Now that you know you want a Dual, the next question is which one?
It's not an easy decision to make. There's such a wealth of precision built into every Dual that even the testing laboratories can measure only small differences in performance among the Dual 1215 at $99.50, the 1209 at $129.50 and 1219 at $175.00.

This raises an interesting question for you to consider: What are the important differences to you among these three Duals?

Let's consider them in turn.

Even our lowest priced turntable, the 1215, boasts features any turntable should have (and few do).

Its low-mass counterbalanced tonearm accepts the most sensitive cartridge available today and tracks flawlessly as low as 3/4 gram.

Tracking force and anti-skating settings are ingeniously synchronized, so one setting does for both. The cue control is silicone-damped, and eases the tonearm onto the record more gently than a surgeon's hand.

The hi-torque motor brings the heavy 3 3/4 pound platter to full speed in less than a half turn, and maintains that speed within 0.1 % even if line voltage varies widely.

And it even has a control to let you match record pitch with less fortunate instruments such as out-of-tune pianos.

Even a professional doesn't need more.

But you may want more. In which case the 1209 offers some refinements that are both esthetically pleasing and add something to performance.

For example: its tonearm tracks at as low as a half gram. Its anti-skating system is calibrated separately for elliptical and conical styli. Its counterbalance features a 0.01 gram click-stop. And its motor is hi-torque and synchronous.

Now what could the 1219 add to this?

The only true gimbal suspension ever available on an automatic arm.

Four identical suspension points, one ring pivoting inside another.

And the Mode Selector, which shifts the entire tonearm base — down for single play, up for multiple play — so that the stylus will track at precisely the correct angle (15°) whether playing one record or a stack.

The tonearm is 8 3/4" long, and the 12 inch dynamically balanced platter weighs 7 pounds.

So the question really isn't which Dual is good enough, but how much more than "good" your turntable has to be.

If our literature doesn't help, perhaps a visit to your dealer will.


CIRCLE NO. 1 ON READER SERVICE CARD
A lot of people don't know that a cartridge that's great for one high fidelity system could be disastrous for another.

That's why Pickering has done something fantastically simple. We've developed Dynamic Coupling Factor—henceforth known as DCF.

All it is is a complicated name for an uncomplicated way to select the best cartridge for your system. It is your guide to the selection of that cartridge based on its intended application in playback equipment—just as horsepower is the guide to the proper engine for a vehicle.

It works like this. You own an XYZ model record changer. What cartridge do you pick? Not the $29.95 model because it isn't designed for the capability of your XYZ player. Not the $60.00 cartridge either, for its quality cannot be realized in that unit.

Our chart—available to you free—reveals that you need our model XV-15 with a DCF rating of 400 for optimum performance. This means that you will get 100% of the music from your records. Not 50% or 75% but all of the music capable of being obtained from your particular playback unit.

Technically, what we've done is taken virtually every high fidelity record player and pre-analyzed the vital variables for you; those affecting cartridge design and those related to the engineering features of the various turntables and changers.

So now all you need to be well informed on cartridges is to send for our DCF application guide containing our recommendations for what cartridge you use with which record player.

And next time you walk into a high fidelity salon, tell the man: "I'd like a Pickering XV-15 with a DCF of 400." Or whatever.

Pickering cartridges are priced from $29.95 to $60.00. For your free DCF chart, write DCF, Pickering & Co., 101 Sunnyside Blvd., Plainview, N.Y. 11803.
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1971 EDITION
"The finest loudspeakers I've ever listened to, regardless of size, type or price."

That's how Ronald M. Benrey, electronics editor of Popular Science, described a pair of Rectilinear III speaker systems in the May 1968 issue of his magazine, in an article on "The Stereo System I Wish I Owned."

Mr. Benrey went on to justify his ranking of the Rectilinear III's:

"They produce beautiful bass tones without boom, accurate midrange tones without a trace of coloration, and crystal-clear treble tones without a hint of harshness. And they do it at any volume, including 'window-rattling' sound levels."

Of course, one expert's opinion may differ considerably from another's. But here's what Julian D. Hirsch wrote in the "Equipment Test Reports" of Stereo Review, December 1967:

"The Rectilinear III ranks as one of the most natural-sounding speaker systems I have ever used in my home. Over a period of several months, we have had the opportunity to compare it with a number of other speakers. We have found speakers that can outpoint the Rectilinear III on any individual characteristics—frequency range, smoothness, distortion, efficiency, dispersion, or transient response. However none of the speakers combine all of these properties in such desirable proportions as the Rectilinear III."

Summing up his test report, Mr. Hirsch concluded: "In our opinion, we have never heard better sound reproduction in our home, from any speaker of any size or price."

Of course, both Mr. Benrey and Mr. Hirsch write for the readers of popular, large-circulation magazines. But here's what Larry Zide wrote for the more specialized audience of The American Record Guide ("Sound Ideas" column, October 1968):

"The transient response of the speaker is superb...the overall quality is extreme in its fidelity to 'live' music. The bass is solid and firm, the midrange is clear and neutral, and highs are bell-like in their cleanliness. "It all comes down to this: there are only a handful of speakers that I find completely satisfactory...I have had these Rectilinear III units for a month now. Lately I have found myself listening to them just for the pleasure of it. They are among the very best speakers on the market today."

Of course, all of the opinions above appeared in publications that accept advertising. But here's what Buyer's Guide magazine wrote in their August 1968 issue, just in case you're more inclined to trust a consumer review without ads:

"Rectilinear III...has had tremendous impact on the hi-fi industry...This speaker's virtue is the fact that it is the first and only full-range dynamic speaker system that possesses sound quality which is directly comparable to electrostatic speakers."

"...Flute and violin concertos as well as string quartet were reproduced with honest clarity...Piano and organ music were effortlessly reproduced in a manner that suggested the instruments were being performed live. Jazz and rock music were unpretentious and true sounding..."

To such unanimity from such varied sources we need only add the dimensions and price of the Rectilinear III: 35" by 18" by 12" deep, $279.00 in oiled walnut.

(For further information, see your audio dealer or write to Rectilinear Research Corp., 107 Bruckner Blvd., Bronx, N. Y. 10454. Canada: H. Ray Gray Co., Ltd., 14 Laidlaw Blvd., Markham, Ont. Overseas: Royal Sound Co., 409 N. Main St., Freeport, N.Y. 11520.)

Rectilinear III
By WALTER GOODMAN

President
INSTITUTE OF HIGH FIDELITY, INC.

President of Harman-Kardon and vice-president and director of H-K's parent company, Jerrold Corp., he joined Jerrold Electronics in 1952 and 1957 found him in his present position as head of Harman-Kardon. He is also a member of the board of AEM, has served 5 years on the board of the EIA, is a member of the Electronic Industries Show Corp. and is on the executive committee of the Consumer Products Div., EIA.

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Guest Editorial

This year in Institute of High Fidelity history could well go down as "The Year of Transition"—in shows and other activities. No New York show was held in 1969. Instead a committee was appointed to study the feasibility of a multi-market show program that would bring the IHIF and its members to millions of Americans via suburban shows in major areas around the U.S.

The Committee's activities resulted in the Board of Directors endorsing many aspects of the Committee's program—suburban markets, motel locations, lower admissions, dealer participation, community activities, and greater show coverage. To this end, the Board designated the first two locations recommended by the Committee—Westbury, New York (September 18-20) and Newton, Mass. (October 30-November 1)—for the 1970 New York and Boston shows, respectively. The locations—The Island Inn Motel in Westbury and the Marriott Motor Lodge in Newton—are the exact locations that were actually checked out and recommended by the Committee and, except for minor changes, the dates themselves are almost identical.

We expect that the two shows will open up new vistas for consumers who seek the new in sound equipment.

In our efforts to supply the public with information on component stereo, the IHIF has aimed its educational efforts at a wide segment of the public.

The past year has seen a fifteen minute IHF segment (in color) of the Ed Nelson Morning Show over ABC-TV in twelve major cities, including New York, Los Angeles, and Chicago. Over a dozen stereo supplements in such cities as Boston, Washington, Philadelphia, and Indianapolis appeared last year carrying the story of components to those who may never have had the opportunity to be exposed to "quality" sound equipment. Many of you may have indeed enjoyed some of these fine informative supplements in the major newspapers in your city. These same activities are being carried on with major magazines.

To add to the information and knowledge of the much-valued youth market, we have assisted in the production of a show entitled "The Marvel of Sound" that will be shown at high schools and junior highs around the country. Through the fine cooperation of many of our members in supplying quality stereo components, the show demonstrates the marvel of sound and how enjoyable good sound can be. Three road shows will be touring the Eastern, Central, and Western U.S. this year, playing to audiences of about 800 at each performance—three shows a day.

As our industry expands and other industries begin to overlap, we are seeking to provide more helpful buying information. We have opened communications channels with the EIA to develop new standards which will be agreeable to both associations. The initial net result should be a wattage rating technique that will allow direct comparison of any power amplifier sold in the U.S., thus benefiting you in your selection of products.

We anticipate that the next few years, with the development of new types of products and techniques—four-channel stereo, viewer-programmed television, etc.—will add to the excitement and enjoyment of sound as part of the total home entertainment spectrum. More and more people every day are learning to appreciate the joy and satisfaction that can be derived from listening to stereo components. And just around the corner are the rewarding opportunities to extend this enjoyment through the boldly imaginative and promising new developments that are inalienably part of the stereo component system.
PEOPLE WHO SWORE THEY WOULD NEVER JOIN ANOTHER RECORD OR TAPE CLUB!

ANY 1 TAPE Cartridge or Cassette SHOWN HERE Worth up to $20.94
TO BUY ANYTHING EVER!

Yes, take your pick of these great hits right now. Choose any 3 Stereo LP's (worth up to $20.94) or any 1 stereo tape (worth up to $6.98) FREE...as your welcome gift from Record Club Of America when you join at the low lifetime membership fee of $5.00. We make this amazing offer to introduce you to the only record and tape club offering guaranteed discounts of 33 1/3% to 79% on all labels—with no obligation or commitment to buy anything ever. As a member of this one-of-a-kind club you will be able to order any record or tape commercially available at savings up to 79%—guaranteed never less than 33 1/3%. No automatic shipments, no cards to return. We ship only what you order. Money back guarantee if not satisfied.

AT LAST A RECORD AND TAPE CLUB WITH NO "OBLIGATIONS"—ONLY BENEFITS!

This is the way you want it—the only record and tape club with no strings attached! Ordinary record or tape clubs make you choose from just a few labels, then mail them to your own. Then they try to sell you up to 12 records or tapes a year—usually at list price —unless you lift a finger for your obligation. And if you forget to return their monthly card—they send you a record or tape you don’t want and a bill for $.98, $5.98, $6.98 or $7.98! In effect, you may be charged almost double for your records and tapes.

But Record Club of America ends All That! We're the largest all-label record and tape club in the world. Choose any LP or tape (cartridges and cassettes) . . . on any label . . . including new releases. No exceptions! Take as many, or as few, or no selections at all if you so decide. Discounts are GUARANTEED AS HIGH AS 79% OFF! You always save at least 33 1/3% on everything you order. You get best sellers for as low as 99¢, plus a small handling and mailing charge.

Automatic Shipments

With Record Club of America there are no cards which you must return to prevent shipment of unwanted LP's or tapes which you would have to return at your own expense if you have failed to send written notice not to ship. We send only what you order.

How Can We Break All Record and Tape Club Rules?

We are the only major record and tape club NOT OWNED, NOT CONTROLLED, NOT SUBSIDIIZED by any record or tape manufacturer anywhere. Therefore, we are never obliged by company policy to push any one title, or honor the list price of any manufacturer. Nor are we prevented by distribution arrangements with other major record and tape clubs, from offering the very newest records and tapes.

Join Record Club of America now and take advantage of this special INTRODUCTORY MEMBERSHIP OFFER. Choose any 3 LP's or any one tape shown here (worth up to $20.94) and mail coupon with check or money order for $5.00 membership fee (a small handling and mailing charge for your free records or tapes will be sent later). This entitles you to LIFETIME MEMBERSHIP—and you never pay another club fee. You are never obligated to buy another record or tape ever. Your savings have already MORE THAN MADE UP FOR THE NOMINAL MEMBERSHIP FEE.

Look What You Get

• FREE Lifetime Membership Card—guarantees you brand new LP's and tapes at discounts up to 79% . . . Never less than 33 1/3% off.
• FREE Giant Master LP Catalog—lists readily available LP's of all labels! Thousands of listings; hundreds of labels.
• FREE Giant Master Tape Catalog—sent on request. Lists readily available tapes (cartridges and cassettes) on all labels.
• FREE Disc & Tape Guide—The Club's own Magazine, and special sales announcements which regularly bring you news of just-issued new releases and "extra discount" specials.
• FREE Any 3 Stereo LP's or any 1 Tape shown here (worth up to $20.94) with absolutely no obligation to buy anything ever!

Guaranteed Instant Service

All records and tapes ordered from Disc & Tape Guide and special sale announcements are shipped the same day received (orders from the Master Catalogs may take a few days longer). ALL RECORDS AND TAPES GUARANTEED—factory new and completely satisfactory or replacements will be made without question.

Money Back Guarantee

If you aren't completely satisfied with our dis- counts (up to 79%)—return items within 10 days and member ship fee refunded. AT NO CHARGE! Join over one million budget-wise record and tape collectors, now. Mail coupon to: Record Club of America Club Headquarters, York, Pa., 17405

TYPICAL "EXTRA DISCOUNT" SALE

Savings of 50% And More From Recent Club Sales . . . Savings up to $3.49 per LP

Simon & Garfunkel—Bridge Over Troubled Water Col 5.98 2.98
Joe Cocker A&M 4.98 2.49
Peter, Paul & Mary—Album 1700 War 4.98 2.49
Herb Alpert—Greatest Hits A&M 4.98 2.49
Creedence Clearwater Revival—Willy & Poorboys Fant 4.98 2.48
The Beatles—Let It Be Apple 6.98 3.48
Hair—Original Broadway Cast RCA 5.98 2.98
Tom Jones—Tom Parrot 5.98 2.98
Paul McCartney—McCartney Apple 5.98 2.98
Jose Feliciano—Fireworks RCA 4.38 2.48
Glen Campbell—Oh Happy Day Cap 5.98 2.98
Barbra Streisand—Greatest Hits Col 5.98 2.98
Miles Davis—Bitches Brew Col 6.98 3.48
Leontyne Price—Verdi Heroines RCA 6.98 3.49

Your $5.00 membership fee entitles you to buy or offer gift memberships for friends, relatives or neighbors for only $2.50 each, with full privileges. You can split the total between you—the more gift members you get—the more you save! Special Note: gift members do not receive any FREE records or tapes.

© 1970 RECORD CLUB OF AMERICA, INC.
After you've introduced the world's finest $500 tape deck*
what do you do for an encore?
You make the world's finest popularly priced tape deck.

When our Tandberg 6000X was reviewed by Hirsch-Houck Laboratories, they said it set a new standard for others to aim at.
Well, we're not about to rest on our laurels, because we've got another winner in our 3000X.
For a start, you'll probably never use its 7½ ips speed—except to play back your old tapes. After all, at 3¾ ips you can record everything from 50 to 16,000 Hz with perfect fidelity.
At a signal-to-noise ratio of better than 60dB.
That's because the 3000X gives you Tandberg's uniquely-engineered Cross-field bias head in addition to separate erase, record and playback heads. With full monitoring facilities, three speeds, cueing lever to locate recorded passages during fast-forward and rewind...and just about everything you're likely to need this side of getting your own professional studio.
At $299 the Tandberg 3000X is just plain unbeatable.
Prove it by testing it out at your nearest Tandberg dealer.

TANDBERG 3000X

Tandberg of America
P.O. Box 171, 8 Third Avenue
Pelham, New York 10803

"It is difficult to imagine how the Tandberg 6000X could be improved."—Stereo Review, June 1970.
COVER STORY

Our cover is somewhat different this year; we hope you like it. Instead of showing one particular hi-fi system in an actual living room setting as we have the past few years, we decided to display individual components in such a way that they are larger and easier to see. All units pictured are described in greater detail under each manufacturer's listing. For still further information, we direct you to the manufacturers themselves; a complete listing of addresses appears on page 23.
Four Japanese music critics rated the AR-3a best of fifty domestic and imported speakers.

①プライインドテスト・採点表

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Categories of music are across the top; reviewers at left. Two circles denote excellent, three circles superior. Overall ratings are at extreme right, following rating of value per unit cost, in which 5 is the break-even point.

In Japan, Stereo Sound magazine recently conducted a listening comparison test of fifty Japanese, American, British and German speaker systems. Four distinguished Japanese music critics brought their own records to test, and each spent four full days of 8 to 14 hours comparing speakers. The location of each speaker system was changed daily behind the acoustically transparent curtain which also concealed the size and identity of the tested units. The critics were asked to rate each speaker system as superior, excellent, good or unacceptable for each of seven kinds of music and were encouraged to use the volume and tone controls of the amplifier. A JBL SA600 amplifier and Shure and Ortofon cartridges were used.

The AR-3a received the highest score of all the systems tested. It was also the only speaker system rated excellent or superior in every music category by every critic. This is of particular interest since the critics were carefully prevented from communicating with each other during the test period.

Complete technical specifications of the AR-3a are available free on request.

Acoustic Research, Inc.
24 Thorndike Street, Cambridge, Massachusetts 02141
A Shopper's Guide to STEREO

Buying a component high-fidelity system can be fun—but first learn as much as you can about the most important features. An intelligent choice is then relatively easy.

WOULD you like to know which is the best amplifier in its price class? Or perhaps which record player or speaker system is undeniably superior to its competitors? If so, you are in good company, for these and similar questions are among those most frequently asked of hi-fi "experts."

Unfortunately, there is rarely a definite answer to this sort of question. Even when one product enjoys a temporary advantage due to its innovative design, its competitors are sure to come out with something similar—or possibly better—in a short time. Many of the "differences" among competing products are relatively minor, or at least confined to a limited aspect of their performance. In the exceptional case where one product is "best" across the board, chances are that it is also the most expensive.

Does this mean that it really doesn't matter which components you buy? No, not at all. Brand "A" may excel in some characteristic which is not particularly important to you. Brand "B", not quite so outstanding in that area, may be better suited to your needs in other respects, or may be less expensive. Even the purely subjective aspect of styling may have a profound influence on your choice. It is important that you understand the true significance of the various features emphasized by competing hi-fi equipment manufacturers, and thereby be better equipped to make an intelligent choice.

What should you expect from a good hi-fi stereo music system? Concert hall realism? Probably not, regardless of the size of your investment in components, records, and tapes. Your listening room will inevitably impose its acoustic properties on the reproduced sound. Music scaled for a small room, such as solo and chamber works, can sound amazingly lifelike at home, if the recording itself does not contain too much reverberation. Most orchestral music, reproduced in two-channel stereo, cannot accurately simulate the concert-hall environment in the home. If you doubt this, you should attend more live performances!

Nevertheless, with good audio components you can create a satisfying illusion of attending a live performance, in the comfort of your own home. That is really the "name of the game" in high fidelity, as I see it. The tonal color, spatial distribution, and much of the dynamics of the original performance can be captured with remarkable fidelity on disc or tape. The accuracy with which you can translate this recorded program into its audible equivalent depends on how wisely you choose the components of your music system.

The automatic turntable combines a turntable and arm with a mechanism for supporting a stack of records (6 to 10 in number) and playing them automatically in sequence. This is obviously a great convenience when playing a number of records, but is of little or no value when playing a single LP disc, or a recording which occupies both sides of a disc. At one time, an automatic turntable was considered, with good reason, to be inferior to a separate turntable and arm. Today, the better automatic turntables are, in every respect, the equal of comparably priced separate components.

The purpose of the turntable is to rotate the record at a constant speed. This is not as simple as it sounds. Motors usually have small pulsations of torque superimposed on their rotation. Unless these are smoothed out, they cause the turntable speed to fluctuate rapidly, at rates of 10 to 200 Hz (pulsations per second). This adds a frequency modulation, known as flutter, to the recorded program. In large amounts, such as .5%, flutter imparts a "gargling" sound to music or voice. Smaller flutter amplitudes (about .2%) are not always heard distinctly, but nevertheless can detract from the clarity of reproduced sound. When flutter is reduced to .1% or less, it is usually not audible.

A low frequency flutter, at rates between .5 Hz and 10 Hz, may be caused by an unbalance or other flaw in the turntable drive system. It can also happen with a perfect turntable if the record center hole is slightly eccentric. The characteristic sound of low-frequency flutter has given it its name of "wow." Wow and flutter are most easily heard on
sustained tones, particularly of piano, organ, or woodwind instruments. When playing piano records, even very small amounts of wow can be heard clearly. There is no way to filter out wow and flutter; they must be prevented rather than corrected.

Flutter is minimized by using a rotating platter whose mass is much greater than that of the motor and other rotating parts, and isolating the platter from rapid speed changes by a soft rubber idler wheel or flexible belt. Since it is the ratio of the turntable and motor mass that is involved, a relatively heavy motor guarantees a constant speed even with different line voltages and record loads, but the absolute speed of the turntable is still a function of its mechanical tolerances. If critical speed adjustment is important (such as when matching the pitch of a record to that of a live accompaniment) variable speed turntables are available. They usually provide an adjustment of a few % to ±0.1% about each nominal speed. This feature is available on several automatic turntables and a few separate component turntables.

Most turntables use a fixed speed motor, either induction or synchronous, to drive the platter through an idler wheel or belt. Speeds are changed by mechanically shifting the drive point to different diameters of a stepped motor shaft. There are two turntables using variable speed motors, controlled by servo (feedback) loops. The Sony turntables use a d.c. motor which is essentially free of the torque pulsations found in a-c motors. The torque pulsations, which can be reproduced by a low speed a.c. motor, driven by a variable frequency transistorized oscillator and power amplifier. Both types achieve exceptionally low rumble and freedom from flutter, but are relatively expensive.

Flutter, like wow, is named for its audible effect. It is caused by low-frequency vibration of the motor and idler wheel, transmitted to the turntable and motorboard in such a manner that relative motion occurs between the arm and the record. Rumble is minimized by careful balance of all moving parts and elastic suspension of the motor to reduce the transmission of vibrations to the rest of the system. A very effective technique used on automatic turntables is to rig- idly couple the arm and the spindle of the rotating platter, and float them as a unit on a compliant suspension.

The predominant rumble frequency is that of the basic motor rate, which is about 1800 rpm in most cases. This produces a 30-Hz vibration, which can be reproduced by an idler wheel or belt. Many of the better syste speakers. Harmonics are also present, so that frequently the audible rumble is at 60, 90, or 120 Hz. Some turntables use low speed motors, operating at 600 rpm, 300 rpm, or even slower. The rumble produced by these is well below the audible frequency range.

Rumble is expressed in decibels below a standard reference level. The better turntables, both manual and automatic, have unweighted rumble levels of better than −35 dB, which is usually inaudible. Medium-priced automatic turntables have rumble figures between −25 dB and −35 dB, not likely to be objectionable with moderate priced speaker systems. The rumble of the better automatic turntables frequently measures −20 dB to −25 dB, and can be heard clearly on speakers with extended bass response. However, smaller and less expensive speakers, which should be used with these turntables, will not normally reproduce this rumble.

Sometimes published rumble figures are in the range of −50 to −60 dB. These are "weighted" figures, which cannot be compared directly with unweighted figures. They are, however, valid for comparing turntables rated by the same standards.

Flutter is sometimes confused with hum, since they occur at similar frequencies. To check your system for rumble, set the volume somewhat higher than normal and play the silent groove band in a test record such as the STEREO REVIEW SR 12. You may hear a low pitched rumbling or humming sound. Pick up the arm—if the sound goes away or drops considerably in volume, it was rumble. Any low-
pitched sound heard with the pickup off the record is hum.

The tonearm must support the cartridge so that it is nearly tangent to the record groove over the entire record surface. The recording cutter moves radially, so that it is almost tangent to the groove it cuts. The playback tonearm (with rare exceptions) is pivoted at one end, so that the cartridge travels in an arc. By installing the cartridge with the correct angular offset in the arm, and with a critical position relative to the center of the turntable, perfect tangency can be obtained at two points on the record, and the track groove error is reduced.

Low pivot friction is important, especially with cartridges tracking at forces of 1 gram or so. Friction forces are only significant when they exceed a few percent of the tracking force. Most good separate tonearms, and those in top-quality automatic turntables, have negligible friction. Increased pivot friction is a characteristic of most lower-priced automatic turntable arms. However, since these units are designed to operate at relatively high tracking forces, this does not detract from their usefulness.

The offset angle of the cartridge in a pivoted tonearm gives rise to the so-called "skating force," which tends to push the pickup toward the center of the record. This results in a higher effective tracking force on the inner groove wall, with possible increased wear, while the outer groove wall (the other stereo channel) may have insufficient tracking force to be played without distortion.

They have used some example, but in any event it is desirable for the stylus force to be the same on both groove walls. Various systems have been devised for "anti-skating" correction, which is now offered on most tonearms and automatic turntables. Although different techniques are used to apply the corrective force, in practice all the ones we have used seem to be equally effective. Since the distortions due to the skating effect are not audible except when playing very loud recorded passages, the improvement due to anti-skating may not be immediately apparent.

Some arms have been designed to carry the cartridge always, regardless of arm, always tangent to the groove. Only one such arm is currently being manufactured in this country, but we may expect others to appear from time to time. This completely eliminates tracking error "problems" (which are not really much of a problem to most people), but is quite expensive and it is obviously intended for the uncompromising audiophile.

Some automatic turntables provide for tilting the cartridge in the vertical plane (or shifting the arm to accomplish the same effect) to compensate for the height of a record stack and maintain the correct vertical tracking angle. The distortion due to vertical errors of a few degrees are very small, compared to other distortions in the record playing process, but this allows them, at least in theory, to be further reduced.

Summarizing, whether you decide on separate record playing components or an automatic turntable, a higher price buys superior workmanship and greater refinement of operation. By the time you reach the $100 to $120 bracket in automatic turntables, the wow, flutter, and rumble have been reduced to negligible proportions. More expensive models feature longer arms, lower pivot friction, and larger, more massive turntable platters, often driven by synchronous motors. The turntable designs are still obtainable, although it may not be possible to use cartridges tracking in the vicinity of 1 gram. Below about $60, automatic turntables are designed for cartridges tracking at forces of 2 to 3 grams or more, and can do a very satisfactory job with these relatively rugged cartridges. It is more difficult to generalize about separate arm and turntable combinations, if only because of the great number of possible pairings. Their high performance is based on precision manufacturing methods, which are reflected in their prices. In many cases, it would be difficult to justify their cost, from a purely listening quality standpoint. However, they are inherently more trouble-free than a complex record changer or automatic turntable, and can be considered as a long-term investment. Then, too, as cartridges, tracking at forces below 1 gram, become available, advanced record playing equipment will be required to use them.
Phono Cartridges

LISTENING to the fantastically complex, yet detailed, sounds from a stereo phonograph record, it is difficult to appreciate that the frequency, dynamic, and spatial characteristics of a large symphony orchestra have been captured and preserved in the form of a barely visible undulating spiral groove in a vinyl disc. Equally remarkable is the ability of the phonograph cartridge to extract this information from the groove with a high degree of fidelity.

Although they may differ somewhat in design details, all stereo cartridges are based on the principle of a tiny jewel stylus to follow the microscopic contours of the record groove. Each wall of the groove carries one channel. The stylus motion is transmitted, usually via a thin cantilever strut, to independent transducers within the cartridge body. Most current cartridges use magnetic transduction, generating electrical voltages proportional to the stylus velocity. Some cartridges employ ceramic elements, flexed by the stylus displacement, to generate the electrical output. From time to time, other types of generating systems have been employed. However, there appears to be little fundamental advantage to any one method of transduction, and the established compatibility of magnetic cartridges with available amplifier inputs has led to their general acceptance.

Among the most significant parameters of a cartridge (or, more accurately, of its stylus and moving system), are its compliance and effective tip mass. A highly compliant stylus can be deflected by a very small force, so that a lower tracking force can be used. A low tracking force, in turn, contributes to low record and stylus wear. The moving mass of the stylus determines the dynamic force exerted on (and by) the groove wall as the stylus is accelerated back and forth thousands of times per second while playing a record. A low moving mass contributes to extended high-frequency response as well as reduced record wear.

It might seem that an ideal cartridge should have the highest possible compliance and the lowest possible moving mass. However, this is true only up to a point. The cartridge compliance resonates with the arm mass at a low frequency, which should be sub-audible but not so low as to accentuate the effects of record warp and eccentricity. With available tonearms, most good cartridges resonate between 8 and 16 Hz. A significant increase in compliance would necessitate the use of a very low mass arm, to keep the resonant frequency in a safe region.

The tip mass of the cartridge also has a resonance, with the compliance of the vinyl record material (there are many other possible resonant modes, but these are the major ones). The resonant frequency should be as high as possible, above the audible range. Most modern cartridges of hi-fi quality resonate between 15 kHz and 25 kHz. While there would be no harm in extending the resonant frequency upward by a further reduction in tip mass, this is difficult to do from a practical standpoint, and also requires a more delicate and expensive stylus structure.

Compliance is expressed in units of cm/dyne, and may be as low as 5 x 10^-6 cm/dyne for an inexpensive cartridge tracking at several grams, to as high as 35 x 10^-6 cm/dyne for a premium-quality unit designed to operate at 1 gram or less. The corresponding resonance mass range from several milligrams to less than 1 milligram.

Although these parameters may or may not be specified by the cartridge manufacturer, they need not concern the prospective buyer. Each cartridge is rated for operation over a limited range of stylus force, including the compliance effect of its own mass, and other design parameters. There is a rough inverse relationship between tracking force and price, as well as the overall sonic performance of the cartridge. Since certain record players and arms are designed for use with minimum tracking forces of 2 or 3 grams, this is a factor to consider when choosing a cartridge.

One of the major differences among cartridges, even within a single manufacturer's line, is stylus shape and size. The most popular stylus, which has a spherical tip with a radius of 0.7 mil (0.007") represents a good compromise for playing both stereo and mono LP records. Mono records were originally intended to be played with a 1 mil stylus, while many modern stereo releases can benefit from a smaller tip radius, such as 0.6 or even 0.5 mil.

In recent years, elliptical stylus have become quite popular. Their tips have a small radius, from 0.2 to 0.4 mil, in contrast with the greatly curved tips. This provides improved tracking of the very short wavelengths corresponding to the
highest frequencies. At the same time, the large radius (0.7 to 0.9 mil) at right angles to the length of the groove prevents the stylus from "bottoming" in the groove and generating distortion—a problem with spherical stylus of very small dimensions.

An elliptical stylus should be operated at a low tracking force, since the small contact area results in very high unit pressures. The recommendations of the manufacturer should be followed. In general, most cartridges operate best at or near the maximum force recommended by the manufacturer. Elliptical stylus cost more than spherical stylus, and their audible advantages may not be immediately apparent. However, many records (particularly mono records) do sound better when played with an elliptical stylus, and many of these cartridges are only available in that form.

While the audible differences between cartridges are rarely as apparent as those between speakers, a good cartridge will have a smoother, more transparent sound, and noticeably less distortion when playing heavily cut records. You should expect to pay roughly half as much for a cartridge as for your record player.

Tuners

**TUNERS**

**When buying consider sensitivity, capture ratio, and distortion.**

The IHF tuner is the "radio" part of the hi-fi system. Its task is to select a desired broadcast signal, amplify it, and recover the program modulation at a level suitable for driving an amplifier. Today virtually all component-type tuners also include stereo circuits which separate the program into its left and right-channel components.

High sensitivity is equated by many people with the quality of a tuner, much as high power is (incorrectly) considered to be a characteristic of a good amplifier. Neither assumption is necessarily true, although under certain circumstances they may be. Most FM tuners have a rated IHF Usable Sensitivity between 1.5 and 3 microvolts (µV). Some tuners are still rated in terms of quieting sensitivity, which gives a smaller number, but has no direct relationship to the generally accepted IHF rating.

The IHF sensitivity rating means that if a signal of that level is applied to the tuner's antenna terminals, the 400-Hz audio output of the tuner will contain noise and distortion 30 dB below the output level. If a broadcast signal of the same strength is tuned in, it will not be of usable quality, because of the very audible hiss level. A stronger signal is needed for hi-fi listening quality—anywhere from two to five times as strong as the IHF Sensitivity figure—and perhaps another ten-fold increase for fully quiet stereo reception.

Fortunately, most of us live in relatively high signal-strength areas, and the voltage at our tuner antenna terminals is typically hundreds, or even thousands, of microvolts. The most sensitive tuners, plus a good outside antenna, will be needed in some rural or fringe areas, but for most people sensitivity per se is not a critical factor in tuner selection. A rated IHF sensitivity of 3 microvolts or better should be satisfactory. Since higher figures (poorer sensitivity) often are associated with tuners whose performance has been compromised in other respects, sensitivity can be used as a rough guide to over-all quality—but not because of its own intrinsic importance.

The urban congestion which makes high sensitivity unnecessary for many people brings with it another problem—spurious signal responses due to overload of the tuner's circuits by powerful nearby stations. The applicable specifications, many of which are quoted by tuner manufacturers, include image response, interference rejection, cross-modulation, and spurious responses. It is very difficult to generalize on the relative importance of these specifications, which depends on the specific conditions existing at your location. Interference rejection capability is expressed in decibels, with magnitudes anywhere from 50 to 100 dB. The closer the figure, the better the tuner, but this is also reflected in its price.

A related characteristic is the tuner's selectivity, which is its ability to reject a signal adjacent in frequency to the desired station. In any given area, the minimum channel spacing is 400 kHz. Alternate channel selectivity ratings of 45 to 46 dB, typical of some crystal-controlled tuners, are possible in most cases but a locally crowded spectrum may require the 60 to 90 dB selectivity of the more expensive tuners.

At one time, double-tuned i.f. transformers provided the selectivity in FM tuners. Although they might have been adequate when the tuner left the factory, the tuning of these transformers often changed with time, requiring periodic re-alignment to maintain original performance. Many tuners in the medium- and high-priced brackets now use fixed-tuned filters, which never require re-alignment, and which usually have better selectivity characteristics (and more uniform stereo separation) than conventional i.f. transformers. These filters may use ceramic or quartz crystal elements, or may be multi-pole LC filters with high "Q" toroidal inductors. Good results can be obtained with any of these, although the crystal and LC filters tend to be more expensive and therefore are used in the higher priced tuners.

Another common problem in urban FM reception is multi-path interference. A signal arriving at the receiving antenna from several directions, due to reflections from buildings or natural objects, may be severely distorted. A good directional antenna is often necessary (and sometimes even mandatory) to exclude most of the unwanted signal components. The capture ratio of the tuner is a measure of its ability to respond only to the strongest of several signals on the same channel, while completely rejecting the weaker signals. Low capture ratios, such as 1.5 dB, are the best; a capture ratio greater than 3 or 4 dB is definitely undesirable.

The integrated circuits (IC's) used in many tuner i.f. sections, have excellent limiting properties which, in turn, makes possible a good capture ratio. Most tuners today use a field-effect transistor (FET) as an i.f. amplifier, and sometimes for the mixer as well. The FET is superior to ordinary transistors in resisting overload from strong signals, and is relatively immune to cross-modulation effects.

The stereo multiplex decoder, which typically requires 6 to 12 transistors, has been replaced in some tuners by a single IC specifically designed for that purpose. The IC, in addition to being much more uniform in performance, a component circuit, has excellent stereo separation, and provides muting and automatic stereo switching functions as well.

Tuning indicators are almost a necessity for optimum reception. The zero-meter type of meter is more accurate and preferable to the relative signal-strength meter used on many tuners. Some tuners use both types of meter. A few now use an IC differential amplifier to light a lamp on the panel when a station is tuned in "dead center." This is probably the most accurate, as well as the most easily interpreted type of tuning indicator.

Interstation noise is muted on most medium- and high-priced tuners. Muting circuits vary widely in effectiveness, from a smooth, almost inaudible transition from silence to program and vice versa, to those whose thumps and noise bursts make them nearly worthless. Listen for yourself and judge the usefulness of this feature when evaluating a tuner.

Although AM tuners have also benefited from such technological advances as FET's, IC's, and ceramic filters, and sometimes sound remarkably good, most AM programming may not be the best quest for hi-fi AM. Rather futile. If you plan to do much AM listening, check the tuner audibly for adequate reception of your favorite stations, low noise, and freedom
WARNING: The guarantee on these tape heads is due to expire in 1995

The newly developed pressure-sintered ferrite record and playback heads in the Concord Mark III tape deck carry a 25 year guarantee. These diamond-hard heads maintain their original high standard of performance longer than any others. There's no significant headwear, no deterioration in frequency response or signal-to-noise ratio — even under conditions of constant use.

But, there's more to recommend the Mark III than just the heads. The hysteretic synchronous drive motor assures a speed accuracy of 97.7% with line voltage variation of from 100 to 128 volts. Three heads with a 2-micron gap playback head deliver a 20 to 27,000 Hz response. It has advance-design IC preamplifiers — four of them. A unique flip-up head cover for easy access, and head-gap position markings for precise editing. Dynamic muting suppresses hiss. The tape transport mechanism assures a fast start-up — you don't miss a note. Two tape tension arms stamp out burble. A special flutter filter eliminates flutter due to tape scrape, coggling action. Consider these capabilities: sound-on-sound, variable echo, cue/pause control, independent record-indicator lights for each channel, and calibrated VU meters. The Mark III, under $250. The Mark II, under $200 is similar to the Mark III except that it has a ferrite erase head and high-Mu laminated recording and playback heads.

The top-of-the-line Mark IV has all of the performance quality and convenience of the Mark II plus dual capstans, electronic automatic reverse and continuous play, metal foil or signal required on the tape. Under $300.

Today, buy the tape deck that you'll still be enjoying in 1995. For free Concord Comparison Chart, write to: Concord Electronics Corporation, 1935 Armacost Avenue, Los Angeles, Calif. 90025. Subsidiary of Ehrenreich Photo-Optical Ind., Inc.
from whistles and "birdies", as well as for clean and reasonably wide range sound. A ferrite rod antenna, part of every AM tuner, is usually adequate in urban or suburban areas. Since it is directional, it is helpful if the rod can be pivoted for best reception.

The FM antenna, although not a part of the tuner, is vital to good reception. The high performance of many tuners has led to their use with indoor folded dipoles or line-cord antennas. An improvement can be obtained with an outside antenna, placed as high as possible. It need not be elaborate although larger arrays will probably be needed if you are more than 30 or 40 miles from your favorite FM stations.

Amplifiers

You can judge quality simply by comparing specifications.

The HF amplifier plays a dual role in a hi-fi system. It serves as a control center, selecting one of several available program sources, modifying the system frequency response as required, and sometimes acting as an interface with a tape recorder or as a switching center for several sets of speakers. It also amplifies the low-level input signal to the high power level needed to drive speakers.

The preamplifier functions are quite distinct from those of the power amplifier, and the two are sometimes handled by physically separate units. However, a transistorized power amplifier, lacking bulky output transformers and heat-producing tubes, can readily be integrated with the pre-amplifier to form a single, compact unit. Most amplifiers are now made in this format.

Amplifier power output, unlike many aspects of hi-fi performance, can be measured and specified with good accuracy. Nevertheless, few equipment specifications are confusing and misleading as power ratings. Two basic rating systems are defined by an IHF standard. Continuous power output (sometimes called r.m.s. power) is the maximum power an amplifier can deliver for at least 30 seconds, at a specified distortion (usually about 1%).

Most amplifiers can deliver more power for short periods than they can continuously. This is due to the drop in internal power-supply voltage at full power, limiting the available power. During musical transients lasting a fraction of a second, the voltage change is slight and more power can be obtained. The IHF Dynamic Power rating of a given amplifier is usually from 10% to 30% greater than its continuous rating. The less the difference between the two ratings, the better the amplifier (all other factors being equal) since this implies a bigger or better regulated power supply.

A recent practice, deprecated by much of the hi-fi industry but still in wide use, is the addition of "+1 dB" to the IHF Dynamic Power rating. This is a crude attempt, without a vestige of legitimate justification, to inflate the advertised power rating. The "IHF +1 dB" power is 20% greater than the true IHF Dynamic Power.

So-called "peak power" figures, in any rating system, are mathematically twice the true power and have no other significance.

Published "Dynamic Power" ratings are usually the sum of the two channel outputs, although the IHF standard is based on a single channel measurement. Frequently, continuous power ratings are also given as "2×30 watts," implying that a full 60 watts can be obtained when both channels are driven. However, unless it is clearly stated otherwise, one must assume that the measurement was made with only one channel driven, resulting in a slightly higher power output.

Most solid-state amplifiers can deliver about 60% more power into 4 ohms than into the usual 8-ohm speaker load. Published power ratings are often based on 4-ohm loads, but most speakers are still designed with an 8-ohm nominal impedance. Unless your speakers are definitely 4-ohm models, be sure to compare amplifier specifications based on the same 8-ohm loads.

To illustrate the use of the "numbers game" in power ratings, consider a hypothetical amplifier advertised at "100 watts, IHF +1 dB" into 4 ohms. By omitting the +1 dB, this can be immediately converted to an IHF Dynamic Power rating of 80 watts. A typical continuous power rating for such an amplifier might be "2×30 watts." However, with both channels driven, each could probably deliver only about 22 watts. If your speakers have 8-ohm voice coils, only about 15 watts could be delivered to each speaker—and that only at the usual testing frequency of 1000 Hz.

It is interesting to observe that this amplifier could also be advertised as having a "200-watt peak" output!

Except for the "+1 dB" and "peak" ratings, these are all legitimate and meaningful specifications. It is important that comparisons between amplifiers be made on the same basis, so be sure to read the specifications carefully. Bear in mind that when a speaker manufacturer recommends a driving power for his products, he is referring to continuous power for each channel. In other words, our hypothetical "100 watt" amplifier is really a medium-powered unit, not suitable for use with low-efficiency speakers recommended for use with 30- or 40-watt amplifiers.

The distortion of an amplifier may be 1% at full power, but is normally much less at ordinary listening levels of a watt or less. It is determined by the relationship of the power output to the input signal, and the quality of an amplifier can be judged by comparing its distortion with that of other amplifiers. If two amplifiers have the same peak power output, the one with the lower distortion is better. Since the difference between 1% and 2% is usually not objectionable, unless accompanied by other deficiencies. A good amplifier should be able to deliver a useful output over the entire audible frequency range from 20 Hz to 20 kHz. It is normal for distortion to increase at both frequency extremes, but some amplifiers cannot supply more than a small fraction of their mid-range power in the lowest and highest octaves. This may be a serious fault—if the speaker cannot deliver the power, no amount of distortion will make it better. Undistorted amplifier power at 20 or 30 Hz. However, there is no justification for the amplifier being the limiting factor in a system, so be sure to choose one that can operate effectively over the full range of the speakers.

Power output requirements are established by the speaker efficiency, room size, and your listening habits. Follow the speaker manufacturer's recommendations, remembering the relationship between single-channel continuous power and the IHF Dynamic Power ratings.

The preamplifier should contain, as a minimum, volume and balance controls (or the equivalent in two concentric volume controls, although this is less convenient to use), bass and treble tone controls, and an input selector. Loudness compensation is often provided, to boost the lows at reduced volume control settings. Its absence is no drawback, since tone controls can be used to perform the same function. Rumble and scratch filters are rarely needed, and most of them do not have the proper characteristics for most effective results. If you plan to install more than one speaker system, the multiple speaker switching provided on many amplifiers is very convenient. A tape monitor switch is a "must" if you plan to do any serious tape recording.

Remember that an impressive control panel may be a facade for a mediocre amplifier, while some of the finest amplifiers are disarmingly simple in appearance. It is better to invest your money in a basically sound amplifier, with adequate power and low distortion over the full frequency range, than in one offering a host of features that you may never use.
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Speakers

The most difficult choice of all—you will have to depend on listening tests.

Unlike other audio components, speakers cannot be evaluated in a purely objective manner. Many researchers have attempted to devise tests which would unequivocally establish the worth of a speaker (as has been done, with fair success, for the electronic portions of the hi-fi system). So far, their efforts have been in vain.

Many aspects of speaker performance can be measured. The problems lies in determining what to measure. No one knows exactly what an ideal speaker should sound like! Sonically transporting the performer to the listening room might be very desirable for a soloist or a string quartet, but certainly not for a symphony orchestra. Giving the listener the illusion that he is in the concert hall is another possibility, but the success of this approach is a function of the engineer's talents and the listening room acoustics as of the speaker itself. Some say that the ideal speaker should produce an acoustic analog of the electrical input waveform. This is fine—but the acoustic response is still very much a function of the listening room, and of one's position in that room.

In the final analysis, everyone must decide for himself what sort of sound pleases him. There are measurable characteristics of a speaker that contribute to one's understanding of it, but they must be supplemented by listening judgment: Audio shows are not too reliable for auditioning speakers, since competitive models are not heard in the same environment. A well-equipped dealer's showroom or listening room is better, and your own home is best (once you have narrowed the field of choice to two or three models). Equipment reviews or the advice of knowledgeable friends is helpful, but even they should not be relied upon exclusively.

The first step in choosing a speaker is to decide on the approximate price. The two speakers should cost nearly as much as the receiver or tuner and amplifier used to drive them. In general, when you pay more than about $300 to $500, you are buying a piece of furniture as well. There are some superior sounding speaker systems at very high prices, but their appeal is primarily to advanced hobbyists and especially to highly critical listeners. For most people, there is little sonic improvement to be gained by spending more than about $500 or $600 for a pair of speakers.

It can be helpful to listen to some of the higher priced models from different manufacturers, even if they exceed your price range. When you find one that appeals to you, compare it to less expensive speakers from the same manufacturer's line. Usually there is a definite continuity of sound character within a given manufacturer's line, with the less expensive units sacrificing low bass response and sometimes the extreme high frequency response and dispersion characteristics.

Most hi-fi speakers are two-way or three-way systems, in which each speaker handles a portion of the frequency range. In theory, and often in practice, the three-way system is better, but there is no clear dividing line between the two types.

Most bookshelf speakers use fully sealed cabinets, with acoustic-suspension woofers, but recently there has been a return trend to ported enclosures. Except in the lowest bass region, where the acoustic-suspension speakers usually have lower distortion, there is little difference between the two types. Some of the ported systems compensate very effectively for a slight loss of low bass with an exceptionally smooth upper bass response.

Do not be influenced by the number of speaker units used in a system. One good speaker is worth more than any number of mediocre speakers. Sometimes a number of small speakers is used to replace a single large one, because of other design considerations.

Omnidirectional speakers are growing in popularity. Instead of beaming the sound into the listening area, they scatter it around the room, reflecting it from a wall or other surface. Many people like the sense of spaciousness imparted by omnidirectional speakers. Some of the speakers are deficient in the extreme highs, which are absorbed in the room furnishings. This can usually be corrected by the amplifier tone controls, or with the equalizers which are used with some speaker systems.

One of the most noteworthy trends we have observed during the past year or so is the appearance of compact, low-cost speakers with exceptionally smooth, uncolored sound. Several such systems, in the $70 to $120 range, can rival or surpass older designs selling for two or three times their price.

A reasonable goal for the high-fidelity system should be to create the subjective impression of listening to a live performance. This implies a sound pressure at the listener's ear similar to that he would have experienced in the concert hall (this is by no means as loud as the original sound in the middle of the orchestra). The best way to prepare to select a speaker is to attend live musical performances. Try to remember what the sound was like and pick up loudspeakers. Notice, for example, that in live music, the bass is not room-shaking, nor do the highs "sizzle," contrary to what some hi-fi bulbs seem to think. Be aware of the "ease"—freedom from distortion—and spaciousness of the live performance. This is the quality you should try to simulate with your own system. You won't achieve this goal, but it is possible to come surprisingly close to it.

When listening to a speaker, try to drive it with the amplifier or receiver you plan to use, or one of similar performance. Do not use the tone controls or loudness compensation. Listen to male voices for the heavy or boomy quality that indicates a response peak in the 100 to 200 Hz region. Try several FM stations if you notice this quality, since some stations always seem to impart this quality to their announcers' voices.

Listen for the balance between lows, middles, and highs, with various types of program material. Some speakers seem to project the sound into the room. This usually indicates a mid-range peak (sometimes intentional), which can be tiring in the long run. Other speakers have a depressed mid-range response, giving the sound a withdrawn, or "hole-in-the-wall" character. Both types of speakers have their adherents, although we feel that a flat, neutral sounding speaker is more likely to provide lasting satisfaction.

Tone between FM stations and listen to the hiss. It should sound reasonably smooth, with no definite pitch. Walk from side to side in front of the speaker and observe the peaking of the high frequency hiss components as you pass the axis of the speaker. A good speaker, having wide angular dispersion, shows little of this beaming effect. Omnidirectional loudspeakers are usually quite free of this characteristic.

Perception instruments, such as triangles, cymbals, and bells, should sound crystal clear—not piercing, which could result from a peaked high frequency response, or harsh and dulled by a lack of highs. Low bass should be felt as much as heard. This is a characteristic of some of the more expensive speakers, but not all of them, by any means. Speakers selling for less than about $100 rarely have much output below 50 Hz, which is quite satisfactory from a subjective standpoint and, if reproduced with low distortion, should satisfy all but pipe organ and bass drum devotees.

When you have selected a speaker, or narrowed the choice to a couple of types, try to listen to them in your own home before making a final decision. Any loudspeaker will sound quite different in your home than it did in the dealer's showroom. Most reputable dealers will allow exchange privileges on speakers if you do not find them to your liking in their final environment.
Four-Channel Stereo

The most promising new development in stereo for 1971 is the four-channel (sometimes called “Quadri-phonics”) technique. This has been in an experimental phase for some years, but now appears to be on the verge of commercial reality.

The original purpose of adding two more channels was to recreate the “ambience,” or reverberant sound of the concert hall. The sound picked up by two microphones near the rear of the hall was recorded on the two added channels and reproduced through two speakers in the rear of the listening room.

It soon became apparent that popular music and electronic music were adaptable to unconventional recording methods, in which each of the four channels could carry a distinctly different portion of the program. This would require a universal four-channel system to have equal amplifier and speaker capability in all channels. A system used only to restore ambience to the sound would require little amplifier power and limited range speakers in the two rear channels. At present there are no standards, either for recording or playback of four-channel stereo. Several tape recorder manufacturers have introduced four-track recorders, and some demonstration tapes have been produced. At least one manufacturer has announced a four-channel amplifier. All of these initial units are relatively expensive, and are intended as an aid in evaluating the merits of the system rather than as final, marketable products.

It is clear that acceptance of four-channel stereo hinges on its compatibility with two-channel stereo in FM broadcasting and in disc recording (there is little problem with tape since four tracks are available both on standard “4” tape and cassettes). Experimental FM broadcasts have been made using the facilities of two stations, but this is obviously impractical for general use. One system has been demonstrated which allows four channels to be recorded and played back from a conventional two-channel stereo disc, and even to be transmitted over a standard stereo-FM broadcast. A small decoder device is required in the playback system to extract the additional two channels of information. Other systems have been proposed to achieve the same results, and it is too early to know which, if any, will ultimately be accepted as the standard.

One thing appears certain—there will be four-channel stereo in 1971, and it will be compatible with present two-channel equipment. This means that the four-channel program will be heard as two-channel stereo on standard stereo receivers, and as mono on single-channel receivers. No one need be concerned about obsolescence of presently owned or contemplated two-channel stereo equipment. The advantages of four-channel stereo are genuine and we have been favorably impressed by the better examples we have heard. Thus, we are willing to predict that on the whole 1971 should be an exciting year for hi-fi enthusiasts!

Receivers

Remember that a receiver is a tuner and an amplifier mounted on a single chassis.

Installing the components of a hi-fi system is usually a simple matter, but the array of interconnecting cables may be unsightly and difficult to conceal. Also, it may not be practical to fit two or three bulky units in a limited space, such as on a bookshelf or end table.

The integrated stereo receiver offers a convenient solution to this problem. It combines a tuner (often both FM and AM), preamplifier, and power amplifier in a single compact unit. The only external connections required are to the speakers and antenna (plus the record player and tape recorder if these are used).

Since a receiver shares a common chassis, cabinet, and power supply among its sections, it is slightly less expensive than separate components of equivalent performance. The elimination of redundant controls, almost inevitable when using separate components, makes its operation simpler and more foolproof. Another benefit of the integrated design is the assured compatibility of signal levels within the system, and a reduced likelihood of faulty or incorrect connections.

Flexibility is not sacrificed in the typical receiver. Virtually all the control functions found on component tuners and amplifiers are retained, including tape monitoring, speaker switching (some can handle three sets of speakers), filters, and headphone jacks. Some of these features are omitted in lower priced units, but most receivers are versatile enough to satisfy the most critical user.

What about performance? The tuner sections of most receivers are fully comparable to good component tuners, in respect to sensitivity, distortion, and stereo separation. The amplifiers are usually in the low-to-moderate power range (10 to 30 watts per channel), although a few of the top-priced models can deliver over 50 watts per channel. Distortion is typically low, and in some receivers is comparable to that of the finest separate amplifiers.

The major performance compromise in most receivers is a somewhat limited low-frequency power handling capability. Space and economic considerations usually restrict the power-supply capacity, which is manifested as substantially increased distortion at full power below about 50 Hz. This is not a serious problem for many users, but the audio buff with a taste for powerful low bass performance may prefer a separate amplifier. A few of the better receivers have heavy-duty power supplies and are the equal of comparable component amplifiers in every respect.

If there were a major technical advance in hi-fi, comparable to the introduction to stereo, which obsoleted a basic system component, the receiver user would be faced with replacing practically his entire system, while only one part of a separate component system might be affected. This is unlikely to occur, and even the proposed four-channel stereo system should be fully compatible with present equipment. We do not consider possible obsolescence to be a factor in choosing a receiver.

Compact Systems

They are more economical—but they are not as versatile as separate components.

Much as the receiver integrates the electronic portions of a music system, the “compact” system eliminates the need to select the other components such as the record player and speakers. Installation has been simplified to the point where connecting the antenna and the speakers is all that is required to place the system into operation.

In a compact system, the record player is built into the top of the receiver. A pair of speakers is supplied, with long cables that plug into the rear of the unit, eliminating the possibility of incorrect speaker phasing. Since the phonograph cartridge is factory installed, the arm balance and tracking force are preset.

The convenience of the compact system has its price, both in performance and versatility. The speakers are often small, inexpensive models with limited frequency range and power handling ability. The better compacts are available with rather good speakers, sometimes identical to those sold for use in component systems. Amplifier power is limited, but is matched to the requirements of the speakers. Manufacturers rarely specify the amplifier ratings of their compact systems but, in general, they can deliver from 10 to 20 watts per channel at middle frequencies. Low-frequency performance is usually reduced, but is compatible with the speaker design.
The phonograph usually consists of a relatively low-priced record changer with a magnetic cartridge tracking at 2 to 3 grams. The refinements of the better automatic turntables and highly compliant cartriges are not offered in the typical compact system. Most compacts can accept one external program source and many have tape monitoring provisions.

The tuners tend to be of good quality, but for the most part are less sensitive than good component tuners. Most of them lack interstation muting, but automatic stereo switching and tuning meters are in general use. A few compacts include tape cartridge players or cassette recorders.

A compact system should be judged by its sound, without too much concern with the internal characteristics of its tuner, amplifier, and record player. With its inherent inability to be upgraded or modified, the compact is likely to appeal to the non-technical user. Either that or the dabbinist who likes to keep pace with new developments. As with any hi-fi system, the ultimate sound is determined by the speakers, and this is clearly reflected in the price range of these systems. The low priced compacts (up to about $200) have small speakers, and often do not include a tuner. At the other extreme, there are some systems in the $500 to $600 range, offering performance fully comparable to that of component systems in the same price bracket.

**Tape Recorders**

Reel-to-reel still gives best performance, but cartridge machines are more convenient.

TAPE enthusiasts have long felt that the tape recorder would supplant the phonograph as a program source in home music systems. This has not happened as yet, but the sales volume of tape machines is clear evidence of their growing popularity.

A large percentage of tape recorders are bought for casual use, rather than as an integral part of a hi-fi system. In the past, a sizable investment in a tape machine was needed to achieve the quality of a phonograph record, but recent developments in heads, tape coatings, and electronic circuits have made a dramatic improvement in the performance of moderately priced tape decks.

A portable recorder, with built-in or detachable speakers, is suitable for non-critical listening, but the potential of any tape recorder can only be realized when it is integrated with a good hi-fi system. Pre-recorded reel-to-reel tapes are relatively expensive and frequently are inferior to discs in quality. However, one can record FM broadcasts and dub from phonograph records at modest cost, and with little or no audible degradation of quality, using any of several tape decks in the $250 to $350 price range.

The 7½ ips tape speed formerly was necessary for a frequency response extending to 15 kHz or higher. A number of tape decks can now achieve this bandwidth at 3¼ ips, which has less cost of tape and makes the tape recorder economically competitive with discs. From a listening standpoint, the principal weakness of tape has been its high hiss level, which is usually much more audible than record noise. The Dolby noise reduction system, universally used in professional recording to gain a 10 dB improvement in signal-to-noise ratio, is now available in a moderate priced tape recorder, and we can expect to see its widespread use in other tape recorders during the months to come. An "add-on" Dolby unit is available for use with older tape recorders.

With the Dolby system, a home recording made at 3¼ ips from an FM broadcast usually cannot be distinguished from the original program. There should be little need for 7½ ips operation, except to play tapes made at that speed, or for ease of editing. Some machines also have a 1¼ ips switch, but the frequency of most tape recorders at that speed is suitable only for voice recordings.

Lower priced recorders have only two heads, one for erasing and the other a combined recording and playback head. Many of the electronic circuits are common to recording and playback functions, so that these machines cannot record and play back simultaneously (with a fraction of a second delay). In this way any "gargly" noise on the record, if present, is not reproduced on the playback. Many recorders have a "garnish" switch to reduce "gargly" noise on the record, but the effect is only temporary. If this feature is important to you, look for a machine with built-in switching rather than adding an optional "gargly" noise reduction system.

Many tape recorders use a single motor to drive both the capstan and the reels. Sometimes a separate motor is used for the reels, and in many of the better recorders three motors are used—one for the capstan and one for each reel. The motor machine has the disadvantage that it requires more frequent reversing than single-motor machines. However, some of the finest tape recorders have a single motor. Quality of construction is more important than the number of motors used.

Automatic tape reversal is featured on some recorders. This eliminates the annoyance of having to interchange reels half way through a program. Most reversing mechanisms require adding a strip of conducting foil to the tape at the desired point; some are operated by recording a subsonic signal on the tape, and one senses the absence of a recorded program to actuate the reversing mechanism. Virtually automatic reversing machines operate under supervision of the operator on playback only, so that it is still necessary to interchange reels manually when making a recording.

Level-indicating meters are found on practically all recorders. Experience with a specific machine is necessary to determine a suitable level, and noise level, due to the wide difference in response characteristics in meters used on different makes of machines (few use real "vu meters," whose response is well defined).

One of the qualities distinguishing a good recorder from a poor one is low flutter. This is a rapid speed fluctuation, which can muddle the sound or, in worst cases, give a "gargly" quality. Most recorders which would be seriously considered for use in a good home hi-fi system have less than 0.1% flutter, which is usually not objectionable, and many have less than 0.1%.

Handling tape reels and loading a recorder is undeniably less convenient than handling phonograph records. This problem has been effectively eliminated by tape cartridges, which are merely plugged into a transport mechanism. The four- and eight-track cartridges used in automobile players can be played in home cartridges, but have not received wide acceptance, perhaps because it is not convenient to make recordings on them. Cassettes, however, are becoming rapidly in popularity and it appears likely that the cassette will ultimately rival phonograph records, as the open-reel tape never managed to do.

Cassettes are small, enclosed reel-to-reel tape packages, using a narrow tape tracking at 1½ ips. In spite of their slow speed (which allows up to 90 minutes of recorded program on a single cassette), the frequency response achieved by the best cassette players and recorders is compatible with hi-fi music requirements. A number of cassette decks have a record/playback frequency response extending beyond 10 kHz, sometimes as high as 12 to 13 kHz.

The cassette format combines most of the features of the reel-to-reel tape machine, including fast-forward and re-wind operation, with ruggedness and ease of handling surpassing that of phonograph records. It has a few minor drawbacks, however. The slow speed results in higher flutter
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than is found on most reel machines, due to the mechanical tolerances of the drive mechanism, and the narrow track width degrades the signal-to-noise ratio, compared to open reel machines using standard % tape. Also, cassette tapes cannot be conveniently edited and spliced.

The flutter problem can be solved, or at least minimized, by better mechanical construction, although this inevitably raises the price. Many cassette decks selling for over $100 have less than 0.25% flutter, which is tolerable if not exactly of hi-fi quality. Some of the best units have as little as 0.12% flutter, a satisfactory figure for home use.

Fortunately, the Dolby noise reduction system, applied to cassette recorders, can bring their quality to full hi-fi standards. This year several manufacturers will release cassette recorders with built-in Dolby circuits. Judging from advance descriptions, these units will compete strongly, from a quality standpoint, with open-reel machines in the same price range (around $250). It is reported that the pre-recorded cassette tapes will soon be available with Dolby processing, so that the advantages of the system will be applicable to commercially produced tapes as well as home recordings.

For the serious tape hobbyist, who wishes to edit his tapes and will not accept performance compromises, there are several fine reel-to-reel machines, selling for $500 or more, which are capable of fully professional quality. It is unlikely that any cassette machine, however refined, will meet the standards of these people.

For live recording, as distinguished from off-the-air or disc copying, good microphones will be required. Although some tape recorders are supplied with fairly good microphones, almost any recorder can be improved by the use of a high quality microphone. A pair of dynamic microphones, costing between $30 and $75 each, is a worthwhile investment.

POWER BANDWIDTH

It is evident that many persons are unfamiliar with the exact meanings of some of the technical terms used in audio discussions. The term “power bandwidth,” often given as one of the amplifier's specifications, appears to be particularly confusing. Power bandwidth is usually expressed as a frequency range, for example, "20 to 20,000 Hz." A more complete statement of this specification, however, would add (for example) "referred to 20 watts output and at 2 percent distortion."

To make a power-bandwidth measurement, a 1000-Hz test tone is fed into the amplifier under test, which is driven to its rated power output at a given distortion level, say, 2 percent. Then the test signal's frequency is decreased until the amplifier's output falls to half its original power at the rated distortion level. The low frequency at which this occurs establishes the lower bandwidth frequency. The half-power point at which the same distortion occurs is also determined (in the same manner) for high frequencies. The high-frequency figure together with the low-frequency figure define the power bandwidth. In the example cited, if a 20-watt amplifier (20 watts r.m.s. at 2 percent distortion) can deliver 10 watts at 20 and 20,000 Hz with 2 percent distortion, the amplifier's power bandwidth is 20 to 20,000 Hz.

Obviously, it is desirable to have as wide a power bandwidth as possible in a high-fidelity amplifier, preferably one spanning at least the 20 to 20,000 Hz range. Some amplifiers have bandwidths far exceeding this range; others may have power bandwidths of 50 to 10,000 Hz or even less. A limited power bandwidth does not necessarily mean that the amplifier cannot deliver useful power (“useful” for a particular speaker system and listening room) at the frequency extremes. If one assumes that, for satisfactory reproduction, 10 watts is required at 20 and 20,000 Hz, sufficient power might be obtained from a 10-watt amplifier with a 10 to 40,000 Hz bandwidth, a 20-watt amplifier with a 20 to 20,000 Hz bandwidth, or a 40-watt amplifier with a 50 to 10,000 Hz bandwidth. Although mid-range power from the three amplifiers varies over a four-to-one range, it is possible that their power outputs are equal at the frequency extremes.

In the example given, the choice of 2 percent as the rated distortion level is purely arbitrary. Under the terms of the present IHF standard, a manufacturer is free to rate his amplifier's power at any distortion level he wishes. Some of the best amplifiers are rated at 0.5 percent distortion or less, and inexpensive amplifiers might be rated at 3 to 5 percent. If the manufacturer rates his unit at less than 2 percent distortion, the amplifier will generally show little difference in power bandwidth between the less than 2 percent and the 2 percent distortion levels. On the other hand, a mediocre amplifier may, in effect, have no power bandwidth at 0.5 percent distortion, simply because it has at least that much distortion at all power levels.

While all IHF members usually quote power figures as a “dynamic measurement” at distortion figures of less than 2% (sometimes as low as 0.1%), it is surprising to find that EIA member companies usually quote power figures at the “peak music power” at 5% distortion. In some places in this Directory you will find EIA figures quoted.
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HI-FI MANUFACTURERS

If you have any additional questions about products described in this Directory, do not hesitate to write directly to the manufacturer. He will be glad to be of help.

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71/4A Integrated Stereo Amp
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  - $37.00

- **DC300 "Oscar Standard" Power Amp**
  - Solid-state design; 210 W/ch dynamic power at 8 ohms (400 W/ch at 4 ohms);
  - $1,195.00

- **Mark IV Mono Power Amplifier Kit**
  - 40 W continuous sine-wave power, up to 80 W peak; less than 1% IM distortion at
  - 40 W; frequency response ±0.5 dB from 10 Hz to 40 kHz; sensitivity 1.3 volts r.m.s. input for 40 watts output; output impedances are 4, 8, and 16 ohms; tube complement: 2-EL34, 7199, GZ34, selenium rectifier; over-all size 5½" x 14½" x 6½".
  - Mark IV Kit...
  - $59.95
  - Mark IV Factory wired...
  - $79.95

- **Stereo 35 Power Amplifier Kit**
  - 17.5 W/ch (continuous sine wave); 22.5 W/ch dynamic power; IM dist. less than 1% at 35 watts; sensitivity
  - 1½ at 17 W; response 10-40,000 Hz ±1 dB; sensitivity 1 V for 17.5 W output; damping factor 10; hum & noise...80 dB; 8 & 16 ohm outputs: tube complement: 2-7274, 4-6BQ5, & 2 silicon rect.; 13" x 5¾" x 4½" h; with ease; kit...
  - Factory wired...
  - $79.95

- **Mark III Mono Power Amplifier Kit**
  - Power output 60 W continuous sine wave up to 140 W peak; frequency response 6-60,000 Hz within ½ dB at 60 watts; sensitivity 1.6 volts r.m.s. input for 60 watts output; IM distortion less than 1½ at rated output; damping factor 15. Heatsink...Patented Blacet for non-critical balancing control; matched set of KT88 power output tubes; other tubes are 6AN8, GZ34, selenium rectifier; power socket for preamp; printed circuit boards; 4, 8 & 16 ohm output imp.; over-all size 9½" x 9½" x...6½".
  - Mark III Kit...
  - $79.95
  - Mark III Factory wired...
  - $99.95

- **Mark III-70 4-8-16 ohm & 70.7 volt output Kit**
  - $84.95
  - Factory wired...
  - $104.95
  - Mark III-500 500 or 125 ohm output only Kit...
  - $89.95
  - Factory wired...
  - $109.95

- **Stereo 70 Power Amplifier Kit**
  - Two power amplifiers 35 W continuous sine-wave power each both channels driven; full 70 W on mono operation; printed circuit board; tube complement: 7199 driver, push-pull EL34x; frequency response 5.5 dB 15-40,000 Hz; IM distortion less than 1½ at 35 watts; sensitivity
  - 1.3 volts r.m.s. input for 35 watts output; 4, 8 & 16 ohms; estimated time of assembly 4-6 hours.
  - Model 70 Kit...
  - $99.95
  - Model 70 Factory wired...
  - $129.95

- **PAM-1 Mono Preamp Kit**
  - Six inputs; high and low level magnetic phono, tuner, TV, tape, plus option of
  - $429.00
  - $685.00
  - $239.00
  - $37.00

- **PAS-30 Stereo Preamp Kit**
  - Inputs for 3 low level stereo and 4 high level stereo; controls for bass, treble, volume, balance, blend, tape monitor switch, loudness compensation; feedback scratch filter; tone controls out of circuit in "flat" position; RIAA equalization; gain: 60 dB at 1000 Hz on RIAA, 20 dB 20-20,000 Hz at high level inputs; d-c filament supply; tube complement: 2-12AX7 or ECC83, selenium rectifier; 4 a.c. outlets, 2 switched; scuff-proof and washable; 12½ x 6½" x 3½"; 7 lbs; preassembled printed-circuit board. Required power 200 to 400 V.d.c. @ 4 MA, 6 V a.c. @ 0.75 A.
  - Kit...
  - $34.95
  - Factory wired...
  - $59.95
  - PM-1 Panel mounting kit...
  - $2.95

- **SCA-35 Stereo Control Amp Kit**
  - Combines dual-channel preamps & power amps; 17.5 W/ch continuous sine wave power; response 20-20,000 Hz ±25 dB; IM dist. less than 1½ at 17 W;
  - $109.95
  - $109.95
  - $4.95

- **Motorola/Slipstream Deluxe Panel & Knob Kit** (Same as on PAS-3X for modernizing L-2-X units)
  - $13.95
volume, balance, bass, treble, stereo/mono, loudness, on-off, filter; sensitivity 2.5 mV at tape head, 4 mV mag. phono, 1 V at high-level inputs; 8 or 16 ohm outputs; 13" x 10" x 4"; with cabinet.
Kit ........................................ $ 99.95
Factory wired ................................ $139.95

PAT-4 Stereo Preamp
Features special tone-control circuit (out of circuit in "flat" position); rumble filter sw.; high-freq. filter @ 7 kHz, 10 kHz, and 15 kHz plus a flat position. Response 5-100,000 Hz ± 0.5 dB; HD 0.1% @ 3 V output from 20 to 20,000 Hz; IM dist. 0.1% at 3 V output; noise 70 dB below 1 mV cartridge input. 600 ohm output; front-panel input and output jacks; independent bass & treble controls for each channel. 13" x 8" x 4".
Kit ........................................... $ 89.95
Wired ...................................... $129.95

120 Stereo Power Amp
60 W/ch into 8 ohms continuous sine wave, both channels driven; response 5-
100,000 Hz; power bandwidth at 0.5% HD 5-50,000 Hz; 1M & harmonic dist. less than 0.5% at any power level; channel separation 70 dB from 20-20,000 Hz; noise 95 dB below rated output (un-weighted). Regulated power supply. Input sensitivity 1.5 V for 60 W output. 13" x 10½" x 4½".
Kit ........................................ $159.95
Wired .................................... $199.95

Stereo 80 Power Amp
With both channels operating simultaneously & 8-ohm loads, power output is 40 W/ch with less than 0.5% HD from 20-20,000 Hz. Response 15-50,000 Hz ± 0.5 dB; power bandwidth 6-50,000 Hz at 0.5% HD; 1M dist. 0.1% at any power figure. Input sensitivity 1.3 V. Each amp supplied with universal power supply for 100, 120, 220, or 240 V at 50-60 Hz line operation. 13½" w. x 4½" h. x 9" d.
Kit ........................................ $119.95
Factory wired ........................ $159.95

SCA-80 Integrated Amp
Combines Stereo 80 power amp with preamp circuitry. Input sensitivity for phono 3 mV, high-level 0.13 V. Has mag. phono and special level inputs & 3 high-level inputs including tape monitor & tape output. Preamp specs similar to PAT-4 but with different control arrangement, front-panel headphone output, and 1971 EDITION.

speaker selector switch. Universal power supply as in Stereo 80.
Kit ........................................ $169.95
Factory wired ........................... $249.95
Note: 4- and 16-ohm load operation satisfactory with all units.

EICO
"Cortina" 3070 Stereo Control Amp
35 W/ch dynamic power (IHIF) @ 4 ohms (25 W/ch into 8 ohms). All silicon solid-state design without transformers. Response 5-100,000 Hz ± 1.5 dB (8-
60,000 Hz ± 0.5 dB); rise time 4 µs; HD 0.8%; hum & noise 72 dB; channel separa-
tion 50 dB. Input sensitivity: mag phono 4.2 mV & 270 mV for all others; damping factor 30: 1M dist. 2% @ 8 ohms & full power (1% @ 8 W/ch). Has all conventional controls. Supplied with cabinet. 3¾" x 12" x 7½".
Kit ........................................ $ 99.95
Wired ...................................... $139.95

"Cortina" 3150 Stereo Amp
75 W/ch dynamic power (IHIF) into 4 ohms (45½ W/ch into 8 ohms). Re-
sponse 10-50,000 Hz ± 1.5 dB; HD 0.25% from 50-10,000 Hz & 35 W/ch contin-
sine-wave power; 8 ohm load. Sensitivity 4.7 mV for mag. phono, 280 mV for all others. Power bandwidth 20-
20,000 Hz @ 0.5% dist.; continuous sine-wave power 50 W/ch into 4 ohms & 35 W/ch into 8 ohms. Output 4 to 16 ohms. 14½" x 3¼" x 4½".
Kit ........................................ $149.95
Assembled .............................. $225.00

"Cortina" 3080 Integrated Amp
Solid-state design; 16 W/ch IHF dynamic power into 4 ohms (11 W r.m.s. into 8 ohms). Response 20-20,000 Hz ± 3 dB; HD 0.75% at 1 kHz & 8 W output (0.4% at 4 W). Input sensitivity 3.8 mV mag. phono, 300 mV at all other inputs. Damping factor 30 dB min. 1M dist. 1.7% at 5 W, 50/60 Hz operation. 3½" x 12½" x 6½". With vinyl-clad metal cabinet.
Kit ........................................... $59.95
Assembled .............................. $109.95

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E.V. 1244 Control Amplifier

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CROWN

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CIRCLE NO. 18 ON READER SERVICE CARD
1 Amplifiers

32 1/2 W/ch dynamic power with 4 ohm load, both channels driven. Stereo design. Frequency response 20-20,000 Hz ± 1.5 dB; HD 1% at rated power 4-16 ohms output. Has computer-type indicator lights indicating input source; inputs: mag. phono, tuner, aux., high-level tape. Has all conventional operating controls plus speaker “on-off” and headphone jack, 3 1/4" x 8 1/4" x 10 1/4" d. With cabinet...

FISHER

TX-2000 Control Amplifier
Integrated stereo design; dynamic (IHF) power 60 W/ch @ 4 ohms (50 W/ch continuous sine wave @ 1000 Hz); HD 0.5% @ 1000 Hz at rated output & IM 0.8%. IHF power bandwidth 22-24,000 Hz. Sensitivity: phono 2 mV & 7.5 V; tuner 200 mV; tape head 1.8 mV; aux. 1 & 2 200 mV; monitor 250 mV. Has 3-pos. speaker selector; 3-stage high filter; loudness contour; 6-pos. program selector; 4-pos. tape monitor selector; switchable center-channel power output; separate mono/stereo indicators; microphone input, 15 1/2" x 4 1/2" x 12 1/2" d...$349.95
50LW Walnut cabinet...$22.95

TX-50 Integrated Stereo Amp
Features 26 W/ch dynamic power (IHF) at 8 ohms (20 W/ch continuous sine wave). Has main/remote speaker sw. 15 1/2" x 4 1/2" x 9" d...$149.95
60CW, Walnut cabinet...$19.95

HARMAN-KARDON

"Citation" 11 Stereo Preamplifier
Precamp control center with audio equalizer instead of conventional tone controls. Provision for two tape recorders and two monitoring facilities. Has speaker selector switch and two low-impedance headphone receptacles. Response 1-250,000 Hz ± 0.5 dB.
Factory wired...$295.00
Kit...$225.00
Walnut cabinet...$29.95

"Citation" 12 Stereo Power Amp
Power amplifier with 60 W/ch r.m.s., with both channels driven simultaneously into 8 ohms; THD 0.2% from 20-20,000 Hz at full power. Features dual power supply, IM dist. 0.15% at rated output. Hum & noise, 100 dB at 120 watts. Response 5.7-50,000 Hz ± 0.5 dB; power bandwidth 5-35,000 Hz.
Factory wired...$295.00
Kit...$225.00

HEATH

AA-14 Integrated Stereo Amp
Output 15 W/ch dynamic power; response 15-60,000 Hz ± 1 dB; separation 45 dB. Input sensitivity: phono 4.5 mV, tuner & aux. 300 mV. Has 6-position source switch (mono & stereo phono, tuner, and auxiliary); phone jack; speaker switch; 4, 8, and 16 ohm output. 9 1/2" d. x 3 1/4" h. x 12 1/4" Kit AA-14 (less cab. for custom mounting)...$67.95
AE-35 Beige metal cabinet...$3.50
AE-25 Walnut veneer cabinet...$9.95

AA-15 Integrated Stereo Amplifier
Similar in design & performance to Mod...
The SANSUI AU999 is an outstanding, professional control amplifier. 180 watts (at 4 ohms IHF) of music power. Frequency response of 15 to 70,000 Hz, bandwidth from 10 to 30,000 Hz and a distortion factor of less than 0.4% assures you of clean sound reproduction. The SANSUI AU999 offers almost unlimited versatility with its pre- and main amplifier sections designed for independent usage, Triple Tone Control, the capability of handling up to 3 sets of speaker systems and 2 tape decks (or recorders), a stereo balance check and 2 phono input circuits, and much much more... at your franchised SANSUI dealer. $299.95

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KENWOOD

KA-4002 Integrated Stereo Amp
29 W/ch (IHF) dynamic power into 8 ohms (40 W/ch into 4 ohms); 24 W/ch

continuous power into 8 ohms (33 W/ch into 4 ohms); HD 0.5% at rated output. Response 20-40,000 Hz ± 1.5 dB; power bandwidth 18-30,000 Hz; input sensitivity: mag. phono 2.5 mV; tuner, aux tape play 150 mV. Features 2 pairs of mag. phono inputs; main/remote speaker selection; center-channel output. 13" x 5" x 9½" d. $139.95 SR-42 Oiled walnut cabinet $15.00

KA-2002 Integrated Stereo Amp
19 W/ch (IHF) dynamic power into 8 ohms (23 W/ch into 4 ohms); 17 W/ch
continues power into 8 ohms (19 W/ch into 4 ohms); HD 0.8% at rated output. Response 20-30,000 Hz ± 2 dB; input sensitivity: mag. phono 2 mV; tuner, aux tape play, aux. 150 mV. Features 2 pairs mag. phono inputs. 13" x 5" x 9½" d. $99.95 SR-42 Oiled walnut cabinet $15.00.

KA-6000 Integrated Amplifier
Solid-state stereo design; 90 W/ch (IHF)

JVC

5011 Stereo Preamplifier
Features SE A (Sound Effects Amplifier) control system; provides 7-zone tone ad-

justment for each channel within ± 10 dB in 2-dB steps at 60, 150, 400, 1000, 2000, 4000, 6000, and 15,000 Hz: response aux. 10-100,000 Hz ± 0.5 dB. Output 3 V (10-70,000 Hz); input for 1.5 V output; aux., tuner 170 mV; mag. phono 3 mV (100,000 ohms); mag. phono 1 mV (50,000 ohms). tape head 1.2 mV; crystal cartridge 120 mV; mic 2 mV. Power input 100-240 V, 50/60 Hz. 6" x 19" x 13½" d. $699.95

5012 Stereo Power Amp
80 W/ch (IHF) dynamic power; 60 W/ch continuous power; HD 0.5% at 60 W/ch
dynamic power & 10-70,000 Hz; output 4-32 ohms; power bandwidth 10-100,000 Hz with 0 reference at 60 W/ch dynamic power; input sensitivity: 1 V for 60 W/ch dynamic power; input power 100-240 V, 50/60 Hz. 6" x 19" x 13½" d. $699.95
Amplifiers

Dynamic power at 4 ohms, 45 W/ch continuous sine wave power at 8 ohms with both channels driven & from 20-20,000 Hz; power bandwidth 10-50,000 Hz. HD 0.5% at rated output; IM dist. 0.3% at rated output. Sensitivity: phono #1 2 mV, 0.5 mV, 0.05 mV (switchable), phono #2 2 mV, tape head 2.3 mV, mic 2 mV & aux, tuner & tape play 200 mV. 1½ x 5½' x 11½'. With cabinet $249.95

LA-324A Stereo Control Amplifier
20 W/ch (IHF) at 4 ohms. Response 20-20,000 Hz ± 1 dB; HD 0.07%. Inputs for mag. or ceramic phono, tuner, aux. Outputs: main/remote speakers, tape out, headphones. With simulated wood-grain metal case. 12½ w. x 3½' h. x 9½' d. .............................................. $79.95

LA-324A

SG520 "Graphic Controller" Preamp Amplifier
Stereo control center using straight-line controls and illuminated push-button switches. Seldom-used controls and supplementary signal paths concealed behind hinged front panel for easy access. Built-in 1000-Hz front tone and provisions for use with JBL Aural Null balancing system. Response within ½ dB to 20,000 Hz at 3 volts rated output. Harmonic distortion less than 0.15% and IM distortion less than 0.05% at rated output. Hum and noise 1 µV or less referred to low-level phono input. Oiled walnut and olive case available separately ........ $450.00

SE400S Energizer
Stereo power source which takes the place of conventional stereo power amplifiers. Plug-in equalizer board controls damping and makes minor adjustments in frequency-response contour to complement performance of specific JBL speaker systems used. Supplied in brushed gold and olive case for freestanding use. Model also available to match speaker systems of other manufacturers. With equalizer board set "flat," the Energizer can be used as a stereo amplifier with 40 W/ch from 20-20,000 Hz. Response 20-20,000 Hz ± 0.1 dB at full rated power. HD less than 0.15% at rated output. Overload typically less than 0.004 millisecond to recover from 100% single-cycle overload at any frequency in musical range. All specifications are based on 8-ohm load, continuous sine wave with both channels operating simultaneously. 4 to 16 ohms .............................................. $300.00

LA-125TA Stereo Control Amplifier
62½ W/ch (IHF) dynamic power with 4 ohm load; response 20-20,000 Hz ± 1 dB; HD 0.8%; hum & noise -75 dB (tuner input); 6 pairs of inputs: hi and lo mag. phono; ceramic phono; tuner aux.; tape deck; mic input. Outputs: front panel headphones; tape out. Has conventional operating controls plus high/low filters; ext. speaker switch; loudness. Supplied with simulated wood-grain metal case. 13½ x 3½' x 9½' d. .............................................. $129.95

LA-750 Stereo Control Amplifier
40 W/ch (IHF) at 4 ohms. Response 20-20,000 Hz ± 1 dB; HD 0.8%. Six pairs of input switches. With simulated wood-grain metal case. 12½ w. x 3½' h. x 9½' d. .............................................. $79.95

SG520

SE400S

LAFAYETTE

KNIGHT-KIT

KG-865 Integrated Amplifier
Solid-state design; 25 W/ch dynamic power @ 8 ohms (17 W/ch continuous sine wave); response 18-30,000 Hz ± 1 dB; power bandwidth 20-20,000 Hz @ 1% HD; output 16 ohms. Input sensitivity: mag. phono 5 mV; tuner & aux. 400 mV, 3½' x 13' x 10'. 22C3700W Kit .............................................. $79.95
22C3713W Oiled walnut case .................. $14.95

LEAK

Stereo 70 Integrated Amplifier
35 W/ch continuous r.m.s. into 8 ohms (30 W/ch into 16 ohms); 50 W/ch dynam

MARantz

15 Stereo Power Amp
Has 100 W/ch r.m.s. continuous power with both channels driven from 20-

SE400S

SA660 Control Amplifier
Stereo preamp and 60 W/ch power amplifier in a single unit. Preamp sensitivity 4 mV for phono inputs, 0.25 V for high-level inputs. All specifications based on 8-ohm load, continuous sine-wave power with both channels operating simulta

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balance controls; front-panel tape record-er dubbing facilities; center-channel output. Response S-100,000 Hz ± 0.5 dB; HD & 1M dist. each 0.02% @ 3 V output & 20-21,000 Hz. Input sensitivity: phono 1 mV for 1.4 V output & aux. 100 mV for 1 V output. Has high & low filters. 15% x 9% x 89/16", d. $395.00 WC-2 Walnut cabinet .................. $32.50 RPX-33 Rack-mount kit .............. $30.00

MATTES-MARTIN

SSP 200 Stereo Power Amp
100 W/ch continuous power with 4 & 8 ohm loads, both channels driven; response 15-30,000 Hz ± 1 dB; 1M dist. 0.1% at rated output; HD 0.5% at rated output & 20-15,000 Hz. Sensitivity 1 V. 14% x 9% x 5%. $495.00

SSD/1 Stereo Preamp
Features 9-position stepped tone controls (24 dB action); a 4-position h.f. filter; a low-freq. filter; 2 volume controls (one stepped and other continuous vernier); a built-in 1 W/ch phono amplifier (5.6 ohms imp.). Has RIAA & LP phono equalization & 3%/3% & 7/8 ips for tape. Response 10-50,000 Hz ± 1 dB; input sensitivity; mic; tape head, phonos #1 & #2 3.5 mV; tuner, aux. #1, tape monitor 350 mV; power amp. 1 V. Front panel 14% x 4% x 12% deep. $475.00

SSA/200 Integrated Stereo Amp
Combination of SSD/1 preamp & SSP/200 power amp. Case depth 13". Gold finish $875.00

NIKKO

TRM-40 Integrated Stereo Amp
22 W/ch (IHF) dynamic power into 8 ohms (15 W/ch continuous sine wave); response 15-20,000 Hz ± 1 dB; HD 1% at rated output; input sensitivity: mag. phono 2.8 mV; tape head 1.8 mV; ceramic phono 150 mV; aux. 200 mV; tuner $375.00

300 mV; 12" x 3 3/4" x 8 7/16" d. 117 V/240 V, 50/60 Hz power input $99.95

TRM-50 Integrated Stereo Amp
26 W/ch (IHF) dynamic power into 8 ohms; HD & 1M dist. 0.6%; response aux.

20-30,000 Hz ± 1 dB; input sensitivity: mag. phono 2.4 mV; ceramic phono 50 mV; tuner, aux. & tape 300 mV; tape monitor input 300 mV. 13% x 9% x 4%", d. 117 V/240 V, 50/60 Hz power input $119.95

TRM-1200 Integrated Stereo Amp
60 W/ch (IHF) dynamic power into 8 ohms (65 W/ch into 4 ohms); 40 W/ch continuous power into 8 ohms with both channels driven (50 W/ch into 4 ohms). Response aux. 20-40,000 Hz ± 1 dB; HD & 1M dist. 0.3% at rated output. Input sensitivity: phono #1 & #2 2 mV; mic 2 mV; tape, tuner, aux. 220 mV. Features mic input & 2 turntables can be played simultaneously. 15% x 4% x 12%", d. 117 V/240 V, 50/60 Hz power input $249.95

591 Integrated Stereo Amplifier
Features 28 W/ch continuous r.m.s. into 8 ohms with both channels driven (32 W/ch into 4 ohms & 20 W/ch into 16 ohms); 38 W/ch dynamic (IHF) power into 8 ohms. Response 20-20,000 Hz ± 0.5 dB; HD & 1M dist. 0.3% at all power levels; power bandwidth 20-20,000 Hz. Input sensitivity: mag. phono 3.5 mV & tuner, aux., tape & monitor 133 mV. Has main/remote speaker facilities. 16% x 3%/3% x 10%. With walnut cabinet $199.95

PIONEER

SM-100 Stereo Power Amp
105 W/ch dynamic power into 4 ohms (90 W/ch continuous sine wave). THD 0.05%; power bandwidth 10-30,000 Hz ± 1 dB. Response 5-100,000 Hz ± 1 dB; 4, 8, 16 ohms output. Has two pairs of inputs & outputs; damping factor control & switchable input sensitivity. 16½" w. x 11½" x 6½". Supplied with walnut cab. $375.00

SC-100 Stereo Preamp
Response 5-50,000 Hz ± 1 dB; 5 V r.m.s.

SA-900 Integrated Amp
Features 100 W/ch (IHF) dynamic power at 4 ohms & 0.3% dist. (72½ W/ch at 8 ohms) & 20-50,000 Hz ± 1 dB; power bandwidth 20-50,000 Hz with 0.3% dist. Inputs: mag. phono 3.1 mV & 0.155 mV; ceramic phono 71 mV; mic. 1.9 mV; tape head 1.8 mV; tape monitor, tuner & aux. 180 mV; main in 500 mV, 15% x 4% x 4½", h. x 13½", d. With metal case $259.95 Wood cabinet $99.95

SA-700 Integrated Amp
Features 60 W/ch (IHF) dynamic power at 4 ohms & 0.5% dist. (42½ W/ch at 8 ohms) & 20-40,000 Hz ± 1 dB; power bandwidth 20-40,000 Hz with 0.5% dist. Inputs: mag. phono 3 mV & 0.12 mV; main in 500 mV; tuner, aux., & tape monitor 200 mV. 14½", x 4½", h. x 12½", d. With metal case $199.95 Wood cabinet $99.95

SC-700 Preamp
Has 3 dB stepped tone control; muting switch that attenuates sound 20 dB; 2 mag. phono inputs. Response 10-60,000 Hz ± 1 dB; 4, 8, 16, 20 W/ch into 4 ohms & 20 W/ch into 8 ohms. inputs & outputs; damping factor control & switchable input sensitivity. 16½" w. x 11½" x 6½". Supplied with walnut cab. $129.95

SA-500 Integrated Amp
Features 22 W/ch (IHF) dynamic power at 4 ohms & 0.5% dist. (18 W/ch at 8 ohms); 12 W/ch continuous power with both channels driven at 4 ohms & 0.5% mag. phono inputs. Response 10-60,000 Hz ± 1 dB; 4, 8, 16, 20 W/ch into 4 ohms & 20 W/ch into 8 ohms. inputs & outputs; damping factor control & switchable input sensitivity. 16½" w. x 11½" x 6½". Supplied with walnut cab. $129.95
**Amplifiers**

- **SM-700 Stereo Power Amp**
  40 W/ch (1kHz) dynamic power into 8 ohms (60 W/ch into 4 ohms) 32 W/ch continuous into 8 ohms (42 W/ch into 4 ohms). HD 0.3% at 1000 Hz & 10 W/ch. Response 15-60,000 Hz ± 0.5 dB; power bandwidth 15-60,000 Hz. Input sensitivity: 0.5 or 1 V switchable; output; 2 V. (25000 $)

- **SA-700 Stereo Amplifier**
  Features speaker selector for multiple speaker operation. Has two mag phono, aux, and tuner inputs. 35 W/ch dynamic power into 8 ohms; HD 1%; response 20-20,000 Hz; 8 ohms. 4" x 14½" x 11½". Walnut case (25000 $)

- **BA-60 Basic Stereo Power Amp**
  Solid-state design: 30 W/ch dynamic power into 4 ohms (24 W/ch at 8 ohms); 25 W/ch continuous sine wave at 4 ohms with both channels driven (20 W/ch at 8 ohms); HD 0.3% at rated output; IM dist. 0.5% at rated output. Power bandwidth 20-40,000 Hz at 8 ohms; sensitivity 0.7 V ± 3 dB at rated output. 4 to 16 ohms. Features 60 Amp. (990 $)

- **ROTEL**
  **RA-840 Integrated Stereo Amp**
  80 W/ch (HIF) dynamic power into 4 ohms (42 W/ch into 8 ohms); power bandwidth 10-50,000 Hz; input sensitivity: mag. phono 2 mV; tape head 1.5 mV; ceramic phono, tuner, tape & aux. 100 mV; tape head 6-40,000 Hz ± 0.1 dB at max. output. HD 0.1% at rated output. Has main/remote speaker sw. 14½" x 10½" d. x 5½" $375.00

- **SA-350 Stereo Amplifier**
  25 W/ch dynamic power @ 8 ohm load; response 20-20,000 Hz. Has auxiliary input, and tape output. Sensitivity: mag. phono at 5 mV; aux. 250 mV, in walnut cabinet. Size 10" d. x 14" x 3" h. SA-350 (79.95 $)

- **AU-999 Integrated Amp**
  70 W/ch (1kHz) dynamic power into 8 ohms (90 W/ch into 4 ohms); 50 W/ch continuous into 8 ohms with both channels driven (40 W/ch at 8 ohms); response 5-100,000 Hz ± 1 dB at normal listening level; power bandwidth 10-30,000 Hz at 8 ohms; HD & IM dist. each 0.4% at rated output; input sensitivity: phono #1 & #2 2 mV; mic 3 mV; tuner & aux. 200 mV. AU-999 (299.95 $)

- **BA-90 Basic Stereo Power Amp**
  Same styling as BA-60; features 45 W/ch dynamic power at 4 ohms (35 W/ch at 8 ohms); 32 W/ch continuous sine wave at 4 ohms with both channels driven (28 W/ch at 8 ohms); HD & IM dist. 0.3% at rated output. Power bandwidth 15-50,000 Hz at 8 ohms; response 15-100,000 Hz ± 1 dB at 8 ohms; input 1 V ± 3 dB; output 4-16 ohms. Features phono hum; switchable phase switch. Overall size 7½" x 4½" x 14½" $119.95

- **AU-222 Integrated Amplifier**
  Solid-state stereo design: 23 W/ch dynamic power at 8 ohms (20 W/ch at 4 ohms; 18 W/ch continuous sine wave at 8 ohms with both channels driven (16 W/ch at 4 ohms). HD & IM dist. 0.8%. Power bandwidth 20-20,000 Hz at 8 ohms: response 20-30,000 Hz ± 1 dB; output 4 to 16 ohms. Has six inputs; two phono & tape monitor sw. 11½" x 4½" x 10½" $119.95

- **AU-555 Integrated Amplifier**
  Solid-state stereo design; 30 W/ch dynamic power at 4 ohms (25 W/ch at 8 ohms); 25 W/ch continuous sine wave at 4 ohms with both channels driven (20 W/ch at 8 ohms). HD & IM dist. 0.8%. Power bandwidth 20-30,000 Hz ± 1 dB at normal listening level; output 4 to 16 ohms. Has speaker selector sw. (A, B, A + B, Off); output 5 in (rated output 1 V). Four outputs & seven inputs; two phono inputs; tape monitor sw.; direct tape monitor; mic input. 15" x 4½" x 11½" $159.95

- **SCOTT, H.H.**
  **499 Four-Channel Stereo Amp**
  Features 8¾ W/ch (35 W total) continuous power at 8 ohms with all 4 channels driven; power bandwidth 15-25,000 Hz; response 15-30,000 Hz ± 1 dB; HD 0.5% at rated output; Input sensitivity: mag. phono high 3 mV; low 0.3%; tape 1 mV; mic. 10 mV. Features speaker phasing switches; tape equalization sw.; individual speaker fuses; 4 individual vu meters; 4-channel tape monitor; 4-channel balancing controls. 18½" x 11½" d. x 6½" h. With walnut cabinet $599.95

- **SHERWOOD**
  **Model S-9500c Control Amplifier**
  57 W/ch dynamic power @4 ohms with one channel driven at a time (45 W/ch r.m.s.) stereo design. Response 20-20,000 Hz ±1 dB. Power bandwidth 15-25,000 Hz ±1%; HD .33% at rated output; IM dist. 15% at rated output; hum & noise -60 dB (phone) -80 dB (input); sensitivity: 1.6 mV variable phone; 20 V turns; channel separation 45 dB @ 1 kHz. Has 6 high-level & 4 low-level inputs; 4 to 16 ohm speaker, headphone & stereo record outputs; center-channel speaker output, 23 silicon transistors & 2 silicon rectifiers. Has all conventional operating controls. Size 14" x 10½" x 4½" $159.95

- **WALNUT Leatherette case. Prices quoted are "Fair Trade Minimum Resale"**

- **SINCLAIR**
  **Neoteric 60 Integrated Stereo Amp**
  30 W/ch (HIF) dynamic power into 8 ohms (24 W/ch into 8 ohms); 15 W/ch continuous sine wave into 8 ohms with both channels driven (12 W/ch into 15 ohms); HD 0.1% at 13 W & 8 ohms; 5-15 ohms output. Response 40-20,000 Hz ± 1 dB. Input sensitivity: mag. phono 28 mV; ceramic phono 28 mV to 40 mV; radio 17 to 50 mV; aux. 25 mV to 990 mV; tape 110 mV. Has main/remote speaker switching; 110 to 250 V a.c. power source. 8½" x 2½" x 9¼" d. Anodized aluminum case with a solid rosewood front. $225.00

- **SONY**
  **TA-1120A Stereo Amp**
  Same as TA-3120A except has preamp added. Response 5-200,000 Hz +0.2 dB; HD 0.05% at 1000 Hz & at rated output; IM dist. 0.2% sensitivity; tuner, aux. **STEREO HIFI DIRECTORY**
TA-3120A Stereo Power Amp
50 W/ch continuous power @ 8 ohms
(80 W/ch @ 4 ohms). 60 W/ch dynamic power @ 8 ohms (100 W/ch @ 4 ohms).
response 5-200,000 Hz ±0.2 dB; HD 0.05% at 1000 Hz (at 1 W); HD is 0.01%; IM dist. 0.15% @ rated output; S/N ratio 110 dB; damping factor 40 @ 8 ohms; sensitivity 1 W; 0.2% through r.m.s. TA-1010 12 #2 #1 x 1.2";$24.50 TA-3200F Integrated Stereo Amp
Power amp inputs with selector sw. for normal or separate operation.

TAC-9 Walnut cabinet optional.

TA-3060 Stereo Power Amp
50 W/ch (IHF) dynamic power (30 W/ch r.m.s.). HD at rated power 0.1% (0.02% at 1/2 W); IM dist. at rated power 0.1% (0.03% at 1/4 W); S/N ratio (IHF) 110 db (Aux); damping factor 180

TAC-3 Walnut cabinet ............... $159.50

TA-2000 Stereo Preamp
Response 20-100,000 Hz ±1 dB; IM dist. 0.05% through low-level phono circuits; sensitivity: tape head, phone #1 & #2 2.0 mV max. (adjustable), has additional phone 0.06 mV; tuner, aux. #1 & #2; tape input 120 mV; mic 1.2 mV; TA-1010 15 #2 #1 x 1.2";$24.50 TA-1144 Integrated Stereo Amp
50 W/ch (IHF) dynamic power (30 W/ch r.m.s.). HD @ 1/2 W; S/N ratio (IHF) 90 dB (Aux); damping factor 70. Features two phono inputs, speaker selector for main/remote, stepped bass & treble controls, and preamp outputs.

Power amp inputs with selector sw. for normal or separate operation.

TAC-9 Walnut cabinet optional.

TA-3060 Stereo Power Amp
50 W/ch (IHF) 80,000 Hz into 8 ohms; response 20-80,000 Hz ±0.2 dB; IM dist. at rated output; S/N ratio (IHF) 110 db (Aux); damping factor 180

TAC-9 Walnut cabinet ............... $219.50

TA-2000 Stereo Preamp
Response 20-100,000 Hz ±1 dB; IM dist. 0.05% through low-level phono circuits; sensitivity: tape head, phone #1 & #2 2.0 mV max. (adjustable), has additional phone 0.06 mV; tuner, aux. #1 & #2; tape input 120 mV; mic 1.2 mV; TA-1010 15 #2 #1 x 1.2";$24.50 TA-1144 Integrated Stereo Amp
50 W/ch (IHF) dynamic power (30 W/ch r.m.s.). HD @ 1/2 W; S/N ratio (IHF) 90 dB (Aux); damping factor 70. Features two phono inputs, speaker selector for main/remote, stepped bass & treble controls, and preamp outputs.

Power amp inputs with selector sw. for normal or separate operation.

TAC-9 Walnut cabinet optional.

TA-3060 Stereo Power Amp
50 W/ch (IHF) 80,000 Hz into 8 ohms; response 20-80,000 Hz ±0.2 dB; IM dist. at rated output; S/N ratio (IHF) 110 db (Aux); damping factor 180

TAC-9 Walnut cabinet optional.

TA-2000 Stereo Preamp
Response 20-100,000 Hz ±1 dB; IM dist. 0.05% through low-level phono circuits; sensitivity: tape head, phone #1 & #2 2.0 mV max. (adjustable), has additional phone 0.06 mV; tuner, aux. #1 & #2; tape input 120 mV; mic 1.2 mV; TA-1010 15 #2 #1 x 1.2";$24.50 TA-1144 Integrated Stereo Amp
50 W/ch (IHF) dynamic power (30 W/ch r.m.s.). HD @ 1/2 W; S/N ratio (IHF) 90 dB (Aux); damping factor 70. Features two phono inputs, speaker selector for main/remote, stepped bass & treble controls, and preamp outputs.

Power amp inputs with selector sw. for normal or separate operation.

TAC-9 Walnut cabinet optional.

TA-3060 Stereo Power Amp
50 W/ch (IHF) 80,000 Hz into 8 ohms; response 20-80,000 Hz ±0.2 dB; IM dist. at rated output; S/N ratio (IHF) 110 db (Aux); damping factor 180

TAC-9 Walnut cabinet optional.
Performance

*Audio magazine says:
“It is extremely attractive with its base and dust cover, both of which are optional accessories, and it performs superbly. In over twenty hours of use, the unit performed flawlessly, with never a fault in its changing operations during that time. Naturally, we cannot test any equipment to destruction and still produce a number of profiles each month. However, Garrard’s reputation practically guarantees continued high-quality performance for years, and any user should be completely satisfied with this model, which represents the culmination of many years of turntable manufacture.”

Price

**Stereo Review says:
“At a time when most automatic turntable prices are soaring, it is encouraging to note that the price of the SL95B is unchanged from that of the SL95 ($129.50). A number of different bases are available ranging in price from $6.50 to $19.95. A dust cover that fits all bases is $6.50.”

Unbeatable combination

Garrard’s SL95B

Automatic Turntable $129.50.
For literature write Garrard, Westbury, N.Y. 11590
British Industries Co.
CIRCLE NO. 13 ON READER SERVICE CARD
ACOUSTIC RESEARCH

AR Turntable
Two-speed (33⅓ rpm & 45 rpm) turntable and arm combination; complete with oiled-walnut base, transparent dust cover, and accessories such as needle force gauge, overhang adjustment device, etc.; meets NAB specifications for broadcast equipment on wow, flutter, rumble, and speed accuracy; 3.3 lb machined, individually balanced aluminum platter is belt-driven from synchronous motors; insensitive to external shock or to acoustic feedback because of internal suspension; arm damping, which operates if arm is dropped, is released during play; less cartridge $87.00 Single speed, 33⅓ rpm $84.00

DUAL

All Dual models offer the following features; dynamically balanced tonearm does not require critical leveling of chassis; direct-dial settings for stylus force and anti-skating; 6% pitch control for all three speeds (33⅓, 45, 78); fully 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 operates with both automatic and manual starts; jamproof slipclutch engagement between tonearm and cycling mechanism; quick-release cartridge holder with stylus overhang adjustment. All prices are less base and cartridge.

DUAL 1219 Professional Automatic Turntable
Features in addition to those on all Duals include: Mode Selector which lowers tonearm to parallel tonearm to record for 15° 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. Damped counterbalance with coarse and fine adjust, plus 0.01 gram clickstops. Separate anti-skating scales for conical and elliptical styli. Synchronous/continuous-pole motor. 12” 7-pound one-piece dynamically balanced cast platter. Cue control system with silicone-damping in both directions. Four-point damped spring suspension. 14½” x 12”, plus 1” at rear and right for tonearm overhang. 3” clearance above, 3” clearance below mfg. board. $175.00


Dual 1209 Auto/Professional Turntable
Features in addition to those on all Duals...
2 Changers & Turntables

include: tracking down to 1/4 g; damped counterbalance with coarse and fine adjustments plus 0.01 g click stops; synchronous/bi-torque motor; one-piece balanced 4-lb cast platter; separately calibrated anti-skating scales for conical & elliptical stylus. 13" x 10¾" plus 1" at rear and right for tonearm overhang. 5" above and 2½" below mg board. ..........$129.50

Dual 1215 Auto/Standard Turntable
Features in addition to those on all Duals include: tracking as low as 1 g; fine-adjust damped counterbalance; synchronized direct-dial tracking force with anti-skating settings; ¾-lb platter. 12½" x 10¾". 5" above and 2½" below mg board. ..........$99.50

Accessories for 1209, 1215
WB-12: Oiled walnut base ..........$10.95
DC-2: Smoke tinted dust cover ..........$10.95

EMPIRE

598 “Troubador” Turntable
Features Model 990 tonearm with “Dyna-Lift”; anti-skating adj.; hysteresis synchronous motor with belt drive; 12" platter; wow & flutter 0.01%; 3 speeds (33, 45 & 78 rpm); push-button power control; built-in 45 rpm spindle. Will track cartridges down to 0.1 g. Size with base & dust cover: 17¾" x 15¾" d. x 8"; size without base & dust cover: 16" d. x 13½" x ¾" above mg. board & 3½" below. Without base & dust cover ..........$199.95
Base & cover ..................$34.95

GARRARD

Standard features of all “Synchro Lab” (SL) models include: viscous-damped cueing and pause. On SL95B, SL75B, and SL72B tonearm descent is also fully damped during automatic play. Exclusive on the SL95B, SL75B, and SL82B 2-point record support for automatic play. Up to six records are supported at center 40 & edge. Other Synchro-Lab models have “Swing-Away” overarm. All models have same motor drive, adjustable anti-skating controls & slide-in cartridge clip. Except as noted all are less base & cartridge.

SL95B Automatic Turntable
Three-speed (33½, 45, 78 rpm) design. Has low-mass tonearm of Aframisia wood set into aluminum; calibrated stylus pressure gauge with window scale for easy reading gyroscopically gimbaled tonearm mounting. 15¾" x 14¾" x 4½" above & 3" below the mg. ..........$129.50
SL75B. Same as SL95B except has low-mass aluminum tonearm and different type of tonearm pivot & pressure gauge. ..........$109.50
SL72B. Same as SL93B except has a low-mass tubular tonearm ..........$89.50

SL65B Automatic Turntable
Three-speed (33½, 45, 78 rpm) design. Has low-mass tubular aluminum tonearm dynamically balanced with adjustable counterweight & stylus pressure gauge with optical scale ..........................$79.50
SL55B. Same as SL65B except with different tonearm & pivot assembly. Has tubular tonearm with fixed-position damped counterweight ..........$59.50
SL40B. Similar in all respects to Model SL55B except economy version ..........$44.50

Model 30 Automatic Turntable
For either single-play manual operation or as a changer intermixing record sizes. Has cast aluminum tonearm, stylus pressure adjust; supplied with ceramic diamond stylus cartridge; 4-speed design. 15½" w. x 12½" x 4½" above & 2½" below motorboard. ..........$39.50
SP20B Manual Player
Features semi-counterbalanced tonearm with adjustable stylus pressure; automatic arm return to rest & shut-off after play. Plug-in cartridge head; has weighted turntable & will trip at 2 grams. 14½" x 12½" x 3½" (16¾, 33⅓, 45, and 78 rpm) design. ..........$37.50

Power-Matic Bases
Supplied with 117 V line switch for operating entire music system or amplifier and/or receiver only while record player is shut off. Ebony & walnut. B1P for Models SL65B, SL55B, 40, 30, SP20B ..........$14.95
B2P for Models SL95B, SL75B & SL72B with covered accessory tray ..........$15.95

Injection Molded Bases
B1 Same as B1P except without switch. ..........$5.50
B2 Same as B2P except without switch. ..........$6.50
Wood bases also available in place of B1 & B2 designs.

Dust Covers
D1 for B1, B1P bases ..........$5.50
D2 for units taking B2, B2P bases ..........$6.50

SLX-2 Automatic Turntable Module
3 speed, (33½, 45 & 78 rpm) design with built-in stylus adj.; adjustable counterbal-

ance; low-mass tubular aluminum tone-
arm; manual/cueing pause control; mag. cartridge. With clear styrene dust cover & base. 15¼ x 14½ d. ..........$69.50

SLX-3 Automatic Turntable Module
Combines turntable with matched magnetic cartridge, base, and dust cover. Four-speed design; similar to SLX-2 except has more advanced turntable features similar to “Synchro-Lab” series. ..........$99.50

X-10 Automatic Turntable Module
Combines turntable with matched stereo ceramic cartridge; base, and dust cover. Three-speed design with flip-over diamond stylus; swing-away overarm plays
For cartridges that can track as low as 0.1 gram

- Features all new Empire 990... world's most perfectly balanced playback arm.
- No acoustic feedback even when you turn up gain and bass.
- World's finest feedback motor—hysteresis synchronous type maintains speed accuracy with zero error.
- Lowest rumble of any turntable tested, 90dB (RRLL), wow and flutter, 0.1%.
- Exclusive pneumatic suspension lets you dance, jump or rock without bouncing the stylus off the record.
- Tone arm floats down or lifts up from a record surface bathed in light. Pick out the exact selection you want, even in a darkened room.

**New Troubadour 598 record playback system**

$199.95—less base and cover/walnut base and plexiglas cover—$34.95

**MAGNAVOX**

1K8888 “Micromatic” Record Player

Features 11" turntable, cue control & stylus pressure control. Supplied with dust cover, 45 rpm adapter, diamond/sapphire cartridge & walnut cabinet.

$99.95

**MIRACORD**

770H Automatic Turntable

Features 2 speeds (33 & 45 rpm); adjustable speed control over 6% range; built-in illuminated speed indicator visible on rim of turntable, with digital readouts; built-in elapsed time stylus-wear indicator; adjustable vertical stylus angle; (has lever indicating position from manual to stack of 8 records). Less cartridge...

$225.00

RB-4 Deluxe recessed wood base...

$111.95

PCA-600 Power control adapter...

$8.95

SA-383 45 rpm spindles...

$6.50

**PW-50H Auto/Manual Turntable**

Stacks up to 10 records for automatic play & can be used manually. Features Papst hysteresis-synchronous motor; low-mass, lightweight tonearm for ½ g. tracking; interchangeable cartridge inserts; anti-skating control; illuminated speed indicator; 4-speed operation; stylus overhang gauge; built-in stylus brush; built-in cueing system; 12" non-ferrous turntable. 14½" x 12½" d. (5½" above motorboard & 3½" below); needs 2" right-side clearance for arm. Less cartridge & base...

$169.50

CR-50 Plug-in head...

$5.00

PCB-50W-X Power control base allows automatic shut-off of entire system which

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STEREO HI-FI

Direct service from the factory to you.

Systems that feature handsome walnut & finished enclosures, surrounding perfectly coordinated high compliance speakers, that surround you with the full dynamic spectrum of sound.

A very special feature is their price.

MODEL CMS 83, $40, comparable to $69 value.

MODEL CMS 124, $90, comparable to $160 value.

Money back guarantee if not satisfied.
2 Changers & Turntables

<table>
<thead>
<tr>
<th>Description</th>
<th>Price</th>
</tr>
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<tbody>
<tr>
<td>Plugs into back of base. 16½&quot; x 14½&quot; x 3½&quot;. Oiled walnut</td>
<td>$25.00</td>
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<tr>
<td>RB-4 Deluxe recessed wood base in walnut</td>
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<tr>
<td>DCP-4 Dust cover</td>
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<td>RB-5 Wood finish molded base</td>
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<tr>
<td>MB-1 Mounting board</td>
<td>$3.00</td>
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630 Automatic Turntable

Features 4-speed (78, 33½, 45, 16½ rpm) anti-skate system with adjustable calibrated dial; cueing device; gram calibrated tracking-force adjustment. Will track at less than 1 g; cueing device; non-ferrous turntable. Will play single records manually or automatically and stacks up to 10 records in automatic sequence; over-all design similar in appearance to Model 620. Less base & cartridge $129.50

620 Automatic Turntable

Features 4-speed (78, 45, 33½ & 16½ rpm) anti-skate system with adjustable calibrated dial; cueing device; gram calibrated tracking-force adjustment. Will track at less than 1 g; will play single records manually or automatically and stacks of up to 10 records in automatic sequence. Chassis plate 13½" w. x 11½" d. Less base & cartridge $109.50

750 Automatic Turntable

Features four speeds (16½%, 33½%, 45 & 78 rpm); manual or automatic operation (one record continuously or 10 automatically); 12" non-magnetic turntable; 7", 10", or 12" records. Rumble 40 db, wow & flutter 0.06%, tracking error less than 0.5%/inch. Has stylus force adj. (0-6½ g); cueing device; anti-skate adjustment and dynamic & static balance in horizontal and vertical planes. 14½" w. x 12½" d. x 7½" above mtg. board & 3½" below $139.50

PE-2020 Automatic Turntable

Similar to PE-2018 except has additional 16½ rpm speed; extra heavy & larger diameeter turntable. Fluter & wow < 0.1% rumeble ~58 db. 14½" w. x 12" d. Less base, cartridge & dust cover $129.95

PE-2038 Automatic Turntable

3-speed (33, 45, 78 rpm) with vertical tracking angle (VTA) control & separate cueing. Has cast metal 10½" (4.4-lb) platter, 4-pole induction motor, pitch control (±3%). VTA adjustable up to 8 records. Stylus force 0.6 g; tracking error 1.8% max.; wow & flutter 0.15%; rumeble ~56 db (related to 10 cm/sec, 1000 Hz). 13" x 11½" x 6½" h. x 3½" d. $115.00

PE-2040 Automatic Turntable

Deluxe version of PE-2038. Has 11½" dia., 7½-lb zinc die-cast platter. Wow & flutter < 0.1%; rumeble ~58 db. 14½" x 12" $145.00

Accessories for PE-2018/PE-2038

<table>
<thead>
<tr>
<th>Item</th>
<th>Price</th>
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<td>BV-18 Standard base</td>
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<td>TX-18/20 Dust cover</td>
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<td>SP-145 45 rpm spindle</td>
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<td>CS-2018 Cartridge slide</td>
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<td>PL-2020 Deluxe base &amp; cover</td>
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<td>SP-245 45 rpm spindle</td>
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<tr>
<td>CS-2020 Cartridge slide</td>
<td>$5.95</td>
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PL-41A Turntable Assembly

Two speed (51 & 45 rpm) belt-drive design with oil-damped tonearm elevator. Has 4-pole hysteresis synchronous motor; induced magnetic-type cartridge with 0.3-mil diamond stylus; anti-skating device & direct-reading stylus pressure gauge. Wow & flutter 0.8%; response 10-25,000 Hz; 3.5 mV output @ 1000 Hz & 50 mm/sec. Stylus pressure 2.3 g; 19½" x 7½" x 16" d. With oiled-walnut base & dust cover. $220.00

PL-A25 Automatic Turntable

Belt-driven design with tonearm that provides auto lead-in & return, cut & repeat.

Has lateral balancer and is oil-damped. Includes walnut base & induced magnetic cartridge with 0.3-mil diamond stylus. Has plug-in type cartridge shell; two speeds (33 & 45 rpm); 2-3 g stylus pressure; output 3.5 mV @ 1 kHz & 50 mm/sec. Response 10-25,000 Hz; S/N ratio ~46 db; wow & flutter 0.1%. Has universal power supply (110, 117, 130, 220, or 240 volts, 50-60 Hz); 17½" w. x 6½" x 13½" $129.95

REALISTIC LAB-36 Automatic Turntable

British-built; features synchronous motor; cast turntable; counterweighted arm; micrometer stylus force adjustment; anti-skate control; viscous cueing control; automatic tonearm lock and a muting & pop filters; four-speed system mounted on deluxe base with Realistic/Shure ¾½ /g elliptical diamond magnetic cartridge installed. $79.95

REALISTIC/Miracord 40A Automatic Turntable

Features four speeds (16, 33, 45 & 78 rpm); plays 7", 10", 12" records, but will not intermix. Has a 4-pole, single-phase synchronous motor and a hydraulic tonearm cueing device. Includes a Realistic/Shure elliptical diamond magnetic ¼ gram tracking cartridge and a walnut-grain base. $119.95

REK-O-KUT Model B-12H Stereotable

3-speed: hysteresis synchronous motor; 12" aluminum turntable; rubber mat; rim drive by idler wheel; noise level: better than 59 dB below average recording level; 17½" w. x 16", height above deck 3", height below deck 6½" $159.00

Base BH walnut. $18.95

CVS012 Variable Speed Turntable

Continuously variable speed control from 25 to 100 rpm. Ideal for sound effects, dance studios, skating rinks, and instrument instruction. $169.00

Supplied with base, tonearm, and cartridge... $225.00

SHERWOOD SEL-100 Automatic Turntable

Features two speeds (33½ & 45 rpm); beam-of-light/photoelectric cell end-of-record tonearm trip, hydraulically damped cueing; two separate low-speed motors (1 for drive, 1 for record changing); intermix record size handling & stylus pressure adjust with readout from 0.5 to 4 g. 17½" x 13½" x 5½" h. Less base $150.00

STEREO HI-FI DIRECTORY
Our Professional Series.
For those who want the best, no matter how little it costs.

When you first start shopping around for automatic turntables, you'll discover that our Professional Series is priced pretty much the same as our competition.
But there are two important differences.

Nothing else to pay for.
Ours is what we call a Total Turntable. That means we give you a custom base, dust cover, and on two of the models, a Shure magnetic cartridge. You won't have to shell out six dollars here, eight dollars there, and forty dollars somewhere else.

Practice makes perfect.
BSR makes more automatic turntables than everybody else in the business put together. In this world of planned obsolescence and outrageous repair bills, it's reassuring to know that BSR McDonald has the lowest warranty return figures in the industry.

Don't let our lower prices scare you. Our Professional Series turntables have all the important features. Synchronous motor. Viscous-damped cue and pause. Dual-range anti-skate control. Full sized platter. Micrometer stylus pressure control. And more.

Feature for feature, BSR McDonald is your best buy in automatic turntables. When you're shopping, make sure the dealer shows you a system with a BSR McDonald turntable. You'll be off to a great start.

Write for a free full color catalog on all our automatic turntables to BSR (USA) Ltd., Blauvelt, N.Y. 10913.
2 Changes & Turntables

SONY

TTS-3000A Servo-Controlled
Turntable
2-speed (33 1/3 & 45 rpm) design; has builtin strobe disc & a speed control adjustment. Motor speed is maintained by a servo control amplifier which maintains constant turntable speed. Servomorphic is powered by a low-speed d.c. motor; has belt drive. Rumble -47 dB; wow & flutter 0.05% r.m.s. 14″w. x 15″d. x 3″ above mtg. board with Sony PUA-237 or 286 tonearm and 3/4″ below motorboard
$149.50
TAC-2A Base using 12″ tonearm $23.50
TAC-3 Base using 16″ tonearm $39.05
TAC-4 Motorboard to mount 16″ tonearm $14.50
DU-4 Tinted dust cover for TAC-2A base $19.95
PS-180 Mono Combination
Combines 2-speed (33 1/3 & 45 rpm) turntable; tonearm; base; dust cover. Wow & flutter 0.08% rumble -41 dB. Has d.c. servo motor with belt drive. Stylus force 0.3 g. Has cueing & anti-skating devices.
$199.50
SH-120 Cartridge mtg. shell $4.95

THORENS

TD-125 Transcription Turntable
Features an electronic pitch control governed by freq. change of a Wien-bridge transistorized oscillator. Motor speed is 250 rpm at 33 1/3 rpm platter speed by dropping synchronous freq. from 60 to 37 Hz. Three-speed (16%, 33 1/3, 45 rpm) design; wow & flutter 0.08% rumble 48 dB (unweighted). Has dynamically balanced 12″ die-cast turntable. Replaceable tonearm mounting boards are available for 12″ or 16″ arms. (Predrilled mtg. boards for Ortofon RG2G & RS212 tonearms are available at 1″. (20″ with 10″ tonearm) x 14″ w. x 5″ h. $205.00
TD-125B On wooden base $220.00
TD-125AB With arm & base $300.00
TD-125LB On base for use with 16″ tonearms $275.00

TD-150 Mk II Transcription Turntable
Dual-speed (33 1/3 & 45 rpm). Features viscous-damped cueing device; 7 lb, 12″ anti-magnetic platter; arm resonance below 10 Hz; adj. tracking force 0.5-3.5 g. Thorens TP13A tonearm. Double synchronous 16-pole motor. Wg & flutter ≤0.09; rumble 43 dB. Has plug-in cartridge shell. 15% w. x 12 1/4″ x 5 1/2″. Base height 2 1/2″. With tonearm & wooden base $310.00

Accessories
WB-125 Walnut base for TD-125 $15.00
TX-11 Dust cover for TD-150 MKII $10.00
TX-25 Dust cover with hinge for TD-125 $30.00
TX-25L Dust cover with hinge for TD-125LB $70.00
TX-44 Dust cover for TD-125B $30.00
TD-125AB $15.00
CE-509 Molded mounting frame for TD-125 $15.00
AS-25 12″ tonearm mounting board for TD-125 $3.00
AS-255ME 12″ tonearm mounting board for TD-125 & SME tonearm $3.00
AS-25/16 16″ tonearm mounting board for TD-125 $3.75
AS-25L 16″ tonearm mounting board drilled for Ortofon RMG 309 tonearm & SME $3.75
AS-25P 12″ tonearm mounting board drilled for Ortofon RS-212 tonearm & SME $2.00
TP-50 Plug-in shell for TD-150 MKII & TD-125AB tonearms $7.00

V-M

1542 Record Changer/Cartidge
4-speed (16,33 1/3 & 78 rpm) design; rumble 1.8%; wow 0.42% r.m.s.; flutter 0.21% r.m.s. Comes complete with walnut base, dust cover, automatic needle cleaning brush & Shure magnetic cartridge with 0.6-mil spherical diamond stylus. 3 g. tracking force. Response 20-20,000 Hz; output 8 mV at 1000 Hz. 6″ h. x 14 1/2″ x 13/16″ d. $105.00

1555 Automatic Turntable/Cartidge
2-speed (33 & 45 rpm) belt-driven design; wow 0.5% at 33 rpm; flutter 0.15% r.m.s. at 33 rpm. Will handle six 12″ or eight 7″ records & 6″ to 12″ intermixed. Has separate motors for turntable & changing mechanism; an extra-long (9 1/2″ from pivot to stylus) tonearm; photocell cycle change sensor & display shut-off. Can be used to shut off entire hi-fi system. Comes complete with walnut base, dust cover & Shure magnetic cartridge with 0.6-mil spherical diamond stylus. 5.5 mV at 1000 Hz output. 14 1/2″ x 19″ x 15″ d. $220.00

YAMAHA

YP-70 Turntable
Single-play, 2-speed (33 1/3 & 45 rpm) design; wow & flutter 0.08%. Features belt drive with separately floating motor drive assembly; static balanced tonearm; plug in type cartridge shell & 0.5 g stylus pressure adjust. Supplied with wood cabinet; dust cover & magnetic stereo cartridge with 0.7-mil diamond stylus (4 mV output). Response 10-20,000 Hz; 110-240 V operation. 19″ x 16″ x 6″ $209.00

STEREO HI-FI DIRECTORY
"If you're a pro, you can't help but be impressed with the new VM PROFESSIONALS."

"I am particularly impressed with the receiver. The VM PROFESSIONAL 1521. It has a new type filter that really gives you great FM selectivity. And the stereo separation! It's almost as good as some 8-track playbacks I heard in recording studios.

"And I really like the VM PROFESSIONAL automatic turntable. The "Synchro-Matic" 1555. It tracks beautifully. I can't pick up any tonal variation from the beginning to the end of a record. That's probably because the tone arm is longer, 9 1/2 inches. And the tripping mechanism is photo-electric, so there's no mechanical distortion.

"It's really great at reproducing those nuances and shading you work so hard to get out of a vocal or arrangement.

"And the spindle! Really something to see. It gently lowers records all the way down to a motionless platter. That's what I call loving care.

"Of course the speakers make the whole outfit pay off. They're VM's new Spiral Reflex System speakers. Compact. And very efficient. Gives you really clean basses and horns. And none of the instruments ever sound strained or pushed, even in attack-passages.

"And another thing, about 95% of all the component parts in the VM PROFESSIONAL line are made in America. And I know it isn't fashionable, but to me that means better and tougher.

"The only problem I have with my VM PROFESSIONAL outfit is, I can't decide whether to leave it at my studio or take it home.

"I just may have to buy another one."

For engineering specs on the complete VM Professional Series write:

VM CORPORATION
Dept. 74, P.O. Box 1247, Benton Harbor, Michigan 49022 or call direct, Area Code 616-925-8841. (Ask for Dept. 74.)

1971 EDITION  CIRCLE NO. 80 ON READER SERVICE CARD  45
ADC

All cartridges are induced magnetic types with 47,000-ohm recommended load imped... (5.5 cm/sec recorded velocity.

ADC 27 Cartridge
Output 4 mV; tracking force 0.6-1 g; response 10-22,000 Hz ± 2 dB; compliance 40 x 10^-4 cm/dyne. Has elliptical stylus $65.00

ADC 10E-MK1 Cartridge
Output 4 mV; tracking force 0.6-1 g; response 10-20,000 Hz ± 2 dB; compliance 35 x 10^-4 cm/dyne. Has elliptical stylus $39.50

ADC 550XE Cartridge
Output 5 mV; tracking force 0.6-2 g; response 10-20,000 Hz ± 2 dB; compliance 35 x 10^-4 cm/dyne. Has elliptical stylus $44.95

ADC 660XE Cartridge
Output 5 mV; tracking force 0.6-2 g; response 10-20,000 Hz ± 3 dB; compliance 30 x 10^-4 cm/dyne. Has elliptical stylus $39.95

ADC 990XE Cartridge
Output 5 mV; tracking force 1-2 g; response 10-20,000 Hz ± 3 dB; compliance 25 x 10^-4 cm/dyne. Has elliptical stylus $29.95

ADC 220XE Cartridge
Output 6 mV; tracking force 1-2 g; response 10-18,000 Hz ± 3 dB; compliance 20 x 10^-4 cm/dyne. Has elliptical stylus $25.95

ADC 220XE Cartridge
Output 6 mV; tracking force 1-2 g; response 10-18,000 Hz ± 3 dB; compliance 20 x 10^-4 cm/dyne. Has spherical stylus $20.00

ADC 25 Cartridge System
Output 4 mV; tracking force 0.6-1 g; response 10-24,000 Hz ± 2 dB; compliance $60.00

ADC 27 Cartridge
Output 4 mV; tracking force 0.6-1 g; response 10-22,000 Hz ± 2 dB; compliance 40 x 10^-4 cm/dyne. Has spherical stylus $20.00

ADC 25 Cartridge
Output 4 mV; tracking force 0.6-1 g; response 10-24,000 Hz ± 2 dB; compliance $60.00

ADC 220XE Cartridge
Output 6 mV; tracking force 1-2 g; response 10-18,000 Hz ± 3 dB; compliance 20 x 10^-4 cm/dyne. Has spherical stylus $20.00

ADC 26 Cartridge
Same as ADC 25 except supplied with only one stylus assembly, a 0.3 x 0.7 mil elliptical. Others can be obtained later $75.00

SP-10 Stereo Cartridge
Magnetic design; response 15-25,000 Hz ± 3 dB (50-10,000 Hz ± 1 dB); compliance 25 x 10^-4 cm/sec; tracking force 1-1.5 g; output 1 mV/cm/sec (5 mV from av. record) Has 15° vertical tracking angle & spherical diamond stylus... $59.95

SP-12 Same except with elliptical stylus... $69.95

SP-14 Stereo Cartridge
Magnetic design; response 20-16,000 Hz ± 2.5 dB; compliance 15 x 10^-4 cm/sec; tracking force 1.5-2.5 g; output 1 mV/cm/sec (5 mV from av. record) Has 15° vertical tracking angle & spherical diamond stylus... $29.95

ELAC

STS-244-17 Stereo Cartridge
Mono/stereo mag. cartridge with 0.7 mil diamond stylus. Response 20-22,000 Hz:

Has a 0.75 x 1.5 mil di... $39.50

Has a 0.7 x 3 mil elliptical... $100.00

Has a 0.6 mil spherical... $44.95

Has a 0.2 mil spherical... $29.95

Has a 0.6 mil diamond stylus... $69.95

B&O

SP-10 Stereo Cartridge
Magnetic design; response 15-25,000 Hz ± 3 dB (50-10,000 Hz ± 1 dB); compliance 25 x 10^-4 cm/sec; tracking force 1-1.5 g; output 1 mV/cm/sec (5 mV from av. record) Has 15° vertical tracking angle & spherical diamond stylus... $59.95

SP-12 Same except with elliptical stylus... $69.95

SP-14 Stereo Cartridge
Magnetic design; response 20-16,000 Hz ± 2.5 dB; compliance 15 x 10^-4 cm/sec; tracking force 1.5-2.5 g; output 1 mV/cm/sec (5 mV from av. record) Has 15° vertical tracking angle & spherical diamond stylus... $29.95

ELAC

STS-244-17 Stereo Cartridge
Mono/stereo mag. cartridge with 0.7 mil diamond stylus. Response 20-22,000 Hz:

Has a 0.75 x 1.5 mil diam... $39.50

Has a 0.7 x 3 mil elliptical... $100.00

Has a 0.6 mil spherical... $44.95

Has a 0.2 mil spherical... $29.95

Has a 0.6 mil diamond stylus... $69.95

B&O

SP-10 Stereo Cartridge
Magnetic design; response 15-25,000 Hz ± 3 dB (50-10,000 Hz ± 1 dB); compliance 25 x 10^-4 cm/sec; tracking force 1-1.5 g; output 1 mV/cm/sec (5 mV from av. record) Has 15° vertical tracking angle & spherical diamond stylus... $59.95

SP-12 Same except with elliptical stylus... $69.95

SP-14 Stereo Cartridge
Magnetic design; response 20-16,000 Hz ± 2.5 dB; compliance 15 x 10^-4 cm/sec; tracking force 1.5-2.5 g; output 1 mV/cm/sec (5 mV from av. record) Has 15° vertical tracking angle & spherical diamond stylus... $29.95

B&O

SP-10 Stereo Cartridge
Magnetic design; response 15-25,000 Hz ± 3 dB (50-10,000 Hz ± 1 dB); compliance 25 x 10^-4 cm/sec; tracking force 1-1.5 g; output 1 mV/cm/sec (5 mV from av. record) Has 15° vertical tracking angle & spherical diamond stylus... $59.95

SP-12 Same except with elliptical stylus... $69.95

STereo Hi-Fi DIRECTORY
EMPIRE
All cartridges feature induced field moving-magnet armatures, 15° vertical tracking angle; 47,000-ohm load imp. & all except 909E/X, 909/X & 90EE/X have hand polished stylus.

1000E/X Stereo Cartridge
Response 4-40,000 Hz; output 5 mV; compliance 35 x 10⁻⁶ cm/dyne; tracking force ½ to 1½ g; Has 0.2 x 0.7 mil elliptical stylus .................. $99.95

999VE/X Stereo Cartridge
Same as 1000E/X except response 6-36,000 Hz; 6 mV output & ¼ to ½ g tracking force ............... $79.95

999TE/X Stereo Cartridge
Same as 999VE/X except response 6-32,000 Hz & 30 x 10⁻⁶ cm/dyne compliance ...................... $64.95

999SE/X Stereo Cartridge
Same as 999TE/X except response 8-32,000 Hz; 8 mV output ........... $49.95

999PE/X Stereo Cartridge
Same as 999SE/X except 25 x 10⁻⁶ cm/dyne compliance; ½ to 2 g tracking force & 0.3 x 0.7 mil elliptical stylus ... $44.95

999X Stereo Cartridge
Same as 999PE/X except 10-30,000 Hz response ................................ $39.95

999 Stereo Cartridge
Same as 999X except 20 x 10⁻⁶ cm/dyne compliance & has 0.7 mil spherical stylus ....... $34.95

909E/X Stereo Cartridge
Response 12-25,000 Hz; 8 mV output; 15 x 10⁻⁶ cm/dyne compliance; 1-4 g tracking force; 0.4 x 0.7 mil elliptical stylus. ........ $29.95

909X Stereo Cartridge
Response 15-25,000 Hz; 8 mV output; 15 x 10⁻⁶ cm/dyne compliance; 1-4 g tracking force. Has 0.4 x 0.7 mil spherical stylus. .......... $24.95

900E/X Stereo Cartridge
Response 15-25,000 Hz; 8 mV output; 10 x 10⁻⁶ cm/dyne compliance; 1½-4 g tracking force. Has 0.4 x 0.7 elliptical stylus ... $49.95

EUPHONICS
U-15 LS "Minionic" Stereo Cartridge
Features bi-radial stylus; compliance 25 x 10⁻⁶ cm/dyne; response 20-20,000 Hz ± 2 dB. Separation 30 dB @ 1 kHz (20 dB @ 10 kHz); tracking force 1.0-2.0 g.

GRADO
F Series Phono Cartridges
All are 4-coil magnetic moving-iron type & have diamond stylus.

F-1 Features a patented twin tip diamond; it has two separate 0.3-mil spherical tips ground on 1 diamond. Each tip independently contacts each (L + R) of the groove walls. Response 7-40,000 Hz,

1971 EDITION
These long playing cartridges will outperform any long playing records you own.

Here are two exciting stereo cartridges that barely touch your records, yet track them like radar, at forces so low that your records will be good as new after years of use.*

**1000E/FX “Measurement Standard”** — Tracks as low as 0.1 gram in laboratory playback arms. List Price—$99.95.

Each 1000E/FX and 999VE/FX cartridge is individually calibrated to have a flat frequency response within ±1 dB from 20-20,000 Hz. Stereo separation is better than 15 dB at 1 kHz, and 45 dB at 20kHz. Overall frequency response a phenomenal 4-40,000 Hz. There are no electrical or mechanical peaks and total IM distortion at the standard 3.54 cm/sec groove velocity does not exceed 0.05% at any frequency within the full spectrum. Uses a .2 x .7 mil hand polished miniature diamond for exceptional low mass.

**999VE/FX “Professional”** — Recommended tracking force ¾ to 1½ grams. List Price—$79.95.

*Based on Empire's 5000 play test (more than 50 times the normal life usage of a record).


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### Phono Cartridges

**800 Super E Stereo Cartridge**

Has dual pivoting stylus assembly for extra low tracking force (½-1¼ g) operation. Sensitivity 4 mV at 5 cm/sec; compliance 45 x 10⁻⁶ cm/dyne; 15° tracking angle at ½ g. Response 10-23,000 Hz ± 3 dB. Supplied with 0.3 x 0.8 mil elliptical stylus & an individually calibrated response curve. $69.50

**G800 Cartridge**

5 mV at 5 cm/sec; tracking force ½-1¼ g; compliance 20 x 10⁻⁶ cm/dyne; stylus 0.5-mil spherical. Has 15° tracking angle at 2 g. $19.95

**G850 Cartridge**

8 mV at 5 cm/sec; tracking force ½-4 g; compliance 15 x 10⁻⁶ cm/dyne; stylus 0.7-mil spherical. $9.95

**NEORELCO**

412 Phono Cartridge

Each cartridge comes with individually calibrated chart showing freq. response. Tracking force ½-1¼ g; compliance 30 x 10⁻⁶ cm/dyne; output 6 mV at 3.54 cm/sec. Has elliptical 0.3 x 0.7 mil stylus. 15° tracking angle. $67.50

**ORTOFON**

S-15T Stereo Cartridge

Moving coil design featuring response 15-40,000 Hz; output impedance 15,000 ohms; recommended load 47,000 ohms; stylus pressure 1 to 2 g. Output 6 mV/cm/sec with built-in transformer. Stylus elliptical diamond tip .007* .003*; 15° vertical tracking angle; channel separation 20-30 dB; for all tonearms. $80.00

S-15MC Cartridge in Ortofon shell.

$85.00

SL-15T Universal cartridge with external transformers, two 15,000 ohm for all tonearms. $75.00

SL-15 Same as SL-15T but without transformers; output 0.04 mV/cm/sec. $60.00

**PICKERING**

XV-15/750E Stereo Cartridge

For manual & automatic turntables; has a D.C.F. of 750; output 4.4 mV; tracking force 0.5 to 1 g; response 10-25,000 Hz. Has 0.2 x 0.9 mil elliptical diamond stylus. $65.00

XV-15 “Dustomatic” Series

All cartridges are supplied with V-Guard diamond stylus & “Dustomatic” brush. Channel separation 35 dB. The D.C.F. (dynamic coupling factor) is an index of maximum stylus performance and is related to type of playback equipment. Output referenced to 3.5 mV/sec record velocity.

XV-15/400 E (D.C.F. 400) for manual turntables, automatic transcription turntables & light-tracking automatics; output 5.5 mV; tracking force ½ to 1½ g.

response 10-25,000 Hz. Has elliptical stylus (0.3 x 0.9 mil)………. $54.95

XV-15/350 (D.C.F. 350) for manual turntables, automatic transcription turntables & light-tracking automatics; output 6 mV; tracking force 1 to 3 g; response 10-25,000 Hz. Has conical 0.7 mil stylus.….. $39.95

XV-15/200E (D.C.F. 200) for automatic turntables; output 8 mV; tracking force 2-4 g; response 10-25,000 Hz. Has elliptical (0.4 x 0.9 mil) stylus.………. $49.95

XV-15/150 (D.C.F. 150) for automatic turntables; output 8 mV; tracking force 2-5 g; response 10-25,000 Hz. Has conical 0.7 mil stylus.….. $34.95

XV-15/100 (D.C.F. 100) for automatic turntables; output 7 mV; tracking force 3-5 g; response 10-20,000 Hz. Has 0.7 mil conical stylus.….. $29.95

V-15/3 "Dustomatic" Series

High performance through lower tip mass & extended response (10-25,000 Hz); cartridge weight 5 g; has self-supporting (1 gr.) built-in Dustmatic brush; 15° tracking angle; channel separation 35 dB; brush does not affect tracking force or performance characteristics, does prevent skating, absorbs shock, keeps records dust-free while in play. Output referenced to 5.5 mV/sec record velocity:

V-15/AME-3 For manual turntables, automatic transcription turntables; elliptical stylus (0.003* x 0.009*); tracking force ½ to 1½ g; output 5.5 mV.….. $49.95

V-15/AM-3 For manual turntables, light-tracking automatics; conical stylus 0.7 mil; tracking force 1 to 3 g; output 6.5 mV.….. $34.95

V-15/ATE-3 For automatic turntables, record changers; elliptical stylus (0.004* x 0.009*); tracking force 2 to 5 g; output 7.5 mV.….. $39.95

V-15/AT-3 For automatic turntables; conical stylus 0.7 mil; tracking force 2 to 5 g; output 7.5 mV.….. $29.95

V-15/AC-3 For record changers; elliptical (0.4 x 0.9 mil) stylus; tracking force 2 to 5 g; output 7.5 mV.….. $29.95

V-15/AC-3 For record changers; conical 0.7 mil stylus; tracking force 3 to 7 g; output 7.5 mV.….. $24.95

V-15/Phase IV Micro Magnetic Series

Newest member of Micro-Magnetic car-
SHURE

V-15 Type II (Improved) Stereo Cartridge
"Super-Track" elliptical cartridge: max. trackability at minimum tracking force.

Bi-radiel 0.0002" x 0.0007" diamond stylus; 20-25,000 Hz. Separation over 25 dB at 1 kHz. Tracking force ½ to ⅓ g. Trackability specifications at 1 g: 28 cm/sec at 400 Hz; 35 cm/sec at 1000 Hz; 30 cm/sec at 5000 Hz; 22 cm/sec at 10,000 Hz; 18 cm/sec at 20,000 Hz.

Model M30 Stereo Cartridge
May be used with mono or stereo records; frequency response 20 to 15,000 Hz; output 5 millivols; tracking force 3-6 grams; recommended impedance 47,000 ohms; 0.7-mil diamond stylus. $15.75 N3D replacement diamond stylus $7.95

M75-6 "Hi-Track" conical stylus cartridge for ⅓-g tracking $24.50 N75-6. Replacement stylus $11.35

The Little Perfectionist
ONLY $100.

Not all records are created equal. And now Audio Dynamics has done something about it. We've hand-crafted the world's only 3 stylus cartridge. It allows you to custom match the cartridge to each record in your collection, simply by selecting the optimum stylus assembly. The ADC 25 represents the "state of the art"—the ultimate refinement of Audio Dynamics' induced magnet principle.

With all this, the ADC 25 naturally costs a little more than most other cartridges, but for audiophiles $100.00 is a small price to pay for perfection. If money is an object, buy the ADC 26. It is the same cartridge, but with one elliptical stylus. You can always add one or both of the other 2 styli later.

THE LITTLE PERFECTIONIST

V-15/Phase IV-AME for manual turntables; automatic transcription turntables, light-tracking automatics; output 5.5 mV; tracking force ⅛ to ⅛ g; response 10-25,000 Hz; elliptical stylus 0.0003" = 0.0009" $49.95 V-15/Phase IV-AM for manual turntables, automatic transcription turntables, light-tracking automatics; output 6.0 mV; tracking force 2 ± 1 g; response 10-25,000 Hz; 0.0007" spherical type stylus $34.95

M55E Stereo Cartridge
Features retractable (7 & 2 mil) 15" diamond stylus and built-in stylus guard. 20-20,000 Hz; 6.6 mV output @ 5 cm/sec; 25 dB separation at 1000 Hz, ½ to 2 g tracking force $24.95 N55E Replacement stylus $14.95

M44 Series Stereo Cartridges
Features 15" elliptical, retractile stylus. Response 20-20,000 Hz, channel separation greater than 25 dB. Appearance similar to M55E. M44E for use with automatic turntables that track 1½ to 4 g, output 9.3 mV.

N44E. Replacement stylus $24.95 M44-5 tracks ½-⅞ g with .5 mil diamond; output 6 mV/ch. $21.95 Replacement stylus N44-5 $11.35 M44-7 cartridge tracks at ¾-⅞ g with .7 mil diamond; output level 9 mV/ch. $19.95 N44-7 Replacement stylus $9.75 M44C output 9.3 mV; tracking force 3 to 5 g. Stylus is type N44C 7-nil diamond $17.95 N44C Replacement stylus $9.00 N44-1 For mono LP records at ¾ to 3 g with .001" diamond $9.75 N44-3 For 78 rpm mono records at 1½ to 3 g with .0025" diamond $9.00

Model M30 Stereo Cartridge
Designed for light (1 to 2 g) tracking turntables; response 20-18,500 Hz; output 5 millivols; tracking force 3-6 grams; recommended impedance 47,000 ohms; 0.7-mil diamond stylus. $15.75 N3D replacement diamond stylus $7.95

M31E Stereo Cartridge
Designed for light (1 to 2 g) tracking turntables; response 20-18,500 Hz; output 5 millivols; tracking force 3-6 grams; recommended impedance 47,000 ohms; 0.7-mil diamond stylus. $15.75 N3D replacement diamond stylus $7.95

ADC Audio Dynamics Corporation
Pickett District Road, New Milford, Connecticut 06776

Audio for Audiophiles
Circle No. 8 on Reader Service Card

1971 EDITION
Phono Cartridges

Put 10 mV at 5 cm/sec; compliance vert. & horiz. 15 x 10^-4 cm/dyne. Has elliptical diamond stylus (0.7 mil fromal radius, 0.2 mil side contact & 1.0 at groove contact) .................. $29.95 N31E. Replacement stylus ...... $14.95 M32E. Similar to M31E except response to 17,500 Hz. Output 9 mV; compliance 10 x 10^-6 cm/dyne. Stylus 0.4 mil side contact radius; tracking force 2.4% to 5 g ................. $29.50 N32E. Replacement stylus ...... $14.50

Model M7/N21D Features a tracking force of 2%-3 g or less. Response 20-20,000 Hz; output 4 mV per channel; compliance 9 x 10^-4 cm/dyne; separation over 20 dB .......... $17.95 N21D Replacement stylus ...... $11.00

EUPHONICS

TA-15 "Miniconic" Tonearm
For 12" turntables; effective mass with cartridge 14 g; resonance 12 Hz; viscous damped ball-bearing pivots; adj. stylus force 5 to 3 g ................. $32.50 TK-15-LS With U-15-LS (P) cartridge and PS-15 power supply ......... $87.50 TK-15-P With U-15-P (P) cartridge and PS-15 power supply ......... $71.50

TA-16 "Miniconic" Tonearm
For 16" turntables; effective mass, with cartridge, 16 gms; resonance 10 Hz; viscous damped ball bearings; adj. stylus force 0.5 to 3 gms ................. $42.50 TK-16-LS With U-15-LS (P) cartridge and PS-15 power supply ......... $97.50 TK-16-P With U-15-P (P) cartridge and PS-15 power supply ......... $81.50

Model RMG-309 Tonearm
Professional 16" stereo arm; tracks at 2 grams with plug-in Ortofon stereo cartridge; plug-in shells available to fit standard U. S. stereo cartridges; statically balanced by counterweight with spring-controlled stylus force (no table leveling required); micrometer stylus force adjustment reads directly in grams; adjustable height over mounting plate; rubber damping between arm and counter-weight; approx. dimensions 12½" x pivot to record center .......... $75.00

RS-212 Tonearm
Features a stylus pressure mechanism based on spring tension & an anti-skating (adjustable). Has a transistor amplifier driving a Swiss servo motor powered by standard "C" battery (10 mA. intermittent drain). Has ¼ g. min. tracking force. .......... $169.50

Accessories
Shure V15 Type II cartridge installed. .......... $67.50
Thorens TD-150 turntable fitted to arm. .......... $85.00
Walnut base ........................................ $12.00
Plug-in cartridge holders ...................... $10.00
Adapter kit for AR turntable ................... $12.00

REK-O-KUT

Model S-320 Tonearm
Plugs into amp with permanently attached cable; has "Micropoise" dynamic balance, spring-cushioned; calibrated from 0-6 grams; isolated counterweight; includes aluminum 4-wire plug-in collar locks shell into arm; single hole mounting; features "Omni-Balance" for optimum bearing loads and lateral balance. .......... $44.95

Model S-260 Tonearm
Same as S-320 for 16" table (less "Omni-Balance") .......... $49.95

SHURE

SME 3009/Tonearm
Made in England; tracking force ¼ to 5 grams; anti-skating control; precision ball races and knife edge bearings; accurate longitudinal and lateral balance control; minimal tracking error; subaudible resonance; convenient overhang adjustment; lever-operated cueing device; 12" version; less cartridge .......... $117.50
Model 3009HE Samad 3009 b. with horizontal cable entry .......... $123.75
Model Shure-SME 3012 for 16" records .......... $116.50

Models M232 & M236 Tonearm
Accepts all cartridges (mono or stereo); micrometer counterweight; direct-coupled styliing force gauge; slide adjustment for stylus overhang; arm height adjustable; stylus tracking force adjustable 1-8 grams; for 12" records .......... $29.95
Model M236 for 16" records .......... $31.95

SONY

PUA-237 Tonearm
12" design features built-in cueing device with silicone-damped piston & a semi-automatic method for lowering styli into lead-in grooves of 7", 10", 12" records. Has anti-skate device; interchangeable tonearm head .......... $85.00
PUA-286 Same except 16" design; max. tracking error 1° 24' & arm resonance 8 Hz vertically and 10 Hz laterally .......... $99.50
SH-100 Cartridge shell .......... $4.95

STEREO HI-FI DIRECTORY
Free

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1971 EDITION

CIRCLE NO. 29 ON READER SERVICE CARD
Almost every music system today is built around a receiver, its heart and brains, the one component that controls it all. What you need then is a receiver that within its price class, offers you widest frequency response with lowest distortion, highest sensitivity and selectivity and clean power sufficient for your needs; and with all the features and conveniences a quality receiver can offer you.

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Receivers

FM Receivers
FM-Stereo Receivers
AM-FM Stereo Receivers

ACOUSTIC RESEARCH

AR Stereo-FM Receiver
Features 60 W/ch continuous r.m.s. into 4 ohms with both channels driven (50 ohms); bandwidth 14-44,000 Hz @ 8 ohms. 1M dist. 0.15% at rated output; HD 0.5%; from 20-20,000 Hz. Dist. figure includes phono preamps. Response 20-
20,000 Hz ± 1 dB; input sensitivity: phono 2 to 5 mV (adjustable) @ 1 kHz; all others 200 mV. FM sensitivity 2 µV (IHF); capture ratio 2 dB. With black aluminum cover. 16" w. x 5¾" x 9" d. ................ $319.95

AIWA

TPR-2001 AM-FM/Cassette System
Features 20 W/ch continuous power stereo design. Has phono, aux. & tape inputs and main/remote speaker sw. Walnut finish .................. $229.95 With pair of speaker systems, each with 6" dual-cone speaker ............... $299.95

ALLIED

435 AM-FM Stereo Receiver
16 W/ch (IHF) dynamic power (11 W/ch r.m.s.); response 20-40,000 Hz; HD 1%; input sensitivity: mag. phono 4 mV; FM sensitivity 2.5 µV; capture ratio 3 dB. ................ $179.95

445 AM-FM Stereo Receiver
30 W/ch (IHF) dynamic power (20 W/ch r.m.s.); response 20-50,000 Hz; HD 1%; input sensitivity: mag. phono 3 mV; FM sensitivity 2 µV; capture ratio 2.3 dB. ................ $229.95

490 AM-FM Stereo Receiver
Design similar to Model 445; 50 W/ch (IHF) dynamic power (33 W/ch r.m.s.); response 20-70,000 Hz; HD 1%; input sensitivity: magnetic phono 2.8 mV; FM sensitivity 1.8 µV; capture ratio 2 dB. ................ $299.95

549 AM-FM Stereo Receiver
Design similar to Model 445; 80 W/ch (IHF) dynamic power (55 W/ch r.m.s.); response 15-100,000 Hz; HD 1%; input sensitivity: mag. phono 2.5 mV; FM sensitivity 1.4 µV; capture ratio 1.95 dB. ................ $349.95

Features main/remote speaker selection. Has center-channel & field-strength meters. .................. $349.95

498 AM-FM Stereo Receiver
100 W/ch (IHF) dynamic power (65 W/ch r.m.s.); response 8-100,000 Hz; HD 0.5%; input sensitivity: mag. phono 2 mV; FM sensitivity 1.25 µV; capture ratio 1.5 db. Features automatic tuning, 2 tuning meters (signal strength & center channel), 2 crystal filters. Has phono input only sw, which selects only FM stereo broadcasts. .................. $499.95

ALTEC LANSING

725A AM/Stereo-FM Receiver
Features t.f.'s using Butterworth & crystal filters. 60 W/ch r.m.s. with both channels driven & into 8 ohms. HD 0.3%; at rated output from 20-20,000 Hz. Response 20-20,000 Hz; power bandwidth 15-25,000 Hz; input sensitivity: phono #1 2 mV, phono #2 2 or 5 mV; FM sensitivity 1.8 µV (IHF); capture ratio 1.3 dB. 7¾" x 5" x 16½" d. ................ $699.00 4216 Walnut cabinet ................ $28.50

714A AM/Stereo-FM Receiver
Similar in design to 725A except 44 W/ch r.m.s.; 90 W/ch (IHF) dynamic power at 4 ohms; HD 0.5%; response 15-45,000 Hz ± 1 dB; FM sensitivity (IHF) 1.9 µV; capture ratio 2 dB. 16½" x 5½" x 13½" d. ................ $399.00 4216 Walnut cabinet ................ $25.50

AMPEX

ASR-100 AM-FM Stereo Receiver
30 W/ch (IHF) dynamic power at 4 ohms (18 W/ch r.m.s. at 8 ohms); power bandwidth 20-25,000 Hz; HD 0.8%. FM sensitivity (IHF) 3 µV; capture ratio 4 dB. Has mag. or ceramic phono, aux. & tape inputs; main/remote speaker outputs; tape monitoring. With walnut cabinet. 16¾" x 4¾" x 11¾" ................ $249.95
4 Receivers

BELL & HOWELL

3600 AM-FM Stereo Receiver
30 W/ch dynamic (IHF) power (17 1/4 W/ch continuous r.m.s.); power bandwidth 20-20,000 Hz at 1% HD; response 20-20,000 Hz; FM sensitivity 2 µV (IHF); capture ratio 3 dB. Has ceramic & mag. phono & aux. inputs. 4" x 19 1/2" x 12 1/2" d. .......... $169.95

BR350 AM/Stereo-FM Receiver
Similar to Model BR320 except 50 W/ch (IHF); 40 W/ch continuous sine wave into 4 ohms with one channel driven; ceramic i.f. filters & IC’s; phono sensitivity 3 mV. Has exclusive "Crescendo Control" expander-compressor. .......... $299.95 Also available in white with tangerine accents. BR360W ............ $309.95

Mark 12 AM-FM Receiver
Stereo design with 45 W/ch (IHF) dynamic power into 8 ohms (60 W/ch with 4 ohms); 35 W/ch continuous r.m.s. power into 8 ohms with single channel driven (45 W/ch into 4 ohms). HD 0.5% @ rated output; response 20-25,000 Hz ± 1 dB at 1 W; power bandwidth 25-22,000 Hz. Preamp section same as in Mark 10. FM selectivity 45 dB @ 98 MHz; AM sensitivity 60 µV. Features main/remote speaker facilities; interstation muting; 50 & 300 ohm FM antenna inputs; center-reading FM tuning meter; max. signal-strength tuning meter for AM. 17 1/2" x 12" x 5 1/2" w/walnut cabinet $269.95

M-12 Receiver
Stereo design with 87 1/2 W/ch (IHF) dynamic power into 8 ohms (120 W/ch into 4 ohms); 55 W/ch continuous r.m.s. power into 8 ohms with single channel driven (75 W/ch into 4 ohms); HD 0.5% @ rated power; response 10-35,000 Hz ± 1 dB at 1 W; power bandwidth 5-40,000 Hz. Preamp section same as in Mark 10. FM sensitivity 1.7 µV (IHF) usable; capture ratio 1 dB; selectivity 45 dB @ 98 MHz; AM sensitivity 20 µV. Features ceramic i.f. amplifiers, interstation muting, calibrated slide controls for tone/balance & volume, main/remote speaker facilities; 75 & 300 ohm FM antenna inputs. 17 1/4" x 14" x 5 1/2" w/walnut cabinet $349.95

BOGEN

BR320 AM/Stereo-FM Receiver
Features 25 W/ch IHF (15 W/ch continuous sine wave into 4 ohms with one channel driven); ceramic i.f. filters; integral circuit; molded molded; local/remote speaker sw; THD at rated power 0.5% & 1% dist. 0.7% (1% dist. at 1 W = 0.35%); power bandwidth 20-20,000 Hz; response 20-35,000 Hz ± 2 dB at 1 W Sensitivity: phono 2.5 mV; FM 1.5 µV for 30 dB quieting; 1.9 dB capture ratio. 16 1/4" x 4 1/2" x 14" ............. $199.95

BR340 AM/Stereo-FM Receiver
Same as Model BR320 except 40 W/ch IHF (30 W/ch continuous sine wave into 4 ohms with one channel driven); phono sensitivity 3 mV .......... $249.95

BR360 AM/Stereo-FM Receiver
Similar to Model BR320 except 50 W/ch (IHF); 40 W/ch continuous sine wave into 4 ohms with one channel driven; ceramic i.f. filters & IC’s; phono sensitivity 3 mV. Has exclusive "Crescendo Control" expander-compressor ........ $299.95 Also available in white with tangerine accents. BR360W ............ $309.95

Mark 20 AM-FM Receiver
Stereo design with 87 1/2 W/ch (IHF) dynamic power into 8 ohms (120 W/ch into 4 ohms); 55 W/ch continuous r.m.s. power into 8 ohms with single channel driven (75 W/ch into 4 ohms); HD 0.5% @ rated power; response 10-35,000 Hz ± 1 dB at 1 W; power bandwidth 5-40,000 Hz. Preamp section same as in Mark 10. FM sensitivity 1.7 µV (IHF) usable; capture ratio 1 dB; selectivity 45 dB @ 98 MHz; AM sensitivity 20 µV. Features ceramic i.f. amplifiers, interstation muting, calibrated slide controls for tone/balance & volume, main/remote speaker facilities; 75 & 300 ohm FM antenna inputs. 17 1/4" x 14" x 5 1/2" w/walnut cabinet $349.95

EICO

"Cortina" 3770 AM/FM Receiver
35 W/ch dynamic power (IHF) at 4 ohms (20 W/ch @ 8 ohms). Design is a combination of Eico's Model "Cortina" 3070 stereo control amplifier & "Cortina" 3200 stereo-FM tuner with added AM circuitry. Has vinyl-clad, Danish walnut cabinet. Kit .......... $189.95 Assembled .............. $279.95

"Cortina" 3570 Same as Model 3770 except does not have AM circuitry. Kit .......... $169.95 Assembled .............. $259.95

STEREO HI-FI DIRECTORY
ELECTRO-VOICE

EV 1382 AM-FM Stereo Receiver
Features 75 W/ch (IHF) dynamic power at 4 ohms (40 W/ch continuous at 8 ohms both channels driven); response 15-55,000 Hz ± 1.5 dB; THD 0.8% at rated output. FM sensitivity 2 µV (IHF); capture ratio 2.0 dB. Has main & remote speaker switches; tape monitor; loudness control. 15¾" x 4½" x 12¾" d. ...........................................$299.95

CWR-3 Walnut cabinet ...........................................$24.30

EV 1281 AM-FM Stereo Receiver
46 W/ch dynamic power (26 W/ch continuous sine wave at 8 ohms both channels driven); response 20-20,000 Hz ± 1½ dB, HD 0.8% at rated output. Input sensitivity: mono 3 mV, tape & aux. 200 mV. FM usable sensitivity (IHF) 2.2 µV. Has stereo indicator light & auto mono/stereo switching; main/remote speaker sw. 3½" x 14½" x 10½" d. With grey metal enclosure ...........................................$229.50

EV 1282 AM-FM Stereo Receiver
Same as E-V 1281 except has additional AM tuner ...........................................$249.30

EV 1181 AM-FM Stereo Receiver
Same in performance as Model E-V 1281 except dynamic power output is 25 W/ch (21½ W/ch continuous sine wave at 8 ohms output both channels driven). ...........................................$189.00

EV 1182 AM-FM Stereo Receiver
Same as E-V 1181 except has AM tuner added ...........................................$209.70

CWR-1 Case
Walnut finished case for Models 1181, 1182, 1281, 1282. 4½" h. x 16" w. x 11¾" d. ...........................................$19.80

All specifications quoted are with one channel operating. 4-ohm ratings are same as 8-ohm ratings quoted.

FISHER

202 AM-FM Stereo Receiver
Features 40 W/ch dynamic (IHF) power at 8 ohms (32 W/ch continuous sine wave) at 0.8% THD; response 25-20,000 Hz ± 2 dB; power bandwidth 25-20,000 Hz; sensitivity: 6.5 mV, tape & aux. 200 mV. FM usable sensitivity 2.5 µV (IHF); capture ratio 6.0 dB. Has main/remote speaker switches; tape monitor. Size 15¾" x 4½" x 14½" d. ...........................................$249.95

21-UV Walnut finish cabinet ...........................................$14.95

HARMAN-KARDON

130 AM/Stereo-FM Receiver
Has auto stereo-FM, bass & treble controls, stereo indicator light. Features 10 W/ch dynamic (IHF) power. Walnut cabinet ...........................................$129.95

“Nocturne Two-Thirty” AM/Stereo-FM Receiver
Features 17½ W/ch dynamic (IHF) power at 4 ohms. Has tuning meter for AM and FM stations; tape monitor & speaker switches. Response 10-70,000 Hz at normal listening level. IM distortion 1% at rated output. FM sensitivity 0.7 µV (IHF) ...........................................$159.95

CW20 Walnut cabinet ...........................................$9.95

“Nocturne Three-Thirty” AM/Stereo-FM Receiver
Solid-state stereo design with 35 W/ch IHF dynamic power at 4 ohms. Features automatic stereo/mono switching with indicator light. Provides stereo in two rooms separately or at once, with front-panel switching; i.e., tuning meter & tape monitoring sw. Response 75-50,000 Hz ± ½ dB at 1 W. IM dist. 0.8%, HD 0.8%; usable FM (IHF) sensitivity 2.7 µV; damping factor 20.1. 13 x 15¾" x 4½" ...........................................$199.95

CW30A Walnut cabinet ...........................................$24.95

“Nocturne Eight-Twenty” Stereo-FM Receiver
Solid-state stereo design with 55 W/ch IHF dynamic power at 4 ohms. Uses integrated circuits & crystal filters in i.f. strip. Features automatic stereo/mono switching with indicator light. Provides stereo in two rooms separately or at once with front-panel sw. Has tuning meter & tape monitor sw. Response 50-60,000 Hz ± 1 dB at 1 W. IM dist. 0.8%; HD 0.8%; usable FM (IHF) sensitivity 1.8 µV; 12" x 16½" w. x 4½" ...........................................$269.95

CW80 Walnut cabinet ...........................................$5.95

HEATH

AR-14 FM-Stereo Receiver
Features 15 W/ch dynamic power. Has stereo indicator light; filtered outputs; pre-assembled front end; 6-position source switch; and phase control. Amplifier response 12-60,000 Hz ± 1 dB; separation 45 dB; output 8, 16, and 16 ohms. Tuner response 20,200-0,000 Hz ± 1 dB mono; 50-15,000 Hz ± 3 dB stereo. Capture ratio 3 dB. Sensitivity 5 V/m. 1½" h. x 15½" w. x 12" d. Kit AR-14 (less cabinet for custom mounting) ...........................................$189.95

AE-55 Walnut veneer cabinet ...........................................$12.95

AE-65 Beige steel cabinet ...........................................$3.95

AR-15 AM/FM Stereo Receiver
75 W/ch dynamic power (50 W/ch continuous sine wave) for 8-ohm output. Design based around two integrated circuits and two crystal filters in the i.f. amplifier, replacing conventional i.f. transformers. Features two tuning meters (1 for max. signal & 1 for center of station).
 Receivers

front-panel input level controls; automatic squelch circuit; automatic stereo light; SCA filter; transformerless design. Power bandwidth for 0.5% THD 6-30,000 Hz. Response at 1 W 6-50,000 Hz ±1 dB; 1 M dist. 0.5% at 50 W; damping factor 45. Input sensitivity: phono 2.2 mV & aux. 200 mV. FM response 20-15,000 Hz ±1 dB; capture ratio 1.5 dB (IHF standard); harmonic & IM distortion 0.5%; Sensitivity 1.8 µV (IHF). 16% x 4% x 13/4". d.

AR-15 Kit (less cab.) $349.95
AR-15 Woofer (less cab.) $540.00
AE-16 Walnut cab. $24.95

AR-17 FM-Stereo Receiver
7 W/ch dynamic power, 5 W/ch continuous power (two channels simultaneously). Automatic stereo indicator light; pre-sets front end; 6-pos. source switch. Response at 5 W 25-35,000 Hz ±1 dB; THD at 5 W, 1% from 20-20,000 Hz; 1 M dist. 2%; Capture ratio 3 dB; sensitivity 5 µV. Overall size 12" x 3" x 10%".

AR-17 Kit (less cab.) $72.95
AE-17 Beige veneer cabinet $15.00
AE-25 Walnut veneer cabinet $9.95

AR-19 AM-FM Stereo Receiver
30 W/ch (IHF) dynamic power into 8 ohms (20 W/ch into 4 ohms & 17 W/ch into 16 ohms); 20 W/ch continuous power into 8 ohms with both channels driven (20 W into 4 ohms & 15 W into 16 ohms). Power bandwidth 5-30,000 Hz; response 6-35,000 Hz ±1 dB; HD 0.25% from 5-20,000 Hz at 20 W r.m.s. (0.1% at 1000 Hz & 1 W). Input sensitivity: phono 2.4 mV, tape, aux. & tape monitor 180 µV. FM sensitivity 1.6 µV at 30 dB S/N ratio; capture ratio 2.5 dB. 105-125 V at 210-250 V, 50/60 Hz operation. Has both signal-stabilized center-tuning meters; main/remote speaker selection or center-channel output. Supplied with FM i.f. board pre-asserted and adjusted. 16" x 9½" x 14½" d.

Kit $225.00
AE-19 Cabinet $19.95

AR-27 FM Mono Receiver
Features 7 W dynamic power, 5 W continuous power; pre-asserted FM tuner; input connectors for phono & aux.; front-panel controls. Response at 5 W 25-60,000 Hz ±1 dB; THD 1% from 20-20,000 Hz; 1 M dist. 2%; capture ratio 3 dB; sensitivity 5 µV. 12" x 3½" x 10½" d.

AR-27 Kit (less cab.) $41.95
AE-35 Beige metal cabinet $3.50
AE-25 Walnut veneer cabinet $9.95

AR-29 AM-FM Stereo Receiver
50 W/ch (IHF) dynamic power into 8 ohms (65 W/ch into 4 ohms & 30 W/ch into 16 ohms); 35 W/ch continuous power into 8 ohms with both channels driven (35 W/ch into 4 ohms & 25 W/ch into 16 ohms). Power bandwidth 5-30,000 Hz at 0.25% HD. Response 7-60,000 Hz ±1 dB at 1 W level; input sensitivity: phono 2.2 mV; tape, aux. & tape monitor 180 mV. FM sensitivity 1.5 µV @ 30 dB S/N ratio; capture ratio 1.5 dB. 105-125 V at 210-250 V, 50/60 Hz. Has both field-strength and center-tuning meters; pre-asserted & aligned P.E.T. tuning unit & main/remote speaker selection or center-channel output. Overall size 16¾" x 5¾" x 13" d.

Kit $285.00
AE-19 Cabinet $19.95

HITACHI

SR-600 AM-FM/Stereo-Receiver
Features 40 W/ch (IHF) dynamic power into 8 ohms; S/N ratio 60 dB at 15 W/ch output: HD 0.5% at 10 W output & 1 kHz. Phono sensitivity: 3 mV; FM 1.7 µV for 20 dB quieting. $269.95

JVC

5010 AM-FM Stereo Receiver
Features SEA (Sound Effects Amplifier) control system: provides 5-zone tone adjustment with ±12 dB in 2-dB steps at 60/200, 1000, 3000 & 12,000 Hz; 17 W/ch dynamic power (IHF) into 8 ohms (20 W/ch into 4 ohms); 13 W/ch continuous into 8 ohms with both channels driven (17 W/ch into 4 ohms); HD 1% at 1000 Hz & 10% rated power. Power bandwidth 30-30,000 Hz; response 20-30,000 Hz; input sensitivity: mag. phono 2 mV; aux. & tape play 150 mV; FM sensitivity (IHF) 2.5 µV. Has main/remote speaker selection. 4½" x 16¾" x 13" d. With walnut cabinet $229.95

5020 AM-FM Stereo Receiver
Same as 5010 except 30 W/ch (IHF) dynamic power into 8 ohms (37½ W/ch into 4 ohms); 25 W/ch continuous into 8 ohms (28 W/ch into 4 ohms); HD 0.5%; 1 M dist. 0.8%; input sensitivity: mag. phono 1.5 µV; aux. #1 & #2 and tape play 180 mV, 4¾" x 20½" x 13½" d. With walnut cabinet $299.95

5030 AM-FM Stereo Receiver
Same as 5020 except 70 W/ch (IHF) dynamic power into 8 & 4 ohms: 50 W/ch continuous into 8 & 4 ohms: 75 W/ch continuous into 8 ohms (82½ W/ch into 4 ohms). 5½" x 20½" x 15¾" d. .................$449.95

JVC

KR-7070 AM-FM Receiver
Features 3-way tuning; mono/automatic/remote; FM stereo automatic/remote. A slight touch of the tuning bar on front panel or on remote control will automatically select AM or FM stations to right or left; stereo automatic tuning will select only FM stereo stations. 110 W/ch dynamic (IHF) power into 8 ohms (150 W/ch into 4 ohms); 80 W/ch continuous into 8 ohms with both channels driven (165 W/ch at 8 ohms 20-20,000 Hz; 95 W/ch into 4 ohms). HD & IM dist. each 0.5% at rated output; power bandwidth 10-30,000 Hz; input sensitivity: mag. phono #1 & #2 2.5 mV; aux. & tape play 200 mV; FM sensitivity (IHF) 1.5 µV; capture ratio 1.5 dB. Has crystal filter i.f.'s; interstation muting; main/remote speaker selection; mono speaker output (5 W) with “on-off” sw. 4 to 16 ohm output. 17" x 6½" x 15" d. Has 110 to 240 V, 50/60 Hz power supply ........$549.95

KR-6160 AM-FM Stereo Receiver
90 W/ch (IHF) dynamic power into 8 ohms (110 W/ch into 4 ohms); 70 W/ch continuous into 8 ohms (40 W/ch into 4 ohms); HD & IM dist. each 0.5% at rated output. Response 15-40,000 Hz ±1.5 dB; power bandwidth 12-30,000 Hz; input sensitivity: mag. phono 2.5 mV; aux. & tape play 180 mV; FM sensitivity 1.6 µV (IHF); capture ratio 1.5 dB. Features low & high freq. filters; interstation muting; 3 sets speaker outputs: 2 sets of mag. phono & aux. inputs; mechanical i.f. stages; center-channel output & mic input for p.a. applications and for mixing with any mode input. 16½" x 5½" x 12½". Without microphone $53.95 SR-66/6 Oiled walnut cabinet ....$19.95

KR-5150 AM-FM Stereo Receiver
Has many of the same features as Model KR-6160 except less power; 55 W/ch (IHF) dynamic into 8 ohms (75 W/ch into 4 ohms) & 40 W/ch continuous into 8 ohms (50 W/ch into 4 ohms); response 20-40,000 Hz ±1.5 dB; input sensitivity: aux. & tape play 150 mV; FM sensitivity 1.7 µV; capture ratio 2 dB; Does not have mixing facilities but has mic input. $319.95 SR-66/6 Oiled walnut cabinet ....$19.95

KR-4140 AM-FM Stereo Receiver
Same as KR-5150 except has less power: 29 W/ch (IHF) dynamic power into 8 ohms (40 W/ch into 4 ohms); 24 W/ch continuous power into 8 ohms (33 W/ch into 4 ohms); FM sensitivity 1.8 µV; capture ratio 2.5 dB. Has 2 instead of 3 sets

STEREO HI-FI DIRECTORY
of speaker outputs .......... $259.95
SR-66/6 Oiled walnut cabinet .. $19.95

KR-3130 AM-FM Stereo Receiver
Same as KR-4140 except 21 W/ch (IHF) dynamic power into 8 ohms (25 W/ch into 4 ohms); 19 W/ch continuous into 8 ohms (22 W/ch into 4 ohms); HD & IM dist. each 0.8% at rated output; FM sensitivity 2 µV (IHF); capture ratio 4.5. Does not have FM interstation muting or low-freq. filter .............. $199.95
SR-33/6 Oiled walnut cabinet .. $19.95

KR-2120 AM-FM Stereo Receiver
Same as KR-3130 except 15 W/ch (IHF) dynamic power (17 W/ch into 4 ohms); 11 W/ch continuous into 8 ohms (13 W/ch into 4 ohms); response 25-30,000 Hz ±2 db; sensitivity: aux. & tape play 180 mV; FM sensitivity 2.3 μV. Has 1 instead of 2 pairs of mag. phono inputs & does not have mic input; center-channel output .............. $199.95
SR-33/6 Oiled walnut cabinet .. $19.95

KC-6050A Audio-Lab Scope
FM multipath indicator using a 3" oscilloscope; also has capability for testing waveform or right & left channels. 16½" x 5½" x 11½" d. With cabinet $219.95

KR-70 FM Stereo Receiver
28 W/ch (IHF) dynamic power into 8 ohms (37½ W/ch into 4 ohms); 18 W/ch continuous power into 8 ohms with both channels driven; HD & IM dist. each 0.5% at rated output; response 20-30,000 Hz ±1.5 db; power bandwidth 20-30,000 Hz; input sensitivity: mag. phono 2 mV; aux & tape play 200 mV; 4 to 16 ohm output; FM sensitivity 1.9 μV; capture ratio 2.5 db. Has main/remote speaker selection; center-channel output. 16½" x 5½" x 12½" d. With simulated walnut cabinet ......................... $199.95

KLH
Model Twenty-Seven AM-FM Receiver
Stereo design, 45 W/ch dynamic power at 8 ohms; THD 0.5% at rated output; IM dist. 0.5% at rated output. Power bandwidth 17-20,000 Hz; response at 1 W 6-25,000 Hz. Phono sensitivity 1 mV, tape sensitivity 0.2 V. FM sensitivity 2.3 µV for 30 dB quieting; capture ratio 4.5. Has automatic mono/stereo switching, stereo indicator. Oiled walnut side panels. 13¾" w. x 4¼" x 15½ .. .... $319.95

KNIIGHT-KIT
KG-988A AM-FM Stereo Receiver Kit
Silicon solid-state circuit with 40 W/ch dynamic power into 4 ohms (24 W/ch continuous sine wave at 8 ohms). Response 20-20,000 Hz. Features tape monitor switch for 3-head machine: main/remote speaker sw.; inputs for mag. or ceramic phono, tape monitor, auxiliary; Walnut wood case. 5½" x 17½" x 14"
Receivers

**LAFAYETTE**

**LR-1500T AM-FM Stereo Receiver**

59 W/ch @ 4 ohms (IHF) dynamic power design; response 20-20,000 Hz ± 0.75 dB; HD 0.8%; S/N ratio –75 dB; stereo separation 40 dB; capture ratio 1.25 dB; FM sensitivity 1.5 µV; selectivity 40 dB. Features four IC's plus front- and rear-panel tape outputs; FM interstation muting; tuning meter; automatic overload protection; simulated walnut wood-grained metal case. 16½" x 4½" x 14½" d. ...$299.95

**LR-775 AM-FM Stereo Receiver**

40 W/ch @ 4 ohms (IHF); THD 0.8% at rated output. Power bandwidth 15-30,000 Hz. FM sensitivity 1.7 µV (IHF); capture ratio 1.5 dB. Features four IC's, main-remote speaker switching, "black-out" tuning dial. Has full set of inputs and outputs. With simulated walnut-grain metal cabinet. Size 14½" w. x 10½" x 4½" h. ...$199.95

**LR-75 AM-FM Stereo Receiver**

10 W/ch @ 4 ohms (IHF). Response 20-20,000 Hz ± 1 dB; HD 0.2%; S/N ratio 50 dB; capture ratio 5 dB; FM sensitivity 3.5 µV. Features automatic station lock-in; front-panel tape output and stereo headphone jacks; main/remote speaker selector switch. Simulated walnut grain metal case. 13" w. x 4½" h. x 9½" d. ...$109.95

**MAGNAVOX**

All following models are stereo designs with AM-FM tuners, a.f.c., stereo indicator & two-position speaker selector.

**1K8893 AM-FM Receiver**

Features 25 W/ch (Elia) dynamic power amplifier. Walnut cabinet ...$189.90

**1K8851 AM-FM Receiver**

Features 50 W/ch (Elia) dynamic power amplifier. 22½" x 11½" d. x 7½". With walnut cabinet ...$249.90

**1K8866 AM-FM Receiver**

Features 75 W/ch (Elia) dynamic power amplifier. 22½" w. x 15½" d. x 7½". With walnut cabinet ...$299.90

**MARANTZ**

22 AM/Stereo/FM Receiver

Features 40 W/ch continuous sine wave from 20-20,000 Hz with both channels driven into 4 or 8 ohm loads (23 W/ch into 16-ohm load); HD & IM dist. ea. 0.3% at rated output. Response through phono 20-20,000 Hz ± 0.5 dB. Input sensitivity 2 mV (mag. & tape head), 180 mV aux. FM sensitivity 2.4 µV (IHF); capture ratio 2.5 dB. Has two tuning meters for center channel & signal strength as well as a multipath tuning meter; stereo indicator light; conversion facilities for 240 V a.c. operation. With simulated walnut-finish metal cabinet. 16½" x 5" x 14" d. ...$499.00 WC-4 Oiled walnut cabinet ...$32.50

**26 AM/Stereo/FM Receiver**

Features 10 W/ch r.m.s. continuous into 8 ohms 20-20,000 Hz with both channels being driven. (21 W/ch) HD; & IM dist. each 1% at rated output & 20-20,000 Hz. Response through phono 20-20,000 Hz ± 1.5 dB. Input sensitivity 2 mV for mag. phone & tape head, 150 mV for aux. FM sensitivity 3 µV (IHF); capture ratio 3 dB. 15¼" x 3½" x 12¼". With simulated walnut-finish metal cabinet $219.00 WC-5 Walnut cabinet ...$25.50

**19 Stereo-FM Receiver**

Has 50 W/ch r.m.s. power with both channels driven from 20-20,000 Hz into 8 ohms (75 W/ch IHF @ 8 ohms); HD & IM dist. each 0.15% response 20-20,000 Hz ± 0.5 dB. FM sensitivity (IHF) 1.8 µV. Features built-in scope. 18½" x 5½" x 16" ...$1000.00 WC-9 Walnut cabinet ...$39.50

**27 AM/Stereo/FM Receiver**

Has 30 W/ch r.m.s. with both channels driven from 20-20,000 Hz into 8 ohms (75 W/ch IHF); HD & IM dist. ea. 0.3%; response 20-20,000 Hz ± 1 dB. FM sensitivity (IHF) 2.8 µV; capture ratio 3 dB.

**Input sensitivity: phono 2 mV; aux. 150 mV**

MOTOROLA

SK109GW AM/Stereo-FM Receiver

Deluxe design with 18½ W/channel (Elia) dynamic power into 8 ohms. Includes two separately housed speaker systems, each with 8", a 3" & a horn tweeter. Walnut (IHF); input sensitivity: mag. phono 3 mV; has phono & aux inputs. 13½" x 4½" x 11½" ...$304.80

STEREO HI-FI DIRECTORY
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STA5015
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$299.95
With two SS83 speaker systems. $249.95

STA501S AM-FM Stereo Receiver
25 W/ch (IHF) dynamic power into 8 ohms; AM-FM tuner section same performance as FAM12 tuner. Input sensitivity: mag. phono 2.8 mV; tape head 1.9 mV; aux. #1 200 mV, aux. #2 500 mV; Amp. response 15-50,000 Hz ± 1 db; HD 0.8% at rated output; IM dist. 1% at rated output. 15V/240 V, 50/60 Hz power input $189.95

STA701B AM-FM Stereo Receiver
35 W/ch (IHF) dynamic power into 8 ohms; AM-FM tuner has same perform-
ance as Model FAM12 tuner; amp. HD 0.8% at rated output; IM dist. 1% at rated output. Response 15-50,000 Hz ± 1 db; input sensitivity: mag. phono 2.8 mV; tape head 1.8 mV; aux. #1 200 mV; aux. #2 500 mV. 14½ x 4½ x 12½". d. 117 V/240 V, 50/60 Hz power input $239.95

1101 AM-FM Stereo Receiver
56 W/ch (IHF) dynamic power into 8 ohms (80 W/ch into 4 ohms); 37 W/ch continuous power into 8 ohms with both channels driven; response (aux.) 20-40,000 Hz ± 1 db; HD 0.3% at rated output (IM dist. 0.6%). FM sensitivity: 1.5 µV (IHF); capture ratio 1.5 dB; input sensitivity: mag. phono 2 mV; mic. 2 mV; tape 200 mV. Features separate AM & FM tuning; interstation muting; mic input. Has 2 vu meters. 6½" x 18½" x 14½" d. 117 V/240 V, 50/60 Hz power input. Supplied with satin black metal cabinet $399.95 With walnut cabinet $419.95

NORELCO
790 AM/Stereo-FM Receiver
Features 25 W/ch continuous r.m.s. into 8 ohms with both channels driven (29

1971 EDITION
W/ch @ 4 ohms & 18 W/ch @ 16 ohms); 24 W/ch dynamic (IHF) power into 8 ohms. HD 0.2%; IM 0.5%; response 20-20,000 Hz ±0.5 dB; power bandwidth 18-30,000 Hz, input sensitiv-
ty: mag. phono 3.8 mV; ceramic phono (aux.) 70 mV; tape 100 mV; FM usable sensitivity 3.5 µV for 26 dB S/N ratio; capture ratio (IHF) 4 dB. Features main/remote speaker facilities & touch control; tuning of 3 FM stations. Also has sepa-
rate short-wave bands (6-18 MHz). 20½" x 3½" x 10". With walnut cabinet $299.95

OLSON ELECTRONICS
RA-192 AM/Stereo-FM Receiver
15 W/ch dynamic power into 8 ohms; Has illuminated black-out dial; tuning meter; stereo indicator lamp. Capture ratio 6 dB; response 20-20,000 Hz; HD 1%. Has inputs for mag. phone & aux. 16½" w. x 3½" h. x 8½". 50/60 Hz opera-
tion. With walnut cabinet $100.00

RA-193 AM/Stereo-FM Receiver
Features 30 W/ch dynamic power into 8 ohms. Has black-out dial; tuning meter; stereo indicator. Inputs: mag. & crystal phono, tape, and auxiliary. FM sensitivity 2 µV; response 20-20,000 Hz. 14" w. x 5" h. x 11½". 50/60 Hz. Walnut cabinet $159.98

RA-194 AM/Stereo-FM Receiver
42½ W/ch dynamic power into 8 ohms. Features three-dimensional effect and aluminum front panel; stereo-FM indicator lamp; tuning meter. Inputs for phono (mag. & ceramic), tape head, and aux. Response 20-20,000 Hz. FM sensitivity 2.0 µV; 4-16 ohms. 16½" w. x 5½" h. x 14½". 50/60 Hz. Walnut cabinet $200.00

RA-195 AM-FM Stereo Receiver
75 W/ch dynamic power into 8 ohms. Features two IC's plus FET; front-panel tape recorder jacks; dual tuning meters for center-of-channel tuning; FM stereo indicator light; main & remote speaker terminals; tape head inputs. FM sensitiv-
ty 1.5 µV for 30 dB quieting; response 30-20,000 Hz ±3 dB. Imp. 4-16 ohms. 18½" w. x 14½" d. x 5½". 50/60 Hz operation. With walnut cabinet $325.00

RA-300 AM/Stereo-FM Receiver
Features 125 W/ch dynamic power into 8 ohms. Receiver incorporates 2 ceramic i.f. filters, 4 IC's. Has stereo indicator lamps, dual vu meters. Capture ratio 2.5 dB; response 15-25,000 Hz. 17" w. x 5" h. x 13½". With walnut cabinet. $349.98

PANASONIC
All receivers provide main/remote speaker selection and are supplied with walnut cabinet.

SA-40 AM-FM Receiver
Stereo design: 20 W/ch (IHF) dynamic power into 8 ohms (27½ W/ch into 4 ohms); 12 W/ch continuous r.m.s. into 8 ohms & with 0.8% HD; IM dist. 1.2%; power bandwidth 20-50,000 Hz; response aux. 30-50,000 Hz ± 3 dB; input sensitivity: phono #1 3.5 mV; phono #2 10 mV; aux. & tape monitor 170 mV; Has h.f. filter. FM sensitivity (IHF) 2.5 µV; capture ratio 3 dB. 16" x 5½" x 14" $219.95

SA-60 Same as SA-40 except 25 W/ch (IHF) dynamic power into 8 ohms (30 W/ch into 4 ohms); 22½ W/ch continuous r.m.s. into 8 ohms; IM dist. 1%; re-
sponse aux. 30-60,000 Hz ± 3 dB; input sensitivity: aux. & tape monitor 230 mV. Does not have h.f. filter; FM sensitivity (IHF) 2.2 µV; capture ratio 2.5 dB. Has center-channel output; 19½" x 5½" x 14" $279.95

SA-50 Same as SA-60 except does not have AM circuits. $249.95

SA-70 AM-FM Receiver
Stereo design; 40 W/ch (IHF) dynamic power into 8 ohms (45 W/ch into 4

ohms); 32 W/ch continuous r.m.s. into 8 ohms with 0.8% HD; IM dist. 1%; power bandwidth 15-70,000 Hz; response aux. 30-60,000 Hz; input sensitivity: phono #1 4 mV; phono #2 8 mV; aux. & tape monitor 200 mV. Has low & h.f. filters; FM sensitivity (IHF) 2 µV; capture ratio 2 dB. Has center-channel output. 19½" x 5½" x 14" $349.95

SA-6500 AM-FM Receiver
Stereo design: 70 W/ch (IHF) dynamic power into 8 ohms (100 W/ch into 4 ohms); 50 W/ch continuous r.m.s. into 8 ohms with 0.5% HD (65 W/ch into 4 ohms); IM dist. 1%; power bandwidth 15-
60,000 Hz; response aux. 20-60,000 Hz ±1 dB; input sensitivity: phono #1 & #2 3 mV; aux. & tape monitor 170 mV; has low & hf filters. FM sensitivity (1 kHz) 1.8 µV; capture ratio 1.5 dB; 1.6% x 5% x 15%... $399.95

SA-4000 FM Stereo Receiver
Features automatic meter tuning; also has capability for presetting up to 5 stations; a remote control is available. Has ceramic phono 20 W/ch. Dynamic (HI) power into 8 ohms (90 W/ch into 4 ohms); 60 W/ch continuous r.m.s. into 8 ohms with 0.1% HD; FM dist. 0.2%; power bandwidth 20-30,000 Hz; response aux. 20-50,000 Hz ±3 dB; input sensitivity: phono #1 3 mV; phono #2 2.5 mV; aux. & tape monitor 150 mV. FM sensitivity (HI) 1.5 µV; capture ratio 1.25; 20% x 7% x 16%... $990.00

PIONEER
SX-2500 AM-FM Stereo Receiver
104 W/ch (HI) dynamic power into 8 ohms (170 W/ch into 4 ohms); 84 W/ch continuous into 8 ohms (120 W/ch into 4 ohms). HD 0.5% at 1000 Hz. Response 20-70,000 Hz ±2 dB; power bandwidth 20-30,000 Hz. Input sensitivity: mag. phono 2.7 mV; ceramic phono 60 mV; aux. & tape monitor 200 mV. FM sensitivity (HI) 1.6 µV; capture ratio 1 dB. Features automatic tuning & turning button sends tuning to next station left or right. Has remote (23 feet) for auto-tuning & volume. Has center-channel output; crystal filters in f.f. stages; interstation muting. 19% x 5% x 15%... $549.95

SX-9000 AM/Stereo-FM Receiver
120 W/ch dynamic power into 4 ohms (75 W/ch @ 8 ohms); 60 W/ch continuous power @ 4 ohms (50 W/ch @ 8 ohms) with both channels driven. HD 0.5% @ rated power; response 10-35,000 Hz ±1 dB; power bandwidth 10-35,000 Hz; input sensitivity: mag. phono 2.5 mV; aux. & tape monitor 160 mV; mic 1.6 mV. FM sensitivity: 1.6 µV (HI); capture ratio 1 dB. Features stereo or mono mic mixing; revver control; controllable 0-2 sec.; three-pair speaker selector capability. Has 110, 120, 130, 220, 240 volts universal-type power supply. 20% x 7% x 13%... $499.95

SX-900 AM/Stereo-FM Receiver
50 W/ch dynamic power into 4 ohms (28 W/ch continuous power @ 8 ohms with both channels driven). HD 0.5% @ rated output & 1 kHz. Response 10-100,000 Hz ± 3 dB; power bandwidth 15-40,000 Hz. Input sensitivity: mag. phono 3.3 mV; ceramic phono 24 mV; tape monitor & aux. 200 mV. FM usable sensitivity (HI) 1.7 µV. Has mic input for either channel. Universal power supply 110, 117, 130, 220 & 240 volts. 18% x 5% x 14%... $299.95

SXL-5000T AM/Stereo-FM Receiver
Features 90 W/ch dynamic power at 4 ohms. HD 0.5% at 1 kHz @ rated output (72% W/ch @ 8 ohms); 70 W/ch continuous power into 4 ohms with both channels driven (58 W/ch into 8 ohms). Has facilities for mic mixing. Power bandwidth 15-70,000 Hz. Response 20-40,000 Hz ±1 dB; power bandwidth 20-20,000 Hz. Dynamic power (HI) sensitivity 3.1 µV; FM usable sensitivity 1.7 µV; capture ratio 0.7 dB. Features automatic mono/stereo sw., four IC's; main/remote speaker sw.; phono & 2 selector. 18% x 5% x 14%... Has rosewood end pieces & mic... $399.95

SX-440 AM/Stereo-FM Receiver
Features 20 W/ch (HI) music power at 4 ohms (16½ W/ch at 8 ohms): 15 W/ch continuous power with both channels driven at 4 ohms (12 W/ch at 8 ohms). Response 20-70,000 Hz ±3 dB; power bandwidth 20-20,000 Hz. FM sensitivity 2.5 µV (HI). Inputs: phono 3 mV; tape monitor & aux. 130 mV. Will handle two separate speaker systems. 15½" x w. x 5¼" x 15". With walnut cabinet... $199.95

SX-700 AM/Stereo-FM Receiver
Features 35 W/ch (HI) dynamic power at 4 ohms (26 W/ch at 8 ohms): 17 W/ch continuous power at 4 ohms (15 W/ch at 8 ohms); HD 0.8%. Response 20-40,000 Hz ±3 dB; power bandwidth 15-35,000 Hz. FM usable sensitivity (HI) 1.8 µV. Input sensitivity: mag. phono 2.5 mV; ceramic phono 56 mV; mic 5 mV; tape monitor & aux. 200 mV. Will power two separate speaker systems. With walnut cabinet. 16" w. x 5½" x 13¾"... $249.95

REALISTIC
STA-36 AM-FM Stereo Receiver
FM sensitivity 3.0 µV (HI); output 18 W/ch (HI) at 8 ohms; HD 1% at rated power; response 20-20,000 Hz ±1 dB. Can be used with 4-ohm speakers. Walnut case included... $119.95

STA-45SB FM Stereo Receiver
FM sensitivity 2.5 µV for 20 dB quieting; amplifier response 20-20,000 Hz ±1 dB. Features 2½ W/ch (HI) into an 8-ohm load; HD below 1%. Has two rate volume meters & speaker selector and tape monitor switches. Can be used with 4-ohm speakers... $159.95

STA-65C AM-FM Stereo Receiver
32½ W/ch (HI) at 8 ohms; HD 0.8% at rated power; FM sensitivity 2.0 µV (HI). Has two tuning meters, slide volume controls, walnut cabinet... $199.95

STA-120 AM-FM Stereo Receiver
Solid-state design with 70 W/ch (HI) into 8 ohms; FM sensitivity 2 µV for 20 dB quieting. Built-in AM & FM antennas. HD below 1%. Has tape monitor, speaker selector switch, slide volume controls, dual tuning meters, and walnut case... $269.95

ROBERTS
Model 30 AM-FM Stereo Receiver
Solid-state design; 7½ W/ch dynamic power @ 8 ohm load; has switchable inputs for magnetic or ceramic cartridges; automatic stereo/mono indicator. Supplied with walnut cabinet...$179.95
Model 50 Same as Model 30 except 25 W/ch dynamic power... $199.95

Model 120 AM-FM Stereo Receiver
50 W/ch (HI) dynamic power into 8 ohms (60 W/ch at 4 ohms); 37½ W/ch continuous power per channel at 8 ohms; HD 0.8% at rated output; power bandwidth 20-30,000 Hz at 8 ohms. Input sensitivity: mag. phono 3 mV; aux. 200 mV; tape monitor 200 mV; 4-16 ohms output. FM sensitivity (HI) 2 µV; capture ratio (HI) 2 db; power source 100-240 V, 50/60 Hz. Has both field-strength & station center-tuning meters; main/remote speaker selection and both 75 & 300 ohm FM antenna inputs. With oiled walnut cabinet. 15½" x 17½" x 13¼"... $299.95

ROTEL
FAX-330-A AM-FM Stereo Receiver
30 W/ch (HI) dynamic power into 4 ohms: 17 W/ch continuous sine wave into 8 ohms; HD 0.3%; at rated output. 8 ohms; power bandwidth 30-17,000 Hz. response 25-20,000 Hz ±1.5 dB at rated output. Input sensitivity: mag. phono 3 mV; ceramic phono & aux. 200 mV. FM sensitivity 2.5 µV (HI); capture ratio 2.5 dB. Has walnut cabinet. 16½" x 10½" x 5½"... $189.95

STEREO HI-FI DIRECTORY
FAX-550A AM-FM Stereo Receiver
40 W/Ch dynamic power into 4 ohms (22 W/Ch continuous into 8 ohms); response 15-35,000 Hz ± 1.5 dB at rated output; Input sensitivity: mag. phono 2 mV; ceramic phono 200 mV; aux. 200 mV. FM sensitivity 2.2 µV (IHF); capture ratio 2.5 dB. 16% x 13% d. x 5¼ h. $249.50

FAX-660A AM-FM Stereo Receiver
60 W/Ch dynamic power (ohms) at 4 ohms; 30 W/Ch continuous at 8 ohms:

HD 0.2% at rated output; power bandwidth 20-25,000 Hz; response 15-35,000 Hz ± 1.5 dB at rated output. FM sensitivity 2.0 µV (IHF); capture ratio 2.5 dB. Input sensitivity: mag. phono 2 mV; ceramic phono 180 mV; aux. 200 mV. FM sensitivity 1.8 µV (IHF); capture ratio 1 dB. Has 300 & 75 ohm antennas; main/remote speaker sw. 18" x 5" x 13¾". $399.95 Optional wood case. $22.50

FAX-1000 AM-FM Stereo Receiver
100 W/Ch (IHF) dynamic power into 4 ohms (50 W/Ch continuous into 8 ohms); power bandwidth 15-50,000 Hz; response 10-50,000 Hz ± 1.5 dB at rated power; HD 0.1% at rated output; input sensitivity: mag. phono 2 mV; ceramic phono 180 mV; aux. 250 mV. FM sensitivity 1.8 µV (IHF); capture ratio 2 dB. Has center-channel output; crystal filter i.f.; main/remote speaker switch; interpolation muting; zero-center FM tuning meter; microphone gain 0 to 22 dB. 40½" x 18½" x 13½" d. $399.50

SANSUI

5000A AM-FM Stereo Receiver
70 W/Ch (IHF) dynamic power into 8 ohms (90 W/Ch into 4 ohms); 55 W/Ch continuous power at 8 ohms with both channels driven (75 W/Ch into 4 ohms); HD 0.8% at rated output; power bandwidth 15-30,000 Hz at 8 ohms; response 10-50,000 Hz ± 1 dB; input sensitivity: mag. phono 2.5 mV; tape head 2.5 mV; aux. 150 mV; tape monitor 200 mV. FM sensitivity 1.8 µV (IHF); capture ratio 1.5 dB. Features stereo-only circuit; 3-system speaker selector switch; center-channel tuning meters. 4½" x 17½" x 14½" d. $399.95 Optional wood cabinet. $22.50

4000 AM-FM Stereo Receiver
Solid-state design; IC'S; 80 W/Ch dynamic power at 4 ohms (60 W/Ch at 8 ohms); 65 W/Ch continuous sine wave power with both channels driven (45 W/Ch at 8 ohms). HD & 1M dist. 0.8% at rated output; response 10-50,000 Hz ± 1 dB; power bandwidth 20-30,000 Hz at 8 ohms; output 4 to 16 ohms. FM sensitivity 1.8 µV (IHF), 1.4 µV for 20 dB quieting. THD (tuner section) less than 0.03%; capture ratio 1 dB. Features inputs for 3 pairs of stereo speaker systems: signal strength meter; FM center-tuning meter; FM SCA filter. 14½" x 9½" x 13¾". $349.95 Optional wood case. $22.50

1971 EDITION

2000A AM-FM Stereo Receiver
90 W/Ch (IHF) dynamic power into 8 ohms (60 W/Ch into 4 ohms); 35 W/Ch continuous into 8 ohms with both channels driven (43 W/Ch at 4 ohms); HD & 1M dist. each 0.8% at rated output; power bandwidth 20-40,000 Hz at 8 ohms; response 10-50,000 Hz; HD 0.5% at rated output; input sensitivity: mag. phono -4.5 mV; tape in & aux. 0.25 V; FM sensitivity 2.2 µV for 30 dB S/N; capture ratio 2.5 dB. Features tape monitor; main/remote speaker selection. 14½" x 14½" x 4¼" $199.95

342-C FM Stereo Receiver
Features 45 W/Ch dynamic power at 4 ohms; continuous power (at 0.8% distortion) at 4 ohms 33 W/Ch; 25 W/Ch at 8 ohms; power bandwidth 20-20,000 Hz; response 1-25,000 Hz ± 1 dB. HD usable sensitivity 1.9 µV; capture ratio 2.5. FM sensitivity 0.8% at 6 mV; response 15" x 11½" x 5½" $269.95 382-C, Same as Model 342-C except with AM circuits. $299.95

386 AM-FM Stereo Receiver
Features 67½ W/Ch dynamic power at 4 ohms; 42 W/Ch continuous at 4 ohms; 35 W/Ch continuous at 8 ohms, 0.8% HD. Response 10-25,000 Hz ± 1 dB; power bandwidth 10-25,000 Hz; HD usable sensitivity 1.9 µV; capture ratio 2.5 dB. PHF selectivity 0.8% at 6 mV. $389.95

387 AM-FM Stereo Receiver
70 W/Ch (IHF) dynamic power into 8 ohms (110 W/Ch into 4 ohms); 55 W/Ch continuous power into 8 ohms with both channels driven (85 W/Ch into 4 ohms); HD 0.5% at rated output; power bandwidth 10-30,000 Hz; HD sensitivity: mag. phono 64.5 mV; aux. 8.5 mV; mic 5.5 mV; aux. & tape in 0.7 mV. FM sensitivity 1.9 µV for 30 dB S/N; capture ratio 2.5 dB. Features interstation muting, slope dial panel; main/remote speaker selection. 17½" x 15" x 6½". $249.95

SHERWOOD

S-7100 AM/FM Stereo Receiver
Features 35 W/Ch (IHF) dynamic power into 8 ohms (40 W/Ch into 4 ohms); 25 W/Ch continuous r.m.s. power into 8 ohms with one channel driven (30 W/Ch into 4 ohms). HD 1% into 8 ohms at rated power (0.35% at 10 W); power bandwidth 25-20,000 Hz @ 1% dist.; response 25-20,000 Hz ± 0.6% ± 1.5 dB at normal listening level; FM usable sensitivity (IHF) 2.5 µV for 20 dB quieting; input sensitivity: mag. phono 2.5 mV; tape in & aux. 0.25 V; FM sensitivity 2.2 µV for 30 dB S/N; capture ratio 2.5 dB, $199.95

S-7500 AM/FM Stereo Receiver
Features 50 W/Ch (IHF) dynamic power into 8 ohms (60 W/Ch into 4 ohms); 40 W/Ch continuous r.m.s. power into 8 ohms with one channel being driven (50 W/Ch into 4 ohms). HD 0.6% at 8 ohms & rated output (0.15% at 10 W). Power bandwidth 18-25,000 Hz @ 1% dist. Response aux. 20-20,000 Hz ± 1 dB. Input
 Receivers

sensitivity: phone 2/7/14 mV variable to 50 mV; aux. 700 mV; FM sensitivity 1.8 µV (IHF) (-30 dB noise & dist.); Capture ratio 2.5 dB. Head (HF) i.f. circuits: main/remote speaker facilities; FM zero-center tuning meter; front-panel control adjusts channel/HEFMush sensitivity. 16% x 12.5% x 5.4". $339.95

W9 Oiled walnut cabinet $28.00
S-8500 Same as S-7500 except without AM circuitry $299.95

S-7900 AM/Stereo-FM Receiver Features 60 W/ch (HF) dynamic power into 8 ohms (90 W/ch into 4 ohms); 48 W/ch continuous r.m.s. into 8 ohms with one channel driven (70 W/ch into 4 ohms). HD 0.3% @ 8 ohms & rated power (0.1% at 10 W). 1M dist. 0.6% @ 8 ohms & rated power (0.1% at 10 W); power bandwidth 12-30,000 Hz @ 1% dist. Response aux. 20-20,000 Hz ± 1 dB; input sensitivity: phono 1.6 mV variable to 50 mV; aux. 200 mV; FM sensitivity (IHF) 1.7 µV (-30 dB noise & dist.); capture ratio 1.9 dB. Has front panel tape dubbing jack; ceramic i.f. circuit; zero-center FM tuning meter & main/remote speaker facilities. 19.8" x 11.6" x 4.5". With metal cabinet $439.95
W9 Oiled walnut cabinet $28.00
S-8900 Same as S-7900 except does not have AM circuitry $399.95

SEL-200 Stereo-FM Receiver Features 70 W/ch (HF) dynamic power @ 8 ohms (30 W/ch r.m.s. with one channel driven) & 112 W/ch (HF) music power @ 4 ohms (42½ W/ch r.m.s.). HD 0.2% @ 8 ohms & rated output (0.1% @ 10 W); 1M dist. 0.6% @ 8 ohms & rated output (0.1% @ 10 W). Power bandwidth 8-35,000 Hz @ 1% dist.: response aux. 20-20,000 Hz ± 1 dB; amp sensitivity 0.5% variable to 7.2 mV; tape monitor & aux. 200 mV. FM sensitivity (IHF) 1.5 µV (-30 dB noise & dist.). FM quieting 0.9 µV for 20 dB (3 µV for -50 dB); capture ratio 1.7 dB. Has 9-pole "Legendre" toroid IF i.f. filter; 4-gang, 3-FET r.f. tuning circuit, zero-center tuning meter; FM signal-strength meter; main/remote speaker facilities. 19.8" x 6¼" x 14". With metal cabinet. $599.00
W4 Walnut cabinet $299.95
Prices quoted are "Fair Trade Minimum Resale."

SONY

STR-6050 AM/Stereo-FM Receiver FM sensitivity (IHF) 2.2 µV; capture ratio 2.5 dB. W/ch dynamic power at 8 ohms (45 W/ch r.m.s.). Output 4, 8, 16, 32, 48, 64, 80, 96, 120, 160, 200, 300, 400, 600, 800, 1000, 1200, 1500 Hz. $25.50

STR-6040 AM/Stereo-FM Receiver Features 16 W/ch (HF) (15 W/ch r.m.s.) at 0.5% THD & 0.5% IM dist. (1M dist. 0.1% Response 30-50,000 Hz ± 1 dB; FM sensitivity phono 2.5 µV; FM capture ratio 2.5 dB. 15/8" x 12¾" x 5½" $199.50
TAC-1 Walnut cabinet $24.50

STR-6050 AM/Stereo-FM Receiver FM sensitivity (IHF) 2.6 µV. Features 35 W/ch (HF) (30 W/ch continuous sine wave) at 0.2% THD & 0.4% IM dist. (1M dist. at 1 W. W = 0.2%) Response 30-50,000 Hz ± 1 dB. FM tuner performance same as Model STR-6040. 17¾" x 13½" x 5¼" $279.95
TAC-5 Walnut cabinet $3.60

STR-6120 AM/Stereo-FM Receiver Features 75 W/ch (HF) (60 W/ch continuous sine wave) at 0.2% THD & 0.3% power bandwidth 9-30,000 Hz; response 20-20,000 Hz ± 1 dB. FM sensitivity 1.9 µV (IHF) 30 dB S/N ratio; capture ratio 1.8 dB. Features S-pole phase-linear toroid filters in i.f. stages; center-tuning meter; interstation muting; high & low level, phono inputs; main/remote speaker selector; 4½" x 17½" x 15½". With cabinet $330.00
Model 1520 Same except 40 W/ch (HF) dynamic power $440.00

WEBCOR

ST-180 AM-FM Receiver Features 50 W/ch dynamic power (EIA) at 8 ohms. Response 20-50,000 Hz ± 1 dB; FM sensitivity 1 µV for 20 dB quieting. 4½" x 17½" x 12". Walnut cabinet $289.95

ST-185 AM-FM Receiver Features 30 W/ch dynamic power (EIA) at 8 ohms. Response 20-50,000 Hz ± 1 dB. FM sensitivity 3.2 µV for 20 dB quieting. Has inputs for ceramic & magnetic phono cartridges & auxiliary: 8½" x 4½" x 8½". Walnut cabinet $249.95

WFX-151 AM/Stereo-FM Receiver Features 10 W/ch dynamic output (EIA). Has stereo indicator and is supplied with two separately housed speaker systems. Receiver size 17¾" x 10¼" x 4½". $124.95

YAMAHA

AA-70 AM/FM Stereo Receiver Features 65 W/ch dynamic power (HF) at 40 W/ch @ 8 ohms. Continuous r.m.s. power is 55 W/ch @ 8 ohms (35 W/ch @ 4 ohms); HD 0.3% at 1000 Hz, 1M dist. 0.8%. Power bandwidth 1 KHz @ 8 ohms. FM sensitivity: phono 3 µV, aux. 170 mV; tape monitor 200 mV, FM usable sensitivity 2.5 µV (HF). With cabinet. Over-all size 18½" x 17½" x 5¼" $269.00

STereo Hi-Fi DIREcTOry
Introducing... The Stereo "Deceiver"

It looks straightforward enough. But, the clean front panel of the new Sony 222 FM Stereo/FM-AM receiver hides a simple, but effective circuit. A tuner section sensitive enough (2.0uV for 30dB quieting) to bring in even the weakest stations free of distortion. An amplifier that puts out 24 watts IHF at less than 0.8% distortion both channels operating into 8 ohms. Plenty of power. And a frequency response of 20 to 50,000 Hz ± 3dB for clean reproduction from the bottom to the top of the audible spectrum.

The Sony 222 is devoid of frills. But all of the essentials are there — even a few essential extras like speaker selector switch, a signal strength meter, a high filter, a stereo indicator light and a stereo headphone jack.

Now the grand deception. The $149.50* price which includes the walnut case. It's far less than you would expect to pay for such performance. It sort of makes purchasing the Sony 222 a rather straightforward decision.

Sony Corporation of America, 47-47 Van Dam Street, Long Island City, N.Y. 11101

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FM Tuners

FM Tuners
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AM-FM Stereo Tuners

ALLIED

295 AM-FM Stereo Tuner
FM sensitivity: 1.5 µV; response 15-
50,000 Hz ± 1 dB; capture ratio 1.5 dB.

Has 4 integrated circuits & crystal filters. Field-strength & center-tuning meters. With metal case: $249.95
14B5520U .......................... $19.95
14B5003X Oiled walnut wood cabinet. .......................... $99.95

ALTEC LANSING

724A AM-FM Tuner/Preamp
Stereo design for use with Altec Barcelona Bi-amp speaker systems. Has Butterworth & crystal filters and indicator lights on all push-button functions; FM sensitivity (IHF) 1.8 µV; capture ratio 1.3 dB. Response 20-15,000 Hz ± 1 dB. Input sensitivity: phono #1 2 mV, phono #2 2 or 5 mV; output 5 V r.m.s. 5" x 17/8" x 16/8", d. .......................... $550.00
4216I Walnut cabinet .......................... $28.50

BIC / LUX

71/5T AM-FM Stereo Tuner
Features a 4-gang FET cascade varactor tuner; crystal i.f.; interstation muting & 3 pre-set FM station tuning. Has field-strength meter along with center-tune light; FM sensitivity 1.2 µV for 30 dB S/N ratio; capture ratio 2.5 dB. Has extruded front panel with end bells. .......................... $322.00

71/7T AM-FM Stereo Tuner
FM sensitivity: 2.2 µV for 30 dB S/N ratio; capture ratio 4 dB. Has field-strength meter & extruded front panel with end bells. 16½" x 5" x 9", d. .......................... $179.00

DYNACO

Model FM-1 FM Tuner Kit
Low-distortion, drift-free FM tuner; etched-circuit construction; high usable sensitivity: EM-84 tuning eye permits precision alignment without test instru-
ments; slug-tuned pre-aligned coils; four i.f. stages; balanced-bridge wide-band discriminator; feedback audio stage for 2-
volt, low-impedance output; front-panel volume control; cover included.
Kit .......................... $74.95
FM-1/A Factory assembled ....$109.95
PK-4 Panel mount accessory kit for any Dynatuner combination ....$4.95
PK-40 Deluxe panel & knob kit (supplied as standard on FM-3 tuner) ....$9.95

Model FM-3 Stereo-FM Tuner Kit
Completely integrated design combining FM-1 tuner & FMX-3 multiplex circuits; etched circuit boards are used throughout; sensitivity 4 µV for 30 dB of quieting at 100% modulation; response 10-40,000 Hz ± 1 dB; noise 70 dB below 100% mod.; distortion at 100% mod.: 3% IM & HD from 10 µV to 1 V input; has simplified alignment procedure without requiring test instruments.
Kit .......................... $74.95
Factory wired .......................... $154.95

EICO

"Cortina" 3200 Stereo-FM Tuner
Sensitivity: 2.4 µV for 30 dB quieting; channel separation 40 dB @ 1 kHz; HD 0.75%; capture ratio 4.5 dB; S/N ratio 60 dB; image rejection 45 dB; full limiting 40 µV, 19 kHz suppression 40 dB; SCA suppression 50 dB. Response 20-15,000 Hz ± 1 dB. Features automatic time-
switching circuitry; stereo indicator light, a.f.c., tuning meter. All r.f., i.f. & multi-
plex circuits supplied completely assembled and pre-aligned. 3½" x 12" x 7½", d. Supplied with cabinet.

Kit .......................... $99.95
Wired .......................... $139.95

"Cortina" 3300 AM/Stereo-FM Tuner
Features IIF usable sensitivity 3.5 µV for 30 dB quieting; HD 1.75%; full limiting 100 µV. Has preassembled front end, multiplex circuits & i.f.'s. 3½" x 12" x 6½", d. Supplied with vinyl-clad metal cabi-
et.
Kit .......................... $69.95
Assembled .......................... $109.95

ELECTRO-VOICE

E-V 1255 FM Tuner
Design matches 1244 amplifier. Has automatic mono/stereo switching with stereo indicator light & tuning indicator. FM sensitivity 2 µV for 25 dB quieting; HD 1% at 100% modulation. Capture ra-
tio 2.5 dB; channel separation 30 dB @ 1 kHz; controls arc: tuning, "on-off", mono/stereo, a.f.c. "on-off", local/dist-
tant switch. Left & right channels can be paralleled for mono operation. 3½" h. x 8½" w. x 10¼", d. .......................... $147.60

HEATH

Model AJ-14 FM Stereo Tuner
Complete FM, FM stereo. Has automatic stereo indicator; stereo phase control; fil-

1971 EDITION
KNIGHT-KIT
KG-796 AM-FM Stereo Tuner
Silicon solid-state circuit with critical circuits assembled & tested with parts mounted and soldered on PC boards for quick interconnection. FM circuit has two tuned r.f. stages. Has FM stereo indicator light & indoor dipole FM antenna. FM usable sensitivity (IHF) 3 µV; response 30-15,000 Hz ±0.5 dB; HD 1.0%; capture ratio 3 dB. Output voltage 0.8 V with 1000 µV input signal; 100% modulated at 400 Hz. Matches KG-865 stereo amplifier. 3½" x 13" x 10" d.
22A3918X. Kit ......................................$79.95
22A3713X. Oiled walnut wood case ..........$129.95

LAFAYETTE
LT-670 AM-FM Stereo Tuner
Solid-state stereo indicator light; multiplex filter; frequency-locking control; front & rear tape output jacks; automatic stereo switching. FM sensitivity (IHF) 3.5 µV; capture ratio 5 dB; S/N ratio 50 dB. With simulated walnut-grain metal case. 10¾" w. x 3½" h. x 8¾" d. ..................................$69.95
LT-725 AM-FM Stereo Tuner
Solid-state design with four IF's; tuning meter; stereo indicator light; tape output; and "black-out" dial. Response 50-15,000 Hz. FM sensitivity (IHF) 1.7 µV; capture ratio 1.5 dB. With simulated walnut-grain metal case. 12" x 9½" x 3½". ..................................$99.95

LEAK
"Stereofonic" FM Stereo Tuner
Sensitivity 2 µV for 30 dB S/N ratio; audio output 0.9 V r.m.s.; response 40-15,000 Hz ±1 dB; capture ratio 3.5 dB. Has ceramic I.F.'s; interstation muting & push-button controls for stereo stations only or mono stations only. 11½" x 4½" x 7½". ..................................$225.00

20 Stereo-FM Tuner
Features built-in scope, a unique I.F. circuit based on the development of a
"twelve pole" phase linear filter, Butterworth filters in I.F. stages & 4 limiters. IHF sensitivity 2.8 µV. Has automatic stereo switching. 15¾" x 9½" x 14½" d. ..................................................$595.00
WC-1 Walnut cabinet .......................$32.50
RPK-20 Rack panel kit ...................$50.00
23 AM/Stereo-FM Tuner
Same as Model 22 AM/Stereo-FM receiver except does not have power amplifiers or preamps. 15¾" x 9½" x 12½" d. ........................................$259.00
WC-1 Walnut cabinet .......................$32.50
24 AM/Stereo-FM Tuner/Console
Same as Model 22 except does not have power amp. Has all the control facilities and AM-FM circuits as in Model 22. 13¾" x 9½" x 12½" d. ..................................$339.00
WC-1 Walnut cabinet .......................$32.50

NIKKO
FAM12 AM-FM Stereo Tuner
FM sensitivity 1.8 µV (IHF); capture ratio 3 dB; 1.5 V audio output. Has interference channel muting; 117 V/240 V, 50/60 Hz power input. 12" x 3½" x 10" d. ..................................$109.95
FAM14 AM-FM Stereo Tuner
FM sensitivity 1.8 µV (IHF); capture ratio 3 dB; 1.2 V audio output. 13" x 3½" x 9¾" d. 117 V/240 V, 50/60 Hz power input ..................................$139.95

NORELCO
697 AM/Stereo-FM Tuner
FM sensitivity 3 µV for 30 dB S/N ratio; capture ratio 4 dB; also has AM broadcast band & 2 short-wave bands (2.2-7.3 MHz & 9.5-21.75 MHz). 14" x 3½" x 10". With walnut cabinet ..................$179.95

PIONEER
TX-500 AM/Stereo-FM Tuner
Features 2.5 µV (IHF) FM sensitivity; S/N ratio 50 dB. Has tuning meter & universal 50-60 Hz, 110-240 V a.c. power supply. With walnut cabinet. 13" w. x 5" x 13¾" d. ..................................$109.95

STereo hi-fi directory
TX-700 AM/Stereo-FM Tuner
Features 1.7 µV (HIF) FM sensitivity; capture ratio 1.5 dB; output 1 V. Has two crystal filters, four integrated circuits; twin tuning meters. 110-240 V a.c. universal power supply. 15½" w. x 5½" x 14". Walnut cabinet.........$259.95

TX-700 AM/Stereo-FM Tuner
Features station presetting up to 5 stations in addition to normal manual tuning. FM sensitivity 2.2 µV (HIF); capture ratio 1.8 dB. Has universal power supply (110, 120, 130, 220 & 240 volts) 10¾" x 4½" x 13¾" d. ............$199.95.

REALISTIC
TM-7 FM Stereo Tuner
Features illuminated signal meter; stereo beacon; over 30 dB stereo separation; high-level, low-impedance outputs; response 25-20,000 Hz; 10" x 14" x 3". FM sensitivity 2.5 µV for 20 dB quieting. Walnut cabinet............$79.95.

TM-70 AM-FM Stereo Tuner
Features dual meters; stereo beacon; direct and controlled outputs for matching level of AM/FM to level of records and tape. 10" x 14" x 3". Walnut case. Response 25-20,000 Hz; FM usable sensitivity 2.5 µV .................$99.95.

REVOX
A76 Stereo-FM Tuner
Sensitivity 1 µV, 30 dB S/N ratio; capture ratio 1 dB; audio output 1 V. Features a center tuning meter & signal-strength meter; multi-path indicator light. Has universal power supply 110 to 250 V, 50-60 Hz. 16¾" x 6¾" x 9¾" d. $495.00.

SANSUI
TU-999AM-FM Stereo Tuner
Features 1.8 µV(HIF) sensitivity with HD 0.5%; capture ratio (HIF) 1.5 dB; S/N ratio 65 dB. Has 2 tuning meters (signal-strength & center-of-channel); stereo only switch; 300 & 75 ohm ant. inputs; muting switch; 110-250 V a.c. universal power supply. 17" x 6" x 13" d. $279.95 Optional wood cabinet.........$22.50.

The TU999 by Sansui is a top notch AM/FM Stereo Tuner designed from the ground up to meet the most exacting demands of today's audiophile. The TU999 has an advanced FM front end that ensures an excellent 1.8 µ V (HIF) sensitivity. FM IF filter with three IC's, crystal filter and block filter for a greatly improved distortion factor (less than 0.3%), stereo separation (better than 98dB at 400Hz) and phase characteristics. Double meters for precision tuning of FM signals. FM AGC changeover circuit for local, normal and distant stations... stereo only switch... wide dial and FM linear scale for easier and more precise tuning... high sensitivity AM tuner... and much much more. $279.95.

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Tuners

SCOTT, H.H.

312D-1 FM Stereo Tuner
Features silver-plated field-effect transistor front-end; tuning meter; automatic stereo switching; and stereo indicator lights; cross-modulation rejection 60 dB; usable sensitivity 1.7 μV; selectivity 46 dB; stereo separation 35 dB; capture ratio 2.5 dB; S/N ratio 65 dB. 14⅛" x 12½" x 4¼" $249.95

SHERWOOD

S-3300 Stereo/FM Tuner
FM sensitivity 1.8 μV (IHF) 30 dB of quieting; selectivity 250 kHz @ ±6 dB; stereo-FM response 20-15,000 Hz ±0.5 dB; capture ratio 2.0 dB; channel separation 40 dB; +95 dB cross-modulation rejection. Features FET r.f. stages. microcircuit f.l. & limiters, tuning meter, stereo indicator light, interchannel hush, automatic stereo/mono switching. 14" x 4" x 10¾" d. $197.50

S-2300 AM/Stereo-FM Tuner
Same basic design as S-3300 except has additional AM circuitry. $224.50

S-2500 AM-FM Mono Tuner
Same as S-2300 except FM-stereo omitted $177.50

S-3500 FM Mono Tuner
Similar to S-3300 except for mono only. Has switchable a.f.c. & meter switchable between 0-center tuning & signal strength; less case. $149.50 All models available for rack mounting; 3¼" x 19¾" extra. $7.50 Rack panel separately. $10.50 Leatherette cases for all models $7.50 All prices quoted are "Fair Trade Minimum Resale." In addition, $5-$7 for AW, & $7-$11 for TRADE WASH. COMP.

SONY

ST-5000F Stereo-FM Tuner
Features same FM performance as Model STR-6120 receiver; IHF sensitivity 1.8 μV; capture ratio (IHF) 1.5 dB; response 20-15,000 Hz ±0.5 dB; HD 0.2% at 400 Hz & 100% modulation. Has signal strength meter; 0-center tuning meter & automatic stereo indicator light. Has fixed 0.7 V 10,000 ohms output & variable 0-2 V 1000 ohms. $449.50 TAC-1 Walnut cabinet $24.50

ST-5600 AM/Stereo-FM Tuner
FM sensitivity (IHF) 3 μV; capture ratio 2 dB; S/N ratio 65 dB; selectivity 50 dB; response 20-15,000 Hz ±1 dB. Has stereo indicator & signal-strength meter. With walnut cabinet $119.50

ST-5100 AM/Stereo-FM Tuner
FM sensitivity (IHF) 2.6 μV; capture ratio 1.5 dB; S/N ratio 70 dB; selectivity 80 dB; response 20-15,000 Hz ±1 dB. Has stereo indicator, signal-strength meter & center station tuning meter. $219.50 TAC-9 Walnut cabinet optional.

STANDARD RADIO

SR-A100T AM-FM Tuner
FM sensitivity 5 μV for 30 dB quieting; capture ratio 6 dB. Has FM tuning meter; FM stereo indicator lamp & SCA filter. 13¼" x 3¾" x 7¼" $69.95

SR-A200T Stereo-FM Tuner
Unusual tuning system; 5-dial preset tuning for instant station selection. FM sensitivity 3 μV for 30 dB quieting. Capture ratio 6 dB. Has FM stereo indicator lamp & SCA filter. 13¼" x 3¾" x 7¼" $69.95

R-A201TU AM-Stereo-FM Tuner
FM sensitivity (IHF) 2.5 μV ±3 dB; response 30-20,000 Hz ±1 dB; capture ratio 3 dB. Has variable tuning for both AM & FM in addition to five pre-settable FM stations. Also has ceramic filters. 13¼" x 3¾" x 7¾". With walnut cabinet $99.95

Regarding Prices:
Unless otherwise indicated, all prices quoted should be considered Audio-phonie Net.
As would be expected, prices do vary across the country and those quoted are usually the ones prevailing in the manufacturer's immediate vicinity. Obviously, because of transportation costs, prices in areas remote from his location will be higher. Manufacturers reserve the right to change prices without notice.
AIWA

TP-719 Portable Recorder
Mono, dual-track, 3-speed (7\%, 3\%); with switch, and 1\%/ips capstan change; design; vox; mono, slide; car with 3" stereo changed; change; chips; 16,000 1971 A.C., 4% battery.

TP-1012 Tape Recorder
Stereo design for ac./d.c. operation (117 V a.c., 8" D cells, or 12 V battery). Features 4-track, 7" reel; automatic shut-off; two vu meters, pause controls; 2 speeds (7\% & 3\% ips; 1\%/ips with capstan change); counter; 1\%; W/cch dynamic output; two 6" x 4" speakers, Response 30-16,000 Hz. Supplied with 2 dynamic mics. 13\% x 12\% x 7\% $189.95

TP-1006W Tape Recorder
4-track; 7" reel size; 2 speed (7\% & 3\% ips: 1\%/ips with capstan change) design; Response 50-18,000 Hz \# 7/8 ips; 5 W/cch dynamic power (EIA 5\% dist); vox; W/flutter 0.2%. Features sound-on-sound; sound-with-sound; vu meters; counter; pause control & 4 dynamic monitoring 1971 EDITION

TD-1039 Stereo Tape Deck
4-track, 3-speed (1\%, 3\%, 7\% ips) play/record design. Response 30-20,000 Hz $199.95

TD-1099 Stereo Tape Deck
4-track, 3-speed (1\%, 3\%, 7\% ips) play/record design. Response 30-22,000 Hz \# 7/8 db at 7/8 ips; S/N ratio 48 dB. Input sensitivity; mic 25 mV; aux. 50 mV. Features three heads, tape monitoring, sound-on-sound, sound-with-sound, automatic shut-off & walnut grained vinyl-covered wood case. 12\% x 16" x 6\% $179.95

1467 Stereo Tape Recorder
Same as Model 767 except has 4 heads. Features automatic reversing & thread.

Tape Machines

Recorders, Players .................................. 71
Raw Tape ............................................. 84
Cartridge Machines .................................. 88

ALLIED

TR-1049 4-Track Stereo Tape Recorder
Features portable case with detachable lid speaker systems; 3 speeds (1\%, 3\%).

7\% ips. Has dual mic & aux. inputs. Response 40-18,000 Hz \# 3 db at 7/8 ips; S/N ratio 50 db. With two mics. 12\% x 19\% x 4% $158.95

AX-50 Stereo Tape Deck
Features record/play; 3 heads; tape monitoring; sound-on-sound; sound-with-sound; echo; pause/edit control. 3 speeds (1\%, 3\%, 7\% ips); 4 separate preamps (does not have power amps or speakers). Response 40-15,000 Hz \# 3 db at 7/8 ips; vox; W/flutter 0.12% at 7/8 ips. Has line & high imp, mic inputs & 0.78 V preamp output. 16\% x 15\% x 8\% $279.95

AX-300 Stereo Tape Deck
Basically same as AX-50 except has 6 heads for bi-directional record/play & automatic reverse using 20-Hz signal. Response 40-16,000 Hz; vox; W/flutter 0.4%; preamp output 1 V. Has 4 high-imp. line & 2 mic inputs. 16\% x 14\% x 8" Walnut cabinet $649.95

715 Speaker System
"Big Speaker" version for deluxe system. Has two 6" woofers, 3\% wide-dispersion tweeter. Response 50-20,000 Hz: 8 ohms. 19" x 13" x 9\% $139.95

Accessories
#702 mics; Omnidirectional dynamic type, 3\% x \% x \%. dia., with stand \#9.95
#1011 mics. Omnidirectional dynamic type \#19.95
#3001 mics. Omnidirectional dynamic high-imp. design (can be easily converted to low imp). With 18" shielded cable & adj. swivel $59.95

767 Stereo Tape Recorder
Features 3-head design providing tape monitoring, sound-on-sound, sound-with-sound & echo effect. Response 50-15,000 Hz \# 3 db at 7/8 ips; vox & W/flutter 0.08% at 7/8 ips, 8 W/cch continuous sine wave. Supplied with two mics & pair of cube-shaped speaker systems which can be placed within carrying case. 23\% x 14" x 8\% $379.95

2161 "Ultra-Automatic" Recorder
Has automatic reverse & bidirectional recording. Built-in mic & line input mixer.
Tape Machines

Supplied with 2 mics & 2 slide-on speaker enclosures (each with 6" woofer & 3½" tweeter). Features 4-track stereo, 3-speed operation. Response 50-17,000 Hz ±3 dB @ 7½ ips; flutter & wow 0.07% @ 7½ ips; 6 W/ch continuous power output, over-all size 16½" x 13½" x 7¼." $499.00

755A Stereo Tape Deck
Features 3 heads, 3-speeds, sound-on-sound, sound-with-sound, echo. Response 50-15,000 Hz ±3 dB @ 7½ ips:

- wow & flutter 0.08% @ 7½ ips. Has line & mic inputs & 0.7 V preamp outputs. Mics & walnut case optional. 13½ x 15½ x 6½." ... $249.95
- 1455A. Same except has 4 heads for tape monitor: automatic reverse & tape threading. ... $379.95

ASTROMARLUX

407 Recorder
4-track, 2-channel, 2-speed, 3-motor design; 4 heads (erase, record, playback, reverse play); modular plug-in electronics; automatic reverse; sound-on-sound; sound-with-sound; echo recording; auto tape lifters; automatic shut-off; dual calibrated vu meters; direct off-the-tape monitoring. Response 30-20,000 Hz at 7½ ips; wow & flutter 0.07% at 7½ ips; THD 1% at 1 kHz at 0 vu. 5/16" better than 50 dB. 21½" x 14½" x 10¼". Includes wood cabinet. ... $469.95

BELL & HOWELL

2433 Tape Deck
Features separate record, playback & erase heads; 3 speeds (1½, 3½ & 7½ ips); sound-on-sound & echo; sound-with-sound; 4-track stereo operation. Response 30-20,000 Hz at 7½ ips. Wow & flutter 0.1% at 7½ ips. Has aux. & mic inputs & line (0.5 V) output. 18¼" x 13¼" x 8¼." ... $199.95

2423 Tape Deck
Four-track stereo; 3 speed (1½, 3½, & 7½ ips) tape recorder. Response 30-18,000 Hz at 7½ ips. Has aux. & mic in.

CRAIG

“Craig 910” Stereo Tape Recorder
4-track, dual-speed (7½ & 3½ ips) design. Features sound-on-sound; built-in stereo preamps & power amps & two 4" x 5" spkr. Has vu meters, radio & mic inputs. Response 30-15,000 Hz @ 7½ ips. 17½" x 14½" x 5¼" d. Supplied with mic. ... $169.95

2106 Portable Recorder
Mono design; battery (six “D” cells) or optionally a.c.-operated; features 5 roll reel; 2 speeds (1½ & 3½ ips); wow & flutter...
0.3% @ 3%/ips; S/N ratio 40 dB; 0.55 W output. Response 150-7500 Hz @ 3%/ips; records on 5/8-track with d.c. erase; has mic & radio inputs; 3" x 6" speaker & remote-control mic. 10½" x 11½" x 4¾". $69.95.

2403 Stereo Tape Recorder
3-speed design with automatic shut-off: 7" reels; dual vu meters; counter; 2½ W/ch. Walnut cabinet. $239.95.

2402 Stereo Recorder
Features automatic reverse; three speeds (1%/3%, 3%/1% Ips); 4-tracks; sound-on-sound; sound-with-sound. Wow & flutter 0.15% r.m.s. at 7½ ips. Output 4 W/ch dynamic power; response 30-18,000 Hz at 7½ ips. Supplied with 2 mics. 19½" w. x 15½" h. x 12½" d. Includes separate (4) speaker systems. $349.95.

All prices quoted are "List prices".

CROWN
SX700 Series Tape Recorders
Record and play response 30-25,000 Hz ±2 db @ 7½ ips; has three-motor modular-designed transport; differential magnetic braking; automatic stop; two-speed record/play equalization; 7½ & 3½ ips (1½ & 15 ips available); handles up to 10½" reels; wow & flutter 0.09% @ 7½ ips; S/N ratio 60 db @ 7½ ips; HD 1.2%; inputs: two high imp. inputs per channel, mic or line; +6 dBm or 2.5 V output.

SX724 Two-track stereo. $995.00
SX724-P4C Four-track stereo with two- and four-track & 4-channel stereo playback. $1425.00.

SX800 Series Solid-State Recorders
Can be remote controlled; features computer logic control photocell automatic stop; three motors; differential magnetic braking. Kills. Handles up to 10½" reels; wow & flutter 0.06% @ 15 ips. Available with either mono electronics or stereo control center; response @ 7½ ips 30-30,000 Hz ±2 db; S/N ratio 60 db. Four-channel stereo control center. Basic unit with 4 unbalanced line inputs, 2 mixing inputs per channel; line (basic) or microphone, RIAA phono (using optional plug-in modules). Outputs 0 level, 5000 ohms unbalanced or up to +18 dBm (using optional amp module). Outputs 0 level, 5000 ohms unbalanced, or up to +18 dBm (using optional amp module).

CX822 Two-track stereo. $1790.00

Stereo control center. Response @ 7½ ips (4-trj) 30-30,000 Hz ±2 db; S/N ratio 60 db. Four-channel stereo control center. Basic unit with 4 unbalanced line inputs, 2 mixing inputs per channel; line (basic) or microphone, RIAA phono (using optional plug-in modules). Outputs 0 level, 5000 ohms unbalanced or up to +18 dBm (using optional amp module).

CX722 Two-track stereo. $1295.00
CX724 Quad-track stereo. $1295.00.

SX802 Series Two-track stereo. $1495.00.

PLATTERS
SX824 Quarter-track stereo. $1495.00
Complete series of SP700 and SP800 players are available.

D-40 Tape Recorder Amplifier
Solid-state 30 W/ch continuous sine-wave power into 8-ohm load (45 W/ch @ 4 ohms); damping factor is 200 at all frequencies below 1000 Hz; response 10-50,000 Hz ±1 db at rated output; HD 0.05% for all power levels up to 30 W; 1¾" x 8¾" x 19¾". Can be mounted in standard relay rack or in carrying case of Crown tape recorders.

For rack mounting. $229.00.
For shelf installation (including cover). $245.00.
2-C Walnut enclosure. $290.00.

FERROGRAPH
Series 7 Tape Recorder
Features 3 heads & 3 motors with brake, reel height & bias adjustments accessible to user. Has variable wind & rewind; vu meters to monitor source. Unmounted without power amps or speakers but including rack mounting.
713A-S Mono, half-track, 1½, 3½, 7½ ips. $599.00
713HA-S Mono, half-track, 3½, 7½, 15 ips. $649.00
702A-S Stereo half-track, 3½, 7½, 15 ips. $649.00
702BHA-S Stereo, half-track, 3½, 7½, 15 ips. $699.00
704A-S 4-track, 1¾, 3½, 7½ ips. $699.00
704AAS 4-track. 1¾, 3½, 7½ips. $699.00
Models 702A-S, 702BHA-S & 704A-S available with walnut cases at extra prices. With power amplifiers & speakers in either walnut base or portable carrying case add $20.00.

Slow speed versions available on special order.

GRUNDIG
TK246 Stereo Tape Recorder
4-track, 7¼ reel design. Will record stereo or mono & playback mono. For stereo playback an additional amp & speaker are needed. Has automatic or manual record level control & built-in tape splicing channel. 17" x 13¾" x 8". $249.95.

TRQ-700 Tape Recorder/Deck
Three-speed stereo design (7½, 3½, 1½ Ips); 7" reels; ¼-track record/playback. Does not have power amps or speakers. Features automatic end-of-cassette reverse or shut-off. Pros and cons with sound. 16" w. x 17½" x 8¼". With wood cabinet. $259.95.

TRQ-730 Tape Recorder/Deck
Three-speed stereo design (7½, 3½, 1½ Ips); 7" reels; ¼-track record/playback.

JVC
1224 Stereo Tape Recorder
Solid-state, 4-track, 3-speed (7¼, 3½, 1½ Ips) design. Has automatic reverse.

Sound-on-sound, sound-with-sound: 4½ W/ch dynamic power (EIA); 30-20,000 Hz response. Supplied with twin microphones and matching speaker enclosures with 6¼" woofer & 3½" tweeter. 12½" h. x 38½" w. x 7½" d. $329.95.

1561 Mono Tape Recorder
Two-speed (3½ & 1½ Ips); 5" reels & will
The fussiest fans in the business keep getting hooked on our line.
Today's audiophile is a demanding type. Demanding components for specific purposes. And demanding them when he wants them.

He’s our kind of customer, and we’ve usually led the industry in meeting his demands. Before that, many of these components were available only in limited hand-made or professional supply.

We were the first to design and build plug-in heads for home decks. First to make automatic reverse. And first on the home deck market over two years ago with four-channel stereo tape decks.

To stay first in new product concepts, we manufacture all our own critical components. This gives us the design flexibility that other companies lack.

And we've found that projecting tomorrow's needs is the best way to keep reeling in today's fans.

TEAC®
TEAC Corporation of America
2000 Colorado Avenue
Santa Monica, California 90404
Tape Machines

operate from 117 V a.c. or six "D" cells. Has automatic level control & mic $79.95
154. Basically same as Model 1561 except different case. Response at 7% ips is
100-7000 Hz. Has 3" x 6" oval speaker. 3%" x 11/4" x 9." ......... $69.95

1964 Tape Recorder Deck
3-speed (1/1, 3/1, 7/1) ips. 4-track stereo design: features sound-on-sound; sound-
with-sound; wow & flutter 0.15% at 7/4 ips with 30-20,000 Hz freq. response. Has mic & aux. inputs & line outputs.
12%" h. x 15/4" x 8.8" d. ......... $169.95

KENWOOD
KW-8077 Record/Playback Deck
3-motor design with automatic reverse. Has separate set of 3 heads for recording
& playback in both directions; built-in search system for quick location of re-
corded material during fast rewind; dual vu meters; tape monitor sw. Features mic &
line mixing; 2 speeds (3/4 & 7/8 ips); response 20-20,000 Hz at 7/4 ips; wow &
flutter 0.046% at 7/4 ips. 17" x 19/4" x 9. d. ............... $669.95
RC-77 Remote control............. $39.95

KW-3066 Record/Playback Stereo
Deck
Features 4 heads (play, record, crase &
full-track erase); 3 speeds (1/1, 3/4, & 7/8 ips); response 25-20,000 Hz at 7/4 ips; S/N ratio 50 db at 7/4 ips; wow & flutter
0.15% at 7/4 ; sound-on-sound & echo recording. Has mic/line inputs. 16" x 7" x 15/8" d. ............... $279.95

KW-4066 Record/Playback Deck
Stereo design featuring 3 speeds (1/4, 3/4, 7/8 ips); auto/stop; sound-with-
sound; 3 heads. Response 25-20,000 Hz at 7/4 ips; S/N ratio 50 db; wow & flutter 0.15% at 7/4 ips. Has mic/line inputs.
16" x 7/8" x 12/8" d. ............... $199.95

KLH
Model Forty-One Tape Deck
Features 4-track, 3-speed (7/4, 3/4 & 1/4
ips) stereo design with separate erase.

LAFAYETTE
RK-960 "Automatic Reversing" Tape
Recorder
4-head, 4-track stereo design. Features
one manual & three automatic tape re-
versing positions; bidirectional record &
playback; 3 speeds (1/4, 3/4 & 7/8 ips); sound-on-sound; sound-with-sound; two
4-pole induction capstan driver motors;
vu meters; stereo headphone jack; 6 in-
puts. Response 30-22,000 Hz ± 3 db @
7/4 ips. S/N ratio 50 db; wow & flutter
0.25% r.m.s. @ 3/4 ips. Housed in black
leatherette-covered wood case. 22" x
15/4" x 8/4" d. ............... $229.95

RS-710A Mono Tape Recorder
3-speed (1/4, 3/4 & 7/8 ips), dual-track
mono record/playback; has 3" x 5" speaker; record/playback level meter;
wow & flutter 0.2% @ 7/4 ips; with dy-
namic microphone & carrying case 11/8"
x 12/8" x 6/8" .................. $69.95

Pioneer
RS-736US Tape Recorder Deck
4-track, 3-speed (3/4, 7/16, 1/15 ips) design. Features phono, aux. & line inputs with


NORELCO
4408 Stereo Tape Recorder
4-track, 3-speed design; response 40-
18,000 Hz. Has 2 vu meters & facilities

for mixing, monitoring & automatic stop. Supplied with stereo mic & cabinet plus two separate speaker systems. .....$350.00

STEREO HI-FI DIRECTORY
ips; response 50-15,000 Hz ±3 dB at 7½ ips. Input levels; mic 0.45 mV: line 45 mV. 17/8" w. x 17/8" x 8" $259.95.

REALISTIC

TR-101 Tape Recorder
Complete reel tape recorder system including power amps & speakers for stereo operation; features manual/automatic tape reversing system; response 30-18,000 Hz at 7½ ips; 2 W/ output; flutter & wow 0.5%. Four heads, two vu meters. Tape speeds 7½, 3¾, and 1½ ips. $259.95
TR-101D Tape deck. Same as above, but without power amplifier, speakers, or microphones. With tinted Lucite dust cover. $199.95

909 Stereo Tape Recorder
3-speed (1½, 3¾, & 7½ ips); plays/rec-ords 4-track stereo or mono; features sound-with-sound. Supplied with 2 dy-namic mics & detachable speakers. Response 50-18,000 Hz at 7½ ips; wow & flutter 0.25%; 3¾ W/ch. Has mic & aux. inputs. 24¼" x 14" x 7½". 14-909 $169.95

999 Stereo Tape Recorder Deck
Features sound-on-sound, sound-with-sound, tape monitoring. Has 3 heads; response 40-20,000 Hz at 7½ ips; wow & flutter 0.15% at 7½ ips. 3 speeds (1½, 3¾, & 7½ ips). Has mic & aux. inputs and preamp outputs. With walnut cabinet: 15½" x 14" x 5½". 14-999 $159.95

REVOX

A77 Series Tape Recorders
Two-speed (3¾ & 7½ ips) stereo design available either at 2-track or 4-track.

Wow & flutter 0.08% at 7½ ips. Response via tape 50-15,000 Hz ±1.5 dB. Dist. at full modulation & 1 kHz is 2% at 7½ ips. Inputs: mic low (50,000 ohms) 0.15 mV; hi (to 100,000 ohms) 2 mV; radio 2 mV; aux. 40 mV. Features fully electric operation for remote functions; output amps (4-16 ohms) 8 W/ch continuous sine wave (EIA) are plug-in and optional. Will handle up to 10¾" reels; universal power-line operation from 110 to 250 V, 50/60 Hz. $569.00

1102. Two-track deck with walnut cabinet. $569.00
1104. Four-track deck with walnut cab-

1971 EDITION

RHEEM CALIFONE

3080T Mono Recorder
Dual-track, 3-speed (1½, 3¾, & 7½ ips) design; wow & flutter 0.15% @ 7½ ips; 10 W dynamic power output. Response 50-15,000 Hz. Features 8" speaker, mic & line inputs counter, vu meter. Can be used as a p.a. system & has monitor selec-tor switch. Supplied with high imp. mic. 13½" x 13½" x 7½". $168.00

70-TC Mono Recorder
Solid-state, dual-track, 2-speed (3¾ & 7½ ips) design; wow & flutter 0.18%; 10 W dynamic power output. Response 50-15,000 Hz ±2 dB. Has vu meter; 8" speaker; monitor selector sw.; counter. Can be used as a p.a. system. Supplied with high imp. mic. Over-all size 13½" x 13½" x 9". $216.00

74-TC Tape Recorder
Mono, solid-state design. Features instant pause & repeat controls: 3-speed (3¾, 7½-15 ips optional); vu meter; automatic shut-off; horizontal or vertical operation; monitor & public address circuitry. Response 50-15,000 Hz ±2 dB: output 20 W; wow & flutter 0.18% r.m.s.; S/N ratio 50 dB. Has 7 reels, 8" speaker, record/play & erase heads; mic & high-level inputs. 13¼" x 13¼" x 9". Supplied with mic. $324.50 Optiona! foot control for backspace & pause. $8.15

70-TF Tape Recorder
 Basically same as Model 74-TC except does not have instant pause & repeat features. $226.00

3205 Stereo Tape Recorder
Two-speed (7½ & 3¾ ips) mono to 4-track stereo recording with 2 & 4 track stereo playback. Tracks may be recorded independently and played back simulta-neously. Has two 9½" x 8" built-in speakers. 5 W/ch output; high-level mic & line inputs and two line & 8-ohm outputs. Response 50-15,000 Hz ±3 dB at 7½ ips; wow and flutter 0.18% @ 7½ ips. Has two heads (play/recording & erase). 15½" x 15½", 8½" d. $315.00
3206. Same as Model 3205 except for deck mount use $315.00

3077 Mono Tape Player
Features solid-state integrated circuit; 3 speeds (7½, 3¾ & 1½ ips), 2-tracks. Has 4" speaker, 4 W output, portable carrying case. 2 W continuous sine-wave output. Response 50-15,000 Hz ±3 dB @ 7½ ips. Wow & flutter 0.15% @ 7½ ips. 19" x 9¾" x 8¼" d. $115.50
3076. Same as Model 3077 except without case, speaker, or storage compart-ment. 15¾" l. x 10¾" h. x 6". $105.00

ROBERTS

Note: All Roberts stereo models, unless otherwise specified, record 4-track stereo, play back 4-track & half-track stereo; record 4-track mono; play back 4-track, half-track & full-track mono. 15 ips speed optional on all models.

33X Tape Recording System
Three-in-one recorder combines reel with cartridge and cassette recording and playback. Transfer music from reel to cartridge, from reel to cassette, or from any auxiliary source. Reel section has 4-track stereo/mono record & playback; 4 speeds; automatic shut-off; pause control; tape speed equalizer. Cartridge section permits 8-track stereo record & playback; program selector & indicator lamp; automatic stop. Cassette section has 4-track stereo record & playback; automatic stop. Complete unit includes 2 built-in speak-ers, 2 slide-type vu meters. Features Cross-Field and micron gap heads. Response 30-23,000 Hz ±3 dB at 7½ ips; wow & flutter 0.09% at 7½ ips. Input sensitivity: mic 0.15 mV; line 25 mV; 12 W/ch dynamic power output. Power source 100-240 V a.c., 50/60 Hz. 10¾" x 13¼" x 18¾". Accessory pack has 2 dynamic mics with stands, 2" reel; pre-recorded demo cassette; 15 ips kit; fuse; silicone oil kit; head-cleaner pen . . . . . $559.95

778X Cartridge & Reel Recorder
Cross-Field recording on reels even at new LP speeds; 1 micron gap record head for recording on 8-track-type cartridge; two speeds for cartridge record & play;
5050XD Tape Deck
Plays up to 10" reels. Features tape sensors for forward and reverse off-the-tape programming, automatic reverse, 3-speed hysteresis synchronous capstan motor and two eddy-current reel motors. Response 30-24,000 Hz ± 3 dB. Walnut cabinet. 17" x 15" x 91/4"...

$399.95

650XD Tape Deck
Features 3 motors (including hysteresis synchronous), four heads including Cross Field, automatic reverse, three speeds (7%, 3%, & 1½ ips), slide-out linear gain controls. Choice of 4-track mono or stereo recording. Horizontal or vertical operation. Walnut cabinet...

$399.95

1719 Stereo Tape Recorder
Solid-state; 2-speed (7½ & 3% with 15 ips optional), 4-track design. Features sound-without-sound: separate volume & tone controls for each channel; speaker "off"; record monitoring; track select; sound adding; 2 vU meters; counter; 3 heads (record, play, erase) 5 W/ch dynamic music power (3 W/ch continuous sine wave). Response 40-15,000 Hz ± 3 dB @ 7½ ips; S/N ratio 47 dB; Wow & flutter 0.25% @ 7½ ips. Has two speakers, one each side of case. Supplied with portable Pyroxfon covered case 15½" x 14½" x 9". Comes with one mic...

$199.95

1730 Stereo Tape Recorder
Features 2 speed (3½ & 7½ ips); 7½ W/ch dynamic power; 9" elliptical dual-cone speaker for each channel; response 40-17,000 Hz ± 3 dB @ 7½ ips; wow & flutter 0.18% r.m.s. at 7½ ips. Has record/play & erase heads and inputs for mic & aux.; dual record level meters. Permits sound-on-record & sound-with-sound. Can be used in p.a. amp. Supplied with 2 dynamic mics. 15½" x 15½" x 1⅛" d....

$259.95

1720 Stereo Recorder
Same as Model 1719 but has two separate detachable speaker enclosures instead of built-in. Supplied with portable Pyroxfon covered case 15½" x 14½" x 10½". Comes with 2 mics...

$219.95

Model 450A Tape Deck
4-track stereo; 3 heads (record, play, erase); all-solid-state recorder & play amplifier; 3½ & 7½ ips; automatic stop; instant pause control; off-the-tape recording monitoring; cross-field shut-off on playback head; dust cover included; wood cab...

$199.95

771X Cross-Field Recorder
22,000 Hz Cross-Field stereo; sound-on-sound; electronically switched hysteresis synchronous motor; 4 speeds (1½, 3½, & 7½ & 1½ ips); 1½ or 2½ speeds; two built-in extended range hi-fi speakers; mute monitor & p.a. switch. Separate tone and equalization controls for each channel...

$329.95

800X Tape Recorder
Features 3 motors (including hysteresis synchronous), automatic reverse, 4 heads (including Cross Field), sound-on-sound, sound-with-sound, instant pause control, choice of 4-track mono or stereo recording. Response 30-22,000 Hz ± 3 dB. 18" x 19" x 9½"...

$359.95

1000 Video/STEREO Tape Deck
Video tape recorder/stereo tape recorder combination. ¼" video recording tape. Instant playback. Audio recorder: 4-track stereo deck for recording or playback: ½ & ¾ ips; reverse play on audio. All ferrite erase, playback, and recording heads. Four motors. Sensing tape reverse on audio, automatic stop. Response 30-19,000 Hz @ 7½ ips. Camera and monitor optional extra...

$1095.00

610X Tape Recorder
4-track Cross Field battery/a.c. portable stereo tape recorder. Will handle up to 7" reel. Four speeds (7½, 3½, 1½ & ¾ ips). Cross Field head; remote speaker jack; automatic record level sw.; remote-control jack; two vu meters; built-in rechargeable battery. Response 50-17,000 Hz @ 7½ ips. 5½" x 11½" x 12½"...

$329.95

SONY/SUPERSCOPE

200 Solid-State Recorder
Four-track stereo/mono record/playback system; features built-in 8 W/ch (ICH) stereo amplifiers & separate mic & aux. separation; 2 vu meters; sound-on-sound; two speeds (7½ & ¾ ips) & counter; response 30-17,000 Hz @ 7½ ips; filter & wow 0.12% @ 7½ ips; signal-to-noise ratio 48 dB; inputs: 2 mic & 2 high-level line; supplied with two F-97 dynamic mics. Less than $199.95

230 "Stereo Compact Portable"
4-track, 3-speed (7½, ¾, & ¼ ips) design with 10 W/ch dynamic power

560 Stereo Tape Recorder
Solid-state, 4-track, 3-speed (7½, ¾ & 1½ ips) design with 10 W/ch dynamic power. Features Sony ESP automatic sensory perception) automatic reverse; response 30-18,000 Hz @ 7½ ips; wow & flutter 0.07% @ 7½ ips; S/N ratio 52 dB. Features two vu meters; automatic sentinel shut-off after tape has made complete reverse cycle; inputs for magnetic phone. Has two detachable speaker systems. Supplied with two Sony F-98 cardiodic dynamic mics...

$449.50

560D Tape deck version of Model 560; does not include power amp & speakers. Has walnut cabinet...

$349.50

666D Auto-Reverse Stereo Deck
Solid-state with Sony ESP automatic tape reverse: three motors; a.c. bias; automatic shut-off: 7½ & ¾ & 1½ ips; mic & phone input; response 20-22,000 Hz at 7½ ips; wow & flutter 0.09% @ 7½ ips; S/N ratio 53 dB with noise reduction "off". 59 dB with "on". With walnut base and plastic dust cover...

$575.00

770 Portable Stereo Recorder
Available in two forms: 770-2 featuring 4 heads, two-track erase, record and playback, plus 4-track playback head or as 770-4, featuring 4-track erase, record & playback. Both units have built-in rechargeable nickel-cadmium battery pack; mic & line mixing; remote control; a.c. or battery operation. Response 20-22,000 Hz at 7½ ips; wow & flutter 0.09% @ 7½ ips...

$750.00

774 & $750.00

609 Stereo Tape Recorder
Four-track, 3-speed (7½, ¾, & ¼ ips) design. Features inputs for mag. phone, tuner, aux. & mic.; built-in switching for sound-on-sound, echo effect & tape source monitoring. Has 20 W/ch dynamic (IHF) power output and is supplied with two F45 mics & a pair of matching speaker systems. Response 30-22,000 Hz at 7½ ips; wow & flutter...

$697.95

Remote control optional.

STereo Hi-Fi DIRECTORY
0.09% at 7½ ips. 17¾" x 20" h. x 11½" d. $449.50
630-D Tape deck same as Model 630 except includes only tape transport & preamps. Does not have power amps & speakers $329.50

540 Stereo Tape Recorder
Four-track, 3-head, 3-speed design with 10 W/ch dynamic (IHF) power, two XL-4 Quad radial speaker systems. Response 30-20,000 Hz @ 7½ ips. Wow & flutter 0.09% @ 7½ ips. Features sound-on-sound, sound-with-sound & is supplied with two F-96 micro's. Has p.a. capability. 19¾" x 10" x 15½" d. $399.50

252 Stereo Tape Recorder
Four-track, 3-head, 3-speed (7¾, 3¾, 1½ ips) design. Features sound-with-sound; 12 W/ch dynamic (IHF) power. Response 30-18,000 Hz @ 7½ ips. Wow & flutter 0.12% @ 7½ ips. Supplied with two F-98 micros and a pair of matching speaker systems. 16" x 10½" x 15" d. $219.50

252-D Tape deck same as Model 252 except includes tape transport & preamps. Does not have power amps & speakers. Supplied with walnut base $134.95

255 Stereo Tape Deck
Features 4-track stereo/mono record/play; sound-on-sound; sound-with-sound; 3 speeds (7¾, 3¾ & 1½ ips); response 30-18,000 Hz at 7½ ips; wow & flutter 0.09% at 7½ ips. Has aux & mic inputs per channel & line output. Does not have power amps. Size 15½" x 9½" h. x 13¼" d. $179.50

330 Record/Play Tape System
Features 7 reel-to-reel & cassette stereo tape system. Can record from mic, mag., phono or aux. either reel-to-reel or cassette. Can also transfer from one recorder to another. System equivalent to 252-D reel-to-reel tape deck & 124 cassette recorder. 117 V, 60-Hz operation; 4-track stereo system; response 30-18,000 Hz at 7½ ips; 50-10,000 Hz for cassette. Input sensitivity: aux. 0.06 V; mag. phono 1.1 mV; mic. 72 dB low imp.; 7½ W/ch (IHF) dynamic power. Has vinyl covered portable case & pair of 5" full-range lid-integrated speakers; 2 cardoid dynamic mics. 21¾" x 11½" x 13¼" d. $339.95

352-D Stereo Tape Deck
Similar transport as in 255. Has 3 heads simplifying tape/sound monitoring & tape select switch for better performance from either standard or low-noise high-output tape. $179.50

366 Stereo Recorder Deck
Features 3 heads; automatic total equipment shuts-off; mic./line mixing; tape equalization selector sw; no pressure pads; sound-on-sound; tape select monitoring; 3 speeds (7¾, 3¾ & 1½ ips); dual vu meters: 4-track system. Response 30-20,000 Hz ± 3 dB at 7½ ips. Has aux. & mic inputs & line outputs. 16¼" x 9½" x 14½" d. $329.50

650-A Stereo Recorder Deck
Features 3-head design simplifying tape/source monitoring; tape selector switch; mic/line inputs with mixing control; dual vu meters; 2-track, 2-speed (3½ & 7½ ips). Has line outputs $449.00

652-D Similar to Model 650-2 except 4-track for quad-radial (4-channel) playback. Will record 2 channels. Has two additional playback preamps. $459.00

654-D Same as Model 652 except 4-channel output instead of two $479.95

850 Stereo Tape Recorder
Features 10¼" reels; automatic program scanner (will operate in fast-forward until it reaches pre-selected program via sensing foil—any number of fails can be used); 3 speeds (3¼, 7½ & 15 ips); interchangeable 2-track & 4-track head blocks (each head block has 1 record, 1 erase & 2 playback heads). Will play back half-track, two-track & 4-track tapes; wow & flutter 0.03% at 15 ips. Has automatic $750.00

There's a reason why Crown recorders cost over $900. Why nearly every critical home music recordist hopes some day to own one. The reason is Crown's TOTAL PERFORMANCE. Semi-professional decks may shout about a single outstanding spec, but who wants low noise at the expense of high distortion or wow and flutter? Only Crown delivers unexcelled engineering achievement in all areas of performance. Not just flat response @ ≤ 2db maximum, but bandwidth wider than the entire audible spectrum. Not just low noise, but wide dynamic range for flawless piano reproduction. Plus minimal wow and flutter and the industry's lowest distortion levels.

Now couple this with Crown's famous no-compromise workmanship: Only the very finest components available. Precision handcrafting with relentless inspection. Only nine or ten moving parts for reliability. Construction "rugged enough to withstand a parachute drop." (Audio 4/68) Individual proof-of-performance guarantee. Design engineered for ten years minimum continuous service. It's a lot of work—but the result is a professional deck unlike any parallel in the industry.

Yes, Crown does cost more than any semi-pro recorder. That's the price of no-compromise TOTAL PERFORMANCE. Send for our detailed spec sheets and compare Crown with any other deck—semi-pro or professional. After all, you deserve to know what a Crown owner knows. Write Crown, Dept. SHFD, Box 1000, Elkhart, Indiana, 46514.
Tape Machines

80

Series 1600X Tape Recorder

Four-track, 3-speed (7½, 3½, 1½ ips) stereo design. Has low-imp. line & mic and high-imp. line inputs & line outputs. Wow 0.1% at 7½ ips. Response 40-20,000 Hz at 7½ ips. 15%* 1. x 1411/2x, W x 64½" x 4."

Series 6000X Tape Recorder/Deck

Features 4 x 2-track stereo operation; 3-speeds (7½, 3½ & 1½ ips); cueing facilities; stereo mixing; A-B testing; sound-on-sound; add-a-track; echo effects; remote start/stop control. Has peak-reading vu meters & incorporates Crossfield technique. Response 40-22,000 Hz ± 2½ db @ 7½, 3½ & 1½ ips, quarter-track weighted; wow & flutter 0.1% @ 7½ ips. Four heads are used (record, play, erase & Crossfield). Has stereo inputs for phono, microphone or line level; 100,000 ohm line; phono with built-in magnetic/ceramic cartridge selector & two 100,000 ohm tuners. 1.5 V output each; does not have power amplifiers.

Series 14 Tape Recorders

Mono, 2-speed (3½ & 1½ ips) design featuring mic & line input mixing; 2 heads for 2- or 4-track operation & 3 w. output into built-in 7" x 4" speaker. Has 10 W power output for ext. 4-ohm speaker. Response 50-9000 Hz ± 2 db at 3½, ips. Wow 0.15% at 3½, ips. Has "free head" output for auto slide synchronizers. With tape cabinet. 15" x 11½" x 6½". $212 Half-track $250.00

Series 15 Tape Recorders

Similar to Series 14 except 3 speeds (7½, 3½ & 1½ ips) & has 2 line inputs. Response 40-16,000 Hz ± 2 db at 7½ ips; wow 0.1% @ 7½ ips. 1511 Full-track $362.00

Series 1200X Tape Recorders

Stereo, 2- or 4-track, 3-speed (7½, 3½ & 1½ ips) design; power output 10 W/ch. Continuous line wave; permits mono mixing and monitoring when recording. Has input for mag. phono & selector for line/mic; internal/ext. speaker sw. Cross Field bias head. Response 40-18,000 Hz ± 2 db @ 7½ ips; wow & flutter 0.15% @ 7½ ips. Two 7" x 4" built-in speakers; 4-ohm outputs. 15½" x 6½" x 12". Teak cabinet optional.

Series 3000 Tape Recorder/Deck

Features 2 or 4-track, 3-speed (7½, 3½ & 1½ ips); stereo design without power amplifiers; has add-a-track; sound-on-sound; A-B test; echo effect; response 40-20,000 Hz at 7½, 3½ & 1½ ips; wow & flutter 0.07% r.m.s. @ 7½ ips. Incorporates Crossfield technique. Has 4 heads (record, play, erase & Crossfield); automatic end stop & is equipped with cueing inputs: 1 mic/ch. 1 high-level (100 mV) ch & 1 low-level (5 mV) ch. Outputs 0.75V ca. 15½" x 6½" x 12½" d. w. base. 3021X 2-track $299.00

Model 65 Stereo Playback Deck

Three-speed (7½, 3½ & 1½ ips), 4-track stereo playback tape deck; response 30-20,000 Hz @ 7½ ips, 30-15,000 Hz @ 3½, ips, 50-7000 Hz @ 1½ ips; lever knob for playback; fast forward, fast reverse; 4-digit revolving counter; complete mechanical drive; over-all size of the deck 16" x 12" x 6". With teak base...$100.00

Model 11-1-P Pilotone/Tape Recorder

Designed specifically for sound film synchronization. Has 5 heads, separate mic & line inputs with mixing. Basically same as full-track version of Series 11 except has neopilot head, pilot signal indicator & tape start signal...$699.00

Model 1200U Stereo Tape Deck

Features "Add" recording & stereo echo. Has 4 heads for automatic reverse play & monitoring actual sound on tape while recording. Response 30-20,000 Hz; wow & flutter 0.12%. Does not have power amps or speakers. Has mic & line inputs & 1 V prepamp output. Has separate preamps for record and playback. 17½ x 15½" x 9½". Walnut cabinet...$399.50

Model 70-TRSO, ¼-track stereo $615.00

Model 70-TRSL, ¼-track stereo $615.00 Portable carrying case for either model. Also available, two low-impedance microphone inputs with XLR connectors. $35.00

Teac

All models except Series TCA-40 provide electrical speed change within motor instead of mechanical method: 4-track; 2-channel; solid-state design; 7½ in. x ½ in. meters. Unless otherwise indicated they have four heads, 2 speeds (7½ & 3½ ips), and 3 motors. All performance characteristics are given for 7½ ips speed. All machines are stereo design and are available on special order with ¼-track or full-track heads.

Teac 1500U Stereo Tape Deck

Features "Add" recording & stereo echo. Has 4 heads for automatic reverse play & monitoring actual sound on tape while recording. Response 30-20,000 Hz; wow & flutter 0.12%. Does not have power amps or speakers. Has mic & line inputs & 1 V prepamp output. Has separate preamps for record and playback. 17½ x 15½" x 9½". Walnut cabinet...$399.50

Teac 1200U Stereo Tape Deck

Has 3 heads; features stereo echo & stereo hi-fi directory...
—or the Rock, or the Bartok, or the Bach.

You see, we built our reputation with the KLIPSCHORN®, a big beautiful corner speaker system. So our first venture into small non-corner speakers had to be named HERESY®.

It's ideally suited to modest apartments and modest budgets. No compromise either. The biggest sound you can buy for $250.

A little HERESY is good for your soul, and your ears, and your checkbook. Commit your HERESY today. This coupon will help.
Tape Machines

**"Add" recording. Response 30-20,000 Hz; wow & flutter 0.12%. Does not have power amp & speaker. Has mic & line input & 1 V preamp outputs. 17" x 15% x 9%". Walnut cabinet ........ $299.50**

**A-1600U Tape Recorder**

Stereo design featuring "Add" recording & stereo echo; with separate record & playback amplifiers; line & mic inputs. Response 30-20,000 Hz & 7½ ips; wow & flutter 0.12% @ 7½ ips; S/N ratio 50 dB; 8 ohms; 2 W/ch dynamic power output. Features electrical automatic reverse for uninterrupted play of up to four hours. Solid-state design. 16" x 16½" x 11½".............. $519.50

**A-6010U Stereo Tape Deck**

Four-head, 4-track, 2-channel, two-speed (7½ & 3½ ips) design; three motors; automatic reverse provides continuous playback in both directions. Phase Sensing System permits reverse signal to be applied to tape automatically. Response 30-20,000 Hz (2 db 45-15,000 Hz) at 7½ ips; wow & flutter 0.08% at 7½ ips; S/N ratio 55 dB. 20½" x 17¾" x 6½"; 110/117 V, 50/60 Hz ............. $664.50

**A-7010U Stereo Tape Deck**

Four-head, four-track; 2-channel, 2-speed (7¾ & 3½ ips) design. Response 30-24,000 Hz at 7½ ips. Features Phase track, plays back at quarter track. With optional head configurations; automatic rewinding & stop; full remote control; built-in line-mic mixer. Response 40-20,000 Hz at 15 ips; wow & flutter 0.05% 20¾% x 17¾% x 8½" ............. $749.50

**Series TCA-4.40 Tape Decks**

Combines all quality features of quarter-track, 2-channel operation with 4-channel stereo capability. All 3 models feature 4-channel playback as well as 2-channel playback, with 2-channel auto reverse. Models 40 & 41 can be later modified to the full 4-channel capability of Model 42. TCA-40 4 & 2-channel stereo playback deck with 4 built-in preamps. Includes connectors for future 4 or 4-channel record amplifiers. Has 2-channel (¼ track) erase & record heads, pre-wired but inactive, as well as 4-channel (2-channel playback) head. Response 50-15,000 Hz ± 3 dB at 7½ ips; wow & flutter 0.12% r.m.s. at 7½ ips; 2 speeds (3½, 7½/15½ ips); 3 motors. 12" x 17½" x 7½". With walnut cabinet ............... $365.00

TCA-41 Same as TCA-40 but has 2-channel record capability. Has separately housed RA-41 stereo record preamp. Includes connectors for 4-channel recording. Has mic & line mixing; tape monitoring amp. size 4½" x 17½" x 7¼" $535.00

TCA-42 4-channel record & playback. Same as TCA-41 but includes 2 RA-41 record preamps. Has inline & 4-channel record & separate erase heads ........... $665.00

RA-41 2-channel record preamp $195.00

**TELEX**

**Magnelecord 1024 Stereo Recorder**

Two-speed (3½ & 7½ ips) design with selectect ¼-track erase head, ¼-track record, and ¼-track play and optional ½-track play. Response 45-18,000 Hz ± 2 db at 7½ ips; wow & flutter 0.2% r.m.s. at 7½ ips. Has mic input (50 ohms). hi-Z mixing bridge & aux. bridge; outputs: emitter follower & aux. emitter follower (0.5V) .................. $92.00

With 4th head installed for optional ½-track play ............... $397.00

Case ............. $ 50.00

**Magnelecord 2001 Tape Recorder Deck**

Features 4-track stereo design. 2 speeds (3¼ & 7½ ips); flutter-filter belt drive. 3 separate heads (crase, record, play); tape monitoring. Response 45-18,000 Hz ± 2 db at 7½ ips; wow & flutter 18% at 7½ ips. Has high imp. mic & aux. inputs & line outputs. Does not have power amps. 8%x 19¼" x 14¼". With walnut base ............... $799.95

**Viking "Quad/Sonic 2+2" Tape Transport**

Features 2 & 4 channel stereo playback; 3 motors: 3 speeds (1½, 3½, 7½ & 15½ ips).

Response 40-18,000 Hz ± 3 db at 7½ ips; wow & flutter 0.2% at 7½ ips; 4-channel in-line head. Has walnut cabinet. 11" x 16½" x 6½"............. $294.95

**Viking Model 88 Stereo Deck**

2-speed (7½ & 3½ ips); 4-track design. Response 30-18,000 Hz ± 3 dB @ 7½ ips; flutter & wow 0.2% @ 7½ ips; S/N ratio 55 dB @ 7½ ips; HD 1%. Features counter, vu meters, monitor facility, sound-on-sound, and automatic shut-off. Preamp outputs 2 V .................. $349.95

1500 Cabinet, walnut .......... $394.95

Model 880 Same as 88 but with 5 W/ch dynamic power @ 8 ohm amp & two detachable speaker assemblies, each with 5" woofers & 2½" tweeters & crossover, 21½" w. x 14½" x 9½" d. Supplied with portable case ............ $449.95

**Viking 423 Stereo Tape Deck**

3 speeds (1½, 3½, 7½ & 15½ ips); 4-tracks; response 30-15,000 Hz ± 3 dB @ 7½ ips; input sensitivity for 0 vu: 0.55 mV for 2500-ohm impedance mic; aux. 100 mV; HD 1½% vu meter; wow & flutter 0.2% @ 7½ ips. Has pause control; 15½" x 12½" x 6½" behind panel. Tape deck mechanism similar to Model 433 $274.95

423W with walnut base .......... $294.95

423R with remote pause control $299.95

433RW with remote pause & walnut base .................. $319.95

**Viking Model 807 Tape Player**

Plays mono or stereo ¼- or ¼-track at 7½ ips or 3½ ips. Features automatic shut-off; response 30-18,000 Hz @ 7½ ips; flutter & wow 0.2% @ 7½ ips. Does not have preamps; heads connect direct to tape head input of external amp. 6½" x 13½" x 10½" d. ............ $312.95

**Viking 433 Stereo Tape Deck**

Three-speed (1½, 3½, 7½ & 15½ ips); 4-track design; response 40-18,000 Hz ± 3 dB @ 7½ ips; S/N ratio 54 dB. THD 1% at 0 level; flutter & wow 0.2% @ 7½ ips; inputs for 0 level: 0.05 mV; aux. 75 mV. Features 3 heads: mixing controls; echo sw.; sound-with-sound and sound-on-sound; counter; pause; control; automatic shut-off. Has preamps only; output 1 V low impedance. 15½" x 14½" x 6½" behind panel .................. $374.95

433W With walnut base .......... $394.95

433R With remote pause .......... $399.95

433RW With remote pause & walnut base ................. $419.95

**B9006 Stereo Tape Recorder**

Four-track 3-speed (7½, 3½, 1½ ips) design. 7% x 15½% x 11½%............. $320.50

**STEREO HI-FI DIRECTORY**
Model 4400 Stereo Recorder
4-track version of Model 4400L; has additional stereo amplifiers & one speaker.
Mark IV package $459.50
Model 4200 Two-track version of Model 4400. Mark IV package $459.50

Model 4000L Mono Tape Recorder
2-track, 2-speed (7¾, 3⅞, 1¾ & ¾ ips); 7" reel design; response 40-18,000 Hz ± 2.5 dB @ 7¼ ips; wow & flutter 0.08% r.m.s. @ 7½ ips; 2 W @ 4 ohms. Has digital counter, vu meter. 3 outputs (mic, phono, radio) and 2 outputs. Speaker & headphones. 14" x 15" x 7".
$299.95

Model 10,000 "Royal Deluxe"
4-speed, record/play stereo design with 10 W/Ch continuous sine-wave amplifiers & two built-in speakers. Features built-in "Dia-Pilot" for sound/slide synchronization; sound-on-sound; sound-with-sound; echo single channel & stereo mixing. Amplifiers can be used independent of tape recorder. Wow & flutter 0.025% at 7¼ ips. Response 20-20,000 Hz ± 2 dB at 7¾ ips. With walnut case & plexiglas lid. 17¾" x 13¼" x 7¼" inc. lid. $550.00

Model 9500 "Royal Deluxe" Tape Deck
Same as Model 10,000, less output amplifiers & speakers $450.00

Varicord 63 Tape Recorder
Mono design features simplified operation with high record/playback qualities; interchangeable 2-track & 4-track heads provide flexibility & with both heads assembled sound-with-sound is possible. An automatic record level control can be added. 3 speeds (1¾, 3¼ & 7¼ ips); response 30-20,000 Hz at 7¼ ips; 6 W continuous power output; wow & flutter 0.05% at 1¾ ips; input sensitivity: mic. 0.2 mV; radio 1.2 mV; ceramic phono 100 mV. Line output 1.4 volts. Size with lid 17¾" x 13¼" x 7" $249.50

NOTICE TO OUR READERS
We consider it a valuable service to our readers to continue, as we have in previous editions of the STereo/HI-FI DIRECTORY, 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. Accordingly, we are quoting the price furnished to us by the manufacturer or distributor, for each of the products, even though it may be possible to purchase some items in your trading area (depending on where you are) at a price lower than that listed in this Directory.

We would also like to point out that almost all manufacturers' and distributors' prices are subject to change without notice.
Tape Machines

Varicord 263 Tape Recorder
Same as Varicord 63 except stereo design: 6 W/ ch continuous power output; mic input sensitivity 0.12 mV; Features mixing of two separate sound sources. $299.00

WEBCOR

2500 Tape Recorder
Three-speed (7 1/4", 3 1/2", 1 1/2" ips), 4-track, stereo design. 5 W/ch dynamic power control; monitor facility. Accepts accessory foot control. Response 40-15,000 Hz ± 3 dB @ 7 1/2 ips; wow & flutter 0.2%; S/N ratio 48 dB; output 10 W dyn. power. 9 W continuous @ 5" HD. Has mic & phono/radio inputs. 14 3/4" x 14 3/4" x 5 3/4". $229.95

WOLLENSAK

1500SS 2-Track Mono Recorder
2 speed (7 1/4" & 3 1/2" ips) design. Features built-in speaker; vu meter; counter; pause playback. $199.95

3500 Portable Mono Tape Recorder
Operates from six "D" cells or 115-V a.c. Features 2 speeds (3 1/2" & 1 1/2" ips); 5 reels; automatic record level; solid-state design; vu level/battery condition meter. Response 100-8000 Hz ± 4 dB @ 3 1/2 ips; wow & flutter 0.4% @ 3 1/2 ips; output 750 mW. Supplied with remote mic. 11 1/4" x 10" x 4". $184.95

6300 Stereo Tape Recorder
3-speed design with separate compression-loaded wing speakers. Response 40-18,000 Hz ± 3 dB @ 7 1/2 ips; wow & flutter 0.15% @ 7 1/2 ips. $279.95

6340 Same as 6300 except black & silver finish. $279.95

6200 Same as Model 6300 except speakers are self-contained. $239.95

6120 Same as Model 6300 except deck version. $189.95

6100 Same as 6300 except deck for custom installation. $179.95

6000 Same as 6300 except mono with self-contained speakers. $184.95

6250 Stereo Tape Recorder
With built-in speakers. Has 3 heads, 3 speeds (7 1/4", 3 1/2", 1 1/2" ips). Inputs for mic, mag. phono, tuner & aux.; source playback monitor sw. Features sound-on-sound, sound-with-sound, reverb, and input mixing. Response 40-20,000 Hz ± 2 dB @ 7 1/2 ips; wow & flutter 0.12% @ 7 1/2 ips. 25 W/ch continuous sinewave power. $379.95

6150 Same as Model 6250 except deck version. $279.95

6364 "Quad/Stereo" Four-Channel Playback
Four-track stereo/mono record/playback. Has three heads, three speeds (7 1/4", 3 1/2", 1 1/2" ips); inputs for magnetic phono, tuner, mic, aux, tape/source monitoring. Features sound-on-sound, automatic tape shut-off, pause control. Response 35-20,000 Hz ± 2 dB @ 7 1/2 ips; wow & flutter 0.12% r.m.s. @ 7 1/2 ips; S/N ratio 54 dB @ 7 1/2 ips. Fixed preamp output: 1 V/ch; controlled preamp output 0-1.3 V/ch; power output 18 W/ch r.m.s. continuous at 1% HD with 8 ohm loads; both channels driven; power bandwidth 18-22,000 Hz at rated output. $599.95

6364 With A-1050 cubical acoustic-suspension speakers. $659.95

6154 Same as 6364 except deck version. $499.95

6250 Audio Center Series
Stereo record/playback with self-contained acoustic-suspension speakers. Three heads; three speeds (7 1/4", 3 1/2", 1 1/2" ips); 31 W/ch dynamic (IHF) power. Inputs for mag. phono, tuner, mic, aux; tape-source monitoring. Features sound-on-sound, sound-with-sound, reverberation. Response 35-20,000 Hz ± 2 dB @ 7 1/2 ips; wow & flutter 0.12% r.m.s. @ 7 1/2 ips; S/N ratio 54 dB @ 7 1/2 ips; fixed preamp output: 1 V/ch; controlled preamp output 0-1.3 V/ch; power output 18 W continuously @ 1% HD with 8 ohm loads; both channels driven. 20/20 x 13/10 x 7 1/4". $375.95

6350 Same as 6250 but with snap-on acoustic suspension speakers. $399.95

6360 Same as 6250 but with oiled-walnut finished base and optional acoustic suspension cube speakers. With speakers $459.95

6150 Same as 6250 but deck version. $279.95

Raw Tape

AMPEX

311 1.5-mil Acetate Base Tape
3" reel, 150 feet. $0.90
5" reel, 600 feet. $2.25
7" reel, 1200 feet. $3.50

321 1.0-mil Acetate Base Tape
7" reel, 1800 feet. $5.50

381 1.5-mil Polyester Base Tape
3" reel, 300 feet. $1.85
5" reel, 600 feet. $2.95
7" reel, 1200 feet. $5.45
5" reel, 1800 feet. $6.95
7" reel, 2400 feet. $9.50
7" reel, 3600 feet. $11.95

361 Cassette Tape
30 minutes. $1.98
60 minutes. $2.25
90 minutes. $3.49
120 minutes. $3.98

314 Low-noise 1.5-mil Acetate
5" reel, 600 feet. $2.80
7" reel, 1200 feet. $4.40

334 Low-noise 1.0-mil Polyester Tape
5" reel, 900 feet. $2.75
7" reel, 1800 feet. $7.35
3 reels supplied with plastic mailer.

AUDIOTAPE

Cartridge Tapes
AC-30. 30-minute cassette. $2.25
AC-60. 60-minute cassette. $2.65

AC-90. 90-minute cassette. $3.95
A-4A. 4-track, 300' cartridge. $2.65
A-8. 8-track, 80-minute cartridge. $2.56
A-8A. 8-track, 40-minute cartridge. $2.23

Master 1.5-mil Mylar Tape
Made on 1.5 mil Mylar base; durable in wide temperature range.
Type 671M, 600 ft., 3" reel. $3.80
Type 1271M, 1200 ft.; 7" reel. $5.10

Double Recording

(5-mil tempered Mylar)
Made on tempered Mylar; allows twice as much recording per reel; stronger than double length tape.
Type 331T, 300 ft., 3" reel. $1.72
Type 1231T, 1200 ft., 5" reel. $5.85
Type 2431T, 2400 ft., 7" reel. $10.05

Triple Recording (tempered Mylar)
Three times the much recording time per reel as standard plastic-base tape, plus same extra strength as other tempered Mylar tapes.
Type 633T, 600 ft., 3 1/2" reel. $2.95

STEREO Hi-FI DIRECTORY
Tape up your stereo system.

If you got the jack, we’ve got the decks. That will turn your stereo system into a stereo tape recorder. One that records and plays 8-track cartridges. Or cassettes. Or both.

Our 8-track cartridge deck, Model RS-803US, is going to be a legend in its own time. Because it’s the only one in the world with two special controls—Auto-Stop and Fast Wind. The Auto-Stop switch stops the tape at the end of the last track. So you can’t accidentally over-record and turn Beethoven’s First Symphony into Beethoven’s Lost Symphony. Fast Wind speeds you to the selection you want. Instead of wading you through the ones that you don’t.

And that’s only half the story. There’s also our cassette deck, Model RS-256US. With a noise suppressor switch that makes tape sound sweeter than ever. (Cuts out the sour little hiss tape can pick up.) And Fast Forward and Rewind, automatic shut-off, and pause control. Plus simple pushbuttons that leave you more time to make like a sound engineer.

In fact, both these decks have everything to get the finickiest tape connoisseur into cartridges and cassettes. Like twin VU meters, twin volume controls, twin whatever ought to be twin to give you great stereo recordings and playback. Plus AC bias to cancel out noise and distortion. AC erase. And jacks optional single or twin mikes.

Go to your Panasonic dealer and see our 8-track deck, Model RS-803US and our cassette deck Model RS-256US. They make it easy to tape up a stereo system. But choosing between them is something else again.

The stereo cassette deck that gives you professional sound quality. And easy operation. The “bridgeport,” Model RS-256US.

PANASONIC. just slightly ahead of our time.

Raw Tape

Type 1833T, 1800 ft., 5" reel .......................... $7.05
Type 3633T, 3600 ft., 7" reel .......................... $11.99

Long Recording (1-mil plastic base)
Provides 50% more recording time per reel; 1-mil cellulose acetate base; maximum economy for applications where high strength is not required.
Type 941, 900 ft., 5" reel .................................. $3.45
Type 1841, 1800 ft., 7" reel .......................... $6.00

Longer Recording (1-mil Mylar)
Made on 1-mil Mylar polyester film; provides 50% more recording time per reel; exceptional strength and durability plus longer storage life.
Type 261, 225 ft., 3" mailer ............................ $1.15
Type 961, 900 ft., 5" reel .................................. $3.60
Type 1861, 1800 ft., 7" reel .......................... $6.20

Standard Recording (1.5-mil Mylar)
High-strength super-durable magnetic tape that meets the highest professional standards of performance; withstands extreme temperatures; virtually immune to humidity; gives maximum tape life under any conditions of use or storage.
Type 671, 600 ft., 5" reel ................................ $2.80
Type 1271, 1200 ft., 7" reel .......................... $4.40

Double Recording (.5-mil Mylar)
Made on .5-mil Mylar; twice as much recording time per reel as standard plastic-base tape; suitable for extended-play applications where tape tension is not excessive.
Type 1231, 1200 ft., 5" reel .......................... $3.74
Type 2431, 2400 ft., 7" reel .......................... $6.95

Standard Recording (plastic base)
Professional-quality recording tape; maximum fidelity, uniformity, frequency response and freedom from noise and distortion; 1.5 mil acetate.
Type 351, 300 ft., 4" reel ................................ $2.05
Type 651, 600 ft., 5" reel ................................ $2.55
Type 1251, 1200 ft., 7" reel .......................... $3.90

Low-Noise Tape
Provides high signal-to-noise ratio and reduced hiss level; on 1.5-mil plastic base.
Type 1257, 1200 ft., 7" reel .......................... $4.00

Audiotex

RCA Red Seal
Acetate Base:
15A1 3" x 150' x 1.5 mil, all-purpose in cardboard mailer $0.70
15A6 5" x 600' x 1.5 mil, all-purpose, standard play $0.25
15A12 7" x 1200' x 1.5 mil, all-purpose, standard play $0.30
Polyester Base:
15ME 5" x 600' x 1.5 mil, all-purpose, standard play $0.65
15M12 7" x 1200' x 1.5 mil, all-purpose, standard play $0.44
10M2 2" x 225' x 1.0 mil, long play, in cardboard mailer $1.00
10M8 7" x 900' x 1.0 mil, long play, on 3-mil base, $0.36
10M18 7" x 1800' x 1.0 mil, long play, on 3-mil base, $0.60
5T43 3" x 300' x 0.5 mil, all-purpose, double-play, $1.50
5T125 7" x 1200' x 0.5 mil, all-purpose, double-play, $0.50
5T247 7" x 2400' x 0.5 mil, all-purpose, double-play $0.85
Tapes in Plastic Mailers:
15A1PM 3" x 150' x 1.5 mil acetate $0.90
10M2PM 7" x 1200' x 1.0 mil polyester $1.35
5T3PM 3" x 300' x 0.5 mil polyester, tensilized $1.85

Red Seal
5T318TP 5" x 1800' x 0.5 mil, all-purpose, triple play, $11.99
5T3M6TP 7" x 3600' x 0.5 mil, all-purpose, triple play $11.99
Low Noise, Low Print:
15ALN12LT 7" x 1200' x 1.5 mil acetate $4.40
15MLN12LT 7" x 1200' x 1.5 mil polyester $5.10
10MLN12LT 7" x 1200' x 1.0 mil extra-strength $7.35

Red Seal Cassettes
In plastic album box.
C30 15 min./side $2.30
C60 30 min./side $2.75
C90 45 min./side $4.05
C120 60 min./side $5.50

IRELAND

190 Series Home-Professional Tape
Standard 1/4-mil, acetate base, 1/4".
195-111 150' 3" reel ......................................... $0.15
195-121 300' 4" reel ......................................... $0.75
195-131 600' 5" reel ......................................... $1.95
195-151 1200' 7" reel ......................................... $3.15
Extra-length, 1-mil, acetate base, 1/4".
196-111 225' 3" reel ......................................... $0.80
196-121 450' 4" reel ......................................... $2.20
196-131 900' 5" reel ......................................... $2.50
196-151 1800' 7" reel ......................................... $3.95
Extra-length, 1-mil, polyester base, 1/4".
197-111 225' 3" reel ......................................... $0.95
197-121 450' 4" reel ......................................... $2.55
197-131 900' 5" reel ......................................... $2.85
197-151 1800' 7" reel ......................................... $4.25
Double-length, 1/2-mil, polyester tensilized base, 1/4".
198-111 300' 3" reel ........................................... $1.40
198-121 600' 4" reel ........................................... $3.75
198-131 1200' 5" reel ......................................... $4.50
198-151 2400' 7" reel ......................................... $7.95

200 Series Professional Tape
Standard 1/4-mil, acetate base, 1/4".
211-111 150' 3" reel ......................................... $0.80
211-121 300' 4" reel ......................................... $3.30
211-131 600' 5" reel ......................................... $4.50
211-151 1200' 7" reel ......................................... $8.25
Extra-length, 1-mil, acetate base, 1/4".
221-111 225' 3" reel ......................................... $0.90
221-131 900' 5" reel ......................................... $3.35
221-151 1800' 7" reel ......................................... $5.95
Double-length, 1/4-mil, polyester tensilized base, 1/4".
231-111 300' 3" reel ........................................... $1.75
231-121 600' 4" reel ........................................... $5.45
231-131 1200' 5" reel ......................................... $5.90
231-151 2400' 7" reel ......................................... $9.50
0.5-mil, polyester tensilized base, 1/4".
241-111 300' 3" reel ........................................... $1.10
241-131 600' 5" reel ......................................... $3.40
241-151 1800' 7" reel ......................................... $5.90
0.5-mil, polyester tensilized base, 1/4".
251-111 300' 3" reel ........................................... $1.75
251-131 600' 5" reel ......................................... $5.45
251-151 1800' 7" reel ......................................... $9.50

90% off retail price, first quality.
"Scotch" Brand, the professional recording tape.

In disguise.

This innocent-looking little cassette is no teenybopper's toy. It's loaded with "Dynarange" recording tape, the overwhelming choice of professional sound engineers—and serious hobbyists.

On reel-to-reel equipment, "Dynarange" offers flawless full-fidelity performance. High S/N, superb sensitivity across the whole sound spectrum. And this tough polyester tape has permanent silicone lubrication for maximum tape life plus minimum head wear.

Yet cassette systems need all these qualities even more. And they get it. With the same dependable "Dynarange" tape in cassettes carefully engineered for smooth, jam-free performance. "Scotch" Brand Cassettes deliver the highest possible fidelity at cassette speed.

Magnetic Products Division

Cooperate With the Zip Code Program of the Post Office Department—USE ZIP CODE IN ALL ADDRESSES

1971 EDITION
SONY/SUPERSCOPE

Professional Recording Tape

Extra-heavy formula Oxil-coat homogenized oxide coating. Polyester back, "rubber-cushion" impregnated lubricant.

PR-200-24; 2400' 7" reel .......................... $7.75
PR-150-18; 1800' 7" reel .......................... $4.69
PR-200-12; 1200' 5" reel .......................... $4.69
PR-150-9; 900' 5" reel ............................. $2.99
PR-150-3; 300' 3/4" reel ........................... $1.35
PR-300-6; 600' 3/4" reel ........................... $2.45
SLH-180-18; 1800' 7" reel ........................ $6.50

Tape Cassettes

For use with Models 50, 100, 124, 124CS, 125 and 130.

C-60 60 minutes of recording ..................... $1.89
C-90 90 minutes of recording ..................... $2.19
C-120 120 minutes of recording ................... $3.29

B-Track Cartridge

8T-60 60 minutes of recording ..................... $4.29

Empty Tape Reels

Customer-styled tape reels, with box.

Use Your Copy of This Directory As a Reference for Technical Details and Prices

88
Micro 54 Cassette Stereo Deck
Features play/record; provides pre-set record level; twovu meters; automatic end-of-tape shut-off. Response 40-12,000 Hz. S/N ratio 45 dB; wow & flutter 0.25%. Has mic & line inputs. 16¾" x 4¾" x 11¼". With 1 mic & walnut cabinet. $159.95

Micro 50 Portable Cassette Stereo Recorder
Features two-way power: 117 V a.c. or 5 "D" cells; automatic charge circuits; automatic record-level control; vu meters with battery condition indicator; end-of-tape alarm. Has built-in 5" speakers and is supplied with 2 remote speaker systems (each with 6" x 4" speaker); any combination of the 3 speakers will work. Has mic & line inputs. 3" x 7" x 12". Speaker cab. 9" x 6½" x 4". With 1 remote-control mic and leatherette case which can hold main unit & both speakers. $189.95

Micro 88 Portable Cassette Stereo Recorder
Features luggage-style case with 2 slide-on speaker systems. Records stereo from mic or line inputs. Will play stereo. Has vu meter & is supplied with 2 dynamic mics. Over-all size with speakers 16¾" x 9¾" x 14½" h. Recorder measures 16½" w. x 14½" x 4½" h. Speakers measure 12½" x 4½" d. x 8" h. 117V a.c. operation. $179.95

Micro 40 Auto Cassette Stereo Player
5 W/ch dynamic (ELA) power (speakers not included). Response 40-12,000 Hz. Features Stara system slot load; automatic shut-off; 12 V d.c. operation; 8 ohm outputs. 9½" w. x 9½" d. x 4½" h. $199.95
Micro 42 Same as 40 except can record mono. Supplied with remote-control mic. $139.95
Micro 44 Same as Model 40 except has a stereo FM tuner. Sensitivity 5 µV (IHF). $199.95

Micro 87 Cassette Recorder
Stereo design; response 40-12,000 Hz; 12½ W/ch dynamic power (ELA). Has
mag. phono & line inputs and ext. speaker, line & earphone outputs. Supplied with 2 mics & 2 separately housed speaker systems, each with 6" x 9" dual-cone speaker. 16¼" x 10¼" x 5½" d. Speaker case size 13¾" x 10¼" x 6½" d. $219.95
Micro 87R Same as 87 except includes AM-FM stereo tuner. $299.95

Micro 90 Automatic Cassette Player
Stacks up to 6 cassette tapes for automatic play—up to 6 hours non-stop. Features stereo & mono playback. Has preamp outputs. 15½" x 9¾" x 4½" h. $149.95

Micro 95 Automatic Cassette Recorder
Same as Micro 90 except has stereo record feature & is supplied with 2 mics & 2 separately housed 6" x 9" speaker systems. Speaker cab. size 14½" x 7½" d. x 9". Has mic & line inputs; line & speaker outputs. $299.95
Micro 95D Same as Model 95 except without speaker systems. $229.95

3100 Cassette Play/Record Deck
Stereo design; over-all response 40-12,000 Hz; wow & flutter 0.25%. Has mic & aux. inputs & 1 V line output. 8½" x 15½" x 4½" $599.95

3400 AM-FM/Cassette System
Features an AM-FM stereo receiver with
10 W/ch dynamic (5 W/ch r.m.s.) power (IHF) amplifier, record/play stereo cassette transport, two separately housed speaker systems, each with 6" speaker (cab. size 13" x 9½" x 8½"). Recorder response 100-8000 Hz. Over-all system has mic, ceramic phono, aux. inputs. FM sensitivity 4 μV (IHF). 4½" x 18½" x 12½" d. $329.95

3500 AM-FM/Cassette System
Combines an AM-FM stereo receiver similar to that in Model 3400, a 12½ W/ch dynamic (IHF) power amplifier (5 W/ch r.m.s.), a built-in deluxe cassette play/record stereo deck & pair of separately housed speaker systems (ea. with 8" speaker). Cabinet size 13" x 9½" x 8½" d. Unit size 9½" x 23" x 13". Walnut finish. $339.95

BOGEN
CRP Stereo Cassette Deck
Records & plays back; push-button con-
trols; two vu meters; digital counter. Wow & flutter 0.25%. Housed in walnut with black & gold motif. $79.95

SP 8-Track Cartridge Deck
Plays back only. Has fine-tuning track adjust control. "Micro Balance", which reduces noise and crosstalk. Housed in walnut with black & gold motif. $79.95

BSR McDonald
RD-8S 8-Track Recorder Deck
Stereo record/play design: wow & flutter 0.3%. Response 30-15,000 Hz; S/N ratio 40 dB. Has dual vu meters; mic & aux. mixing. 12½" x 10¼" x 4½". With walnut cabinet. $199.95

RS-28 AM-FM/8-Track Player
Features AM-FM stereo receiver with 10 W/ch dynamic (IHF) power, an 8-track playback cartridge machine, and two separately housed speaker systems. Walnut cabinet. $219.95

CONCERTONE
406-D Cassette Tape Deck/Preamp
Stereo, 4-track, 2-channel performance.

B-90 Cassette Recording System
Stereo design with 10 W/ch dynamic (EIA) power; response 600-12,000 Hz. With two speaker systems. Walnut cabinet. $99.95

49-520 AM-FM/8-Track Cartridge Player
Stereo design with 10 W/ch dynamic (EIA) power; response 26-25,000 Hz. Has AM/stereo FM tuner & two speaker systems, each 12" x 7½" x 8" d. Music center 15½" x 5½" x 9½". Walnut cabinet. $149.95

36-840 AM-FM/8-Track Player
Stereo design with 45 W/ch dynamic (EIA) power; response 20-30,000 Hz. Has remote/main speaker facilities & mag., ceramic, aux., and tape inputs. Includes an AM/stereo FM tuner & two speaker systems, each with 8" woofer, 3½" tweeter. 15½" x 10" x 7½". Music center 15½" x 11½" x 5½". Walnut cabinet. $229.95

F-95 AM/Cassette Recorder
Mono design combining an AM radio & a cassette recorder. Features auto-recording. (EIA)

F-400 Cassette Stereo Recorder
117 V a.c. & six "C" cell operation with 4 W/ch power amps. Has auto level control 50-10,000 Hz response; built-in stereo speakers. Supplied with remote-control dynamic mic; 1½" x 9½" x 3½". $179.95

With optional SPS-2 detachable wrap-around external speaker systems. $229.95

F-103 Cassette "Radiocorder"
Combines an AM & FM receiver with a cassette cartridge recorder; solid-state mono design; battery & a.c. operation. Automatic shut-off in both play & fast wind/rerwind modes; record level/battery condition meter; 1½ ips; a.c.; telescoping antenna; with remote-control dynamic mic; 12½" x 9½" x 3½". $119.95

F-106 Cassette Tape Deck
Stereo recorder without power amps & speakers. Features pause control, head-phon monitoring, dual bias selection for standard or super dynamic cassettes. Remote start/stop control; auto stop system; automatic end-of-reel indicator. 

F-203 "Four-plus-Four" Player
Stereo 8-track & 1/2-hour, 4-track cartridge player. Output 3 W/ch dynamic power. Response 70-10,000 Hz. Supplied with 8-track cartridge. 6" speakers. Walnut cabinet. $189.95

3023 "Four-plus-Four" Player
Stereo 8-track & 1/2-hour, 4-track cartridge player. Output 3 W/ch dynamic power. Response 70-10,000 Hz. Supplied with two separate 6" speaker systems. 9½" w. x 11½" x 4½". Walnut cabinet. $144.95

2608 Portable Cassette Recorder
Stereo design; operates from 117 V a.c.

CARTRIDGE TAPE MACHINES
New 8 Track Cartridge Recorder
Hear the sound of "Solid State Profits." Exclusive Telex features that add up to big consumer demand ... and MORE PROFITS for YOU.
Model 814S, 8 track stereo cartridge recorder/player with FET solid state AM-FM multiplex receiver, 100 watt integrated circuit stereo amplifier and two bookcase speakers.
Model 812S, 8 track stereo cartridge recorder/player with 100 watt stereo integrated circuit amplifier and two bookcase speakers.
All new models feature linear slide controls, pause control, ejector and record/play capacity up to 80 minutes. Add these to the profit packed 811R Telex record/play deck — the Telex success story that's still being written — you get a lot more "Hear" plus a lot more profit.

New 4 Channel Stereo
Hear the sound of "Solid State Profits" in 4 channel stereo. Telex offers the lowest priced 4 channel stereo tape deck.
Four channel stereo spells sales and profit. Order and watch your in-store traffic build. When your customers ask — and they will — tell them about Quad/Sonic's 2 + 2 versatility — three motor, three-speed, and compatible with both four and two track stereo tapes.
The crowd gathering sound of Telex Quad/Sonic 2 + 2 will capture the imagination of all stereo buffs.
Quad/Sonic 2 + 2 equals sales and profits — THE Sound of the Seventies.

New Audiometric Stereo Headphones
Hear the sound of "Solid State Profits" with Studio I — THE major breakthrough in electro-acoustic design for the Seventies.
Studio I adds a new and exciting personal dimension to listening that took years of research to perfect. Outperforms all other headphones.
High performance audiometric drivers — four exclusive professional studio slide controls for volume and tone. Cycolac cups and new surgical silicone molded cushions and headband designed for maximum personal comfort.
Styled in off-white and trimmed in black and burled walnut.
Studio I from Telex — styled for the Seventies, quality engineered for profits.

You’ll hear more from Telex®
Write or Call Today!

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Cartridge Tape Machines

or six "D" cells. Response 80-8000 Hz; 0.75 W/ch dynamic power (EIA). Has inputs for mic & aux and outputs for earphones & ext. 4-ohm speakers. Built-in 4" x 2" speakers with detachable case: automatic record-level control. With remote-control microphones $139.95

2707 Stereo Cassette Recorder
Has automatic record-level control and includes two separately housed 4" speakers. Output 1 1/5 W/ch dynamic (EIA); response 100-8000 Hz. Inputs for mic & aux, inputs and 8-ohm speaker outputs. With two mics. 15%/ x 4%/ x 10%/ d. Speaker case size 7" x 10" x 6" d. ..................................................$239.95

3205 8-Track Player System
Stereo design with two separately housed 5" speaker systems. Response 70-10,000 Hz; output 3 1/2 W/ch dynamic power (EIA). 8%/ x 5%/ x 10%/ d. Speaker case size 8%/ x 11%/ x 4%/ d. .................$119.95

3207 Same except deck only ................................$69.95

90.75 W/ch dynamic power (EIA) has inputs for mic & aux and outputs for 8-ohm speakers. 14%/ x 7%/ d. x 3%/ d. Speaker case size 7%/ x 8%/ x 3%/ d. With two mics .................................................. $169.95

2708 Cassette Recorder Deck
Same basic design as Model 2707 but different styling & supplied with line outputs without speakers 9" x 7%/ d. x 3%/ d. .................................................. $94.95

2804 Stereo Player Deck
Stereo design. Features automatic level control, a.c. bias, automatic stop after 1 or 4 programs or repeat. Response 50-10,000 Hz. Wow & flutter 0.25%. Has mic & two aux, inputs and line (0.8 V) outputs. 9%/ x 4%/ x 1 1/6%/ d. Walnut cabinet .................................................. $154.95

2705 AM/Stereo FM System
Combines an AM-stereo FM receiver, a stereo cassette recorder, and two 4" x 6" speaker systems. Response 50-10,000 Hz; 2 1/2 W/ch dynamic power (EIA). Has mic & aux, inputs and 8-ohm speaker outputs. With two mics. 15%/ x 4%/ x 10%/ d. Speaker case size 7" x 10" x 6" d. .................................................. $239.95

2709 Cassette Radio/Recorder
Stereo design combining cassette recorder & an AM-FM radio; wow & flutter 0.35%; r.m.s.; 1 1/2 W/ch peak output; S/N ratio 40 dB; response 80-8000 Hz. Has a.c. bias & erase, automatic level control, two 4" speakers & will operate from 6 "D" cells or 120 V a.c. Supplied with 2 mics. 12%/ x 6%/ x 8%/ h. .................................................. $189.95

3303 B-Track Recorder/Radio
Stereo design combining AM-FM radio, an 8-track cartridge player/recorder, and pair of speaker systems. Features 120 V a.c. operation; automatic level control; a.c. bias & erase; two 6" speakers; wow & flutter 0.25% r.m.s.; output 6 W ch peak; S/N ratio 40 dB; response 50-10,000 Hz. Has 2 mic & phono inputs. 19" x 10%/ x 4%/ h. Speaker cabinets 9%/ w. x 5%/ d. x 9%/ h. Supplied with 2 mics. . . . . . $249.95

DENON

TRC-798 Cassette Changer Deck/Preamp
Stereo design will play 12 cassette tapes automatically. Also features stereo record/playback; pause control; record level meter. Supplied with two dynamic mics & walnut cabinet. 8%/ x 3%/ x 13%/ d. .................................................. $249.95

ELECTROHOME

SC452 Cassette Recorder
Response 50-10,000 Hz ± 3 dB; wow & flutter 0.3%. Features dual vu meters & digital counter ............................................$159.50

FISHER

RC-70 Stereo Cassette Tape Deck
Frequency response 30-12,000 Hz; S/N ratio 43 dB; wow & flutter 0.25% r.m.s.; dual vu meters; dual record level controls; all push-button operation; two dynamic microphones with "on-off" switch; 5%/ x 3%/ x 11%/ 12-UW Walnut base ............................................$9.95

RC-80 Dolby Stereo Cassette Deck
Frequency response 30-12,000 Hz; S/N ratio 50 dB; Dolby noise reduction system; wow & flutter 0.2% r.m.s.; dual vu meters; dual sliding record-level controls, all push-button operation; two dynamic microphones with "on-off" switch; 10%/ x 2%/ x 11%/ 15-UW Walnut base ............................................$199.95

GENERAL ELECTRIC

TA755 Cassette Recorder Deck
Features stereo record/playback; pause control; record level meter. Supplied with two dynamic mics & walnut cabinet. 8%/ x 3%/ x 13%/ d. Price range .............................................$119.95-$139.95

M8630 AM-FM/8-Track Cartridge Player
Features conventional 8-track stereo cartridge system, an AM-FM stereo receiver
with 9 W/ch (EIA) dynamic power amplifier & two speaker enclosures each with 5" x 7" speaker. Cabinets are closed-box design. Walnut finish $179.98

GRUNDIG

SCR-100 AM-FM/ Cassette Recorder
Combines AM/stereo-FM receiver, a cassette record/play assembly & pair of plifier for “slave” radios including a stereo-FM radio and an AM-FM radio. Power output is 5 W/ch music power (EIA). Slave units are attached to amplifier with two machine screws.
Amplifier $79.95
Slave units $59.95

952 Stereo Cassette Player
Features 4 W/ch music power (EIA) and has fast-forward/rewind with stop at either end of tape. For auto & marine applications $89.95

HAMMÖND

950 Cassette Recorder
Designed for auto or marine use. Features mono record & stereo playback.

12,500 Hz ± 2 dB; a.c. bias; sensitivity: high level 200 mV; low level 0.2 mV; output 0.8 V r.m.s. Has two vu meters; mono/stereo mic inputs. Walnut $159.50

CAD-5 Cassette Recorder
Tape cassette deck with Dolby noise reduction system; records and plays back: response 30-12,500 Hz ± 2 dB; HD 1%; wow & flutter 0.15%. Dual meters for record & two sliding pots for record level. Mono/stereo mic inputs. Adjustments for bias & new chromium-oxide tape $229.95

HEATH

GD-28 8-Track Stereo Player
Playback only with solid-state preamps; to be used with any music system. Fully automatic with track selector feasibility. 3½ ips; output 300 mV; HD 3%; response 50-10,000 Hz ± 6 dB. 10½" x 4½" x 8¼" d. Simulated walnut case.
Kit $59.95

HITACHI

KP-1100E FM Tuner Pack
Converts any 8-track tape player into an FM-stereo radio. Fits into player in place of cartridge & magnetically couples tuner output to tape player. For use with any posi- or neg-car batteries. 4½" x 7½" x 5¾". $49.95

CS-1100E 4- & 8-Track Car Player
Stereo design will play 4- & 8-track cartridge tapes; 12 V negative-ground operation. Response 50-10,000 Hz; wow & flutter 0.3%; 5½" x 2½" x 6½". $79.95

TPQ-115 8-Track Player
Has separately housed speaker systems; 117 V a.c. operation. 16" x 11¾" x 16¼" d. $129.95

TPQ-242 Cassette Tape Deck
Features stereo record & playback; response 40-12,000 Hz; S/N ratio 45 dB. Has mic input $99.55

JVC

1624 Stereo Cassette Deck
Will play & record 4-track stereo or 2-track mono. Has pause control & head- phone monitoring. Has line outputs. 3½" x 8½" x 11" d. $159.95

1100 8-Track Deck
Playback only with line inputs. Features automatic operation & program indicator lights. 3½" x 6½" x 9½" d. $59.95

1250 8-Track Deck
Stereo record/playback design. Features repeat program play. Has program indicator lights. $169.95

9450 AM-FM/Cassette Recorder
Stereo design containing an AM-FM stereo receiver with 10 W/ch dynamic power (EIA), a 4-track stereo cassette recorder & a pair of separately housed speaker systems (each with 6½" woofers & 2 tweeters). 16¼" x 5¼" x 13" d. Speaker cabinet size 8¼" x 15" x 6" d. $269.95

1250 8-Track Record/Play Deck
Stereo design with dual level record meters; channel indicator lights; automatic program changer. Response 30-15,000 Hz; wow & flutter 0.2%; has a.c. bias & erase. 4½" x 15¼" x 9¾" d. With walnut cabinet, less mics $169.95

1971 EDITION
Cartridge Tape Machines

1660 Cassette Record/Play Deck
Stereo design with dual vu meters; response 30-15,000 Hz; wow & flutter 0.25%; has a.c. bias & erase; 3-digit tape counter. 3½" h. x 11⅛" w. x 9½" d. $159.95

1310 8-Track Stereo Car Player
6 W/ch output; response 50-10,000 Hz; wow & flutter 0.2%; 3" x 8¼" x 6½" d. Optional stereo speakers available $89.95

KENWOOD

KX-7010 Cassette Recorder Deck
Features stereo record/playback; pause control; h.f. filter; dual vu meters; 3 digit counter. Response 40-10,000 Hz; S/N ratio 45 dB; wow & flutter 0.2%. Has mic/line inputs; h.f. filter (-6 dB at 10,000 Hz). 10¼" x 9" d. x 4". With walnut base $149.95

LAFAYETTE

RK-510 Cassette Stereo Recorder
4-track record/playback with 5 W/ch (EIA) power amps. Features vu meters, inputs for mics, turntable, ceramic phono; has preamp & 8-ohm speaker outputs. Response 30-12,000 Hz; wow & flutter 0.2%; with mics, less speakers. 14½" w. x 8½" x 4¾" h. $149.95

RK-760 Cassette Deck/Preamp
Stereo design; 4-track record/playback with preamps. Features vu meters, tape counter, multiple inputs and outputs. Response 45-12,000 Hz; wow & flutter 0.35% 8¼" w. x 12¼" d. x 5" $99.95

"Profile 80" AM-FM/8-Track Player
Stereo design with AM-FM stereo receiver and 8-track stereo cartridge player. Inputs for record changer with ceramic cartridge or external cassette deck. Main remote speaker outputs; output 9 W/ch dynamic power, FM sensitivity (IHF) 5 µV. Includes walnut metal enclosure. Less speakers $139.95

LR-818 AM-FM/8-Track Player
Has two 8" air-suspension speakers; AM-FM stereo receiver; 8-track stereo player. Features a.c.e.; phono or tape inputs; tape outputs; front-panel stereo headphone jacks; volume/tone/balance controls; balanced AM and FM antennas $119.95

RK-890 8-Track Recorder Deck
Stereo record/playback design. Features "Remove Tape" indicator light; fast-forward; two mic inputs; 2 aux. inputs; a.c. erasing system. Response 30-12,000 Hz; wow & flutter 0.3%; dual level meter; dual mic & input level control; sound-with-sound. 12" x 3¾" x 9¾" $119.95

RK-850 8-Track Stereo Player
8 W/ch (EIA) dynamic; "Remove Tape" indicator; 8-track stereo playback; illuminated track indicator lights; push-button track selector. Inputs: phono, tuner, aux.; tape outputs. Response 30-10,000 Hz; S/N ratio 50 dB; wow & flutter 0.3% r.m.s. HD 0.2%. Simulated walnut-wood metal case. $79.95

RK-500 8-Track Stereo Playback Deck
Push-button track selector; individual illuminated track indicator lights; S/N 38 dB; wow & flutter 0.3%; 4-pole a.c. capacitor motor $59.95

LEAR JET

A-50 8-Track Stereo Player
Battery-operated 12 V d.c. negative-ground; output 4 W/ch dynamic (EIA); wow & flutter 0.35%. Has cartridge dust cover; automatic & manual program selector. 7" w. x 6¼" x 3½" h. $59.95

A-60 8-Track Stereo Player
Similar to A-50 except has different styling & lighted program indicator. 6¼" w. x 7⅛" d. x 3¾" $79.95

A-130 8-Track AM/Stereo-FM Player
Battery-operated design similar to Model A-50 but has an AM/stereo-FM receiver. 8¼" w. x 7¾" d. x 3¼" $159.95

A-220 Deluxe 8-Track Stereo Player
Automotive design; 12 V negative/positive ground; wow & flutter 0.3%; output 4 W/ch dynamic power. Features lighted program indicators; fine-tuning control; cartridge eject button; fast forward. 8" w. x 7¼" d. x 3¼" $99.95

A-230 8-Track/AM Player
Deluxe stereo design. Same as A-220 but includes an AM radio $119.95

A-240 8-Track FM Player
Deluxe stereo design. Same as A-220 but includes a stereo FM radio $149.95

P-560 8-Track AM/FM Player
Portable stereo design. Same as P-550 except has AM-FM mono radio $99.95

A-250 8-Track AM/Stereo-FM Player
Deluxe design combining 8-track cartridge tape player and an AM-FM radio. 4 W/ch dynamic power; wow & flutter 0.3%; operates from 10-16 V d.c. negative-ground source. Has program indication...
A-260 8-Track Stereo Recorder
Automatic design with 4 W/ch dynamic power. Will play/record in mono or stereo. Has program indicator & record-level indicator. Supplied with low-imp. mics with built-in "on-off" switch. 7" w. x 6½" d. x 3". $225.00

H-350 8-Track Recorder/Deck
Features stereo play/record design with fast-forward tape indexing; automatic stops at track end in record mode; single & double track erase. Has walnut case & twin dynamic mics. $189.95

H-310 8-Track Cartridge Deck
For home use; will play through your existing home stereo system. Features automatic or manual track change; 3½ ips; lighted program indicator; output 0.5 V. 7¼" w. x 9½" d. x 3½". $59.95

H-340 8-Track Cartridge Player
Basically same as H-330 except supplied with matching twin speaker systems separately housed instead of being built-in. $129.95

H-360 8-Track Cartridge Recorder
Can record mono or stereo on all 8 tracks. Comes complete with 2 mics & matching speaker systems. Output 13 W/ch dynamic power (EIA). Walnut finish. $289.95

H-330 8-Track Cartridge Player
Stereo design with built-in speakers; 6 W/ch dynamic power (EIA). Inputs for tuner or phono 0.1 V min., otherwise same as H-310. $99.95

H-410 8-Track Cartridge/AM-FM Player
Stereo design; automatic or manual tape program change; FM stereo indicator light; 6 W/ch dynamic power (EIA). Supplied with two matching speaker systems. $219.95

H-460 8-Track Music System
Combines an 8-track cartridge player, an AM-FM stereo tuner, a four-speed automatic record changer & 6 W/ch dynamic (EIA) power amplifier. Supplied with two matching speaker systems and dust cover. $289.95

MERCURY
50-9008 Cassette Stereo Recorder
Supplied with separately housed bookshelf speakers. Response 80-10,000 Hz; output 1½ W/ch dynamic power (EIA); has vu meters & counter, 13½" x 9½" x 4". Speaker case size 10½" x 7½" x 5½". Supplied with two mics. Walnut finish. $169.95

50-8008. Same as 50-9008 except deck only (without power amps & speakers)...

PX201 8-Track Stereo Tape Player
Features automatic channel switching for continuous play or manual operation. Has 4 channel indicator lights & 2 speaker systems, each with 5" speaker, 14" x 4½" x 9½" d. Speaker cab. size 9½" x 7½" x 6½" d. Walnut cabinet. $129.95

PX203 AM-FM/8-Track Player
Deluxe version of PX501. Has 6½" speakers in cab. 11½" x 8½" x 6½" d. Walnut finish. 22½" x 5¼" x 12¼" d. $179.95

PX505 AM-FM/8-Track Player
Similar in design to PX503. Has lever-type tone & volume controls. Speaker cabinet 12½" x 8½" x 6½". $199.95

MIDLAND
12-154 Stereo Cassette Deck
117 V a.c. design; will record/play back 4-track stereo/mono. Does not have power amps or speakers. Has 4-pole hysteresis synchronous motor. Response 40-15,000 Hz; wow & flutter 0.1%. Walnut cabinet & mics. Size 13½" x 2½" x 9½". $119.95

12-157 Cassette Recorder
117 V a.c. stereo design; will record/play back 4-track stereo/mono. 2½ W/ch dynamic power; response 40-15,000 Hz; wow & flutter 0.1%. Has 4-pole hysteresis...
synchronous motor. 13½" x 9¼" x 2¼". Supplied with 2 mics & separately housed speaker systems, each with 4" x 6" speaker $159.95

*12-627 8-Track System
117 V a.c. stereo playback design; supplied with two separately housed speaker systems, each with 5" speaker, 2 W/ch r.m.s.; 50-8000 Hz. 12½" x 4¼" x 9¼". Speaker cab. size 9½" x 6½" x 5½. Walnut cabinet $119.95

12-630 8-Track Recorder Deck
117 V a.c. stereo design. Has preamp for record/playback. Response 30,000 Hz; line output 200 mV/ch; wow & flutter 0.3%. Has line, aux. and mag. phono inputs. With walnut cab. 16¼" x 6½" x 8¼" $199.95

12-632 8-Track Stereo Deck
Will record/play back 8-track cartridges. Response 30-10,000 Hz; wow & flutter 0.3%; 117 V a.c. design. Has mic & aux. inputs; sensitivity: 1.4 mV at 10 kohms for mic; 70 mV for aux. Walnut cabinet, 15½" x 4½" x 8¼" $179.95

19-538 AM-FM/Cassette System
Stereo design combining an AM/stereo-FM receiver, a cassette stereo record/playback deck & separately housed speaker systems, each with 8" woofer & cone-type super tweeter, 20 W/ch dynamic (HIF) power (12 W/ch r.m.s.). Response 25-30,000 Hz ±1.5 dB; input sensitivity: mag. phono 3 mV; aux. 200 mV. HD 1%; FM sensitivity 2 µV. Cassette response 70-11,000 Hz. With walnut cabinet 19½" x 12½" x 3¾". Spkr. cab. size 9¾" x 13½" x 6¼" $295.00

MILOVAC
AC-303 8-Track Stereo Auto Player
Playback only: 5 W/ch (EIA) dynamic power; response 100-8000 Hz; 4 ohms; 11-16 V (negative ground) battery operated; wow & flutter 0.3%. 6¼" x 7¼" x 2½" $64.95
AC-301 8-Track Stereo Auto Player
Playback only; features: With stereo cartridge mechanism; 11-16 V (negative ground) battery operation; 6 W/ch dynamic (EIA) power $79.95

SC-200 Cassette Stereo Record Deck
Features dual vu meters; digital counter; a.c. erase & bias; response 40-12,000 Hz. Has mixing facilities for mic & line inputs & 500 mV line outputs. With walnut case & dynamic microphone. 3½" x 7¼" x 10¾" d. $99.95

SC-220 Cassette Stereo Recorder
Features dual vu meters; 2 matching walnut speaker systems with 6" dual-cone speakers; a.c. bias & erase; 6 W/ch dynamic (EIA) power. Response 50-10,000 Hz. Has mic & line inputs. With two dynamic mics $149.95

SC-240 Cassette Stereo Recorder
Features swing-out detachable speaker system with 5 speakers; a.c. bias & erase; battery operated (6 "D" cells) and 117 V a.c.; 1½ W/ch dynamic (EIA) power output; response 60-10,000 Hz. Has mic & line inputs. With two dynamic mics $199.95

MONARCH
SAT-825X AM-FM/8-Track Player
Same basic design as SAT-180X AM-FM receiver but has 8-track stereo player. Sensitivity: mag. phono 5 mV; tape 1 mV & aux. 150 mV. Will play conventional 8-track cartridges. 15¼" x 8¾" x 4½" $276.00

HST-80 8-Track Stereo Player
Features 20 W/ch dynamic (EIA) power. Response 30-20,000 Hz ±0.5 dB. Input sensitivity: mag. phono 5 mV; tape 5 mV & aux. 150 mV. Player size 14½" x 4½" x 10" $178.80

MOTOROLA
All models are stereo designs with 7½ W/ch (EIA) dynamic power into 8 ohms. Features stereo-FM indicator light & black glass dial scale.

SK106GW AM/FM/8-Track System
Combines AM/stereo-FM receiver & an 8-track stereo cartridge player: includes same speaker systems as in SK104GW. 19¾" x 10¾" x 4½" $259.95

SK107GW AM/FM/Cassette Player/Recorder
Similar to Model SK106GW with two speakers but has cassette system instead of 8-track. Supplied with 2 microphones for stereo recording on cassette. 22¾" x 4½" x 8¾" $259.95

MUNTZ
Company has a rather complete line of automobile 4 & 8 track cartridge players ranging in price from $29.95 to $139.95. For details on these units, write direct to the manufacturer.

H-5500 4 & 8 Track Home Player
Self-contained stereo, solid-state cartridge player with built-in stereo speakers. Response 50-10,000 Hz; with output of 10 W/ch dynamic power (EIA).
Solid-state circuit. Features power stereo 4-track dB; ord. 2400 A
Twin stereo 2401A cassettes 1971 EDITION.

2400 Cassette Recorder
4-track stereo/2-track mono play & record. Response 60-10,000 Hz ± 3 dB. Has stereo mic & line input; output 4 W/ch r.m.s. 14" x 8 ½" x 3". Supplied with 2-speaker systems each 10" w. x 13½" x 7½" d. Walnut finish. $199.95
2400A Without speakers $149.95

2401 Automatic Stereo Changer Record/Playback System
Twin walnut encased speakers; built-in cassette storage compartment: dynamic stereo microphone; record level indicator; 60-10,000 Hz; 15½" x 9½" x 4½". $249.95
2401A In deck format, without speakers $199.95

RS-2525 AM-FM/Cassette System
Stereo design combining AM-FM stereo circuitry with a cassette stereo recorder and separately housed 6¼" speaker systems; 10 W/ch dynamic power (EIA). Has mic, phono, aux. inputs. 18¾" x 4¾" x 12½". With one mic. $189.95

RS-802US 8-Track Cartridge Deck
Stereo playback only with preamps. Has line outputs. 8-track, 2-channel, 34ips operation. 8¼" x 4½" x 9¼" $59.95

PAX
50-8008 Cassette Recorder Deck
Has tape counter; dual vu meters; a.c. bias & erase. Response 60-10,000 Hz; S/N ratio 45 dB; wow & flutter 0.02%; output 0.5 V r.m.s. for 0 vu record level. 13¾" x 9¾" x 4". With two mics & walnut cabinet $129.95

QATRON
48H Automatic Cartridge Changer
Stereo, 8-track design. Will play up to 12 8-track cartridges. Has four automatic modes of operation: 1. play all channels of all tapes in sequence; 2. or 1st channel of all tapes, etc.; 3. or endless repeat of single tape; 4. or automatic selection of any tape and channel. Has inputs for tuner or phono. 7½ W/ch dynamic power (EIA). Response 50-15,000 Hz ± 3 dB. HD 1% at rated output Model 48A For automotive installation. Has remote control for dash while changer can be mounted in trunk $329.95

REALISTIC
SCT-3 Cassette Tape Deck
4-track stereo cassette deck for record/ playback; a.c. bias and erase systems. Has mic and aux. inputs; output playback level above 500 mV; response 40-12,000 Hz $89.95

SCT-5 Cassette Tape Deck
Record/play with automatic shut-off & pause; a.c. erase & bias; switchable for low-noise and standard tape; mic & aux. inputs; variable output $119.95

TR-8 8-Track Record/Play Deck
Stereo deck with fast-forward, automatic eject; concentric level controls; a.c. bias and erase; and lighted program indicator $159.95

ROBERTS
808D 8-Track Cartridge Record/Play Deck
Stereo design with 1 micron gap play head; response 50-15,000 Hz ± 3 dB; wow & flutter 0.35% r.m.s. Input sensitivity: mic. 0.5 mV at 4700 ohms; line 50 mV. Line output 1.23V ± 1 dB does not
Cartridge Tape Machines

have power amps or speakers. With walnut cabinet. 13\%" x 9\%" x 5\%". $169.95

808 B-Track Cartridge Recorder
Basically same as 808D tape deck but has 10 W/ch dynamic power into 8 ohms; stereo amplifiers & 2 separately housed speaker systems ca. 9\%" x 13\%" x 4\%", ...

SHARP

RD-423U Cassette Stereo Recorder Deck
Has end-of-tape audible signal; response 40-13,000 Hz; pause control; dual vu meters. With two dynamic mics. 10\%" x 3\%" x 10\%" d. Walnut cabinet $109.95

STA-100 AM-FM/8-Track Cartridge Player
Stereo design with an AM-FM stereo tuner; a 10 W/ch (EIA) dynamic power amp & conventional 8-track stereo cartridge player. Response 15-30,000 Hz. Has inputs for phono, tape recorder. 4\%" x 18\%" x 10\%" d. Is supplied with separately housed speaker systems (11\%" x 8\%" x 5\%" d). Walnut cabinet $169.95

SONY/SUPERSCOPE

124 Cassette-Corder
A.c./d.c. rechargeable; with stereo outputs; built-in speaker; 2 W r.m.s. response 50-10,000 Hz; wow & flutter 0.28%; S/N ratio 45 dB; with carrying case and F-995 stereo mic. $169.50

124CS With two matching speakers & vinyl shoulder strap-type carrying case for all components. $199.50

TC-8 8-Track Record/Playback Deck
Solid-state stereo design for recording/playback @ 3\% ips 8-track cartridges; response 45-13,000 Hz; wow & flutter 0.17%. Has two low-impedance mic inputs; two high-level aux. inputs or mag. phono with RK-66 adapter (optional). $135.00

125 Cassette-Corder Deck
Solid-state stereo design; a.c. powered; features "Tape Sentinel" end-of-cassette alarm system, a light that blinks on and off as cassette nears end of each side; noise suppressor switch; response 50-10,000 Hz; wow & flutter 0.2%; S/N ratio 45 dB; walnut base. $129.50

TC-130 Cassette-Corder Consolette
System combining stereo cassette recorder: 7\% W/ch dynamic (EIA) power amp & two matching speaker systems. Response 50-10,000 Hz; wow & flutter 0.2%. Has inputs for low-imp. mics & high-imp. line. Outputs for ext. speakers, line & earphones. Features auto record-level control, tape sentinel lamp, pause control, public-address capability. 13\%" x 13\%" x 9\%". $199.50

122 Cassette Recorder Deck
Stereo design for record/playback featuring dual record level controls; head-

phone. & mic front-panel inputs. Walnut cabinet. $94.95

127 Cassette Recorder Deck
Stereo design similar to Model 122 but deluxe version. Has pause control, straight-line graphic level controls & digital counter. Walnut cabinet. $139.95

20 Automobile Cassette Player
Features program search facilities; fast-forward & rewind; 4-track stereo; 6 W/ch r.m.s. continuous output (9 W/ch (HI); 12 V d.c. operation; response 50-10,000 Hz. Has outputs for two external speakers. 7\%" x 2\%" x 8 3/4" d. $119.20

STANDARD RADIO

R-T390DK 8-Track Recorder/Deck
Two-channel stereo design with a.c. biasing & erase. Has stereo inputs for mics & aux. Wow & flutter 2\% r.m.s.; output 0.5 V; over-all response 100-10,000 Hz. Does not have power amps or speakers. 14\%" x 3\%" x 7\%". With walnut cabinet. $129.95

SR-T800P 8-Track Deck
Features 8-track, 4-channel playback only stereo operation; wow & flutter 0.3%; line output 100 mV. Response 50-10,000 Hz. Supplied with walnut cabinet. $79.95

SR-T178DK Cassette Recorder/Deck
Features 4-track, 2-channel stereo record/playback with a.c. bias & erase. Has two vu recording level meters & 2 each mic & aux. inputs. Wow & flutter 0.2% r.m.s.; over-all response 30-15,000 Hz ± 1 dB. Sensitivity mic 0.1 mV/10,000 ohms; aux. 70 mV/100,000 ohms. Preamp output 0.775 V. Does not have power amps or speakers. 9" x 3\%" x 12\%". Walnut wood cabinet. $169.95

TEAC

A-24 Stereo Cassette Deck
Features record/playback; dual vu meters; pause control. Response 40-12,000
Hz; S/N ratio 45 dB; wow & flutter 0.2% r.m.s. Input sensitivity: mic 0.3 mV (600 ohms); tuner & line 0.1 V. Output 0.3 V. Has automatic end-of-tape stop. 13¾" x 9¾" x 4¾" ………….. $199.50

A-25 Stereo Cassette Recorder
Same as A-24 cassette deck but with 10 W/ch (IHF) dynamic power amps & two separately housed speaker systems. Also has mag. phono input (2 mV sensitivity), 13¾" x 9¾" d. x 4¾". Spkr. cabinet size 9¾" x 7¾" d. x 14¾" ………….. $279.50

TELEX

Viking 811 Series
8-Track Recorders/Players
Stereo design. Response 40-15,000 Hz; S/N ratio 50 dB; flutter & wow 0.3%. Automatic start when cartridge is inserted. Each unit measures 15" w. x 11" d. x 4½" h.
Model 811R. Record/playback design with built-in preamps (does not have power amp). In record mode features automatic stop at end of single program or at end of tape; in playback mode features automatic stop at end of tape or continuous play. Walnut styling ………….. $169.95
Model 811. Table top playback unit with built-in preamp. Push-button or automatic program selection with numerical indicator. Turns on automatically when cartridge is inserted. Walnut styling. $399.95
Model 811A. Same as Model 811 but with 5 W/ch (IHF) dynamic power amplifiers (less speakers). Has stereo headphone jack & speaker “on-off” sw. Includes push-button and automatic program selector. Walnut styling. ………….. $129.95
Model 811W. Same as Model 811A but includes two 3½" high-compliance speaker systems. Walnut styling. Each speaker 11" x 3½" d. x 7½" h. ………….. $359.95
Model 811P. Same as Model 811W except portable design. Speakers are detachable from tape case. Over-all size 15" w. x 11" d. x 8½" h. ………….. $319.95

700 AM-FM/8-Track Player
Stereo design for playback only with separately housed speaker system; 12½ W/ch dynamic (EIA) power; has phono inputs. 20" x 6" x 9½" d. Speaker cabs. 9" x 10½" x 9" d. Walnut ………….. $219.95

814S AM-FM/8-Track System
Features 8-track stereo record & playback system; an AM-FM stereo receiver & pair of bookcase speaker systems. Has 25 W/ch (EIA) dynamic power amplifier; response 40-15,000 Hz; wow & flutter 0.3% r.m.s. Has auto/manual channel selector; phono, tape & mic inputs. 18" x 11" d. Speaker cases 8" x 12" x 7" d. ………….. $349.95

Model 814 Less speakers ………….. $309.95
Model 812S Includes speaker but without AM-FM tuner ………….. $299.95
Model 812 Same as 812S less speakers. ………….. $259.95

9144 8-Track Deck
Playback only with stereo preamps. Has automatic program selector. 7½" x 4½" x 10" d. ………….. $64.95

9155 8-Track Cartridge Player
Features stereo design; 10 W/ch (EIA) dynamic output & 2 separately housed speaker system (each with 6" speaker). Has phono & aux. inputs. Walnut cabinets. 4½" x 9½" d. x 15½". Speaker cases are 11¾" x 11¼" x 5" d. ………….. $139.95

VIVITAR

RC-710 Cassette Recorder Deck
Stereo design features automatic end-of-tape stop; response 50-10,000 Hz; wow & flutter 0.28%. Has dual mic & aux. inputs; line output; dual record-level meters. 12¼" x 4¼" x 8¼" d. ………….. $119.95

RC-720 Stereo Cassette Recorder
Features automatic end-of-tape stop; record-level meters; 5 W/ch (EIA) dynamic power; pause control; dual mic & aux. inputs. Response 50-10,000 Hz; wow & flutter 0.25%. 19¾" x 15½" x 8¾" d. Supplied with two separately housed speaker systems, each 6½" speaker (8 ¼" x 15¼" x 8¼" d.) & with 2 dynamic mics ………….. $199.95
RC-730 Same as RC-720 except has additional AM/FM-stereo tuner ………….. $279.95

V-2 Cassette Stereo Recorder
Same as V-1 except includes Dolby noise-reduction system ………….. $279.95

WEBCOR

WFX-155 AM-FM/8-Track System
Combines an AM/stereo-FM receiver, an 8-track cartridge player, and two sepa-
rately housed speaker systems. FM sensitivity 8 µV for 30 dB quieting; power output 5 W/ch dynamic power (EIA) ………….. $199.95

WFX-154 Music System
Combines an AM/stereo-FM receiver, 10 W/ch dynamic (EIA) power amplifi-
er, a cassette playback/recorder, and sepa-
rately housed 2-way stereo speaker sys-
tem. Has record level indicator, blackout tuning dial, stereo indicator light. Re-
cords stereo directly from built-in receiver. 6½" woofers & 2½" tweeters are housed in 7½" x 10½" x 6" cabinet; even housing 15¼" x 4½" x 9¼". Supplied in walnut with 2 dynamic mics ………….. $199.95

4860 Stereo Cassette Recorder
Heavy-duty stereo cassette recorder; 4 W/ch dynamic (EIA) power; dual vu me-
ters; noise filter; pause control; end-of-
tape sensing. Speaker package optional. Response 60-12,000 Hz ± 3 dB; wow & flutter 0.25%; S/N ratio –46 dB; preamp output 0.5 V/ch; preamp input 25-50 mV; mic input 0.1 mV; low imp. 8½" x 13¼" x 4½" ………….. $239.95
4800 Same as Model 4860, less end-of-
tape sensing & dust cover but with acous-
tic suspension speakers ………….. $239.95
4750 Same as Model 4860 except deck version ………….. $199.95
4700B Same as Model 4800 except deck version ………….. $179.95

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Achromatic and Variflex Speaker Systems...all with unitized construction...all built to take power

ACHROMATIC W45

A new speaker system engineered specifically to meet today's challenging musical requirements. Truly an outstanding value. A multiple speaker assembly yielding a carefully tailored ultra-linear response.

- Speakers: Woofer: Heavy duty 8".
- Tweeter: Uni-elliptical 1".
- Dimensions: 22"x12"x13".
- Weight: 14 lbs. Finish: Oiled Walnut. Price: $117.00

ACHROMATIC W25

The remarkable performance of this small speaker system is even more amazing when you consider its compact size and modest cost. It is designed specifically to handle today's musical demands from percussive hard-rock to full symphonic material.

- Dimensions: 15.5"x10"x10".
- Weight: 14 lbs. Finish: Oiled Walnut. Price: $58.75

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ACOUSTIC RESEARCH

Model AR-2X Speaker System
Has 10" acoustic suspension woofer & a 2 1/4" cone tweeter. HD 2% down to 60 Hz (3% down to 50 Hz @ 10 W); dispersion 90°. Impedance 8 ohms. Use with amplifier 20 W/ch. or more. 24" x 11 1/2" d. x 13 1/4" h. Mahogany or birch $96.00
Walnut or cherry $102.00
Unfinished pine $ 89.00

Model AR-2AX Speaker System
Same as Model 2X except a 3/4" dome-type super tweeter is added. Crossover frequencies; 15 W/ch. or higher. 19" x 9" d. x 10". Walnut $122.00
Unfinished pine $128.00

Model AR-3
Acoustic suspension three-way system; usable range down to 30 Hz; one 12" woofer, one 2" and one 1 1/2" dome radiator for mid and high frequencies; built-in three-way crossover with level controls for mid and high ranges; 4 ohms impedance; less than 2% harmonic distortion from 60 to 20,000 Hz at 20 watts input, less than 3% to 42 Hz; recommended amplifier power, at least 25 watts per stereo channel; 14" x 11 1/4" x 25"; 60 lbs; 3/4" hardwood veneer. Mahogany or birch $216.00
Walnut, oiled walnut, cherry $225.00
Unfinished pine $203.00

Model AR-4X Speaker System
Two-way design. An 8" acoustic suspension woofer and a 2 1/4" direct-radiator tweeter with level control. Crossover 1000 Hz, 8 ohms. For use with amplifiers of 15 W/ch or higher. 19" x 9" d. x 10". Walnut $63.00
Unfinished pine $57.00
Unfinished birch $63.00

AR-3A Speaker System
Features 3 drivers: a 12" bass unit in 1.7 cu foot sealed enclosure, a 1 3/4" hemispherical mid-range radiator, and a 3/4" high-freq. hemispherical radiator. Output of smaller units is independently adjustable. Power output 25 W r.m.s. /ch required to drive speakers. Will tolerate 11 W.r.m.s. at any freq. indefinitely. 23 W for 30 sec. & 400 W for 2 sec. Glossy or oiled walnut, cherry, or oiled teak $250.00
Mahogany or birch $240.00
Unfinished pine $225.00
Factory conversion of AR-3 $90.00

AR-5 Speaker System
Has 10" acoustic suspension woofer, 1 1/4" midrange hemispherical dome, and 3/4" high-freq. hemispherical dome. Has separate midrange & high-freq. level controls. Recommended 20 W r.m.s. min. power; 8 ohms. Response 48 Hz to beyond 20,000 Hz ± 3 dB. Glossy or oiled walnut, cherry, or oiled teak $175.00
Mahogany, birch $168.00

ACOUSTRON

LWE-11 Speaker System
Has two 15" woofers, two 6" midrange, 5" horn tweeter. Response 20-20,000 Hz ± 5 dB; capacity 100 W program material; 4 ohms. $330.00

LWE-1A Speaker System
Has 15" woofer, 6" midrange, 5" horn tweeter. Response 22-20,000 Hz ± 5 dB; capacity 40 W program material; 4 ohms. $130.00

LWE-111 Speaker System
Has 12" woofer, 6" midrange, 3 1/4" tweeter. Response 25-17,000 Hz ± 5 dB; capacity 40 W program material; 4 ohms. $130.00

LWE-VI Speaker System
Has 8" woofer, 3 1/2" tweeter; response 24-15,000 Hz ± 5 dB; capacity 25 W program material; 8 ohms. $66.00

LWE-VII Speaker System
2-way design with 10" woofer & 3 1/2" tweeter; response 28-18,000 Hz ± 5 dB; 4 ohms. $105.00

System or tweeter. Controls.

Speaker & Cabinet Systems

1971 EDITION
Speakers & Cabinets

ADC

Model 303AX Speaker System
Bookshelf design with 10" high-compliance woofer, with wide-dispersion, high-flux Mylar dome tweeter. Response 37-20,000 Hz ± 3 dB; power requirements 10 W min.; 8 ohms. 23½" x 13½" x 11¼". Oiled walnut ...............$100.00

404 Speaker System
Two-way system using Audio Dynamics' wide-dispersion Mylar dome tweeter & special 6" air-suspension type woofers. Response 45-20,000 Hz ± 3 dB; 8 ohms; 10 W min. power requirements. 11½" h. x 7¾" w. x 8¾" d. Walnut finish .............$55.00

400 "Brookfield" System
Three-way system using 10" high-compliance woofer, 5½" mid-range, and wide-dispersion Mylar dome tweeter; response 30-22,000 Hz ± 3 dB; 8 ohms & 10 W min. power requirements. Oiled Walnut. 25" x 14½" x 12¼". ......................$160.00

210 Speaker System
Two-way bookshelf design with 8" high-compliance woofer & 2½" cone tweeter. Response 40-20,000 Hz; 8 ohm imp. Walnut cabinet. 20" x 11" x 10" d. ..........$75.00

450 Speaker System
Three-way system using 5¼" Mylar dome tweeter; 1½" dome midrange, and 12" high-compliance woofer. Has treble & mid-range level controls. Response 25-30,000 Hz ± 3 dB; power requirement 10 W min.; 8 ohms. Oiled walnut. Removable grille for simple interchange of grille cloth. 25" x 14½" x 12¼" d. ..........$220.00

410 Speaker System
Two-way system using 1¾" Mylar dome-high-dispersion tweeter & 12" high-compliance woofer. Has three-position treble control switch. Response 35-20,000 Hz ± 3 dB; power requirement 10 W min.; 8 ohms. 25¼" x 14½" w. x 12¼" d. ..........$130.00

ADVENT

"The Advent" Loudspeaker
Two-way design; 8 ohms; with 10" acoustically-suspension woofer & a 2" phenolic-impregnated paper cone tweeter in an infinite cabinet. 25¾" x 14½" x 11¼". Has high-freq. level control. Response 20-15,000 Hz ± 5 dB. Can be used with amp. having 20 to 120 W r.m.s./channel output. Walnut cabinet ..........$115.00. Walnut finish vinyl clad utility cabinet .............................$102.00

AIR COUSTIC

PC-8 3-Way Speaker System
Bookshelf design. Features a pneumatic-102 coupled speaker system that is claimed to use a unique design in which the woofer section moves three times as much air as a conventional 8" acoustic-suspension speaker: a special rectangular diaphragm, three times the area of a cone speaker, is suspended in front of the woofer and is pneumatically coupled to the woofer cone. Has an 8" low-frequency, a 5" mid-range & a 1½" dome tweeter. Response 40-15,000 Hz ± 4 dB; crossovers at 300 & 5000 Hz; 4 ohm imp.; max. power capacity 25 W r.m.s. (min. 15 W r.m.s.). 11¼" x 19½" x 9¾". Oiled walnut ..........$99.00

PC-12 3-Way Speaker System
Features novel principle for speaker coupling as described for Model PC-8 system. Has 12" woofer, an elliptical mid-range cone driver with a special 1½" center dome radiator. Response 30-30,000 Hz ± 4 dB; 4 ohms; crossovers at 400 & 5000 Hz. Max. power capacity 35 W r.m.s. Recommended power 20 W r.m.s. 15¼" w. x 27½" h. x 13¼". Oiled walnut ..............................................$239.00

ALLIED

2325K 3-Way Speaker System
Has 12" woofer, 8" mid-range & 3½" cone-type tweeter. Response 35-18,000 Hz; 8 ohms. 50 W peak capacity. Bass-reflex bookshelf design. Includes h.f. level control. 24" x 14½" x 9¾". Supplied with finished base. 20B9766U ..................Kit $59.95

2345 3-Way Speaker System
Floor model designed with 12" woofer, 4" mid-range & 3½" cone-type tweeter; crossover at 5000 Hz mechanical & 1000 Hz electrically; capacity 70 W peak; 8 ohms. Supplied with oiled walnut matching base. 26¼" x 16½" x 10½". 20B9764U .................$99.95

2373K 3-Way Speaker System
Bookshelf design with 12" woofer, a die-cast compression driver with diffraction horn as mid-range & a die-cast tweeter, also with diffraction horn. Has mid-range & h.f. level controls; 70 W peak capacity; 8 ohms. 5¾" w. walnut veneer. With finishing oil. 20B9775Z ..................Kit $99.95

20B9749Z Factory finished & assembled. .................$139.95

2395 3-Way Speaker System
Features 15" woofer, a die-cast horn-loaded compression type mid-range & a wide dispersion dome tweeter; crossover at 1000 & 8000 Hz. Has mid-range & h.f. level controls. 100 W peak capacity; 8 ohms. Walnut finish with black base. 29½" x 20¼" x 14". 20B9716Z ..................$159.95

2760 Speaker System
Has 10" low-frequency speaker with free suspension phase inverter (passive radiator & 3" cone-type high-freq. speaker. Has h.f. level control. Response 20-20,000 Hz; 80 W peak capacity; 8 ohms; RC-type crossover at 2500 Hz. Walnut finish. 14½" x 25¼" x 12½". 20B9713U .................$149.95

3040K 3-Way Speaker System
Features tuned-port bass-reflex bookshelf design with 12" woofer, 6" mid-range & 3½" cone tweeter; crossovers at 2000 & 5000 Hz. Response 45-16,500 Hz; 50 W peak capacity; 8 ohms. Has h.f. level control. 1/4" walnut veneer panels. Supplied with finishing oil. 14" x 22½" x 9". 20B9760L ..................Kit $44.95

20B9759L Assembled & finished $69.95

3017K Three-Way Speaker System
Bass-reflex type with tuned ducted port; over-all response 40-17,000 Hz. 10" woofer (40-800 Hz); 6" mid-range with sealed back (800-5000 Hz); 3½" cone-type tweeter (5000-17,000 Hz). Electrical capacitor crossover at 800 and 5000 Hz; power handling 20 W program. 40 W peak; imp. 8 ohms. 1½" wood with five-ply walnut veneer & 1/4" thick fiber glass acoustic insulation. 12" x 22½" x 8" deep. Kit includes finishing oil. 20A9745U ..................Kit $54.95

20A9741U Factory assembled and finished. ...............$49.95

ALTEC LANSING

811B "Sectoral" Horn
Similar to Model 511B except cut-off is at 800 Hz; used with 806A driver and 800 Hz crossover to complement either one 4½"A or one or two 4½"A bass speakers. .........................$28.00

419-88 "Bifix" Speaker
A 12-inch cone-type speaker with a second compliance ring in the center of the cone to give mechanical crossover at 1000 Hz and permit 2-way performance with a single voice coil; 25 watts; 30-15,000 Hz; 8-ohms impedance; 3-inch edge-bound ribbon voice coil; cast aluminum edge. ...............$66.00

420A "Bifix" Speaker
A 15-inch cone-type speaker with a second compliance ring in the center of the cone to give mechanical crossover at 1000 Hz and permit 2-way performance with a single voice coil: 25 watts; 30-15,000 Hz; 8-ohms impedance; 3-inch edge-bound ribbon voice coil; cast aluminum edge. ...............$76.00

511B "Sectoral" Horn
Designed to load 802D driver down to 500 Hz with upper limit at 22,000 Hz; cast of heavy resonant-free aluminum; dispersion 90° horizontal and 40° vertical.
416-8A Woofer
15-inch woofer; power rating 30 watts; 16-ohms impedance; response 20-1600 Hz.

846A "Valencia" Speaker System
2-way system combining 811B sectoral horn with 860A h.f. driver & a 416A low-

846A "Valencia" Speaker System
2-way system combining 811B sectoral horn with 860A h.f. driver & a 416A low-

3000H H.F. Speaker
Aluminum diaphragm; multiecell-type horn; 20 watts when used with N-3000E

N-3000E Dividing Network
Designed especially for 3000H h.f. speaker; 8 ohms; attenuation 10 dB continuously variable; 3000 Hz crossover; 2½" x 4½" w. x 2¾" d. 

605B "Duplex" Speaker
Basically the same as the 604E with efficiency just 3 dB less.

892A "Madera" Speaker System
Bookshelf design features a wideband freq. response of 4½-18,000 Hz with wide angular distribution and 50 W power-handling capability. Infinite baffle design with Altec 40E low-frequency 10" speaker for optimum bass response; high frequency end includes compression-driven

ADC: WORLD'S MOST PERSNICKETY SPEAKER MAKER.

We make 303AX speakers for fussy audiophiles. Each one is crafted by hand and contains a two-way acoustic suspension system that's accurate enough to please even the most discriminating listener. The ADC 303AX lacks the distortion and coloration often found in speakers in its price range. Which makes it a super value in a full-sized bookshelf speaker.

Of course, there's only one way to find out how really accurate our speaker system is. Go to your nearest ADC dealer and compare it to other models. After all, hearing is believing!

ADC: WORLD'S MOST PERSNICKETY SPEAKER MAKER.

SPECIFICATIONS
Type . . . Bookshelf.
Cabinet . . . Oiled Walnut.
Dimensions . . . 23½" H x 13" W
Weight . . . 37 lbs. ea.
Frequency Response . . . 33Hz-20kHz ± 3 db (measured in average listening room).
Speakers (2) . . . High accuracy, wide dispersion tweeter with Hi Flux Magnet and 10" high compliance woofers.
Nominal Impedance . . . 8 ohms.
Power Required . . . 10 watts min.
Price . . . $100 suggested resale. Write for details about other ADC speaker systems. From $55-$350.

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7 Speakers & Cabinets

**Exponential horn; crossover frequency 2500 Hz.** Size 13" h. x 23¾" w. x 11½" w. ............................................. $145.00

**604E Super "Duplex" Speaker**
15" speaker with freq. range 20-22,000 Hz; power rating 35 W (50 W peak dyn-
amic power); 8-16 ohm imp.; resonance 25 Hz; crossover 1500 Hz. .... $195.00

**848A "Flamenco" Speaker System**
Standard model contains A-7 components: 416A 15" bass speaker. 811B 800-Hz sectoral horn; and 800-Hz crossover network. Cabinet is oak; grille is simulated wrought iron. 19¾" d. x 27¾" h. x 28¾" w. ............................................. $339.00
860A Cabinet only ............................................. $156.00

**871AL/R "Milano" Speaker System**
Featuring Italian Provincial styling in pecan-finished hickory, system incorpo-
rates "The Voice of the Theatre" components—a 416A 15" bass speaker, an 811B 800-Hz sectoral horn, an 806A high-frequency driver, and an 800-Hz crossover network. 29¼" h. x 27¾" w. x 19¼" d. ............................................. $395.00
866AL/R Cabinet only ............................................. $225.00

**890C "Bolero" Speaker System**
Bookshelf design with fretwork grille. The 406-8B woofer is reinforced by an Altec 10" free-suspension phase inverter.

Response 40-20,000 Hz; power rating 50 W; 8 ohms; 2000 Hz crossover. 14¾" h. x 25¾" w. x 12" d. ......................... $179.00

**770A Electronic Crossover Bi-Amp**
Combines an electronic crossover & 2 power amps. Designed to be mounted inside speaker enclosure. Bass amp 60 W r.m.s. crossovers over to a high-freq. amp 30 W r.m.s. at 500 or 800 Hz. HD 0.3% from 20-20,000 Hz; crossovers (12 dB/octave); 8 ohms. Power bandwidth (IHF) 15-25,000 Hz; input sensitivity: 0.3 V r.m.s. Has special signal sentry switching. Amp will turn on or off automatically with or without signal. .............. $258.00

**2873A "Barcelona" Powered Speaker System**
Combines "The Voice of Theatre" components with 770A electronic crossover Bi-Amp; crossover: 500 Hz. 29¾" x 38¾" x 24" d. Walnut cabinet ......................... $750.00
873A Without the 770A electronic crossover. Response 20-20,000 Hz; 8 ohms: 60 W capacity .......................... $550.00

**2875A "Granada" Powered Speaker System**
Similar to 2873A except smaller. Size 29¾" x 27¾" x 24" d. Crossover at 800 Hz. .... $650.00
875A Without the 770A electronic crossover; response 20-20,000 Hz; 8 ohms. 60 W capacity ................ $450.00

**893A "Corona" Speaker System**
Two-way bookshelf system has continuous power rating up to 40 W but may be used with amplifiers rated as low as 15 W/ch. 50-18,000 Hz; 8 ohm imp.; crossover freq. 2500 Hz. 12¾" h. x 22½" w. x 9½" d. .................. $85.50

**879A "Santana" Speaker System**
Two-way system with 15" bass speaker with high-freq. tweeter. Cabinet is com-
temporary oiled walnut with composition slate top; 8 ohms. Will handle 45 W continuous power ................. $195.00

**N-501-8A Dividing Networks**
12 dB/octave for use with amp. rated up to 100 W continuous power; 500 Hz crossover; 8 ohms. Has variable L pad ....... $61.00

**N-801-8A Same except for 800 Hz crossover.** .................................. $53.80

**411-8A Low-Freq. Speaker**
15" design specifically for infinite baffle

Response 20-1000 Hz; power rating 60 W r.m.s. 5½" d. .......................... $99.50

**807-8A H.F. Driver**
Entry 800-20,000 Hz with crossover at either 500 or 800 Hz. For use as a 2-
way system with Altec 511A, 511B (500 Hz), or 811B (800 Hz) Sectoral horn. Di-
viding network N-501-8A (500 Hz) or N-801-8A (800 Hz) & 414, 515, or 416-
8A low-freq. speaker. Max. power 30 W r.m.s.; 8 ohms .................. $67.00
809-8A Same except has larger magnet. Is more efficient for speech & music. . .................. $78.50
All prices shown are audiophile net.

**AZTEC**

"Petite 1000" Speaker System
2-way bookshelf design with 8" air-suspension woofer & 3½" closed-back tweeter. Has 2000-Hz adjustable LRC crossover. Response 40-20,000 Hz. 50 W (dynamic power) capacity; 8 ohms. 20" x 10½" x 9¼". Oiled walnut ....... $69.95

"Gaugin III" Speaker System
3-way ducted port bass-reflex system with 12" woofer, 3" x 9" mid-range horn, and 2" x 6" high-frequency horn. Has adjustable LRC crossovers at 2000 Hz & 10 kHz. Response 30-20,000 Hz; 60 W (dy-
amic power) capacity; 8 ohms. 20" x 27½" x 15½". Oiled walnut ....... $229.95
With various decorative walnut fronts.
**Coquette 500** Speaker System
Two-way bookshelf design with 8" air-suspension woofer & 3" closed-back tweeter; has 3000-Hz "O" crossover; response 45-18,000 Hz; 50 W dynamic power capacity; 8 ohms. 15¼" x 10" x 7¼". Oiled walnut ................. $249.50

**Cezanne II** Speaker System
Two-way bookshelf design with 10" air-suspension woofer & two 3½" closed-back tweeters. Has 2000-Hz adjustable LRC crossover. Response 37-20,000 Hz; 50 W dynamic power capacity; 8 ohms. Size 22" x 12½" x 9½". Oiled walnut ................. $99.95

**Monei** Speaker System
Four-way, five-speaker, ducted-port bass reflex system with 15" woofer, separately enclosed 8" mid-range, two 3½" self-enclosed tweeters for upper mid-range & 3½" super tweeter for ultra highs. Has adjustable LRC crossovers at 800 Hz, 2000 Hz, and 10 kHz. Response 25-20,000 Hz; 75 W dynamic power capacity; 8 ohms. 25½" x 36½" x 15½". Oiled walnut ................. $299.95

**Seurat V** Speaker System
Four-way, seven-speaker, ducted-port bass reflex system with two 15" woofers, separately enclosed 8" mid-range, three 3½" self-enclosed tweeters for upper mid-range, and 3½" super tweeter for ultra highs. Has adjustable crossovers at 450 Hz, 2000 Hz, 10 kHz, and 12 dB per octave slopes throughout. Response 20-20,000 Hz; 120 W dynamic power capacity; 4 ohms. 28½" x 48" x 20". Oiled walnut ................. $449.95

**Rembrandt II** Speaker System
Two-way bookshelf design with 10" woofer & 2" x 6" compression horn in bass-reflex cabinet. Has 3-position treble control. Walnut finish. 23½" x 13½" x 11½" d. .......... $139.95

**Sombras 101-2** Speaker System
Console floor design in Spanish Colonial style with snap-on grille. Has 12" low-freq. driver, a mid-range horn & an ultra-high-freq. horn. LRC crossovers (12 dB/octave) at 2000 & 10,000 Hz. Includes 3-pos. 4 dB/step level control. Ducted port design. 20½" x 21" d. x 28". S379.95

**Sombras 101-1** Speaker System
Deluxe console floor design with 75" of internal folded horn. Spanish Colonial style in hand-rubbed walnut with snap-on grille. Has 12" low-freq., a 4" x 10" mid-range horn & 2" x 6" high-freq. horn; crossovers (LRC, 12 dB/octave) at 800 & 10,000 Hz. Sizes 36½" x 28" x 21" d. .......... $499.95

**Renoir V** Speaker System
3-way bookshelf or console design with separate base. Has 12" woofer, a 4½" mid-range & 3" x 6" horn tweeter. Includes 3-pos. treble sw. 17½" x 26" x 11½" d. Oiled walnut .......... $179.95

**BELL & HOWELL**

**630 Speaker System**
Has dual-cone 8" two-way speaker with mechanical crossover. Response 50-18,000 Hz; 8 ohms; 50 W peak capacity. 10" x 19" x 8½" d. Polymer-coated walnut veneer .......... $66.50

**640 Speaker System**
Has dual cone 10" 2-way speaker with mechanical crossover; response 30-20,000 Hz; 8 ohms; 60 W peak capacity. 12½" x 21½" x 10¾" d. Polymer-coated walnut veneer .......... $88.00

**BOGEN**

**LSX "Row 10" Bookshelf System**
4" full-range speaker with ducted port. Response 60-18,000 Hz; 8 ohms. 12½" x 5½" x 8½". Oiled walnut cabinet with black grille cloth ........... $279.50

**LS10A "Row 10" Bookshelf System**
6" acoustic-suspension woofer & 2½" tweeter; 8 ohms; 45-20,000 Hz. Handles 30 W. 15" x 8½" x 7½". Oiled walnut cabinet with black grille cloth .......... $49.95

**501 Speaker System**
Direct reflecting design with woofer & 2 tweeters balanced for direct & reflected sound; 4 ohms; 20 W r.m.s. required. 24" x 14½" x 14½" d. Walnut finish. $124.80

**BOSE**

**501 Speaker System**
Direct reflecting design with 11% of sound direct & 89% reflected from rear.
Speakers & Cabinets

8-ohm impedance (two 16-ohm sections in parallel); direct-radiating dual cones; 120° radiation; rubber damping prevents peaking and metallic harshness. 36$36.50

B-209B Mid-Range Speaker
Mid-range speaker: 6½" diameter 3" deep; unique “sandwich” cone; for 20- to 40-watt systems with Bozak crossover network; 200 to 3500 Hz; 8- and 16-ohm models available; rubber suspension gives superb transient response. 54.50

B-199A Woofer
12" woofer; 4½" deep; variable-density cone; for use with amplifiers 20 W r.m.s. or more; 40-4500 Hz; 8 or 16 ohm impedance; unique voice-coil construction. 59.50

B-300 Speaker System
Infinite baffle enclosure; ½" plywood; one B-207A coaxial speaker; 40-20,000 Hz; can convert to model B-302A. 140.00

B-300 Italian Provincial; 24" w. x 18½" d. x 30" h. cherry 324.50
B-300 Italian Provincial (Enclosure only) 135.00
B-300 Century (Enclosure only) 99.50
B-300 Century (Enclosure only) 300-Moorish; 27" w. x 16½" d. x 30" h. 238.00
B-300 Moorish (Enclosure only) 140.00
B-300 French Provincial; 28½" w. x 19½" d. x 31½" h. 264.50
B-300 French Provincial (Enclosure only) 160.00
B-300 Mediterranean (Enclosure only) 259.50
B-300 Mediterranean (Enclosure only) 160.00

B-800 Full-Range Speaker
8" speaker; 8 or 16 ohm impedance 50-10,000 Hz; 8½" dia. x 3½" deep; for use with amplifiers 15 watts dynamic power or more; 550.

“Concert Grands”
Both havoc 4-199A bass; 2 16-ohm B-209B mid-range; 4 pair B-200Y treble speakers, with N-104 or N-10102A with N-25 crossovers 400 & 2500 Hz; Response 28-20,000 Hz; 8 ohms; 60 W 106

r.m.s. capacity; 36" w. x 19" d. x 52". Matte walnut B-310B has slot-loaded vertical tweeter array with broader horizontal dispersion. Moorish design 897.00
B-400A Same as B-310B except cabinet has front doors (simulated) 890.00

B-400A “Symphony No. 1”
Has two B-199A woofers, one B-209B midrange 6" speaker; 8 B-200Y single tweeters; and N-104 crossover network; useful frequency 35-20,000 Hz; crosses at 400 and 1500 Hz; 8 ohms; for use with amplifiers 30 W r.m.s. or more; 44" h. x 28" w. x 16" d.; available in walnut. Moorish enclosure 595.00
B-400A Modern enclosure 499.50
B-400A Classic enclosure 575.00

B-302A Speaker System
Similar to B-300 with addition of B-209B mid-range speaker and N-10102A crossover network.
B-302A Italian Provincial; 24" w. x 18½" d. x 30" h. cherry 322.50
B-302A Century 287.50
B-302A Moorish 326.00
B-302A French Provincial 352.50
B-302A Mediterranean 347.50

B-305 Speaker System
Infinite-baffle enclosure; 35-20,000 Hz; 3-way speaker system; 800 Hz and 2500 Hz crossover frequencies; two B-207B coaxial speakers, one B-209B mid-range speaker; 16-ohm impedance. 425.00
B-305 Moorish 499.50

B-207B Two-Way Coaxial Speaker
Two-way speaker system: 12" o.d., depth 6"; for use with amplifiers 20 W r.m.s. or more; 40-20,000 Hz; 8-ohm impedance; composed of B-199A woofer and B-200Y dual-tweeter; crossover at 2500 Hz; infinite baffle enclosure recommended, minimum 5 cu. feet, optimum 9 cu. feet. 99.50

B-1000 “Bard” Outdoor Speaker
Rigid 18" dia. hemispheric housing; 21" high; 12" front-to-back; 22 lbs.; input by phone jack (plug supplied); 8 ohms; power input 40 watts max; response 50-10,000 Hz; B-800 driver; adjustable friction-type trunion; weatherproof cone; sandalwood beige or white eggshell with gold trim 89.50

N-107 Passive Crossover
Designed to separate high-frequency speaker system from midrange units. Low-frequency response not altered. Crossover at 2500 Hz 13.00

Bazak Panel Systems P-302AP
Contains one B-207B, one B-209B, and crossover network mounted on a ¼" panel; 5 cu. foot cavity required; panel 27½" h. x 23" w. 196.00

P-305P
Contains two B-207B, one B-209B and crossover network mounted on a ¼" panel; 8 cu. foot cavity required; panel 24¾" h. x 34½" w. 301.50

P-310BP
Contains four B-199A, two B-209B, one B-200Y and crossover network mounted on a ¼" panel; 16 cu. foot cavity required; panel 47½" h. x 31" w. 614.00

P-4000P
All components same as in Model B-4000A, mounted on ¼" panel 380.00

B-312 “Concerto II”
Includes a B-207B coaxial speaker; 45-16,000 Hz; crossover 6 dB octave at 2500 Hz; 8 ohms; 20 W r.m.s. power. 24½" x 17½" x 12½" d. Walnut 159.50

B-313 “Concerto III”
3-way system includes one B-207B coaxial & a B-209B, mid-range speaker; N-10102A crossover, 6 dB/ octave at 800 & 2500 Hz. Response 45-16,000 Hz; 8 ohms, 20 W r.m.s. rating. Cabinet same as B-312 system 234.50

N-10102A Crossover Network
Universal dividing network; convertible for B-302A or B-305 system; 800 and 2500 Hz crossover; 8 or 16 ohms; can be converted to 400 and 2500 Hz crossover for 8-ohm system by addition of N-25. 233.50

N-104 Crossover Network
Crossover 400 and 2500 Hz; 8 ohms; used on B-310A-B-310B and B-410 systems 42.50

N-25 Crossover Network
Capacitor bank for use with N-10102 when 400-2500 Hz crossover and 8 ohms is desired 13.50

N-106 Electronic Crossover
Has high-imp. inputs & outputs; crossover at 400 Hz (6 dB/ octave). Designed to be used between each channel of a stereo preamp output and input separate power amps (2 required). Dual-channel power amps are then used for ea. channel. Each power amp thus divides output into low & high freq. speaker systems. 55.00

BSR McDonald
SS-2 Speaker System
Sealed acoustical suspension design with 2-way system; a 6" woofer & 2½" tweeter. 14" x 8" x 7½" Walnut cabinet; pair 70.00

STEREO HI-FI DIRECTORY
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CMS-124 Speaker System
Four-speaker, 3-way design with 12" woofer, 4½" mid-range, and two 3" tweeters in air-tight oiled walnut cabinet. Response 30-20,000 Hz ± 5 dB; crossovers at 300 & 4000 Hz (LC 12 db/octave networks); 100 W dynamic power rating; 8 ohms imp. Has brilliance control. 24" x 14½" x 12" d. ....... $90.00

ELECTROHOME

SC-507 Speaker System
Has 8" woofer & an 8" inverted cone treble radiator. Response 50-15,000 Hz ± 3 dB. .......... $99.95

SC-508 3-Way Speaker System
Tuned-port reflex design with 10" woofer, 6" mid-range, and an exponential horn tweeter. Crossovers at 800 & 10,000 Hz (12 dB/octave); response 40-18,000 Hz ± 3 dB. .......... $149.50

SC-510 3-Way Speaker System
Six speaker, tuned-port reflex design with 12" woofer, 8" coax mid-range, and four 3½" cone tweeters. Crossovers 800 & 10,000 Hz (12 dB/octave); response 30-18,000 Hz ± 3 dB. .......... $199.50

ELECTRO-VOICE

Model MC8 8" Speaker
Dual-cone design; response 50-13,000 Hz, 24 watts peak capacity; 75 Hz response; crossover—mechanical at 6000 Hz, 8 ohms; 3½" deep. .......... $17.95

Wolverine LS8 8" Speaker
Dual-cone 8" wide-range speaker; response 45-14,000 Hz, power rating 40 W peak; response 75 Hz; impedance 8 ohms; 3½" deep. .......... $19.95

Wolverine LT8 8" Speaker
Has 3 separate radiating elements with an electrical crossover at 5000 Hz and a mechanical crossover at 2000 Hz. Resonant freq. 65 Hz; response 45-18,000 Hz; 8 ohms; 40 watt peak power. Woofer has 2" v.c. & dome horn tweeter 1" v.c. Sensitive 45 dB. Has a high-freq. level control. .......... $35.95

Model SP8 "Radax Super-Eight"
8" dual-cone; capacity 40 watts peak; response 35-13,000 Hz; resonance 60 Hz; 8 ohms impedance; sensitivity 47 dB; 1 lb., 6 oz. ceramic magnet; crossover 4500 Hz; required baffle opening 7½". .......... $32.50

LS12A 12" Speaker
Response 40-14,000 Hz; EIA sensitivity rating 45 dB; free-air resonance 65 Hz; power handling capacity 40 watts peak, impedance 8 ohms; mechanical crossover 6000 Hz; 12½" dia.; 3½" deep; 11" baffle opening. .......... $25.50

Model LT12 12" Speaker
Three-way speaker; combines design features of Wolverine full-range speakers plus "deep-dish" cone and HF1 tweeter; response 40-18,000 Hz; power handling capacity 40 watts peak; free-air resonance 60 Hz; EIA sensitivity 45 dB; impedance 8 ohms; mechanical crossover 2000 Hz; electrical crossover 3500 Hz; 12½" dia.; 5½" deep. .......... $39.95

Model SP128 "Radax Twelve"
12" dual-cone; capacity 60 watts peak; response 35-13,000 Hz; response 40-50 Hz; 8 ohms impedance; sensitivity 49 dB; 1 lb., 6 oz. ceramic magnet; crossover 4500 Hz; baffle opening 11"; depth 6½". .......... $37.95

Model SP12 "Radax Super-Twelve"
12" dual-cone; capacity 80 watts peak; response 35-13,000 Hz; resonance 35-45 Hz; sensitivity 53 dB; crossover 4000 Hz; baffle opening 11½"; depth 7½". .......... $72.00

Model 12TRXB 3-Way Speaker
Combines SP12B, T35-type high-frequency driver, and integral 6 dB/octave crossover with level control; response 35-20,000 Hz; 60 watt peak; 8 ohms; response 40-50 Hz; sensitivity 52 dB; crossover 2000 Hz mechanical and 3500 Hz electrical; woofer magnet 1 lb., 6 oz. ceramic; tweeter 3.16 oz. Alnico V. .......... $74.95

Model 12TRX
12" three-way combines SP12, T35 high-frequency driver, and integral X36 crossover with level control; 80 watts peak; response 30-20,000 Hz; resonance 35-45 Hz; 8 ohms impedance; sensitivity 53 dB; mechanical crossover at 2000 Hz; electrical crossover 3500 Hz. .......... $119.95

MC12 Dual-Cone 12" Speaker
Features 2" voice coil & dual-cone design. Response 40-14,000 Hz; 8 ohms; capacity 20 W program; 60 Hz resonance; EIA sensitivity rating 46 dB. .......... $20.95

MT12 12" Speaker
Combines a dual-cone assembly with a ring radiator tweeter. Response 40-18,000 Hz; 8 ohms; capacity 20 W program; resonance 60 Hz; EIA sensitivity rating 46 dB; electrical crossover 4000 Hz. .......... $31.50

SRO/12 12" Speaker
Heavy-duty, wide-frequency-range musical instrument design; power capacity 60 W continuous sine wave; 8-16 ohms. .......... $88.00

Model LS15 15" Speaker
Wide-range design 35-14,000 Hz; 40 watts peak capacity; free-air resonance 2000 Hz; 8 ohms impedance; crossover- mechanical at 4500 Hz. .......... $29.95

LT15 "Wolverine" 3-Way Speaker
Combines a 15" design with cone suspension in three planes for stability and linearity with a Sonophase tweeter; response 35-18,000 Hz; resonance 40 Hz; crossovers at 2000 Hz mechanical, 4000 Hz electrical. With brilliance control. 40 W peak; 8 ohms. 6½". .......... $49.95

Model SP15B "Radax Fifteen"
15" dual-cone: capacity 60 watts peak; response 30-15,000 Hz; resonance 30 Hz; 8 ohms impedance; sensitivity 51 dB; 1½ lb. ceramic magnet; crossover 3500 Hz; baffle opening 13½"; depth 7½". .......... $49.50

Model 15TRX
Combines an SP15B with 2000 Hz mechanical crossover and integral T35-type high-frequency driver, 6 dB/octave high-pass filter; level control built-in. .......... $79.50

Model SP15 "Radax Super-Fifteen"
15" dual-cone; capacity 80 watts peak; response 25-15,000 Hz; resonance 25 Hz; 8 ohms impedance; sensitivity 53 dB; 4½ lb. ceramic magnet; crossover 3500 Hz; baffle opening 13½"; depth 8½". .......... $89.95

Model T35
Compression type driver with horn; frequency response to 20 kHz; 8 ohms impedance; sensitivity 56 dB; 6.8 oz. magnet; crossover 3500 Hz; size 2" h. x 5½" w. x 2½" d.; driver diameter 2½". .......... $29.95

Model 15TRX
15" three way; capacity 80 watts peak; frequency response 30-15,000 Hz; resonance 25 Hz; 8 ohms impedance; sensitivity 55 dB; magnet 4 lb., 10 oz. ceramic; mechanical crossover 2000 Hz; electrical crossover 3500 Hz; level control; driver diameter 2½". .......... $129.50

SRO/15 15" Speaker
Heavy-duty, wide-frequency-range musical instrument design; power capacity 60 W continuous sine wave; 8-16 ohms. 8½". .......... $99.00

Model 30W Woofer
30" woofer; 9 lb.; 4 oz. ceramic magnet; power capacity up to 200 watts peak; frequency response 15-300 Hz; 8 ohms impedance. .......... $32.50

STEREO HI-FI DIRECTORY
T25A compression-type driver with horn; response to 23,000 Hz; 8 ohms impedance; sensitivity 60 dB; 1 lb. magnet; crossover 3500 Hz; 2 1/4" h. x 7 1/4" w. x 4 1/4" d.; driver diameter 3 1/4".

Model 8HD Diffraction Horn
Diffraction principle effects 120° dispersion; crossover 700-800 Hz; cut-off 600 Hz; intended specifically for T10A & T25A drivers; 15" h. x 4 1/4" w. x 8 1/4" d.

Model XT1 Stereo Mixer Transformer
Combines 2-channel (stereo) program material into monophonic output, can be used to combine bass frequencies of two channels into a single full-range system; it is a 1:1 phase transformer connected between amplifier & speaker; for use with 4, 8, or 16 ohm systems.

Model MF1 Mid-Range Step-Up Kit
Provides increased output in presence range; consists of MR10 driver and CR10 crossover-level control; requires baffle opening 9 3/4" x 3".

Model HF1 Wolverine High-Frequency Step-Up Kit
Extends range beyond audible limit; consists of TW15 tweeter and CR35 crossover-level control; response 3500-18,000 Hz; requires opening 9 3/4" x 4 1/2".

Model BB1 & BB4 Building Block Kits
Additive kits to expand mid- and high-frequencies of existing system; each package is complete with matched crossover unit, AT38 level control, wiring harness, and full instructions.

Model X8 Crossover
Single crossover, 800 Hz; 8 ohms impedance in and out.

Model X36 Crossover
For use with v.h.f. drivers; crossover 3500 Hz; impedance 8 ohms in and out.

Model X1020 Crossover
For use with 30 W woofers; crossover of 100 or 200 Hz allowing speakers to be used as "super woofers" with any existing system; 8 ohms impedance in and out.

The "EV FOUR-A" Three-way system with 12" woofer, compression driver & diffraction horn for mid-range and 2 1/4" cone tweeter; 3-way crossover (400 & 2500 Hz) & two level controls; response 30-20,000 Hz; 8 ohms; 70 watts peak power capacity; 14" h. x 25" w. x 13 1/4" d.; complete in oiled walnut; $199.95.

"Sonocaster II" Speaker
Portable design for outdoor applications. All parts are weatherproof. Has dual-peak speaker.

"Musicaster IA" Outdoor Speaker
Weatherproof speaker for outdoor use; frequency response 80-10,000 Hz; impedance 8 ohms; dispersion 120°; uses bass reflex design; 21 1/2" h. x 21 1/2" w. x 8 1/4" d.; shipping weight 34 lbs. $67.50.

"Musicaster IIA" Same features as "Musicaster" except has v.h.f. driver to extend range to 16,000 Hz.

"EV SEVEN-B" Speaker System
2-way acoustic-suspension system with high-compliance 8" bass driver, 3 1/4" cone tweeter (2000 Hz crossover). Response 50-20,000 Hz; 50 W peak; 8 ohms. Has variable h.f. level control. 10" h. x 19" x 9" d. Walnut four sides $62.95.

"EV FIVE-C" Speaker System
Comes with high-compliance woofer & 2 1/4" cone-type tweeter with electrical crossover. Response 30-20,000 Hz; 60 W peak; 8 ohms. Has variable h.f. level control. Bookshelf design. 12 1/4" x 21 1/4" x 10 1/4" d. Oiled-walnut four sides $99.95.

"EV NINE" 3-Way System
Bookshelf design with 10" acoustic-suspension woofer with sealed half-roll surround, a 5" mid-range speaker acoustically isolated to prevent interaction with woofer, and a 3 1/4" cone tweeter. Has brilliance control. Response 30-20,000 Hz; 60 W peak; 8 ohms. Oiled walnut veneer cabinet $139.95.

"Aires" 12" Three-Way System
Available in three styles: Traditional, finished in cherry; Contemporary with pecan; Spanish in rugged oak; incorporates a 12" woofer with a mid-range speaker mounted in its own sealed enclosure; v.h.f. tweeter. Has a crossover with Mylar.

Empire's newest Grenadier is the only high powered omni-directional wide angle lens down facing woofer speaker system priced under $100

Wait till you hear the difference a true stereophonic design can offer. The kind of sound no box can deliver, and at a spectacularly low price.

In Empire's stereo cylinder, the woofer faces down, for bass so "live" it gives you goosebumps, while our exclusive acoustic lens spreads the highest of highs through a full 160 arc.

There is no ugly grill cloth; the walnut finish goes all the way around; the marble top is meant to be used; and the sound is superb no matter where you put it.

If you're talking at least $100 for a speaker system, think about this Grenadier value. Nothing else in the world comes close.

Model 6000 Grenadier Specifications:
Height — 24 inches; diameter — 18 inches; 3-way System up to 75 watts per channel; Price $99.95; with imported marble top $109.95.

For information and further details write Empire Scientific Corp., 1055 Stewart Ave., Garden City, N.Y. 11530.
lar tweeter capacitor, iron-core woofer inductor, and 5-position rotary level switch. Response 25-20,000 Hz; 8 ohms; 70 W peak: 22½" x 27½" w. x 16½" d. ...... $269.95

"Sentry IA" Speaker System
Designed specifically for monitor use in recording & broadcast studios; wall or ceiling mounting with 12" speaker, diffrac-
tion horn high-frequency driver; response 20-20,000 Hz; 16 ohm imped-
ance. Walnut: 21½" x 37" x 17" d. d. d. ................. $180.00

"Sentry IIA" Speaker System
Same design as "Sentry I" except cabinet is rectangular for floor, table, or shelf mounting; walnut finished all four sides; 32" x 20" x 13" d. d. d. ................. $180.00

"E-V SIX-B" Three-Way System
A four-speaker, three-way system combines two 12" woofers, an 8" midrange driver, and a dome tweeter. Has LC crossover and level control. Response 25-20,000 Hz; 8 ohms; 80 W peak. Size 25" x 28½" x 15" d. Oiled walnut veneer. ...... $269.95

Enclosure Construction Plans
"Aristocrat" .......... $2.00
"Marquis" .......... $2.00
"Patrician" .......... $2.00

"Patrician 800" Speaker System
Uses Model 30W woofer to achieve high efficiency in the 20 Hz region, responds down to 15 Hz and lower; mid-bass is achieved by use of 100-300 Hz first cross-
over frequency with 12 dB/octave atten-
uation on either side: 12" mid-bass speaker in padded, separate enclosure provides uniform response from 100-800 Hz; T250 treble driver using 8HD dif-
fraction horn, covers frequency above 800 Hz; T350 tweeter extends response to an upper limit of 23,000 Hz; although designed for corner operation, can be used in almost any room location; bass enclosure consists of an air-tight 15 cu. ft. chamber behind woofer; 10½" straight-
axis horn with 300 sq. in. throat area and mouth area of 464 sq. in.; occupies 5.3 sq. ft. of floor space; 5½" h. x 33" w. x 27½" d.; shipping weight 315 lbs.; available in walnut, mahogany, cherry in traditional or contemporary style. ...... $125.00

"E-V EIGHT-A" Speaker System
Ultra-miniature bookshelf. 2-way system with 6" high-compliance woofer & 2¼" tweeter: response 60-20,000 Hz; capacity 50 W; 8 ohms; crossover 2000 Hz; 8½" x 15½" x 6½" d. Walnut. .......... $49.95

EMI
All EMI speakers have brilliance control: removable front grilles: 8 ohms impedance: LC crossovers & oiled walnut cab-
inars.

Model 92 Speaker System
Bookshelf type with 13½" x 8½" elliptical woofer & 3¼" cone-type tweeter; response 50-20,000 Hz; 8½" cabinetry. 23½" x 11¼" x 10" d. .......... $109.95

Model 62 Speaker System
Bookshelf type with 10" x 6½" elliptical woofer & 3½" cone-type tweeter; response 60-20,000 Hz; 7½" cabinetry. 20½" x 13½" x 10" d. .......... $79.95

Model 55 Speaker System
Bookshelf 2-way design using an elliptical 10" x 6½" woofer & 3½" tweeter. Re-
response 60-20,000 Hz; has LC crossover 18" x 10½" x 7½" d. .......... $54.95

Model 205 Speaker System
Bookshelf 3-way design using an elliptical 13½" x 8" woofer, two 5½" midrange & ¾" tweeter. Response 25-22,000 Hz; has mid-range & tweeter level controls. 24½" x 14½" x 13½" d. .......... $225.00

300 Series Speaker System
3-way, 4-speaker design using a 15" woofer, 7" x 10" elliptical midrange & two compression-type tweeters. Has mid-
range & tweeter level controls. Response 10-30,000 Hz; 27½" x 26" x 19" d. Available in contemporary and traditional styles. .......... $350.00

"Sonoglo 5" Speaker/Light Display
Combines hi-fi speaker system with frequency sensitive psychedelic color light display. Sold in pairs with one master unit (with electronic circuits) and one slave. Two-way speaker design with 8½" woofer & 3¼" tweeter. 10½" x 18½" h. x 7½" d. Light display area is 37 sq in. Walnut .......... pair $149.50

EMPIRE
6000M "Grenadier" Speaker System
3-way design with 15" woofer, a mid-
range radiator & an ultrasonic tweeter:
response 30-20,000 Hz; 8 ohms; 75 W
dynamic power capacity. 18" dia. x 24½" h. Walnut with wood top .......... $109.95 6000 With walnut wood top .......... $99.95

7000M "Grenadier" Speaker System
3-way design; response 25-20,000 Hz. Has 12" woofer, a direct radiator mid-
range & a dome tweeter. Mid-range &
tweeter are coupled to wide-angle acous-
tic lenses; 90 W dynamic power capacity; 8 ohms. Has treble level control. 19½" dia. x 24½" h. Walnut with marble top .......... $209.95 Model 7000 with walnut top .......... $209.95

9000M "Grenadier" Speaker System
3-way design combines 15" high-compliance 4" voice-coil woofer, direct-radiator mid-range & an ultrasonic domed tweeter.

STEREO HI-FI DIRECTORY

FISHER
XP-55-B Speaker System
2-way bookshelf type: completely en-
closed baffle design; has 8" bass speaker & a 3" cone tweeter. Response 37-20,000 Hz; recommended power 10-30 W; cros-
over @ 1500 Hz; 8 ohms. 10" x 20" x 7½" d. Walnut .......... $49.95

XP-18 4-Way Speaker System
18" woofer with free resonance of 14 Hz; 8" lower mid-range, 5½" upper mid-
range. 8" lower mid-range. 5½" upper mid-
range. two 2" cone tweeters with 150° dispersion; crossovers at 150, 1500, 3000 Hz. Has 3 separate level controls. 30½" w. x 29½" x 16½" d. Oiled walnut. .......... $359.95

XP-44B Speaker System
Two-way system: 6" low-freq. (38 Hz free-air resonance) speaker & 3" tweeter. 90° sound dispersion: 25 W max; dynam-

XP-60B Speaker System
Two-way system with 8" woofer (20 Hz free-air resonance) & 3" tweeter. 90°
sound dispersion: 30 W max dynamic power input: 1000 Hz crossover. Re-

XP-66B Speaker System
Three-way system with 12" woofer (15 Hz free-air resonance), 5" mid-range &
3" tweeter. 90° sound dispersion: 40 W max dynamic power input; 500 & 1000 Hz crossovers. Response 32-20,000 Hz; 8 ohms. 13½" x 24½" x 12½" d. Walnut. .......... $99.95

XP-66K same as XP-66B but in high-

XP-9C Speaker System
Four-way system with 15" woofer (10 Hz free-air resonance), two 5" mid-range,
1½" dome tweble, and 1½" dome super-
tweeter. 120° sound dispersion: 100 W max dynamic power input: 500, 1200 & 5000 Hz crossovers. Response 28-22,000 Hz; 8 ohms. 16½" x 27½" x 13½" d. Walnut. .......... $199.95

XP-7B Speaker System
Four-way system with 12" woofer (15 Hz free-air resonance), 5½" mid-range, 5½" for upper mid-range & two 3" tweeters. 90° sound dispersion: 60 W max; dyna-

XP-7K same as XP-7B except has deluxe

XP-16 Speaker System
Consolette in three finishes: Mediterra-

STEREO HI-FI DIRECTORY

XP-44B Speaker System
Two-way system; 6" low-freq. (38 Hz free-air resonance) speaker & 3" tweeter. 90° sound dispersion: 25 W max; dynam-

XP-60B Speaker System
Two-way system with 8" woofer (20 Hz free-air resonance) & 3" tweeter. 90° sound dispersion: 30 W max dynamic power input: 1000 Hz crossover. Re-

XP-66B Speaker System
Three-way system with 12" woofer (15 Hz free-air resonance), 5" mid-range &
3" tweeter. 90° sound dispersion: 40 W max dynamic power input; 500 & 1000 Hz crossovers. Response 32-20,000 Hz; 8 ohms. 13½" x 24½" x 12½" d. Walnut. .......... $99.95

XP-66K same as XP-66B but in high-

XP-9C Speaker System
Four-way system with 15" woofer (10 Hz free-air resonance), two 5" mid-range,
1½" dome tweble, and 1½" dome super-
tweeter. 120° sound dispersion: 100 W max dynamic power input: 500, 1200 & 5000 Hz crossovers. Response 28-22,000 Hz; 8 ohms. 16½" x 27½" x 13½" d. Walnut. .......... $199.95

XP-7B Speaker System
Four-way system with 12" woofer (15 Hz free-air resonance), 5½" mid-range, 5½" for upper mid-range & two 3" tweeters. 90° sound dispersion: 60 W max; dyna-

XP-7K same as XP-7B except has deluxe

XP-16 Speaker System
Consolette in three finishes: Mediterra-

STEREO HI-FI DIRECTORY
free-air system with two 12" woofers (15 Hz free-air resonance); 8” mid-range; 1½” dome tweeter; ½” horn super tweeter; 100 W max. dynamic power input. Response 28-24,000 Hz. Size 27½” x 31½” x 19¾“. .............. $299.95

**WS-70 Omnidirectional Speaker**

Two-way system with 6” woofer & 3” wide-dispersion top-firing tweeter; woof-

er slot-loading deflector; 20 W max. dynamic power input; fine furniture styling. Response 39-19,000 Hz. 15½” x 16½” x 9½”. .......... $79.95

**WS-80 Omnidirectional Speaker**

Similar in styling to WS-70. Three-way system with 8” woofer & top-firing 5½” mid-range, and 3” wide-dispersion tweeter; true 360° dispersion; 30 W max. dynamic power input; fine furniture styling; response 35-20,000 Hz. 18” x 18½”. .............. $99.95

**FRAZIER**

"Mediterranean" Speaker System

Combines a 12" woofer, an 8” mid-range & four choice of two 3" tweeters or compression-type horn tweeter. Response 25-14,000 Hz ± 5 dB; crossovers at 800 & 3300 Hz. Has level controls. 8 ohms. 30½” h. x 27½” w. x 16½”. Dark oak. Model F12-8M .......... $295.00

"Mark VII" Speaker System

Same as the Mediterranean except different cabinet style. 29½” h. x 25½” w. x 16½”. Oiled walnut. Model F12-8W .......... $295.00

"Mark V" Speaker System

Combines a 12" woofer; two 4” mid-range & a 3” x 7” horn tweeter. Has mid-range & treble level controls. Response 30-16,000 Hz ± 5 dB; crossovers at 800 & 3300 Hz. Will handle 25 W at 8 ohms continuous power. 14” w. x 25½” h. x 12”. Oiled walnut. Model F12-3T .......... $189.95

Black utility cabinet .......... $139.95

"Manhattan" Speaker System

A modified Helmholtz system combines a 12” woofer & 2” dome tweeter. Response 40-15,000 Hz ± 5 dB. Will handle 12 W continuous power, 8 ohms. 23½” w. x 19½” h. x 11½”. Oiled walnut. Model F8-3M .......... $114.95

Same, but without base .......... $109.95

"Super Monte Carlo" System

Two-way modified Helmholtz design with 8” woofer & 3” cone tweeter. Response 90-12,000 Hz ± 5 dB; crossovers at 3000 Hz; 8 ohms. Will handle 12 W continuous power. 19” w. x 10½” h. x 11½”. Oiled walnut. Model F8-1S .......... $59.95

Unfinished walnut .......... $52.00

"Mark IV" Speaker System

Combines a 10" woofer & a 3” x 7” compression horn tweeter. Response 70-13,000 Hz ± 5 dB; 8 ohms. 14” w. x 12” d. x 24”. Oiled walnut. Model F-10H .......... $99.95

"Super Six" Speaker System

Will handle 10 W. continuous power; 8 ohms. Has 6” wide-range speaker. 19” h. x 10½” w. x 8”. Oiled walnut. Model F-56 .......... $44.95

"Buckaroo" Speaker System

Combines a 10" woofer & 2 3” cone-type tweeters. Response 70-15,000 Hz ± 5 dB. Will handle 20 W continuous power; 8 ohms. 23½” x 11½” w. x 9½” d. Oiled walnut. Model F1023 .......... $89.95

"Model XX" Speaker System

Combines a 12” woofer & 2 3” cone-type high-freq. drivers; response 30-13,000 Hz ± 5 dB. 8 ohms. 24” h. x 14” w. x 12”. Pecan finish .......... $149.95

"Super Midget" Speaker System

Features 4” dia. cone wide-range speaker. Response 100-12,000 Hz ± 5 dB. Will handle 10 W; 8 ohms. 15½” w. x 7½” h. x 9½” d. Oiled walnut. Model F5-2 .......... $32.95

Unfinished walnut .......... $29.95

"Patio" Speaker System

Indoor-outdoor two-way design. Features 8” woofer & 3” cone-type tweeter. Response 50-15,000 Hz ± 5 dB; crossover at 3000 Hz; 12 W capacity. 8 ohms. 15½” h. x 15½” x 8½”. Finished in multi-color woodgrain. Model F8-1K .......... $49.75

"Capsule" Speaker System

Utility design combining a 10” woofer (28 Hz free-air resonance) & two 3” cone tweeters; crossover at 1500 Hz; response 30-15,000 Hz ± 5 dB. Will handle 25 W continuous; 8 ohms. 19” x 16” w. x 16” d. Flat black finish. Model F-10-2T .......... $75.00

"Jr. Dixielander" System

Folded low-freq. horn with 8” woofer and 3” x 7” horn tweeter; 1500 Hz crossover. Response 80-15,000 Hz ± 5 dB. Will handle 15 W continuous; 8 ohms. 20½” x 20½” x 15¼” d. Slate grey finish. Model F-8/15H .......... $99.95

"New Dixielander" System

Response 70-15,000 Hz ± 5 dB. Folded low-freq. horn with 10” woofer & high-freq. horn equipped with compression-type high-freq. driver. 8 ohms. 22½” w. x 26½” h. x 15½” d. Utility slate grey. Model F-33-103 .......... $220.00

"Texas" Speaker System

Response 70-15,000 Hz ± 5 dB; crossover at 600 Hz. Folded low-freq. horn with 12” woofer & high-freq. horn equipped with compression-type high-freq. driver. 8 ohms. 36½” w. x 33” h. x 24” d. Utility slate grey. Model F-33-1290 .......... $375.00

SEE-24 Environmental Equalizer

Has twelve ½ octave-tuned circuits for each two channels to reduce speaker or room peaks by a factor of 15 dB. Completely passive device to be used between preamp & power amp. Has 0 phase shift. 7” x 15” w. x 12” d. .......... $795.00

**HARMAN-KARDON**

**HK-10 Speaker System**

Bookshelf design with 6” extended-range speaker; 20 W capacity. 9” x 14” x 7½”. .......... $135.00

**HK-12 Omnidirectional Speaker**

Employs same principle of dispersion as HK-50. Sound from 6” twin-cone extended-range driver is directed into an inert reflector which disperses sound 360°. Re-

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**JENSEN**

**THE JENSEN TF-25**

Only about the size of a breadbox, but the new Jensen TF-25 gives depth and excitement to the most intimate sound in a medium-priced 2-speaker, 2-way loudspeaker system. Dura-syn walnut finish. $89.50.

Hirsch-Houck independent test laboratories puts it this way: "The Jensen TF-25 has a balanced, uncolored sound which can be listened to for hours without fatigue. We can only agree with Jensen's statements and claims."*

It's the kind of speaker you'd expect from the company which has pioneered almost every major advance in speaker technology since Peter Jensen's invention of the loudspeaker.

*For the complete report and Jensen's new catalog, write: Jensen Manufacturing Division The Muter Company 5655 West 73rd Street, Chicago, Illinois 60638

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**CIRCLE NO. 31 ON READER SERVICE CARD**
Speakers & Cabinets

**HK-50 Hemispheric Speaker System**
Has 8" woofer (25 Hz resonance) & 2½" tweeter. With 360° dispersion pattern for all frequencies; sound is produced in vertical plane. Response 35-18,000 Hz; cap. 40 W. Has tweeter level adj.; crossover at 2500 Hz. Oiled walnut; 10½" square x 18½" high. .... $99.95

**HK-40 Speaker System**
Features 10" high-compliance woofer & a 3½" curvilinear tweeter. Response 30-18,000 Hz; power capacity 50 W music power; free air resonance 22 Hz; 4 ohms impedance. Has 1500 Hz LC crossover & high-freq. level control. Oiled walnut cabinet 22½" x 13½" x 19½" ... $89.95

**HK 20 Speaker System**
Features 8" high-compliance woofer & a 3" curvilinear tweeter. Response 40-18,000 Hz; power capacity 50 W music power; free air resonance 30 Hz; 4 ohms impedance; has 2000 Hz LC crossover & high-freq. level control. Oiled walnut cabinet 16½" x 11½" x 8½" ... $55.00

**"Citation" Speaker**
Omnidirectional radiation with six drivers: three woofers, two domed mid-range drivers, and two tweeters. Speakers mounted on top of cabinet and thrown sound in 5-way double-comb design. Low-frequency response of 30 Hz. Power capacity over 60 watts, r.m.s.; response 22-25,000 Hz. Oiled walnut cabinet finished on four sides .... $295.00

**HARLEY**

**Model 207MS 7" Speaker**
Designed specifically to cover the mid-range and high frequencies (1000-25,000 Hz, ±2 dB). Has tri-polymer cone with magnetic suspension .......... $110.00

**Model 218MS 18" Woofer**
Response 15-3000 Hz. Has heavy cast aluminum housing 14 lb. Alcomax III magnet, tri-polymer cone with magnetic suspension ... $225.00

**Model 224MS 24" Woofer**
Same as Model 218MS except for size & increased output below 50 Hz ... $275.00

**Model 220 MS 10" Speaker**
Full-range speaker; dual voice coil & cone; heavy cast-aluminum basket; 6.1 lb Alcomax III magnet; 16,000 lines/sq in flux density; tri-polymer cone with magnetic suspension; 8-ohm voice coil; response 16 to 25,000 Hz. .... $145.00

**Concertmaster Junior**
Combines Model 210MS 10" woofer and Model 207MS 7" mid-range and high-frequency speakers, housed in infinite baffle enclosure, covering 30-15,000 Hz; "dispersion-array" of tweeter permits either upright or horizontal operation; high-frequency control allows adjustment of highs; cabinets are factory-assembled and finished on four sides; kit assembly involves wiring simple crossover network and installing speakers. KIt AS-10U (unfinished) .... $59.95

**AS-16 Speaker System**
Two-way bookshelf-type acoustic suspension system using Electro-Voice 8" woofer & 3½" tweeter. Response 45-20,000 Hz; will handle 10 to 25 W of program material. Has 1500 Hz RC crossover & high-frequency level control; 8 ohms. Speakers are shipped mounted to walnut veneer pressed-wood base. Crossover network has to be wired. 10" x 19½" x 8½" d.
Kt .... $49.95

**AS-37A Speaker System**
Has 8" woofer & compression-type exponential horn tweeter in a factory-assembled walnut cabinet. 50-12,000 Hz, crossover over 1600 Hz; power rating 25 W; 8 ohms imp. 11½" x 23" x 11½" d. Kt .... $41.95

**AS-18 Miniature Speaker System**
Acoustic suspension, infinite-baffle two-way design combining JBL 12" woofer & 2½" tweeter. Response 60-20,000 Hz. Has high-freq. level control & will handle 25 W continuous program material (50 W peak). 8 ohms imp. Walnut cabinet is shipped assembled. 8½" x 15½" x 6½" d. Kt .... $34.95

**AS-38 Speaker System**
Two-way tuned-port, damped-reflex bookshelf design combining JBL 12" woofer & 2½" tweeter. Response down to 45 Hz with crossover at 2500 Hz. Has high-freq. level control; will handle 40 W program material. Oiled walnut cabinet is shipped assembled. 14" x 23½" x 11½" d. Kt .... $129.95

**AS-48 Speaker System**
Two-way, high-efficiency, tuned-port damped-reflex bookshelf design combining JBL 14" woofer & 4000 Hz crossover. Response 40-20,000 Hz; crossover over 2000 Hz; will handle 50 W program material. 8 ohms imp. 14" x 23½" x 12" d. Cabinet is shipped assembled. Kt .... $169.95

**HITACHI**

**HS-201 Two-Way Speaker System**
Has 8" dia. woofing crossover at 4000 Hz to horn-type tweeter; 8 ohms; 20 W max. power. Response 40-20,000 Hz. Bass-reflex design with oiled walnut cabinet. 22½" x 12½" x 11½" d. .... $89.95

**HS-200 Two-Way Speaker System**
Bookshelf infinite-baffle design using 8" dia. woofer crossover at 3000 Hz to a 2½" cone tweeter. Response 40-20,000 Hz; 8 ohms; 20 W max. power. Oiled walnut cabinet. 19½" x 11½" x 9½" d. .... $69.95

**HS-500 Speaker System**
Two-way bass-reflex design using an 8" dia. low-freq. speaker, voice coil & a horn tweeter; 40 W max. power; crossover at 3000 Hz. Response 40-21,000 Hz; 8 ohms. 24½" x 14½" x 13½" d. .... $299.95

**HEATH**

**AS-10 Acoustic Suspension System**
Utilizes acoustic suspension principle; 10" acoustic suspension bass speaker and two 3½" cone-type high-frequency speakers, housed in infinite baffle enclosure, covering 30-15,000 Hz; "dispersion-array" of tweeter permits either upright or horizontal operation; high-frequency control allows adjustment of highs; cabinets are factory-assembled and finished on four sides; kit assembly involves wiring simple crossover network and installing speakers. KIt AS-10U (unfinished) .... $59.95

**AS-10W (walnut)** .... $64.95

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**Speakers & Cabinets**

**HS-250 Three-Way Speaker System**
Bass-reflex bookshelf design with 10$^\circ$ high-compliance low-freq., a 6$^{1/2}$" mid-range & horn tweeter; crossover at 800 & 4000 Hz; response 35-20,000 Hz; 30 W max. power capacity; 8 ohms; oiled walnut cabinet. 27" x 15" x 11$^{1/2}$. $\$149.95$

**1000 Speaker System**
Bookshelf design similar to 2000 except for tweeter section; an ultra-light cone-type is used with built-in acoustic damping device. Response 30-20,000 Hz, ± 4 dB; crossovers at 375 & 3500 Hz; 4 ohms, 20 W r.m.s. min. 25° x 15° x 12" d. Walnut $\$179.00$

**IMF**
"TLS" Monitor System
Features dual transmission line system; one for bass & one for mid-range. Four-way design. 43" h. x 20" w. x 17" d.
Lab grey Formica $\$650.00$
Rosewood Formica $\$660.00$

"TLS" Studio System
Dual transmission line: four-way drive system with crossovers at 750, 3500 & 13,000 Hz. Response 25-40,000 Hz; min. 25 W amp required. 35$^{1/2}$" h. x 15" w. x 14" d. $\$300.00$

**INFINITY**
"Servo-Statik" I Speaker System
Features electrostatic speakers for mid & treble ranges & a 16" dia. piston low-freq.
speaker with sensing element built into the voice coil which acts as a feedback loop to control distortion. Has a solid-state 110 W r.m.s. power amplifier that drives bass system; response 10-30,000 Hz ± 2 dB; Dist. 0.5% from 20-20,000 Hz at listening levels. Has crossovers at 120 & 2200 Hz. The feedback bass system & crossovers are all housed in separate amplifier assembly. Also supplied as separate units are two electrostatic screens 28" x 37" x 6$^{1/2}$" d. & bass speaker 22" x 22" x 19" h. Contemporary style in walnut. $\$1995.00$
Brazilian rosewood $\$2094.75$
Bass unit with amplifier, as a separate component. Walnut $\$795.00$
Rosewood $\$834.75$

"Servo-Statik" II Speaker System
Same as Servo-Statik I except has single stereo amplifier to drive mid-range & tweeters (servo bass amplifier is supplied). One could still tri-amp system at later date by adding another amplifier as is used in Servo-Statik I. Walnut finish. $\$1195.00$
Brazilian rosewood $\$1254.00$

**2000 Speaker System**
Features electrostatic strip tweeters in special cabinet covering 2200 Hz and up. Response 2200-35,000 Hz ± 2 dB at 0.5% dist. Mid-range covered by 4" cone driver. Bass system is heavily damped & has controlled impedance curve (4 ohms ± 10%). Response 30-35,000 Hz ± 4 dB; crossovers at 375 & 2200 Hz; 20 W r.m.s. minimum; THD 0.75% from 50-25,000 Hz at normal listening levels. 26" x 18" x 12" d. Walnut $\$279.00$
Rosewood $\$306.90$

**33 Electrostatic Speaker System**
Mid- and high-range only; 1200 to beyond 30,000 Hz; less than 0.5% HD @ 50 watts input below 10,000 Hz; will handle 100 watts music power; includes built-in power supply; 8 ohms impedance. Model 33OW Oiled walnut $\$69.95$
Model 33UL Unfinished black $\$63.95$

**71 Z-600 Speaker System**
350W woofer with two 130 electrostatic speakers sealed in a fiberglass-filled enclosure; includes power supply and high-pass filter for tweeter. Response 30 to beyond 30,000 Hz; LRC high-pass filter; has mechanical woofer roll-off & broad crossover region (1000-2000 Hz). 70° h.f. dispersion; 8 ohms; 26$^{1/2}$" x 13" d. "Oiled walnut finish $\$219.95$

**130 Tweeter**
Push-pull, constant charge electrostatic tweeter: capacity 50 watts; frequency response 50 to 30,000 Hz; harmonic distortion less than 0.5% at 50 watts input below 10,000 Hz; dispersion 120°; a.c. operated bias supply, LRC high-pass filter; power supply draws 2 watts, 120 volt 60 cycle a.c.; size 7$^{1/2}$" x 22" x 15" shp. wt. 16 lbs.
Model 1300W (Oiled Walnut) $\$198.00$
Model 1300CA (Flat Black) $\$179.00$
Model 130CL (Flat Black) in rectangular cabinet 7½" x 23½" x 10" $\$171.00$
Specify imp. 8 or 16 ohms on Models 130OW & 130UA

**350A Dynamic Woofer**
11" cone woofer designed for use with 2.2-cubic foot (or larger) fiberglass-filled enclosure; frequency range 30 to 2000 Hz with mechanical roll-off above 2000 Hz; fundamental woofer resonance 45 Hz; magnet structure weighs 3½ lbs; flux density 10,800 gauss; power handling; up to 100 watts peak on complex music; impedance 8 ohms $\$37.00$

**7-Z-700 Speaker System**
Includes one 350C cone woofer integralized sealed in a fiberglass-filled enclosure with two 130 electrostatic radiators, power supply & high-pass filter. Response 30-30,000 Hz; 8 ohms; music power 100 watts. Has LRC high-pass filter for electrostatic only. Mechanical roll-off on woofer. Broad 800-2000 Hz crossover region for woofer-tweeter blending $\$265.95$
Includes one 350C cone woofer integralized sealed in a fiberglass-filled enclosure with two 130 electrostatic radiators, power supply & high-pass filter. Response 30-30,000 Hz; 8 ohms; music power 100 watts. Has LRC high-pass filter for electrostatic only. Mechanical roll-off on woofer. Broad 800-2000 Hz crossover region for woofer-tweeter blending $\$265.95$

**Z-900 Speaker System**
Combines four electrostatic radiators for mid- and high-freq. range & two 350D woofers. Response 27-30,000 Hz. Has built-in power supply & high-pass filter. Size 28" x 31½" x 15½" d. Oiled walnut. $\$399.95$

**JANKit41**
Consists of electrostatic two-element model mid/high frequency driver superimposed in cabinet and 350 woofer both mounted on single panel mounting board; designed for custom installations; cabinet should be at least 2 cubic feet in volume; over-all dimensions 19½" h. x 16" w. x 7½" d. $\$124.95$

**JZ-800 Bookshelf Speaker System**
Combines 350A (11½" cone woofer & 3½" cone tweeter in a fiberglass-filled enclosure. Response 30-14,000 Hz. Has very broad crossover region with mechanical roll-off designed into woofer & high-pass filter for tweeter with 3-pot level adjusting sw. 8 ohms. 50 W max & 15 W min. 13½" x 23½" x 11½". Oiled walnut. $\$139.95$

**Z-960 Speaker System**
Combines three 130 electrostatic radiators, a high-pass filter, power supply & a 350D cone woofer; sealed in a fiberglass-filled enclosure. Response 30-30,000 Hz; max. Imp. 8 ohms. Has LRC high-pass filter for electrostatic only. Mechanical roll-off on woofer. Broad 800-2000 Hz crossover region for woofer-tweeter blending $\$265.95$

**65 Electrostatic Speaker**
Combines two electrostatic elements in push-pull with high-pass filter. Power supply, & cabinet. Response 30-30,000 Hz; HD 0.5% @ 50 W input below 10,000 Hz; h.f. dispersion 60 degrees; 8 ohms. Max. input 50 W r.m.s. Has LRC type crossover. Requires same type woofer as in 130. 6$^{1/2}$" x 11½" x 7½" d. Black utility $\$80.00$

**STEREO HI-FI DIRECTORY**
JENSEN

1200XL Speaker System
Features a seven-speaker, 4-way system combining four 15” woofers, a compression-driver horn-loaded mid-range, a compression-driver horn super-tweeter, and a direct-radiating dome ultra-tweeter. Response 15-25,000 Hz; crossovers at 4000 & 10,000 Hz; 100 W power rating; 8 ohms. Has mid-range & high-frequency balance controls. 30°/4” x 22°/4”. Contemporary styling. $989.00

Mid-Range Speakers
All speakers are 8 ohms and, unless otherwise noted, lowest recommended crossover point is 600 Hertz.
MH-6 Horn-loaded compression driver; frequency range 600-15,000 Hz; power rating 30 W; $24.50
MOS-R 8" direct radiator with closed back; frequency range 600-4000 Hz; 40 W rating; $23.25
ME-20 “Sono-Dome” design with closed back; lowest recommended crossover is 2000 Hz; frequency range 2000-15,000 Hz; 35 W rating; $36.90

Dividing Networks
A6/8 Two-way unit provides crossover at 600 Hz for 2-, 3-, or 4-way systems; 8 ohms; 100 W power rating — $39.75
A405 Two-way unit provides crossover at 4000 Hz for multi-way systems; 8 ohms; 100 W power rating — $29.95
A405B Two-way unit provides crossover at 4000 Hz for 3- or 4-way systems; 8 ohms; 100 W power rating — $26.50
A6410/8 Three- or four-way multiple-frequency crossover network; crossover frequencies 600, 4000, and optionally 10,000 Hz; 8 ohms; 100 W power rating — $44.50

Low-Frequency Speakers
All woofer designs are 8 ohm impedance & resonances shown are free-air figures. Recommended crossover is 2000 Hz.
W15-LF 15”; 45 W rating; 16 Hz $102.50
W15-NF 15”; 40 W rating; 20 Hz $62.50
W12-LF 12”; 40 W rating; 20 Hz $92.50
W12-NF 12”; 35 W rating; 20 Hz $58.50
W12-RF 12”; 30 W rating; 25 Hz $42.00
WS10-NF 10”; 30 W rating; 25 Hz $39.50
W10-PR 10”; 30 W rating; 25 Hz $43.50
W8-PF 8”; 30 W rating; 35 Hz $42.85
W8-RF 8”; 25 W rating; 35 Hz $35.50

Z-3422 Autotransformer
For matching any of 15/8/4 ohm impedences. Power rating 45 W. $11.50

TF-15 “Mini-Mite” System
A 2-way, 2-speaker system with edge-damped 8” woofer & 3” cone tweeter. Response reasonably flat from 35 to 16,000 Hz. Power rating 15 W — $44.40

TF-25 Speaker System
A 2-speaker, 2-way system with 10” air-suspension woofer & compression-driver, horn-loaded tweeter. Response 25-15,000 Hz. Power rating 25 W — $89.50
Two for — $166.50

Balance Controls
BCL-2 Wirewood two-deck L pad with knob and escutcheon. For m.f. or h.f. balance adjustment in multi-way systems; 8 ohms; 5 W power rating — $8.95
BCP-1 Wirewood pot with knob and escutcheon. For m.f. or h.f. balance adjustment in multi-way systems; power rating 30 W; 8 ohms; 10 W power rating — $4.75

Model TF-3C 3-Way Speaker System
Bookshelf system; has 10” woofer, 2-3½” midrange units, and aero-spherical tweeter; crossover at 2000 and 10,000 Hz; power rating 25 watts; high frequency control on rear; impedance 8 ohms; 1½” x 2½” x 1¼”; 38 lbs. Dura-syn walnut veneer — $128.00

Model G-600
Triaxial 15” 3-way speaker; 35 watts; response 30 Hz to upper hearing limit; 16 oz. ohm impedance; 3½ lb. DP-Alinico-V magnet; 1½” cone woofer; threob compression-driver mid-channel unit with separate horn for 1000 to 4000 Hz range; compression super-tweeter; tweeter and midrange driver control resonance 1¼”. Shipping weight 33 lbs. — $197.50

Model G-610B
Triaxial 15” 3-way speaker; 40 watts; 16-ohm impedance; crossovers at 600 and 4000 Hz; heavy duty curvilinear diaphragm unit for lows, compression driver unit for mid-range and compression driver for high end; baffle opening 13¼”; depth 10¾”; crossover and control network — $370.00

700XLW Speaker System
4-way bookshelf design. Features 12” woofer, a horn-loaded mid-range, a super-tweeter & a dome-type ultra-tweeter; crossover 4000, 4000, and 10,000 Hz; response 20-20,000 Hz; 40 W power rating; 8 ohms. $169; »” x 2½” x 12” d.; Oilied walnut — $275.00
FS-1 Decorator-styled walnut floor stand for 700 XLW — $19.95

Model SG-84 8” Coax
Flexair woofer combined with electrically independent direct-radiator tweeter provides 4000-20,000 Hz; has h.f. balance control; built-in crossover at 2000 Hz; 15 watts; 8 ohms; 3½” depth — $36.50

Model SG-88 8” Coax Speaker
Features all the low-frequency control of SG-84 with better horn-loaded tweeter in an 8” unit; electrical crossover from high-compliance low-resonance Flexair woofer is 2000 Hz; frequency range 35-15,000 Hz; has h.f. balance control; 20 watts; 8 ohms — $51.50

“Delta” Series Loudspeakers
Model DL-220 3-element 12” coaxial design. Compression, omnidirectional h.f. horn, midrange secondary modulator, low frequency resonance 25 Hz; Response 25-16,000 Hz; 8 ohms; 20 W, 5¼” deep — $48.00
Model DL-120 dual-cone, 12” speaker. Similar to DL-220 except without h.f. horn. Response 40-15,000 Hz; 8 ohms; 20 W — $25.75
Model DL-80 dual-cone 8” speaker. Response 50-15,000 Hz; 8 ohms; 15 W; 3¼” deep — $17.50
Model DL-L84 coaxial 8” design with high-frequency control on 30° cable. Response 40-16,000 Hz; resonance 50 Hz; 8 ohms; 15 W power rating; 3½” deep — $31.50
Model DL-210 3-element 12” coaxial. Has mechanically coupled woofer & mid-range element & direct radiator tweeter. Has high-frequency balance control on 30° cable. Resonance 20-16,000 Hz; 20 W power rating; 8 ohms; 3½” deep — $38.00

Model SG-80 Dual-Cone 8” Speaker
Has Flexair woofer with concentrically mounted auxiliary cone for high end; response 40-12,000 Hz; 15 watts; 3½” deep — $22.75

Model SG-210 3-Element 12” Coax
Two-way, 3-element system; Flexair woofer provides high compliance and low resonance; has curvilinear-radiator separate tweeter & mechanically coupled mid-range radiator; electrical crossover at 2000 Hz; h.f. control on cord for external mounting; frequency range 20-14,000 Hz; 20 watts; 8 ohms — $54.75

Model SG-220 3-Element 12” Coax
Features compression-driver horn-loaded super-tweeter in conjunction with mechanically coupled mid-range radiator and Flexair high-compliance low resonance woofer; electrical crossover at 4000 Hz; frequency range 20-15,000 Hz; h.f. balance control — $63.50

SG-222 Multicell Horn 12” Coax
Compression driver tweeter horn extends through woofer core and terminates in six-cell mouth for wide angular dispersion of high frequencies; has low electrical and acoustical crossover frequency of 2000 Hz; h.f. level resonance 10,000 Hz; range 20-15,000 Hz; 25 watts; 8 ohms — $80.50

Model SG-223 Reflex Horn 12” Coax
Two-way coaxial speaker with horn-loaded low-crossover tweeter and high-compliance low-resonance Flexair woofer; electrical crossover to reflex horn tweeter 2000 Hz; has h.f. control; response range 20-15,000 Hz; 25 watts; 8 ohms — $88.75

SG-300 “Triaxial” Speaker
12” design with 3 independent speakers, SG-300 woofer (20 Hz resonance), a long midrange horn & tweeter. Has a balance control to either boost or attenuate high frequencies. Response 20-20,000 Hz; crossovers 600 & 4000 Hz; power pacity 30 W; 8 ohms; 8½” deep — $125.00

PR-20OA Speaker System
Bookshelf, 3-speaker, 3-way system with 12” woofer, MH-400 mid-range, and E-100 ultra-tweeter. Response 25-20,000 Hz; 8 ohms, capacitor loaded; 14” b. 25” w. x 10¾” d. — $198.00

High-Frequency Speakers
TH-40 Horn-loaded compression driver; response 4000-18,000 Hz. Use above 4000 Hz in 3- or 4-way systems; lowest recommended crossover is 4000 Hz; power rating 45 W; 8 ohms — $41.85
TH-20 Horn-loaded compression driver unit for 2- and 3-way systems. Response 20-20,000 Hz; power rating 30 W; 8
Speakers & Cabinets

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**JVC**

5304 4-Way Speaker System
Same as Model 5340 except response 30-20,000 Hz and crossovers at 1500 Hz instead of 1000 Hz and 61/4 mid-range, 24/3 x 15/8 x 13/8 d. $149.95

5320 3-Way Speaker System
Infinite cabinet design. Has 8" woofer, 31/4" cone mid-range, and 2" cone tweeter. Response 35-20,000 Hz; 8 ohms; crossover at 5000 & 10,000 Hz; 30 W r.m.s. capacity. Has high-freq. level control. $99.95

5310 3-Way Speaker System
Compact infinite cabinet design. Has 6" woofer, 2" horn, and 2" cone speakers. Will handle 18 W r.m.s.; crossovers at 7000 & 10,000 Hz. 8 ohms. 17" x 11" x 7/8" d. $69.95

5303 Omni Speaker System
Will radiate 360°; has two 5" woofers & 2" horn tweeters in each sphere; capacity 40 W r.m.s.; 8 ohms. Response 20-20,000 Hz; crossover at 5000 Hz. Can be hung from ceiling; is supplied with floor stand. 13 1/2" dia. pair $199.95

5340 4-Way Speaker System
Infinite cabinet design combining 12" woofer, a 31/4" mid-range, 31/4" cone tweeter, and 2" horn super tweeter. Will handle 80 W dynamic power: 8 ohms. Response 30-20,000 Hz; crossovers at 1000, 7000, & 10,000 Hz; 40 W r.m.s. capacity. Has level controls for mid & high-freq. ranges. Multi inputs permit separate amplifiers to be connected to woofer, mid-range & tweeter. 28½" x 16½" x 15½" d. Walnut $259.95

KENWOOD

KL-5060 3-Way Speaker System
4-speaker design with 12" woofer, 61/4" cone mid-range & 2 horn-type tweeters; response 30-22,000 Hz; crossovers 600 & 5000 Hz; tweeter 800 Hz; 80 W r.m.s. Has mid-range & h.f. level controls. 15" x 251/2" x 111/4" d. Oiled walnut $139.95

KLH

Model Nine Electrostatic
Electrostatic speaker system that reproduces entire audio spectrum. Has true reproduction of very low frequencies total radiating area of 28 sq ft is used (14 sq ft in rear); radiation front and rear is equal; consists of two crossed full-range speakers with built-in power supplies and step-up transformers; two sections can be joined or separated completely for use in stereo systems; impedance nominal 16 ohms and is primarily resistive in audio range; maximum 30 ohms, minimum 16 ohms; recommended power per section 40 to 75 watts; 70 x 231/2 x 21/2" each panel; mahogany, walnut, oiled walnut. Recommended to be used in pairs; one for each speaker. (each) $114.00

Model Five Speaker System
Four speakers. High-frequency system of acoustic suspension design housed in a 26" x 131/2" x 111/2" oiled walnut cabinet. Low-frequency driver is 12" acoustic-suspension type; two 3" mid-range drivers are housed in sub-enclosure; 1½" direct radiator tweeter. Provided with two 3-pos. switches that adjust the 2500-7000 and 2000-20,000 Hz ranges. Finished on all four sides. 8 ohms. $189.95

Model Six Speaker System
Full-range, two-way system housed in 231/4" w. x 12½" h. x 11½" d. cabinet; low-frequency speaker is 12" acoustic suspension type; high-frequency section contains single direct radiator with 1½" cone; LCR crossover network is integral part of system and has provisions to increase or decrease high-frequency level 2½ dB; impedance 8 ohms; hardwood enclosures finished all four sides. Oiled walnut, cherry $134.00

Model Twelve Speaker System
A 3-way, 4-speaker system in a 4 cu ft enclosure. Speakers used are a 12" woofer, 2 mid-range in individual sub-enclosures & a cone tweeter. Crossovers at 600 & 2500 Hz. Has four switched level controls (300-800, 800-2500, 2500-7000 & 7000-20,000 Hz). 8 ohms imp. 29½" x 22½" x 15" d. Oiled walnut $275.00

Model Seventeen
Full-range, two-way system with 10" long-throw acoustic suspension woofer and 1½" direct-radiator tweeter with elastomeric suspension; LCR crossover network is integral part of system and permits an increase or decrease of 2½ dB in high-frequency level without shifting in crossover region; grille cloth is removable to permit user to change as desired. 11½" w. x 23½" h. x 8½" d.; finished all four sides; oiled walnut $74.95

Model Twenty-Two / A Speaker System
Two-way, two-speaker system of acoustic suspension design housed in an 18" x 10½" x 7½" oiled walnut cabinet. Low-frequency driver is 8" acoustic-suspension type; 2" direct radiator for the mid-range and highs.Finished on all four sides. 8 ohms.........$54.95

Model Thirty-Three Speaker System
Two-way bookshelf system using a Controlled Acoustic Compliance design. Low-frequency driver is 10" high-compliance design with built-in high-frequency damping strips and 1½" direct radiator with integral center dome as tweeter. Oiled walnut cabinet finished all four sides. 8 ohms. 13½" x 23½" x 10½" d. $99.95

All prices are suggested list.

KLIPSCH

Klipschorn Corner Speaker System
Employs folded corner horn bass section, straight axis mid-range, and tweeter horns; response 32.7-17,000 Hz; ideal for mono or stereo especially when used with compatible third speaker bridged for center speaker use; over 30 acoustic watts output can be delivered; priced from $571 for "Decorator's Model" in unfinished fir to $1020 for corner systems. All models are functionally identical.

Model H (Heresy) 3-Way System
Features Klipsch K-22 woofer, K-55-V midrange driver & K-77 tweeter. Recommended for use with Klipschorn and Cornwall for stereo. Available at an extra charge with speaker special network for center speaker use. 21½" x 15½" x 13½" deep. Price $250 for furniture finishes to $209 for theater black fir.

Cornwall II 3-Way Speaker System
Smooth response down to 38 Hz; ported exhaust unloading at approximately 8 Hz. Has Klipschorn K-33 woofer, K-35-V mid-range driver, and K-77 tweeter. Response 38-17,000 Hz ± 5 dB; 16 ohm imp. Transient response is excellent and distortion is minimal above 16 Hz. Available upright or in lowboy 36" x 23½" x 15½". Price from $460 in choice of four furniture finishes to $342 for theater black fir.

"La Scala" K-447 Speaker System
Horn-type design. Features K-33 woofer, K-55-V midrange driver & K-77 tweeter. Response 45-17,000 Hz ± 5 dB; handles 70 W program input; 16 ohm imp.; crossover at 400 & 6000 Hz. 23½" x 15½". Theater black finish.
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LAFAYETTE

"Criterion" 150A Speaker System
Bookshelf, acoustic-suspension system with 3-way, 10" woofers, 3" mid-range, 1½" tweeter; LC crossover at 1600, 4000, and 10,000 Hz; response 30-20,000 Hz; 40 W capacity; 8 ohms. Has brilliance control; finished four sides in oiled walnut; 19" w. x 14½" x 10½" d. $599.50

"Criterion VII" Speaker System
Bootheelf tuned sonic tube, bass-reflex design; 4-way, 12" woofer, 5" mid-range, two 3½" tweeters, two 1½" super tweeters. Response 20-20,000 Hz; 50 W; crossover 800, 5000, and 12,000 Hz; 8 ohms. 24" w. x 14½" x 12" d. Oiled walnut. ... $899.50

"Omni II" Speaker System
10", 2-way, 360° multi-directional speaker system. Response 50-20,000 Hz; capacity 40 W; 2600 crossover; 8 ohms. Has brilliance control. Oiled walnut cabinet. 13" w. x 13" h. x 9¼" d. ... $599.50

"Criterion" 4X Speaker System
4-speaker, 4-way system: 12" woofer, 5" mid-range, 3½" tweeter, 1½" super tweeter crossover; LC at 500 & 10,000 Hz; response 25-20,000 Hz; 50 W capacity; 8 ohms. High & mid-range frequency control. Oiled walnut finished on 4 sides 22½" w. x 14½" h. x 11¾" d. ... $699.50

"Criterion" 100B Speaker System
3-way system with 10" woofer, 3½" sealed-cone tweeter, 1½" super tweeter. Has high-frequency control (3500 & 10,000 Hz crossover); response 30-19,000 Hz; 40 W capacity; 8 ohms. 21½" w. x 11½" h. x 9¾" d. Oiled walnut cabinet. ... $499.50

"Criterion" 5XB Speaker System
Bookshelf-type, 4-way speakers acousticsuspension system: 12½" woofer, 6½" mid-range, 3½" tweeter, 1½" super tweeter. Mid & high-frequency controls; response 18-23,000 Hz; crossovers at 800, 4500, 10,000 Hz; crossover capacity 75 W dynamic power; 8 ohms. Oiled walnut cabinet. Overall size 23½ w. x 14½" h. x 11¼" d. ... $1299.50

"Criterion" 80 Speaker System
Floor-standing, 4-way speaker acoustic suspension design: 12½" woofer, 6½" mid-range, two 3½ tweeters, and two 1½" super tweeters. Mid and hi-frequency level controls. Response 18-20,000 Hz; crossovers at 800, 4500 & 10,000 Hz; capacity 100 W dynamic power, 8 ohms. Oiled walnut cabinet. 18" w. x 12" d. x 30½" h. ... $1599.50

S7R Speaker System

Consists of LE15A low-frequency transducer, PR15 passive driver, LE45 high-frequency driver, HL91 horn & acoustic lens & LX5 dividing network ... $429.50

S8R Speaker System

Added to the LE15A & PR15 passive driver is a mid- & high-frequency system consisting of PR15 driver and HL91 horn & acoustic lens, a 075 ring radiatot, ultra-high-frequency driver. $639.00

LE15A 15" Low-Freq. Speaker
For use in 6-8 cu ft closed cabinets or ported cabinets as small as 3.5 cu ft; can be combined with PR15 passive radiator as in "Olympus". 8 ohms ... $135.00

LE14A 14" Low-Freq. Speaker
For use in cabinets as small as 1.5 cu ft; 4" edge-mounted ribbon voice coil; 8 ohms ... $108.00

130A 15" Low-Freq. Speaker
Designed for use with LE175DLH high-frequency assembly in reflex or horn-loaded enclosures. 8 ohms ... $108.00

LE10A 10" Low-Freq. Speaker
For enclosures as small as 1 cu ft. 3" edged ribbon voice coil. 8 ohms ... $60.00

Olympus 7R7 Speaker System
Massively built enclosure houses S7R components. Available with hand-carved wood freetwork grille. Finished in oiled walnut. 20" w. x 40" x 26½". C70 enclosure only ... $297.00

Sovereign II S61 Speaker System
Small version of C60. Identical internally to the "Apollo". Available in country oak or golden oak with S7 speaker system. 26½" w. x 26½" x 19¾" d. ... $660.00

Sovereign II S71 Speaker System
Small version of Olympus. Available in oiled walnut with S7 components. 26½" w. x 26½" x 18" d. ... $660.00

Sovereign III Speaker System
Similar to Models "Sovereign I & II" with over-all dimensions 26½" x 64½" x 19¾" d. ... $480.00

BB "Nova" Speaker System
Combines a 12½" low-frequency speaker with heavily damped, long-travel cone assembly; 3½ voice coil with a 2½ piston-type direct radiator. Same high freq. unit as in Lancer 77. Oiled walnut, 14" w. x 23½" h. x 11¾" d. ... $186.00

Lancer 77 Speaker System
Two-way loudspeaker system uses transducers identical in performance to LE10A 10" Linear Efficiency woofer, LE20 tweeter, and LX2-3 crossover with adjustable high-frequency control. In addition, a PR10 10" passive radiator doubles the radiating area of the woofer in the 30-150 Hz region for improved low-frequency performance. Available in oiled walnut finish. 14" w. x 23½" h. x 11¾" d. ... $171.00

Lancer 44" Speaker System
Bookshelf design using LE8T speaker & STEREO HI-FI DIRECTORY

LE8T "Caprice" Speaker System
Finished on five faces of each cube in either rosewood or walnut. Has aluminum grille panels, an LE8T 8" extended-range speaker and matching passive radiator. 22" w. x 22" d. x 10" deep. Oiled walnut ... $195.00

Rosewood ... $213.00

D130 15" Extended-Range Speaker
Extended-range with 4" edge-mounted aluminum ribbon voice coil and dual high-frequency dome. Resonance 37 Hz. 25 watts continuous power, 8 ohms $108.00

D131 12" Extended-Range Speaker
Same as Model D130 but for 12" dia. ... $99.00

D123 12" Extended-Range Speaker
Designed for compact enclosure 2½ cu. ft. or more and shallow enough for wall installations. 8 ohms ... $78.00

L40 "Minuet" Speaker System

With honeydew dome. Available in oiled walnut or tawny walnut. 23½" w. x 14½" h. x 11½" d. C5 enclosure only ... $54.00

Complete with LE40C installed ... $216.00

Could also house S11 and S12 systems.

Lancer 101" Speaker System
Marble top, wood freetwork grille, and S1 speaker system. The cast aluminum horn is coupled to a 14-element acoustic lens. Available in oiled walnut; 24½" w. x 17½" h. x 12½" d. ... $396.00

S1 2-Way Speaker System
Model LE14A 14" Linear Efficiency woofer is matched to LE175DLH high-frequency assembly by LX12 crossover network. System delivers full-range response in enclosures as small as 2 cubic feet. Power capacity 300 w. ... $294.00

Lancer 77" Speaker System
Two-way loudspeaker system uses transducers identical in performance to LE10A 10" Linear Efficiency woofer, LE20 tweeter, and LX2-3 crossover with adjustable high-frequency control. In addition, a PR10 10" passive radiator doubles the radiating area of the woofer in the 30-150 Hz region for improved low-frequency performance. Available in oiled walnut finish. 14" w. x 23½" h. x 11¾" d. ... $171.00

"Lancer" 44" Speaker System
Bookshelf design using LE8T speaker & STEREO HI-FI DIRECTORY

SC99 "Athena", Same as S99 "Athena" except for full fabric grille and one extra pair of Oriental freetwork ... $225.00
PR8 passive radiator. 23¼" x 12¾" x 11¾", d. Oiled walnut ................ $114.00

**"Viscount S36" Speaker System**
A reflex design using the LE175DLH high-freq. assembly, a 130A 15° woofer, and N1200 crossover network. Oiled or tawny walnut. 28¾" x 19¾" x 15¾", d. $423.00

**"Baron S38" Speaker System**
Uses D130 15° speaker, a D75 high-frequency unit and N2400 crossover network. Oiled walnut. 24½" x 23½" x 15¾", d. $315.00

**"Dorian C56" Speaker System**
Enclosure features top panel of solid polished Adriatic Travertine marble. Side panels of oiled walnut, with chocolate grille. 24½" x 12½", d. C56 enclosure only ................ $78.00
Is popular with S12 system.

**Dividing Networks**

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**001 2-Way Speaker System**
Consists of 15° 130A low-frequency driver with LE175DLH high-frequency assembly and N1200 (1200 Hz) crossover network. High-frequency assembly has heavy driver with edgewise aluminum ribbon voice coil, cast aluminum exponential horn and 1-element acoustic lens for 90° uniform dispersion. 25 watts continuous power. 8 ohms, efficient system for use in horns or reflex enclosures ................ $312.00

**"Alpha II" S70 Speaker System**
Augmented two-way system consisting of specially designed 12" low-freq. transducer. 12" Passive Radiator. LE5-2 midrange and LE2-1 high-freq. direct radiator. Has midrange & high-freq. level controls. Russet oak enclosure designed to match "Alpha II" C78 equipment cabinet. Blends equally well with period and contemporary decor. 35" w. x 26½" h. x 17¾", d. ................ $336.00

**"Alpha III" Same as "Alpha I" S70 except oiled walnut in contemporary styling** ................ $336.00

**375 High-Freq. Driver**
Has 4" diaphragm & 2" horn throat. For reproducing mid-range & highs. 16 ohms ................ $249.00

**LE20 High-Freq. Speaker**
Adds brilliance to extended-range speakers such as D208 & D123: also balances well with LE14A & LE10A bass speaker. 1971 EDITION

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**LE175DLH High-Freq. Speaker**
A driver/horn/lens assembly consisting of LE175 driver & 1217-1290 horn/lens. 8 ohms .......... $39.00

**LE85 H.F. Driver**
Response is linear from 500 Hz beyond audibility. Has 1" horn. Impedance 8 ohms ................ $150.00

**LE175 High-Freq. Driver**
For use from 500 Hz & up. Normally furnished with 1217-1290 horn/lens as LE175DLH. 8 ohms ........ $120.00

**LE14C Extended-Range Speaker**
Has 4" dia. ribbon voice coil & a concentric mounted, independently driven high-freq. radiator. Uses LX2-1 crossover network. For use with enclosures of 1.5 cu. ft or larger; 8 ohms; 12¾" mist. hole ................ $162.00

**LE8T 8" Extended-Range Speaker**
Suitable for in-wall installation. 8 ohms ................ $72.00

**S12 2-Way Speaker System**
Linear Efficiency components are similar to those used in Lancer 99. Model LE14A 14" woofer has 4" copper ribbon voice coil and specially treated cone for peak-free response. LE20 direct-radiator tweeter gives smooth distribution of high frequencies over wide angle. The two units are controlled by LX8 crossover for imperceptible transition through crossover region. Power capacity 30 watts. 8 ohms. For use in enclosures as small as 1.5 cubic feet ................ $174.00

**1217-1290 Horn**
Cast aluminum horn with acoustic lens for 90° h.f. dispersion. Used with LE175 or LE85 driver where space does not permit HL91 horn/lens ................ $36.00

**Aquarius 1 Speaker System**
Two complimentary radial diffraction slots on front panel interact with each other to deliver a wide stereo field. Has a high-freq. direct radiator to provide sound localization. Includes 10" high-compliance radial horn-loaded low-freq. driver, a 5" radial horn-loaded high-freq. driver & 2" direct radiator localization transducer from 3500 Hz & up. 20" x 20" x 13¾", d. Oiled walnut or satin white ................ $288.00
Matching base ................ $27.00

**Aquarius 2 Speaker System**
Has a common radial diffraction slot that spans the entire perimeter of the rear enclosure. Sound waves generated by low-freq. drivers expands between the enclosure and the dispersive devices, emerging from the radial diffraction slot in a diffused sound pattern. Direct radiator on front panel augments high-freq. reproduction. Includes 12" high-compliance radial horn-loaded high-freq. drivers & a 2" direct localization radiator. Low-freq. driver covers up to 800 Hz; high-freq. units cover 300 to 5000 Hz; localization driver operates above 3000 Hz. 32½" x 18½" x 16½", d. Oiled walnut. $387.00

**Aquarius 2A** Same except in satin white or bright red. 40" x 18½" x 15½", d. $447.00

**Aquarius 3 Speaker System**
Low & high-frequency drivers located on rear panel make use of a common radial diffraction slot to create a wide fundamental sound image. In addition, compression driver and multi-lobed radial diffraction horn are mounted on a 45° panel at top of cabinet. Has 14" high-compliance radial horn-loaded low-freq. driver, a combination of two 5" radial horn-loaded drivers, and an LE85 radial horn-loaded compression driver as high-frequency transducers. Low-freq. driver operates below 800 Hz while 5" drivers cover 300-5000 Hz. LE85 operates from 1500 Hz up. 8 ohms. Oiled walnut or satin white. 50½" x 18½" x 20½", d. $657.00

**Aquarius 4 Speaker System**
An 8" high-compliance radial horn-loaded low-freq. driver is directed upward into radial horn spreading sound through a 360° horizontal radial diffraction slot. High frequencies emerge in a 360° vertical plane from a 2" driver separately loaded by radial horn located on the upper-rear panel. The 8" driver operates be...
low 8000 Hz, while h.f. driver works from 300 Hz & up. 8 ohms. Oiled walnut or satin white. 40" x 10" x 10". $168.00

HL93 Exponential Horn
Similar to HL91 but for use with 375 driver. Is part of 58 speaker system. $57.00

O30 Speaker System
Combines D130 15" extended-range speaker & a 075 h.f. transducer with a ring-shaped diaphragm driven by a 1½" edgedown wound aluminum ribbon voice coil coupled to a machined aluminum horn. A N2400 (2500 Hz) crossover is used. $204.00

HL91 Exponential Horn
Cast aluminum with slant-plate acoustic lens for use with LE175 or LE85 driver. 120" horizontal dispersion & 45" vertically. $42.00

"Paragon" Stereo Reproducer
Two sets of professional loudspeaker components are combined with unique Radial Refraction enclosure to make “ultimate” stereo loudspeaker system suitable for professional stereo monitoring or elaborate home music systems. Each channel uses LE15A bass driver, 375 mid-range and high-frequency driver, and 075 ring radiator for upper overtones. Crossover frequencies 500 and 7000 Hz. System almost 9 feet wide and weighs over 500 lbs. $2500.00

LEAK
"Mk II Sandwich" Speaker System
Completely sealed, air-tight enclosure with dual high-efficiency speakers (13" Lf. & 3½" h.f.); response 30-18,000 Hz ±2.5 dB; 70 watts continuous power capacity; 8 ohms impedance; free-air resonance 19 Hz; crossover 900 Hz. 15" x 26" x 12". Oiled walnut. $215.00

LOUDSPEAKER DESIGN
"Ezekiel I" 3-Way System
Totally enclosed, high-efficiency bookshelf system employing two 6½" linear-compliance woofers and an exponential high-frequency horn. Woofers are rear-loaded into a 4½' folded bass horn. Response 30-21,000 Hz; crossovers at 175 & 1000 Hz. 8 ohms continuous capacity; 4 ohms. Oiled walnut. 26" x 16" x 11". $159.95

"Ezekiel II" 4 Way System
Totally enclosed, high-efficiency system with three 6½" linear-compliance woofers, an exponential high mid-horn, and an exponential high-frequency horn. Woofers are rear-loaded into a 3½' folded bass horn. Response 27-23,000 Hz; crossovers at 175, 800 & 5000 Hz; 85 W r.m.s. continuous capacity; 4 ohms. Oiled walnut. 22" x 27" x 18". $279.00

"Ezekiel VI" 3-Way System
Totally enclosed, high-efficiency bookshelf system with 6½" low-resonance woofer and a compound-flare compression tweeter. Woofer is rear-loaded into a 42½' folded bass horn and front-loaded to reproduce the critical mid-range frequencies. Response 34-19,000 Hz; crossovers at 225 & 2500 Hz. 35 W r.m.s. continuous capacity; 8 ohms. Oiled walnut. 20" x 9". $79.00

"Ezekiel IX" 3-Way System
Totally enclosed, high-efficiency bookshelf design with two 6½" linear-compliance woofers & a massive exponential high-frequency horn. The woofers are rear-loaded into a 4-foot folded bass horn which operates from the lowest frequencies to 185 Hz and front-loaded to reproduce the mid-range (185-1200 Hz). Compression driver coupled to exponential horn with over 40 square inches of mouth area; response 27-21,000 Hz; crossovers at 185 & 1200 Hz. 45 W r.m.s. continuous capacity; 4 ohms. Oiled walnut. 13" x 22" x 12". $119.00

MAGNAVOX
158741 Speaker System
Chairside contemporary design with 12" high-efficiency woofer & 5" mid/high freq. driver. Has room for record storage. Walnut. $11.00. 158742 Designer design. Salem maple. $11.00. 158743 Mediterranean design. Pecan. $11.00.

158706 Speaker System
Early American design with 15" high-compliance, air-suspension woofer & a 1000-Hz horn. 20" w. x 19¼" d. Salem maple. $125.00.

158753 Speaker System
Bookshelf design with 8" high-compliance, air-suspension & 3½" speaker. Walnut. (pair) $109.90. 158754 With 10" high-compliance, air-suspension woofer & 1000 Hz horn. (pair) $159.90. 158755 With 12" high-compliance, air-suspension woofer & 1000 Hz horn. (pair) $159.90

158731 Speaker System
Contemporary design with 12" high-compliance, air-suspension woofer & 1000 Hz horn. Has vinyl and swirl ball casters. 18¾" w. x 17¾" d. Walnut. (pair) $199.90

158732 Speaker System
Features 15" high-compliance, air-suspension woofer & 1000 Hz horn. Overall size 26¾" w. x 12¾" d. x 17¾" w. Walnut. (pair) $199.90

158756 Supplied with treble control. (pair) $229.90

MARTIN
840 "Sound Tower"
Features two 2½" flare dome plastic tweeters, two 4" direct-radiating mid-range & four 8" pneumatic-load woofers each in its fiber glass filled, heerically sealed chamber. Response 2-20,000 Hz. Will handle 100 W of integrated program material. Has mid & high freq. balance controls. 52½° h. x 16½" w. x 16½" d. Walnut. $199.00

Prismatic Reflector
Features a 9½" pneumatic-load woofer with ½" voice coil & capable of cone movements of more that 1", a 6½" acoustic-suspension mid/bass, a 3½" cone, a 3½" mid-range & two 2½" closed-back, wide-dispersion center cone curvilinear tweeters. Cabinet is fiber glass damped, heretically sealed, infinite baffle with each system individually damped to a null factor. Crossover is a patented phase-controlled LCR with mid & high freq. balance controls. response 25-18,000 Hz; 6 ohms. Capacity 60 W. 25" h. x 16½" w. x 16½" d. Walnut woodgrain Formica. $300.00

221 Lab Series
Bookshelf two-way design with 10" acoustic suspension woofer & 2" dome tweeter, 8 ohms. Response 35-18,000 Hz; capacity 60 W program. Has LCR crossover at 1000 Hz (6 dB/octave) with h.f. balance control. Completely fiber glass damped, heretically sealed infinite baffle. 22½" x 12½" x 9¼" d. Walnut-grained Formica. $99.00

441 Super Spectrum Slope
Features 3-way design with 10" fiber glass damped, heretically sealed infinite baffle. Has two 10" acoustic-suspension woofers, a 5" acoustic-suspension mid-range, and a 2½" dome tweeter. Has LCR crossover at 1000 & 5000 Hz (12 dB/octave) with mid/high freq. balance control. Power capacity 75 W program; response 30-18,000 Hz; 4 ohms. 14¼" x 12½" d. Walnut-grained Formica. $199.00

OAKTRON
Twin-Cone Speakers
FE6/6": response 40-15,000 Hz; 8 ohms; 12 W max., 3¼" d. $14.85. FE6/8": response 40-16,000 Hz; 8 ohms; 12 W max., 3½" d. $17.85. FE6KB/8": response 30-14,000 Hz; 8
Coaxial Speakers
CA8 8" woofer with 3" tweeter; response 60-14,000 Hz; 8 ohms; max. power 20 W; $59.95.
CA8HD 8" woofer with 3" tweeter; response 50-14,000 Hz; 8 ohms; 12 W max.; 4% d.; $51.45.
CA12 12" woofer with 3½" tweeter; response 35-14,000 Hz; 8 ohms; 12 W max.; 6% d.; $226.65.
CA12HD 12" woofer with 3½" tweeter; response 25-14,000 Hz; 8 ohms; 20 W max.; 7½% d.; $37.35.
FE69UW 6" x 9"; response 35-16,000 Hz; 8 ohms; 10 W max. 3½% d.; $136.65.

Oxford Speakers
"Angle Mount" two-way system. Angle mounting the speakers permits the use of '10" woofer with a 4" tweeter. LC crossover; response 40-20,000 Hz; capacity 35 W to music power. 17¾" x 10½" x 8¼". $60.00.

OLSON ELECTRONICS
S-845 5" Woofer
Response 30-5000 Hz; power capacity 15 W program; 8 ohms; resonant freq. 48 Hz.
S-23 Three-Way Speaker System
Features high-compliance 16" woofer & 7½" horn-type tweeter; coupled through LC crossovers. Compact walnut cabinet has removable ribbed front panel. Response 35-30,000 Hz; 8 ohms; crossovers at 7000 & 3000 Hz.

S-36 Two-Way Speaker System
Features Mediterranean design with 10" woofer coupled to 4" tweeter by LC-type crossover. Response 40-18,500 Hz; power capacity 35 W; 8 ohms. 13" w. x 22½" h. x 11½" d. Walnut finish.

S-43 Two-Way Speaker System
Features Mediterranean design with 10" woofer & 4¼" tweeter coupled through LC-type crossover. Response 45-20,000 Hz; power capacity 30 W; 8 ohms. 11½" w. x 15" h. x 9¼" d. Walnut finish.

S-52 Two-Way Speaker System
Features environmental control; 8" air suspension; 5½" direct radiators. Response 25-20,000 Hz; power 50 W; 8 ohms. 10½" w. 17½" h. 8¼" d. Oiled walnut finish.

S-853 Three-Way Speaker System
Features 12" low-frequency driver LC-coupled to 8" mid-range & 4½" tweeter. Both tweeter & mid-range have separately adjustible level controls. Power 40 W; 8 ohms; response 30-20,000 Hz. 14½" w. x 22½" h. x 15½" d. Oiled walnut cabinet.
S-930 Speaker System
Bookshelf design with 10" woofer & 4½" extended-range tweeter. Response 40-18,000 Hz; mid-range capacity 35 W; 8 ohms. Walnut finish. 11¾" w. 22¼" x 13½" d. $70.00.

S-996 Speaker System
"Angle Mount" two-way system. Angle mounting the speakers permits the use of '10" woofer with a 4½" tweeter. LC crossover; response 40-20,000 Hz; capacity 35 W to music power. 17¾" x 10½" x 8¼". $60.00.

Oxford
All wattage figures are peak, program material & resonance frequencies are free-air ratings. All speakers are 8 ohms impedance unless indicated otherwise.

Musical Instrument Speakers
10K58 10", 25 W, 55 Hz resonance, response 45-8000 Hz.
10L65 10", 35, 50 Hz resonance, response 45-8000 Hz.
12K55 12", 30, 100 Hz resonance, response 70-8000 Hz.
12L65 12", 40, 50 Hz resonance, response 45-8000 Hz.
12M65 12", 40, 50 Hz resonance, response 35-8000 Hz.
12T65 12", 60, 55 Hz resonance, response 65-8000 Hz.
15M65 15", 40, 56 Hz resonance, response 65-8000 Hz.
15G10 15", 35, 75 Hz resonance, response 30-8000 Hz.

"Tempo" Hi-Fi Speakers
C1J24 2x10", $21.74
C1J24 2x12", $21.74
C1J24 2x15", $26.60

"Tempo" Woofers
W1J2408 12", $11.34
W1M608 12", $26.56
W1M608 15", $36.22

"Tempo" Horn Tweeters
CH35SB 8" x 6", $10.72
CH35SB 8" x 6½", $10.72
CH35SB 8" x 6¾", $10.72

Weatherproof Hi-Fi Speaker Systems
OH10-G-Woodpecker, 25 W; $50.00
OH10-G-Boxwood, 25 W; $50.00
OH10-G-Cypress green with L-pad; $45.95
OH10-CW-Bone white with L-pad; $45.95
OH10-G70 Forest green with 70 V trans.; $47.04
OH10-G75 Forest green with 75 V trans.; $47.04

The OH series are dual speaker systems with built-in crossover between woofer & tweeter. All speakers are 8 ohms.

Hi-Fi Extended-Range Speakers
LA24 4" x 4", 20-10,000 Hz; $30.82
LA24 4½", 20-10,000 Hz; $67.50
LA24 6", 20-15,000 Hz; $67.50
LA24 8", 20-20,000 Hz; $67.50

Woofers
LA90J 8", 12 W, response 30-4000 Hz;
LA12TSTS 12", 30 W, response 25-4000 Hz; $36.64
LA15TSTS 15", 35 W, response 20-3500 Hz; $45.58

Full-Range Coaxial Speakers
CO12TSTS 12", 30 W, response 35-20,000 Hz; $44.52
CO15TSTS 15", 35 W, response 30-20,000 Hz; $54.50

PANASONIC
SB-22 Two-Way Speaker System
With 8" woofer & 3½" tweeter; response 39-19,000 Hz; 8 ohms; crossover 2500 Hz; 10¾" x 20½" x 9¾". Walnut cabinet.
SB-33 Three-Way Speaker System
With 10" woofer, 3½" mid-range & 2" tweeter; response 30-20,000 Hz; 8 ohms; crossovers at 1500 & 6000 Hz. Has h.f. level control. 11¾" x 22½" x 11¾". Walnut cabinet.
SB-66 Two-Way Speaker System
With 8" woofer & 2½" tweeter; response 37-19,000 Hz; 8 ohms; crossover 8000 Hz; 12¾" x 26½" x 13½". Walnut cabinet.
SB-77 Three-Way Speaker System
With 10" woofer, 5½" mid-range & 2½" tweeter; response 28-21,000 Hz; 8 ohms; crossovers at 800 & 6000 Hz. Has mid-range & tweeter level control. 12¾" x 23½" x 11¼". Walnut cabinet.
SB-88 Three-Way Speaker System
With 12" woofer, two 5½" mid-range & two 2½" tweeters; response 24-22,000 Hz; 8 ohms; crossovers 800 & 6000 Hz. Has mid-range & tweeter level control. 15½" x 26½" x 13¼". Walnut cabinet.

PIONEER
CS-88 Speaker System
3-way, 5-speaker design with 12" woofer, 5½" midrange & two 2½" tweeters with one horn-type tweeter; 8 ohms. Oiled walnut 14¾" x 13" x 24½". Has walnut lattice grille.
CS-5 Speaker System
Bookshelf, air-suspension design with 8" woofer & 2½" cone tweeter; crossover at 2500 Hz; 8 ohms; max. input 25 W; response 35-21,000 Hz. Oiled walnut. 19½" x 9½" d. $59.00

CS-44 Speaker System
Bookshelf, air-suspension design with 8" woofer & 2½" cone tweeter; crossover at 2500 Hz; 8 ohms; response 35-20,000 Hz; max. input 25 W. Oiled walnut. 19½" x 9½" d. $59.00

CS-63 Speaker System
Infinite baffle; 4-way design with 15" woofer, two 5½" midrange horn tweeters & two horn super tweeters. Response 20-
Speakers & Cabinets

22,000 Hz; 8 ohms; max. power 80 W; crossovers at 7700, 3300 & 12,000 Hz. Oiled walnut. 28½" x 18½" x 13½"; $129.00.

CS-66 Speaker System
Combines a 10" woofer, a 6½" midrange, & a 3" cone-type tweeter, Response 35-20,000 Hz. Has 3-pos. level control. Oiled walnut. 22" x 12½" x 11½"; $109.00.

CS-99 Speaker System
Five-way, 6-speaker system in infinite baffle design. Combines 15" woofer, 5" midrange, horn tweeter, cone super-tweeter, and two dome supertweeters; 8 ohms; response 25-22,000 Hz; max. power input 80 W. 16" x 25" x 11½"; $215.00.

CS-A500 Speaker System
Combining an infinite cabinet speaker design with a 3-way system 10" woofer, 4½" midrange, 3" cone tweeter. Speaker connections are such that they could be operated as normal full-range system driven by a single amp or separated with each speaker driven from separate amp. An electronic crossover similar to the SF-700 would then be needed. Speakers could be used for stereo or A/B 3-way system. Response 40-20,000 Hz; 8 ohms; 50 W max, program power; normal crossovers at 800 & 6000 Hz; crossovers for 2-way multi-amp system anywhere between 500-1000 Hz; for 3-way system 500-1000 Hz & 4000-6000 Hz. Has built-in level control on front panel, Oiled walnut cabinet. 12½" x 13" x 12½"; $149.00.

SF-700 Electronic Crossover
Features 3-channel stereo design to be used between preamp 2- or 3-channel multi-power amp & speaker system. Output voltage 3½ mV per channel; HD 0.3%. Crossover frequency for 3-channel: low-mid 125, 250, 500, 700, or 1000 Hz; mid-high 12, 15, 20, 25 kHz. For 2-channel: 125, 250, 500, 1000, 2000, 4000, 6000, or 8000 Hz. Attenuation of 6, 12, or 18 dB available. Has center-channel output & universal power supply. 110, 120, 130, 220, or 240 V. 11½" x 4½" x 10"; $179.95.

CS-05 Speaker System
Two-way omnidirectional 4-speaker design with 8" woofer, three 3½" cone-type tweeters. Response 60-20,000 Hz; 8 ohms. Crossover 3000 Hz; capacity 40 W. Features 360° sound radiation. 14½" dia. x 20½" h. Walnut finish. $119.95.

POLY-PHAN

P20 Speaker
Wafer-thin design made up of a lightweight acoustic panel supported by a frame of plastic material; 30-20,000 Hz response; completely moistureproof; 25 W peak capacity; 8 ohms. 12½" dia. x 24½" h. Walnut finish. $89.95.

P5 Speaker
Same basic design as P20 except 1½" x 122
Walnut. 14½" square x 19" high. $89.95

**Optimus-5** Speaker System
Bookshelf or floor design featuring 12" acoustic-suspension woofer and 3 tweeters with crossover network. One 3-way switch for high-freq. adjustment, another for mid-freq. adjustment. 20-20,000 Hz response; 8 ohms. Oiled walnut. 14" x 25" x 11½". $99.95

**RECTILINEAR**

Model III Speaker System
A 3-way design with a 12" woofer, a 5" mid-range driver (encapsulated in a non-resonant fiber chamber), 4 high-frequency drivers consisting of two 2½" cone tweeter and two 3½" cone super tweeters. All six speakers are bonded with an epoxy resin to the front panel. Has crossovers at 500, 3000 & 11,000 Hz. Response 22-18,500 Hz ± 4 dB; min. r.m.s. power requirements 20 W (100 W max.); 8 ohms. 35½" x 18½" x 12" d. Oiled walnut. $279.90

Model X Speaker System
Three-way acoustic suspension system with 12" woofer, 5" mid-range, and 2½" tweeter. Has separate mid-range and tweeter controls. Crossovers at 100 & 8000 Hz. Response 30-18,500 Hz ± 4 dB at 4 ohms. Min. r.m.s. power requirements are 30 W; max. power is 100 W. 14" x 25" x 10½" deep. Oiled walnut. $199.00

**"Mini III" Speaker System**
Three-way acoustic suspension system with 8" woofer, 5" mid-range, and 2½" tweeter. Has separate mid-range & tweeter controls. Crossovers at 400 & 8000 Hz; response 50-18,500 Hz ± 4 dB at 4 ohms; minimum r.m.s. power 20 W; maximum power is 100 W. 12½" x 19½" x 9½" deep. Oiled walnut. $89.50

**XI Speaker System**
A two-way bass-reflex system with 10" woofer & 3½" tweeter. Has separate tweeter control; crossover at 1800 Hz: response 45-17,000 Hz ± 3 dB; min. r.m.s. power 10 W, max. power 70 W (IHF). 23½" x 12½" x 10½" d. Oiled walnut. $229.50

**R.G.F.**

**R.G.F. 100 Speaker System**
Three-way design with 12" woofer, 6½" mid-range, and two 3½" tweeters. Response 24-22,000 Hz with crossovers at 650 & 5000 Hz. 8 ohm imp. Oiled walnut. 15¾" x 23½" x 11½" d. $229.50

**R.G.F. 101S Speaker System**
Infinite-type design with M-500 speakers. 22½" x 26½" x 19½". Walnut. $229.00

**R.G.F. 222S Speaker**
Coax type with 12½" woofer & two tweeters. Response 18-22,000 Hz; LC cross-over at 2400 Hz. $119.95

**M-500 Speakers**
3-way, 4-speaker combination includes 12½" woofer, 7½" mid-range & two tweeters; LC crossovers at 650 & 5000 Hz. Response 18-22,000 Hz. $189.00

**M10 10" Speaker**
Bifidial type. Response 28-20,000 Hz. $79.50

**R.G.F. 3 Speaker System**
Three-way design combining a 10" high-compliance woofer, 3½" closed-back mid-range & 3½" treble speaker. Cross-overs at 4000 & 10,000 Hz. Freq. range 1971 EDITION

35-20,000 Hz; 8 ohms. Bookshelf design: 22" x 12¾" x 9¾". Oiled walnut. $99.50

**R.G.F. 4 Speaker System**
Two-way design combining an 8" high-compliance woofer & 3½" closed-back tweeter. Freq. range 40-18,000 Hz with crossover at 4000 Hz. 8 ohms imp. Bookshelf design 18½" x 11" x 9½" d. Oiled walnut. $69.50

**R.G.F. 2 Speaker System**
Two-way bookshelf design with 10" high-compliance woofers & two tweeters; 8 ohms; 2400 Hz crossover; response 24-22,000 Hz. 13¾" x 23½" x 11½" d. Walnut. $159.50

**SAN-SUI**

**SP-2001 Speaker System**
Three-way, 3-speaker system with 12" cone woofer, 6½" cone mid-range, 5" cone mid-range, two 1" dome tweeters. Cabinet is ducted port design: max. input 50 W; input 8 ohms; response 35-20,000 Hz; crossovers 600 & 5000 Hz. Features electronic crossover system terminals for 2- and 3-channels; special level controls. Walnut. 25½" x 15" x 12½" d. $179.95

**SP-1001 Speaker System**
Three-way, 3-speaker system with 10" cone woofer, 6½" cone mid-range, 1" dome tweeter. Cabinet ducted port design; max. input 40 W max.; 8 ohms. Response 35-20,000 Hz; crossovers 600 & 5000 Hz. Features electronic crossover system terminals for 2- and 3-channels; special level controls. Walnut. 24½" x 14" x 11½" d. $319.95

**SP-50 Speaker System**
2-way ducted port design with 8" woofer & 2½" horn-type tweeter; capacity 25 W; 8 ohms; response 50-20,000 Hz; crossover 7000 Hz. Walnut 12½" x 19½" x 9½". $79.95

**SP-30 Speaker System**
2-way design with 6½" mid-range woofer & 2½" horn tweeter; ducted port design; response 50-20,000 Hz; capacity 20 W; input 8 ohms; crossover 7000 Hz; 16½" x 10½" x 7½". Walnut finish. $119.50

**CD-5 Electronic Crossover**
Features 2 or 3 individually adjustable channels; crossovers at 200, 340, 560, 900, 2500, 3600, 5000, and 7000 Hz ± 20%. Cut-off characteristic & 12 dB/octave; HD 0.3% at rated output. 9½" x 6½" x 9½" d. $99.95

**SCOTT, H.H.**

All Scott speakers are air-suspension types; 8 ohms impedance; and supplied with oiled-walnut contemporary cabinets. The S-10B and S-15 have both mid-range and tweeter level controls.

**S-10B Speaker System**
Three-way design featuring 10½" woofer & 3½" dual-cone mid-range and tweeter; response 40-20,000 Hz; power capacity 50 W (7 W min.). Size 23½" x 11½" x 10½". $389.95

**S-14V Speaker System**
2-way design with LC crossover (2000 Hz); 6½" woofer & 3" cone tweeter; response 50-20,000 Hz; power capacity 25 W; 16" x 10" x 6½". $49.95

**S-15 Speaker System**
Three-way system featuring 10" (26 Hz resonance) woofer, 4½" cone mid-range & 3½" cone tweeter. Response 35-20,000 Hz; crossovers at 750 & 3800 Hz; 8 ohms. Walnut finished. 23½" x 11½" x 9½". $119.95

**S-17V Speaker System**
Combines an 8½" woofer & 3" tweeter; response 40-20,000 Hz; imp. 8 ohms; power capacity 35 watts; crossover at 3000 Hz. Walnut finish. 18" x 12½" x 8¼". $54.95

**"Quadrant Q-100" Speaker System**
Features two 8½" woofers, four 3½" tweeters; frequency range 40-20,000 Hz; omnidirectional polar response; power capacity 80 W; crossover at 2000 Hz; Tweeter level control. 10 W minimum input. 14½" w. x 14½" d. x 22½" h. $149.95

**Q-101 Omnidirectional Speaker System**
3-way design with two 10½" woofers, four 4½" mid-range & four 3½" tweeters. Response 35-20,000 Hz; 8 ohms; 100 W continuous power capacity. Has h.f. level control and 360° sound radiation. In contemporary walnut. 17½" x 17½" x 22½". $229.95

**Q-102 Omnidirectional Speaker System**
2-way design with 8½" woofer & three 3½" tweeters; response 40-20,000 Hz; 8 ohms; 35 W continuous power capacity. Has tweeter level control. In contemporary walnut. 360° sound radiation. 10" x
 Speakers & Cabinets

S-20 Speaker System
Two-way design with 10" woofer and 3\(\frac{3}{4}\)" mid-range/tweeter; response 38-20,000 Hz; 8 ohms; 50 W continuous power capacity. Has high-freq. level control. In antiqued pecan, Mediterranean. 20" x 11\(\frac{3}{4}\)" x 11" $109.95

SHERWOOD
“Ravinia II” Speaker System
Three-way, bookshelf design using a 15" acoustic-suspension woofer; a 5" sealed-back, wide-dispersion mid-range; and a 3\(\frac{3}{4}\)" "omni-polar" cone convex radiator, 160" dispersion tweeter. Crossovers at 600 & 5000 Hz. Response 24-22,000 Hz; capacity 70 W program (10 W min. IHF); 8 ohms imp. Has tweeter level control. Oiled walnut: 25" x 17\(\frac{1}{2}\)" x 11\(\frac{3}{4}\" d. SRB6W $169.95

“Tanglewood” Speaker System
4-way system: two 10" woofers with staggered resonance (17\(\frac{1}{4}\) & 18\(\frac{3}{4}\) Hz reso-
nance); crossover 200 Hz to an 8" mid-
woofer; crossover 600 Hz to 5" mid-
range & crossover 3500 Hz to a 3\(\frac{3}{4}\)" omni-polar tweeter. Each speaker indi-
vidually chambered. Response 29-17,500 Hz ± 2\(\frac{3}{4}\) db; 75 W capacity; 8 ohms; has brilliance level control; 24" w. x 31" h. x 13" d.
SR4-W Walnut $239.95
SR4-B Birch unfinished $209.50

“Berkshire II” Speaker System
Slimline design, 3-way system using 12" acoustic-suspension woofer; a 5" sealed-
back, wide-dispersion mid-range & a 3\(\frac{3}{4}\)" "omni-polar" cone convex radiator, 160" dis-
persion tweeter. Response 28-22,000 Hz; capacity 60 W program (8 W min. IHF); 8 ohms imp. Has tweeter level control & crossovers at 600 & 5000 Hz. Oiled walnut. Over-all size 24" x 14" x 9" SR5W $129.95

SINCLAIR
Model Ten Speaker System
Bookshelf 2-way design with 10" woofer and 3\(\frac{3}{4}\)" mid/high freq. driver. Response 38-13,000 Hz ± 5.5; 70 W dynamic power capacity. 24\(\frac{3}{4}\)" x 14" x 10\(\frac{3}{4}\". Walnut veneer particle board; 8 ohms.
Model Ten A. Same system, with dome tweeter $89.95

SONY
TA-4300 3-Channel Spkr. Crossover
Solid-state electronic design with cross-
over between low & mid ranges; can be
switch-selected to 150, 250, 400, or 600 Hz. Crossover between mid & high freq. can be selected. 18 dB/octave at 200 Hz.
Response 150 Hz to 20,000 Hz; 16 ohms; has variable level control; 23\(\frac{3}{4}\)" x 15\(\frac{1}{4}\)" x 12\(\frac{1}{2}\" d. $219.50

Lancer SC-3X Speaker System
Three-way bookshelf ducted-port type system with 12" woofer, mid-range diffus-
er & h.f. reciprocating-flared horn radi-
tor. Has variable mid- & high treble controls; 8 ohms; 10 W min; cap. 60 W. Crossover mechanically at 1000 Hz & electronically at 2000 Hz. Oiled walnut four sides, 23\(\frac{3}{4}\)" x 15\(\frac{1}{4}\)" x 12\(\frac{1}{2}\" d. $179.50

Lancer 9535-2 Speaker System
Two-way bookshelf ducted-port type sys-
tem with 12" woofer & molded-horn metal cased h.f. radiator. Crossover at 3000 Hz. Oiled walnut four sides. 8 ohms. 5 W min. cap. 35 W $239.50

Lancer 9534-X Speaker System
Ducted-port bookshelf design with woo-
er & tweeter & crossover at 3000 Hz. Re-
sponse 40-18,000 Hz; 8 ohms; cap. 30 W. Oiled walnut four sides. 23\(\frac{3}{4}\)" x 11\(\frac{1}{4}\)" x 11\(\frac{1}{4}\" d. $59.50

Lancer 9711 Speaker System
Ducted-port bookshelf design with 8" full-range speaker. 8 ohms. 3 W min. cap. 20 W. Oiled walnut four sides. 20\(\frac{3}{4}\)" x 10\(\frac{3}{4}\)" x 9" d. $47.50

SC-5 Speaker System
Features dual tuned, bass-accentuation ports with 12" woofer, a coaxial mid-
rang (covers 1000-3500 Hz) & a coax-
ial exponential flared horn tweeter with compression-driven high freq. driver. Re-
sponse 28-20,000 Hz; crossovers at 1000 Hz (mechanical) & 3500 Hz (electrical); 8 ohms; 40 W capacity. 23\(\frac{3}{4}\)" x 15\(\frac{1}{4}\)" x 12\(\frac{1}{2}\" d. Oiled walnut, 4 sides. $139.50

SYLVANIA
Except for Model FS40BT: all systems are bookshelf designs with walnut-
gained veneer on wood composition. All are 8 ohms impedance and response fig-
ures are ± 6 db.

A561W Speaker System
6" bass driver & 3" super tweeter; re-
sponse 50-20,000 Hz; crossover 2500 Hz; 50 W peak capacity. 8\(\frac{3}{4}\)" x 14\(\frac{3}{4}\)" x 7\(\frac{1}{2}\" d. $79.95

A581W Speaker System
8" bass driver & 3" super tweeter; re-
sponse 40-20,000 Hz; crossover 1500 Hz; 100 W peak capacity. 11\(\frac{1}{4}\)" x 19\(\frac{3}{4}\" x 11" d. $99.50

A5101W Speaker System
10" bass driver, a 4" high-compliance mid-range & dome super tweeter; re-
sponse 25-25,000 Hz; crossovers at 1500 & 9000 Hz; 200 W peak capacity. 13\(\frac{3}{4}\" x 24\(\frac{1}{4}\)" x 11\(\frac{1}{4}\" d. $179.95

A5121W Speaker System
12" bass driver, a 4" air-suspension mid-
rang & a dome super tweeter; response 25-25,000 Hz; crossovers at 700 & 8000 Hz; 400 W peak capacity. 15\(\frac{3}{4}\" x 26\(\frac{3}{4}\" x 12\(\frac{1}{2}\" d. $249.50

FS40BT Speaker System
Floor-standing design with butternut veneers and select solids. 10" bass driver, a
Two-way 6 ohms 25,000 Hz; 2-way speaker crossing over at 3000 Hz; 2 ohms imp: 8 W max. continuous power; 90 Hz bass resonance; response 60-18,000 Hz; 19% ± 9% x 9% x 9% d. Teakwood $53.85
HIFI 11 124/" x 8½" x 6", teakwood...
HIFI 11 in rosewood...
HIFI 12 17½" x 7½" x 8½", teakwood...
HIFI 7 Speaker System...
HIFI 15 Speaker System...
TANNIOY
Monitor Gold Speakers...
Belvedere" Speaker System...
"Standard Autograph" System...
Model "GRF" Speaker System...
TANDBERG
HIFI 10 Speaker System...
"Lancaster" Speaker System...
"Cadet" Speaker System...
"Stuart" Speaker System...
TANNOY
Monitor Gold Speakers...
Dual concentric, coaxial designs with crossover network & adjustable high-frequency control. 8 ohm imp. 10" Response 27-20,000 Hz; crossover 1200 Hz; resonance 30 Hz; 20 W capacity. Recommended for infinite-baffles down to 1½ cu ft...
12" Response 25-20,000 Hz; crossover 1000 Hz; resonance 28 Hz; 30 W capacity...
15" Response 23-20,000 Hz; crossover 1000 Hz; resonance 26 Hz; 50 W capacity...
Belvedere" Speaker System...
"Standard Autograph" System...
Model "GRF" Speaker System...
TANNOY
Monitor Gold Speakers...

TANDBERG
HIFI 10 Speaker System...
"Lancaster" Speaker System...
"Cadet" Speaker System...
"Stuart" Speaker System...
TANNOY
Monitor Gold Speakers...

TEAC
LS-350 3-Way Speaker System...
LS-400 3-Way Speaker System...
TELEX
Stereo 70 Speaker/Amplifier System...
4400 Speaker/Amplifier...
TRUSONIC
50FR 5" Full-Range Speaker...
TRUSONIC
50FR 5" Full-Range Speaker...
XL 125
**Speakers & Cabinets**

**150FR 15" version; response 20-14,000 Hz; free-air resonance 23 Hz; 35 W max.; dynamic power input. 7/4" deep $105.00**

**80CX 8" Coaxial Speaker**
Combines an 8" full-range free cone suspension speaker with coaxially mounted horn-loaded tweeter. Includes crossover (5000 Hz) & brilliance control. Response 40-25,000 Hz; free-air resonance 50 Hz; 8 ohm imped.; 25 W max. program material. 47/8" deep $75.00

**120CX 12" version; response 25-30,000 Hz; free-air resonance 30 HZ; 30 W max. program material. 7/4" deep $119.00**

**150CX 15" version; response 21-30,000 Hz; free-air resonance 23 Hz; 35 W max. program material. 7/4" deep $149.00**

**120W 12" Woofer**
Response 35-5000 Hz; 8 ohms; free-air resonance 30 Hz; power 30 W max. program material. 67/8" deep $75.00

**150W 15" version; response 20-5000 Hz; free-air resonance 20 Hz; power 35 W max. program material. 7/4" deep $99.00**

**80M 8" Mid-Range Speaker**
Response 40-5000 Hz; 8 ohms; free-air resonance 50 Hz; 25 W max. program material. 4" deep $42.00

**5CX Crossover**
500-Hz crossover with 12 dB/octave attenuation. Completely encapsulated. 67/8" x 3/4" x 2" $27.00

**5KT Toroid Super Tweeter**
Dispersion 100'; response 2500-30,000 Hz; 35 W max. program material; 8 ohms. Includes 5000 Hz crossover/brilliance control. 2/4" dia. x 47/8" d. $66.00

**RT-1 Horn-Loaded Ring Radiator**
Dispersion 120'; response 5000-25,000 Hz; 8 ohms; 25 W max. program material. Includes 5000 Hz crossover/brilliance control. 2/4" dia. x 2" d. $39.00

**Recommended Combinations**
80FR & RT-1 $81.00
120FR & 5KT $141.00
150FR & 5KT $171.00
120W, 80M, 5KT, SCX $210.00
150W, 80M, 5KT, SCX $234.00

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**7 T-28 Speaker System**
Features ducted-port reflex design with an 8" woofer (free-air resonance 23 Hz) and a 23/4" x 6" compression tweeter. Has crossover & level control. Response 40-19,500 Hz. Overall size 11" x 18" x 9" $59.95

**UNIVERSITY SOUND**
All prices shown are “selling price.”

**Diffusiverse-8 2-Way “Diffaxial”**
Wide-range speaker with 8" woofer & Diffusiverse mid-range tweeter; response from 30-15,000 Hz; max. power rating 35 watts; 8-16 ohms; 2/4" deep $32.50

**Model 6201 Coaxial Speaker**
Compression loaded horn tweeter and 12" woofer; response 28 Hz to beyond audibility; built-in crossover network with “Brilliance” control; power rating 35 watts; 8-16 ohms; 6/4" deep $69.50

**312 3-Way “Diffaxial” Speaker**
Spheric tweeter is projected through the center of the 12" woofer; mid-range reproduction is handled by “Diffusiverse” section; built-in crossover network and variable “Brilliance” control; mechanical crossover at 1000 Hz and electrical at 3000 Hz; power rating 35 watts; 8-16 ohms; 6/4" deep $88.74

**Model 315C 3-Way Wide-Range Speaker**
15" woofer with Diffusiverse mid-range & T-50 “Hypersonic” driver and horn; response 25 Hz to beyond audibility; adjustable mid-range and tweeter balance; 6½ lbs. of Alnico V magnet material; power rating 50 watts; 8-16 ohms; 12" deep $204.65

**1212 3-Way Wide-Range “Diffaxial” Speaker**
12" woofer with Diffusiverse mid-range & Spheric tweeter; built-in crossover network; mechanical crossover at 1000 Hz & electrical at 3000 Hz; response 35-30,000 Hz; 20 W. $62.96

**Model M-8D 8" high-efficiency dual-cone speaker; 8 ohms; 2/4" deep; response 50-15,000 Hz; crossover at 1500 Hz (mechanical). Handles 30 W. $22.58**

**Model M-12 12" high efficiency; 8 ohms; 3/4" deep; response 35-12,000 Hz. Handles 30 W. $23.64**

**Model M-12D 12" high-efficiency dual-cone speaker; 8 ohms; 3/4" deep. Response 35-15,000 Hz; crossover at 1500 Hz (mechanical). Handles 30 W. $29.34**

**Model M-12T 12", 3-way Diffaxial, 8 ohms; 3/4" deep Spheric tweeter; response 35-40,000 Hz. Crossovers at 1500 & 4500 Hz. Handles 30 W. $42.68**

**M-1ST 15" 3-way Diffaxial with reciprocating flare horn tweeter; 8 ohms; 7" deep; response 30-20,000 Hz; crossovers at 1500 & 3000 Hz; brilliance control; 35 W.**

**Model MS “Spheric” super-tweeter; 8 ohms; 3/4" d. 3/4" dia.; response 3000-40,000 Hz. Maximum capacity 30 watts. $20.96**

**“Project M” Speaker System**
Features 11" very-low-resistance woofer & a 2/4" closed-back direct radiator cone tweeter. The enclosure is a 1.324 cubic foot acoustic-suspension design. Response 30-20,000 Hz; power max. 60 W. Has crossover at 1000 Hz & is recommended for use with a 30 W dynamic power amp. 8 ohms. Finished all four sides; oiled walnut. 23'/8" x 12'/8" x 11'/2" $109.95

**Model 4401 Tweeter**
One-piece die-cast horn with 120° horizontal & 50° vertical dispersion; hermetically sealed construction; response 2000 Hz to beyond audibility; 8 ohms; power rating 50 watts; 6% x 2'/4" x 6'/4" $22.50

**T-202 “Spheric” Super Tweeter**
Domed phenolic diaphragm and spherical diffuser; frequency response 3000-40,000 Hz; 120° dispersion; 4'/4" diameter; built-in crossover network & brilliance control; 2'/4" lbs. $28.62

**Model T-50 Hypersonic Driver**
Heavy duty high efficiency driver for use with H-600 or Cobreflex horn; response from 700 Hz to inaudibility; 8 ohms; 1'/4-18 throat; 4'/12" diameter; 4'/4" deep $53.20

**Model T-30 Driver**
Mid-range and high-frequency driver for...
use in 2, 3, or 4-way systems; response 350 Hz to beyond audibility; use with H-600 or "Cobreflex" horns; 8 ohms; 3½" diameter; 3½" deep $33.40.

Model H-600 Horn
Mid-range and high-frequency horn with 600 Hz cut-off; die-cast design with reciprocating flare design for uniform dispersion; fits any driver with standard 1¾"-18 throat $23.80.

"Cobreflex" Horn
Designed for use as mid-range horn in three-way systems or as high-frequency horn in two-way systems; crossover as low as 350 Hz; 120° horizontal and 60° vertical dispersion $31.73.

Model C-8M 8" Mid-Range Speaker
Response 500-5000 Hz; sealed back; power rating 50 watts program material; depth 4½" $19.11.

C-125W Dual Voice-Coil Woofer
12" adjustable response woofer; high end may be limited to 700, 2500 or 5000 Hz to complement tweeter; 1½ lb. Alnico V magnet; response 30 to 6000 Hz; 8 ohms; power rating 30 watts; 6½" deep $47.21.

Model C-15W Woofer
15" dual impedance woofer; may be used in any system from 4 to 20 ohms; response from 25 to 1500 Hz; power rating 50 watts; 3-lb Alnico V magnet structure; 10½" deep $118.26.

C-12HC Dual Voice-Coil Woofer
High compliance 12" woofer; "Unifer-rox-7" magnet material; response to 3000 Hz permits use in two-way systems; dual impedance coil; 4-20 ohms; power rating 50 watts; 6½" d. $59.85.

C-15HC Dual Voice-Coil Woofer
High compliance 15" woofer; "Unifer-rox-7" magnet material; response to 800 Hz; dual impedance coil; 4-20 ohms; 60 W power rating; 6½" center $97.50.

DRC Aerodynamic Bass Energizer
Ultra-high-compliance 12" mass-loaded non-electrical cone designed to be driven mechanically by rear waves of high-quality 12" speakers such as Models 1212, 312, 6201, C-12HC. Adds up to 8 dB in lowest bass register. For use in 2½ to 4 cubic foot enclosures $24.42.

N-1 Adjustable High Pass Filter
Built-in tweeter control; crossovers at 2500, 5000, and 10,000 Hz at 8 ohms; 1250, 2500, 5000 Hz at 16 ohms; 5000 and 10,000 Hz at 4 ohms; fits panels up to ¾" thick; 3½" x 3½" x 3½" $16.50.

Models N-2A and N-2B Networks
Adjustable L/C dividing networks; N-2A is 6 dB; octave two-way L/C network; may be used in pairs as 12 dB/octave network or singly as 12 dB/octave low or high-pass filter; crossover 350 or 700 Hz at 8-16 ohms; 700 Hz at 4 ohms; N-2B is 6 dB/octave two-way L/C network; may be used in pairs as 12 dB/octave network or singly as 12 dB/octave low or high-pass filter $19.11.

What's in a Tannoy Enclosure?
Over forty years of knowledge and experience in loudspeaker design and manufacture, when it's the new Tannoy omni-directional speaker system, the "ORBITUS!"

This system embodies an entirely new version of the famous 12" Monitor Gold Dual Concentric loudspeaker, specifically designed for orbital sound reproduction. The enormous advantages of the integrated sound source of the Tannoy Dual Concentric loudspeaker are put to full use when used with an acoustically designed orbital deflector. The resultant sound pattern is completely omni-directional providing absolute spectrum integration between the high and low frequency systems of the Dual Concentric unit, thus producing a special effect unobtainable in any other system: ideal for stereo and quadraphonic applications.

We put a little more feature into each feature.
Speakers & Cabinets

pass filter: crossovers are 1250, 2500, or 5000 Hz at 8 ohms; 2500 or 5000 Hz at 16 ohms; 2500 Hz at 4 ohms; N-2A and N-2B may be used in combination for three-way systems.

Model N-2A ............................................. $24.11
Model N-2B ............................................ $19.76

Model S-9S-U 15" Speaker System
3-way horn-loaded theater system consisting of C-15W, T-30/"Cobreflex," HF-206 speakers; assembled and wired; unfinished: 23" x 40" x 311/2"; .......... $402.45

Model AP-8 Balance Control
Attenuator pad to regulate speakers of different efficiencies and for balancing sound for room acoustics and personal taste: ideal for N-2A and N-2B networks .................................................. $9.00

Model N-3 "Acoustic Baton"
Three-way L/C dividing network with variable controls for high and mid-range:

crossover between woofer and mid-range either at 350 or 700 Hz; tweeter crossover at 5000 Hz; fits panels up to 1/4" thick, 8 ohms: 7" x 5" x 3" .......... $41.75

MLC Outdoor Speaker System
Weatherproof coaxial, with horn tweeter & separate woofer, speaker for outdoor use; frequency response 150-15,000 Hz; power rating 15 watts; impedance 8 ohms; dispersion 120 degrees; 121/2" x 91/2" x 101/2"; .......... $45.05

Model CLC Outdoor Speaker
Balanced "compression" folded-horn design; completely waterproof; 2-way 8" speaker; response 55-14,000 Hz; 30-watt power capacity; impedance 8 ohms; coax: 121/2" x 121/2" x 8" deep ................... $76.89

Model ELC Outdoor Speaker
Weatherproof speaker for outdoor use; frequency response 150-11,500 Hz; power rating 15 W; 8 ohm imp; dispersion 120°; 121/2" x 91/2" x 101/2"; .......... $36.51

Ultra-D Speaker System
10" Ultra-Linear response woofers; 4" direct-radiator mid-range cone; 31/2" super tweeter; crossover @ 1000 and 5000 Hz. Has brilliance/presence control; 8 ohms. Handles 32 watts dynamic power, 231/2" x 111/2" x 91/2" deep. Oiled walnut .......... $89.95

UW-30 Underwater Speaker
Completely waterproof for use in swimming pools. Polypropylene plastic housing; heavy 18-foot cable with third wire for grounding; power capacity 30 watts; impedance 16 ohms; bracket or flush mounted ......................... $47.97

Laredo 4-Way Speaker System
Incorporates Mustang 12" woofer, 8" 2-way mid-range & Spherticon tweeter. Response 30-30,000 Hz: 40 W IPM power capability; 8 ohms impedance. Has LC crossovers at 350 & 3000 Hz with brilliance control. Totally sealed cabinet design. 24" x 151/2" x 121/2" ........... $129.95

Estarol 4-Way Speaker System
Incorporates the Model 312, a 3-way 12" speaker, and an acrodynamic bass energizer. The bass energizer is a separate inert 12" diaphragm in a heavy-duty basket and is driven by internal pressure of the enclosure. Functions as an in-phase supplementary low-frequency radiator. Response 25-40,000 Hz; power handling 40 W IPM; 8 ohm impedance; crossovers 1000 & 3000 Hz: has brilliance control. Rear acoustic compliance loading cabinet design. 27" x 16" x 141/2". Oiled walnut ......................... $192.44

312 Presidio Speaker System
Houses three-way 12" speaker & Model DRC bass energizer which has separate inert 12" diaphragm driven by internal pressure of enclosure. Functions as in-phase supplementary low-frequency radiator. Response 25-40,000 Hz; power handling 40 W IPM; 8 ohm impedance; crossovers 1000 & 3000 Hz: has brilliance control. Rear acoustic compliance loading cabinet design. 23" x 24" x 151/2". Oiled walnut. 23" .......... $199.95

Vegas Speaker System
15" three-way Mustang M-15T high-compliance speaker; response 25-20,000Hz: power handling 35 W IPM; 8 ohm imp: has variable brilliance control. 23" x 24" x 151/2". Oiled walnut .......... $169.95

El Paso Speaker System
Two-speaker, three-way high-compliance system; response 35 Hz to beyond audi-

bility; power handling 30 W IPM; 8 ohm imp. Has 8" high-compliance woofer/ mid-range with 3" rigid diaphragm tweeter. 19" x 101/2" x 91/2" d. Oiled walnut .................. $62.95

GS-100 Musical Instrument Speaker
High-power 12" speaker; 8 ohms: for electronic organ, guitar, etc. 100 W r.m.s. .......... $62.69

UTAH

Coaxial Speakers
Dual-cone speakers with single voice coil and magnet structure: impedance 8 ohms.

D8JC (8" full range, 40-17,000 Hz, 20 W) .............................................. $11.95
D12JC (12" full range, 40-15,000 Hz, 30 W) .............................................. $13.95
D12P (12" full-range, 30-14,000 Hz; 40 W) .............................................. $16.95
D15PXC-HF (15", 3-way with compres-
sion tweeter; 30-20,000 Hz; 45 W) .............................................. $39.95

All power ratings, are peak audio watts.

Crossover Networks
LC type designs for 2- or 3-way systems; air-core coils; potted can assembly; use one 600 Hz and one 5000 Hz for 3-way system; 8-ohm crossover: 24° x 2 x 2°. X-608 (8 ohms, 600 Hz) ................. $9.90
X-5008 (8 ohms, 5000 Hz) .......... $9.90

"Celesta" Series Speakers
C8HC-2 Two-way 8" coax: 45-18,500 Hz Res. freq. 65 Hz; 24 W peak audio $12.95

C8JC-2A Two-way 8" coax: 35-19,000 Hz Res. freq. 55 Hz; 30 W peak audio .......... $14.95
C8JC-3A Three-way 8" coax: 35-20,000 Hz Res. freq. 55 Hz; 20 W peak audio.
In 1948, University Sound made home high fidelity possible.

In 1970, we made it perfect.

In 1948 University unveiled the world's first popularly priced, full fidelity speaker—the 6201—and home high fidelity was born.

In 1970 University unveils the finest, fullest line of high fidelity products in the world—and home high fidelity is finally perfected.

THE VEGAS
Twice as big as a good-sized bookshelf speaker. With four times the sound. For about the same kind of money, 15" woofer and large enclosure mean the biggest, sharpest bass you've ever heard—regardless of price.

Specifications: Free-standing, three-way speaker system
- Frequency Response: 25-20,000 Hz
- Power Handling Capacity: 35 watts IPM
- Impedance: 8 ohms
- Components: University M-15T, 15" three-way full-range speaker
- Controls: Continuously variable brilliance control recessed in back
- Finish: oiled walnut
- Dimensions: 23" x 24" (W) x 15" (D)
- Walnut base optional

UNIVERSITY SOUND: the finest, most complete line of high fidelity speaker systems in the world from the world's leading manufacturer of electroacoustic products.

P.O. Box 26105, Oklahoma City, Oklahoma • A quality company of LTV Ling Altec, Inc.

CIRCLE NO.58 ON READER SERVICE CARD
crossovers 600 Hz acoustically & 2000 Hz electrically. Capacity 40 W r.m.s. 20\(\frac{2}{3}\) h. x 26 x 26. Mediterranean motif in pecan panels $210.00

S8 Speaker System
Same as Model 85 except styling. Can be used as a pedestal or end table. Comes in contemporary design with pecan panels & has casters. 12\(\frac{2}{3}\) h. x 19\(\frac{2}{3}\) x 19\(\frac{2}{3}\) ".

S38 Speaker System
Same principle as Model 85 except 6 chambers & has 5\(\frac{2}{3}\) wide-range speaker. Response 60-15,000 Hz; 8 ohms; capacity 10 W r.m.s. 12" h. x 18" x 12" d. Oiled walnut $95.00

WEBCOR

SP-5 3-Way Speaker System
Bookshelf type with 8" woofer, a mid-range, a tweeter, and LCR-type crossover network. Has mid-range/treble control. Response 40-20,000 Hz. 10\" x 18\" x 8\". Walnut $79.95

SP-7 3-Way Speaker System
Features 12" woofer, 4\(\frac{2}{3}\) mid-range, 3" tweeter with LCR-type crossover network. Has mid-range/treble control. Response 30-23,000 Hz. 15\" x 24\" x 10\". Walnut $99.95

WHARFEDALE

W25 Two-Way Speaker System
Has 8" woofer & ultra-curvilinear tweeter with 12 dB/octave crossover in an air-tight enclosure. Response 35-18,750 Hz; 8 ohms; 10 W min. power, 35 W max. (1HF). 15\(\frac{2}{3}\) x 10 x 8" d. Oiled walnut $58.75

W35 Three-Way Speaker System
Has 8" woofer, a 3\(\frac{2}{3}\) mid-range, and a 2\(\frac{2}{3}\) ultra-curvilinear tweeter with a 12 dB/octave crossover in an air-tight enclosure. Response 35-18,500 Hz; 8 ohms; 10 W min. power, 40 W max. (1HF). Includes mid & h.f. level controls. 15\" x 15" x 8" d. Oiled walnut $82.00

Wall mounting brackets $4.00

W45 Three-Way Speaker System
Has 10" woofer, a 3\(\frac{2}{3}\)" mid-range, and an ultra-curvilinear tweeter with 12 dB/octave crossover in an air-tight cabinet. Response 30-18,500 Hz; 8 ohms; 10 W min. & 40 W max. (1HF). Includes mid & h.f. level controls. 24" x 15" x 12" d. Oiled walnut $117.00

W60E Three-Way Speaker System
Has 12\(\frac{2}{3}\)" woofer, a 5" mid-range in an isolated non-reflecting cylindrical chamber. A 1" Mylar dome tweeter with a phase-compensating diffuser. All in an air-tight enclosure. Response 30-20,000 Hz. 8 ohms. 10 W min. & 50 W max. (1HF). 24" x 15" x 12" d. Oiled walnut $153.00

W70E Three-Way Speaker System
A 15" woofer, a 5" mid-range in a separate cylindrical chamber. A 1" Mylar dome omnidirectional super-tweeter with compensating diffuser. All in an air-tight cabinet. Response 25-20,000 Hz; 8 ohms: 15 W min. & 50 W max. (1HF). Includes mid & h.f. level controls. 24" x 22\(\frac{2}{3}\)" x 13\(\frac{2}{3}\" d. Oiled walnut $223.00

W80A Speaker System
Features a variable disc mounted adjustment to system's rear & upward facing speakers. Disc acts as reflector bending sound waves in any desired direction. Has 12\(\frac{2}{3}\)" woofer, a 5" curvilinear cone mid-range in a separate chamber, a sub-woofer high freq. speaker & another for extreme highs. Response 20 Hz to inaudibility; 8 ohms. 25 W min., 80 W max. (1HF). Includes mid-range & treble level controls. 29" x 17\(\frac{2}{3}\" x 17" d. Oiled walnut $317.60

WOLLENSAK

A-2000 Speaker System
Special woofer design provides low IM dist. in mid-range: exclusive radial decouplers in woofers. 8" woofer out at crossover frequency; three high-quality speaker controls for precision adjustments. Response 40-18,000 Hz; 4 ohms. Power requirements 15 W r.m.s.; acoustic suspension. 13\(\frac{2}{3}\" d. x 10\" x 23" at $195.95

A-1050 Speaker System
Acoustic suspension cube style speaker on pedestal. Exclusive "Thermo-Over

YAMAHA

All speakers are 8 ohms with cabinets of open back design. All power figures are max. continuous input. The foam polyethylene diaphragms are revolutionary in design in that they utilize the bending vibration-multiple resonance principle of sound production as used in pianos and other musical instruments.

NS-10 Two-way system with 12\(\frac{2}{3}\" x 18" woofer & 2" tweeter. 10 W. 20" x 14" x 7". Oiled walnut $69.90

NS-15 Two-way system with 15\" x 20" woofer & 2" tweeter: variable level control: 15 W; 23\(\frac{2}{3}\" x 16\(\frac{2}{3}\" x 7\(\frac{2}{3}\". Oiled walnut $115.00

NS-18 Two-way system with 18" x 23" woofer & 2\(\frac{2}{3}\" tweeter: 18 W; 3-position level control: 28\(\frac{2}{3}\" x 21\(\frac{2}{3}\" x 10". Oiled walnut $169.50

NS-20A Three-way system with 20" x 27" woofer, 8" mid-range & 2" tweeter. Has 3-position level control: 20 W, 26" h. x 33 w. x 14" d. Satin walnut $225.00

NS-20B Same except oiled walnut $225.00

NS-30A Three-way system with 25" x 35" woofer, 12" mid-range & 2" tweeter. Has 3-position level control: 30 W, 29" h. x 39 w. x 14" d. Oiled walnut $330.00

STEREO HI-FI DIRECTORY
Hi-Fi Systems

ALLIED

1450 AM-FM Stereo Receiver / Cassette Recorder / Phonograph

Solid-state AM-FM receiver in walnut wood case with 4-speed automatic turntable and stereo tape cassette recorder. Features tuning meter, FM indicator light. 22 1/4 W/ch (IHF), 16 W/ch continuous sine wave. Stereo/mono switch; tape & aux. inputs. Response 40-18,000 Hz ± 2 db. Imp. 4-16 ohms. Turntable has mag. stereo cartridge with diamond stylus; anti-skating, cueing, and pause control. Recorder tapes direct from FM-AM or records, or mics (optional). Plays back cassettes, stereo or mono. Pop-up cassette loading with level meter, mic inputs. 20" x 16" x 17" h. $14A5050U. 1450 compact, less speakers. $249.95

ALTEC LANSING

912A Music System

Comes with a (44 W/ch r.m.s.) AM/FM stereo receiver. Garrard SL95B automatic turntable. Shure M93E cartridge with 0.4 x 0.7 mil elliptical diamond stylus & Starr cassette stereo tape recorder. Response 50-10,000 Hz. Has mic input; wow & flutter 0.4%. Does not include speakers. 6 1/4" x 21 1/4" x 19 1/4" $650.00

911A Music System

Same as 912A except does not have cassette recorder. 6 1/4" x 19 1/4" x 19 1/4" $399.00

AMPEX

985A Tape / AM-FM Music System

Combines a 4-track, automatic threading & reverse stereo tape recorder with an 1971 EDITION AM-FM stereo tuner. Recorder is basically the same as Model 2161. Supplied with walnut cabinet with tambour doors & two matching speaker systems. Response 50-15,000 Hz ± 4 db; wow & flutter 0.15%. @ 7/8 ips. Features mic & mag. phono inputs and 6 W/ch continuous sine-wave power outputs. Size 32 1/4" x 15 1/2" x 9 1/4". $695.00

MX1000 Music System

Includes 12" W/ch dynamic power stereo amp, an AM-FM stereo tuner, a cassette record/play system, an automatic turntable with Shure cartridge, and a separately housed speaker systems (each with 6" x 9" speaker). Cab. size 14" x 12" x 9 1/4". Response 40-12,000 Hz. Console size 14 1/2" x 9 1/4" x 3 1/4". Walnut cab. Supplied with 2 mics & 45 rpm spindle $489.95

BELL & HOWELL

3600K Modular Receiver System

Combines Model 3600 AM-FM stereo receiver, a 30 W/ch dynamic (IHF) power amp, an AM/FM stereo cassette tape/AM/FM receiver, a Model 3800 record changer & two Model 610 speaker systems (each with dual 6" 2-way speakers with mechanical crossover). Walnut cabinet. $395.85

3600KR Modular Reciever System

Same as Model 3600K except a Model 2423 reel-to-reel tape recorder in place of cassette recorder. $405.85

Benjamin

Compact Line

Complete line of stereo systems consisting of four distinct models. Each includes a Miracord automatic turntable. Models 1025, 1035, and 1045 include the Elac STS-244-17 magnetic cartridge with diamond stylus: Model 1050A has the STS-344-1 cartridge, a pair of EMI air-suspension speaker systems & an FM-stereo receiver with automatic stereo mono switching and stereo indicator light. Features oiled walnut cabinets, solid-state design with IC's in f.f. strip & remote speaker switch.

Model 1025. 16 W/channel (IHF); response 10-100,000 Hz ± 1 db; FM sensitivity 1.7 µV for 20 db quieting. AUX sensitivity 190 mV; power bandwidth 25-30,000 Hz. Has Model 620B changer & Model 55 speakers (woofer is 8" round with 3" tweeter). 9 1/2" x 16 1/2" x 16 1/2" 17" x 10" x 10" $449.95 Model 1050A. Same as Model 1045 except has speaker system 24 1/4" x 12 1/2" x 12 1/2" with 14" x 8" woofer, 5" midrange, and 3 1/2" tweeter. 50 W/ch IHF power output; response 5-100,000 Hz ± 1 db; power bandwidth 15-30,000 Hz; aux. sensitivity -400 mV; FM sensitivity 1.5 µV for 20 db quieting. Has mic & guitar input jacks with separate volume controls. $599.50

Bogen

VP25A Portable Phonograph Player

Model 620 changer $349.95 Model 1045. 30 W/ch IHF power output; response 10-100,000 Hz ± 1 db; power bandwidth 25-30,000 Hz; aux. sensitivity 250 mV; FM sensitivity 1.6 µV for 20 db quieting. Includes AM receiver, 620 speaker systems with high-freq. control. Model 50B changer. 9 1/2" x 16 1/2" x 16 1/2" 17" x 10" x 10" $449.95 Model 1050A. Same as Model 1045 except has speaker system 24 1/4" x 12 1/2" x 12 1/2" with 14" x 8" woofer, 5" midrange, and 3 1/2" tweeter. 50 W/ch IHF power output; response 5-100,000 Hz ± 1 db; power bandwidth 15-30,000 Hz; aux. sensitivity -400 mV; FM sensitivity 1.5 µV for 20 db quieting. Has mic & guitar input jacks with separate volume controls. $599.50
Hi-Fi Systems

Mono 20 W r.m.s. design. Bogen B52 turntable is used with a G-E variable reluctance cartridge & dual sapphire styli. Amp. response 45-18,000 Hz ± 1 dB; inputs: 5 mic., radio/tape. Has 4, 8, 16 ohm & 25 V balanced, 70 V outputs for multiple speaker operation. Single portable case with 12" speaker in lid. 15½" w. x 16¾" d. x 10¾". 40 lbs. 120 V operation. $279.95 Also available with LS-20A speaker system. Tinted dust cover optional.

BC460 Compact AM-FM/Phono Stereo System

Similar to Model BC420 except 40 W/ch IHF (30 W/ch continuous sine wave into 4 ohms with one channel driven). Supplied with same Garrard changer & Pickering cartridge & LS-20A speaker systems. Features “Crescendo Control” a built-in all-electronic expander & compressor. Oiled walnut. $339.95 Also available with LS-10A & LSX speaker systems.

BC500 Compact AM-FM/Phono System

Similar to Model BC420 except 60 W/ch (IHFI: 45 W/ch continuous sine wave into 4 ohms with one channel driven. Supplied with automatic record changer. Pickering cartridge, and LSX speaker system. Features exclusive “Crescendo Control” all-electronic expander-compressor. $329.95 Also available with LS10A or LS20A speakers. Tinted dust cover optional.

BSR McDONALD

RTS-40 AM-FM/Phono System
Stereo design with BSR Model R-40 AM-FM receiver, a 310/X total turntable & a pair of SS-2 speaker systems. $329.95

CLARICON

35-460 AM-FM/Phono System
Stereo design with 30 W/ch dynamic (EIA) power into 8 ohm amp., an AM-FM tuner, and Garrard 40MKII automatic changer. FM sensitivity 2.5 µV for 20 dB S/N ratio. Response 25-25,000 Hz. Has mag. cartridge & is supplied with 2 separately housed speaker systems, each with an 8" woofer & 3" tweeter. Speaker case size 15" x 10" x 7". Walnut. $219.95

CONCERTONE

SAT-1010X AM-FM/Phono System
Stereo design with top-mounted Dual turntable & AM/stereo-FM circuitry. 15 W/ch dynamic (EIA) power with FM sensitivity 2.5 µV for 20 dB quieting. Inputs: 5 mic., radio/tape, 4, 8, 16 ohm & 25 V balanced, 70 V outputs for multiple speaker operation. Single portable case with 12" speaker in lid. 15½" w. x 16¾" d. x 10¾". 40 lbs. 120 V operation. $279.95

CONCORD

HES-35 AM-FM/Cassette Tape System
Features same combination of AM/stereo-FM receiver & stereo cassette recorder as in HES-50 design. Does not include record changer & power amp is 17½ W/ch dynamic power (EIA). 18¾" x 4½" x 13" d. Each speaker is 9¾" x 13" x 8½ & weighs 54 lbs. $279.95 HES-30. Without speakers. $239.95

F-600 Portable Stereo System
Combines an AM/stereo-FM receiver with a stereo cassette recorder. Is supplied with two detachable speaker systems.
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ELECTRONICS WORLD
...the world's leading technical electronics journal, with outstanding regular departments on audio and hi-fi.

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...read each month by serious music listeners and hi-fi/stereo enthusiasts.

POPULAR ELECTRONICS
...the #1 magazine for electronics hobbyists and "must" reading for the do-it-yourself hi-fi enthusiast.
tems. 17½ W/ch dynamic power (EIA); response 20-25,000 Hz ± 3 dB; FM sensitivity 1.9 µV for 30 dB quieting. Has mic & ceramic phono inputs. 9" x 1½ " x 10" & 4-speed automatic turntable with cueing; stylus & anti-skating adjust; magnetic cartridge; & pair of XP-55B speaker systems each with 8" woofer & 3" tweeter. 8¾" x 16" x 14½". Spkr. size 10" x 20" x 7½" d. ............. $339.95
PC-3 Dust cover. ................. $6.95

3560 AM-FM/Phono System
Features 50 W/ch dynamic (EIA) power into 8 ohms; AM-FM stereo turner; 4-speed automatic turntable with cueing; stylus gauge; anti-skating adjust; magnetic cartridge & pair of XP-60K speaker systems each with 10" woofer & 3" tweeter. 8¾" x 17½" x 16½" d. Spkr. size 13" x 23" x 10" d. $399.95
PC-4 Dust cover. ................. $14.95

5055 AM-FM/Phono/Cassette
Features 45 W/ch dynamic (EIA) power into 8 ohms; stereo cassette deck with dual meters & controls; two mics; blank C-60 cassettes; automatic turntable; magnetic cartridge; pair of XP-55B speakers, each with 8" woofer & 3" tweeter. 8½" x 23½" x 16½"; Spkr. size 10" x 20" x 7½" d. $469.95
PC-4 Dust cover. ................. $14.95

GENERAL ELECTRIC
C751 AM-FM/Phono System
Features AM-FM stereo receiver with 37½ W/ch (EIA) dynamic power amplifier, a 4-speed record changer with magnetic cartridge & diamond stylus, smoked dust cover & 2 free-standing omnidirectional speaker enclosures each with 8" woofer and four 2½" high-dispersion
Hi-Fi Systems

tweeters with level control. Receiver & phono house separately .......... $449.95

P775 AM-FM/Phono System
Features AM-FM stereo receiver with 10
W/ch (EIA) dynamic power, deluxe
changer, ceramic cartridge with GE man-
made diamond stylus, hinged dust cover
& 2 speaker enclosures each with 6" woofer & 2 3" tweeters.
Price range .............. $199.95-$229.95

GRUNDIG

Studio 260 AM-FM/Phono System
Combines AM/stereo-FM receiver with shortwave bands, a dual 1210 au-
tomatic changer with cartridge & diam-
don stylus. Has six preset FM push-
buttons. Does not include speakers. 26" x
7½ x 15" ......... $299.95

HARMAN-KARDON

HPS6645 Stereo Music System
Features an AM-FM receiver, with 45
W/ch (IHF) dynamic power into 8 ohms
(25 W/ch continuous with 0.5% HD); re-
sponse 7-40,000 Hz ± 1 dB at 1 W; FM
dist. 0.5%; FM (IHF) sensitivity 2.5 µV.
Has automatic AM-FM station tuning; touch tuning bar on front panel moves
stations left or right & tuning light that
indicates on/off station; ceramic i.f.'s;
main/remote speaker selection; tape
monitoring facilities; mid-frequency tone
adjustment. Includes cassette tape rec-
corder/player, a 4-speed record changer
with mag. cartridge & two acoustic-sus-
pension speaker systems. 20¾" w. x 19"
d. x 4½" .............. $399.95
HPS6345 Same as HPS6645 except does not include cassette recorder ............ $429.95

HPS3635 Stereo Music System
Combines an AM-FM receiver, a cas-
ette tape recorder/player (equivalent to
CAD4), a 4-speed record changer with
magnetic cartridge & two separately
housed speaker systems (8" woofer &
2¾" tweeter). 35 W/ch (IHF) dynamic
power into 8 ohms (18 W/ch continuous
at 8% HD). Has center-of-channel run-
ing meter; main/remote speaker sw.; au-
tomatic end-of-record shut-off; tape mon-
toring facilities. FM sensitivity (IHF) 2.7
µV; power amp. response 7-40,000 Hz
± 1 dB. Overall size of main unit 20¾" x
19" d. x 4½" .............. $399.95
HPS3335 Same except does not include
cassette recorder .............. $299.95
HPS3335 Same as HPS3335 but has lager
speaker systems (10" woofer & 3" tweeter) .......... $349.95
HPS3635 Same as HPS3635 but has lager
speaker systems; 10" woofer & 3" tweeter .......... $449.95

HEATH

AD-27 FM-Stereo Compact
Combines a BSR McDonald "500" 4-
speed automatic record changer with
mag. cartridge, and two separately
housed speaker systems. Features 15 W/
ch dynamic power (EIA). Walnut cabinet .......... $349.95

DPK-321 AM-FM/Phono System
Combines an AM-FM stereo receiver with a 72 W/ch (IHF) dynamic power
(into 8 ohms) amplifier, a BSR MA-65
record changer with a Pickering V-15/
AC-2 mag. cartridge & a pair of separate-
ly housed speaker systems (12" x 20¾" x
10" d.) each with an 8" woofer & an ex-
oponential horn tweeter. FM sensitivity
2.5 µV for 20 dB S/N ratio. Features me-
chanical filters in i.f.'s; center-of-channel
tuning meter; interstation muting. Amp.
response 20-30,000 Hz; HD 0.1%. Oiled
walnut cab. 20" x 10" x 16½" d. $379.95

KS-3200 AM-FM/Phono System
Combines an AM/FM stereo receiver, a
Garrard 4-speed automatic changer with
mag. cartridge and two separately
housed speaker systems. Features 15 W/
ch dynamic power (EIA). Walnut cabinet .......... $349.95

DPK-310 Stereo Music System
Combines an AM-FM receiver, a BSR
record changer & a pair of speaker sys-
tems. Output 15 W/ch (EIA) dynamic
power. With walnut cabinet & dust cover.
14" w. x 8½" x 16". Speaker size 9½" x
dio, Stereo KS-2450 14V, "record amplifier; V-15/AT-3 plus; special features 4 AM-FM W/ch 4-way woofer & 2" tweeter. Features special 5-zone (SEA) tone control circuits; main unit 7/4, h. x 19/4, x 17/4, d. .................. $239.95

JVC

4450 AM-FM/Phono System Features 20 W/ch (EIA) dynamic power stereo amplifiers; an AM-FM stereo tuner; a deluxe 4-speed automatic changer with mag, cartridge & diamond stylus & two separately housed, 2-way speaker systems (18/4, x 10/4, x 8/4, d.) each with 8" woofer & 2" tweeter. Features special 5-zone (SEA) tone control circuits; main unit 7/4, h. x 19/4, x 17/4, d. .................. $239.95

KENWOOD

KS-505P AM-FM/Phono System Stereo design combining a 20 W/ch (HF) dynamic power amp into 8 ohms (24 W/ch into 4 ohms); 16 W/ch continuous into 8 ohms (20 W/ch into 4 ohms); an AM-FM tuner; a Perpetuum-Ebner PE2010 automatic turntable; a Pickering V-15/AT-3 cartridge with diamond stylus; a Dustomatic brush & a pair of separately housed speaker systems. Each with 6/4, woofer & 3" cone tweeter (8/4, x 15/4, x 8/4, d.). Power bandwidth 20-20,000 Hz; FM sensitivity 2.5 µV; capture ratio 4 dB. Has main/remote speaker facilities; 17/4, x 8, x 18, d. Walnut cabinets. .................. $239.95

KS-606P AM-FM/Phono System Same as KS-505P except 26 W/ch (HF) dynamic power into 8 ohms (35 W/ch into 4 ohms); 22 W/ch continuous power into 8 ohms (30 W/ch into 4 ohms); power bandwidth 20-30,000 Hz. Has PE2034 automatic turntable & separately housed speakers (11/4, x 21/4, x 10/4, d.) with 8" woofer & 3" cone tweeter .................. $419.95

KS-707P AM-FM/Phono System Same as KS-606P except does not include speaker systems & power output is 57 W/ch (HF) dynamic into 8 ohms (75 W/ch into 4 ohms); 45 W/ch continuous power into 8 ohms (60 W/ch into 4 ohms). FM sensitivity 1.8 µV; capture ratio 2.5 dB. .................. $329.95

KLH

Model Twenty Stereo Music System Complete system consisting of master control center & two speaker systems; model contains KLH automatic turntable with low-mass tonearm & Pickering cartridge with diamond stylus; transistORIZED stereo preamp with 50 W stereo dynamic power output, 100 watts peak; FM multiplex tuner with zero-center tuning meter, stereo signal beacon, built-in antenna, and vernier planetary tuning. Rotary controls: loudness-compensated volume, balance, bass, treble, and program selector. Slide switches: mono/stereo mode and power on/off. Output jacks for stereo headphones, stereo tape recording, speakers: two aux. inputs plus ext. 300-ohm antenna connection. Loudspeakers: 10" acoustic suspension woofer with special cone and magnetic circuit, 1 1/8" direct-radiator tweeter, plus special LCR crossover to permit increase or decrease of 2½ dB in high-frequency level without shelving in crossover region; speakers must be used only with Model Twenty amplifier. Dimensions: control center-8 3/4, h. x 1 1/8, w. x 1 1/4, d.; each speaker enclosure-23/4, h. x 11 3/4, w. x 9, d.; oiled walnut. .................. $399.95

Model Twenty With AM Has same features and performance as Model Twenty but also incorporates high-performance AM tuner. Oiled walnut. .................. $349.95

Model Twenty-Six Phono System Stereo phono with 3-speed KLH automatic turntable (built by Garrard) with Pickering V-15/AT-3 diamond magnetic cartridge; 12 1/4 W/ch dynamic power amplifier. Has inputs for phono, tape auxiliary, and tape. Speakers each have 8" acoustic-suspension woofer & 2" stilt-paper direct-radiator tweeter in oiled walnut enclosure finished on four sides. 18" x 10 1/2, x 7 1/2, d. Control unit 8 3/4, x 18, x 14 3/4, d. .................. $699.95

Model Eleven-W Phono System Cabinet version of the Model Eleven portable; designed for permanent placement; components are identical to those in Model Eleven. Dimensions: control center 8 3/4, h. x 18, w. x 14 3/4, d.; speaker enclosures (each)-8 3/4, h. x 15, w. x 4, d. .................. $209.95

Model Eleven Portable Phono Transistorized stereo design with 4-speed KLH automatic turntable (built by Gar-
Hi-Fi Systems

LAFAYETTE

LRC-70 AM-FM Stereo Receiver/ Turntable/Control Center
Solid-state 40 W/ch dynamic (IHF) power at 4 ohms. Features Garrard 40B 4-speed turntable with Pickering V15/AC-3 cartridge; stereo mic inputs (functions as p.a. amp); main/remote speaker outputs; tape monitor; tape input & output jacks. Response 20-20,000 Hz ± 1.5 dB with 1% HD at rated outputs. 17" x 9½" x 16½"... $249.95

LRK-1600 AM-FM Stereo/Cassette/ Receiver
Has AM-FM stereo receiver with built-in 4-track cassette stereo record/playback unit; wow & flutter 0.3%; response 45-10,000 Hz. Records from receiver and cassettes simultaneously; FM sensitivity 1.7 µV; response 20-20,000 Hz ± 1 dB; wow & flutter 0.3% r.m.s. Will record 4-track stereo & 2-track mono; plays back 4 & 2 track stereo or mono. With simulated walnut-finish metal cabinet and walnut wood side panels. 21¼" w. x 14" d. x 5½"... $279.95

MAGNAVOX

All following systems are stereo designs with "Microomatic" record player, diamond/sapphire stylus, and AM-FM tuner. Power figures are EIA dynamic power ratings.

1K0883 AM-FM/Phono System Features 20 W/ch power amplifier. Tuner & record player mount side-by-side with gliding top panel. 32½" w. x 15½" d. x 9½". Walnut... $269.90

1K8901 AM-FM/Phono System Features 25 W/ch power amplifier. Record player mounted atop tuner. Has dust cover & walnut finish... $269.90

1K8856 AM-FM/Phono System Features 50 W/ch power amplifier. Cart-type mounting with swivel casters & tambour top panel. 20½" x 30" d. x 25½". Walnut... $369.90

1E8858 AM-FM/Phono System Features 75 W/ch power amplifier. Has total remote volume and select sound, "on-off", station select, and record select. Mounted side-by-side. 38½" w. x 30½" d. x 18½". Supplied with mobile cart. Walnut... $479.90

1E9294 AM-FM/Phono System Features 25 W/ch power amplifier. Is supplied with separately housed stereo speaker systems, each with an 8" woofer & 3½" tweeter. 20 W/ch dynamic (IHF) power (12 W/ch r.m.s.). Response 25-30,000 Hz ± 1.5 dB; HD 1%; FM sensitivity 2 µV (IHF). Input sensitivity 20 mV. 2.5 mV; aux. 180 mV. With walnut cabinet & dust cover. Receiver size 16½" x 7½" x 9½". Spkr. cab. size 17½" x 10" x 5½"... $319.95

1E9293 AM-FM/Phono System Features 25 W/ch power amplifier. The record player and AM-FM receiver are mounted in separate cabinets. Separately housed speaker systems each hold an 8" & 3½" speakers. Walnut... $379.90

1E9295 AM-FM/Phono System Same type assembly as 1E9293 but with 50 W/ch power amplifier and two 10" high-compliance speakers & two 1000-Hz horns are used... $459.90

1E9296 AM-FM/Phono System Same type assembly as 1E9293 but with 75 W/ch power amplifiers and two 12" high-compliance speakers & two 1000-Hz horns are used... $529.90

MIDLAND

19-602 AM-FM/Phono System Stereo design combining an AM-FM receiver, deluxe BSR 4-speed changer with Shure diamond-stylus mag. cartridge, and two separately housed speaker systems, each with an 8" woofer & 3½" tweeter. 20 W/ch dynamic (IHF) power (12 W/ch r.m.s.). Response 25-30,000 Hz ± 1.5 dB; HD 1%; FM sensitivity 2 µV (IHF). Input sensitivity 20 mV. 2.5 mV; aux. 180 mV. With walnut cabinet & dust cover. Receiver size 16½" x 7½" x 9½". Spkr. cab. size 17½" x 10" x 5½"... $319.95

PACKARD BELL

RPS-02 "Malibu" AM-FM/Phono System Stereo design with AM/stereo-FM tuner. 25 W/ch dynamic (EIA) power amp, a Garrard 4-speed automatic turntable with ceramic cartridge and diamond stylus, plus two speaker systems each with 6" low-freq. & 3½" tweeter. 18¼" w. x 10" x 18½" d. (with dust cover). Spkr. cab. size 13½" x 22½" x 12½". Walnut cabinet... $259.95

RPS-06 "Checkmate" AM-FM/Phono System Stereo design with AM-FM tuner, a 9 W/ch dynamic (EIA) power amp, a Garrard 4-speed automatic turntable with ceramic cartridge and diamond/sapphire stylus, plus two speaker systems each with 6" low-freq. & 3½" tweeter. Top panel of control cabinet opens for phono & front panel drops to reveal tuner. Each cube 13½" w. x 13½" h. x 13½" d. Hardwood cabs. in white with black trim... $229.95

PANASONIC

SC-555 Music System Combines a 15 W/ch at 8 ohms & 1% HD (IHF) dynamic power stereo amplifier with an AM tuner; an FM stereo tuner with 2.9 µV (IHF) usable sensitivity (capture ratio 2.5 dB), a BSR MA55 turntable. A Panasonic J5TAD cartridge with diamond stylus & a pair of separately housed speaker systems (6½" & 3½" speakers are used). Aux. input sensitivity is 200 mV. 17½" w. x 8½" d. x 15¼" h. Brand new. With cabinet... $329.95

SC-666 Music System Basically same combination as in SC-555 except 20 W/ch at 4 ohms. FM sensitivity (IHF) 2.8 µV. Features a BSR MA65 turntable, a Pickering V15 cartridge, and speakers are 8" & 2" in each. 11½" w. x 17½" d. x 8½" h. With cabinet... $379.95

SC-777 Music System Basically same as SC-555 except has Garrard 2025 turntable; a Pickering V15 cartridge & cassette record/play system. Main unit 18½" w. x 9¾" d. x 19½" h. Oiled walnut cabinets... $429.95

PILOT

MC 41 AM-FM/Phono System Features a 40 W/ch (EIA) dynamic stereo power amplifiers; an AM-FM stereo tuner; a Garrard 3500 4-speed changer; Pickering mag. cartridge with diamond

STEREO HI-FI DIRECTORY
stylus & two separately housed speaker systems, each with 10" woofer, 4" x 11" exponential horn, and 3½" tweeter all in an infinite baffle cabinet. 13½" x 21" x 11" d. Response 25-70,000 Hz; HD 0.5%; FM sensitivity 3 µV. Walnut cabinet. 18" x 6" x 17½" d. ..................$349.95

PIioneer

C-5600 AM-FM/Phono System
Stereo design combining an AM-FM receiver, automatic 2-speed (33 & 45 rpm) turntable, and pair of 2-way multi-amplifier speaker systems, 30 W/ch dynamic (EIA) power (24 W/ch continuous). Speakers used are 8" & 2½" cone tweeter. FM sensitivity 2.5 µV (IHF); wow & flutter 0.1%. Has belt-driven turntable with mag. cartridge and 0.6-mil diamond stylus. 21½" w. x 14½" d. x 8½". Speaker cabs. 22" d. x 12½" x 9½" Walnut finish ..........................$500.00

REALISTIC

MC-2000 AM-FM/Phono System
Stereo design with realistic “Lab 12A” changer; AM-FM stereo tuner; 15 W/ch amplifier; oiled walnut cabinet and two acoustic suspension speakers. Has inputs and outputs for a stereo tape deck ..................$299.95

MC-3000 Stereo Music Center
Features a stereo cassette tape recorder with vu meters & level controls; a realistic “Lab 12A” automatic changer with Shure diamond magnetic stereo cartridge; an FM-stereo tuner; and 17½ W/ch audio system. Amplifier response is 20-20,000 Hz ± 1 db; HD is below 1%; FM sensitivity 3.5 µV for 20 dB quieting. Supplied with two 2-way acoustic suspension speakers, each with 8" woofer & 3½ tweeter ..........................$249.95

SCOTT, H.H.

2516 Compact Stereo System
Combines an AM-FM stereo receiver and automatic turntable with a choice of matching speakers. IHF dynamic power 20 W/ch at 4 ohms and 0.8% THD; power bandwidth 20-20,000 Hz; response 18-25,000 Hz ± 1 db; S/N ratio 65 db, usable sensitivity 2 µV. Garrard changer; Pickering magnetic cartridge with diamond stylus, with walnut cabinet.
2506-17 with S-17 speakers ....$319.95
2505-10 with S-10 speakers ....$329.95
2505-15 with S-15 speakers ....$429.95

3610 Compact Cassette System
Combines an AM-FM stereo receiver, a cassette stereo recorder. 22 W/ch continuous sine wave power at 0.8% dist. into 4 ohms (both channels driven); 18 W/ch at 8 ohms; IHF dynamic power 52½ W/ch at 4 ohms. Response 20-20,000 Hz ± 1 db; FM usable (IHF) sensitivity 2.5 µV; capture ratio 2.5:1 dB. Phono sensitivity 4 mV. Can record direct from radio or external phono, mic, or tape. Speakers not included. With walnut cabinet ....$349.95

2506 Compact Stereo System
Deluxe design. Includes AM-FM stereo receiver & automatic turntable. Plug-in printed-circuit modules; full complementary output circuit; 25 W/ch dynamic power into 4 ohms at 0.8% THD; power bandwidth 20-20,000 Hz; response 18-25,000 Hz ± 1 db; S/N ratio 65 db, usable sensitivity 2 µV. Garrard changer; Pickering magnetic cartridge with diamond stylus. With walnut cabinet.
2506-17 with S-17 speakers ....$399.95
2506-10 with S-10 speakers ....$429.95
2506-15 with S-15 speakers ....$489.95
2506-100 with Q-100 speakers ....$549.95
Model 2508 Same as 2506 except has Dual 718MB magnetic cartridge.
2508-10 with S-10 speakers ....$499.95
2508-15 with S-15 speakers ....$559.95
2508-100 with Q-100 speakers ....$629.95

SEARS ROEBUCK

7424 “Virtuoso II” AM-FM/Phono Player
Features AM-FM stereo receiver with a 50 W/ch (EIA) dynamic power amp & a
Hi-Fi Systems

4-speed automatic turntable with mag. cartridge & diamond stylus. Response 20-25,000 Hz; FM usable sensitivity 3.5 µV; 8 ohms. Has connection for a remote-control: main/remote speaker sw; automatic (motorized) station locator.

Has impact-plastic cabinet with oiled-walnut veneer overlay on bottom shell. 4½" x 20½" x 19" d. (8" high with automatic spindle) ........................................ $299.95

7434 "Virtuoso I I II" Same as Model 7424 except has cassette tape record/playback unit. .... $399.95

SHERWOOD

S-6000 Stereo Sound System
Combines AM stereo-FM receiver with 40 W/ch (IHF) dynamic power amp & at 8 ohms (60 W/ch & 4 ohms), two Sherwood Berkshire II or Newport speaker systems, and your choice of automatic turntable. Choices include Sherwood SEL-100, Dual 1009, 1015, 1019, or Garrard Series 40, SL-55 & SL-65. R.m.s. power is 28 W/ch @ 8 ohms measured with one channel driven (40 W/ch with 4 ohms). HD 0.75% @ 8 ohms & rated output (0.15% @ 10 W). Power bandwidth aux. 20-20,000 Hz ± 1 dB: input sensitivity 1.5/3.6/6.2 mV (rear selection): aux. 300 mV. FM sensitivity 1.8 µV (IHF) (30 db quieting); capture ratio 2.4 dB. Features main/remote speaker facility & front-panel tape dubbing jack. 18½" x 17½" x 5¾" ............ $419.50

Receiver is sold with pre-cut turntable board to mount turntables listed above. Speakers & turntable including cartridge are optional & available at extra cost.

SONY

HP-460 Phono System
Combines a Dual automatic turntable with cartridge: 19 W/ch (IHF) stereo power amplifier & a pair of bass reflex speaker systems. Each has 6¼" woofer & 3" tweeter. Response at 1 W 20-50,000

(1HF): has automatic mono/stereo switching .................... $319.95

HP-550 Phono-FM Stereo System
Combines a Garrard automatic turntable with cartridge. 33 W/ch (IHF) stereo power amplifier, a stereo-FM tuner & a pair of infinite design speaker systems. Each has a 10" woofer & 4½" tweeter. THD of amp @ rated output is 0.6% with 1M at 1.5%. Response at 1 W 20-50,000 Hz ± 1 dB. FM sensitivity 2.8 µV (IHF). Enclosure size 16½" x 7½" x 16½" ............ $379.95

SYLVANIA

MS150W Phono System
Combines 20 W/ch (IHF) dynamic power amp (10 W/ch r.m.s.), Garrard 2025TC automatic turntable, mag. cartridge, and separately housed speaker systems, each with 6½" woofer & 2½" tweeters. Power bandwidth 50-18,000 Hz; HD 0.7% @ 10 W r.m.s.: 1M dist. 1½" @ 10 W r.m.s. With dust cover. Walnut finish. Phono size 9½" x 20" x 14½" d. Speaker size 14½" x 9½" x 4½" d. .................. $199.95

MS220W AM-FM/Phono System
Combines 24 W/ch (IHF) dynamic stereo power amp, an AM-FM stereo power amplifier, and an AM-FM stereo tuner. Power bandwidth 10-45,000 Hz: HD 0.3% @ 30 W/ch r.m.s.: 1M dist. 0.5% @ 30 W/ch r.m.s.; FM usable sensitivity (IHF) 2.1 µV; capture ratio 1.6 dB, 10½" x 32½" x 15½" d. 23½" h. with top open. Walnut finish .............. $399.95

CS3W AM-FM/Phono System
Contemporary style. 20 W/ch dynamic power at 8 ohms; power response 35-17,000 Hz; response 40-20,000 Hz ± 3 dB at tape inputs; HD 0.5% @ 10 W/ch. FM usable sensitivity 2.5 µV. Has Garrard automatic changer. Speakers extra. Walnut finish .............. $229.95

MS150W Phono System
Contemporary 20 W/ch (IHF) design: power bandwidth 30-18,000 Hz: response 50-30,000 Hz ± 3 dB. HD 0.5% & 1M dist. 0.1% at 5 W/ch. Supplied with Garrard Custom II deluxe automatic changer & magnetic cartridge. Walnut. Speaker optional .................. $199.95

YAMAHA

MC-600E AM-FM/Phono System
Combines an AM-FM receiver, a PE-2036 (Perpetuum-Ebner) automatic changer with mag. cartridge, 22 W/ch dynamic power (IHF) at 8 ohms (15 W/ch continuous sine wave power). Sensitivity: phono 3 mV: aux. 170 mV: tape monitor 200 mV. HD 0.15%. Response 30-20,000 Hz ± 1 dB. FM usable sensitivity 2.5 µV (IHF). Stylus is 0.7-mil diamond & 2.5 g pressure. 117 V, 60 Hz operation. 16½" x 5½" x 12½" d. Oiled walnut. ........ $299.90

ZENITH

"Circle of Sound" Modular Stereo
Combines phono-amplifier & two remote speaker systems. Features 4-speed record changer—will intermix 10" & 12" records & Zenith's "Micro-Touch" tonearm. Response 40-15,000 Hz: 20 W/ch dynamic power (EIA). Speakers are circular in design & reflect sound upwards & outwards (360°). Supplied with cabinet 20½" x 15½" x 10½". Speaker enclosures are 13¾" in height and 10¼" in diameter.
Model ZS65 ............ $199.95
Other models similar in design but different power outputs (8, 10, 20 & 25 W/ch) are also available.

STEREO HI-FI DIRECTORY
Directory of HI-FI MANUFACTURERS

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Graphic Equalizer
An active frequency balance control covering usable audio spectrum octave by octave from 40 to 20,480 Hz; 10 steps; two-channel design. Inputs sensitivity switchable 350 mV, 700 mV, or 1.4 V r.m.s. Max. output 4.5 V r.m.s. 12" x 7½" x 3½". $225.00

100 Noise Reduction Unit
Dolby system circuitry for use with home tape recorders & pre-recorded commercial tapes. Operates on both record & playback. Designed to reduce tape hiss in mid and high-frequency portion of audio spectrum. S/N ratio improves 3 dB at 600 Hz, 6 dB at 1200 Hz & 10 dB over 4000 Hz. Unit is basically a control center with a record section with mic & line preamp & record Dolby circuits and a playback section with line preamps & playback Dolby system. 12½" x 5" x 8½". Walnut cabinet optional. $250.00

101 Noise Reduction Unit
Is a switchable Dolby system that can be used in either record or playback mode but not both simultaneously. $120.00

AKG

K-60 Stereo Headphones
Dynamic, moving coil driver units; frequency compensated to match hearing characteristics; response 20-20,000 Hz ± 3 dB; imp. each driver 600 ohms. Designed for use on 4 to 10,000 ohms without matching transformer; requires 0.001 W input for sound pressure level of 112 dB. Ear cushions rotatable for comfort. $39.50

K-120 Stereo Headphones
Budget version of K-60. Same response, sensitivity, and wide-range impedance matching features of K-60. $22.50

ALTEC LANSING

729A “Acousta-Voicette”
Designed to be used to modify the combined response of room and speaker as required for optimum flatness of frequency response at a specific listening area. Has narrow-band adjustable filters, each covering ½ octave. Stereo design with 24 filters for each channel covering center frequencies between 63 & 12,500 Hz. Loss/octave adjustable from 0-12 dB. Each channel has 17 dB gain to compensate for equalization losses. $799.00

AUDIOTEX

Phono Accessories
Record brush; designed to be attached to any tonearm; swivel feature permits easy adjustment for best results; made of imported camel’s hair. 30-000. $0.75

Record stylus brush cleans needle after every play; may be installed on any record player so that each time tonearm is moved from rest position, stylus passes through brush; metal base has pressure-sensitive adhesive base which is attached to turntable. Brush height is adjustable. 30-004 $1.40

Record stylus weight gauge slips under tonearm and measures force needed to lift tonearm from record; calibrated in grams & has expanded scale in lower weight range. 30-220 $2.80

Stylus pressure gauge measures from 1 to 10 grams with ½ gram. 30-222 $1.65

Test record combines stereo/mono 12" unbreakable LP for checking stereo balance, pickup alignment & channel separation; frequency response & RIAA equalization tests for both channels; turntable rumble tests; mono tests include stylus wear; frequency response; RIAA equalization test; tests IM distortion; turntable rumble & tonearm resonance. 30-200. $4.98

Strobos and discs; calibrated to show correct speed ± 2 & ± 4% deviation. Kit includes miniature metal strobe disc & neon test light. 30-246. $2.25

All prices are “list.”

Tape Accessories
Deluxe tape splicer handles all sizes of splicing tape; tape dispenser simplifies operation; cuts & trims splicing tape with indented cut. 30-106. $8.95

Standard tape splicer has curved cutting blades which give splice two rounded indentations; for use on all ½" tapes. 30-103. $5.00

Tape splicer for editing or repairing broken tape; all-aluminum construction; cutting blade included. 30-100. $2.75

Professional taperase will demagnetize tape reels of any size up to 10" diameter and ½" wide; erasing leaves no low-frequency spikes or thump. With 6" cord and momentary “on-off” switch 30-140. $18.50

Sewer recorder care kit; includes splicer, splicing tape, tape head cleaner & lubricant, tape reel holder, tape end clips, cleaning brush, cotton swabs, cleaning cloth, tape cueing & indexing labels. 30-125. $14.95

Cartridge head cleaner can be used for 30-124. $1.95
both home & auto tape players. Cartridge is inserted in unit and cleaned in 30 sec-
onds. Kit includes cleaner cartridge, cleaning fluid, and replacement belts. 30-
620..............................................$5.95
Tape recorder strobos: designed to check speed of 7/8 & 3/4 ips tape recorders. 30-
262................................................$5.95
Head demagnetizer with extra long head for use on reel-to-reel & cartridge ma-
chines (4 or 8 tracks and cassettes). 30-112-2..............................................$12.95
Cassette "Musikleer" cassette tape head cleaner. Is impregnated with exclusive
nonabrasive Kristen tape fluid. Kit contains cleaner, bottle of fluid, and eye
dropper. 30-618..............................................$4.95
Auto tape player kit for 4- & 8-track players. Kit contains tape head lubricant,
tape head cleaner, two 6" cleaning brushes, and 10 plastic pouches for stor-
ing tape cartridges. 30-636..............................................$3.49
Compact bulk tape eraser completely erases program material from tapes. Can
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ered with soft plastic to prevent head damage. 30-112..............................................$12.10
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for all 12-volt negative-ground system automobiles. 30-142..............................................$9.90
"Blister Off" aerosol tape head cleaner removes harmful dust and oxide particles
from auto/home tape cartridge players. 30-630..............................................$1.95
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cleaning tape in the cassette. Comes complete with cleaning fluid and dropper
applicator. 30-618..............................................$4.95
All prices are "list."

BOGEN
EP10 "Row 10" Stereo Headphones
Dynamic type offering flat response from 20-15,000 Hz. Contemporary design with
adjustable headband & washable vinyl ear cushions ..............................................$29.95

CASTLE
C403CS "Tri-Cloise" Color Organ
Transforms sound waves into light waves through three frequencies (low, mid &
high) using 10-W. (300 W, 500 W, or 1000 W, ch). Can be used with any light source such as col-
or wheels, lava lamps, strobes, Christmas
ree lights, incandescent bulbs. With wal-
ut cabinet ..............................................under $30.00
C403CSKT Kit version ..............................................under $30.00
Company has many other color organs including single-channel design. In ad-
dition, other products include strobe lights, 35-mm full-color slides & kaleidoscope pro-
jectors.

CLARK, DAVID
Model 100A Stereo Headset
Moving-coil (dynamic) design with plastic
diaphragms; response 20-10,000 Hz
± 3 dB; distortion less than 2%; 6-100
phon level; sensitivity 1 mW @ 1000 Hz
produces 100 dB (reference .0002 micro-
bar); max. input 1 W/phone; 17 ohms;
has 20 dB reduction in white noise; stereo
or mono; supplied with 8' coilcord and 2-circuit plug. $50.00
Stationary. 300, 600, and 1200 ohm models also available.

Model 200 Stereo Headset
Permanent magnet design; response 20-
17,000 Hz. Sensitivity 1 mW @ 1000 Hz
produces 105 dB per earpiece (reference
.0002 microbar); Max. input 1 W/phone;
Supplied with 2-circuit stereo plug. $29.00

Model 250 Stereo Headset
With volume control, otherwise same as
Model 200..............................................$34.00

Model 300 Stereo Headset
Response 20-17,000 Hz; 8 ohms imp.;
with 10' coiled cord ..............................................$21.00

EDITALL
KP-2 Editing Kit
Complete kit includes splicing block, 30
splicing tapes, demagnetized razor blade,
grease pencil ..............................................$3.50

KS-2 Editing Kit
For 1/4" tape. Includes 4" x 1/4" x 1/4"
block, marking pencil, roll of splicing
tape & cutting blade ..............................$8.50
KS-3 Same except larger blocking & cutting
blade (9/16" x 1"

$10.00

EICO
"Sound n'Color" 3440 Audio-Color
Organ
Solid-state, 3-channel all-electronic
sound in color. Blue lamp activated up to
250 Hz, red lamp 250-1500 Hz, green
lamp above 1500 Hz. Intensity is con-
trolled by silicon dividers. Has two exter-
nal frequency controls. 15" x 10" x 6".
Kit ..............................................$49.95
Factory wired ..............................................$79.95

Model 3445. Same as Model 3440 ex-
cept 4-channel. 24" x 12" x 10". KR
.................. ..............................................$64.95
Factory wired ..............................................$99.95

Model 3450. Same as Model 3445 ex-
cept 30" x 15" x 11". Kit ..........................$79.95
Factory wired ..............................................$109.95
Company has a rather extensive line of color-image devices including audio-color
organs, strobe lites, audio-activated strobe lites, one & three channel sound/ light
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ELECTROHOME
"Environment I" Revers Unit
Dual torsional-type reverberation system
with 30 W dual-channel amplifiers; warped
response 50-4000 Hz; initial time
delay 25 milliseconds; decay time 1.8 sec.
..............................................$89.95

ELECTRO-VOICE
502B Matching Transformer
For use in series with mic line; 150-ohm
input matches all low-Z mic to high-Z
output. Response 30-20,000 Hz± 1 db
..............................................Net $10.50

FISHER
HP-60 Stereo Headphones
Response 30-18,000 Hz; sensitivity 1
mW for 100 dB ± 5 dB sound level; max.
input 0.5 W; 8 ohms. Has individual level
controls on each earcup. 8' cable. $24.95

HP-100 Headphones
Uses unique foam cushion and slot load-
ing with reverse driven microphone ele-
ments. Response 18-22,000 Hz; sensitiv-
ty 2 mW for 100 dB ± 5 dB sound level;
max. input 0.7 W. 50 ohms. 8 foot cable.
..............................................$39.95

HAMMOND
980 Stereo Reverberator
For auto or marine applications. Unit de-
lays separate sound from each channel &
re-amplifies sound over separate speaker
system. Has 5" reverberation control. 1/2"
5/8" x 7" x 3/8"
..............................................$29.95

JENSEN
HS-2 Stereo Headphones
For stereo, mono listening; response
20-17,000 Hz, 4 ohms, 1 mW input re-
quired for adequate listening, 8-foot input
cable and 3-conductor phone plug.
..............................................$24.95

KNIGHT-KIT
Knight-Kit/Koss KG-802 Headphones
In easily assembled kit form. Response
20-16,600 Hz, 3/4" dynamic elements;
separate volume controls in each earpiece
(11.48/12.5" channels); adjustable
headband; foam-cushioned earcups; 4-16
ohms imp. 8-foot cord with 1/4" plug.
..............................................$8.49

STEREO HI-FI DIRECTORY
Koss

ESP-6 Electrostatic Stereophones
World's first self-energized electrostatic phones do not require any special amplifiers or power supplies. Operates from any 4-16 ohm outputs. Calibrated machine-run response curve supplied with each set. Response 35-10,000 Hz ± 2/3 dB. Sensitivity 90 dB at 1 kHz ± 1 dB referred to 0.0002 dyne/cm² with 1 V input. HD 0.2% at 110 dB. Power capacity 12 watts (10 V) max. Has fluid-filled cushions: 4-conductor, 3-foot (coiled), 10-foot (extended) cord. Dynamic level indicators (flicker at 10th row full orchestra volume). Supplied with T3 accessory adapter (for connection to amp. output if needed) and P/N 11-110 U carrying case $95.00

ESP-7 Electrostatic Stereophones
Same as ESP-6 except has coupling transformers & biasing circuits externally located instead of in headphone cups. Reduces weight of headset from 27 to 17 ounces. Response 35-15,000 Hz ± 6 dB. Supplied with SE-7 self-energizer which includes dynamic level-indicator lamp: 20-foot 5-COND. input cable & energizing circuits $90.00 ESP-A. Accessory stereophones permit two sets of phones to operate from one SE-7 energizer $69.00 Carrying case P/N 16-168. Will accept any headset, energizer, and extension cords $9.95

ESP-9 Electrostatic Stereophones
Refinement of the Model ESP-6 with most important feature being a response range of 10 octaves. Response 15-15,000 Hz ± 2 dB. Headset weighs 19 oz. Supplied with E-9 energizer which includes circuitry for direct 117 V A.C. operation. Ideal as a test instrument for precise low-level signal measurements $150.00

K-6 Stereophones
4 ohms (can be used with 4, 8, 16 ohm outputs); 10-15,000 Hz. Sensitivity 1 V at 400 Hz will produce 127 dB sound pressure (0.0002 dyne/cm²). Max. input 10 W/ch r.m.s. (60 W/ch dynamic power). Weight 15 oz (less cord) $26.50

Model SP-3X "Stereophones"
Extremely sensitive 3/4" sound reproducer mounted in each earpiece; response 10-15,000 Hz; impedance 4-16 ohms: comes complete with adapter plate that connects to any system that will drive speakers $24.95

Model SP-5SM "Stereophones"
Stereo and monaural phones in one; switch in lavalier changes operation from stereo to monaural or vice versa $24.95

KO-727 "Stereophones"
Wide-range 10-15,000 Hz design; 4-ohm input but can be used for 4.8 or 16 ohms. Sensitivity 1 V applied to driver will deliver 127 dB of sound pressure relative to 0.0002 dyne/cm². Max. input 60 W/1971 EDITION

Sensitivity 0.0002 ± 6 dB

Stereo Mixer/Preamp
Low-drain, battery-operated unit designed for use without low-level magnetic phono, tape head, or low-Z mic inputs. Preamps provide necessary gain and equalization. Also provides mixing facilities. With 9 V battery. Over-all size 7 w. x 5¾" x 2½" h. $14.95

F-990 Stereo Headphones
Dynamic design with 2¼" transducers, adjustable air-cushioned headband; foam

AKG "HUMANIZED" HEADPHONES

Humanized because... research on the physiological reaction of the human ear to sound pressure led to the development of a headphone driver which functions with the human ear as a unit, and is capable of generating full fidelity sound at close proximity to the listener.

Humanized because... of their comfortable fit which allows you to enjoy hours of listening pleasure without discomfort.

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9 Accessories

Cushions. Response 30-15,000 Hz ± 2 dB, 8 ohms. With 6¾ cord. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
for increased frequency response; great depth-of-metal for longer head life.
#9202-Play only; high imp.; 800 mH; 160 μm gap; no-mount type ........... $44.30
#9203-Record only; low imp; 10 mH; 500 μm gap; no-mount type ........... $45.10
#8009-Record only; low imp; 4.5 mH; 500 μm gap; no-mount type ........... $44.30

8600 Series "Professional"
Four-track stereo; laminated core; hyperbolic face construction; finer laminations for increased frequency response; greater depth-of-metal for longer head life.
#8600-Play only; high imp.; 800 mH inductance; 100 μm gap; no-mount type ........... $31.10
#8604—Record only; low imp; 10 mH inductance, 500 μm gap; no-mount type ................ $27.50

8300 Series Erase Heads
Two-track stereo; laminated core; double gap; increased depth-of-metal for longer head life; hyperbolic face construction; full metal face; 56 dB erasure of saturated tape.
#8301 High imp; 50 mH inductance; 20,000 ohms impedance at 60 kHz; 70 kHz operating voltage 100-150; 100 kHz operating voltage 160-200; no-mount type ................ $22.70
#8304 Med. imp; 0.2 mH inductance; 50 ohm imp at 60 kHz; 60 kHz operating voltage 5-8; 100 kHz operating voltage 8-15; no-mount type ........... $22.70
#8304—Med. imp; 8 mH inductance; 2000 ohms impedance at 60 kHz; 60 kHz operating voltage 32-48; 100 kHz operating voltage 50-70; no-mount type ................ $22.70

8700 Series Erase Heads
Four-track stereo; laminated core; double gap; increased depth-of-metal for longer head life; hyperbolic face construction; full metal face; 56 dB erasure of saturated tape.
#8701—Med. imp; 10 mH inductance; 2800 ohms impedance at 60 kHz; 60 kHz operating voltage 28-42; 100 kHz operating voltage 45-50; no-mount type ................ $18.90
#8702—Low imp; 0.13 mH inductance; 40 ohms impedance at 60 kHz; 60 kHz operating voltage 3-6; 100 kHz operating voltage 12-15; no-mount type ........... $18.90
#8704—High imp; 80 mH inductance; 30,000 ohms impedance at 60 kHz; 60 kHz operating voltage 150-150; 100 kHz operating voltage 150-200; no-mount type ................ $18.90

"Quik-Kit" 74 Adjustable Head Mounting Assembly
For updating tape decks to use Nortronics no-mount heads. Includes provision for adjustment of tape head for wrap, height, tilt, and azimuth .......... $2.25

"Quik-Kit" Mounting Brackets
For base or side-mounting of no-mount heads. Nortronics heads are supplied in two basic mounting styles: no-mount and rear-mount. Six basic kits are available to adapt the basic no-mount style to base-mount or side-mount. Complete detailed instructions are included with each kit. "Quik-Kits" are available from your Nortronics supplier at $1.25 each. To order rear-mount type for Models 1000, 1200, 5000, 5700, 1400, 4400, add "10" to model number (i.e., 1000 rear mount is 1000-10, etc.). Slightly higher cost for Kits 5130 Series Mono Cassette Heads
Two-track; laminated core heads; hyperbolic face construction; for transistor circuits; includes mount with tape guide.
#5130 Med. imp; record/play; 200 mH ................... $29.95

1971 EDITION

5200 Series Dual-Channel Cassette Heads
Two-track; laminated core heads; hyperbolic face construction; for transistor circuits; includes mount with tape guide.
#5200 Med. imp; record/play; 200 mH; 50 μm gap ........... $13.00
#5201 Low imp; record-only; 10 mH; 200 μm gap ........... $13.00

5200 Series Dual-Channel Cassette Heads
Two-track; laminated core heads; hyperbolic face construction; for transistor circuits; includes mount with tape guide.
#5200 Med. imp; record/play; 200 mH; 50 μm gap ........... $13.00
#5201 Low imp; record-only; 10 mH; 200 μm gap ........... $13.00

5400 Series Quadrosonic Cassette Heads
Four-track, four-channel; laminated core heads; hyperbolic face construction; for transistor circuits; includes mount with tape guide.
#5400 Med. imp; record/play; 80 mH; 50 μm gap .......... $16.00
#5401 Low imp; record-only; 10 mH; 200 μm gap .......... $16.00

Professional Tape/Head Cleaner
A fluorocarbon solvent formulated to clean without leaving any residue. There is no silicon 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.
HC-100-8-8 oz liquid can .......... $2.25
HC-100-32 32 oz liquid can .......... $7.50
HC-200-16 16 oz spray can .......... $2.75

NUCLEAR
Model 2U500 w/8F1 Positioner
Flexible arm with heavy base holds model 2U500 ionizing unit over playing record. For use with professional turntables; neutralizes static while the record is playing. Is supplied complete with ionizing unit ........................................ $19.75

Model 3C500 "Staticmaster"
Soft hair retractable brush with extra-strength polonium element. Designed to neutralize static and remove dust from records ........................................ $14.95
Replacement cartridge .......................... $9.95

OLSON ELECTRONICS
PH-173 Stereo Headset
Deluxe design with vinyl-covered air-filled cushions. Includes 20" of cable with 1/4" three-circuit phone plug. Response 15-25,000 Hz; 4-16 ohms .......... $24.98

PH-174 Stereo Headset
Features molded acoustic chambers; built-in volume controls; air-filled ear cushions. Has 10" retractable cord and 1/4" stereo plug. Response 15-23,000 Hz; 8-16 ohms .......... $19.98

PIONEER
SR-202 Reverberation Amp
Combines solid-state electronics with spring mechanism. It can be coupled in various ways to provide reverberation effects to the speakers only or to the recorded sound or both. Can control two tape recorders. Response time 1.9 to 3.2 sec. Max. input 3 V, output 330 mV with 200 mV input. 11½" w x 4¾" x 9½"; .................. $99.95
Walnut cabinet .................. $9.95

SE-20A Stereo Headphone
Response 20-18,000 Hz; 0.5 W max. input per phone; 8 ohms imp/phone. Has 8' cord .................. $24.95

SE-30 Stereo Headphone
Response 20-20,000 Hz; 0.5 W max. input per phone; 8 ohms imp/phone. .......... $29.95

SE-50 Stereo Headphone
Response 20-20,000 Hz; 0.5 W max. input per phone. Features two-way earpiece elements: a 3" cone for low freq. & a 1½" horn-type for highs. Has both tone & volume controls to adjust reception in each earpiece independently .................. $49.95

PML
D-42 Headphones
Dynamic type for mono or stereo; response 30-20,000 Hz; dist. 2% @ 5 mW; impedance 200 ohms/phone (400 ohms in series: 100 in parallel) .................. $29.95

REALISTIC
Professional Stereo Headset
Carefully shaped spring-steel headband with padding. Acoustically shaped earpieces, specially constructed driver as-

ALWAYS ......
take along your copy of this Directory when shopping for hi-fi components. It is a comprehensive reference to technical details and complete prices.
Accessories

Sembles with separate volume control on each earpiece. Response 20-20,000 Hz. Cushions are removable for cleaning. 10' coiled cord; 8 ohm imp. ........... $29.95

Custom Pro Stereo Headset
Features exclusive bass port for extended response; 20-20,000 Hz response; 4-16 ohms imp. .................. $22.95

ROTRON
"Whisper Venturi Fan"
A specially designed cooling fan for preventing overheating of component hi-fi equipment. It can be placed or mounted within cabinet. Will move 60 cubic feet of air a minute. Draws 7 watts. 5/8" x 5/8" x 1½" deep ................ $15.95

SANUI
Model SS-2 Stereo Headphone
High-moving-coil design; imp. 8 ohms; response 20-18,000 Hz; dist. 1"@ 1 mW. 6" cord. Features right & left channel balance. Input 1 mW ............. $19.95

SHARPE
10-Mk II Dynamic Headphones
Stereo design, with liquid-filled noise attenuating ear seals. Response 30,000 Hz ± 3 dB; input power max 2 W ea. phone; 8 ohms ea. phone; sensitivity 115 dB reference .0002 dyne/cm² at .05 volt input; max. HD 0.8%; 10" coiled cord. Forest green. 500 ohms impedance optional ........................................ $45.00

660/Pro Stereo Headphones
Features dynamic drivers with response 20-20,000 Hz ± 3.5 dB. Impedance 8 ohms standard. 500 ohms optional. Fuses are used to protect headphones from overload. Liquid-filled with volume control on each cup. 10" coiled cord. Walnut grain finish .................. $65.00

Stereo Control
Combines a remote control with a stereo

M67 Mic Mixer
Has 4 low-imp. balanced mic inputs & one line input. Has built-in tune oscillator as a calibration signal to balance signal levels. Response 20-20,000 Hz ± 2 dB. Automatic switchover to battery if a.c. fails. Gain 90 dB max. (150-ohm mic into 600-ohm line). Size 11½" x 7⅛" x 2½" .................. $270.00

Batter pack .................. $25.00

M63 Audio Control
Designed to be used in conjunction with mic mixers. Provides volume, bass, treble & high and low freq. roll-off. Has vu meter; two high-level inputs accepting signals from mic mixer. tape recorder, tuner, or phone with A68P phone preamp. Has 5 different outputs: 600-ohm balanced line, high imp level, high imp. mic level, low imp. mic level (balanced), and headphone .............. $160.00

M62 Audio Level Controller
An automatic mic volume control; prevents "close-up" blasting. Output can be adjusted to predetermined level. Response 20-20,000 Hz ± 2 dB. Compression action 40 dB input change, 6 dB output change. For single mic. Has "on-off" switch for bypass. Can be used alone or from M68 mixers. 11½" x 5½" x 2½" .................. $95.00

Model M-64 Stereo Preamp
Designed to provide gain & equalization to operate mag. phono cartridges & tape playback heads with amplifiers that do not have equalization. Response flat 20-20,000 Hz ± 2 dB; phono RIAA curve 40-15,000 Hz ± 2 dB; tape for 7½ ips NAB curve 50-15,000 Hz ± 2 dB. Battery for phone & tape 100 mV. Flat 250 mV. .................. $34.00

Model M-61 Stereo Preamp
Transistorized unit with choice of a.c. line or battery powered supply; slide-selector sw. provides choice of three equalization inputs: phono RIAA equalization for conversion of ceramic to magnetic input; tape, NAB equalization; and flat amplification for microphone use; gain 45 dB phone, 40 dB tape, 63 dB microphone.

STEREO HI-FI DIRECTORY
Model M61-1 (for 105-125 V operation) ......................................................... $27.50
Model M61-3 (for 30 V battery, included) ......................................................... $26.50
Model M-60 Stereo Preamp
Permits turntable location up to 50 feet from preamplifier; gain 17 dB frequency response 30-80,000 Hz ± 1 dB; input impedance 47,000 ohms; output impedance 5000 ohms; hum & noise level better than 64 dB below rated output; channel separation better than 30 dB; channel balance ± 1 dB; Uses 1-ECC83 & selenium rectifier ........................................... $19.95

**SINCLAIR**
Open chassis-type construction. Modules ideal for construction projects or for use with present equipment.

**Z30 Power Amplifier**
Single-channel 15 W r.m.s. into 8 ohms; response 30-200,000 Hz ± 1 dB; 0.02% HD at any level; input sensitivity: 250 mV into 100,000 ohms; 4-16 ohms output. Power requirements 8-35 V d.c. .......................................................... $15.95

**250 Power Amplifier**
Same as Z30 except 30 W and power requirements 16-45 V d.c. ............... $18.95

**Stereo 60 Control Center**
Input sensitivity: radio 3 mV; mag. phono (RIAA equalization) 3 mV; output 250 mV min. depending on voltage used. Has tone controls: 8¼" x 1¼" x 4" ......... $29.95

**Power Supplies**
PZ-5 28-30 V d.c. at no load. 1.5 A max. ..................................................... $13.95
PZ-6 35 V d.c. at 1.5 A .............................................................. $23.95
PZ-8 40-50 V d.c. at 3 A ...................................................... $37.95

**SONY/SUPROSCOPE**
HE-2 Head Demagnetizer
Designed with a high flux density to provide max. reduction of residual magnetism ................................................................. $12.95
FS-5 Foot Switch
Adapts Models 910, 800-B, 70, 80, 120, 124, 100, 222-A for use in transcribing 1971 EDITION .......................................................... $29.95

**Model M-61-1**

**Model M-61-3**

**Model M-60**

**Response**
- 30-80,000 Hz ± 1 dB
- 105-125 V operation
- 30 V battery, included
- Gain 17 dB

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**Model M-61-3**

**Model M-60**

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- 30-80,000 Hz ± 1 dB
- 105-125 V operation
- 30 V battery, included
- Gain 17 dB
 terminals .................................................$20.00

301 4-Channel Mixer
Mono design will feed up to four signals into a single output jack or recorder or amplifier. Ideal for mixing four mics or signals from tuners, phono, or tape recorders. Has separate gain controls. Accepts single or balanced inputs. 6 db gainable. 300 TR same as 301 TR except for level control. 300 TRS same as 301 TR except 9 volt battery operation with 6 db gain. Has single solid-state amplifier. 300 TRS same as 301 TR except 6 volt battery operation with 6 db gain Has two solid-state amplifiers. $19.50

ST-20 Stereo Headset
Reviced version of former design features one-piece headband and remote control of stereo balance & volume. Response 12,000 Hz: 4 to 6 ohms. Has 10-foot coiled cord. .....................$24.95

"Adjustatone" Stereo Headset
Features tone control; comfort control buttons to adjust earphone pressure; liquid cushioned, Mylar cone drivers. Response 20-20,000 Hz; 4 to 6 ohms; 8" detachable cord & plug; caddy included. .................$59.95

"Serenata" II Stereo Headset
Same as "Serenata" II except without tone control & detachable cord. Also available in 600 ohms. .............$44.95

SW-2 "Swinger" Stereo Headset
Features full-range dynamic transducer 4-15 ohm impedence. Response 30-15,000 Hz. Has 10-foot coiled cord ..............................................$24.95

SWITCHCRAFT

307TR 4-Channel Mixer/Amplifier
Solid-state stereo design. Has battery-level indicator, master gain control & separate channel gain controls; 4 low-level inputs with 60 db gain; 2 mag. phono with 40 db gain & 4 aux. inputs with 20 db gain. Response 20-20,000 Hz ± 0.5 db; output up to 2 V. Ideal for mixing line level signals, mag. or ceramic phono system, and mics of all types. Battery operated (2 "D" cells). 3/4" h. x 12" w. x 7/4" d. $87.00

308TR Same as 307TR except 117 V, 60 Hz. Operation. Output up to 4 V $96.00
308TRP Same as 308TR except for rack-panel mounting. 19" x 31/2" $96.00

"Mini-Mix" Mic Mixer
Has 2 high-impedance inputs with separate volume controls. Resistence type with 3 db loss factor. Available with various input & output terminals .............................................$9.95

501 "Mix-Amp" Solid-State Amplifier
Ideal for phono pickups (mag. or ceramic) and high-imp. mics. Has low & high imp. switch, is a single input & single output amp. Response 20-20,000 Hz, 6 db gain with 200,000 ohm input & 25 db gain with 5000 ohm. 9 V battery. Available with various input and output tracks over the grooves. Antistatic agent used with "bug" supplied. .............$6.50

WATTS, C.E.

"Dust Bug"
An easy mounting record cleaner which 1

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The Incomparable Sound of KENWOOD

The unsurpassed KR-7070...350 Watts • FET • IC • XTAL Filter • FM/AM Stereo Receiver with Automatic/Remote Tuning

The amazing KR-6160...260 Watts • FET • IC • FM/AM Stereo Receiver with Dynamic Microphone

The magnificent KW-8077...6 Heads • 3 Motors • Stereo Tape Deck with Automatic Reverse Record/Playback plus Auto Repeat Playback

The superb KX-7010...Stereo Cassette Deck with Exclusive Micro-Gap Head for superior sound reproduction

The extraordinary KS-707P...Stereo Compact with 188 Watts • FET • IC • FM/AM Stereo Receiver • PE 2034 Auto/Manual Turntable

The masterful KL-5060...3-Way • 4-Speaker System

FOR ILLUSTRATED BROCHURE OF KENWOOD'S COMPLETE LINE, WRITE...

CIRCLE NO.2 ON READER SERVICE CARD
The Outperformer that fulfills the impossible dream

Here's the brilliant realization of sound, beyond your fondest dream. The new Pioneer SX-990 solid state AM-FM multiplex stereo receiver was designed with you in mind. Thoroughly flexible, you can plan a complete stereo system around it. Rated according to the Institute of High Fidelity standards (as all Pioneer units are), it contains top quality circuitry plus many refinements found only in much more expensive units. Versatile, it offers: 2 phono, tape monitor, microphone, auxiliary and main amplifier inputs. Outputs for two pairs of speakers make it ideal as a power source for any fine stereo system. Elegantly styled in an oiled walnut cabinet, it's the perfect complement to the most discriminating decor. Hear it at your local Pioneer dealer. Only $299.95