3 1/2" \times 2") tweeter. Response 20-20,000 Hz; crossovers at 700 & 7000 Hz. Has sloped front panel and mid-range/tweeter level control. 60 W capacity. 8 ohms. 15 W/ch rms minimum driving power. 28" \times 27" H \times 17" D. Walnut \$499.95

20 Speaker System

Three-way, linear-suspension design with 12" woofer, 2" hemispheric dome mid-range, and 1" hemispheric dome tweeter. Capacity 50 W. Response 35-20,000 Hz; crossovers at 700 & 7000 Hz. Has mid-range & tweeter level control. 10 W/ch rms minimum driving power. 23 1/2" \times 13 1/2" \times 11 1/2". Walnut \$199.95

25 Speaker System

Three-way, linear-suspension design with 14" woofer, 2" hemispheric dome mid-range, and 1" hemispheric dome tweeter. Capacity 60 W. Response 30-20,000 Hz; crossovers at 700 & 7000 Hz. Has mid-range & tweeter level control. 10 W/ch rms minimum driving power. 8 ohms. 25 1/2" \times 11 1/2" \times 11 1/2". Walnut \$249.95

30 Speaker System

Three-way, linear-suspension design with 12" woofer, horn-type (10 1/2" \times 3 1/2") mid-range, and 2 1/2" horn-type tweeter. Response 20-20,000 Hz; 700 & 5000 Hz crossovers. 60 W capacity. Has mid-range & tweeter level control. 8 ohms. 15 W/ch rms minimum driving power. 28 1/2" \times 16 1/2" \times 15 1/2". Walnut \$299.95

Radian III Two-Way Speaker System

Bass-reflex design with two high-compliance 6 1/2" woofers and two 3" cone-type tweeters; 1500 Hz crossover. Frequency response 60-20,000 Hz. Max. input power 30 watts; 8 ohms impedance. Has 5-step high-range level control; built-in dispersion baffles and angled tweeters for 180-degree sound dispersion. 9 1/2" W \times 33 1/2" H \times 11 1/2" D \$119.95

PANASONIC

SB-170 Speaker System

Sealed, 3-way bookshelf system with 8" woofer, 5" mid-range, and 2" tweeter. Response 35-20,000 Hz; 3000 & 7000 Hz crossovers. 8 ohms impedance. 36 W peak maximum input power. 13 1/2" H \times 21 1/2" W \times 7 1/2" D. Walnut Pair \$114.95

SB-270 Speaker System

Sealed, 3-way bookshelf system with 8" woofer, 5" mid-range, and 2" tweeter. Response 35-20,000 Hz; 3000 & 7000 Hz crossovers. 8 ohms impedance. 36 W peak maximum input power. Has multi-channel/full-channel switch. 13 1/2" H \times 21 1/2" W \times 7 1/2" D. Walnut Pair \$154.95

SB-300 Speaker System

Sealed, 4-way bookshelf system with 10" woofer, 5" mid-range, 3 1/2" tweeter, and 1 1/2" super-tweeter. Response 35-20,000 Hz; 800, 5000 & 10,000 Hz crossovers. 8 ohms impedance. 38 W peak maximum input power. 13" H \times 22 1/2" W \times 11 1/2" D. Walnut \$119.95

SB-400 Speaker System

Sealed, 3-way bookshelf system with 10" woofer, multicellular horn mid-range, and horn-type tweeter. Response 35-20,000 Hz; 650 and 6000 Hz crossovers. Has mid-range and tweeter controls. 8 ohms impedance. 50 W peak maximum input power. 12 1/2" H \times 23 1/2" W \times 11 1/2" D. Walnut \$149.95

SB-550 Speaker System

Sealed, 3-way floor-standing system with 12" woofer, 6" mid-range, and 4" tweeter. Response 30-20,000 Hz; 500 & 5000 Hz crossovers. Has mid-range and tweeter controls. 8 ohms impedance. 70 W peak maximum input power. 25 1/2" H \times 15 1/2" W \times 11 1/2" D. Teak \$199.95

SB-750 Speaker System

Sealed, 3-way floor-standing system with 12" woofer, two 6" mid-range, and two 4" dome-type tweeters. Response 20-20,000 Hz; 600 & 5000 Hz crossovers. Has mid-range and tweeter controls under grille. 8 ohms impedance. 85 W peak maximum input power. 30" H \times 19 1/2" W \times 11 1/2" D. Teak \$239.95

PIONEER

CS-44 Speaker System

Sealed, 2-way bookshelf enclosure with 8" woofer and cone-type 2 1/2" tweeter. Response 35-20,000 Hz. 8 ohms impedance. 25 W (dynamic) maximum input power. Oiled walnut. 11 1/2" H \times 19 1/2" W \times 9 1/2" D \$74.95

CS-63DX Speaker System

Sealed, 4-way floor standing enclosure with 15" woofer, two 5" mid-range, a horn-type tweeter, and two super-tweeters. Response 20-22,000 Hz. Has mid-range and tweeter controls. 8 ohms impedance. 80 W (dynamic) maximum input power. 28 1/2" H \times 18 1/2" W \times 13 1/2" D. Oiled walnut \$269.95

CS-66 Speaker System

Sealed, 3-way bookshelf enclosure with 10" woofer, 6 1/2" mid-range, and cone-type tweeter. Response 35-20,000 Hz. Has tweeter control. 8 ohms impedance. 40 W (dynamic) maximum input power. 12 1/2" H \times 22" W \times 11 1/2" D. \$119.95

CS-99A Speaker System

Sealed, 5-way floor-standing enclosure with 15" woofer, 5" mid-range, horn-type tweeter, cone tweeter, and dome super-tweeter. Response 25-22,000 Hz. Has mid-range and tweeter controls. 8 ohms impedance. 80 W (dynamic) maximum input power. 25" H \times 16" W \times 11 1/2" D. Walnut \$229.95

CS-A500 Speaker System

Sealed, 3-way bookshelf enclosure with 10" woofer, 4 1/2" mid-range, and 3" tweeter. Re-

sponse 40-20,000 Hz; 800 & 6000 Hz crossovers. Has tweeter control. 8 ohms impedance. 50 W (dynamic) maximum input power. 13" H \times 22 1/2" W \times 12 1/2" D. Walnut \$149.95

CS-A700 Speaker System

Sealed, 3-way floor-standing enclosure with 12" woofer, 4 1/2" mid-range, and horn-type tweeter. Response 35-20,000 Hz; 500 & 4500 Hz crossovers. Has mid-range and tweeter controls on front panel. 8 ohms impedance. 60 W (dynamic) maximum input power. Has individual speaker connections to the firm's multi-amp system. 26" H \times 12 1/2" W \times 15" D. Walnut \$189.95

R300 Speaker System

Bass-reflex, 2-way design with 10" woofer and horn-type tweeter. 8 ohms. Response 45-20,000 Hz. 6300 Hz crossover. 40 W max. input. Has removable grille. Saran cloth color combination black/orange-red. 13" \times 22 1/2" \times 11 1/2" D \$119.95

R500 Speaker System

Bass-reflex, 3-way design with 10" woofer, 5" mid-range, and horn tweeter; crossovers at 800 & 5200 Hz. 8 ohms. Response 35-20,000 Hz. Max. input 60 W. Has removable grille and Saran cloth color combination black/blue. 13 1/2" \times 24 1/2" \times 12 1/2" D \$159.95

R700 Speaker System

Bass-reflex, 3-way design with 12" woofer, horn mid-range, and multicellular horn super-tweeter; crossovers at 750 & 14,000 Hz. 8 ohms. Response 35-20,000 Hz. Max. input 75 W. Has removable grille and Saran cloth color combination is black/brown. 15" \times 26" \times 13 1/2" D \$229.95

PRECISION ACOUSTICS

208 Two-Way Speaker System

Has two 8" woofers and one 2" tweeter. Response 25-20,000 Hz. Will handle 40 W continuous rms power. Impedance 8 ohms. Hand-rubbed oiled-walnut finish. 20 1/2" W \times 13" H \times 10 1/2" D. System consists of two speakers and Model 102 equalizer \$475.00

112 Three-Way Speaker System

Has 12" woofer, 6" mid-range, and 2" tweeter. Response 25-20,000 Hz. Will handle 50 W con-



tinuous rms power. Impedance 8 ohms. Hand-rubbed oiled-walnut finish. 22 1/2" W \times 15" H \times 11 1/2" D. System consists of two speakers and Model 102 equalizer \$575.00

210 Three-Way Speaker System

Has two 10" woofers, one 6" mid-range, and one 2" tweeter. Response 20-20,000 Hz. Will handle 70 W continuous rms power. Impedance 8 ohms. Hand-rubbed oiled walnut finish. Right and left speakers are mirror images. 17" W \times 25" H \times 11 1/2" D. System consists of two speakers

and Model 102 equalizer \$675.00

212 Three-Way Speaker System

Has two 12" woofers, two 6" mid-range, and one horn tweeter. Response 20-22,000 Hz. Will handle 100 W continuous rms power. 8 ohms impedance. Hand-rubbed oiled-walnut finish. 21" W x 29" x 15 1/2" D. Right and left speakers are mirror images. System consists of two speakers and Model 102 equalizer... \$975.00

215 Three-Way Speaker System

Has two 15" woofers, two 6" mid-range, and two horn tweeters. Response 20-22,000 Hz. Will handle 200 W continuous rms power. 8 ohms impedance. Hand-rubbed oiled-walnut finish. 24" W x 34" H x 16 1/2" D. Right and left speakers are mirror images. System consists of two speakers and Model 102 equalizer... \$1300.00

QUADRAFLEX

66 3-Way Speaker System

Acoustic-suspension system with a 12" woofer, an acoustically enclosed 6" mid-range, and a 3" tweeter; crossovers 500 & 5000 Hz. Response 32-20,000 Hz ± 5 dB; 8 ohms impedance. Recommended amp power 20-120 W rms; will handle 40 W rms. Has special taper mid-range and tweeter controls. Walnut veneer finish with dark brown acoustically transparent grille cloth. 25 1/4" H x 15 1/4" W x 13 1/4" D \$159.95

55 3-Way Speaker System

Similar to the Model 66 except 10" woofer, 4 1/2" mid-range, and 3" tweeter; crossovers 650 & 6000 Hz. Response 40-20,000 Hz ± 5 dB. Recommended amp power 14-80 W rms; will handle 25 W rms. 23 1/4" H x 14 1/4" W x 11 1/4" D \$119.95

44 Two-Way Speaker System

Acoustic-suspension system with 10" woofer and 3 1/2" tweeter; crossover 750 Hz. Response 50-20,000 Hz ± 5 dB; nominal impedance 8 ohms. Recommended amp power 12-80 W rms; will handle 25 W rms. 22 1/4" H x 13 1/4" W x 11" D \$79.95

33 Two-Way Speaker System

Acoustic-suspension system with 8" woofer and 3" tweeter; crossover 1400 Hz. Response 60-20,000 Hz ± 5 dB; nominal impedance 8 ohms. Recommended amp power 10-60 W rms; will handle 20 W rms. 19 1/4" H x 11 1/4" W x 9 1/2" D \$54.95

22 Two-Way Speaker System

Acoustic-suspension system with 6" woofer and 3" tweeter; crossover 1200 Hz. Response 65-20,000 Hz ± 5 dB; nominal impedance 8 ohms. Recommended amp power 5-40 W rms; will handle 10 W rms. 17 1/4" H x 10 1/4" W x 7 1/4" D \$39.95

RADFORD

Tri-Star 90/50 Speaker System

3-way system. Features 12" bass driver, 3" mid-range & 1" dome tweeter. Response 55-25,000 Hz $\pm 3 1/2$ dB. Capacity 50 W. Sound radiation 90 degrees in horizontal plane. 12" x 12" x 9" \$250.00

TL90. Uses same drive components, with transmission line loading for bass driver. Response 35-25,000 Hz $\pm 3 1/2$ dB. \$370.00

TL50A Speaker System

Transmission line system using 8" woofer, 5" mid-range, and 1" dome tweeter. Response 35-25,000 Hz $\pm 4 1/2$ dB. 44" x 12" x 12". Rosewood

..... \$220.00

Studio 360/100 Speaker System

3-way design with two 12" bass drivers, four mid-range drivers & four high-frequency drivers. Speakers are placed on all four sides of cabinet with bass drivers facing out from opposite sides. Place against wall for 270-degree sound radiation in horizontal plane and 1 meter (39 inches) from wall for 360-degree radiation. Response 30-25,000 Hz $\pm 3 1/2$ dB. Capacity 100 W. 45" x 18 1/2" x 15" \$650.00

RADIO SHACK

Nova 7 Speaker System

Sealed, 2-way bookshelf system with 10" woofer and two 3 1/2" tweeters. Response 20-20,000 Hz. 8 ohms impedance. 60 W rms maximum input power. 12 1/2" H x 22 1/2" W x 11" D. Oiled walnut \$109.95

Electrostat 2a Speaker System

Sealed, 2-way floor-standing system with 8" woofer, mid-range, and 4-element electrostatic tweeter. Response 45-25,000 Hz. Has tweeter control. 8 ohms impedance. Requires 12 W rms driving power. 22 1/2" H x 13 1/2" W x 12" D. Oiled walnut \$79.95

Optimus 1 Speaker System

Sealed, 2-way bookshelf system. Response 20-25,000 Hz; 1000 Hz crossover. Has tweeter control. 8 ohms impedance. 12" H x 23" W x 11 1/2" D. Walnut \$89.95

Optimus 5 Speaker System

Sealed, 2-way floor-standing system with 12" woofer, two mid-range, and a 3" tweeter. Response 20-20,000 Hz. Has mid-range and tweeter controls. 8 ohms impedance. 25" H x 14" W x 11 1/2" D. Oiled walnut \$109.95

Optimus 7 Speaker System

Sealed, 2-way floor-standing system with 12" woofer, 6 1/2" mid-range, and 2 1/2" tweeter. Response 20-25,000 Hz; crossovers at 850 & 5000 Hz. 8 ohms. Oiled walnut with front lattice grille. 27 1/2" x 24" x 15 1/2" \$198.50

RECTILINEAR

Model III 4-Way Speaker System

Sealed acoustic-suspension 4-way floor-standing system with 12" woofer, 5" mid-range, two 2 1/2" cone tweeters, and two 2" super tweeters. Response 20-18,500 Hz ± 4 dB; crossovers at 500, 3000, and 11,000 Hz. Less than 2.5% HD at 50 Hz at 1 W. Has mid-range and tweeter level controls; 8 ohms impedance. Requires 20 watts (rms) driving power; 100 watts (rms) maximum input power. 35" H x 18" W x 12" D. Oiled walnut finish \$279.00
Lowboy version with fretwork grille .. \$299.00

Model XIa 2-Way Speaker System

Bass-reflex, 2-way bookshelf system with 10" woofer and 3" tweeter. Response 45-20,000 Hz ± 4 dB; 1000 Hz crossover. Has tweeter level control; 8 ohms impedance. Requires 10 watts (rms) driving power; 50 watts (rms) maximum power. 12" H x 23" W x 10 1/2" D. Oiled walnut finish \$79.50
Optional fretwork grille kit \$10.00

Model XII 3-Way Speaker System

Sealed acoustic-suspension 3-way bookshelf system with 10" woofer, 5" mid-range, and 3" tweeter. Response 45-17,000 Hz ± 3 dB; 350 and 4000 Hz crossovers. Has mid-range and tweeter level controls; 8 ohms impedance. Requires 10 watts (rms) driving power; 40 W rms maximum power. 25" H x 14" W x 10 1/2" D. Oiled walnut finish \$139.00

Mini III 3-Way Speaker System

Sealed acoustic-suspension, 3-way bookshelf

system with 8" woofer, 5" mid-range, and 2" tweeter. Response 50-18,500 Hz ± 4 dB; 400 and 8000 Hz crossovers. Has mid-range and tweeter level controls; 4 ohms impedance. 100 watts (IHF) maximum input power. 12" H x 19" W x 9 1/2" D. Oiled walnut finish \$99.50

RTR

280DR Two-Way Speaker System

Infinite-baffle with special low-frequency system using 10" woofer; 2" cone-type tweeter. Response 22-18,500 Hz ± 4 dB; crossover 3500 Hz; imp. 8 ohms. Will handle 100 W continuous rms power. Walnut enclosure with black grille cloth. 16 1/2" x 16 1/2" x 39" \$280.00

180 D Two-Way Speaker System

Infinite-baffle with 10" planar resistive-loaded woofer; 2" cone tweeter. Response 28-18,500 Hz ± 4 dB; crossover 3500 Hz; imp. 8 ohms. Will handle 60 W continuous rms power. Walnut enclosure with black grille cloth. 14" x 14" x 33 1/2" \$180.00

HPR-12 Three-Way Speaker System

Rear-loaded three-way system with 12" woofer, 5" cone mid-range, 2" cone tweeter. Response 35-18,500 Hz ± 4 dB; crossover 1500 & 10,000 Hz; imp. 8 ohms. Will handle 60 W continuous rms power. Walnut enclosure with black grille cloth. 14 1/2" x 13" x 36" \$169.00

ESR-6 Electrostatic Tweeter System

Electrostatic add-on tweeter with built-in crossover and level controls for both tweeter & woofer. Response 1500-30,000 Hz ± 3 dB; crossover 1500 Hz. Will handle 60 W continuous rms power (24 V max.); 8 ohms. Walnut cabinet with black grille cloth. 14 1/2" x 12" x 14 1/2" \$149.00

SAE

Mark XII Electrostatic Transducer

Solid-state design; 8 ohms impedance. Power requirement 60 W rms. Has 12" dynamic-type woofer, 5" dynamic-type mid-range, and three electrostatic elements—two to provide mid- and high-frequency and one to provide primary high-frequency coverage of unusually high dispersion. Crossovers of low-freq. driver adjustable to 120, 240, or 480 Hz at 6 dB/octave; mid-freq. driver 240 Hz at 6 dB/octave with continuously variable output; electrostatic units 1440 Hz at 12 dB/octave with level adjust from -3 to +3 dB. 120 V a.c. operation. 27" x 17" x 12 1/2" D. Oiled walnut Pair \$900.00
Rosewood finish Pair \$1000.00

Mark XIV Electrostatic Transducer

Has 12.3" low-frequency transducer; 5" mid-frequency transducer and constant-charge, bipolar-radiating electrostatic elements. Crossovers: low-freq. driver adjustable to 120 Hz, 240 Hz, 480 Hz at 12 dB/octave; mid-freq. drivers 240 Hz at 6 dB/octave continuously variable calibrated adjustment from -16 dB through +4 dB; electrostatics 1440 Hz at 12 dB/octave, efficiency level adjustable from -4 dB through +10 dB, continuously variable adjustment. Solid-state electronic protection. Minimum power input 100 W/ch; maximum power input no limit. 8 ohms impedance. Available in oiled walnut or rosewood with ebony fabric grille cloth. 42 1/2" H x 24" W x 18" D at base (6" D at top).
Oiled walnut \$1450.00 pr.
Rosewood \$1675.00 pr.

Mark X Dynamic Transducer

12" low frequency driver; 5" mid-frequency driver in an air-tight enclosure, and two 2 1/2" tweeters (one radiating toward the rear). Crossovers at 1440 Hz, 240 Hz, 480 Hz all at 6 dB/octave. Has continuously adjustable high-frequency level control (-7 dB to +5 dB) and mid-frequency level control (-16 dB to +4 dB). 8 ohms imp.

Minimum power input 20 W rms. Hand-rubbed oiled walnut cabinet. 25" H x 14 1/2" W x 12" D \$175.00

Mark XI Dynamic Transducer

Three-way system with 12" driver; two 5" mid-range; three 2 1/2" forward-radiating tweeters, and one 2 1/2" rear-radiating tweeter. Crossovers at 1440 Hz (high) and 240 Hz (mid-frequency) both at 6 dB/octave. Adjustable low-frequency crossovers at 120, 240, and 480 Hz at 6 dB/octave. Has continuously adjustable high-frequency (-7 dB to +5 dB) and mid-frequency (-16 dB to +4 dB) level controls. 8 ohms imp. Minimum power input 30 W rms. Hand-rubbed walnut enclosure. 27" H x 17" W x 12 1/2" D \$275.00

SANSUI

AS-300 3-Way Speaker System

Acoustic-suspension design with 12" woofer, 6 1/2" cone mid-range, and 3" cone tweeter; 2000



& 4500 Hz crossovers. 8 ohms. Capacity 60 W peak. Range 35-20,000 Hz. 14 1/2" x 26 1/2" x 11 1/2" D. Walnut cabinet \$139.95

SP-3500 4-Way, 6-Speaker System

Multi-directional bass-reflex design with one 14" cone woofer, two 4" cone mid-range, one 4" x 2" horn mid-range, and two 2" horn tweeters. Response 25-20,000 Hz; crossovers at 700, 2000 & 6500 Hz. Power capacity 100 W. 8 ohms imp. 24 1/2" H x 17 1/2" W x 11 1/2" D. Walnut open-pore finish \$249.95

SP-2500 3-Way, 5-Speaker System

Multi-directional bass-reflex design with one 12" cone woofer, two 5" cone mid-range, two 2" horn tweeters. Response 30-20,000 Hz; crossovers at 700 & 6500 Hz. Power capacity 80 W. 8 ohms imp. 23 1/2" H x 15 1/2" W x 10 1/2" D \$209.95

SP-1700 3-Way, 5-Speaker System

Multi-directional bass-reflex design with one 12" cone woofer, two 4" cone mid-range, and two 2" cone tweeters. Response 30-20,000 Hz; crossovers at 700 & 6500 Hz. Power capacity 70 W. 8 ohms imp. 25 1/2" H x 16 1/2" W x 10 1/2" D. Walnut open-pore finish \$189.95

SP-1200 3-Way, 5-Speaker System

Multi-directional bass-reflex design with one 10" cone woofer, two 4" mid-range, and two 2" cone tweeters. Response 35-20,000 Hz; crossovers at 700 & 6500 Hz. Power capacity 60 W. 8 ohms imp. 23 1/2" H x 15 1/2" W x 10" D \$110.95

SCOTT, H.H.

S-11C Speaker System

Sealed, 3-way floor-standing system with 10"

woofer, 3 1/2" mid-range, and 3" tweeter. Response 35-20,000 Hz; 900 & 3500 Hz crossovers. Has mid-range and tweeter controls. 8 ohms impedance. Requires 10 W (IHF) driving power; 50 W (IHF) maximum input. 24" H x 14 1/2" W x 11 1/2" D. Walnut \$125.00

D-42 Speaker System

Sealed, 2-way bookshelf system with 8" woofer and 1" dome tweeter. Response 35-20,000 Hz; 2200 Hz crossover. Has tweeter control. 8 ohms impedance. Requires 10 W (IHF) driving power; 35 W (IHF) maximum input. 11 1/2" W x 22" H x 8 1/2" D. Walnut \$69.90

D-52 Speaker System

Sealed, 2-way floor-standing system with 10" woofer and 1 1/2" dome tweeter. Response 30-17,000 Hz; 1200 Hz crossover. Has tweeter control. 8 ohms impedance. Requires 18 W (IHF) driving power; 60 W (IHF) maximum input. 24" H x 14 1/2" W x 10 1/2" D. Walnut ... \$99.90

D-71 Speaker System

Sealed, 3-way floor-standing system with 12" woofer, 4 1/2" mid-range, and two 1" dome tweeters. Response 28-20,000 Hz; 900 & 4500 Hz crossovers. Has 3-position mid-range/tweeter level switch. 8 ohms impedance. Requires 20 W minimum amplifier power; handles 100 W program material. 25" H x 15 1/2" W x 11 1/2" D \$179.90

S-15 Speaker System

Sealed, 3-way bookshelf system with 10" woofer, 4" mid-range, and 3" tweeter. Response 35-20,000 Hz; 800 & 4000 Hz crossovers. Has 3-position tweeter/mid-range level switch. 8 ohms impedance. Requires 10 W driving power; will handle 50 W program material. 23 1/2" H x 11 1/2" W x 9" D \$100.00

S-17 Speaker System

Sealed, 2-way bookshelf system with 8" woofer and 3" tweeter. Response 40-20,000 Hz; 2000 Hz crossover. Has tweeter level control. 8 ohms impedance. 7 W minimum input; will handle 35 W program material. 18" H x 10 1/2" W x 8 1/2" D \$55.00

D-61 Speaker System

Sealed, 3-way floor-standing system with 10" woofer, 4 1/2" mid-range, and 1" dome tweeter. Response 30-20,000 Hz; 1000 & 5000 Hz crossovers. Has 3-position mid-range/tweeter level switch. 8 ohms impedance. Requires 18 W minimum input; handles 75 W program material. 25" H x 14 1/2" W x 11 1/2" D \$139.90

SHERWOOD

Woodstock Speaker System

Sealed, 2-way bookshelf system with 8" woofer & 3 1/2" tweeter. Response 40-18,000 Hz; 4000 Hz crossover. Has tweeter control. 8 ohms impedance. 25 W (EIA) maximum input power. 11" H x 18" W x 9" D. Oiled walnut \$59.95

SONY

SS-7100 Speaker System

Two-way acoustic suspension system with 8" woofer & 1" dome tweeter; crossover 3500 Hz. LC crossover network, 12 dB/octave slope; response 60-20,000 Hz; system resonance 60 Hz ±10 Hz. Will handle 50 W peak; min. recommended amp power 10 W rms. 6 ohms impedance. Has 3-position tweeter control (6 dB total variation at 10 kHz). Oiled walnut enclosure with removable front grille. 11 1/2" H x 20 1/2" W x 11 1/2" D \$169.50 pr.

SOUNDCRAFTSMEN

Lancer SC-3X Speaker System

Tuned ducted-port 3-way bookshelf system

with 12" woofer, mid-range diffuser, and flared horn tweeter. Response 26-22,000 Hz; 1000 & 3000 Hz crossovers. Has tweeter level control, 8 ohms impedance. Requires 10 W dynamic driving power; 60 W maximum dynamic input. Features removable front grille. Oiled walnut finish. 15 1/2" H x 23 1/2" W x 12 1/2" D ... \$199.50

Lancer SC-5 Speaker System

Bass-reflex with two tuned ports, 3-way floor-standing system with 12" woofer in triaxial single speaker with compression tweeter. Response 28-20,000 Hz; 1000 & 3500 Hz crossovers. Has tweeter level control; 8 ohms impedance. Requires 5 W dynamic driving power; 40 W maximum dynamic input. Oiled walnut finish. 23 1/2" H x 15 1/2" W x 12 1/2" D \$149.50

Lancer 9534-X Speaker System

Tuned ducted-port 2-way bookshelf system. Response 40-18,000 Hz; 3000 Hz crossover. 8 ohms impedance. Requires 5 W dynamic driving power; 30 W max. dynamic input. Oiled walnut finish. 11 1/2" H x 23 1/2" W x 11 1/2" D. \$69.50

Lancer 9535-2 Speaker System

Tuned ducted-port 2-way bookshelf system with 12" woofer & separate tweeter. Response 30-20,000 Hz; 3000 Hz crossover. 8 ohms impedance. Requires 5 W dynamic driving power; 35 W maximum dynamic input. Oiled walnut finish. 14 1/2" H x 25" W x 11 1/2" D \$99.50

SC-12ES Electrostatic Speaker System

Acoustic-suspension design with 12" woofer (15 Hz free-air resonance), a 5" dual-cone mid-



range, and 144-sq. in. electrostatic radiator. Response 20-30,000 Hz. Needs 20 W amplifier. Capacity 150 W rms. Has variable crossovers: 240-1000 Hz, 1500-6000 Hz. 8 ohms impedance. Features electrostatic radiators with a frequency dispersion "Reflectrostatic" back-wave doubler & a response-equalization control panel with 100% variable mid-range controls plus 3-stage low-frequency roll-off. 18" x 14" D x 28" \$399.50

Lancer SC-6 Speaker System

Sealed enclosure, 4-way bookshelf system with 12" woofer in triaxial single speaker with flared horn tweeter. Response 18-22,000 Hz; 1000 & 3000 Hz crossovers. Has tweeter level control, 8 ohms impedance. 60 W maximum dynamic input. Features "aerodynamic bass energized" system using separate 12" loaded cone woofer. 16" H x 27" W x 14 1/2" D \$249.50

SPENDOR

BC-3 Studio Monitor Speaker

Four-way system using same drivers as in BC-1 plus 12" woofer. 80 W power handling capacity. 14" x 14" x 32". Available in same finishes as BC-1 \$595.00

BC-1 Monitor Speaker

Three-way system using 8" plastic cone of special design as bass driver, a Celestion Type 1300 mid-range, and an STC Type 4001G



tweeter with LC network and matching transformer crossover. Will handle up to 40 W. 8 ohms imp. Response 60-14,000 Hz ± 3 dB. Available in teak, walnut, rosewood, and white. 25" x 12" x 12" \$295.00
BC-2. Same as BC-1 except will handle 50 W \$395.00
 Trolleys (recommended for best performance with all three systems) available in black, satin chrome, or white \$60.00 pr.

SYLVANIA

AS105W Speaker System

Sealed air-suspension design with 10" woofer, 1 1/2" dome mid-range, and 1" dome tweeter. Response 30-20,000 Hz; crossovers at 600 & 10,000 Hz. 8 ohms. Capacity 65 W continuous max. 24 1/2" H x 13 1/2" x 11 1/2" D. Walnut \$119.95

AS3712W Speaker System

Sealed air-suspension design with 12" woofer, 4" mid-range, and 1" dome tweeter. Response 25-20,000 Hz, crossovers at 1500 & 6000 Hz. 8 ohms. Capacity 50 W continuous. 29 1/2" x 15 1/2" x 11 1/2" D. Walnut-grained vinyl ... \$199.95 pr.

AS1710W Speaker System

Sealed air-suspension design with 10" woofer, 3" mid-range, and 2 1/2" tweeter. Response 30-18,000 Hz, crossovers at 2000 & 7000 Hz. 8 ohms. Capacity 50 W continuous. 22" x 13 1/2" x 11 1/2" D. Walnut-grained vinyl ... \$139.95 pr.

AS3710W Speaker System

Sealed air-suspension design with 8" woofer and 1 1/2" dome mid-range/tweeter. Response 40-20,000 Hz, crossover at 3000 Hz. 8 ohms. Capacity 50 W continuous. 18 1/2" x 10 1/2" x 10 1/2" D. Walnut cabinet \$74.95

AS225A Speaker System

Sealed air-suspension design with 12" woofer, 4 1/2" lower mid-range, 1 1/2" dome upper mid-range, and 1" dome tweeter. Response 20-20,000 Hz; crossovers at 350, 2000 & 9000 Hz. 8 ohms imp. Will handle up to 150 W continuous power per channel. Has tweeter, upper mid-range, and lower mid-range level switches. Cabinet in hardwoods, genuine veneers, and decorative non-wood material. Removable lattice-work grille cloth assembly. 28 1/2" (plus 2 1/2" base) x 17 1/2" W x 12 1/2" D \$249.99

AS125B Speaker System

Sealed air-suspension design with 12" woofer, 1 1/2" dome mid-range, and 1" dome tweeter. Response 20-20,000 Hz; crossovers at 600 &

6000 Hz. 8 ohms impedance. Will handle up to 100 W continuous power per channel. Has tweeter and mid-range level switches. Cabinet of genuine walnut veneers. 27 1/2" H x 15 1/2" W x 12 1/2" D. \$169.95

AS3708W Speaker System

Sealed air-suspension design with 8" woofer and 3" tweeter. Response 40-16,000 Hz; crossover at 5000 Hz. 8 ohms imp. Will handle up to 35 W continuous power per channel. Walnut-grained vinyl. 18 1/2" H x 12" W x 9" D. \$119.95 pr.

TANDBERG

TL5010 Speaker System

Features 12" woofer, 5" mid-range, and 1" dome tweeter. Response 20-25,000 Hz. Capacity 45 W rms power. 4-8 ohms. Has tweeter protection up to 45 W rms. Walnut cabinet. Available with acoustically transparent cloth/foam front or wooden grille. 25 1/2" x 14 1/2" x 11" D. ... \$249.80

TANNOY

Granada Speaker System

Tuned, ducted-port bookshelf system with 10" dual concentric speaker; 1200 Hz crossover. Has balance and tweeter controls, 8 ohms impedance. Oiled walnut. 23 1/2" H x 14 1/2" W x 11 1/2" D \$204.00

Lancaster Speaker System

Bass-reflex, ducted-port floor-standing system with 15" dual concentric speaker. Response 35-20,000 Hz; 1000 Hz crossover. Has balance and tweeter controls, 8 ohms impedance. 50 watts (dynamic) maximum input power. Oiled walnut. 29" H x 26" W x 19 1/2" D \$378.00

Mallorcan Speaker System

Tuned, ducted-port bookshelf system with 12" dual concentric speaker. Response 35-20,000 Hz; 1000 Hz crossover. Has balance and tweeter controls, 8 ohms impedance. Oiled walnut. 14 1/2" H x 23 1/2" W x 11 1/2" D \$237.00

Belvedere Speaker System

Bass-reflex, ducted-port floor-standing system with 15" dual concentric speaker. Response 35-20,000 Hz; 1000 Hz crossover. Has balance and tweeter controls, 8 ohms impedance. 50 watts (dynamic) maximum input power. Oiled walnut. 33 1/2" H x 23 1/2" W x 16" D ... \$328.00

Orbitus-1 Speaker System

Omnidirectional, tuned floor-standing system with 12" dual-concentric speaker. Response 35-



20,000 Hz; 1000 Hz crossover. Has balance and tweeter controls, 8 ohms impedance. 30 watts maximum input power. Oiled walnut. 29" H x 17" W x 17" D \$291.00

Stuart Speaker System

Bass-reflex, ducted-port floor-standing system with 12" dual-concentric speaker. Response 35-20,000 Hz; 1000 Hz crossover. Has balance

and tweeter controls, 8 ohms impedance. 30 watts (dynamic) maximum input power. 25 1/2" H x 24 1/2" W x 16 1/2" D. Oiled walnut ... \$315.00

Studio Professional Monitor

Bass-reflex, floor-standing system with 14" dual-concentric speaker. Response 35-20,000 Hz; 1000 Hz crossover. Has balance and tweeter controls, 16 ohms impedance. 50 watts (dynamic) maximum input power. Walnut vinyl. 43" H x 30 1/2" W x 24" D \$450.00

GRF Speaker System

Horn-loaded design with 15" dual-concentric speaker which is rear loaded below 350 Hz where acoustic crossover takes place and front radiation is obtained up to 1000 Hz. Above this the non-directional horn-loaded high-frequency unit, which is part of the dual-concentric, takes over. Response 50-20,000 Hz ± 2 dB. Capacity 50 W. 42" x 17" D x 23 1/2". Oiled walnut, modern styling cabinet \$438.00
Windsor GRF. Same except with molded top & base and decorator grille. 41" x 18 1/2" D x 25" \$495.00

TEAC

LS-80 3-Way Speaker System

Features 12" woofer, a completely enclosed 5" cone mid-range, and a horn-type tweeter. Response 30-20,000 Hz; crossovers 12 dB/octave at 700 & 5000 Hz. Capacity 60 W. 8 ohms impedance. 26 1/2" x 16" x 11 1/2" D \$159.50

LS-30 2-Way Speaker System

Features 8" woofer, a 2" hyperbolic horn; crossover 6 dB/octave at 5000 Hz. Response 40-20,000 Hz. Capacity 30 W. 8 ohms. 17 1/2" x 11 1/2" x 9 1/2" \$99.50

TRUSONIC

JR-200M 3-Way Speaker System

Tuned-port bass-reflex design with 12" woofer, 5" acoustically isolated mid-range, and a horn-loaded dome tweeter; crossovers at 2500 & 7000 Hz. Response 20-20,000 Hz. Capacity 100 W peak. Has mid-range & tweeter level controls. 8 ohms impedance. 24" x 15 1/2" x 12" D. Oiled walnut \$149.95

JR-100M 3-Way Speaker System

Tuned-port, bass-reflex design with 10" woofer, 5" acoustically isolated mid-range, and horn-loaded phenolic dome tweeter. Has level control and sculptured foam grille. Response 30-20,000 Hz; crossovers at 1500 & 5000 Hz. Capacity 80 W peak. 8 ohms impedance. 14" x 23" x 10" D. Oiled walnut \$119.95



ULTRALINEAR

1000 Two-Way Speaker System

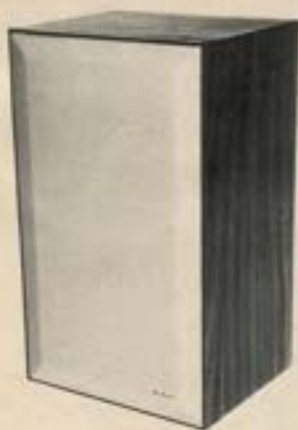
Features exclusive dual-mode array with two 3 1/2" cone radiators for high-frequency response



and an inertial equalizer disc for controlled response of 10" acoustic suspension woofer. Response 35-22,000 Hz (virtually flat). Impedance 8 ohms. Power handling capacity 60 W rms; minimum recommended amp power 25 W/ch rms. 2600 Hz crossover through RLC network. Has a continuously variable calibrated level control. Walnut-finish enclosure with mar-resistant melamine overlay. Black double-knit grille front. 24 1/2" W x 14 1/2" H x 12" D. Optional floor stand available extra. Less than . \$199.95

100 Two-Way Speaker System

Features a 12" woofer with 4" mid-range cone and a 4" tweeter. Has "blowout-proof" circuit



breaker with resettable push-button on rear of speaker. Response 32-17,500 Hz. Impedance 8 ohms. Power requirement 5 W rms minimum, 40 W rms maximum. 2500 Hz crossover. Double-knit grille cloth available in a choice of four colors. 24 1/2" W x 14 1/2" H x 12" D Less than . \$99.95

150 Two-Way Speaker System

Features a 12" air-suspension woofer with 4" tweeter. 2500 Hz crossover. 8 ohms impedance. Power requirement 8 W rms minimum, 40 W rms maximum. Has resettable pushbutton circuit breaker. 24 1/2" W x 14 1/2" H x 12" D Less than . \$119.95

200 Three-Way Speaker System

Features a 12" air-suspension woofer, 5" sealed mid-range, and 2 1/2" super tweeter. 1500 and 4000 Hz crossovers. Response 28-20,000 Hz. Power requirement 10 W rms minimum, 50 W rms maximum. 8 ohms impedance. Double-knit grille cloth available in choice of four colors. 24 1/2" W x 14 1/2" H x 12" D Less than . \$139.95

UTAH

MK-14 2-Way Speaker System

Acoustic-suspension system with 8" woofer and a Mylar dome radiator, horn amplified. Capacity 30 W peak. Response 50-20,000 Hz. Oiled walnut. 11" x 18" x 9" D \$69.95

MK-17 3-Way Speaker System

Acoustic-suspension system with 12" woofer, an 8" sealed mid-range, and a 3 1/2" sealed tweeter. Has treble control. Capacity 50 W peak. Response 32-18,000 Hz. 14" x 23" x 10". Oiled walnut. \$99.95

MK-18 3-Way Speaker System

Acoustic-suspension system with 12" woofer, compression horn as mid-range, and Mylar dome radiator, horn amplified. Capacity 60 W peak. Response 30-20,000 Hz. Has treble control. 15 1/2" x 24" x 12" \$129.95

HSI-C 3-Way Speaker System

Tuned-port bass-reflex design with 12" woofer, a compression horn mid-range, and a 5" tweeter. Response 30-19,000 Hz; crossovers at 2500 & 5000 Hz. Capacity 25 W dynamic. 8 ohms impedance. Has high-frequency level control. 15" x 25 1/2" x 14". Oiled walnut cabinet. \$99.95

WD-90 3-Way Speaker System

Acoustic-suspension design with 12" woofer, 8" direct-radiator sealed mid-range, and 3 1/2" sealed tweeter. Response 35-18,000 Hz. Capacity 60 W peak. Has high-frequency level control. 14" x 23" x 10" D. Oiled walnut cabinet \$89.95

A70-A 3-Way Speaker System

Acoustic-suspension design with 10" woofer, 6" direct-radiator sealed mid-range, and 3 1/2" sealed tweeter. Response 38-18,000 Hz. Capacity 50 W peak. 8 ohms impedance. 12 1/2" x 22" x 9". Walnut cabinet \$79.95

MP 3000 3-Way Speaker System

Floor-standing design with 15" woofer, 5" acoustically isolated mid-range, and two horn-loaded dome-radiator tweeters. Response 20-20,000 Hz; crossovers at 2500 & 7000 Hz (12 dB/octave LC types). Capacity 100 W peak. 8 ohms impedance. Has separate tweeter & mid-range controls and sculptured foam grille. Supplied with base. 27" x 20 1/2" x 14" D (without base) \$199.95

HS4-B 3-Way Speaker System

Tuned-port design with 12" woofer, compression horn mid-range, and horn-loaded phenolic



dome tweeter. Has treble control, sculptured foam front, and oiled walnut cabinet. Response 25-19,500 Hz; LC crossovers at 2500 & 5000 Hz. Capacity 90 W peak. 8 ohms impedance. 15" x 25 1/2" x 14" D \$149.95

V-M

84 Speaker System

Two-way system with 8" woofer & 3 1/2" tweeter.



Response 35-20,000 Hz. Capacity 40 W rms. 20" x 19 1/2" x 19 1/2" D. Pecan \$150.00

18 Two-Way Speaker System

Two-way air-suspension system with 8" high-compliance woofer and wide-dispersion treble speaker. Response 55-12,500 Hz. Crossover at 5500 Hz. Wood cabinet with black textured grille cloth. 16" H x 11 1/2" W x 8" D . . \$49.95 pr.

17 Two-Way Speaker System

Has 8" dual-cone speaker providing response from 80-11,000 Hz. Wood cabinet with black grille cloth and diffuser grille. 13 1/2" H x 9 1/2" W x 6" D \$39.95 pr.

13 Two-Way Speaker System

Back-ported system with 8" high-compliance dual-cone speaker. Response 80-10,000 Hz. Wood cabinet with black grille cloth. 13 1/2" H x 9 1/2" W x 6" D \$32.95 pr.

WOLLENSAK

A-1050 Speaker System

Sealed-enclosure system. Response 8-12,000 Hz. 8 ohms impedance. Requires 6 W rms driving power. 7 1/2" cube on pedestal base . . \$79.95

YAMAHA

NS-570 Two-Way Speaker System

Two-way, closed back floor-standing speaker system with 15" x 20" woofer, 2 1/2" horn tweeter; crossover 5000 Hz. Fundamental resonance 50 Hz; impedance 8 ohms; output (SPL) 92



dB/LM. Has tweeter control. White polyester and rosewood. 43 1/2" H x 17" W x 13 1/2" D. \$379.95

NS-550. Similar to NS-570 except 12.5" x 18" woofer, 2" dome tweeter. Fundamental resonance 55 dB, output (SPL) 90 dB/LM. 40 1/2" H x 15 1/2" W x 11 1/2" D \$299.95



TEL-26 / DYNAMIC \$36.95



TEL-14 / TWO-WAY \$29.95



TEL-29 / LIGHTWEIGHT \$19.95



TEL-111 / ELECTRET \$87.50



TEL-32Q / QUAD,
4-CHANNEL
\$47.75

There's a new name for Stereo & Quad Headphones: *Telephonics*

A leading designer and manufacturer of quality audio products for 40 years, Telephonics now introduces a complete line of Stereo & Quad Headphones. The same high reliability required for airline entertainment and communications systems is now made available by Telephonics, for home and professional use.

The TEL-111 ELECTRET Headphone, for example, incorporates the latest advances in electrostatic audio reproduction providing flat frequency response from 18 to 24,000 Hz, without the need for the conventional electrostatic power supply. And it reduces distortion to the vanishing point by using a stiff feather-light diaphragm suspended between two permanently-charged plates. The result is the clean, crisp, Telephonics sound, unobtainable with any but the most expensive speaker systems.

The TEL-26 DYNAMIC Stereo Headphone reproduces sound so faithfully that once you hear it, you'll never be satisfied with anything less. It has a separate tone control and volume control on each earcup to permit precise volume,



balance and tone adjustments. And Telephonics mechanical 2-way speaker system gives you the 2-way sound without the cost.

For the breathtaking realism of quadrasonic sound, the TEL-32Q QUAD, 4-CHANNEL Headphone has two 2-way speaker systems (four speakers in each earcup) to let you discover sound you've never heard

before. The optional Telephonics Balance Controller lets you sit in your favorite easy chair, far from your receiver or amplifier, and set the 4-channel balance exactly the way you want it.

The TEL-14 TWO-WAY Headphone contains a full 2-way speaker system, complete with crossover network in each earcup. Deep, smooth bass response from the woofers and the bright treble highlights of the tweeters overlap to make the presence of the music felt, just the way the artist intended.

The TEL-29 LIGHTWEIGHT Headphone, the "Weight Watcher" member of the family is easy on the budget. Constructed of air-light materials for hours of easy listening, the Lightweight never disturbs nor intrudes on the music, but is not completely isolating. A volume control on each earcup allows you to adjust volume and balance without returning to your amplifier.

If you want to hear Sound the way it was recorded, don't let an ordinary Headphone come between you and your music. Demand the exceptional. Ask for Telephonics, available soon at your local dealer. Or write Sandy Curtis, Telephonics, 790 Park Ave., Huntington, N.Y. 11743.

Telephonics

40 years of Audio Engineering Excellence A Division of Instrument Systems Corporation

11

HEADPHONES & MICROPHONES

AKAI

ASE-22 Dynamic Headphones

Moving-coil type. Response 20-20,000 Hz. Sensitivity 1.0 mW, distortion 1% at 1.0 mW. 8



ohms impedance. 1/2 W maximum input per phone. Has individual earphone volume controls. 6-ft. coiled cord. Weight 20 ounces \$39.95

AKG

K-100 Dynamic Headphones

Response 20-20,000 Hz. Efficiency: 1 mW for 112 dB SPL. Impedance: 600 ohms each driver for multi-impedance matching 4 to 1000 ohms. 13 ounces \$29.00

K-150 Dynamic Headphones

Ultra-lightweight. Response 20-20,000 Hz. Efficiency: 1 mW for 112 dB SPL; with under 1% distortion at 125 dB SPL. Impedance: 600 ohms each driver for multi-impedance matching 4 to 1000 ohms. 9 ounces \$39.00

K-180 Dynamic Headphones

Has adjustable drivers for subjectively controllable sound. Response characteristics vary due to change in volume. Response 16-20,000 Hz. Efficiency: 1 mW for 112 dB SPL. Distortion less than 1% at 125 dB SPL. Impedance: 600 ohms each driver for multi-impedance matching 4 to 1000 ohms. 21 ounces \$69.00

ASTROCOM/MARLUX

Stereo Headphones

Dynamic type. Response 30-18,000 Hz, 8 ohms impedance. Sensitivity 1 mW, maximum input 500 mW. Distortion 1%. Features replaceable headpad, ear cushions, and cord. 6-ft. coiled cord. 15 ounces \$39.95

BEYER DYNAMIC

DT-48 Dynamic Headphones

Moving-coil type. Originally designed as an au-

diometry instrument for measuring human hearing in lab research. Range 16-20,000 Hz ± 2 dB. Response virtually flat. Comes with 10-ft cord \$110.00

DT48-K. Same as DT-48 except with plug-in coiled cable \$115.00

DT900 Dynamic Headphones

Moving coil type. Response 30-18,000 Hz. 5-2000 ohms impedance. 200 mW maximum input per phone. 6-ft. cord \$29.95

DT96A Dynamic Headphones

Moving coil type. Response 30-17,000 Hz. Sensitivity 1.0 mW at 400 Hz produces 110 dB (re 2×10^{-4} μ bar). 50-200 ohms impedance. 100 mW maximum input per phone. 5-ft. cord. 8 ounces \$42.50

DT100 Dynamic Headphones

Moving coil type. Response 30-18,000 Hz. Sensitivity 1 mW at 400 Hz produces 110 dB (re 2×10^{-4} μ bar). 5-100-400-2000 ohms impedance. 1 W maximum input per phone \$57.50

DT480 Dynamic Headphones

Moving coil type. Response 20-18,000 Hz. Sensitivity 1 mW at 400 Hz produces 115 dB (re 2×10^{-4} μ bar). 25-200 ohms impedance. 1 W maximum input per phone. \$80.00

BEYER/GOTHAM

DT-48S Stereo Headphones

Dynamic design extending from 20-18,000 Hz ± 2 dB. Dist. 0.3% below 100 Hz & 0.1% above.



Peak power demand 200 mW or 1 V max. per phone. Input 10 mW. Impedance: 5 ohms each for stereo (10 ohms total for mono) . . \$110.00
DT-48SN. 50-ohm mono design \$110.00
DT-48SP. Stereo design with separate plugs on each phone \$110.00
TR-48. Plug-in transformer for 600-ohm input \$20.00
TR-4B. Pair for stereo use \$36.80
UG-8. Speaker/phone switcher box . . . \$10.30

CARTER-CRAFT

40-404 Stereo Headphones

Electro-dynamic type. 8 ohms. Response 20-20,000 Hz. Maximum power 0.3 W. Has individual volume controls, 10-ft coiled cord . . \$24.88

40-402 Stereo Headphones

Electro-dynamic type. Response 20-20,000 Hz. Imp. 8 ohms. Max. power 0.2 W. Has foam padded adjustable headband and soft foam ear pads. 10-ft coiled cord with standard 1/4" stereo plug \$19.88

40-400 Stereo Headphones

Electro-dynamic type. Response 30-15,000 Hz. Imp. 8 ohms. Max. power 0.2 W. Foam padded. 6-ft cable and standard 1/4" stereo plug . \$14.88

CLARK, DAVID

100A Headphones

Dynamic type with frequency response 20-10,000 Hz ± 3 dB. Sensitivity 1.0 mW at 1000 Hz produces 100 dB (reference 0.0002 μ bar). Distortion less than 0.2% at 100 phn. 17 ohms impedance and 1.0 W maximum input per phone. 8-ft. coiled cord. 16 ounces. Also available in impedances of 300, 600, and 1200 ohms \$50.00

200 Headphones

Permanent-magnet type with frequency response 20-17,000 Hz. Sensitivity 1.0 mW at 1000 Hz produces 105 dB (reference 0.0002 μ bar). 8 ohms impedance. 1.0 W input, 17 ounces \$29.00

250 Headphones

Similar to 200, but with individual earphone volume control \$34.00

300 Headphones

Permanent-magnet type with frequency response 20-17,000 Hz. Sensitivity 1.0 mW at 1000 Hz produces 105 dB (reference 0.0002 μ bar). 8 ohms impedance. 1.0 W maximum input per phone. 10-ft. coiled cord . . . \$21.00

FISHER

HP-70 Dynamic Headphones

Response 30-18,000 Hz. Sensitivity 2.5 mW for average listening. Max. power 0.5 W. 16 ohms. 10-ft. coiled cord. 12 ounces \$29.95

HP-100 Dynamic Headphones

Response 18-22,000 Hz. Sensitivity 2 mW for average listening. Max. power 0.7 W. 50 ohms. 10 ounces .8 ft. coiled cord \$49.95

HITACHI

HD-66 Dynamic Headphones

Response 20-18,000 Hz. Distortion less than 1.0% at 1 mW, 8 ohms impedance. 0.5 W maximum input per phone. 12 ounces \$24.95

For 4-Channel Components . . .
See SECTION 9

KENWOOD

KH-71 Stereo Headphones

Open-back dynamic design. Has 3" speakers.



Response 20-20,000 Hz. Max. input 0.5 W, 8 ohms. With 12-ft. coiled cord \$49.95

KH-51. Economy version of the Model KH-71 \$29.95

KLH

Eighty Dynamic Headphones

Response 20-20,000 Hz ± 4 dB; sensitivity 1 mW at 1000 Hz produces 112 dB (80 μ bar). Distortion 0.5% at 112 dB SPL. 600 ohms impedance, 1.66 mW maximum input per phone. Has special headband webbing which conforms exactly to shape of wearer's head. Phones may be driven from 0-600 ohm source. Has 10-ft. cord. Weight 11 $\frac{1}{2}$ ounces. Black and gray \$49.95

KOSS

ESP-9 Electrostatic Headphones

Frequency response 15-15,000 Hz ± 2 dB. Sensitivity 80 dB SPL (reference 0.0002 dyne/cm²). Distortion less than 0.2% at 110 dB



SPL. 4 to 16 ohms impedance. 6-ft. coiled cord, 19 ounces. Black, fluid-filled earcups for ambient noise isolation. Designed for critical studio monitoring \$175.00

ESP-6 Electrostatic Headphones

Frequency response 30-19,000 Hz ± 5 dB. Sensitivity 80 dB SPL (reference 0.0002 dyne/cm²). Distortion less than 0.2% at 110 dB SPL. 4 to 16 ohms impedance. 10-ft. coiled cord, 27 ounces. Black, fluid-filled earcups for ambient noise isolation. Self-contained polarizer \$95.00

PRO-4AA Dynamic Headphones

Frequency response 10-20,000 Hz. Distortion is negligible at 95 dB SPL. 4 to 16 ohms impedance. 10-ft. coiled cord, 19 ounces. Fluid-filled earcups for ambient noise isolation \$60.00

PRO-600AA Dynamic Headphones

Same as PRO-4AA except nominally 600 ohms voice-coil impedance for matching audio trans-

mission lines. 600 ohms characteristic impedance. Available on special order \$65.00

KO-727B Dynamic Headphones

Frequency response 10-16,000 Hz. Distortion unmeasurable at 95 dB SPL. 4 to 16 ohms impedance. 10-ft. coiled cord, 19 ounces. Dark green finish \$34.95

KO-747 Stereo/Mono Headphones

Compatible with both stereo and mono music sources. Features a volume control on each



earcup for fine adjustments in level and balance. Incorporates the firm's new driver element. Has extendible, stainless-steel headband with self-adjusting, pivoting yoke to permit the phones to fit any head size. Frequency response 30-20,000 Hz. Two-tone brown. Fluid-filled washable ear cushions \$45.00

KRD-711 "Red Devil" Headphones

Dynamic type. Frequency response 10-17,000 Hz. THD less than 1/5% at 110 dB SPL. 3.2 to 600 ohms impedance. 5 V maximum input per phone. 10-ft. coiled cord, 12 ounces. Red solid plastic \$29.95

K-711 Same as above, but in jet black . . . \$29.95

K-6LC Dynamic Headphones

Frequency response 10-16,000 Hz. Distortion unmeasurable at 95 dB SPL. 4 to 16 ohms impedance. 10-ft. coiled cord. Individual earphone volume controls. Brown/beige . . . \$29.95

Model K-6. Same except without volume controls \$22.50

SP-3XC Headphones

Frequency response 10-14,000 Hz. 4 to 16 ohms impedance. 10-ft. coiled cord. Brown \$15.95

T-3 Speaker/Headphone Transfer Switch

Provides a speaker "on-off" switch and stereo-phone jack. Connects to speaker terminals of amplifier or receiver. Adds low-impedance jack to system for wide-range performance of stereophones \$7.95

T-1 Monitoring Adapter

For use with dynamic phones in monitoring tapes from high-impedance sources such as tape recorders with preamps only. Adapter contains matching transformers to match 600 to 10,000 ohm outputs down to 4 ohms. Equipped with two output jacks for stereophones and two pin-type jacks for inputs \$7.95

HV-1 Dynamic Headphones

Has 2" dia. driver & will operate from 3.2 to 600 ohm outputs. Response 20-20,000 Hz; capacity 5 V continuous with provision for 14 dB-SPL transient peaks. 9.3 ounces. 10-ft coiled cord \$39.95

T-5A Remote Control Station

Similar to T-10A. Has jacks for two sets of stereophones. Left- and right-channel volume controls and speaker "on-off" switch. Has walnut-like base combined with black trim. \$9.95

T-4A Connector Box

Accepts up to five sets of stereophones. 14-ft. cord with 3-conductor phone plug fits standard headphone jack. Private listening for five persons at one time. Unit measures 6" diameter and has walnut-like base combined with black trim and aluminum plug-in panel. . \$12.95

T-10A Chairside Listening Station

Offers remote control for two sets of stereophones. Features separate volume controls for each stereophone and a speaker "on-off" switch. Wires directly to amplifier or receiver. Unit measures 6" diameter and has a walnut-like base \$19.95

LAFAYETTE

F-2001 Electrostatic Headphones

Stereo design. Frequency response 5-35,000 Hz. Maximum power handling capacity 10 W. Delivers 3 octaves of sound beyond conventional phones. Comes with self energizer with speaker/phone switch and inputs for attaching two phones. Has adjustable cushioned vinyl headband and 5" x 4 $\frac{1}{2}$ " earphone cushions. Impedance 4-16 ohms. Weight 16 ounces. Includes color-coded speaker cables ... \$49.95

F-1000 Two-Way Stereo Headphones

Individual left- and right-channel volume controls. Response 20-20,000 Hz. Each earcup contains a 2 $\frac{1}{2}$ " two-way woofer/tweeter transducer. Lightweight form-fitting design. Impedance 8 ohms. Comes with 6-ft coiled cord \$39.95

F-600 Open-Acoustic Headphones

Open-acoustic stereo design. Response 20-20,000 Hz. Lightweight open-air foam ear cushions with adjustable headband. Imp. 200 ohms. Comes with 5-ft cord and plug \$29.95

F-990 Stereo Headphones

Response 20-20,000 Hz. Has two 3 $\frac{1}{2}$ " wide-range transducers; air-tight earphone cush-



ions; fully adjustable cushioned headband. Imp. 8 ohms. Comes with 6 $\frac{1}{2}$ -ft cable and standard stereo phone plug \$34.95

LLOYD'S

Y707 Headphones

Stereo design. 8 ohms. 10 $\frac{1}{2}$ -ft cord ... \$9.95

Y669 Headphones

Stereo design with slide-type volume control on each earpiece. 8 ohms. 15-ft coiled cord \$14.95

Y737 Stereo Headphones

Has individual volume controls in separate remote-control box. Adjustable headband and foam-filled cushions. 17-ft coiled cord. Impedance 8 ohms \$19.95

MURA

SP-99 Stereo Headset

Lightweight headset designed to be worn either

over the head or under the chin. Impedance 4-16 ohms. Frequency response 30-16,000 Hz. 2 W max. output. Comes with 6-ft cord . . . \$11.50

SP-100 Stereo Headset

Lightweight headset. Frequency response 30-15,000 Hz. Comes with 8-ft cord . . . \$11.50

SP-202 Stereo Headset

Features volume controls for each earpiece and stereo/mono switch. Response 30-15,000 Hz. Imp. 8 ohms. Comes with 10-ft coiled cord . . . \$14.95

SP-402 Stereo Headset

Features fully padded headband and oversized ear cushions. Individual volume controls and stereo/mono switch included. Response 30-18,000 Hz. 8 ohms imp. 10-ft coiled cord . . . \$19.95

SP-600 Stereo Headset

Open-air design to accommodate surrounding sounds while listening. Mylar speakers for improved response. Response 20-20,000 Hz. 1 mW power required. 8 ohms impedance. Comes with 10-ft coiled cord . . . \$29.95

SP-103A Stereo Headset

Features tone and volume controls on each earcup. Response 20-20,000 Hz. Has stereo/mono switch, 8 ohms impedance. 10-ft coiled cord . . . \$37.95

SP-205 Stereo Headset

Features slide-type volume and tone controls; Mylar speakers; stereo/mono switch. Impedance 8 ohms. Response 30-20,000 Hz ± 5 dB. Includes 16-ft coiled cord and zippered storage case . . . \$49.95

SP-206 Stereo Headset

Features Mylar speakers and vented housing with bass-reflex-type enclosure. Has individual volume and tone controls. Response 20-20,000 Hz ± 4 dB. Impedance 8 ohms. Stereo/mono switch. Comes with 25-ft coiled cord and zippered storage case . . . \$59.95

PICKERING

OA-1 Headphones

Lightweight, open-air design. 8 ohms. Max. input 300 mW. Sensitivity: 100 dB at 600 Hz. Response 30-19,000 Hz. Is equipped with 7-ft cord . . . \$19.95

PIONEER

SE-305 Stereo Headphones

Dynamic type covering a frequency range of 20-20,000 Hz. 8 ohms imp. each channel; matching imp. 4 to 16 ohms. Max. input power 500 mW each channel. Comes with 16-ft, 5-in coiled cord. 15 ounces . . . \$34.95

SE-205 Stereo Headphones

Dynamic type covering a frequency range of 20-20,000 Hz. Cone-type speaker in each earpiece. Matching imp. 4 to 16 ohms. Max. input power 500 mW each channel. Comes with 8.2-ft cable. 16 ounces . . . \$24.95

SE-505 Headphones

Two-way stereo dynamic design with a woofer & tweeter in each phone; 8 ohms each channel. Response 20-20,000 Hz. Sensitivity 108 dB/0.3 V; Features both tone & volume controls on each phone. maximum input 500 mW each phone. With 16-ft, 5-in coiled cord . . . \$59.95

SE-L40 Headphones

Features open-back design. 4 to 16 ohms. Maximum input 0.5 V. Response 20-20,000 Hz; sensitivity 96 dB/0.1 V. Has 1 1/2" dynamic speaker. 9 1/2-ft cable. Comes with carrying case . . . \$39.95

RADIO SHACK

Nova-15 Headphones

Dynamic type. Ported open-back earcups. Response 20-20,000 Hz. 10-ft cord. 4 to 16 ohms impedance . . . \$21.95

Pro-1 Headphones

Dynamic type. Ported open-back earcups. Response 20-20,000 Hz. 10-ft cord. 4 to 16 ohms ear cushions. Has individual earphone volume controls . . . \$49.95

Custom Pro Headphones

Dynamic type. Response 20-20,000 Hz. Impedance 4 to 16 ohms; bass port . . . \$24.95

Nova Pro Headphones

Stereo dynamic design with volume controls on each earcup. Response 20-20,000 Hz; 8 ohms impedance. 10-ft. coiled cord . . . \$34.95

SANSUI

SS-2 Dynamic Headphones

Moving-coil type. Response 20-18,000 Hz, distortion 1% at 1 mW. 8 ohms impedance. 500



mW max. input per phone. 6-ft. cord. 12.6 ounces. Black and white . . . \$16.95

SS-10 Dynamic Headphones

Moving-coil type. Response 20-20,000 Hz. 8 ohms impedance. 500 mW max. input per



phone. 10-ft. coiled cord. Has individual headphone volume controls and "Y" connector on additional 6.5-ft. cord for simultaneous use of extra headset. 22 ounces. Cream . . . \$32.95

SCINTREX

Mark IV Stereophones

Features flat response 15-20,000 Hz; response 20-15,000 Hz ± 3 dB. Sensitivity (100 dB SPL) 10 mW. Maximum input 2 W; max. output 120 dB. HD 0.6% at 1000 Hz at max. dB. Ambient noise isolation 40 dB at 1000 Hz. 4-8 ohms impedance. ABS ear cups and fluid-filled ear cushions. Features patented dual-driver cavity assembly. Comes with 14-ft coiled cord with special strain-relief feature. Black with chrome-plated headband. 18 oz . . . \$45.00

98 Stereophones

Features patented dual-cavity design and contoured response for accented bass and treble to match hearing characteristics. 4-300 ohms impedance. Sensitivity 6 mW; max. input 1 W; max. output 110 dB. Response 15-20,000 Hz. HD 1% at 1000 Hz at max. dB. Ambient noise isolation 40 dB at 1000 Hz. ABS ear cups and

DISCOVER MURA



Mura headsets are setting new standards for quality performance and modern design at a surprisingly low price.

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QUADRASONIC HEADSET—QP-280

Unusually fine performance at this low price. Special speaker system unmatched by any other 4-channel headset.

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STEREO MODEL SP-205

Slide volume & tone control for precision tuning. Hand-some zippered fitted case included.

SUGGESTED AUDIOPHILE NET: \$39.95

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liquid-filled ear cushions. Chrome-plated headband. Comes with 14-ft coiled cord with strain-relief feature. 16 oz \$34.95

PRO-500 Stereophones

Response 15-20,000 Hz; 20-18,000 Hz ± 3.5 dB. HD 0.9% at 1000 Hz at max. dB. Sensitivity (100 dB SPL) 4 mW; max. input 1 W; max. output 110 dB. 4-16 ohms impedance. Ambient noise isolation 40 dB at 1000 Hz. Equipped with patented dual-driver cavity assembly. Liquid-filled ear cushions. Individual volume controls in each earcup. 14-ft coiled cord with strain-relief feature. 18 oz \$60.00

10/10 Stereophones

Response 15-20,000 Hz; 30-14,000 Hz ± 3 dB. 4-8 ohms impedance. Sensitivity (100 dB SPL) 10 mW. Maximum input 2 W; max. output 120 dB. HD 0.6% at 1000 Hz at max. dB. Ambient noise isolation 40 dB at 1000 Hz. Has ABS ear cups and liquid-filled ear cushions. Equipped with dual-driver cavity assembly. Blue/chrome. 14-ft coiled cord with strain-relief feature. 18 oz. \$36.95

88 Stereophones

Lightweight (9 oz) circumaural design which will withstand rugged use. Impedance 4-16 ohms. Sensitivity (100 dB SPL) 8 mW. Maximum input 1 W; max. output 110 dB. Response 15-20,000 Hz. HD 0.9% at 1000 Hz at max. dB. Ambient noise isolation 20 dB at 1000 Hz. Cyclocac ear cups with foam ear cushions. Has automatic frequency compensation. Black with Polypropylene headband. 14-ft coiled cord with strain-relief feature \$24.95

"Supra" Lightweight Stereophones

Open-air design with "Supraform" acoustics and high velocity drivers. Weighs only 6.5 oz.



including cord. Response 20-20,000 Hz; 20-12,000 Hz ± 6 dB. Impedance 4-200 ohms. HD at max. dB less than 1%. Sensitivity 0.5 mW at 100 dB SPL. Max. input 4 mW; max. output 110 dB. Foam plastic ear cushions, 10-ft coiled cord with strain-relief feature. Chrome-plated headband \$39.95

SENNHEISER

HD414 Headphone

Dynamic stereo design. 2000 ohms/ch. Response 20-20,000 Hz. Sensitivity 17.7 $\mu\text{bar}/\text{V}$. Normal power 1 mW/ch (1.41V) for sound pressure of 102 dB. HD 1% at 22 V & 1000 Hz. Can be connected to any preamp output. 5 ounces without cord, 10-ft. cable \$42.95

STANTON

Isophase Electrostatic Headphones

Electrostatic design. Response 30-15,000 Hz



± 3 dB. Sensitivity 2 V for 100 dB (SPL) sound pressure level at 1000 Hz. Distortion 1% at 115 SPL. Impedance 4-16 ohms. Has automatic cut-out circuit at 110 dB SPL. Supplied with Mark III electrostatic polarizer unit (also switches from headset to main speaker operation). Power requirements 120 V a.c., 4 W. For use with power amplifiers of 10 W or over. 11-ft. cord. 15 ounces. 4 $\frac{1}{2}$ " W x 7 $\frac{1}{2}$ " D x 2 $\frac{1}{2}$ " H. Beige and cream. \$159.95
Second headset \$75.00
2-headset "Y" adapter \$9.95
10-ft. extension cord \$15.95

Dynaphase Sixty Headphones

Dynamic design; two-way system—woofer & tweeter with individual LC crossover. Response 40-11,000 Hz ± 3 dB. Sensitivity 95 dB for 1 mW at 1000 Hz (100 dB sound pressure level). Distortion 1% at 115 dB SPL. Impedance 8 ohms. Power input 0.5 W rms max. per phone. 10-ft. coiled cord. 28 ounces. Can use same accessories as the Dynaphase Forty. Blue and black \$59.95

Dynaphase Forty Headphones

Dynamic design. Response 60-10,000 Hz ± 3 dB. Distortion 1% at 115 dB SPL. 8 ohms impedance at 1000 Hz; Power input 0.5 W rms max. per phone. 10-ft cord. 21 ounces. Blue-black/chrome \$39.95
Model 5748. Same as Dynaphase Forty except 600 ohms imp \$47.95

Dynaphase Seventy-Five Headphones

Dynamic design with remote control for volume & tone, 13-ft coiled cord. Response 40-11,000 Hz ± 3 dB. Sensitivity 100 dB SPL (at 0.11-V at 1000 Hz). Max. input 0.5 W rms; dist. 1.0% with 115 dB SPL. Input 12 ohms imp. Features two-way design with separate woofer & tweeter with LC crossover network. 28 ounces \$74.95
Model 5741. Same as used on Dynaphase Seventy-Five. Separate volume & tone controls for each channel, stereo/mono switch & 17-ft. extension coiled cord \$19.95
Model 5742. 25-ft. extension coiled cord. \$7.95

Dynaphase Fifty Headphones

Same as Dynaphase Forty except has volume control on each earpiece \$49.95

STAX

SR3 Stereo Headset

Electrostatic design supplied with matching power-supply unit. Frequency range 25-30,000 Hz. Capacitance 120 pF including cord. Maximum sound level 115 dB. Use with any amplifier of 5 W or more. Has connections for two headsets, switch for loudspeaker or headphone, and a 9-ft cord \$125.00
Power supply alone \$45.00
Headset alone \$85.00
12-ft extension cord \$14.95

SRA-3S Headphone Amplifier

Features inputs for magnetic phono, Stax condenser cartridge (hi-level), and aux. Outputs for two Stax headphones (or up to four, using two extension cords), tape recorder. Includes filter and stereo/mono switches. 5" W x 4" x 11" D \$165.00

SUPEREX

PEP-79 Electrostatic Headphones

Frequency response 10-22,000 Hz ± 5 dB. Consists of PEP-71 stereo phone (same as in PEP-77D) and console that accommodates one set of stereophones. Designed to use level controls of main amplifier or receiver; no a.c. connection. Console, wood-grain vinyl over steel \$85.00

PRO-B-VI Headphones

Has acoustic-suspension woofer and ceramic tweeter. Response 15-22,500 Hz. 4 to 16 ohms impedance. 2 W maximum input per phone. 15-ft. coiled cord. Cordovan, ivory, or transparent \$60.00

ST-PRO-B Headphones

Moving-coil dynamic woofer and ceramic tweeter. Response 18-22,000 Hz. 4 to 16 ohms impedance. 2 W maximum input per phone. 7-ft. cord \$50.00

PEP-77D Electrostatic Headphones

Frequency response 10-22,000 Hz ± 5 dB. 4 to 16 ohms impedance. 5 W minimum input to



energizer. Uses "console" energizer (included). Provides two-phone accommodation and separate channel grounds. 15-ft. coiled cord. 12 ounce headphones \$120.00

ST-V Headphones

Moving-coil dynamic type. Response 20-18,000 Hz. 4 to 16 ohms impedance. 2 W maximum input per phone. Individual earphone volume controls. 15-ft. coiled cord \$30.00

EA500 Stereo-Headphone Amp

Compact, solid-state design. Response 20-20,000 Hz ± 1 dB at maximum volume setting, tuner input, and with both channels driven. THD less than 0.5%. Maximum sine-wave output; 500 mW into 8 ohms both channels driven. Hum level 75 dB below full output on mag. phono inputs. Unit has front-panel input (tuner-phono) selector, left & right volume controls, two parallel stereo headphone jacks, illuminated power switch, rear-panel mag. phono input, tuner input. 3" x 10 $\frac{1}{2}$ " x 8 $\frac{1}{2}$ " D \$80.00

SST Headphones

Response 20-20,000 Hz. Maximum music power 2 watts. Has volume and tweeter controls at each earpiece. Supplied with 15-ft coiled cord. Cordovan or ivory. 4-16 ohms. . . \$40.00

ST-F "Feather-Fone"

Weighs only 8 ounces (excluding 15-ft coiled cord) with a 25-17,500 Hz response. Maximum power 0.5 watt. Ivory/Cordovan \$24.95

ST-C "Challenger"

Dynamic stereophones with 40-15,000 Hz response. Double post and yoke headband. Cordovan \$19.95

ST-N "Newport"

Contemporary design dynamic stereophones with post and yoke headband. Response 30-15,000 Hz. Cordovan \$19.95

1974 STEREO DIRECTORY & BUYING GUIDE

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A COMPLETE SET OF MATCHED STORAGE CASES

Here's the ideal solution to the problem of keeping all your records and tapes stored neatly, safely, conveniently and attractively. A complete set of matched storage cases, designed by the editors of STEREO REVIEW magazine, for your records and all your tapes: cassette, cartridge and 7" reel. Now you can keep them side-by-side on your bookshelf or cabinet, easy to identify and readily available.

These cases are sturdily constructed and covered in a handsome leatherette. The outer case is elegantly embossed in gold and comes in your choice of three popular decorator colors—black, brown and green—so that they lend themselves readily to the decor of any room.

STEREO REVIEW large capacity storage cases are just what you've been looking for—they're the ideal solution to keeping your records and tapes neatly stored for easy use.

(A) 60-unit cassette case, 13½" high x 12½" deep x 5½" wide. \$15.95 each; 3 for \$45.00.

(B) 30-unit cassette case, 13½" high x 6½" deep x 5½" wide. \$11.95 each; 3 for \$33.00.

(C) 12-unit 8-track cartridge case, 13½" high x 6½" deep x 4½" wide. \$7.95 each; 3 for \$22.00.

Units A, B and C have tilted compartments to prevent spillage and include pressure sensitive labels for titling.

(D) 6-unit 7" reel case, 8" high x 7½" deep x 5" wide. Holds reels in original boxes. \$5.25 each; 3 for \$15.00.

(E) 20-unit 12" record case, 13½" high x 12½" deep x 3½" wide. Holds records in original jackets. \$5.95 each; 3 for \$17.00.

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CASH: Mail your order along with your name, address and remittance in the amount indicated above for the units being ordered PLUS an additional 50¢ per unit for postage and handling.

CHARGE: Your American Express or BankAmericard account! Mail your order, name, address and credit card number. You will be billed for the amount of your order.

BE SURE YOU IDENTIFY THE TYPE OF CASE ORDERED AND INDICATE YOUR COLOR CHOICE FOR THE BACK OF THE CASE—BLACK, GREEN OR BROWN (SIDES IN BLACK ONLY).

MAIL ALL ORDERS TO: Ziff-Davis Publishing Co., Dept. T21A, One Park Ave., New York, N.Y. 10016. Outside U.S.A. add \$1.00 per unit ordered.

SYLVANIA

SP20BN Stereo Phones

Full-frequency phones with liquid-filled earcups to reduce room noise and increase comfort. Lightweight construction and with adjustable headband. Has 14-ft coiled cord. Bronze-colored vinyl finish \$19.95

SP40 Stereo Phones

Response 20-20,000 Hz. Distortion less than 1% at 120 dB. Features foam-filled earcups for good coupling to ear for extended bass response. Lightweight construction and with adjustable headband. 8-ft coiled cord. Black and white vinyl finish with chrome trim \$39.95

TEAC

HP-101 Dynamic Headphones

Stereo design. Frequency response 18-20,000 Hz. 8 ohms. Input sensitivity 1 mW, maximum power 500 mW. 6-ft. cable \$39.00

HP-102. Same as HP-101 except 10,000 ohms impedance \$39.00

HP-100 Stereo Headphones

High-velocity stereo headphones which permit listening to ambient sounds as well as music. Response 15-20,000 Hz; 8-16 ohms impedance (each channel); sensitivity 115 dB at 1 kHz, 1 mW; max. input 0.5 W. Has 2 1/2" Mylar cone drive for each channel. Comes with 13 1/2-ft coiled cord \$24.50

TECHNICS BY PANASONIC

EAH-80A Electret Headphones

Electret element supplies advantages of electrostatic without its drawbacks. Distortion-can-



ceiling design. Adapter/control box included for direct connection to speaker output and control of speaker and headphone output. Lightweight headset (12.5 oz) with self-adjusting assembly. 6-ft, 7-in cord to control box plus 6-ft, 7-in coiled cord to headphone. Max. input (to adapter) 5 V; input imp. to adapter 4 to 16 ohms. Sensitivity (1 V, 500 Hz) 101 dB. Max. sound pressure level output 115 dB. Distortion (101 dB, 500 Hz) 0.8%. Response 20-20,000 Hz \$79.95

TELEDYNE

PH-222 Stereo Headphones

"Open-back" design with each earcup having a ported back and "open-air" polyfoam cushions. Response 25-18,000 Hz. 6 ounces ... \$24.98

PH-219 Electrostatic Headphones

Stereo design with an electrostatic driver in each earcup. Response 25-19,500 Hz. Fluid-filled ear cushions. Comes complete with energizer, speaker/headphones switch, 10-ft coiled cord, and standard 1/4" plug \$59.98

1974 EDITION

TELEPHONICS

TEL-14 Dynamic "Two-Way" Headphones

Moving coil woofer and tweeter in each earpiece. Response 20-20,000 Hz; dist. 0.2% max. at 95 dB-SPL. 17 ounces \$29.95

TEL-26 Dynamic Headphones

Sensitivity 102 dB-SPL at 1 kHz for 1 mW; dist. 0.2% max. Volume and tone controls on each



earpiece; stereo/mono switch. Black and chrome finish; coiled cord. 16 ounces. \$36.95

TEL-29 Dynamic Headphones

Lightweight. Has individual volume controls; coiled cord; response 30-18,500 Hz; chrome finish. 7 ounces \$19.95

TEL-111 Electret Headphones

Response 18-24,000 Hz; sensitivity 104 dB; dist. 0.2% at 115 dB SPL. Separate power pack



requires no external a. c. power. Black and chrome finish. Designed for studio monitoring. 17 ounces \$87.50

TELEX

Studio 1 Headphones

Dynamic design. Response 20-22,000 Hz. Sensitivity 105 dB SPL/mW. Distortion 1.0% at 122 dB SPL. 3 to 16 ohms impedance. 1.0 W maximum input per phone. Has tone & volume controls on each earphone. 15-ft. coiled cord. 24 ounces \$69.95

300 Stereo Headphones

Dynamic design. Has 15-ft coiled cord. 8 ohms. Gold with cinnamon brown trim \$34.95

400. Designed for additional convenience. Has volume control on each earpiece. \$44.95

TOSHIBA

HR-80 Dynamic Headphones

Dynamic headphones; response 20-20,000 Hz; rated input power 15 mW/ch. Imp. 4-50 ohms. Comes with 6.6-ft cord \$17.95

HR-50 Stereo Headphones

Two-way dynamic headphones with stereo effect changeover switch (stereo/binaural); rated power 1 mW/ch; response 20-20,000 Hz; crossover 400 Hz; imp. 4-16 ohms. Comes with 6.6-ft. cord \$29.95

11

Microphones

ADVENT

MDC-1 Microphones

Matched pair of low-impedance microphones. Cardioid pickup pattern. Frequency response



50-16,000 Hz. Balanced output. Has 20-ft cables and stands. Pair \$90.00

AKG

D-109 Dynamic Microphone

Sensitivity -56 dB ASA. Response 50-15,000 Hz ± 3.5 dB. 200 ohms impedance. Omnidirectional pattern. Use for speech. Has lavalier, dust filter or windscreen, 30-ft. cable, and chrome finish. Connector not included. \$49.00

D-160E Dynamic Microphone

Sensitivity -55 dB ASA. Response 50-15,000 Hz ± 3 dB. 200 ohms impedance. Omnidirectional pattern. Use for tape recording. Has slip-in stand attachment, dust filter or windscreen, with detachable windscreen. With windscreen presence rise, without windscreen linear response. Comes with 15-ft. cable, XLR connector, and chrome finish \$60.00

D-190E Dynamic Microphone

Sensitivity -53 dB ASA. Response 40-15,000 Hz ± 3 dB. 200 ohms impedance. Cardioid pattern. Use for music. Has slip-in stand attachment, dust filter or windscreen, XLR connector. Comes with 15-ft. cable \$55.00

Model D-190TS. Same as D-190E except high impedance operation with "on-off" switch. Has 24-ft. cable and phone plug \$70.00

D-200E Dynamic Microphone

Sensitivity -55 dB ASA. Response 30-15,000 Hz ± 3 dB. 200 ohms impedance. Cardioid pattern. Use for music and tape recording. Has slip-in stand attachment, dust filter or windscreen. Comes with 15-ft. cable, XLR connector, matte grey finish \$75.00

Model D-200TS. Same as D-200E except for high impedance operation with "on-off" switch, 24-ft. cable, and phone plug .. \$90.00

D-707E Dynamic Microphone

Sensitivity -52 dB ASA. Response 50-15,000 Hz ± 3.5 dB. 200 ohms impedance. Cardioid pattern. Use for tape recording. Comes with slip-in stand attachment, pop or blast filter, chrome finish, 15-ft. cable, and XLR connector \$45.00

Model D-707TS. Same as D-707E but for high impedance operation with "on-off" switch, 24-ft. cable, phone jack \$60.00

D-1000E Dynamic Microphone

Sensitivity -53 dB ASA. Response 40-16,000 Hz ± 3 dB. 200 ohms impedance. Cardioid pattern. Use for rock vocals. Has slip-in stand attachment, pop or blast filter, chrome finish, 15-ft cable, and XLR connector \$65.00

Model D-1000TS. Same as D-1000E but for high impedance operation with "on-off" switch, 24-ft. cable, and phone plug ... \$80.00

ASTATIC

857 Unidirectional Microphone

Designed for recording and rock music applications. Slim-line design with ball head filtering to minimize wind and close-talking pop effects. Over-all dimension of basic microphone are 2 7/8" dia. x 6 1/2" long. Has professional 3-pin cable connector. Weight 8 oz. less cable.

857 L. Low impedance with non-switch cable connector \$66.00

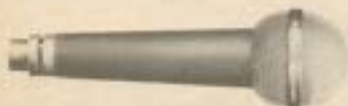
857 H. High impedance with non-switch cable connector \$66.00

Models with "on-off" switch cable connector available at slightly higher price.

BEYER/DYNAMIC

M-500 Dynamic Ribbon Microphone

Super-cardioid; response 40-18,000 Hz ± 2.5 dB. Sensitivity: -153 dBm (EIA); 200 ohms imp.



Has four-stage integral blast filter and Cannon XLR termination. Especially designed for rock vocals; low pop and breath noise even when singer's lips touch microphone \$140.00

M-160 Double-Ribbon Microphone

Super-cardioid dynamic type. Response 40-18,000 Hz ± 2.5 dB. Sensitivity: -152 dBm (EIA); 200 ohms impedance. Low sensitivity at 120 degrees to axis. Suitable for stereo recording. Cannon XLR termination \$205.00

M-260 Dynamic Ribbon Microphone

Super-cardioid design. Response 50-18,000 Hz ± 2.5 dB. Sensitivity: -153 dBm (EIA). High-energy ribbon. 200 ohms imp. Suitable for speech, music, or vocals 1 1/2" mesh head x 6" long. Cannon XLR termination \$100.00

M-260SM. Same as M-260 except with "on-off" and bass-cut switch \$115.00

M-550LM Moving-Coil Microphone

Omnidirectional dynamic type. Response 70-18,000 Hz. For tape recording and general applications. Sensitivity: -152 dBm (EIA); will work with all impedances. Suitable for use indoors and outdoors. Comes with clamp, table stand, cable with jack plug, "on-off" switch, and presentation case \$35.00

M-810-N Moving-Coil Microphone

Dynamic cardioid design. Response 50-16,000 Hz. Sensitivity: -148 dBm. Suits all impedances. Designed for tape recording applications. Comes with windshield, clamp, and detachable 16-ft cable with jack, all housed in lined case \$57.50

"Soundstar" X1N Dynamic Microphone

Dynamic cardioid design. Response 30-18,000 Hz ± 2.3 dB. Sensitivity: -146 dBm (EIA); 200 ohms imp. Front-to-back attenuation greater than 20 dB. For tape recording, music, and vocals. Has built-in pop screen and hum compensation coil. Cannon XLR termination \$70.00

"Soundstar" X1ML. Same as X1N except with high/low imp. switch \$80.00

M-69 Moving-Coil Microphone

Dynamic cardioid design. Response 50-16,000 Hz ± 3 dB. Sensitivity: -144 dBm (EIA); 200 ohms imp. For indoor/outdoor applications; unaffected by temperature or humidity \$85.00

M-69-SM. Same as M-69 but with "on-off" and bass-cut switch \$100.00

M-67 Moving-Coil Microphone

For tape recording, interviewing, and general outdoor/indoor work. Cardioid type. Response 40-18,000 Hz ± 2.5 dB. Sensitivity: -148 dBm



(EIA); 200 ohms imp. Special transducer mounting minimizes handling noise. Has built-in "on-off" bass-cut switch. 7 1/4" x 1 1/2". Cannon XLR termination \$110.00

M-101 Moving-Coil Microphone

Omnidirectional type. Response 40-20,000 Hz. Sensitivity: -150 dBm (EIA); 200 ohms imp. Withstands pressures associated with modern music (modulated voltages up to 2V). Low handling noise. 4 1/2" x 1 1/2". Cannon XLR termination \$105.00

M-201 Moving-Coil Microphone

Super-cardioid dynamic type. Response 40-18,000 Hz. Sensitivity: -149 dBm (EIA); 200 ohms imp. 6" x 1 1/4". Cannon XLR termination. Comes with clamp and presentation case \$165.00

M-88 Moving-Coil Microphone

Super-cardioid dynamic type. Response 30-20,000 Hz ± 2.5 dB. Sensitivity: -144 dBm (EIA). Special transducer mounting eliminates body noise. Will withstand rough handling, humidity and temperature changes. For studio work, recording artists, and instrumentalists \$200.00

ELECTRO-VOICE

635A Dynamic Microphone

Sensitivity -149 dB EIA. Response 80-13,000 Hz ± 3 dB. 150 ohms impedance. Omnidirectional pattern. Hand-held with slip-in stand attachment and lavalier neckcord assembly. Use for tape recording and broadcasting. Has a four-stage pop or blast filter, 18-ft. cable, Switchcraft A3F connector. Fawn beige matte finish \$56.70

670 Dynamic Microphone

Sensitivity -152 dB EIA. Response 60-14,000 Hz. User selects high or low impedance. Single-D cardioid. Hand-held with slip-in stand attachment. Use for speech, rock vocals, music, and tape recording. Has built-in "Acoustifoam" pop or blast filter, "on-off" switch, 15-ft. cable, and Switchcraft A3F connector. Frequency response varies with distance from microphone (maximum bass response is 1/4" from source). Features an anodized brass finish \$45.90

670V Dynamic Microphone

Sensitivity -152 dB EIA. Response 60-14,000 Hz. User selects high or low impedance. Single-D cardioid. Hand-held with slip-in stand attachment. Use for speech, rock vocals, music, and tape recording. Has built-in "Acoustifoam" pop or blast filter, "on-off" switch, 15-ft. cable, and Switchcraft A3F connector. Features a special thumb-actuated volume control for user convenience. Bass response varies with distance from sound source. Anodized finish \$50.10

674 Dynamic Microphone

Sensitivity -152 dB EIA. Response 60-15,000 Hz ± 6 dB. User selects high or low impedance. Cardioid pattern. Use for speech, music, and tape recording. Comes with "on-off" switch, a 1/2"-27 thread for stand mounting, 15-ft. cable, built-in three-position bass tilt-off control, and E-V QC-4M "quick change" connector. Satin chrome finish \$61.35

Model 674G. Same as Model 674 but with gold finish \$64.20

676 Dynamic Microphone

Sensitivity -151 dB EIA. Response 60-15,000 Hz ± 5 dB. User selects high or low impedance. Cardioid pattern. Has a slip-in stand attachment, 15-ft. cable, built-in three-position bass tilt-off control, and QC-4M connector. Windscreen available as an optional extra. Satin chrome or non-reflecting gray finish .. \$61.35

Model 676G. Same as Model 676 except gold finish \$64.20

1710 Condenser Microphone

Sensitivity -142 dB EIA. Response 80-13,000 Hz. 150 ohms unbalanced; omnidirectional



pattern. Hand-held with slip-in stand attachment. Use for speech, rock vocals, music, and tape recording. Has a built-in "Acoustifoam" pop or blast filter, "on-off" switch, 18-ft. cable with permanent strain relief. Connector not included. Beige anodized with gray enamel trim \$39.75

1750 Condenser Microphone

Sensitivity -137 dB EIA. Response 80-13,000 Hz. 150 ohms unbalanced. Cardioid pattern. Hand-held with slip-in stand attachment. Use for speech, rock vocals, music, and tape recording. Has built-in pop or blast filter, "on-off" switch, 18-ft. cable with permanent strain relief. Beige anodized with gray enamel trim. Connector not included \$45.00

RE10 Dynamic Microphone

Response 90-13,000 Hz. Super-cardioid polar pattern. 150 ohms impedance. Output -56 dB (0 dB = 1 mV/10 dynes/cm²). Sensitivity -150 dB EIA. Has 18-ft. cable. 6 1/4" x 1 1/2" with carrying case \$99.60

RE55 Dynamic Microphone

Response 40-20,000 Hz. Omnidirectional pattern. 150 ohms impedance. Output -55 dB (0 dB = 1 mV/10 dynes/cm²). Sensitivity -149 dB EIA. 18-ft. cable. 10 1/2" x 1 1/2" with carrying case \$149.40

All of the above prices are "Net"

671 Dynamic Microphone

Sensitivity -154 dB (EIA) low-Z; -156 dB (EIA) hi-Z. Response 60-14,000 Hz. User selects high



or low imp. Cardioid pattern. Features hand-held design with slip-in stand clamp, integral Acoustifoam pop or blast filter, "on-off" switch, 15-ft cable, and A3F connector. Directional single-D emphasizes low-frequencies when used close-up. Satin chrome finish .. \$54.75

660 Dynamic Microphone

Sensitivity -150 dB (EIA) low-Z; -150.5 dB (EIA) hi-Z. Response 90-13,000 Hz. User selects high or low imp. Super-cardioid pattern. Can be used hand-held or in stand clamp. Variable-D for smooth response on or off-axis with no proximity effect. Professional-style cable and mike-end connector. Satin chrome finish. \$60.00

HITACHI

NDM-32 Dynamic Microphone

Sensitivity -78 dB. Response 70-12,000 Hz \pm 4 dB. Impedance 600 ohms. Omnidirectional with desk stand. Use for speech and recording applications. Supplied with plug connector and wind screen. 16-ft. cable. Black \$35.00

LAFAYETTE

Deluxe Ball Dynamic Microphone

General-purpose, omnidirectional, dual-impedance (50,000 & 250 ohms), selectable at cable end. Output at high impedance -59 dB. Frequency response 100-10,000 Hz. Has "on-off" switch. Includes ball screen, 6-ft detachable cable with mike plug at one end, black metal desk stand, and floor-stand adapter. Die-cast case finished in satin aluminum. Case is 6 1/4" long x 2 1/2" max. dia. of ball \$18.50

Condenser Microphone

Unidirectional cardioid pattern with high front-to-back rejection ratio and flat frequency response from 30-16,000 Hz. Impedance 600 ohms but can be used with inputs up to 20,000 ohms. FET circuitry. Powered by one "AA" penlight cell. Foam windscreen, 15-ft shielded cable, standard 1/4" phone plug, metal tripod-type desk stand, floor-stand adapter, and battery are included \$29.95

Modern Dynamic Microphone

Lightweight omnidirectional dual impedance (50,000 & 250 ohms), selectable at cable. Response 100-10,000 Hz. Output -60 dB. "On-off" slide switch. Comes with floor-stand adapter, 20-ft detachable cable with mike plug, and wire mesh grille. Tapered metal case finished in satin-black and aluminum. 7" long x 1 1/2" dia \$14.25

NEUMANN

FET-80 Condenser Microphones

A line of studio microphones that come in many configurations from omni, figure-8, cardioid, multiple pattern to multiple pattern stereo. All can be either battery or phantom (separate power supplies) powered.

U-47FET \$434.50
Other FET-80 models from \$283.80

PML

DC-20 Condenser Microphone

Omnidirectional pattern. Response 30-20,000 Hz. Sensitivity -56 (1.5 mV); noise 23 dB; impedance 200 ohms. Comes with stand adapter and connecting cable \$122.95

DC-21. Same except cardioid pattern \$122.95

DC-73 Condenser Microphone

Cardioid pattern. Has electrical pop filter. Response 30-20,000 Hz (100-20,000 Hz); Sensitivity -60 dB (1.0 mV); noise 21 dB; impedance 200 ohms. Comes with stand adapter and connecting cable \$160.95

DC-96 Condenser Microphone

Cardioid pattern. Response 30-18,000 Hz. Sensitivity -61 dB (0.9 mV); noise 17 dB; impedance 200 ohms. Comes with stand adapter and connecting cable \$242.95

EK-71 Condenser Microphone

Omnidirectional pattern. Response 80-18,000 Hz. Sensitivity (hi-Z) -38 dB (2.5 mV); impedance hi-Z. Comes with stand adapter and connecting cable \$97.95

EC-71. Same except cardioid pattern \$97.95

FP-92K Electret Microphone

Omnidirectional pattern. Pre-polarized with built-in 6 V battery. Response 30-20,000 Hz. Sensitivity -66 dB (0.5 mV); noise 23 dB; impedance 200 ohms. Comes with stand adapter and connecting cable \$146.95

FP-92C. Same except cardioid pattern \$146.95

FP-92C+. Same except has windscreen and shockmount \$183.95

FP-92K+. Same as FP-92K except has windscreen and shockmount \$183.95

CL Electret Microphone

Tie-bar design. Omnidirectional pattern. Response 80-17,000 Hz. Sensitivity -30 dB; noise 23 dB; impedance 200 ohms. Requires 2 1/2 V battery \$163.95

Power Supplies

Battery supply for DC-20, DC-21, DC-73, DC-96. 48 V d. c. output. Impedance 50,200, 600, and hi-Z.

7320-M. Mono \$49.95

7320-S. Stereo \$55.95

110 V. a. c. supply for DC-20, DC-21, DC-73, DC-96.

6320-M. Mono \$74.95

6320-S. Stereo \$102.95

Battery supply for EC-71 and EK71.

7140-M. Mono \$45.95

7140-S. Stereo \$53.95

RADIO SHACK

Pro-100 Microphone Kit

Supplied as a pair with 13-piece accesso-

ry package including wind screens, table stands, floor stand adapters, lavaliere cords, and cables. Response 10-10,000 Hz. Switchable 250 and 10,000 ohm impedance. \$34.95

Highball Dynamic Microphone

Cardioid design. Response 50-15,000 Hz. Features "on-off" switch and internal push-on impedance change 50/250 ohms or 50,000 ohms. Has pop filter and 15-ft. cable \$39.95

Highball 5 Dynamic Microphone

Cardioid design. Response 70-13,000 Hz. Has change plug for 600 to 20,000 ohm impedance. Includes stand adapter and 15-ft. cable \$32.95

Electret-1045 Condenser Microphone

Cardioid design. Response 30-15,000 Hz. Can be switched from low imp. (600 ohms) to high imp. (20,000 ohms). Has windscreen and desk stand. Powered by single penlight battery \$32.95

Electret-1044 Condenser Microphone

Omnidirectional pattern. Response 30-15,000 Hz. Can be switched from 600 to 20,000 ohm impedance. Has foil diaphragm, windscreen, and mike stand. Powered by single penlight battery \$27.95

SENNHEISER

MD-211U Dynamic Microphone

Omnidirectional unit. Response 40-20,000 Hz. Sensitivity -58 dBm (0.13 mV/ μ bar) \pm 2.5 dB. Has extremely wide, flat response unusual in a moving-coil microphone. 4 1/2" x 1" dia. Fitted with Cannon XLR connector \$181.00

MD21N Dynamic Microphone

Omnidirectional, 200-ohm impedance design.



AKG
A NEW STANDARD
IN PERFORMANCE

D-200E Two-way cardioid dynamic microphone.

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Response 50-15,000 Hz ± 3 dB. Sensitivity 0.2 mV/ μ bar at 1000 Hz. EIA rating -145.8 dB. Output level -53 dBm (1 mW/10 dynes/cm²). Fitted with small Tuchel connector. Has balanced output. 10 ounces. 4 $\frac{1}{2}$ " x 1 $\frac{1}{2}$ " x 1 $\frac{1}{2}$ ". \$104.00

MD421U Dynamic Microphone

Cardioid, 200-ohm impedance design. Response 30-17,000 Hz ± 5 dB. Sensitivity 0.2 mV/ μ bar ± 3 dB at 1 kHz. EIA rating -145.8 dB. Output level -53 dBm (1 mW/10 dynes/cm²). Has front-to-back ratio 18 dB, -2 dB and a variable bass attenuator. Fitted with XLR connector. 14 ounces. 7" x 1 $\frac{1}{2}$ " x 1 $\frac{1}{4}$ ". \$154.00

MD411HLM Dynamic Microphone

Super-cardioid. Features a built-in triple-impedance transformer to permit mike to be con-



nected directly to any tape recorder. High impedance is 25,000 ohms for tube units; 800 ohms medium impedance for transistor recorders; 200 ohms low impedance for recorders of either type fitted with low-impedance input transformers. Response 50-12,000 Hz. Side attenuation 20 dB at 120 degrees. Sensitivity 1.25 mV/ μ bar at 1 kHz; EIA rating -154 dB; output level -58.1 dBm (1 mW/10 dynes/cm²) all at high-imp. setting. Comes with table stand, floor stand adapter, and zippered case. 8 ounces \$54.00

MD441 Dynamic Microphone

Super-cardioid design. Response 40-20,000 Hz; sensitivity 0.2 mV/ μ bar ± 3 dB. Has brilliance switch for nominal 5 dB boost at 5 kHz; 5-position bass attenuator. Front-to-back ratio is 20 dB, -3 dB. Comes with quick-release mount that fits on floor stand or accessory table stand MZT-441. Windscreen for microphone is Model MZW441. 1.3" H x 1.4" W x 9.6" long. . \$236.00

SHURE

300 Ribbon Microphone

Sensitivity -153 dB (EIA). Response 40-15,000 Hz. User selects high or low impedance. Bidirectional. Hinge mount to stand. Use for speech and music. Has 20-ft. cable and connector. Gray \$107.40

515SA "Unidyne B" Microphone

Dynamic type. Sensitivity -154 dB (EIA). Response 80-13,000 Hz. High impedance. Cardioid pattern. Hand-held with slip-in stand attachment. Use for speech, rock vocals, and music. Has "on-off" switch and 15-ft. cable. Chrome finish \$28.20
Model 515SB. Same as Model 515SA except low impedance \$28.20

545 "Unidyne III" Microphone

Dynamic type. Sensitivity -149 dB (EIA). Response 50-15,000 Hz. User selects high or low impedance. Cardioid pattern. With slip-in stand attachment and hinge mount to stand. Designed specifically for speech, music, and tape recording. Supplied with 15-ft. cable and

Amphenol-type MC4M connector. Chrome finish \$60.00

Model 545S. Similar to Model 545 but has cable connection through hinge and "on-off" switch in upright \$64.20

Model 545SD. Same as Model 545 but has "on-off" switch on microphone barrel \$64.20

Model 545L. Similar to Model 545 but has lavaliere cord and clip \$50.25

546 "Unidyne III" Microphone

Dynamic type. Sensitivity -154 dB (EIA). Response 50-15,000 Hz. User selects high or low impedance. Cardioid pattern. Hinge mount to stand. Use for speech, rock vocals, and music. Comes with 20-ft. cable and connector. Chrome finish. \$97.20

548SD "Unidyne IV" Microphone

Dynamic type. Sensitivity -141 dB (EIA). Response 40-15,000 Hz. User selects high or low impedance. Cardioid pattern. Hand-held with slip-in stand attachment. Use for speech and music. Has "on-off" switch, 15-ft. cable, and connector. Chrome finish \$75.00

555 Dynamic Microphone

Sensitivity -148 dB (EIA). Response 50-15,000 Hz. User selects high or low impedance. Cardioid pattern. Hinge mount to stand. Use for speech and music. Supplied with Amphenol-type MC3M connector and 15-ft. cable. Chrome finish \$59.85
Model 555W. Same as Model 555 except has built-in "on-off" switch \$66.00

565 "Unisphere 1" Microphone

Dynamic type. Sensitivity -148.5 dB (EIA). Response 50-15,000 Hz. User selects high or low impedance. Cardioid pattern. Hinge mount to stand. Use for speech, rock vocals, and music. Has pop or blast filter, 15-ft. cable, and connector. Chrome finish \$67.80
Model 565SD. Same as Model 565 except has "on-off" switch \$70.80
Model 566. Similar to Model 565 except with shock mount \$103.20

578 Dynamic Microphone

Sensitivity -154 dB (EIA). Response 50-15,000 Hz. User selects high or low impedance. Omnidirectional pattern. Hand-held. Use for speech and music. Has "on-off" switch, a 15-foot cable, and connector. Supplied with chrome finish \$56.25
Model 578S. Similar to Model 578 except has swivel assembly \$63.00

579SB Dynamic Microphone

Sensitivity -151 dB (EIA). Response 50-15,000 Hz. Low impedance, omnidirectional pattern. Has slip-in stand attachment, "on-off" switch, pop or blast filter. Use for speech, rock vocals, and music. Supplied with 20-ft. cable and connector. Chrome finish \$47.25

580SA(B) Dynamic Microphone

Sensitivity -151 dB (EIA). Response 50-13,000 Hz. User specifies high or low impedance. Cardioid pattern. Hand-held with slip-in stand attachment. Use for speech and music. Comes with "on-off" switch, 15-ft. cable, and connector. Chrome finish \$43.65

585SA(B) Dynamic Microphone

Sensitivity -151 dB (EIA). Response 50-13,000 Hz. User specifies high or low impedance. Cardioid pattern. Hand-held with slip-in stand attachment. Use for speech, rock vocals, and music. Has pop or blast filter, "on-off" switch. Supplied with 15-ft. cable and connector. Chrome finish \$47.25
Model 585SAV. Similar to Model 585SA(B) but has volume control on microphone barrel \$48.45

5885SA(B) Dynamic Microphone

Sensitivity -155 dB (EIA). Response 80-13,000 Hz. User specifies high or low impedance. Cardioid pattern. Hand-held with slip-in stand at-

tachment. Use for speech, rock vocals, and music. Has pop or blast filter, "on-off" switch. Comes with 15-ft. cable and connector. Chrome finish \$40.80

SONY/SUPERSCOPE

ECM-16 Condenser Microphone

Sensitivity -57.8 dB (0 dB = 1 V/10 μ bar). Response 50-13,000 Hz. Low impedance, omnidirectional pattern. Lavalier-type for speech and tape recording. Supplied with mini connector. Internal battery operation. 6-ft. cable. $\frac{7}{16}$ " dia. x 1 $\frac{1}{16}$ " long. Silver \$29.95

ECM-18 Condenser Microphone

Sensitivity -56.8 dB (0 dB = 1 V/10 μ bar). Response 50-12,000 Hz. Low impedance, cardioid pattern. Hand-held type for speech, music, and tape recording. Supplied with mini connector, dust filter or windscreen, 6.5-ft. cable. Internal battery operation. Silver gray and black \$22.95

ECM-19B Condenser Microphone

Sensitivity -54 dB (0 dB = 1 V/10 μ bar). Response 50-12,000 Hz. Cardioid pattern. Hand-



held type with "slip-in" stand attachment. Use for speech, music, and tape recording. Supplied with mini connector, dust filter or windscreen. Internal battery operation. 10-ft. cable. Silver and black \$34.95

ECM-21 Condenser Microphone

Sensitivity -54 dB (0 dB = 1 V/10 μ bar). Response 50-12,000 Hz. Low impedance, balanced 50, 250, 600 ohms. Cardioid pattern. Hand-held with "slip-in" stand attachment. Use for music and tape recording. Comes with dust filter or windscreen and 19-ft. cable. Connector not included. Internal battery operation. Chrome \$59.95

ECM-22P Condenser Microphone

Sensitivity -54.8 dB (0 dB = 1 V/10 μ bar). Response 40-15,000 Hz; Low impedance, bal-



anced 250/600 ohms. Cardioid pattern. Hand-held with "slip-in" stand attachment. Use for speech, rock, vocals, music, and tape recording. Comes with dust filter or windscreen and 20-ft. cable. Connector not included. Internal battery/phantom powering \$99.95

ECM-99 Condenser Microphone

Sensitivity -53 dB (0 dB = 1 V/10 μ bar). Response 50-12,000 Hz. Low impedance. Cardioid (dual) pattern. Hand-held with "slip-in" stand attachment. Use for music and tape recording. Comes with dust filter or windscreen, 10-ft. cable, mini (2) connector, one-point stereo pickup. Internal battery operation. Nickel satin finish \$49.95

F-98 Dynamic Microphone

Sensitivity -58 dB (0 dB = 1 V/10 μ bar). Low impedance. Cardioid pattern. Hand-held. Use for speech and tape recording. Supplied with mini connector and 6.5-ft. cable \$12.95

ECM-170 Condenser Microphone

Sensitivity -56 dB. Response 20-16,000 Hz.

Low impedance. Omnidirectional pattern. Use for live recording of large ensembles. Has voice/music switch for adjusting frequency response. Comes with two-conductor shielded cable, accessory windscreen, and microphone holder \$69.95

ECM-220 Condenser Microphone

Sensitivity -57/-41 dB. Response 50-12,000 Hz. Impedance 200/10,000 ohms. Unidirectional pattern. Use for live music pickup. Has "on-off" switch; dual-impedance switch; built-in windscreen. Comes with microphone holder, battery, and audio cable \$39.95

ECM-250 Condenser Microphone

Sensitivity -57 dB. Response 50-14,000 Hz. Low impedance. Cardioid pattern. For all types of recording. Has built-in windscreen, making it suitable for outdoor recording. Comes with battery, mike stand adapter, cable, and carrying case \$49.95

ECM-270 Condenser Microphone

Sensitivity -56 dB. Response 40-16,000 Hz. Low impedance. Unidirectional pattern. Use for recording live musical performances. Lightweight for stage, nightclub, and other situations where performer holds mike. Comes with accessory windscreen, microphone holder, and cable \$69.95

ECM-280 Condenser Microphone

Sensitivity: -56 dB. Response 30-18,000 Hz. Low impedance. Cardioid pattern. Has bass roll-off switch and a built-in windscreen. An additional removable windscreen works in conjunction with the unidirectional pickup pattern for outdoor recordings free from wind and background noise. Incorporates FET electronics. Comes with battery, mike stand adapter, cable, and carrying case \$79.95

TEAC

MC-201 Microphone

Electret. Response 50-15,000 Hz. Balanced



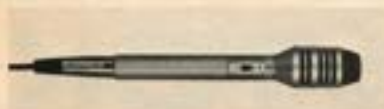
600 ohms. Has slip-in stand attachment, windscreen, and 10-ft. cable. \$80.00

TELEDYNE

EO-200 Omnidirectional Microphone

Electret condenser microphone. Response 30-16,000 Hz. Output -59 dB at 600 ohms. Can be used with most medium- and high-impedance inputs as well. Features an FET frequency converter, XL-type connector; powered by two AA penlite cells. Has non-glare finish, "on-off" switch, integral wind-breath filter, 20-ft shielded cable, and stand adapter. 6 ounces. \$34.98

EC-100 Unidirectional Microphone



Same specifications as EO-200 except unidirectional cardioid instead of omni . . . \$39.98

EO-300 Omnidirectional Microphone

Lavalier-type electret condenser microphone. Has integral "built-on" tie clasp. 1/2" dia. x 1 1/2" long. Battery-operated power supply built into plug; operates from single mercury cell. Response 50-13,000 Hz; output level -59 dB at 600 ohms. May also be used with most medium- and high-impedance inputs. Non-glare finish. Includes PL-280-type connector and 20-ft shielded cable \$19.98

TURNER

500 Microphone

Dynamic type. Sensitivity -151 dB (EIA), response 40-12,000 Hz. User selects high or low impedance. Cardioid pattern. Hand-held with "slip-in" stand attachment. For use in recording speech, rock vocals, and music. Pop or blast filter. Detachable 20-ft. cable. Supplied with XLR connector. Satin chrome finish. \$100.00
Model S-500. Same except with rotary "on-off" switch \$105.00

600 Microphone

Dynamic type. Sensitivity -151 dB (EIA), response 50-15,000 Hz. High impedance. Cardi-



oid pattern. Hand-held with "slip-in" stand attachment. For speech, rock vocals, and music. Pop or blast filter, "on-off" switch. Detachable 20-ft. cable. Satin chrome finish \$70.00
Model 602. Same except low-impedance version \$70.00

35 Microphone

Dynamic type. Sensitivity -151 dB (EIA), response 40-12,000 Hz. User selects high or low impedance. Cardioid pattern. Hand-held for use in speech applications. 25-ft. cable. Non-reflecting desert gold finish \$70.00

700 Microphone

Dynamic type. Sensitivity -151 dB (EIA), response 40-15,000 Hz. User selects high or low impedance. Cardioid pattern. Hand-held with "slip-in" stand attachment. For speech, rock vocals, and music. Pop or blast filter, "on-off" switch. Detachable 20-ft. cable. Comes with



Switchcraft A4F connector. Satin chrome finish \$95.00

2300 Microphone

Dynamic type. Sensitivity -151 dB (EIA), response 50-15,000 Hz. High-impedance, omnidirectional. Hand-held with "slip-in" stand at-

tachment. For speech, rock vocals, music, and tape recording. Has 20-ft cable, "on-off" switch, and phone plug. Satin chrome finish \$80.00

Model 2302. Same except low-impedance version \$80.00

S-2850 Microphone

Dynamic type. Sensitivity -161 dB (EIA), response 70-12,000 Hz. User selects high or low impedance. Cardioid pattern. Hand-held with "slip-in" stand attachment, lavalier clip. Use for speech and tape recording. Does not include connector but does have "on-off" switch and 12-ft. cable. Black \$50.00

45 Cardioid Microphone

Dynamic design. Sensitivity -155 dB (EIA), response 100-13,000 Hz. High impedance. Use for speech, group singing, and music. Supplied with 20-ft. cable, phone plug, stand adapter, and "on-off" switch \$45.00
Model 45A. Same except low-impedance version \$45.00

2250 Cardioid Microphone

Dynamic design. Sensitivity -155 dB (EIA), response 70-13,000 Hz. High impedance. Use for speech, rock vocal groups, and music. Supplied



with 20-ft. detachable cable, phone plug, stand adapter, and "on-off" switch. Comes with Cryovac carrying case \$65.00
Model 2255. Same except low-impedance version \$65.00

SRR2811 Omnidirectional Microphone

Dynamic design. Sensitivity -159 dB (EIA), response 80-12,000 Hz. High impedance. Supplied with 12-ft. cable terminated in a variable-spaced, split 2-prong mini plug for cassette recorders. Has "on-off" switch. Black with desk stand \$20.00
SRR2812. Same except low impedance \$20.00

UNIVERSITY

1655 Omnidirectional Microphone

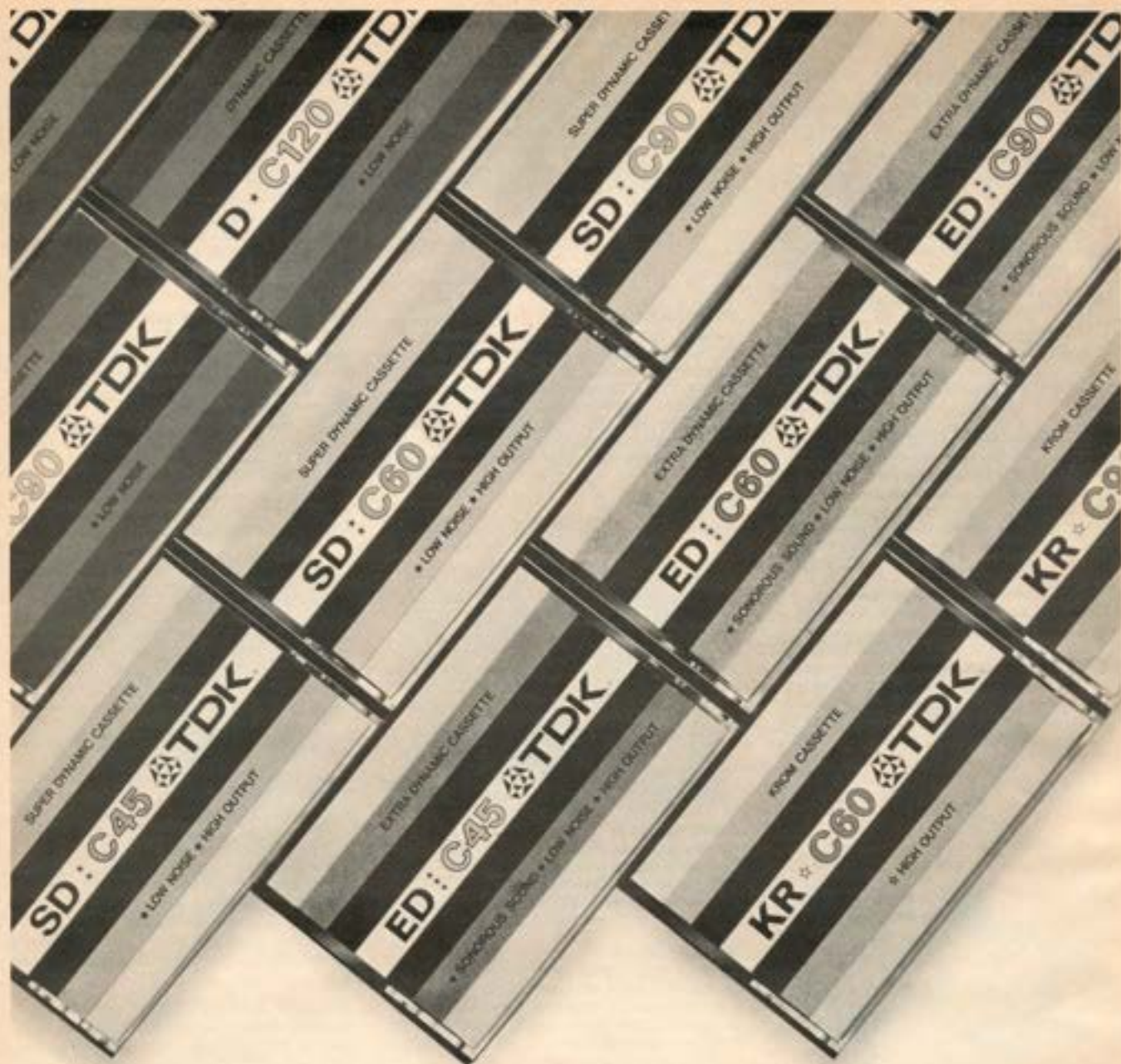
Dynamic design; 200 ohms balanced. Response 50-15,000 Hz. Output -56 dBm (re: 10 dynes/cm²). Has built-in wind/pop filters; standard mounting swivel adapter. Supplied with 18 ft. cable. 6 1/2" long x 1 1/2" diam, tapering to 3/4". 6 3/4 ounces \$49.50

5100 Dynamic Microphone

Sensitivity -147 dB (EIA). Response 25-18,000 Hz. User selects high or low impedance. Cardioid pattern. Hand-held type with slip-in stand attachment; shock mounted. Has "on-off" switch, satin chrome finish, and 18-ft cable. Connector not included \$109.45

6000 Dynamic Microphone

Sensitivity -151 dB (EIA). Response 50-15,000 Hz. Cardioid pattern. Low impedance. Use for speech, rock vocals, music, and tape recording. Has wind screen and sibilance filter. Satin chrome finish and flat black. 18-ft cable. Connector not included \$69.58



stars in stripes...forever

Stars of the hi-fi cassette deck or portable recorder, TDK's new family of cassettes provide the best-balanced performance characteristics of any on the market. All dressed up in bright new stripes, the fourteen TDK cassette models offer just the right tape, with just the right formula and just the right length (from the new 45-minute single-LP to the world's only 180-minute length) for every home recording need. You'll discover whole new worlds of listening pleasure from the true high-fidelity performance of TDK's new DYNAMIC and BRILLIANT cassettes, regardless of the make or model of your recorder.

EXTRA DYNAMIC (ED) cassettes for the discriminating audiophile. Vastly superior to any other cassette on the market. 45, 60 and 90-minutes.

SUPER DYNAMIC (SD) turned the cassette into a true high-fidelity medium. Clear, crisp, delicate reproduction of complex "real life" sound. 45, 60, 90 and 120-minutes.

DYNAMIC (D) cassettes offer true hi-fi sound reproduction at moderate prices; superior to most "premium" cassettes. 45, 60, 90, 120 and the world's only 180-minute cassette.

KROM (KR) chromium-dioxide cassettes for those who prefer its brilliant, crisp, sharp sound, and who have the equipment to use them. 60 and 90 minutes.

OPEN REEL

Super Dynamic, the original high-fidelity professional-quality tape. 1200 and 1800-ft lengths on 7" reels, plus 3600-ft length on 10½" metal reel.

8-TRACK CARTRIDGES

Super Dynamic tape brings true high-fidelity capability to the 8-track cartridge format for the first time.

the new dynamic world of

TDK

TDK ELECTRONICS CORP.
735 Eastgate Boulevard, Garden City, New York 11530

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BLANK TAPE & ACCESSORIES

ADVENT

Chromium-Dioxide Cassettes

Comes in screw-type housing with special leader tape that cleans heads. In lots of six, comes with free optional storage album.

| | |
|-------|--------|
| C-60 | \$2.49 |
| C-90 | \$3.39 |
| C-120 | \$4.49 |

BASF

SP-52 Recording Tape

Polyvinyl chloride, tensilized, 1.5-mil. Recommended for standard play.

| | |
|----------------------------|---------|
| 600 ft., 5" reel | \$2.60 |
| 1200 ft., 7" reel | \$3.90 |
| 1200 ft., 7" reel (3 pack) | \$10.98 |

LP-35 Recording Tape

Polyester base, tensilized 1-mil., long play.

| | |
|----------------------------|---------|
| 900 ft., 5" reel | \$3.41 |
| 1800 ft., 7" reel | \$5.64 |
| 1800 ft., 7" reel (3 pack) | \$16.27 |

DP-26 Recording Tape

Polyester base, tensilized 3/4-mil., double play.

| | |
|----------------------------|---------|
| 1200 ft., 5" reel | \$5.12 |
| 2400 ft., 7" reel | \$8.14 |
| 2400 ft., 7" reel (3 pack) | \$23.12 |

TP-18 Recording Tape

Polyester base, tensilized, 1/2-mil., triple play.

| | |
|-------------------|---------|
| 1800 ft., 5" reel | \$7.98 |
| 3600 ft., 7" reel | \$12.26 |

LP-35LH Long-Play Tape

1-mil polyester base. Low-noise, high-output.

| | |
|-------------------|--------|
| 900 ft., 5" reel | \$4.10 |
| 1800 ft., 7" reel | \$7.14 |

DP-26LH Double-Play Tape

3/4-mil polyester base. Low noise, high-output.

| | |
|-------------------|--------|
| 1200 ft., 5" reel | \$5.86 |
| 2400 ft., 7" reel | \$9.55 |

TP-18LH Triple-Play Tape

1/2-mil polyester base. Low-noise, high-output.

| | |
|-------------------|---------|
| 1800 ft., 5" reel | \$9.12 |
| 3600 ft., 7" reel | \$13.67 |

"Chromdioxid" SM Cassettes

Plastic swivel box (suitable for mailing).

| | |
|-----------------------------|--------|
| 2110-141, 30 min/side C-60 | \$3.24 |
| 2120-191, 45 min/side C-90 | \$4.74 |
| 2130-231, 60 min/side C-120 | \$6.17 |

LHSM Cassettes

Plastic swivel box (suitable for mailing).

| | |
|-------|--------|
| C-60 | \$2.55 |
| C-90 | \$3.79 |
| C-120 | \$4.71 |

SKSM Cassettes

Plastic box

| | |
|-------|--------|
| C-30 | \$1.33 |
| C-45 | \$1.42 |
| C-60 | \$1.50 |
| C-90 | \$2.05 |
| C-120 | \$2.88 |

"Sound Loop 8" Cartridges

| | |
|------------|--------|
| 45 minutes | \$2.43 |
| 64 minutes | \$2.60 |
| 90 minutes | \$2.99 |

"Sound Loop 8+" Cartridges

Low-noise, high-output cartridges.

| | |
|--------|--------|
| 45 min | \$2.94 |
| 64 min | \$3.15 |
| 90 min | \$3.49 |

CAPITOL

Mod Line Cassettes

| | |
|-----------------------|--------|
| C-30, 15 min/side | \$0.99 |
| C-60, 30 min/side | \$1.19 |
| C-90, 45 min/side | \$1.79 |
| C-120, 60 min/side | \$2.49 |
| C-30, Three pack | \$2.79 |
| C-60, Three pack | \$3.39 |
| Cassette head cleaner | \$0.99 |
| Cassette saver | \$2.29 |

Mod Line 8-Track Cartridges

| | |
|----------------------------|--------|
| 27-432-106, 32 min/150 ft | \$1.69 |
| 27-440-106, 40 min/190 ft | \$1.99 |
| 27-464-106, 64 min/300 ft | \$2.29 |
| 27-480-106, 80 min/380 ft | \$2.39 |
| 27-410-106, 100 min/470 ft | \$2.69 |
| 27-940-001, 4 pk of 40 min | \$5.98 |
| 27-930-001, 4 pk of 80 min | \$6.98 |
| Cartridge head cleaner | \$1.19 |

Mod Line Open-Reel Tape

Standard play, 1.5-mil polyester

| | |
|-------------------------------|--------|
| 21-706-102, 600 ft., 5" reel | \$1.89 |
| 21-712-102, 1200 ft., 7" reel | \$2.49 |

Extra play, 1.0-mil polyester

| | |
|-------------------------------|--------|
| 21-609-102, 900 ft., 5" reel | \$2.39 |
| 21-618-102, 1800 ft., 7" reel | \$3.19 |

0.5-mil polyester, tensilized

| | |
|-------------------------------|--------|
| 21-312-102, 1200 ft., 5" reel | \$2.69 |
| 21-318-102, 1800 ft., 5" reel | \$3.69 |
| 21-324-102, 2400 ft., 7" reel | \$3.99 |
| 21-336-102, 3600 ft., 7" reel | \$5.99 |

Capitol 2 (UHL) Ultra-High-Output, Low-Noise Tape

Standard play, 1.5-mil, polyester base.

| | |
|------------------------|--------|
| 678, 600 ft, 5" reel | \$4.29 |
| 1278, 1200 ft, 7" reel | \$6.69 |

Extra play, 1.0-mil, polyester base.

| | |
|------------------------|--------|
| 968, 900 ft, 5" reel | \$5.89 |
| 1868, 1800 ft, 7" reel | \$8.49 |

All Capitol 2 UHL tapes have special leaders designed to be written upon and each end has a spliced-in switching foil.

Capitol 2 High-Performance, All-Purpose Tape

Standard play, 1.5-mil, acetate base.

| | |
|------------------------|--------|
| 652, 600 ft, 5" reel | \$2.98 |
| 1252, 1200 ft, 7" reel | \$4.79 |

Standard play, 1.5-mil, polyester base

| | |
|------------------------|--------|
| 672, 600 ft, 5" reel | \$2.98 |
| 1272, 1200 ft, 7" reel | \$4.79 |

Extra play, 1.0-mil, polyester base.

| | |
|------------------------|--------|
| 962, 900 ft, 5" reel | \$3.59 |
| 1862, 1800 ft, 7" reel | \$5.98 |

Double-play tape, 0.5-mil, tensilized polyester base.

| | |
|-------------------------|--------|
| 1232T, 1200 ft, 5" reel | \$5.29 |
| 2432T, 2400 ft, 7" reel | \$8.99 |

Triple-play tape, 0.5-mil, tensilized polyester base.

| | |
|-------------------------|---------|
| 1832T, 1800 ft, 5" reel | \$6.98 |
| 3632T, 3600 ft, 7" reel | \$10.89 |

Capitol 2 Low-Noise Tape

Standard play, 1.5-mil, acetate base.

| | |
|------------------------|--------|
| 1259, 1200 ft, 7" reel | \$4.29 |
|------------------------|--------|

Standard play, 1.5-mil, polyester base.

| | |
|------------------------|--------|
| 1279, 1200 ft, 7" reel | \$4.79 |
| 1869, 1800 ft, 7" reel | \$6.89 |

Capitol 2 Cassettes

High-output, low-noise cassettes with "Cushion-Aire" back coating.

| | |
|----------------|--------|
| C-40, 40 min | \$2.49 |
| C-60, 60 min | \$2.98 |
| C-90, 90 min | \$4.39 |
| C-120, 120 min | \$5.95 |

Stak-Pak with two cassettes housed in storage chest.

| | |
|----------------|---------|
| C-40, 40 min | \$4.98 |
| C-60, 60 min | \$5.98 |
| C-90, 90 min | \$8.79 |
| C-120, 120 min | \$11.89 |

Capitol 2 Audiopak 8-Track Cartridges

| | |
|----------------|--------|
| 8-150, 32 min | \$2.39 |
| 8-190, 40 min | \$2.59 |
| 8-300, 64 min | \$2.79 |
| 8-380, 80 min | \$2.97 |
| 8-470, 100 min | \$3.29 |

COLUMBIA

Cassette Tapes

Each side color-coded for easy identification. High-output/low-noise gamma-ferric oxide. Response 20-20,000 Hz. Tensilized polyester base. Delrin rollers; constant-tension pressure pad for consistent tape-to-head contact; mounted in three-sided Mumetal shield to prevent pickup of hum and noise.

| | |
|----------------------|--------|
| 2CL-40, 40 min | \$2.29 |
| 2CL-60, 60 min | \$2.99 |
| 2CL-90, 90 min | \$3.99 |
| 2CL-120, 120 min | \$4.99 |
| 2CL-HC, Head cleaner | \$1.89 |

8-Track Tapes

Back-lubricated high-output/low-noise gamma-ferric oxide tape. Response 20-20,000 Hz. Three-point Delrin tape suspension; silicone/rubber pinch roller; foam pressure pad; one-piece hub.

| | |
|----------------------|--------|
| 8CL-40, 40 min | \$2.69 |
| 8CL-80, 80 min | \$2.99 |
| 8CL-100, 100 min | \$3.49 |
| 8CL-HC, Head cleaner | \$1.69 |

Open-Reel Tapes

High-output/low-noise gamma-ferric oxide tape. Index and timing chart included with all packages.

| | |
|---|--------|
| 4CL-1200, 7" x 1200 ft, 1.5-mil polyester | \$3.75 |
|---|--------|

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Blank Tape

| | |
|--|--------|
| 4CL-1800. 7" x 1800 ft, 1.0-mil polyester | \$4.49 |
| 4CL-2400. 7" x 2400 ft, 0.5-mil polyester | \$6.19 |
| 4CL-3600. 7" x 3600 ft., 0.5-mil polyester | \$8.29 |

DAK

Reel-to-Reel Tapes

Standard output for all general voice and music recording. Silicone lubricated and splice free.

| | |
|---|--------|
| 1.5-mil acetate | |
| 0001-05B. 5" reel, 600 ft | \$0.60 |
| 0001-07B. 7" reel, 1200 ft | \$0.86 |
| 0001-10B. 10" reel, 2400 ft | \$3.22 |
| 1.5-mil polyester | |
| 1200-05B. 5" reel, 600 ft | \$0.65 |
| 1200-07B. 7" reel, 1200 ft | \$1.25 |
| 1200-10B. 10 1/2" reel, 2400 ft | \$4.00 |
| 1200-14B. 14" reel, 4800 ft | \$6.50 |
| 1-mil polyester | |
| 1150-05G. 5" reel, 900 ft | \$1.25 |
| 1150-07G. 7" reel, 1800 ft | \$1.50 |
| 1150-10G. 10 1/2" reel, 3600 ft | \$4.50 |
| 1150-14G. 14" reel, 7200 ft | \$8.00 |
| 0.75-mil polyester | |
| 1051-05W. 5" reel, 1200 ft | \$1.70 |
| 1051-07W. 7" reel, 2400 ft | \$2.00 |
| 1051-10W. 10 1/2" reel, 4800 ft | \$5.50 |
| 0.5-mil polyester | |
| 1350-05N. 5" reel, 1800 ft | \$2.25 |
| 1350-07N. 7" reel, 3600 ft | \$3.25 |
| 1350-10N. 10 1/2" reel, 7200 ft | \$9.00 |
| Low-noise, high-output, 1.5-mil polyester | |
| 0210-05G. 5" reel, 600 ft | \$1.25 |
| 0210-07G. 7" reel, 1200 ft | \$1.75 |
| 0210-10G. 10 1/2" reel, 2400 ft | \$5.00 |
| 0210-14G. 14" reel, 4800 ft | \$8.00 |
| Low-noise, high-output, 1-mil polyester | |
| 0951-05G. 5" reel, 900 ft | \$1.70 |
| 0951-07G. 7" reel, 1800 ft | \$2.25 |
| 0951-10G. 10 1/2" reel, 3600 ft | \$6.00 |
| 0951-14G. 14" reel, 7200 ft | \$9.76 |

Cobalt-Energized Cassettes

| | |
|------------------|--------|
| HEC 40. 40 min | \$1.15 |
| HEC 60. 60 min | \$1.35 |
| HEC 90. 90 min | \$1.78 |
| HEC 120. 120 min | \$2.65 |

HITACHI

"Ultra-Dynamic" Cassettes

| | |
|------------------|--------|
| UDC-60. 60 min | \$3.70 |
| UDC-90. 90 min | \$4.80 |
| UDC-120. 120 min | \$6.70 |

Low-Noise Cassettes

| | |
|----------------|--------|
| C-30. 30 min | \$1.65 |
| C-60. 60 min | \$2.25 |
| C-90. 90 min | \$3.20 |
| C-120. 120 min | \$4.30 |

All "suggested list" prices

IRISH

200 Series Professional Tape

| | |
|---|---------|
| Standard, 1 1/2-mil, polyester base, 1/4" | |
| 231-131, 600 ft., 5" reel | \$2.75 |
| 231-151, 1200 ft., 7" reel | \$4.80 |
| Extra-length, 1-mil, polyester base, 1/4" | |
| 241-131, 900 ft., 5" reel | \$3.60 |
| 241-151, 1800 ft., 7" reel | \$5.60 |
| Double-length, 1/2-mil polyester tensilized base. | |
| 251-151, 2400 ft., 7" reel | \$9.15 |
| 0.5-mil, polyester tensilized base, 1/4" | |
| 261-151, 3600 ft., 7" reel | \$12.40 |

270 Series Tape

Low-noise, high-output type.

| | |
|---|---------|
| 1-mil, polyester base, 1/4" | |
| 274-151, 1800 ft, 7" reel | \$7.95 |
| 274-173, 3600 ft, 10 1/2" NAB aluminum reel | \$22.25 |

Low-noise, high-output, back coated.

| | |
|---|---------|
| 276-151, 1200 ft, 7" reel | \$6.75 |
| 276-173, 2500 ft, 10 1/2" NAB aluminum reel | \$17.60 |
| 276-273, 2500 ft, 10 1/2" NAB aluminum reel | \$33.65 |
| 277-151, 1800 ft, 7" reel | \$10.75 |

Hi-Fi Series Cassettes

| | |
|----------------------|--------|
| Soft plastic boxes | |
| 199-C30, 15 min/side | \$1.20 |
| 199-C60, 30 min/side | \$1.45 |

Professional-Series Cassettes

| | |
|----------------------|--------|
| In album/mailee | |
| 261-C30, 15 min/side | \$1.75 |
| 261-C60, 30 min/side | \$1.85 |
| 261-C90, 45 min/side | \$2.90 |
| 261-C120 60 min/side | \$3.45 |

Low-Noise, Extended-Range Cassettes

| | |
|----------------------|--------|
| Flip-top plastic box | |
| 262-C60, 30 min/side | \$2.55 |
| 262-C90, 45 min/side | \$3.35 |

Chromium-Dioxide Cassettes

| | |
|----------------------|--------|
| Flip-top plastic box | |
| 263-C60, 30 min/side | \$3.75 |
| 263-C90, 45 min/side | \$4.75 |

"3-in-a-Bag"

| | |
|-------------|--------|
| 261-C60-3PA | \$4.95 |
|-------------|--------|

Cassette Package

| | |
|-------------------------------------|---------|
| Four cassettes plus a storage tray. | |
| 261-C60-4P | \$8.15 |
| 261-C90-4P | \$12.35 |
| 261-C120-4P | \$14.55 |

8-Track Cartridge Package

| | |
|--|---------|
| Four 40-minute, 8-track cartridges, one head cleaner, plus storage tray. | |
| 8T-160-P | \$11.35 |

8-Track Cartridge Package

| | |
|--|---------|
| Four 80-minute, 8-track cartridges, one head cleaner, plus storage tray. | |
| 8T-320-P | \$12.80 |

LAFAYETTE

Tensilized Reel-to-Reel Tapes

| | |
|----------------------------------|--------|
| Tensilized Mylar, 0.5-mil. | |
| 300 ft, 3" reel, double-play | \$0.69 |
| 600 ft, 3 1/2" reel, double-play | \$0.99 |
| 3600 ft, 7" reel, triple-play | \$4.98 |

Mylar-Base Reel-to-Reel Tapes

| | |
|---------------------------|--------|
| On clear plastic reels. | |
| 1200 ft, 5" reel, 0.5-mil | \$1.75 |
| 1800 ft, 7" reel, 1.0-mil | \$2.14 |
| 2400 ft, 7" reel, 0.5-mil | \$3.10 |

Tape for Auto-Reversing Machines

Has metal sensing strip at each end to activate the automatic-reversing mechanism in machines with this feature. May also be used on machines which do not reverse tapes.

| | |
|--|--------|
| 1200 ft, 5" reel, 0.5-mil Mylar | \$1.99 |
| 1800 ft, 7" reel, 1.0-mil Mylar | \$2.89 |
| 2400 ft, 7" reel, 0.5-mil tensilized Mylar | \$3.99 |

Chromium-Dioxide Cassettes

Chromium-based coating to provide low distortion, increased high-frequency levels, and reduced inherent tape noise. For recorders with chromium-dioxide bias switches.

| | |
|--------|--------|
| 60 min | \$2.49 |
| 90 min | \$3.25 |

Criterion Ultra-Dynamic Cassettes

Low-noise, high-output. Wide dynamic range with high-frequency response of 30-20,000 Hz. Head cleaner section at one end, sensing foils at each end to activate machines having revers-

ing mechanism, but may be used on all cassette recorders. Hard, clear plastic storage box.

| | |
|------------------|--------|
| C-60UD. 60 min | \$2.25 |
| C-90UD. 90 min | \$2.99 |
| C-120UD. 120 min | \$3.99 |

Voice-Grade Cassettes

| | |
|----------------|--------|
| C-40. 40 min | \$0.79 |
| C-60. 60 min | \$0.99 |
| C-90. 90 min | \$1.49 |
| C-120. 120 min | \$2.19 |

8-Track Mylar Cartridges

| | |
|--------|--------|
| 35 min | \$1.69 |
| 70 min | \$1.95 |
| 80 min | \$2.25 |

LONGINES SYMPHONETTE

Music-Grade Cassettes

| | |
|----------------------|--------|
| M40. C-40, 40 min | \$1.99 |
| M60. C-60, 60 min | \$2.29 |
| M90. C-90, 90 min | \$2.99 |
| M120. C-120, 120 min | \$3.49 |

Voice-Grade Cassettes

| | |
|-------------------|--------|
| V40. C-40, 40 min | \$1.59 |
| V60. C-60, 60 min | \$1.79 |
| V90. C-90, 90 min | \$2.29 |

All-Purpose Cassettes

| | |
|------------------------|--------|
| AP60. C-60, 60 min | \$1.29 |
| AP90. C-90, 90 min | \$1.79 |
| APS60. C-60 three-pack | \$3.87 |
| APS90. C-90 three-pack | \$5.37 |

8-Track Cartridges

| | |
|--------------------------------|--------|
| 8M40. 40 min. single in sleeve | \$2.49 |
| 8M80. 80 min. single in sleeve | \$2.99 |

Cassette Tote Box

| | |
|------------------|--------|
| 2AP60C (2-C60's) | \$2.19 |
| 2AP90C (2-C90's) | \$2.99 |

Head Cleaners

| | |
|--|--------|
| CMS-2 Cassette Maintenance Kit | \$2.99 |
| 8HCS-4 8-track (4-way head cleaner kit & demagnetizer) | \$4.99 |

MALLORY

Duratape Cassettes

| | |
|---|--------|
| Includes special head-cleaning leader. Packaged in Philips box. | |
| LNF30. 30 min | \$1.45 |
| LNF60. 60 min | \$1.95 |
| LNF90. 90 min | \$2.95 |
| LNF120. 120 min | \$3.45 |

Professional Duratape Cassettes

| | |
|--|--------|
| Cobalt-energized, extended frequency. Packaged in Philips box. | |
| EFR30. 30 min | \$1.95 |
| EFR60. 60 min | \$2.95 |
| EFR90. 90 min | \$3.95 |

Flitape Cassettes

Low-noise cassettes designed specifically for youth market. Packaged in poly box.

| | |
|-----------------|--------|
| FL40P. 40 min | \$1.45 |
| FL60P. 60 min | \$1.55 |
| FL90P. 90 min | \$2.25 |
| FL120P. 120 min | \$2.75 |

Duratape 8-Track Cartridges

| | |
|---------------------|--------|
| 8T-40. 40 min | \$2.50 |
| 8T-80. 80 min | \$2.95 |
| 8T-HC. Head cleaner | \$1.85 |

Duratape Open-Reel Tape

| | |
|---|--------|
| 3 x 150. 1 1/2-mil, 150 ft, 3" reel, polyester (4 pak) | |
| 5 x 600. 1 1/2-mil, 600 ft, 5" reel, tensilized polyester | \$2.05 |
| 5 x 1200. 1/2-mil, 1200 ft, 5" reel, tensilized polyester | \$1.95 |
| 5 x 1800. 1/2-mil, 1800 ft, 5" reel, polyester | \$3.05 |

| | |
|---|--------|
| | \$4.90 |
| 7 x 1200, 1 1/2-mil, 1200 ft, 7" reel, polyester | \$2.65 |
| 7 x 1800, 1-mil, 1800 ft, 7" reel, tensilized polyester | \$3.45 |
| 7 x 2400, 1/2-mil, 2400 ft, 7" reel, tensilized polyester | \$4.30 |
| 7 x 3600, 1/2-mil, 3600 ft, 7" reel, polyester | \$6.50 |

MAXELL

Ultra-Dynamic Cassettes (High Bias)

| | |
|----------------------|--------|
| UDC-46, 23 min/side | \$3.00 |
| UDC-60, 30 min/side | \$3.35 |
| UDC-90, 45 min/side | \$4.35 |
| UDC-120, 60 min/side | \$6.00 |

Low-Noise Cassettes (Normal Bias)

| | |
|----------------------|--------|
| LNC-30, 15 min/side | \$1.73 |
| LNC-60, 30 min/side | \$1.99 |
| LNC-90, 45 min/side | \$3.18 |
| LNC-120, 60 min/side | \$4.22 |

General-Purpose Tape (Normal Bias)

| | |
|----------------------------------|---------|
| 1.5-mil acetate | |
| A-50-7, 1200 ft., 7" reel | \$4.65 |
| A-50-10R, 2500 ft., 10 1/2" reel | \$12.40 |
| 1-mil polyester | |
| E-35-7, 1800 ft., 7" reel | \$6.30 |
| E-35-10R, 3600 ft., 10 1/2" reel | \$15.80 |

Low-Noise Tape (Normal Bias)

| | |
|------------------------------------|---------|
| 1.5-mil acetate | |
| WA-50-7, 1200 ft., 7" reel | \$5.25 |
| LNA-50-10R, 2500 ft., 10 1/2" reel | \$12.80 |
| 1.5-mil polyester | |
| LNE-50-7, 1200 ft., 7" reel | \$5.20 |
| LNE-50-10R, 2500 ft., 10 1/2" reel | \$13.00 |
| 1-mil polyester | |
| LNE-35-7, 1800 ft., 7" reel | \$7.45 |
| LNE-35-10R, 3600 ft., 10 1/2" reel | \$18.20 |
| 0.5-mil polyester | |
| LNE-25-7, 2400 ft., 7" reel | \$10.00 |
| 0.5-mil polyester | |
| LNE-18-7, 3600 ft., 7" reel | \$12.00 |

Extended-Range Tape (High Bias)

| | |
|----------------------------------|---------|
| Ultra-dynamic, high-energy type. | |
| 1.5-mil polyester | |
| UD50-7, 1200 ft., 7" reel | \$6.40 |
| UD50-10R, 2500 ft., 10 1/2" reel | \$16.00 |
| 1-mil polyester | |
| UD35-7, 1800 ft., 7" reel | \$8.10 |
| UD35-10R, 3600 ft., 10 1/2" reel | \$19.70 |

8-Track Cartridges (Normal Bias)

| | |
|--------------------|--------|
| BT-200, 40 minutes | \$2.90 |
| BT-300, 60 minutes | \$3.12 |
| BT-400, 80 minutes | \$3.45 |

NAKAMICHI

Cassette Tape Album

| | |
|--|---------|
| Chromium-dioxide tape packed six cassettes to a fabric album of LP record jacket size. | |
| C-60 | \$29.80 |
| C-90 | \$39.80 |

RCA

Red Seal Reel-to-Reel Tapes

| | |
|---|--------|
| Polyester Base | |
| 15M6, 600 ft., 5" reel, 1.5-mil, all-purpose, standard play | \$2.65 |
| 15M12, 1200 ft, 7" reel, 1.5-mil, all-purpose, standard play | \$4.25 |
| 10M2, 225 ft, 3" reel, 1.0-mil, long-play in cardboard mailer | \$1.05 |
| 10M9, 900 ft, 5" reel, 1.0-mil, all-purpose, long-play | \$3.45 |
| 10M18, 1800 ft., 7" reel, 1.0-mil, all-purpose, long play | \$6.00 |
| 5TM18TP, 1800 ft., 5" reel, 0.5-mil all-purpose, triple-play | \$7.40 |
| 5TM24, 2400 ft., 7" reel, 0.5-mil, all-purpose, triple-play | \$9.75 |

Red Seal Cobalt-Energized Cassettes

| | |
|----------------------|--------|
| C45, 17 1/2 min/side | \$2.25 |
| C60, 30 min/side | \$3.15 |
| C90, 45 min/side | \$4.15 |
| C120, 60 min/side | \$4.75 |

Vibrant Cassettes

| | |
|-------------------|--------|
| CV30, 15 min/side | \$1.39 |
| CV60, 30 min/side | \$1.69 |
| CV90, 45 min/side | \$2.49 |

Red Seal 8-Track Cartridges

| | |
|---|--------|
| 8TR40-RS, 200 ft. lubricated tape in 40-min cartridge | \$2.65 |
| 8TR94-RS, 440 ft. lubricated tape in 94-min cartridge | \$3.95 |
| 8THC100, Cartridge head cleaner | \$1.95 |

Cassette Head Cleaner Tape

| | |
|---|--------|
| 10R121, Non-abrasive cassette head cleaner in plastic box | \$2.00 |
|---|--------|

SCOTCH

Cassettes

High Energy
Features "High Energy" cobalt-energized tape for quality sound; fully compatible with all cassette recorders. Has "Posi-Trak" back treatment. Album package.

| | |
|--------|--------|
| 45 min | \$2.75 |
| 60 min | \$3.00 |
| 90 min | \$4.50 |

Low-Noise/High-Density

Multi-purpose cassette featuring full dynamic range throughout the audible sound spectrum. "Posi-Trak" back treatment. Album package.

| | |
|---------|--------|
| 45 min | \$2.25 |
| 60 min | \$2.50 |
| 90 min | \$3.75 |
| 120 min | \$5.00 |

Highlander/Low-Noise

| | |
|---|--------|
| For all-purpose cassette use. Polyester base. | |
| 45 min | \$1.30 |
| 60 min | \$1.40 |
| 90 min | \$2.25 |
| 120 min | \$3.80 |

Open-Reel Tapes

High-Output/Low-Noise
Provides 50% increase in signal output and additional 3 dB in dynamic range over conventional low-noise tapes.

| | |
|--|--------|
| No. 206, Polyester base, "Posi-Trak" backing, leader, and trailer, 1.5-mil, 60 min at 7 1/2 ips; 7" reel | \$6.10 |
| No. 207, Polyester base, "Posi-Trak" backing, leader, and trailer, 1-mil, 90 min at 7 1/2 ips; 7" reel | \$7.70 |

Low-Noise/Dynarange

Provides high-fidelity recording even at 3 1/2 ips. Multi-purpose tape providing full dynamic range throughout audible spectrum. S/N is 4 to 6 dB better than standard tapes.

| | |
|---|---------|
| No. 211, Polyester backing, white yellow trailers, 1.5-mil, 30 min at 7 1/2 ips (5" reel); 60 min (7" reel); 30 min | \$2.70 |
| 60 min | \$4.05 |
| No. 212, 1.0-mil, 45 min at 7 1/2 ips (5" reel); 90 min (7" reel); 45 min | \$3.75 |
| 90 min | \$6.65 |
| No. 213, 0.5-mil tensilized, 120 min at 7 1/2 ips (7" reel) | \$10.00 |
| No. 214, 0.5-mil tensilized, 90 min at 7 1/2 ips (5" reel); 180 min (7" reel); 90 min | \$6.65 |
| 180 min | \$11.95 |

Highlander/Low-Noise

All-purpose economy tape for vocals as well as speech.

| | |
|---|--------|
| No. 228, 1.5 mil, 60 min at 7 1/2 ips (7" reel) | \$3.10 |
| No. 229, 1-mil, 90 min at 7 1/2 ips (7" reel) | \$5.00 |

8-Track Cartridges

Features low-noise oxide coating on heavy-duty lubricated polyester backing.

High-Output/Low-Noise

Full 2-dB increase in output over premium tapes. Captures full balanced sound.

| | |
|----------------------|--------|
| BTR-45 HO/LN, 45 min | \$3.05 |
| BTR-90 HO/LN, 90 min | \$3.68 |

Low-Noise/Dynarange

| | |
|-----------------------|--------|
| All-purpose cartridge | |
| BTR-45, 45 min | \$2.50 |
| BTR-90, 90 min | \$3.05 |

SONY/SUPERSCOPE

Professional Recording Tape

Extra-heavy-formula Oxi-coat homogenized oxide coating; polyester back, "lubri-cushion" impregnated lubricant.

| | |
|--------------------------------------|--------|
| PR-150-3, 300 ft, 3 1/4" reel, 1 mil | \$1.99 |
| PR-150-9, 900 ft, 5" reel, 1 mil | \$2.99 |
| PR-200-12, 1250 ft, 5" reel, 0.5 mil | \$4.49 |
| PR-150-18, 1800 ft, 7" reel, 1 mil | \$4.99 |
| PR-200-24, 2400 ft, 7" reel, 0.5 mil | \$7.49 |

Low-Noise, High-Output Tape

| | |
|------------------------------|--------|
| On 1-mil polyester base. | |
| SLH-180-18, 1800 ft, 7" reel | \$6.49 |

Auto-Sensor Cassette Tape

| | |
|----------------|--------|
| C-30, 30 min | \$1.39 |
| C-60, 60 min | \$1.49 |
| C-90, 90 min | \$2.19 |
| C-120, 120 min | \$3.19 |

Ultra-High-Fidelity Cassette Tape

| | |
|-------------------|--------|
| With Auto-Sensor. | |
| UHFC-60, 60 min | \$2.39 |
| UHFC-90, 90 min | \$3.49 |
| UHFC-120, 120 min | \$4.99 |

Chromium-Dioxide Cassettes

| | |
|----------------|--------|
| CRO-60, 60 min | \$3.29 |
| CRO-90, 90 min | \$3.99 |

8-Track Cartridges

| | |
|---------------|--------|
| 8T-40, 40 min | \$2.99 |
| 8T-60, 60 min | \$3.49 |
| 8T-80, 80 min | \$3.99 |

Empty Tape Reels

| | |
|---------------------------------------|--------|
| Computer-styled tape reels, with box. | |
| 7" | \$0.99 |
| 5" | \$0.79 |
| 3 1/4" | \$0.69 |

SOUNDCRAFT

Cassette Tapes

| | |
|----------------------|--------|
| 25C-30, 30 min | \$0.79 |
| 25C-40, 40 min | \$0.89 |
| 25C-60, 60 min | \$1.39 |
| 25C-90, 90 min | \$1.69 |
| 25C-120, 120 min | \$1.99 |
| 25C-HC, Head cleaner | \$1.39 |

8-Track Tapes

| | |
|----------------------|--------|
| 85C-40, 40 min | \$1.69 |
| 85C-80, 80 min | \$1.99 |
| 85C-HC, Head cleaner | \$1.29 |

Open-Reel Tapes

| | |
|------------------------|--------|
| 45C-1200, 7" x 1200 ft | \$2.69 |
| 45C-1800, 7" x 1800 ft | \$3.29 |
| 45C-2400, 7" x 2400 ft | \$4.99 |
| 45C-3600, 7" x 3600 ft | \$6.99 |

TDK

"Extra Dynamic" Cassettes

Exclusive "stagnite" coating for highest MOL (maximum output level), wide dynamic range, high S/N. Response 20-23,000 Hz. Includes new 45-min. "record-album-length." Polyester base.

| | |
|----------------|--------|
| ED-C45, 45 min | \$3.35 |
| ED-C60, 60 min | \$3.75 |
| ED-C90, 90 min | \$5.60 |

12 Blank Tape

"Super Dynamic" Cassettes

High-performance gamma ferric oxide for wide dynamic range, low-noise, and distortion-free



output. Response 30-20,000 Hz. Polyester back.

| | |
|------------------|--------|
| SD-C45, 45 min | \$2.75 |
| SD-C60, 60 min | \$3.00 |
| SD-C90, 90 min | \$4.50 |
| SD-C120, 120 min | \$6.00 |

"Krom-O" Chromium-Dioxide Cassettes

Outstanding linearity at very high frequencies. Use on machines with CrO₂ bias. Polyester back. Packed in plastic boxes.

| | |
|----------------|--------|
| KR-C60, 60 min | \$3.75 |
| KR-C90, 90 min | \$5.60 |

"Dynamic" Cassettes

Features company's new M-400 gamma ferric oxide coating. Includes new 3-hour "4-record-album-length" cassette plus new single-album-length cassette. Polyester back.

| | |
|-----------------|--------|
| D-C45, 45 min | \$2.25 |
| D-C60, 60 min | \$2.50 |
| D-C90, 90 min | \$3.75 |
| D-C120, 120 min | \$5.80 |
| D-C180, 180 min | \$6.85 |

Head Cleaner Cassette

Chromium trioxide removes deposits, laps and polishes pitted heads. Unique check-off chart on box keeps record of cleaner life.

| | |
|------|--------|
| HC-1 | \$1.50 |
|------|--------|

"Endless" Cassettes

Endless-loop design with safety feature against accidental reversal. Usable in conventional cassette machines. Polyester backing. Packed in plastic boxes.

| | |
|----------------|--------|
| EC-20S, 20 sec | \$5.00 |
| EC-30S, 30 sec | \$5.00 |
| EC-1, 1 min | \$5.00 |
| EC-3, 3 min | \$5.25 |
| EC-6, 6 min | \$5.75 |
| EC-12, 12 min | \$6.85 |

"Super Dynamic" 8-Track Cartridges

Full-fidelity 8-track cartridges with gamma ferric oxide. Response 20-23,000 Hz. High saturation and output level (MOL). Has broad dynamic range, high S/N, and minimum distortion.

| | |
|------------------|--------|
| BTR-40SD, 40 min | \$3.75 |
| BTR-80SD, 80 min | \$5.00 |

"Super Dynamic" Open-Reel Tape

High-resolution gamma ferric oxide for wide dynamic range, low noise, and distortion-free output. Response 20-30,000 Hz.

| | |
|--------------------------------------|---------|
| 1200-SD, 1200 ft, 7" low-torque reel | \$4.50 |
| 1800-SD, 1800 ft, 7" reel | \$6.25 |
| 3600-SD, 3600 ft, 10 1/2" NAB reel | \$15.60 |

For 4-Channel Components...
See SECTION 9

12 Accessories

ADVENT

MPR-1 Microphone Preamplifier

For use with low-impedance balanced or unbalanced microphones. Switchable gain for either 40 or 60 dB. Operated by power supply of Advent 201 cassette deck. 5 1/2" x 2 1/2" x 1" D

..... \$25.00

100A Dolby System

Noise-reduction unit with Dolby system for home tape recording/playback. Also plays Dolby-encoded pre-recorded commercial tapes and FM broadcasts. Provides four-input mixing (two on each channel), headphone monitoring, and sound-on-sound recording. Harmonic and IM distortion 0.1%. 5" x 12 1/2" x 8 1/2" D. Cabinet extra

..... \$250.00

101 Dolby System

Similar in principle to Model 100A, but can only be used in record or playback mode (uses same circuitry), but not simultaneously for two operational modes

..... \$125.00

ALTEC

729A "Acousta-Voicette"

Used to modify combined response of room and speaker as required for optimum flatness of frequency response in specific listening area. Has narrow-band adjustable filters, each covering 1/3 octave. Stereo design with 24 filters for each channel covering center frequencies between 63 and 12,500 Hz. Loss/octave adjustable from 0 to 12 dB. 17 dB gain each channel to compensate for equalization losses

..... \$875.00

AUDIO RESEARCH

EC-3 Electronic Crossover

Two- and three-way crossover with 6 dB/octave slope. Response 5-50,000 Hz ±1 dB. HD less

..... \$650.00



than 0.01% at 5 V output; (S + N)/N 90 dB below 1 V input. 15 1/2" x 5" x 12 1/2" D

..... \$650.00

BSR-METROTEC

FEW-2 Frequency Equalizer

Two-channel, five-zone per channel, frequency equalizer. Response: flat setting 5-100,000 Hz ±1 dB; tone control range ±12 dB at 60, 240, 1000, 3500, and 10,000 Hz. IM dist. 0.05% at 2 V output; HD 0.05% at 2 V output (20-20,000 Hz); max. output 9 V

..... \$99.95

FEW-3 Frequency Equalizer

Stereo frequency equalizer provides 12 zones

..... \$99.95



of control for each channel. Has two VU meters, defeat switch, and switch back control for both playback and recording. Distortion 0.007%
..... \$199.95

CARTER-CRAFT

40-124 Cartridge Demagnetizer

For home 4- and 8-track machines. Blunt tip reaches recessed heads and removes residual magnetism

..... \$6.00

40-130 Cassette Demagnetizer

For all standard cassette machines. Reduces distortion & noise level

..... \$7.25

32-610 Head Cleaner/Demagnetizer

For automotive use. 12 V d.c. Special 8-track cartridge tape that will clean and demagnetize the heads of 8-track tape machines

..... \$11.25

CHEMTRONICS

Tape Head Cleaner

Aerosol cleaner formulated for cassette, reel-to-reel, and 8-track recorders and players. Removes dirt, film, and oxides from heads, tape guides, capstan rollers, and other critical parts. Furnished with spray extender for pinpoint application. #THC-6

..... \$2.59

504-3. Same except 2-oz. bottle with special felt applicator

..... \$1.55

HC-3 Same, except 3-oz. spray can

..... \$1.19

Non-Slip Drive/Belt Restorer

Restores hardened and glazed rubber drives and belts. Fast drying. Prevents slippage and insures uniform speed. 2 ounces. #507-7

..... \$1.59

Cassette Head Cleaner

Non-abrasive buffing tape. Cleans graphite deposits from tape head. To be used the same as regular cartridge. #CHC

..... \$1.98

Cassette Maintenance Kit

Performs double cleaning function of tape head and capstan shaft cleaner. Uses special cleaning liquid applied directly to non-abrasive buffing tape. #CHC-Kit

..... \$2.98

8-Track Head Cleaner

Cleans graphite deposits from tape heads with gentle wiping action. In use it is inserted in tape player and run for 30 seconds for every 50 hours of operation. #TR-B

..... \$1.98

8-Track Maintenance Kit

Cleans player head and capstan shaft with special cleaning liquid applied to tape. Prepared cartridge is inserted in player and job is done in seconds. Designed to be used weekly. #TR-B Kit

..... \$2.98

Double-Head Cleaner

Requires no liquids or solvents. Works automatically in seconds. Has click timer. Removes graphite deposits from magnetic head and capstan shaft and prevents build-ups which often cause tape pull-out and breakage. Use after every 40 hours of play. #DH-8

..... \$3.49

Cassette Combo 3-in-1 Test Cartridge

Specially designed maintenance unit in a cassette; non-abrasive leader removes oxide deposits from head; tape checks proper head alignment to minimize crosstalk, also checks proper balance between stereo channels. #C-3

..... \$2.69

8T-3. Same, except for 8-track cartridge recorder/players.

..... \$2.69

CONCORD

DBA-9 Dolby Adapter

Record/playback noise-reduction system using Dolby-B type circuits. Has individual record and

output level controls; dual VU meters. Input imp. 25,000 ohms. Sensitivity 30 mV; output 0.58 V adjustable. Output imp. 2500 ohms. Response 20-15,000 Hz ± 0.5 dB. HD 0.2%. Noise reduction 8 dB at 2000 Hz & 10 dB at 5000 Hz. Supplied with Dolby-level pre-recorded tape (1 cassette & 1 3" reel) for calibration. 10 $\frac{1}{2}$ " W x 3" x 7 $\frac{1}{2}$ " D \$114.95

DBA-10 Dolby Adapter

Record/playback noise-reduction system using Dolby B-type circuitry. Has individual input/output channel-level controls with calibration adjustments available from front panel. Includes a built-in calibration tone signal and twin DIN/Dolby NAB meters. Response 20-20,000 Hz ± 0.5 dB, HD 0.4%. Input sensitivity 30 mV, output 0.58 V adjustable. Noise reduction 8 dB at 2000 Hz, 10 dB at 5000 Hz. 13 $\frac{1}{2}$ " x 3 $\frac{1}{2}$ " x 7 $\frac{1}{2}$ " D \$139.95

dbx

117 Dynamic Range Enhancer

A compressor/expander that permits listener to restore up to 20 dB of the dynamic range missing from records, tapes, or FM broadcasts. As a classical compressor/expander, allows the recordist to make full dynamic range tapes on moderately priced recorders and obtain 20 dB or more improvement (S + N)/N \$159.00

150 Series Noise Reduction Systems

Allows recordists to make noise-reduced tapes to studio standards on better-grade audiophile recorders. Fully compatible with company's studio professional models but with single-ended inputs/outputs and RCA-type phono connectors to facilitate connections to audiophile recorders, amplifiers, etc. Provides 30 dB noise reduction with 10 dB more headroom. Extruded aluminum and solid walnut cabinet. 3 $\frac{1}{2}$ " H x 9" W x 10 $\frac{1}{2}$ " D.

Model 157. Two-channel simultaneous record and play. \$567.00

Model 152. Two-channel switchable record or play. \$410.00

Model 154. Four-channel switchable record or



play (may also be used as two-channel simultaneous record and play). \$646.00

DISCWASHER

Record Cleaning System

System comprises a two-part kit containing fluid and a specially designed brush. Removes micro-dust, fingerprints, and cigarette smoke. Also eliminates destructive biological growth. Leave no residue. Complete kit. \$12.95



EDITALL

KP-2 Editing Kit

Complete kit includes splicing block, 30 splicing tapes, demagnetized razor blade, and grease pencil \$4.00

KS-2 Editing Kit

For $\frac{1}{4}$ " tape, includes a 4" x $\frac{1}{4}$ " x 1 $\frac{1}{2}$ " block, marking pencil, roll of splicing tape, and cutting blade \$10.00

KS-3 Editing Kit

Same as KS-2 except includes larger block (5 $\frac{1}{4}$ " x 1" x $\frac{1}{2}$ ") \$12.00

Metal Splicing Blocks

S-1, For 150" cassette-type tape ... \$10.50

S-2, For $\frac{1}{4}$ " tape compact machines \$9.00

S-3, For $\frac{1}{4}$ " tape console machines \$10.50

S-3.5, For $\frac{1}{2}$ " tape \$26.00

FERROGRAPH

RTS-2 Recorder Test Set

Will test wow & flutter, frequency response, (S + N)/N ratio, gain, distortion, crosstalk, erasure, input sensitivity, output power, and drift. Input required 35 mV to 5 V. Has output for oscilloscope. 17 $\frac{1}{2}$ " x 10" x 5 $\frac{1}{2}$ " H. \$1450.00

FINCO

FMSL-12 FM Antenna

FM "Stereo Log" multiple-drive broadband (88-108 MHz) antenna featuring very narrow pattern, maximum gain, and a high front-to-back ratio (up to 26 dB). Five driven elements, 6 directors, and 1 reflector. 13-ft boom, 87-inch turning radius. Gold Corodized \$57.90



BEST DRESSED SOUND IN TOWN

Frazier's Mark IV-A sounds as great as ever. Looks better than ever with an all-new, sculptured, double knit grille.

It's what's inside that counts, and Frazier's Mark IV-A cabinet contains fixed acoustical tuning, a 10-inch woofer, unique network, high frequency attenuator and a special compression horn

tweeter. But what's on the outside counts too. That's why this popular priced speaker now has a sculptured, double knit grille to complement its handsome oiled walnut cabinet.

FRAZIER Incorporated

1930 Valley View Lane
Dallas, Texas 75234
214-241-3441

FM-5 Antenna

Ten-element, deluxe gold Corodized antenna. Has twin drive elements and maximum gain over full FM band \$41.85

FM-3 Antenna

Four-element broadband FM yagi. Features narrow directivity pattern. Aluminum construction, gold Corodized \$15.70

FM-4G Antenna

Twin-drive FM antenna with impedance-control "T" match stubs. Six elements, wideband (88-108 MHz) yagi. Aluminum construction, gold Corodized \$28.60

FMT-1 Antenna

All-directional FM antenna kit with two folded dipoles at right angles with quarter-wave phasing stub for 360-degree pickup pattern without rotor. Supplied with 50 ft, 300-ohm twin lead, 5-ft. mast, mounting hardware. Gold Corodized \$15.40

FM Stereo "S" Antenna

All-directional "S" type design. High gain. Gold Corodized \$4.35

75-Ohm FM Antennas

75-ohm versions of the Models FMSL-12, FM-5, and FM-4G. To be used with coax-cable transmission lines in difficult, high-interference areas. Furnished with indoor matching balun transformer to balance 75-ohm coax to 300-ohm input of set.

CX-FMSL-12 \$67.50
CX-FM-5 \$51.75
CX-FM-4G \$38.55

JVC**SEA-10 Sound Effects Amplifier**

Five-zone sound-effects amplifier/equalizer circuit, switchable to 40, 60, 250, 1000, 5000, 10,000 and 15,000 Hz. Permits sound equalization during recording as well as playback. 5 1/2" x 7 1/2" x 10" D \$109.95

ECA-102 Reverb Amplifier

For 2- and 4-channel use. Calibrated reverb time from 0 to 3 milliseconds. Dual tape-monitor system. 5 1/2" x 9 1/2" x 13 1/2" D \$129.95

NR-1020 ANRS Noise-Reduction Unit

Automatic noise-reduction unit for use with reel-to-reel, cassette, and cartridge tape decks. Improves (S + N)/N by 5 dB at 1000 Hz and 10 dB at 10,000 Hz. Includes built-in 400-Hz oscillator, two meters, two recording-level and two playback-level controls, reel-to-reel and cassette calibration tapes. 3 1/2" x 13 1/2" x 7 1/2" D \$139.95

KENWOOD**KC-6060A Audio-Lab Scope**

Oscilloscope designed for audiophile. May be used to display audio sine waves from either stereo channel. Includes its own test signal. Variable sweep rate 10-100,000 in four steps. Has internal synchronization. Will also display



complex musical waveforms and can be connected to an FM stereo tuner or receiver to display multi-path effects. 3" CR tube. 5 1/2" x 16 1/2" x 11" D \$224.95

LAFAYETTE**Deluxe Bulk Tape Eraser**

Tape degausser for erasing 1/2" tapes or smaller and demagnetizing tape, magnetically stripped film, tools, and watches. Has custom-finished case, non-magnetic top, "on-off" switch, power cord, built-in fuse, pilot light, and non-magnetic Bakelite plate for reel rest. Separate spindle positions for 10 1/2", 7", 5", and 3" reels. Coil consumes 5 amps. 7 1/2" x 4 1/2" x 3 1/2" \$14.95

Tape Head Demagnetizer

Pencil-shaped with one extending probe which allows for reaching all heads in all positions. With "on-off" switch \$3.35

Telephone Pickup Coil

Designed to feed into the microphone input of tape recorder of any high-gain amplifier. Easily fastened to the telephone by rubber suction-type attachment. Has 4 1/2-ft shielded cable with 1/2" miniature plug \$0.99

DNR-50 Noise-Reduction Unit

Can be used with any tape deck or self-contained tape recorder having audio inputs and outputs. Increases S/N 10 dB at 10,000 Hz; 5 dB at 1 kHz. Has built-in Dolby reference meter with three-position function switch; separate slide lever record level controls, play/record push-button switch. Response 20-15,000 Hz \pm 2 dB. Must be used with separate Dolby calibration tape. 9" x 7 1/2" x 3 1/2" \$79.95
Dolby cassette calibration tape \$4.89

LAMB**PML-420 Mixer**

Four-channel input; stereo or mono output. Has individual faders on each input channel; separate high, medium, and low-frequency equalization; pan pots; and echo send controls. Group faders on each output channel. Limiters have adjustable threshold and release. Two VU meters monitor the output. Cannon XLR termination at inputs; jack sockets at outputs \$549.00
LPS-10. Mixer power supply \$49.00

DLB-220 Dolby-B Noise-Reduction Unit

Stereo Dolby-B processor for open-reel, cassette, or cartridge machines or for decoding Dolby-B encoded FM broadcasts. Response 20-15,000 Hz \pm 1 dB; 15,000-20,000 Hz at 2 dB. Has multiplex filter for deprocessing FM. Produces up to 10 dB attenuation of noise. Comes complete with connecting cables and calibration tape for two- or three-head recorders \$169.00
LD8-240. Same as DLB-220 except with stereo encoders and stereo decoders allowing simultaneous decoding for monitoring on three-head machines. Monitor signal is at all times in non-processed form \$285.00

"Mini Studio"

Completely portable professional recording studio. Consists of Revox A77 half-track stereo tape recorder (15 and 7 1/2" ips), including variable pitch and sel-sync and remote control unit; Lamb PML-420 mixer; two Beyer M-500 dynamic, one Soundstar X1N, and one M-101 microphones; DT-100 stereo headset for monitoring. Comes complete with mike stands, booms, clamps, and cables. \$2610.00

MAGNESONICS**Erasette Tape Eraser**

Will erase a cassette or 8-track cartridge to -65

dB from 0 reference. Battery operated (four "A" cells). 4" x 3 1/2" x 2 1/4" \$15.95

MURA**A-10 Stereo Volume Control**

Stereo/mono switch enables headset to be used with radio, TV, electronic organ, or other mono program sources. Features electronic slide controls and 15-ft extension cord \$9.95

NAKAMICHI**Head Demagnetizer**

Slim-line, easy-to-use recorder head demagne-



tizer, specially designed for the company's Models 1000 and 700 cassette decks \$15.80

NORTRONICS**5600 Quadrasonic Record/Play Heads**

Four-track, four-channel, laminated core heads with all-metal hyperbolic face construction. #5601. Special record-only head, low imp., 50 mH, 500 μ m gap spacer. For use with vacuum-tube or transistor circuits. No-mount type \$99.00
#5602. Low imp., 90 mH, 100 μ m gap spacer. For use with vacuum-tube or transistor circuits. No-mount type \$99.00
#5603. Medium imp., 370 mH, 100 μ m gap spacer. For use with vacuum-tube or transistor circuits. No-mount type \$99.00

Professional Tape/Head Cleaner

A fluorocarbon solvent formulated to clean without leaving any residue. There is no silicone lubricant, allowing use on capstans and pressure rollers. Safe for plastics, rubber, metals, painted surfaces, and elastomer parts. Meets all standards of MSFC No. 237A. Chemicals used in this cleaner have low surface tension and high density to penetrate into small crevices. Its high dielectric strength and quick-drying qualities allow use during equipment operations. Is relatively non-toxic and non-flammable.

QM-108, 8 oz. liquid (can) \$3.40

QM-116, 16 oz. spray (can) \$3.75

QM-102 Liquid Head Cleaner

Will remove impacted dirt and oxide deposits. Can be used on plastics, rubber, metals, painted surfaces, epoxies, elastomer parts. High dielectric strength and quick drying. Leaves no residue. Contains no silicone lubricant. 2 oz. \$1.50
QM-103. Same as QM-102 except in 3-oz. spray can with 5" extension tube \$2.15

QM-140 Cassette Head Cleaner

Features special non-abrasive belt to remove accumulated oxide and dirt from cassette heads \$2.25
QM-141. Same as QM-140 but supplied with a liquid cleaner for removing heavier accumulations of oxide and dirt \$3.15

QM-180 8-Track Cassette Head Cleaner

Special non-abrasive endless belt of non-woven polyester fabric which removes accumulated oxide and other contaminants. Sensing tab for proper indexing to clean entire head face \$2.80

QM-181. Same as QM-180 except supplied with liquid cleaner \$3.50

QM-182 8-Track Head/Capstan Cleaner
Accessory unit which has a special non-abrasive endless belt on one end for removing oxide and other contaminants and on the other end a capstan cleaner made from Microlon \$3.50

QM-201 Wand Head Demagnetizer
Professional unit that removes residual magnetism from heads, tape guides, and capstans. Flat tip reaches most heads without removing cover plate. Tip is specially coated with soft plastic material that will not scratch head surfaces. Comes with momentary switch and 6-ft. cord. 110-120 V a.c., 50-60 Hz \$13.90

QM-210 Bulk Tape Eraser
Hand-held unit which bulk erases an entire reel, cassette, or cartridge in seconds. Reduces background noise levels to below that of virgin tape. Built-in momentary switch. Supplied with a.c. cord \$21.90

QM-240 Cassette Head Demagnetizer
Removes residual magnetism from cassette heads. Operates on 110-120 V a.c., 50-60 Hz. Comes with a.c. cord \$10.35

QM-280 8-Track Cleaner/Demagnetizer
Dual-purpose accessory which demagnetizes heads in 8-track machines and provides endless cleaning belt for removing dirt and oxide from the head. Supplied with a.c. cord for operation on 110-120 V a.c., 50-60 Hz... \$12.50
QM-281. Same as QM-280 but designed for operation on 12-V d.c. automotive battery. Supplied with cigarette lighter plug... \$13.40

QM-301 Splicer
For rapid tape editing and repair of all 1/4" tapes. Provides both diagonal and waist-type cuts. Tape guides and hold-down fingers secure tape firmly \$5.00
QM-340. Same as QM-301 except designed for use with 0.150" cassette tapes \$5.00

QM-311 Tape Splicing Block
For 1/4" tape. Supplied with single-edge stainless-steel cutting blade & ten splicing tabs \$12.00
QM-312. For 0.15" cassette tape \$12.00
QM-313. For 1/2" video and audio tape... \$18.00

AT-120 Alignment Tape
7 1/2 ips full-track tape for checking 1/4" record/play heads of all types. 50-15,000 Hz. Recorded for checking azimuth, equalization, and head wear \$26.50

AT-200 Cassette Alignment Tape
3 1/2 ips full-track tape for checking cassette record/play heads of all types. 31.5-10,000 Hz. Original recorded tones for zero reference, azimuth, and frequency-response tests... \$23.50

Replacement Tape Heads
Replacement heads are available for 4100 models of recorders. Universal head #5800 for 8-track players; #5130 and #5230 for cassette recorders.
8-Track \$10.90
2-track mono cassette \$15.40
4-track stereo cassette \$17.60

The company has prepared a 28-page "Recorder Care Manual" which is available without charge from local Nortronic distributors.

NUCLEAR

3C500 Staticmaster
Soft-hair retractable brush with extra-strength polonium element. Designed to neutralize static and remove dust from records \$12.95
Replacement cartridge \$7.95

ORTOFON

AS-212 Tonearm
Low-mass tonearm, total length 11.8". Designed for lightweight, high-compliance cartridges



weighing between 5 and 10 grams. Features hydraulic cueing, adjustable magnetic anti-skating, removable shell, arm rest, and adjustable counterweight. Stylus force adjustable from 0 to 3 g \$99.95

PICKERING

PST-1 Stylus Timer
Measures actual stylus wear-time from 0 to 1000 hours in increments of 100 hours. Features mercury coulometer, powered by stan-



dard mercury battery, as indicator; easily resettable after 1000 hours. Mounts on turntable under tonearm. 2 1/2" long x 1" W x 1" H. Comes with mercury battery \$13.95

PIONEER

SR-202W Reverberation Amp
Double-scatter system blends direct signals from source with reverb effect. Reverb time 0-2.5 seconds at 1 kHz. HD less than 0.2% at 1 kHz reverb time. Minimum output level 330 mV. Response 20-35,000 Hz ± 2 dB (min. reverb time) and 20-50,000 Hz ± 10 dB (max. reverb time). IS + N/N 65 dB at 330 mV output. Universal power supply \$129.95

SD-1100 Stereo Display
Designed for measurement and scoping of all audio components and stereo characteristics. Will show any waveform and measure voltage level and phase shift. Has built-in audio oscillator 20-20,000 Hz with automatic or manual sweep. Can also be used for 4-channel analysis. With universal power supply \$599.95

RABCO

SL-8E Tonearm



Straight-line-tracking arm with servo system. Crossed-wire contacts operate single-transistor amplifier which drives servo motor; uses one "C" cell. 14" arm x 3 1/4" high (adjustable). 1/4 g minimum tracking force; arm resonance 10 Hz. Comes with standard two-channel stereo jacks and 3-ft double-ended stereo cable... \$199.00

REK-O-KUT

S-320 Tonearm
Maximum arm length 12". Has removable shell, ball-bearing races, arm rest, adjustable counterweight. Arm resonance 9-12 Hz. Features static balance and dynamic lateral balance. \$54.95
S-260. Same as S-320 except for 16" turntables. \$64.50

ROBINS

Cassette Storage Album
Library-designed album holds 12 cassettes. Built-in stops prevent tape from unwinding and becoming slack. Walnut wood-grained cover. 10 1/2" x 9 1/2" x 1 1/2". #TSA-1W \$3.65

Cassette Tape Mailers
18 cardboard mailers ready for addressing. Has stops to protect tape from unwinding. #TCB-18 \$1.65

Cassette Head Demagnetizer
Removes excessive magnetic build-up. Designed to be used every 15-20 hours of player/recorder use. 110 V, 50-60 Hz operation. #TD-10 \$9.95

Head Cleaner Tape
Non-abrasive tape for cleaning cassette recorder/player heads. Removes accumulated oxide, grime, and foreign particles. #THC-4... \$2.50

Test/Clean Cassette
Performs three functions to help maintain optimum recorder/player performance: cleans heads, tests for correct head alignment, and tests stereo balance equalization between channels. #THC-6 \$2.95

Cassette Tape Splicing Block
Precision splicing block cuts tape at 45 or 90 degree angle. Comes in self-contained, pocket-size carrying case complete with cutting block and 25 pre-cut self-stick splicing patches. #TS-215 \$11.10

Cassette Bulk Tape Eraser
Removes recorded sounds from entire tape in seconds. #TMC-1 \$23.30

Bulk Cartridge Erasers
Erases any cartridge in seconds. Operates from 110 V, 50-60 Hz source. #TMC-2 Deluxe model \$39.65
#TMC-3 Professional, heavy-duty model. UL listed \$66.50

Cartridge Head Demagnetizers
Removes excessive magnetic build-up from recorder/player heads. Use after 15-20 hours of player/recorder use.
#TD-12 For home cartridge units. 110 V, 50-60 Hz operation \$12.95
#TD-15 For auto cartridge units. Plugs into cigarette lighter in car \$16.50

Cartridge Head Cleaner
Special polyester non-abrasive tape which removes oxide, grime, and dust particles from heads. #THC-10 \$2.50

Test-n-Clean Cartridge
Performs five functions to maintain trouble-free cartridge player/recorder performance: cleans player heads, tests track selector, tests stereo channel balance, tests speaker phasing, and tests head alignment. #THC-11... \$5.55

THC-8. Same except doesn't include speaker phasing or track selector test functions. \$2.95

Head Demagnetizer

Demagnetizer for reel-to-reel recorder heads. Probe has soft plastic shield for safe contact with heads and angled to reach recorder heads without removing cover plates. 3 1/2" x 1 1/4" dia. Operates from 110 V, 50-60 Hz. #TD-3. \$7.30

Bulk Tape Eraser

Reduces background noise levels of tape from 2 to 4 dB below erase-head level. For 1/4" tapes on reels up to 7" dia. 2 1/4" x 3 1/4" x 6 1/4". Operates from 110-120 V, 50-60 Hz sources. #TM-77. \$37.80

Stereo Tape Splicer

Splices 4-track stereo tapes without sacrificing program material on the outer tracks. Cuts tape diagonally and trims "Gibson Girl" waists on sides of splices to prevent adhesive from contacting critical parts of recorder. See-through windows of operating lever show cut and trim positions. Integral tape dispenser comes with roll of 1/2" x 100" splicing tape. #TS-8D. \$14.30

Cassette Splicer

Has built-in dispenser with splicing tape in base. Steel construction. Fast and easy to use. #R33029. \$6.50

Stereo Speaker Protector

Protects speakers from overload by means of solid-state limiter which limits output of the amplifier. Self-powered, needs no batteries. R47001. \$29.50

Dynamic Expander

Extends dynamic range of recordings up to 8 dB. Permits lowering volume, reducing system noise and improving performance. Self-powered, needs no batteries or external power. R47002. \$30.00

Record Ionizer

Plush applicator contains special anti-static fluid. Eliminates static and reduces dust buildup. R41045. \$5.00

RUSSOUND

TMS-1W Tape Recorder Selector

Allows up to three tape recorders or other signal sources to be interfaced through the tape input/output of a single receiver or amplifier. Record or play any or all, at the same time, in any combination. Use for tape duplicating, editing, mixing, program production. Also interconnects graphic equalizers, Dolby and dbx devices, sound-effects generators, echo chambers, delay lines, and synthesizers. Walnut cabinet. \$32.95
TMS-1. Same but in utility steel cabinet. \$22.95

MP-2 Speaker/Amplifier Control Center

Feeds either of two amplifiers to up to four sets of stereo speakers without overloading ampli-



fier output stage. Separate constant-impedance L-pad for each set of speakers. Uses any combination of 8 or 16 ohm speakers and handles the output of any component amplifier designed for the home. Walnut cabinet. \$74.95

SWB-2W Speaker/Amp Selector Switch

Permits either of two amplifiers to drive any one, two, or three sets of stereo speakers of 8 or



16 ohms impedance without overloading output. Can be used to connect multiple speaker systems to amps having only one set of speaker terminals. Maintains proper load imp. on amplifier irrespective of number of speakers or their impedance. Can also be used for making A-B tests of any two amps or speaker systems. Walnut cabinet. \$25.95
SWB-2. Same but in utility steel cabinet. \$14.95

GIMP Mike Preamp/Mixer

Provides gain control at performer's location; drives up to 500 feet of cable without loss, eliminating the use of mixer for many recording applications. Expands recorder versatility by allowing each line input to mix two additional mikes and allows inexpensive mikes and instrument pickups to drive recorder directly at line level. Uses transistor battery (not supplied) for power. \$49.95

IMP-1 Impedance Matching Amp

"Impedaverter" matches any mike or pickup to any amplifier, recorder, or line. Reduces hum and high-frequency loss even when driving long lines. Dual inputs and outputs permit bridging mike and audio lines; splitting output to separate recorders and amplifiers. Choice of five switchable gain position: -20 dB, 0 dB, 0 dB with phase inversion, +20 dB, and +35 dB. Powered by two transistor batteries (not supplied). Utility steel case. \$39.95

SHURE

SA-1 "Solo-Phone"

Stereo amplifier for headphones. Permits two sets of phones to be used simultaneously. Has balance control, dual input for tape/tuner or phono. Inputs: phono 47,000 ohms equalized for magnetic cartridge, tuner 250,000 ohms. Output 8 ohms, 100 mV. 10 1/2" x 3 1/2" x 3 1/4" D. \$32.00
Model SA-1F. Same as SA-1 except panel-mounting version. \$38.00

M68 Microphone Mixer

Five channels. A transistorized portable mixer for p.a. and tape recorders. Has four mike inputs for high- or low-impedance microphones, one high-level auxiliary input for tape, tuner & accessories, individual volume control to balance each of five inputs, and a master volume control to simultaneously control level of all inputs. Has high-impedance mike and auxiliary outputs. 105-130 V, 50/60 Hz. \$87.60

M67 Microphone Mixer

Four low-impedance balanced mike inputs & one line input. Has built-in tone oscillator for calibration. Response 20-20,000 Hz ±2 dB. Has automatic switchover to battery if power fails. Gain 90 dB max. (150-ohm mike into 600-

ohm line). Battery power supply \$25.00 extra. 11 1/2" x 7 1/2" x 2 1/2" D. \$169.20

M688 Stereo Microphone Mixer

For use with stereo tape recorders which do not have built-in mixing. Accepts four high- or low-impedance mikes through four inputs plus a stereo auxiliary high-level input, each with its own volume control. Three of the mike inputs have front-panel switches for left- or right-channel output, fourth microphone input has pan control. A stereo master volume control adjusts level of all inputs. (list) \$119.40

M63 Audio Control

For use with mike mixers. Provides volume, bass, treble & high- and low-frequency rolloff. Has VU meter, two high-level inputs for mike mixer, tape recorder, tuner. Five different outputs: 600 ohms balanced line, high-imp. high-level, high-imp. mike level, low-imp. mike level (balanced), and headphone. \$100.20

M62V Audio Level Control

Automatic microphone volume control. Prevents blasting. Output adjustable to predetermined level. Response 20-20,000 Hz ±2 dB. Compression 40 dB input change, 6 dB output. For single mike. Has "on-off" bypass switch. Can be battery operated or from M68 mixer. 11 1/2" x 5 1/2" x 2 1/2" D. \$63.00

M64 Stereo Preamp

Provides gain and equalization to operate magnetic phono cartridges and tape playback heads with amplifiers without equalization. Response flat 20-20,000 Hz ±2 dB, phono RIAA curve 40-15,000 Hz ±2 dB, tape for 7 1/2 ips NAB curve 50-15,000 Hz ±2 dB. Max. input phono & tape 100 mV, flat 250 mV. \$34.00

A97A Matching Transformer

Designed to permit transistorized tape recorders to be used with high-quality, low-impedance microphones. Designed to improve the overall audio input signal as well as permit the use of long cables without loss of high frequencies and without hum and noise pickup. 2 1/2" long x 1/4" diameter. \$13.20

M232 Tonearm

Maximum arm length 12". Has removable shell, arm rest, adjustable counterweight, 1 to 8 g stylus-pressure adjustment, overhang adjustment, and static balance. \$32.75
Model M236. Same except 16" version. \$35.00

SME-3009 Improved Tonearm

Maximum arm length 9". Has ball-bearing races, arm rest, adjustable counterweight, cueing



control, 0 to 1.5 g stylus-pressure adjustment. \$135.00
SME3009/S2. Same except with removable shell. \$147.00

SFG-2 Stylus Force Gauge

For all modern tonearms & manual or automatic turntables. Accurate within one-tenth gram in primary operating range of 1/2 to 1 1/2 grams, extended measurement range to 3 grams. Stainless steel pivots. \$4.95

SIGNAL SCIENCE

Signal Commander Sound Switch

Sound switch for controlling tape recorders, receivers, amplifiers, or any other electrical equipment rated at up to 300 watts. Red indica-

QM-181. Same as QM-180 except supplied with liquid cleaner \$3.50

QM-182 8-Track Head/Capstan Cleaner
Accessory unit which has a special non-abrasive endless belt on one end for removing oxide and other contaminants and on the other end a capstan cleaner made from Microlon \$3.50

QM-201 Wand Head Demagnetizer
Professional unit that removes residual magnetism from heads, tape guides, and capstans. Flat tip reaches most heads without removing cover plate. Tip is specially coated with soft plastic material that will not scratch head surfaces. Comes with momentary switch and 6-ft. cord. 110-120 V a.c., 50-60 Hz \$13.90

QM-210 Bulk Tape Eraser
Hand-held unit which bulk erases an entire reel, cassette, or cartridge in seconds. Reduces background noise levels to below that of virgin tape. Built-in momentary switch. Supplied with a.c. cord \$21.90

QM-240 Cassette Head Demagnetizer
Removes residual magnetism from cassette heads. Operates on 110-120 V a.c., 50-60 Hz. Comes with a.c. cord \$10.35

QM-280 8-Track Cleaner/Demagnetizer
Dual-purpose accessory which demagnetizes heads in 8-track machines and provides endless cleaning belt for removing dirt and oxide from the head. Supplied with a.c. cord for operation on 110-120 V a.c., 50-60 Hz \$12.50
QM-281. Same as QM-280 but designed for operation on 12-V d.c. automotive battery. Supplied with cigarette lighter plug \$13.40

QM-301 Splicer
For rapid tape editing and repair of all 1/4" tapes. Provides both diagonal and waist-type cuts. Tape guides and hold-down fingers secure tape firmly \$5.00
QM-340. Same as QM-301 except designed for use with 0.150" cassette tapes \$5.00

QM-311 Tape Splicing Block
For 1/4" tape. Supplied with single-edge stainless-steel cutting blade & ten splicing tabs \$12.00
QM-312. For 0.15" cassette tape \$12.00
QM-313. For 1/2" video and audio tape \$18.00

AT-120 Alignment Tape
7 1/2 ips full-track tape for checking 1/4" record/play heads of all types. 50-15,000 Hz. Recorded for checking azimuth, equalization, and head wear \$26.50

AT-200 Cassette Alignment Tape
3 1/2 ips full-track tape for checking cassette record/play heads of all types. 31.5-10,000 Hz. Original recorded tones for zero reference, azimuth, and frequency-response tests \$23.50

Replacement Tape Heads
Replacement heads are available for 4100 models of recorders. Universal head #5800 for 8-track players; #5130 and #5230 for cassette recorders.
8-Track \$10.90
2-track mono cassette \$15.40
4-track stereo cassette \$17.60

The company has prepared a 28-page "Recorder Care Manual" which is available without charge from local Nortronics distributors.

NUCLEAR

3C500 Staticmaster
Soft-hair retractable brush with extra-strength polonium element. Designed to neutralize static and remove dust from records \$12.95
Replacement cartridge \$7.95

ORTOFON

AS-212 Tonearm
Low-mass tonearm, total length 11.8". Designed for lightweight, high-compliance cartridges



weighing between 5 and 10 grams. Features hydraulic cueing, adjustable magnetic anti-skating, removable shell, arm rest, and adjustable counterweight. Stylus force adjustable from 0 to 3 g \$99.95

PICKERING

PST-1 Stylus Timer
Measures actual stylus wear-time from 0 to 1000 hours in increments of 100 hours. Features mercury coulometer, powered by stan-



dard mercury battery, as indicator; easily resettable after 1000 hours. Mounts on turntable under tonearm. 2 1/4" long x 1" W x 1" H. Comes with mercury battery \$13.95

PIONEER

SR-202W Reverberation Amp
Double-scatter system blends direct signals from source with reverb effect. Reverb time 0-2.5 seconds at 1 kHz. HD less than 0.2% at 1 kHz reverb time. Minimum output level 330 mV. Response 20-35,000 Hz ± 2 dB (min. reverb time) and 20-50,000 Hz ± 10 dB (max. reverb time). (S+N)/N 65 dB at 330 mV output. Universal power supply \$129.95

SD-1100 Stereo Display
Designed for measurement and scoping of all audio components and stereo characteristics. Will show any waveform and measure voltage level and phase shift. Has built-in audio oscillator 20-20,000 Hz with automatic or manual sweep. Can also be used for 4-channel analysis. With universal power supply \$599.95

RABCO

SL-8E Tonearm



Straight-line-tracking arm with servo system. Crossed-wire contacts operate single-transistor amplifier which drives servo motor; uses one "C" cell. 14" arm x 3 1/2" high (adjustable). 1/2 g minimum tracking force; arm resonance 10 Hz. Comes with standard two-channel stereo jacks and 3-ft double-ended stereo cable ... \$199.00

REK-O-KUT

S-320 Tonearm
Maximum arm length 12". Has removable shell, ball-bearing races, arm rest, adjustable counterweight. Arm resonance 9-12 Hz. Features static balance and dynamic lateral balance. \$54.95
S-280. Same as S-320 except for 16" turntables. \$64.50

ROBINS

Cassette Storage Album
Library-designed album holds 12 cassettes. Built-in stops prevent tape from unwinding and becoming slack. Walnut wood-grained cover. 10 1/2" x 9 1/2" x 1 1/2". #TSA-1W \$3.65

Cassette Tape Mailers
18 cardboard mailers ready for addressing. Has stops to protect tape from unwinding. #TCB-18 \$1.65

Cassette Head Demagnetizer
Removes excessive magnetic build-up. Designed to be used every 15-20 hours of player/recorder use. 110 V, 50-60 Hz operation. #TD-10 \$9.95

Head Cleaner Tape
Non-abrasive tape for cleaning cassette recorder/player heads. Removes accumulated oxide, grime, and foreign particles. #THC-4 ... \$2.50

Test/Clean Cassette
Performs three functions to help maintain optimum recorder/player performance: cleans heads, tests for correct head alignment, and tests stereo balance equalization between channels. #THC-6 \$2.95

Cassette Tape Splicing Block
Precision splicing block cuts tape at 45 or 90 degree angle. Comes in self-contained, pocket-size carrying case complete with cutting block and 25 pre-cut self-stick splicing patches. #TS-215 \$11.10

Cassette Bulk Tape Eraser
Removes recorded sounds from entire tape in seconds. #TMC-1 \$23.30

Bulk Cartridge Erasers
Erases any cartridge in seconds. Operates from 110 V, 50-60 Hz source. #TMC-2 Deluxe model \$39.65
#TMC-3 Professional, heavy-duty model. UL listed \$66.50

Cartridge Head Demagnetizers
Removes excessive magnetic build-up from recorder/player heads. Use after 15-20 hours of player/recorder use.
#TD-12 For home cartridge units. 110 V, 50-60 Hz operation \$12.95
#TD-15 For auto cartridge units. Plugs into cigarette lighter in car \$16.50

Cartridge Head Cleaner
Special polyester non-abrasive tape which removes oxide, grime, and dust particles from heads. #THC-10 \$2.50

Test-n-Clean Cartridge
Performs five functions to maintain trouble-free cartridge player/recorder performance: cleans player heads, tests track selector, tests stereo channel balance, tests speaker phasing, and tests head alignment. #THC-11 ... \$5.55

THC-8. Same except doesn't include speaker phasing or track selector test functions . \$2.95

Head Demagnetizer

Demagnetizer for reel-to-reel recorder heads. Probe has soft plastic shield for safe contact with heads and angled to reach recorder heads without removing cover plates. $3\frac{1}{2}'' \times 1\frac{1}{2}''$ dia. Operates from 110 V, 50-60 Hz. #TD-3 . . \$7.30

Bulk Tape Eraser

Reduces background noise levels of tape from 2 to 4 dB below erase-head level. For $\frac{1}{4}''$ tapes on reels up to 7" dia. $2\frac{1}{2}'' \times 3\frac{1}{2}'' \times 6\frac{1}{2}''$. Operates from 110-120 V, 50-60 Hz sources. #TM-77 \$37.80

Stereo Tape Splicer

Splices 4-track stereo tapes without sacrificing program material on the outer tracks. Cuts tape diagonally and trims "Gibson Girl" waists on sides of splices to prevent adhesive from contacting critical parts of recorder. See-through windows of operating lever show cut and trim positions. Integral tape dispenser comes with roll of $\frac{1}{2}'' \times 100'$ splicing tape. #TS-8D. . \$14.30

Cassette Splicer

Has built-in dispenser with splicing tape in base. Steel construction. Fast and easy to use #R33029 \$6.50

Stereo Speaker Protector

Protects speakers from overload by means of solid-state limiter which limits output of the amplifier. Self-powered, needs no batteries. R47001 \$29.50

Dynamic Expander

Extends dynamic range of recordings up to 8 dB. Permits lowering volume, reducing system noise and improving performance. Self-powered, needs no batteries or external power. R47002 \$30.00

Record Ionizer

Push applicator contains special anti-static fluid. Eliminates static and reduces dust build-up. R41045 \$5.00

RUSSOUND

TMS-1W Tape Recorder Selector

Allows up to three tape recorders or other signal sources to be interfaced through the tape input/output of a single receiver or amplifier. Record or play any or all, at the same time, in any combination. Use for tape duplicating, editing, mixing, program production. Also interconnects graphic equalizers, Dolby and dbx devices, sound-effects generators, echo chambers, delay lines, and synthesizers. Walnut cabinet. \$32.95

TMS-1. Same but in utility steel cabinet. \$22.95

MP-2 Speaker/Amplifier Control Center

Feeds either of two amplifiers to up to four sets of stereo speakers without overloading ampli-



fier output stage. Separate constant-impedance L-pad for each set of speakers. Uses any combination of 8 or 16 ohm speakers and handles the output of any component amplifier designed for the home. Walnut cabinet. \$74.95

SWB-2W Speaker/Amp Selector Switch

Permits either of two amplifiers to drive any one, two, or three sets of stereo speakers of 8 or



16 ohms impedance without overloading output. Can be used to connect multiple speaker systems to amps having only one set of speaker terminals. Maintains proper load imp. on amplifier irrespective of number of speakers or their impedance. Can also be used for making A-B tests of any two amps or speaker systems. Walnut cabinet \$25.95

SWB-2. Same but in utility steel cabinet. \$14.95

GIMP Mike Preamp/Mixer

Provides gain control at performer's location; drives up to 500 feet of cable without loss, eliminating the use of mixer for many recording applications. Expands recorder versatility by allowing each line input to mix two additional mikes and allows inexpensive mikes and instrument pickups to drive recorder directly at line level. Uses transistor battery (not supplied) for power. \$49.95

IMP-1 Impedance Matching Amp

"Impedaverter" matches any mike or pickup to any amplifier, recorder, or line. Reduces hum and high-frequency loss even when driving long lines. Dual inputs and outputs permit bridging mike and audio lines; splitting output to separate recorders and amplifiers. Choice of five switchable gain position: -20 dB, 0 dB, 0 dB with phase inversion, +20 dB, and +35 dB. Powered by two transistor batteries (not supplied). Utility steel case. \$39.95

SHURE

SA-1 "Solo-Phone"

Stereo amplifier for headphones. Permits two sets of phones to be used simultaneously. Has balance control, dual input for tape/tuner or phono. Inputs: phono 47,000 ohms equalized for magnetic cartridge, tuner 250,000 ohms. Output 8 ohms, 100 mV. $10\frac{1}{2}'' \times 3\frac{1}{2}'' \times 3\frac{1}{2}''$ D \$32.00

Model SA-1F. Same as SA-1 except panel-mounting version \$38.00

M68 Microphone Mixer

Five channels. A transistorized portable mixer for p.a. and tape recorders. Has four mike inputs for high- or low-impedance microphones, one high-level auxiliary input for tape, tuner & accessories, individual volume control to balance each of five inputs, and a master volume control to simultaneously control level of all inputs. Has high-impedance mike and auxiliary outputs. 105-130 V, 50/60 Hz \$87.60

M67 Microphone Mixer

Four low-impedance balanced mike inputs & one line input. Has built-in tone oscillator for calibration. Response 20-20,000 Hz ± 2 dB. Has automatic switchover to battery if power fails. Gain 90 dB max. (150-ohm mike into 600-

ohm line). Battery power supply \$25.00 extra. $11\frac{1}{2}'' \times 7\frac{1}{2}'' \times 2\frac{1}{2}''$ \$169.20

M688 Stereo Microphone Mixer

For use with stereo tape recorders which do not have built-in mixing. Accepts four high- or low-impedance mikes through four inputs plus a stereo auxiliary high-level input, each with its own volume control. Three of the mike inputs have front-panel switches for left- or right-channel output, fourth microphone input has pan control. A stereo master volume control adjusts level of all inputs. (list) \$119.40

M63 Audio Control

For use with mike mixers. Provides volume, bass, treble & high- and low-frequency rolloff. Has VU meter, two high-level inputs for mike mixer, tape recorder, tuner. Five different outputs: 600 ohms balanced line, high-imp. high-level, high-imp. mike level, low-imp. mike level (balanced), and headphone \$100.20

M62V Audio Level Control

Automatic microphone volume control. Prevents blasting. Output adjustable to predetermined level. Response 20-20,000 Hz ± 2 dB. Compression 40 dB input change, 6 dB output. For single mike. Has "on-off" bypass switch. Can be battery operated or from M68 mixer. $11\frac{1}{2}'' \times 5\frac{1}{2}'' \times 2\frac{1}{2}''$ D \$63.00

M64 Stereo Preamp

Provides gain and equalization to operate magnetic phono cartridges and tape playback heads with amplifiers without equalization. Response flat 20-20,000 Hz ± 2 dB, phono RIAA curve 40-15,000 Hz ± 2 dB, tape for $7\frac{1}{2}$ ips NAB curve 50-15,000 Hz ± 2 dB. Max. input phono & tape 100 mV, flat 250 mV. . . \$34.00

A97A Matching Transformer

Designed to permit transistorized tape recorders to be used with high-quality, low-impedance microphones. Designed to improve the overall audio input signal as well as permit the use of long cables without loss of high frequencies and without hum and noise pickup. $2\frac{1}{2}''$ long $\times \frac{1}{4}''$ diameter \$13.20

M232 Tonearm

Maximum arm length 12". Has removable shell, arm rest, adjustable counterweight, 1 to 8 g stylus-pressure adjustment, overhang adjustment, and static balance \$32.75

Model M236. Same except 16" version . . \$35.00

SME-3009 Improved Tonearm

Maximum arm length 9". Has ball-bearing races, arm rest, adjustable counterweight, cueing



control, 0 to 1.5 g stylus-pressure adjustment \$135.00

SME3009/S2. Same except with removable shell \$147.00

SFG-2 Stylus Force Gauge

For all modern tonearms & manual or automatic turntables. Accurate within one-tenth gram in primary operating range of $\frac{1}{2}$ to 1 1/2 grams, extended measurement range to 3 grams. Stainless steel pivots \$4.95

SIGNAL SCIENCE

Signal Commander Sound Switch

Sound switch for controlling tape recorders, receivers, amplifiers, or any other electrical equipment rated at up to 300 watts. Red indica-



tor light remains on when unit is plugged in; first hand clap lights yellow control bulb; second clap activates the controlled unit. This light/timing device prevents false triggering. Simulated walnut and black plastic enclosure. 8" W x 2 1/2" H x 3 1/2" D \$29.95

SONY/SUPERSCOPE

HE-2 Head Demagnetizer

Designed with high flux density to provide



maximum reduction of residual magnetism \$9.95

BE-7 Cassette Bulk Eraser

Erases all cassettes without a.c. power or batteries \$19.95

MX-16 8-Channel Mixer

Has 8 mike/line inputs plus four fixed and four variable outputs. Features "front center" signal distribution capability which allows a third channel to be added to the stereo mix between outputs #1 & #2. In addition, the input attenuator pad for each channel has a mike/line selector switch & a straight-line gain pot. Has four VU meters \$95.00

MX-6S Stereo/Mono Mixer

Connects to all Sony solid-state recorders and provides mixing facilities for up to three mikes



& three high-level sources. Can be used for both stereo & mono. Required for sound-on-sound recording with Models 252-D, 666-D, 560D, and 225 \$34.95

MX-8 Stereo/Mono Mixer

For all multi-microphone uses. Mixes down any combination of six microphones/lines stereo or mono. Straight-line graphic controls indicate settings while sliding colored reference tabs indicate previous settings \$59.95

MX-14 Stereo/Mono Mixer

Active six-channel mixer for mixing down six channels of input into two of output. Operates on 8 "C" cells. Straight-line volume controls for each input. Has reference tabs and two VU meters \$199.95

NR-115 Dolby Adapter

Designed to be used with any two- or three-head open reel, cassette, or 8-track cartridge tape recorder. Has line-input facility; built-in 400-Hz oscillator for input/output balancing; record/playback mode switch; illuminated meter with right/left channel switching; two playback semi-fixed controls; and two input level controls. \$99.95

SB-200 Sound-on-Sound/Echo Adapter

For adding special sound effects. Can be used with any stereo tape recorder having separate facilities for recording each channel. Sound-on-sound may be used with two- or three-head recorders; echo on three-head recorders only. Has separate buttons for sound-on-sound and echo; volume control for regulating intensity of echo \$39.95

SB-300 Tape Recorder Selector

When connected to receiver or amplifier, unit expands tape monitoring capabilities to enable recording and monitoring from up to three separate tape sources. Dubbing and transferring of tape from one machine to another can be done without picking up switching clicks or pops. Shielded cables for interconnecting all switch functions. \$44.95

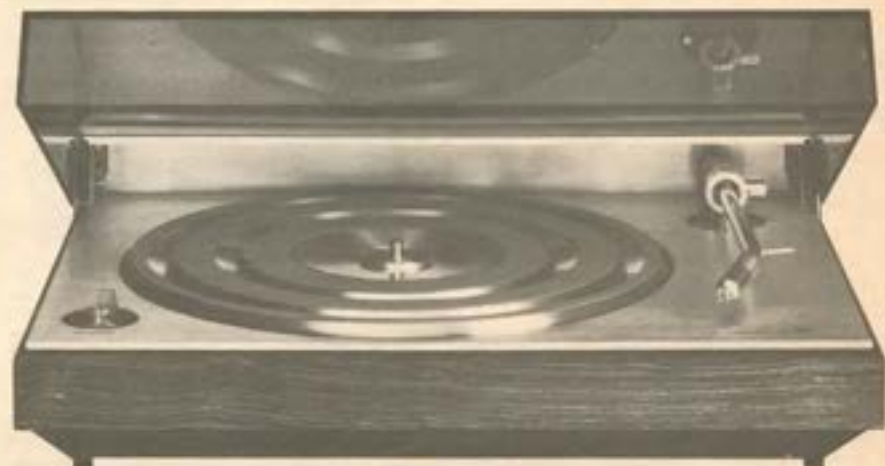
NR-335 Dual-Process Dolby Adapter

Specifically designed for three-head machines. Permits simultaneous operation in both record and playback modes. Features built-in headphone jack; two mike input jacks; two professional VU meters; a two-position mike attenuator switch; tape/source monitor switch. Has built-in 19-kHz filter switch; two playback volume controls, two record-level controls; built-in 400-Hz oscillator for input/output balancing \$259.95

SOUNDCRAFTSMEN

20-12 Audio Frequency Equalizer

Incorporates both active & passive circuitry for simplified adjustment of 10 individual octaves, each channel for precise frequency balancing. Zero setting for flat response. An equalization test record (supplied) provides pink-noise tone



The Beogram 3000

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

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

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

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

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12 Accessories



alternating each frequency band with 1000-Hz reference tone for rapid equalization of room conditions. Total available boost up to +18 dB; total cut down to -24 dB. Rack mount or walnut cabinet \$299.50

RP10-12 Single-Channel Equalizer

Provides precise monitoring of input/output levels. Has calibration, full-frequency, and individual octave frequency controls coordinated with metering bypass, selection, tape bypass, and equalizer bypass switches. 12 dB boost/cut



per octave plus 12 dB cut or 6 dB gain of full frequency spectrum. Response 20-20,000 Hz $\pm 1/2$ dB; 7 V output; 0.01% THD; (S+N)/N 95 dB. Walnut grain case with brushed gold/black panel. 18" x 11" x 5 1/2" \$349.50

PRP18-12 Preamp/Equalizer

Combined stereo control-center preamp plus dual 10-octave equalizer controls. Has two tape



in/outs for dubbing; two headphone jacks on front panel; plus push-button selection for taping or playback equalization of ± 12 dB. Response 20-20,000 Hz $\pm 1/2$ dB; 5-volt output; clipping metering indicators. 0.01% THD. (S+N)/N 95 dB. \$499.50

STAX

UA-7 Tonearm

Statically balanced, low-mass arm, suitable for use with all cartridges. Changing cartridge involves no repositioning of arm since use of tem-



plate is not required for adjustment. Damped unipivot has unmeasurable friction in any plane; cartridge shells are of cast aluminum to reduce resonance. Features hydraulic cueing lever; case-hardened and chrome-plated surfaces; stylus force adjustable by means of calibrated counterweight, scaled in 1/10th gram increments. Accepts any cartridge weighing up to 20g. \$165.00

TEAC

AN-180 Outboard Dolby System

Record/playback control center with Dolby noise-reduction system. Recording section



contains microphone & line preamps plus Dolby recording circuitry. Playback section has playback line preamps & Dolby playback circuitry. Can be used with any good tape deck. Has separate input level controls for mike and line inputs for each stereo channel, two VU meters, internal test-tone oscillator, Dolby level standard tapes, source/tape monitor switch. A multiplex filter prevents recording interference from pilot tone frequencies or unsuppressed multiplex carrier by tuner ... \$329.50

AN-80 Outboard Dolby System

Less elaborate version of AN-180. Input mixing feature omitted and only one Dolby circuit per



channel. Circuit operates for recording, then playback, but not together. Provides 10 dB noise reduction \$169.50

AN-60 Outboard Dolby System

Frequency response 20-15,000 Hz ± 2 dB. Increased (S+N)/N 10 dB at 10,000 Hz & 5 dB at 1000 Hz. Input sensitivity 0.1 V. Output to tape deck 0.3 V & line 0.58 V. Has 400-Hz tone oscil-



lator & a reference meter for calibration. Dolby calibration tape for both open reel & cassettes supplied. 3 1/2" H x 6 1/2" W x 10 1/2" D .. \$99.50

WATTS, C. E.

Dust Bug Record Cleaner

An easy-mounting record cleaner which tracks over the grooves. Supplied with anti-static agent \$7.00

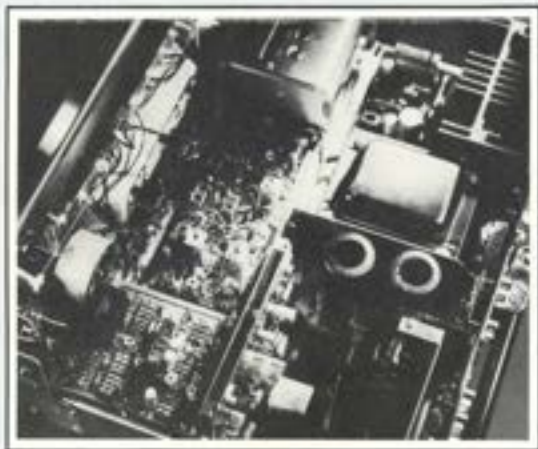
Record Care Equipment

- PR Disc Preener \$4.50
- PA-MK4 Hi-Fi Parastat \$15.00
- PA-MK11A Manual Parastat \$16.50
- NF Anti-Static Formula Fluid \$2.75
- RWB Record Wash Brush \$4.00
- SC Stylus Cleaner \$1.50

IF YOU NEED...

... additional information on any of the products listed, don't hesitate to write the manufacturer. See list of addresses on pages 6 & 7.

The Inside Story of Stereo Excellence



KENWOOD receivers, amplifiers, tuners, and 4-channel units are recognized the world over for their fine performance, value, and dependability. KENWOOD sound is crisp and clean, undistorted throughout the audio spectrum. KENWOOD design is amply luxurious with extra features at every price. The 'inside story' of such stereo excellence lies in KENWOOD's careful engineering that combines the most advanced technology with meticulous craftsmanship to give KENWOOD customers more stereo value, whatever their stereo budgets might be.

HIGH-PERFORMANCE DIRECT COUPLING

KENWOOD engineers eliminate the output coupling capacitor between amplifier and speaker by means of a massive power transformer and dual negative and positive power supplies. The result: ultra-low distortion and better bass response in all KENWOOD receivers and separate amplifier components.

EXCLUSIVE DUAL PROTECTION CIRCUIT

KENWOOD guards transistors and speakers from any possible damage from power overload by means of a special circuit that utilizes both voltage-drift and current sensing. Result: complete protection and no interruption of program signals.

EXCLUSIVE DOUBLE-SWITCHING DEMODULATOR

KENWOOD's DSD is the only circuit presently in use that cancels *all* unwanted signals in the FM Multiplex. Result: exceptional stereo separation at all frequencies, elimination of annoying 'frequency beats' and perfect de-emphasis characteristics for both mono and stereo.

ULTRA-LOW-NOISE PREAMP

Where many manufacturers utilize epoxy-encased transistors that ultimately break down under continuous exposure to heat and humidity, KENWOOD utilizes metal-sealed transistors in the preamp. Result: high signal-to-noise ratio and greater circuit reliability over years of use.

FLEXIBLE 4-CHANNEL RECEIVERS

KENWOOD has introduced a unique 'Two-Four' bridging circuit on three of its 4-channel receivers. Result: full-powered, full-quality 2-channel reproduction as well as the finest in 4-channel sound.

UNEXCELLED TUNER DESIGN

KENWOOD is recognized throughout the world for its excellent AM, FM and FM/stereo tuner design. KENWOOD engineers have achieved perfectly 'balanced' performance from front end through IF's to multiplex. Result: your greater stereo enjoyment, particularly from KENWOOD's outstanding FM reception.



KENWOOD offers a complete line of fine components for you to choose from: Seven AM/FM-stereo receivers with a range of power, sophistication and unique features. Four excellent stereo amplifiers and tuners for those who prefer the flexibility of separate units. And also, a full line of 4-channel receivers featuring 'Two-Four'.

For a full-line brochure, write...

the sound approach to quality



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CIRCLE NO. 25 ON READER SERVICE CARD

**A breathtaking performance
deserves a breathtaking
performance.**



Frank Dussard/Opera News

©Koss Corporation.

Slip on a pair of Koss K2+2 Quadrafones[®] and slip into the closest thing to a live performance you'll ever hear. Because unlike speakers, the Koss K2+2 mixes all four channels in your head instead of on the walls of your living room. So what you'll hear is a 4-channel sound so breathtaking, you'll feel the deepest bass all the way down to your toes and the highest highs running up and down your spine.

And because all Koss

Quadrafones feature volume-balance controls on each ear cup, you'll have any seat at the opera at your fingertips. A twist of your fingers will put you front row center one minute and in the middle of the opera house the next. And all without moving from the comfort of your easy chair.

But even more importantly, Koss has added a 2-channel to 4-channel selector switch on the

4-CHAN 2-CHAN



left ear cup. In the 4-channel position, two 1½-inch dynamic driver elements in each ear cup deliver breathtaking quadraphonic sound from either matrix or discrete systems. In the 2-channel position, both drivers in each ear cup are connected in parallel for an unparalleled sound of 2-channel stereo. Either way, the switch to Koss Quadrafones is worth it.

Ask your Audio

Specialist for a live demonstration. Or write for our free full-color catalog, c/o Virginia Iamm. The Sound of Koss Quadrafones will take your breath away, but the price won't... from \$45 to \$85.

Koss K2+2 Quadrafones



KOSS QUADRAFONES[®]
from the people who invented Stereophones.

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