

The
Authoritative
Magazine
About
High Fidelity

Audio

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er



Pioneer's new
speaker has
polymer
graphite cone.

er HPM Polymer Graphite.™

Introducing the first low distortion speaker. The Pioneer HPM Polymer Graphite.TM With up to three times less distortion than conventional paper speakers.

Most high fidelity speakers today offer you little more than kazoo technology. And the paper cone you find in most conventional speakers is proof of it. Just as the paper cone in a conventional kazoo creates a buzzing noise, the paper cone in most conventional speakers creates distortion.

At Pioneer we've developed our new HPM speakers with Polymer Graphite cones instead of paper. This new material sets new lows in speaker distortion and new highs in speaker technology.

What good are low distortion components when you have high distortion speakers.

Most people believe that to get the most out of a recording all they need is components that give them the least amount of distortion.

But expensive components mean little when attached to conventional speakers. Even components with an amazingly low level of distortion can't be appreciated when you're listening to them on speakers that most likely have ten times the amount.

So Pioneer engineers created Polymer Graphite, a new speaker cone material that gives you up to three times less distortion than paper.

Polymer Graphite reproduces sound. Paper and metal create it.

The perfect cone material should be rigid enough to significantly reduce distortion. It should be lightweight. And high in internal loss. So it sustains no vibrations and allows no artificial coloring to your music.

Unfortunately, these three attributes are not commonly found in any one speaker.

Paper cones are not rigid enough to keep from flexing. They tend to break up at high listening levels. As they alter their shape, they alter your music. What's more, over the years, their performance can deteriorate.

Metal cones, on the other hand are rigid enough to lower distortion. And can be light enough for quick response. Unfortunately they tend to ring and add their sound to your music.

Pioneer's new HPM speakers have woofer, tweeter and midrange made of Polymer Graphite.

Because Polymer Graphite is rigid, the wave that comes out of your speaker cone is virtually identical to the signal that went into it.

Because it's so lightweight, it's responsive enough to accurately reproduce transients for an added sense of realism.

And because it's acoustically dead you'll hear nothing more and nothing less than music the way it was intended to be heard.

But that's not all. Pioneer's new HPM Polymer Graphite speakers have a horn loaded, High Polymer supertweeter that expands frequency response an additional octave to 50,000 hertz. A computer designed bass reflex cabinet. And much more.

So if you're in the market for high fidelity speakers, you can buy a paper speaker and get kazoo technology. Or you can buy a Polymer Graphite speaker and get Pioneer technology.

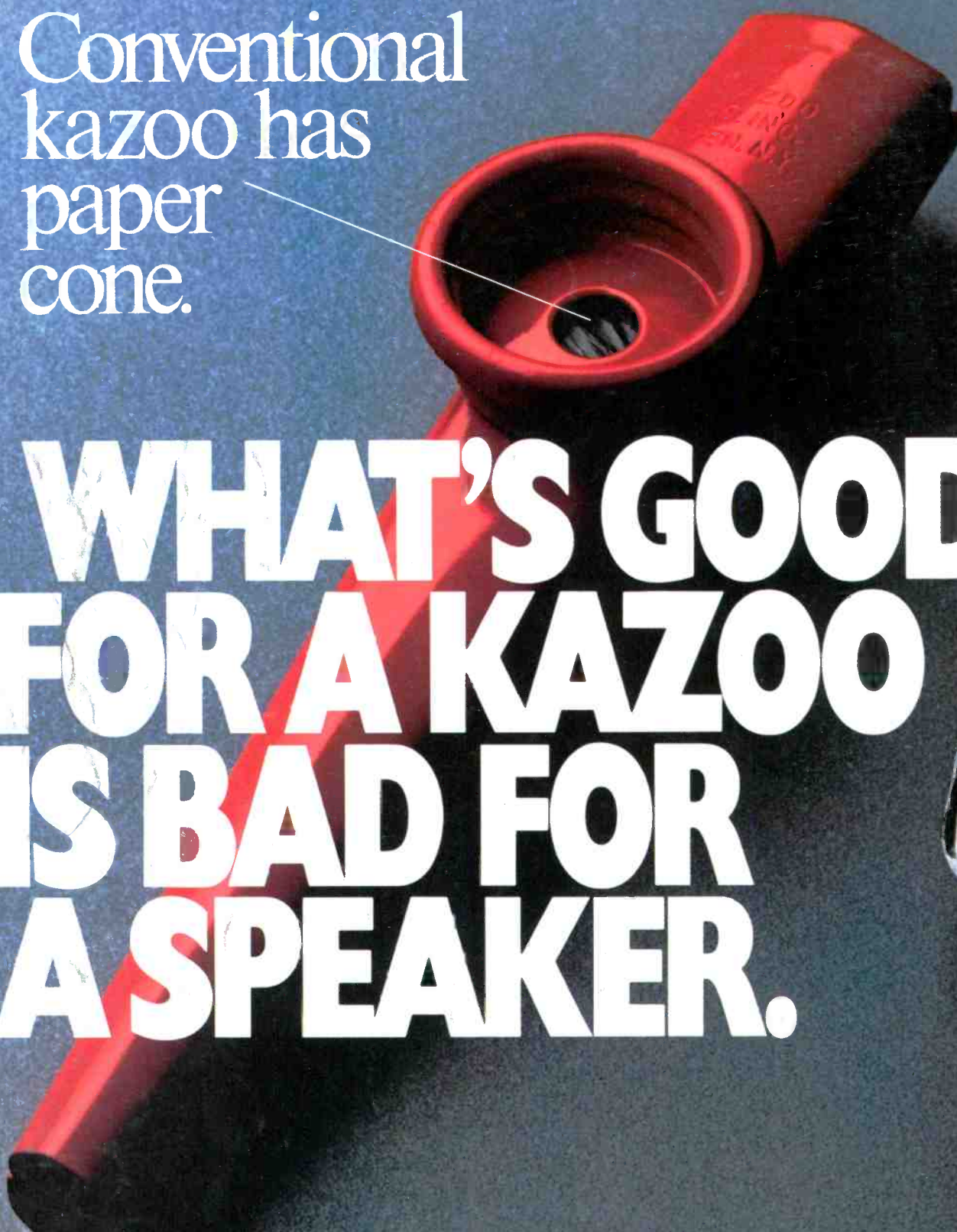
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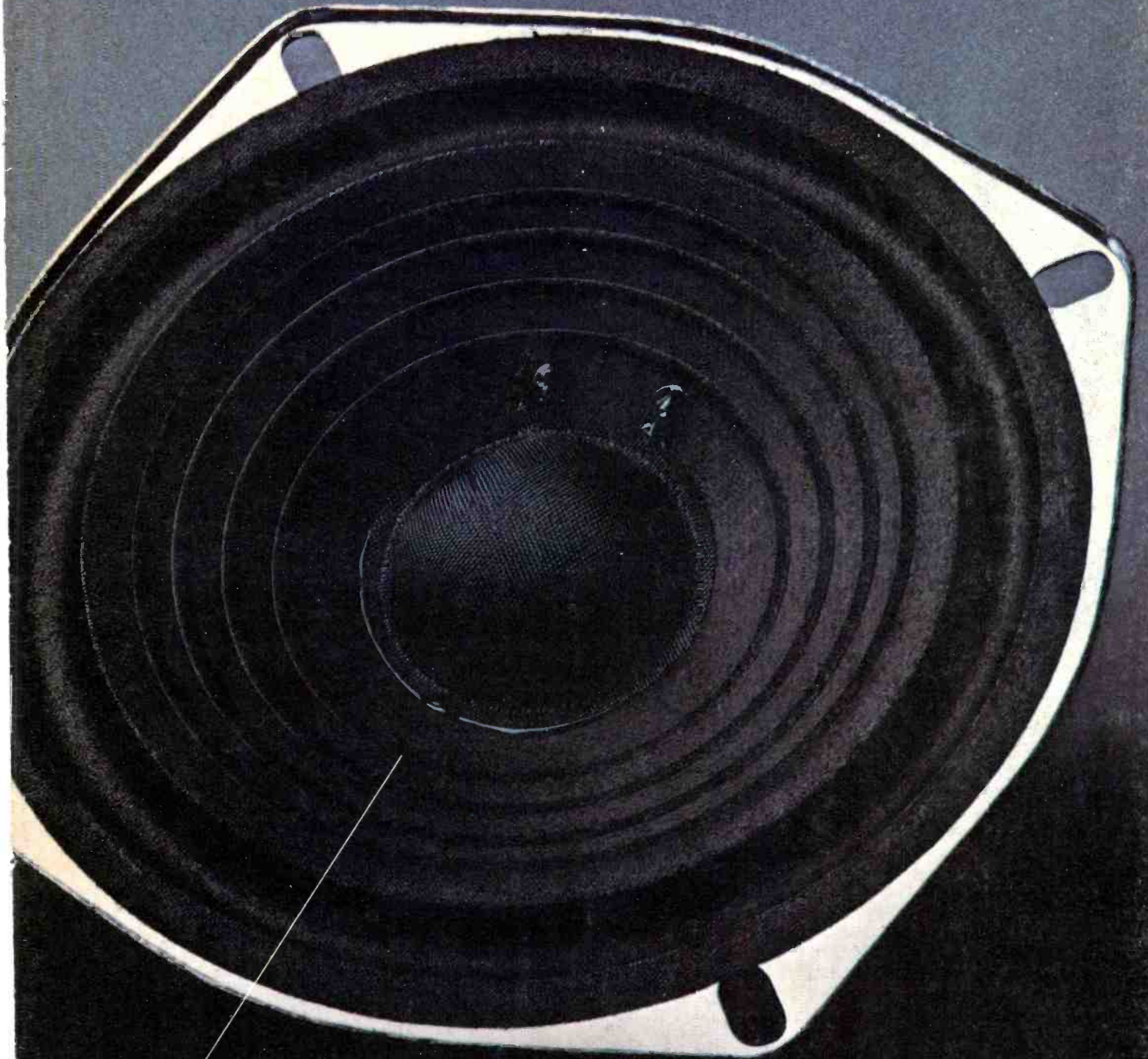


Pione

Conventional
kazoo has
paper
cone.



**WHAT'S GOOD
FOR A KAZOO
IS BAD FOR
A SPEAKER.**



Conventional
speaker has paper cone.

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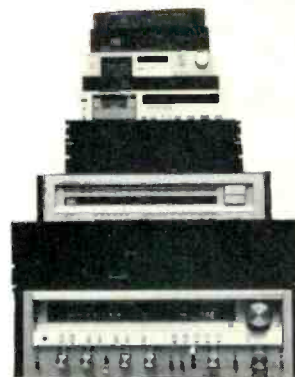
Vol. 64, No. 10

Audio

"Successor to **RADIO**, Est. 1917"

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About the Cover: Halloween trick or treaters would be quite surprised to find a cat in a bag of goodies such as these from a few of the leading equipment manufacturers. Photograph of Pee Wee, the cat, by Chris Callis, New York, N.Y.



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That's the secret of Onkyo... and Onkyo's dramatic success. The unique ability to take you several steps beyond pure technology... to experience more exciting sound. And you'll find it in all our components... including all four of our new receivers.

The Onkyo TX-7000 Quartz-Locked AM-FM Stereo Receiver is an outstanding example. Both its power amplifier and FM sections are rich with important new design concepts.

The TX-7000's power amplifier provides two major innovations never before present in a stereo receiver. The first is called Super-Servo and it totally eliminates the sonic "ghost signals" common to DC power amplifiers. As a result, each instrument and voice sounds purer and more individually real... regardless of volume level. Perhaps for the first time, you'll experience stereo with true depth, spaciousness, and a remarkably discernable third-dimension.

The second innovation

is Linear-Switching which lets us provide Class A amplifier sound quality with Class B power efficiency. Crossover distortion is significantly reduced. And output power is very highly efficient... 90 watts per channel with no more than 0.02% THD.*

The TX-7000's FM section is also clearly superior... picking up weak stations noiselessly and strong stations without distortion.

A unique Human Touch Sensor automatically controls the Quartz-Locked system for more reliable and convenient operation... releasing the system instantly when it senses your touch on the tuning knob... engaging it again as your fingers leave the knob.

Special circuits also monitor both channels... detecting and cancelling out sound distorting FM signal noise. Other circuits cancel out appliance noise.

Digital FM readout... separate bass, mid and treble controls... 2-way tape dubbing facilities... and dozens of other important features are all found in the TX-7000. And the TX-7000 is just one of four new receivers from Onkyo.

Hear "the secret of Onkyo". Hear receivers so advanced, they transcend mere technology. Onkyo USA Corporation
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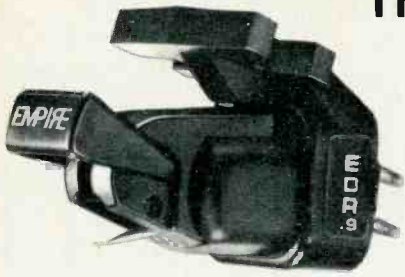
The Onkyo TX-7000

A remarkably advanced new stereo receiver
that provides dramatically superior sound quality.

* Minimum RMS at 8 ohms both channels
driven from 20 to 20,000 Hz.

Critics Choice:

The Empire EDR.9



Every company loudly proclaims that its product is the best, but the true test of credibility rests with the experts. In our field, they are the audio reviewers.

Here's what they say about Empire's EDR.9.

At Home

Audio (U.S.)

This new top-of-the-line phono cartridge should be considered an excellent choice for most every music system.

Hi Fi Buyers Review (U.S.)

You will certainly appreciate the outstanding definition and low distortion of this new EDR.9.

Popular Electronics (U.S.)

The EDR.9 has smooth effortless sound, flat response and high tracking ability.

High Fidelity (U.S.)

Instrumental timbres come across in all their details without any artificial emphasis. Voices appear open and full with just enough presence. Bass notes are solid and well defined.

Complete Buyers Guide (U.S.)

Music lovers who prefer a cartridge that simply extracts what's in the groove will find a great deal to like about it.

Abroad

FM Guide (Canada)

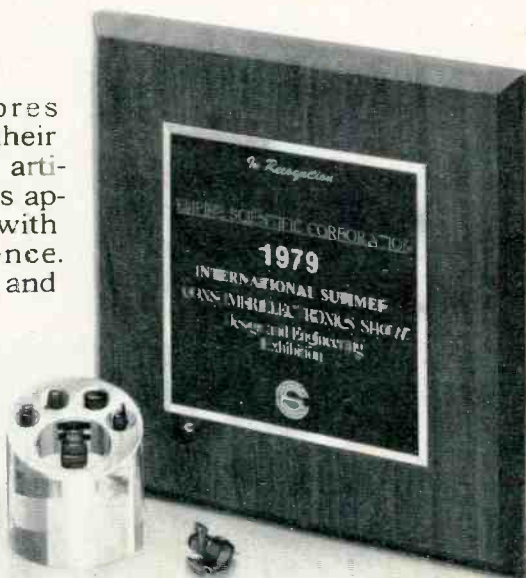
Empire has produced a first-rate cartridge with a well-defined and distinguished identity.

Popular Hi Fi (England)

I found myself forming a distinct preference for the Empire over the B&O and the Ortofon.

Hi Fi For Pleasure (England)

Indeed this is an example of advanced design, exhibiting low mechanical impedance, light weight, and compatibility with the best low-inertia arms.



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Behind the scenes

Bert Whyte



In the first part of my SCES report, I concentrated on the impressive vitality of our most important sound source, the LP phonograph record, and the ever-more-sophisticated equipment designed to extract the maximum amount of signal information from the grooves. That signal information may be raucous rock or sublime symphony, but no matter. It is all music, and its enjoyment is — or should be — what high fidelity is all about.

Which brings me to the point that since music is the quintessential element in this audio business, why is it subverted in so many equipment demonstrations at these shows? In room after room at the show hotels, I was subjected either to shrill, shrieking, boomy, atrociously distorted sound played at levels far beyond the capabilities of the amplifiers and loudspeakers the exhibitors were using or — a new phenomenon at this SCES — to playback at such reduced levels that the music was an amorphous blob of sound, devoid of any detail or definition. The whole thing was an affront to anyone's sensibilities, and it was ob-

vious that the inept personnel manning these demonstrations had no concept whatsoever of music balances and dynamic perspectives. Granted, the rooms in these hotels can be troublesome in terms of speaker placement and acoustics, but the real pros in the business manage to cope and present informative and musically enjoyable demonstrations. These poor sound demonstrations at both the Winter and Summer CES have become biannual gripes of mine, and it is most discouraging to find that each year the problem seems worse than the year before. Fortunately, however, among all the sonic dross, there are glitters of golden sound.

One of the cleanest, most musical sounds at the SCES was to be heard in the IMF Electronics suite at the Pick Congress. This is the British firm well-known for their transmission line loudspeakers. IMF Electronics President in the U.S.A., Ronald Bliss, and IMF Chairman, John Hayes, were on hand to demonstrate their full range of speakers, including the Professional Monitor Four — a large floor-standing



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Introducing the new hand-crafted Astrion.[™] How do we achieve such unparalleled musical excellence? One by one. Piece by piece. All by hand. Each and every Astrion component is hand inspected, hand selected and finally hand assembled by our most skilled craftsmen. Like you, they look beyond specifications. That's why they personally audition every Astrion they build.

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Its exceptional purity creates a new standard for transient response.

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Our engineers also developed a unique pivot suspension system for the Astrion. The Orbital Pivot System.[™] Unlike other systems there are no restrictive armature wires, adhesives or governors. Instead each armature is micro-machined to form a perfect fit with the Astrion's S-4 suspension block. It's that simple. It's also that much more compliant in all signal directions.

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In an age of many exotic pretenders, all claiming to be state-of-the-art, Audio Research stands alone in its ability to transmit the listener to the "live" event. Audio Research has achieved this goal through a decade of research and development that has considered first and foremost, the complex, constantly changing phenomena of musical waveforms. This "musical approach" requires design parameters which exceed good static specifications in order to perform in demanding dynamic applications, *i.e.*, music reproduction. It is this musical approach that sets Audio Research apart from its competition.

A case in point. Pictured above are the SP-6B stereo preamplifier and the D-120 stereo power amplifier. Conceived with a decade of design experience, both products truly deserve the title, state-of-the-art.

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The SP-6B and D-120, along with other fine Audio Research products can be auditioned exclusively at authorized Audio Research dealerships. Audio Research dealers are selected for their high degree of integrity, expertise and service. An Audio Research dealer is worth knowing. It is insurance that you will receive the most from your Audio Research investment.



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original *n.*: that from which a copy, reproduction or translation is made. (Webster's Collegiate Dictionary)



The ALLISON:ONE® Room Matched® loudspeaker system was introduced in 1974. It was the first direct-radiator system ever designed to use room-boundary reflections constructively, so that flat acoustic power could be radiated into a listening room throughout the full frequency range.

Now, more than five years after, we are pleased to see systems based on this concept being marketed by AR, Design Acoustics, and Snell (if we've omitted anyone, our apologies). To all such we say, "Welcome aboard." The more of us there are, the better.

But imitation does not mean replication. Only Allison® loudspeaker systems are manufactured under U.S. Patent No. 3,983,333, which teaches the most effective and least costly ways to make Room Matched loudspeakers. Only Allison systems have convex-diaphragm tweeters and midrange drivers, which combine high output capability and unmatched dispersion. And only Allison systems are available in models designed for use with one, two, or three intersecting room boundaries.

Information on the complete line, including specifications, a list of authorized dealers, and details of our Full Warranty for Five Years, is available on request.

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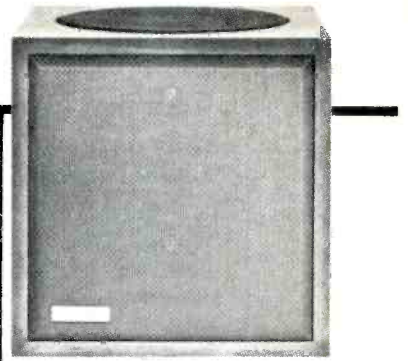
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model featuring new proprietary speaker driver units. Highlight of the demonstration was that they were playing 30-ips master tapes on an Ampex ATR-104 four-channel unit which had been recorded by Ron Bliss using the Calrec Soundfield microphone. The tapes were thus encoded for the Ambisonic Surround Sound System, which has been under development in Britain for some years now. The music, mostly of the highly dynamic big band variety, was played back through an Ambisonic decoder which will shortly become commercially available. The decoder will also feature what they describe as a SuperStereo enhancement mode. As demonstrated through four of the Professional Monitors, the sound was spectacularly wide in dynamics, pristine clean, and had sharp and precise transient response and solid tight bass, and with the Ambisonic feature giving a convincing sense of liveness and spatial perspective. I would have to say the surround effects were more subtle and less pervasive than usually heard in American surround sound systems, but it certainly lent an extra quotient of realism to the excellent big band sound.

Staying with our British friends, B&W was at the Pick Congress presenting their usual highly civilized, ultra-musical loudspeaker demonstrations. The Model 801, with its superbly stable imaging and depth perspective (now the official monitor speaker for EMI, Pathe in France, Electrola in Germany, and Decca Records in London) was joined by its new smaller companion, Model 802. John Bowers, the general head of B&W, was giving an impressive demonstration of the capabilities of this new speaker with a broad range of music. I had already heard the prototype Model 802 on a visit to the B&W plant in England some months ago, and I will be reporting on this trip in the near future. The 802 is a columnar type of speaker system. The identical midrange and tweeter units of the 801 are used in the 802, and thus the precise imaging and sense of depth of the 801 are completely preserved in this smaller system. The bass section of the 802 differs from the 801 in employing two 6½-inch drivers with Bextrene cones and PVA compound coating, rather than a single larger diameter woofer. These drivers feature ultra-long-throw suspensions, and are used in a closed-box, acoustic-suspension system with a minus 3 dB point at 49 Hz, the system resonance. Thus, bass response is somewhat less than with the 801, this being more apparent with organ music than with most music programs. For those who have limited space, but who would like to have the superior sound qualities of the 801, the

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Le Cube.



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While compact, the model Six is not a "mini" system in any sense. Its low-frequency output is flat to below 50 Hz with reasonable system efficiency. The highest audible frequencies are reproduced smoothly and dispersed uniformly by the same convex-diaphragm tweeter used in the most expensive Allison models. Allison Sixes are accurate, full-range loudspeaker systems, without allowance for size or price.

Revue du Son, in a feature review,* said "La 'petite' Allison Six est une grande ceinte [loudspeaker]."

If the reviewer is correct in his judgment, you can now buy a pair of great loudspeaker systems for about \$250. And you won't have to move out any furniture to make room for them.

Full-range performance is possible from loudspeakers that can be used as bookends on an open shelf. The Allison Six costs from \$125 to \$131, depending on shipping distance.

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**Revue du Son*, No. 32 (November, 1979)



ALLISON ACOUSTICS

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“Listening tests confirmed what the excellent measurements implied: the Eumig FL-1000 is a superb performer.”

JULIAN HIRSCH—STEREO REVIEW, APRIL 1980

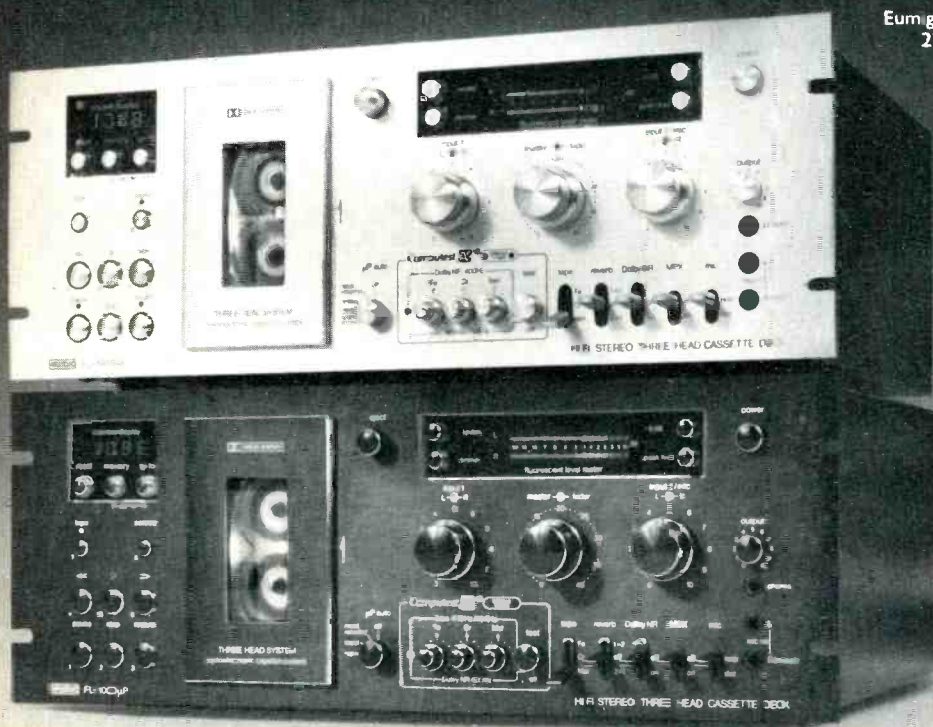
What you are about to read is Julian Hirsch's unadorned conclusion in his review of the Eumig FL-1000.

“Listening tests confirmed what the excellent measurements implied: the Eumig FL-1000 is a superb performer. Dubbing from FM or phono discs revealed no audible differences between the original and the copy, and even FM interstation noise—our most severe test—could be recorded and played flawlessly up to levels of approximately -5 dB. The Computest adjustment for different brands of tape was not only accurate but contains a built-in rewind mechanism that returns the tape to the precise point where you began your adjustment. The counter was the most accurate we have ever used. And for people who are “into” computers, the one-of-a-kind (so far) Eumig FL-1000 cassette deck opens up endless possibilities.”

We couldn't have said it better. We wouldn't even try. For the complete text of the review, write to us. Or, better yet, visit your nearest Eumig dealer and find out for yourself what it takes to make a reviewer rave.

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802 is a kessin' cousin of the 801 and will serve this purpose quite handily.

Since the B&W exhibit was a cooperative effort with their Canadian importers, Anglo American Audio, this company also showed its other import products. One of these, the Meridian M2 Active Loudspeaker is a product of Boothroyd Stuart, another company I visited on my trip to England. The M2 is the brainchild of bright, young engineer, Bob Stuart. In a cabinet that is very narrow — 7.1 inches, with a height of 19.7 inches, and 14.8 inches deep (an unusual shape that is said to

be part of the design brief) — are two five-inch, long-throw Bextrene woofers with a 52-mm dome tweeter mounted between the woofers in a vertical configuration. The bass section is powered by a 70-watt amplifier similar to the firm's Model 105, and the treble unit is driven by a 35-watt amplifier. There is a 1.75 kHz double Butterworth crossover with a 76-micro-second electronic time delay to time align the tweeter with the bass speakers. This diminutive system can put out 105 dB SPL at one meter, with a minus 3 dB point at 38 Hz. Quite solid

and well-damped bass, plus clean, sharp transients, and a big sound belying the size of this speaker, are the result of the active design. Although the price will be about \$1600 per pair in this country, you must remember that this includes the power amplifiers.

KEF was demonstrating a Mark Two version of their now-famous Model 105 loudspeaker. The new unit features various refinements including extended bass response and more power handling capacity due to their new S-STOP overload protection circuit. This translates as Steady State-Transient Overload Protection; it has a mode to protect against peak voltages, thermal mode to protect against overheating of the voice coils, and an excursion mode which monitors the linear excursion of the bass driver. KEF has evidently had requests to produce a speaker with the desirable imaging and depth perspective characteristics of the Model 105, but in a smaller package. Thus, they were introducing the Model 105.4. This is essentially a junior version of the Model 105 Mark Two, with the same size midrange and treble enclosure. Apparently the midrange driver is identical to the Mark Two unit, but the treble unit is listed as the KEF T33HF. Instead of the single large-diameter woofer of the Mark Two, the new system features two 8-inch Bextrene woofers in a 40-liter bass enclosure, as compared to the 70 liters of the Mark Two. According to KEF, this smaller enclosure gives a half octave less bass response and is minus 10 dB at 30 Hz. In all other respects, the Model 105.4 has all the niceties and design characteristics of the Mark Two, including the S-STOP protection circuit.

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American Speakers

With B&W and KEF making junior versions of their larger established loudspeakers, Bob Fulton is going the other way. His well-received Nuance loudspeaker, is now being made available in a king-sized version he calls the Crescendo. Standing 44 inches high, 18 inches wide and 16 inches deep, the Crescendo is a five-way system, utilizing a 12-inch woofer, 10-inch upper woofer, five-inch midrange, and two high-power one-inch dome tweeters. Crossover points are 95 Hz, 750 Hz, 550 Hz and 22,000 Hz. This is a high-power system designed to handle the wide dynamic range of direct disc and digitally mastered recordings.

Speaking of high power and wide dynamic range, Gene Czerwinski of Cerwin-Vega has a new system that will really clear your sinuses, How about his new SR-2 loudspeaker he terms "digital ready," which can han-

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Recorders are very outspoken
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They insist on Fuji VHS and
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2

Series 1, Number 2 Infrasonic Response

In this series we are discussing the various aspects of preamplifier performance which vitally affect the overall sound of your high-fidelity music system.

The second of these is the infrasonic response of the system. Regrettably, finding physically flat records has become difficult. The frequencies associated with record warps are exacerbated by the resonance between tone arm plus cartridge mass and cartridge compliance. If allowed to continue unabated throughout the system, this infrasonic garbage will modulate musical signals in tape recorders, power amplifiers, and, most especially, loudspeakers.

The debate has raged for many years over the audibility of Doppler distortion in loudspeakers, i.e., the fact that the *pitch* of program material varies with excursion. But the very thing that causes the largest cone excursions and thus the largest distortion was previously overlooked—the warp! We found that under quite benign circumstances the “flutter” caused by this effect is about 0.6%, greatly above the 0.12% threshold of careful listeners.

The Apt/Holman Preamplifier contains a very effective 18 dB/octave infrasonic filter. It is placed well below desired information (3 dB down at 14.5 Hz) yet is down more than adequately (35 dB at 4 Hz) to eliminate the detrimental effects of warps. Other designs employ inadequately steep filters which must either be placed at such a high frequency that they become audible, or at such a low frequency that they are ineffective. The Holman Preamp filter is the only one to the best of our knowledge to have *both such a low frequency and such a large slope*.

For more information, write:
Apt Corporation
Box 512
Cambridge, Massachusetts 02139

- For a technical brochure.
- For a set of reviews.
- For an Owner's Manual, please send \$4 (\$5 foreign).
- For a set of six preamp papers, please send \$2 (\$3 foreign).

Name _____
Address _____

dle 1,000 watts continuous input and put out peak SPL of 135 dB! The system comprises an 18-inch dual-spider woofer in a sixth-order Butterworth vented enclosure. To increase internal volume Gene uses his unique Thermo-Vapor Suspension which has sealed, acoustically transparent pouches filled with a soft gas. Mid and high frequencies are handled by a 12-inch, mid-axial, composite driver with a time-coincident, compression driver/horn, acoustic filter arrangement. Frequency response is rated at ± 2 dB from 28Hz to 18 kHz. This brute is 52 inches high by 25 inches wide and 20 inches deep. Projected price is \$3,400 per pair.

ADS is another company which has seen the digital handwriting on the wall and has introduced three new professional monitor loudspeakers said to be capable of handling the dynamic range of digital recordings when they arrive on the audio scene. To complement the speakers they have introduced a special high-powered bi-amplifier system. The ADS L2030 is the big daddy of the new line. This system has two 14-inch woofers in independent acoustic-suspension chambers, four two-inch soft dome, acoustic-suspension midrange drivers, and one special one-inch soft dome tweeter with samarium-cobalt magnet for a very high 22,000-Gauss magnetic flux density. This 190-pound unit measures 58 inches high by 27 wide and 13 deep. Crossovers are 12 dB per octave at 450 Hz and 4000 Hz. Frequency response is ± 3 dB from 22 Hz to 20 kHz. To power this system, ADS uses their new B-2000 stereo bi-amplification system. This consists of two one-kilowatt bi-amp modules and the C-2000 control unit. Each module supplies 500 watts to the woofer section and 500 watts to the midrange/tweeter section, for a stereo system total of 2 kilowatts! The C-2000 control module has a digital trigger to turn on the power modules, plus selectable crossover points optimized for the various ADS monitors, or for other speaker systems, and what ADS calls a Dynamic Bass Extender circuit. When I heard the L2030 system, it was putting out prodigious amounts of low frequency energy from my Virgil Fox organ recordings, literally flexing the hotel room walls!

Sheffield Labs made a rare appearance at the SCES and in their suite were demonstrating their unique direct-disc recordings, including some new releases. Doug Sax of Sheffield has chosen to use the Itone VMPS Super Tower Two loudspeaker that I described in the May issue of Audio. Naturally this delighted Itone President and speaker designer Brian Cheney, who rose to the occasion by

2

Series 2, Number 2 Load Drive Capability

In this series we are discussing the various aspects of power amplifier performance which vitally affect the overall sound of your high-fidelity music system.

The second of these is that when amplifiers have been designed in the past with a great deal of *Dynamic Headroom* (discussed last time), they have suffered when it came to driving low impedance loads. The reason for this is that the short-term power compared to the continuous power is provided by *matching* the power supply regulation to the load impedance. Although this may appear to be a complex idea, in fact such matching is provided merely by the application of Ohm's Law to the power supply design. Thus an amplifier may be designed to produce 100 watts continuously and 200 watts for the short term, but such an amplifier, when faced with an especially low impedance load such as 2 ohms, no longer *matches* well and the power output falls.

In the tube era the output transformer played the important role of providing for the match, i.e., of making an appropriate trade-off of voltage and current for the specific load. However, as the use of transistors came to dominate amplifier design, the matching property has been lost.

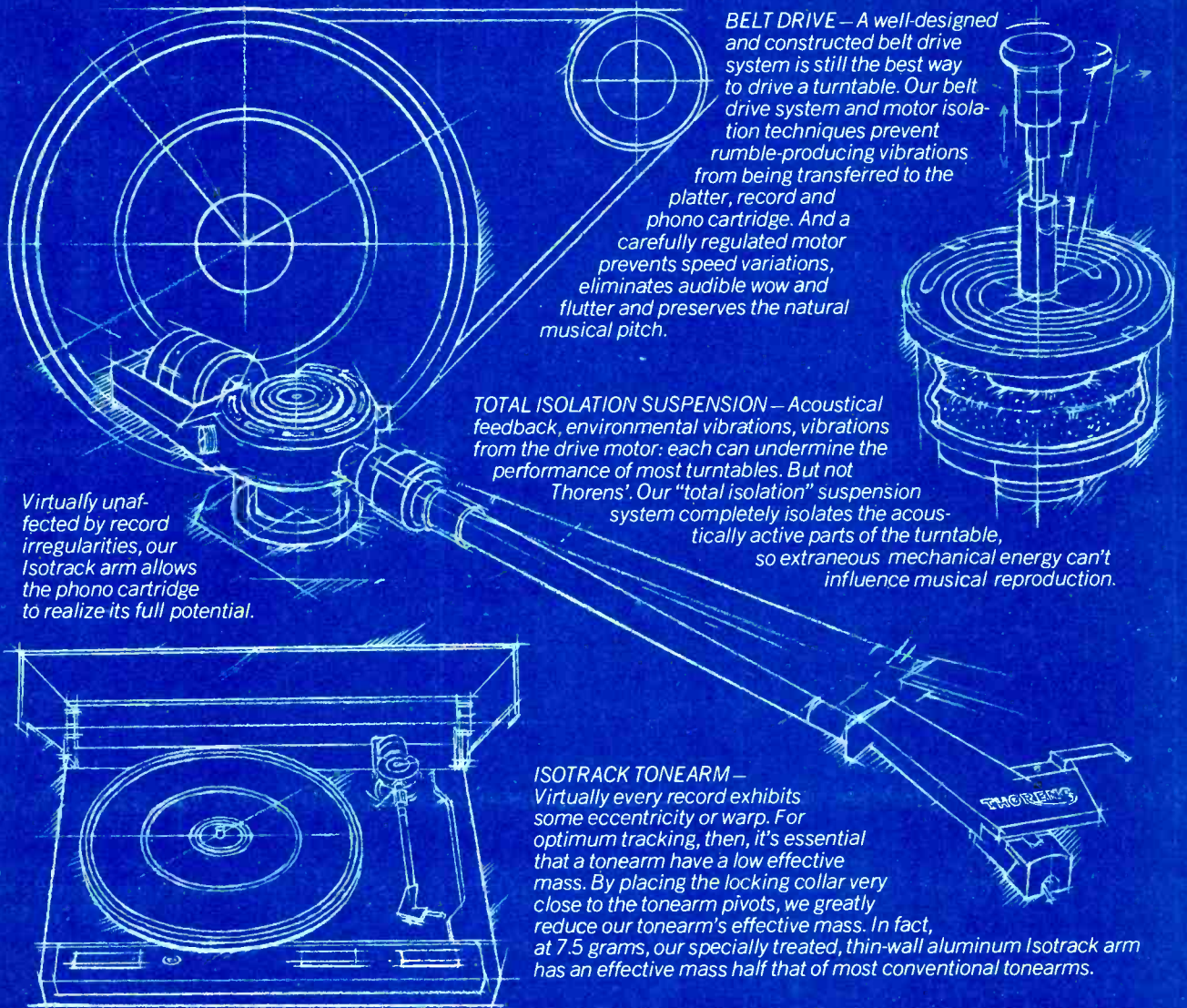
Unlike other solid-state power amplifiers, the Apt 1 Amplifier has a switch which rearranges windings on the *power* transformer to provide optimum matching over a wide range of load impedance without resorting to an *output* transformer. The arrangement also uses all of the transformer copper all of the time for good efficiency. Thus the Apt 1 Amplifier has a more uniform power output capability versus load impedance than other amplifiers.

For more information, write:
Apt Corporation
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Virtually unaffected by record irregularities, our Isotrack arm allows the phono cartridge to realize its full potential.

BELT DRIVE—A well-designed and constructed belt drive system is still the best way to drive a turntable. Our belt drive system and motor isolation techniques prevent rumble-producing vibrations from being transferred to the platter, record and phono cartridge. And a carefully regulated motor prevents speed variations, eliminates audible wow and flutter and preserves the natural musical pitch.

TOTAL ISOLATION SUSPENSION—Acoustical feedback, environmental vibrations, vibrations from the drive motor: each can undermine the performance of most turntables. But not Thorens'. Our "total isolation" suspension system completely isolates the acoustically active parts of the turntable, so extraneous mechanical energy can't influence musical reproduction.

ISOTRACK TONEARM—Virtually every record exhibits some eccentricity or warp. For optimum tracking, then, it's essential that a tonearm have a low effective mass. By placing the locking collar very close to the tonearm pivots, we greatly reduce our tonearm's effective mass. In fact, at 7.5 grams, our specially treated, thin-wall aluminum Isotrack arm has an effective mass half that of most conventional tonearms.

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In recent years, various turntable manufacturers have rushed to embrace the latest technological "innovations." Thus have we heard vigorous praise of direct drive motors, S-shaped tonearms and so forth.

While this has been going on, we at Thorens have remained steadfast in our conviction that the only changes worth making are those that *audibly* improve musical reproduction.

Similarly, while other manufacturers use a mixture of measurement techniques to

produce the most numerically impressive specifications possible, we continue to report specifications obtained solely through demanding, internationally recognized DIN tests.

Finally, while many of our competitors have opted for manufacturing expedience, we continue to stress uncompromising craftsmanship, attention to detail and commitment to enduring excellence.

(Our five-year warranty provides proof of that.)

For these reasons, we have

been labeled "stodgy" and "unprogressive." But for the very same reasons, our products continue to provide the best in long-term musical reproduction performance:

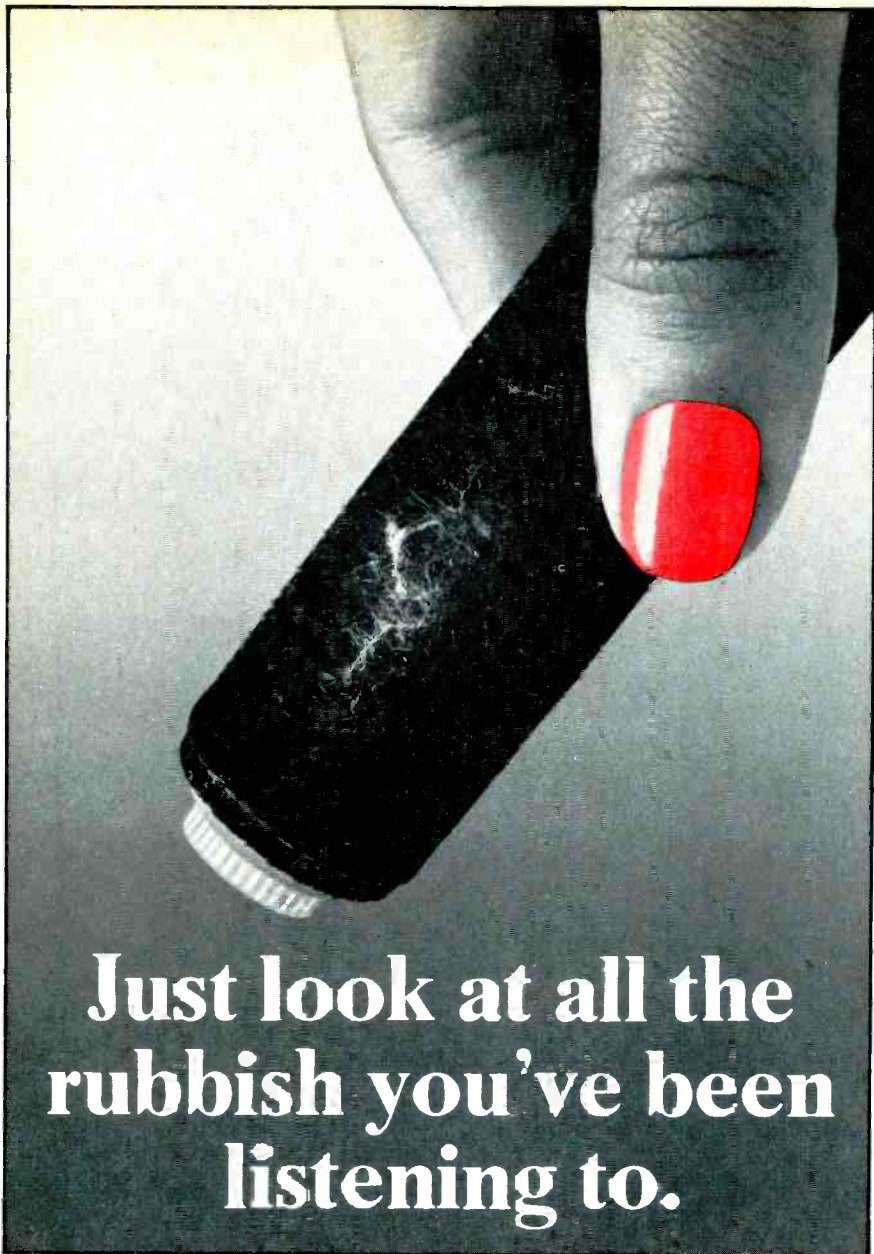
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Its unique roller design gets right to the bottom of each groove. While being slightly humid, it prevents static build-up. So all that you're left with is music. Pure and unadulterated.

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furnishing Sheffield with a newly modified version of the Super Tower Two. Gone are the piezo-electro tweeters, replaced by a new high-efficiency ribbon tweeter, for much smoother and more extended treble response. A side-mounted 12-inch passive radiator has been added, mainly to damp a residual cabinet resonance and earlier units can be retrofitted. Thus, a good speaker becomes better, and Brian was making some mighty sounds playing back Sheffield's dramatic recordings.

Other Eye-catchers

I would like also to mention some other items that caught my eye at SCES. Nakamichi introduced a new cassette recorder, the 1000ZXL, having a micro-computer they call A.B.L.E. which affords automatic calibration of azimuth, bias, level and equalization. With this system, Nakamichi claims the unit will permit a frequency response of ± 3 dB from 10 Hz to 25 kHz. Even more astonishing is the 20 Hz to 20 kHz response claimed to be within plus or minus a *half* dB! The unit has random access memories and many other features. It will do just about everything except tuck you into bed, and for \$3800 this is to be expected!

The Dolby HX system has made considerable headway; 14 cassette decks now incorporate it in their circuitry . . . there were new open-reel decks from Tandberg and Akai . . . Audionics has their RVR and RVP replacement record and playback electronics for the Revox A77 tape recorder, said to give better headroom (six dB), increased output and improved signal-to-noise ratio . . . the Carver C-300 is a sonic hologram generator and time delay unit that can be added to existing preamplifiers . . . Threshold has introduced new stereo versions of its Stasis amplifier; Stasis Two uses 48 150-watt power transistors and a 1-kW transformer, and will sell for \$2450, while Stasis Three uses 32 of the same 150-watt power transistors and the same 1-kW transformer, this amp will sell for \$1675 . . . dbx ventured into a new field with the introduction of their Model 20/20 ten-band automatic analysis and equalization system. The unit has its own calibrated microphone, generates a pink noise signal, performs real-time analysis, and automatically adjusts equalization for flat response. A 300 LED display can show either the RTA or the equalized frequency response curve. The unit has memory inputs for up to 10 different equalization curves representing, for example, various listening positions in a room. The 20/20 is priced at \$1295.

Continued on p. 121



Only Custom-Tailored Sound meets your taping needs.

If tape is the only sound that's right for you, to maximize your taping requirements, an ADC Sound Shaper® Two MK II frequency equalizer is a must.

When they designed the Sound Shaper Two, they had you in mind. Because, aside from being a superb all-around equalizer, it lets you work with tape the way you want. For example, now you have two-way tape-dubbing capability, a feature many receivers don't offer. You can "custom-tailor" a record and then record it the way you would have engineered it. And that includes your golden oldies because, with the Sound Shaper Two, you can virtually eliminate the surface noise which has accumulated

over the years.

The entire ADC Sound Shaper line is impressive. The basic Sound Shaper One is a great introduction to frequency equalizers. And the top-of-the-line Sound Shaper Three, the *Paragraphic*™ equalizer, combines the ease and control of a graphic equalizer with the precision and versatility of a parametric. And, all Sound Shaper equalizers, except the Sound Shaper One, feature LED-lit slide controls, allowing for visual plotting of the equalization curve.

With the Sound Shaper Two MK II, you can appreciate the difference custom-tailored sound makes—over and over again.

Custom-Tailored Sound



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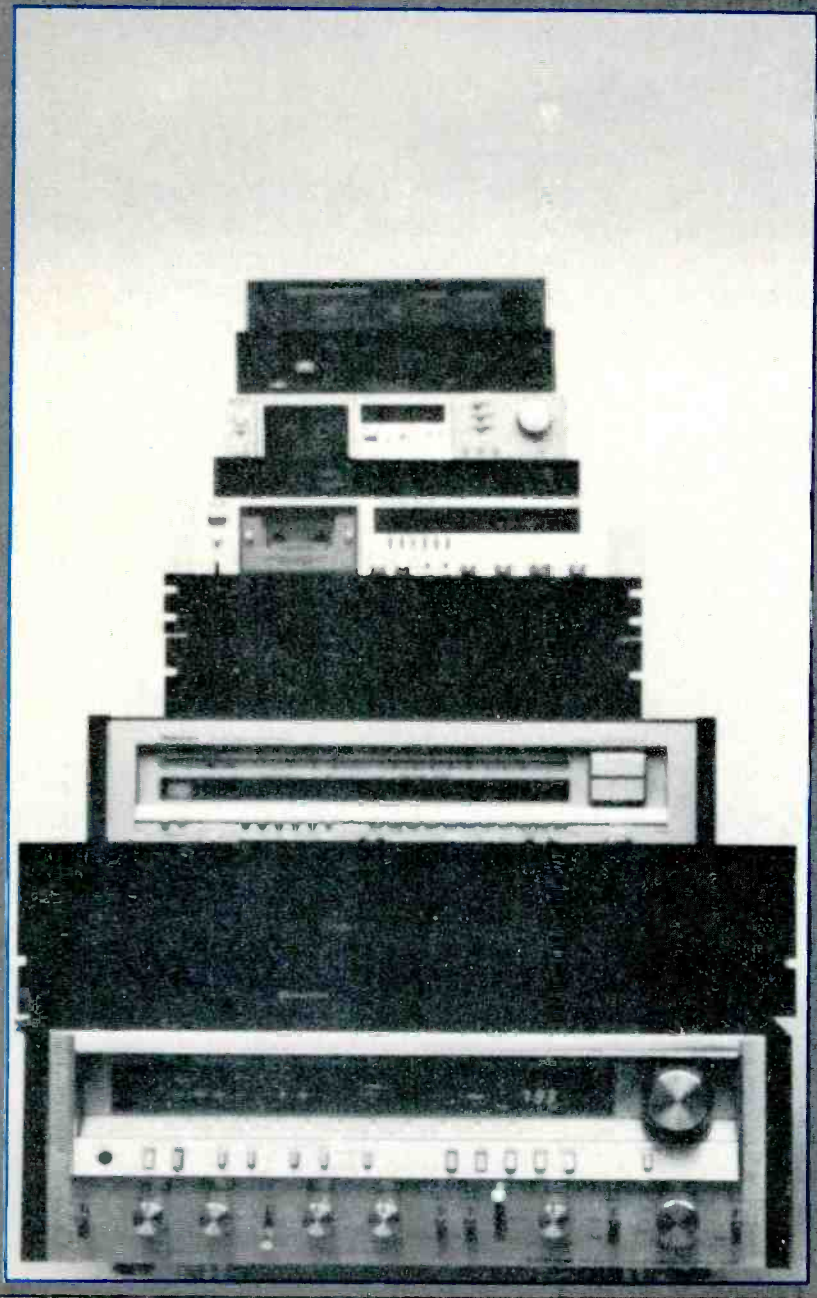
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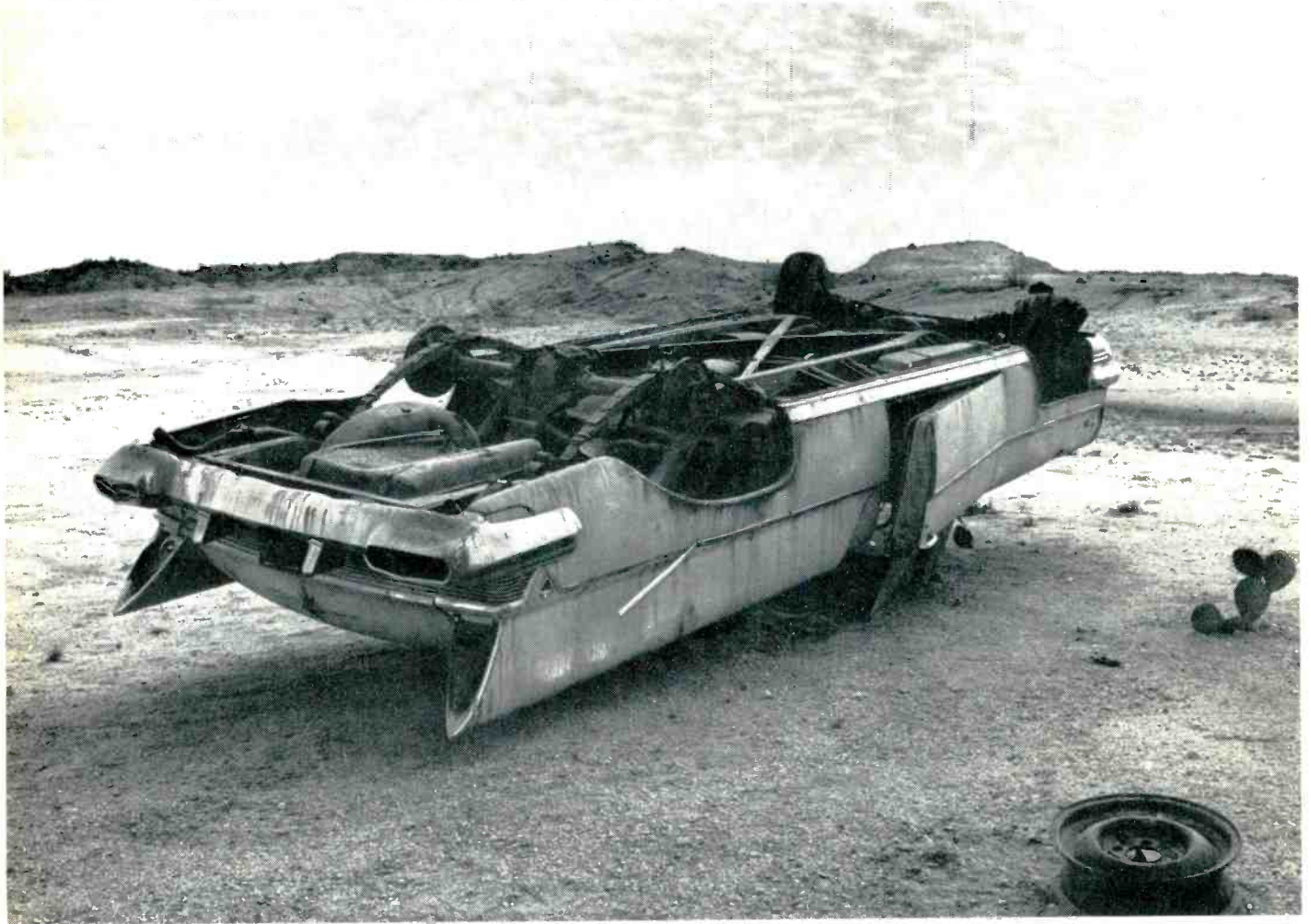


The 1980 Annual Equipment Directory is the largest we have done since we began these tabular listings some 23 years ago, containing over 45,000 specifications on more than 2800 products.

There are a number of revised sections this year, and we have dropped 8-track machines entirely. In editing the question forms returned by the manufacturers, we know that certain responses are simply impossible, say 250 dB for phono S/N, but we steadfastly refused to alter any response unless it was an obvious non sequitur, e.g. "yes" where we asked for voltage. However, please note that sometimes our headings are not appropriate for an item—in loudspeakers, for example, we ask for a minimum recommended amplifier power in watts, but what to do with a speaker that has a built-in amplifier? We said "Inc." for included.

While we would certainly like to say that all the specs on the following pages are the result of our own measurements, such an undertaking is obviously impractical. Since the most complete specifications will always be available from the maker, please see the listings of manufacturers' addresses, beginning on page 158. Addenda, with data received too late for inclusion here, will appear in the January 1981 issue.

IF THERE'S A MAXELL CASSETTE IN THIS CAR AND IT DOESN'T WORK, WE'LL REPLACE IT.



If you own a car stereo, you've probably already discovered that many cassette tapes don't last as long in your car as they do in your living room.

Conditions like heat, cold, humidity, and even potholes can contribute to a cassette's premature demise.

At Maxell, our cassette shells are built to standards that are as much as 60% higher than the industry calls for. Which is why we can offer you the best guarantee in the industry. An unconditional lifetime warranty.

So if you'd like better mileage out of your cassette tape, try Maxell. Even after 100,000 miles on the road, it'll run like new.

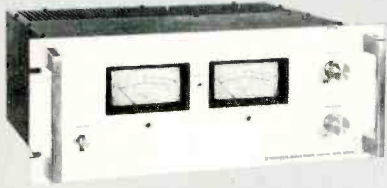
If only they made cars this well.



IT'S WORTH IT.

AMPLIFIERS

For Manufacturers' Addresses, see page 158



Pioneer Spec-2



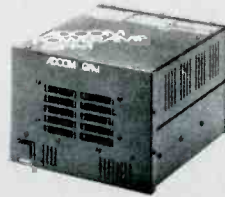
Tandberg TPA 3003



NAD (USA) 3040



Threshold Stasis 2



Adcom GFA-1



Technics SU-V8



JVC A-X9



David Hafler Co. DH-200



Crown D150A

MANUFACTURER	Model	Unit Type: Integrated = I; Kit = K; Phono Stg. = P; Tube = T; Mono = M; Basic = B		Power Bandwidth, Hz to kHz	Cont. Ave. Watts per Chan. into 8 Ohms	Rated THD, Percent	Rated IHF IM, Percent	Rated SMP TE IM, Percent	Phono S/N, "A" Wtd. re 5 mv, dB, per IHF A-202	Phono Sensitivity, mV, per IHF A-202	Maximum Phono Input, mV	Rated Slow Rate, V/p-S	High Level Sensitivity, V	Class of Output Operation	Dynamic Headroom, dB	Does Unit Invert Phase?	Weight, lbs.	Price, \$	Notes
		50	20-20																
AB SYSTEMS	105	B	50	20-20	0.1	0.1					0.75	AB		No	18	399.00	Totally modular.		
	205	B	100	20-20	0.1	0.1					0.75	AB		No	32	599.00			
	410	B	200	20-20	0.1	0.1					0.75	AB		No	45	949.00			
	1200	B	300	20-20	0.1	0.1					0.75	AB		No	65	1200.00			
ADCOM	GFA-1	B	200	20-20	0.05	0.1	0.1			80		AB	2.2	No	25	399.95	Bridged mode.		
ADS	Power Plate 1000	B	500†	5-100	0.05	0.05	0.05			100	2.0	Dyn. A			40	2500.00	†At 4 ohms, 2 chan. for bi-amping, w. xover.		
AIWA	AA-8700U	I	75	20-20	0.02	0.02		83	2.5	280	150			Yes	38.4	550.00	† Moving coil.		
	AA-8300U	I	40	20-20	0.05	0.05		80	2.5	130	150			No	20.9	300.00			
	SA-P30U	B	35	10-100	0.03	0.01		115		200;	150			No	8.8	215.00			
	SA-P50U	B	50	10-50	0.02	0.01		88/70†		20†	200;	150		No	11.9	230.00			
	SA-A30U	I	15	20-20	0.003	0.003		82	2.5	20†	150			No	7	160.00			
AA-16BH	I	9	20-20	1	1		87						No	6	150.00				
AKAI	AM-U03	I	37	6-60	0.008			75	3				B		19	229.95			
	AM-U04	I	48	6-60	0.008			82	3				B		22	279.95			
	AM-U06	I	68	6-60	0.008			84	3				B		18	349.95			
APT	1	B	100†	20-20 ±0.2	0.03	0.01	0.03			60	0.9	AB	3	No	23	641.00	†Equal performance from 2-10 ohms at any phase angle.		
AUDIBLE ILLUSIONS	Mini Mite II	T/K	45	20-15	1	1	1			10	1.1	AB		No	44	550.00	Wired, \$675.00.		
	GOG	T/M	150	15-20	0.5	0.5	0.5			26	1.5	A		No	74 ea.	4495.00			
	Dual Mono	T	80	16-20	0.5	0.5	0.5			22	1.3	AB		No	70	1395.00			

AMPLIFIERS



MANUFACTURER	Model	Unit Type: Integrated = I, Kit = K, Photo Sigs = P, Tubes = T, Mono = M, Basic = B	Cont. Ave. Watts per Chan. Into 8 Ohms	Power Bandwidth, Hz to kHz	Rated THD, Percent	Rated IHF IM, Percent	Rated SMPTE IM, Percent	Phono S/M - A Wid. re: 5 mV, dB, per IHF A-202	Phono Sensitivity, mV, per IHF A-202	Maximum Phono Input, mV	Rated Slew Rate, V/μs	High Level Sensitivity, V	Class of Output Operation	Dynamic Headroom, dB	Does Unit Invert Phases?	Weight, Lbs.	Price, \$	Notes
AUDIMATION	CPA-1	M/B	60	20-20	0.1					10	0.6	AB	No	11	149.50			
	PD-1	B	95	20-20	0.1					30	0.7	AB	No	26	429.50			
	P-600	B	220	0-20	0.05	0.05					1.35	AB	No	44	699.50			
AUDIO RESEARCH	D-52B	B	50	1-20	0.1	0.1	0.1					AB	No	39	1395.00			
	D-100B	B	100	1-20	0.1	0.1	0.1					AB	No	43	1695.00			
	D-110B	B	110	1-20	0.1	0.1	0.1					AB	No	92	3250.00			
	D-120	B	120	1-20	0.1	0.1	0.1					AB	No	43	1795.00			
	D-125	B	125	1-20	0.1	0.1	0.1					AB	No	85	2950.00			
	D-350B	B	350	20-20	0.25	0.25	0.25					AB	No	105	4400.00			
	D-79	B/T	75	20-20	0.5	0.5	0.5					AB	Yes	85	3700.00			
AUDIONICS	CC-2	B	70	20-20	0.18	0.001	0.001			36	1	AB	No	17	495.00			Mono bridge, for 225 W.
	BA-150	T	150	5-30	0.5						1.8	AB	No	62	3250.00			
AUDIRE	Forte	B	125	20-20	0.05	0.05				40	1.25	AB	0.8	No	40	725.00		
	2	B	100	20-20	0.05	0.05				40	1.25	AB	No	31	560.00			
	Crescendo	B	60	20-20	0.05	0.05				40	1.25	AB	1.3	No	25	395.00		
BAUMAN RESEARCH	HEX 400	B	150	10-100	0.1	0.1	0.1			100	1.0	AB	1.5	No	45	1500.00		
BELLES RESEARCH	Belles A	B	70	1-100	0.04					35	1.577	A		No	69 1/4	1695.00		
BERNING	EA235	B/T	35	30-30	1	1	1			10		B		No	30	700.00		
BGW SYSTEMS	50A	B	25	20-20	0.05		0.01				0.7	AB,B	No	15	349.00			Pro model.
	100B	B	50		0.1		0.02				1.0	AB,B		18.5	489.00			As above.
	110		50		0.07		0.02				1.0	AB,B		18.5	439.00			As above.
	210		100		0.07		0.02			40	1.4	AB,B		30	659.00			As above.
	2500/E		100		0.1		0.02				1.5	AB,B		33	699.00			As above.
	300		100		0.1		0.02				1.5	AB,B		32	599.00			As above.
(Continued)	410		200		0.07		0.02			40	2.0	AB,B		35	879.00			

AMPLIFIERS

MANUFACTURER	Model	Unit Type	Integrd. = I; Kit = K; Phono Sigs = P; Tube = T; Mono = M; Basic = B	Cont. Ave. Watts per Chan. into 8 Ohms	Power Bandwidth, Hz to kHz	Rated THD, Percent	Rated IHF IM, Percent	Rated SMPTE IM, Percent	Phono S/N, "A" Wtd. re 5 mV, dB per IHF A-202	Phono Sensitivity, mV per IHF A-202	Maximum Phono Input, mV	Rated Slew Rate, V / μ s	High Level Sensitivity, V	Class of Output Operation	Dynamic Headroom, dB	Does Unit Invert Phase?	Weight, Lbs.	Price, \$	Notes
BGW SYSTEMS (Continued)	600		175		0.01		0.02				1.88	AB, B			44		899.00	As above	
	750B		225		0.1		0.02				2.12	AB, B			57		1259.00	Model 750C, 1159.00; both as above.	
	1250		400		0.03		0.02				0.775	†			80		1999.00	†Super Class.	
BRYSTON	2B	B	50	1-100	0.02	0.02	0.02				60				20		525.00	Opt. pro version.	
	3B	B	100	1-100	0.02	0.02	0.02				60				35		900.00	As above.	
	4B	B	200	1-100	0.02	0.02	0.02				60				55		1400.00	As above.	
CARVER	C-500	B	251	20-20	0.05	0.06					80				40		722.00		
	M-400	B	201	20-20	0.05	0.06	0.05				40	1.5	AB		9		349.00		
CONRAD JOHNSON	MV75 Premier One	B/T B/T	75 200	30-15 30-15	1 1	1 1	1 1							No No	48 125		995.00 3850.00		
	MV45	B/T	45	30-15	1	1	1							No	40		699.00		
CERWIN-VEGA	M-200	B	125	7-100	0.02	0.03	0.02			70	0.125	AB	0.8	No	31		600.00		
	A-400	B	225	7-100	0.03	0.03	0.03			80	0.095	AB	0.8	No	45		900.00		
	A-600	B	350	7-100	0.04	0.04	0.04			80	0.075	AB	0.8	No	70		1400.00		
	A-4000	B	350	7-100	0.02	0.02	0.02			70	0.107	AB	0.8	No	79		1600.00		
CREST AUDIO	P-3500	B	250	20-20	0.06	0.015	0.015			40	2.2	AB			57		1199.00		
	P-3501	B	250	20-20	0.06	0.015	0.015			40	2.2	AB			57		1099.00	Balanced-unbal.	
	P-2500	B	125	20-20	0.06	0.015	0.015			35	1.58	AB			45		799.00	As above.	
	P-2501	B	125	20-20	0.06	0.015	0.015			35	1.58	AB			45		699.00	As above.	
	P-1500	B	60	20-20	0.06	0.01	0.01			20	1.0	AB			16		499.00		
CROWN	D75	B	35	20-20	0.05		0.05			6	0.9	AB & B			10		449.00	IOC music distortion indicator, opt. cabinet.	
	PL-1	B	50	20-20	0.001		0.05			6	1.0	AB & B			15		499.00	As above.	
	D150A	B	80	0-20	0.05		0.05			6	1.2	AB & B			25		669.00	As above.	
	DC300A	B	155	0-20	0.05		0.05			8	1.7	AB & B			48		1049.00	As above.	
	SA-2	B	220	0-20	0.05		0.05			30	2.1	AB & B			57		1749.00	As above.	
DB SYSTEMS	DB-6	B	40	20-40	0.003	0.002	0.002			15	1	AB	2	No	18		495.00		
	DB-6M	B/M	140	20-40	0.008	0.004	0.004			30	1	AB	2	No	18		525.00		
	DB-8	B	0.5	20-40	0.01	0.01	0.01			10	2	AB	3	No	7		195.00	Headphone amp.	
DENNESEN	DM4	T/M/B	50	20-20	1.0	0.2	0.2	85					A, AB	1.5	50		700.00		
	DM73S	T/B	35	20-20	1.0	0.2	0.2	85					A, AB	1.5	50		1000.00		
	Antares	B	75	5-250	0.005	0.005	0.005	90					AB	1.5	40		450.00	MOS-FET.	
DYNACO	ST-420	B	200		0.05	0.05	0.05	102	1.5	30		AB			55		750.00		
EUMIG	M-1000	B	100	20-20	0.025		0.025			35		AB			38½		795.00		
FISHER	CA2320	I	60	20-20	0.02	0.02		80	2.5	230		0.15	AB		20		399.95		
	CA2420	I	80	20-20	0.02	0.02		80	2.5	230		0.15	AB		24		499.95		
	BA3000	B	60	20-20	0.01	0.01							AB		21		379.95		
	BA6000	B	100	20-20	0.01	0.01							AB		31		499.95		
	CA120	I	30	20-20	0.07	0.07		78	2.5	150		0.15	AB		13		249.95		
	CA660	I	40	20-20	0.07	0.07		78	2.5	150		0.15	AB		21		229.95		
	CA2120	I	35	20-20	0.02	0.02		80	2.5	230		0.15	AB		20		329.95		
	CA2220	I	50	20-20	0.02	0.02		80	2.5	230		0.15	AB		22		399.95	Five-band Graphic Eq.	
GLI	SA-2125	B	150	20-40 ±1	0.1	0.1	0.1			20	1.2	AB	3	No	27½		795.00		
DAVID HAFLE CO.	DH-200K	B/K	100	20-20	0.02		0.005			30	0.15	AB	2.5	No	26		329.95	Rack mountable; opt. mono bridge	
	DH-200A	B	100	20-20	0.02		0.005			30	0.15	AB	2.5	No	26		429.95	As above.	
	DH-300	B/M	300	20-20	0.04		0.005			60	0.075	AB	2.0	No	26		449.95	Bridged mono, rack mountable.	
HEATH	AA-1219	I/K	15	20-20	0.5		0.5	46	0.52		0.49	AB		Yes	15		149.95		
	AA-1600	B/K	125	20-20	0.05		0.05				0.120	AB	2	No	38½		329.95		
	AA-1800	B/K	250	20-20	0.025		0.02				0.110	AB	2.5	No	50		599.95	Remote a.c. switching.	
HITACHI (Continued)	HA-2700	I															169.95		
	HA-3700	I															199.95		
	HA-5700	I															399.95		
	HA-7700	I															599.95		



The Ultimate Turntable. \$1,700.* And worth every penny.

At first glance, its price may seem pretty steep. Until you know what the L-07D delivers: No other turntable can come as close to the theoretical limit of 100% reproduction of recorded musical signals.

To get that performance, we had to invent the turntable all over again.



Our engineers found that one of the biggest obstacles to perfect sound was loss of energy caused by vibrational movement where the stylus meets the record groove. Up to now, these vibrations have resulted in mis-tracking, output distortion and audible resonance inherent in ordinary turntables.

So we designed the L-07D with a closed,

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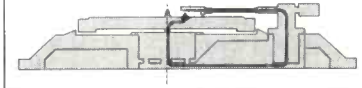
Then we took our quartz-PLL, speed-phase double servo control motor and added a 12-pound platter to give an extremely high moment of inertia for superior speed accuracy. And mounted all the workings in a 68-pound base of resin concrete bonded to mahogany in a cast aluminum frame to virtually eliminate resonance across the entire audible spectrum.

We even designed a separate power supply and logic control for the L-07D. An external Dynamic Phase Compensator that automatically regulates rotational accuracy



The L-07D's external Dynamic Phase Compensator.

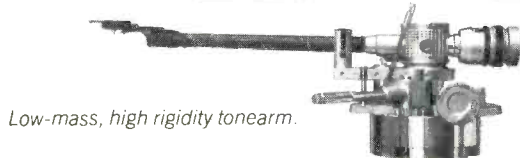
Ultra-rigid closed pickup loop.



and isolates the cartridge from electrical interference.

For the full technical story, please write us at the address below. Or better yet, see your nearest Kenwood Audio Purist Group dealer for an audition of the remarkable L-07D turntable. If your ears can appreciate what the L-07D can do for your records, the price won't seem so extravagant.

Significant specifications: Wow and flutter: less than 0.02% (WRMS). Rumble: DIN Weighted Better than -94dB. Transient Load Fluctuation: Less than 0.00008% at 33 1/3 RPM, 1,000 Hz, 20g•cm load.



Low-mass, high rigidity tonearm.



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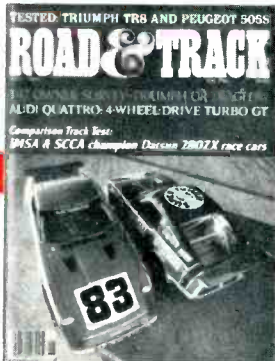
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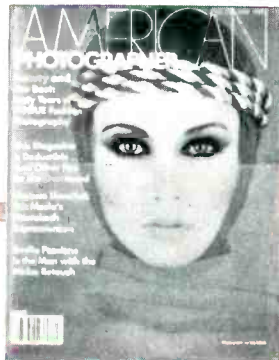
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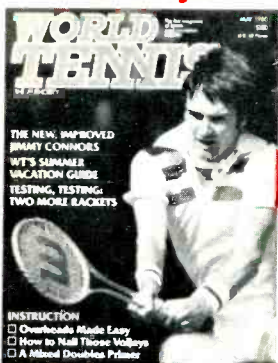
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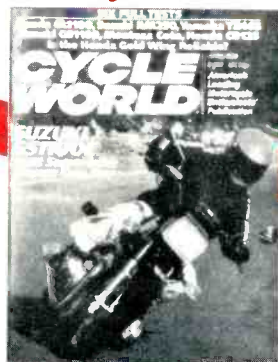
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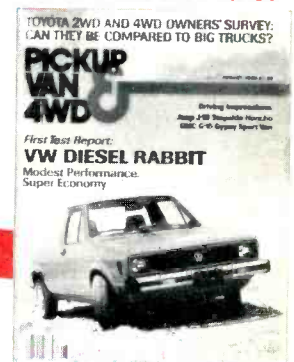
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AMPLIFIERS

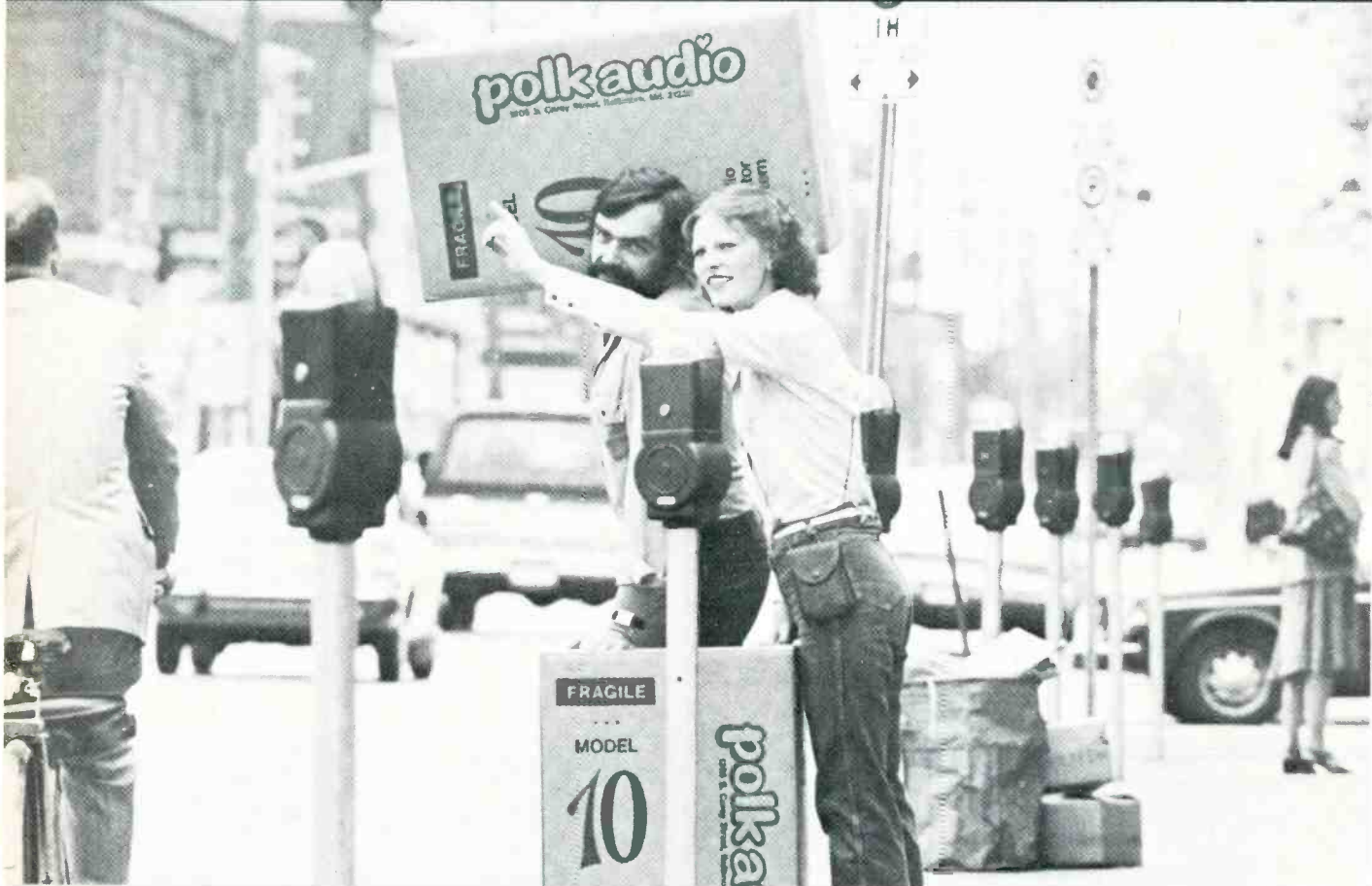
MANUFACTURER	Model	Unit Type: Integrated = I; Kit = K; Phono Stg. = P; Tube = T; Mono = M; Basic = B	Cont. Ave. Watts per Chan. into 8 Ohms	Power Bandwidth, Hz to kHz	Rated THD, Percent	Rated IMF IM, Percent	Rated SMPTE IM, Percent	Phono S/N, 'A' '100, re 5 mV, dB, per IHF A-202	Phono Sensitivity, mV, per IHF A-202	Maximum Phono Input, mV	Rated Slew Rate, V / μ S	High Level Sensitivity, V	Class of Output Operation	Dynamic Headroom, dB	Does Unit Invert Phase?	Weight, Lbs.	Price, \$	Notes
HITACHI (Continued)	HMA-6500 HMA-7500MKII																329.95 550.00	
JVC	A-S3 A-X1 A-X2 A-X3 A-X4 A-X5 A-X9	I I I I I I I	20 30 40 55 60 70 100	20-20 20-20 20-20 20-20 20-20 20-20 20-20	0.08 0.007 0.007 0.005 0.005 0.005 0.005	0.08 0.007 0.007 0.004 0.004 0.004 0.002		75 73 73 83 83 82 82	120 150 150 220 220 250 350		0.15 0.15 0.15 0.15 0.15 0.2 0.2	AB † † † † † †				11.2 12.1 14.6 18.3 19.0 25.4 38.5	149.95 209.95 249.95 349.95 399.95 449.95 899.95	†Super A.
KENWOOD	KA-907 KA-801 KA-701 KA-601 KA-501 KA-405 KA-305 L-07M KA-80 KA-60	I I I I I I I M/B I I	150 110 90 60 65 55 40 150 48 30	20-20 20-20 20-20 20-20 20-20 20-20 20-20 20-20 20-20 20-20	0.01 0.15 0.2 0.02 0.03 0.05 0.08 0.003 0.02 0.08	0.0045 0.003 0.003 0.004 0.006 0.009 0.004 0.003 0.0065 0.08	98 90 89 93 98 83 83 94 92	2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5	230 230 220 220 240 250 260 260 230 180	230 150 120 110 100 70	200 200 110 200 150 150 170 150 150	AB AB AB AB AB AB AB AB AB AB				56 38 29 26 23.6 16 15 30 17.4 12.1	1000.00 699.00 499.00 399.00 375.00 299.00 199.00 600.00 310.00 199.00	
LSR&D	Leach Leach Super	B B	160 300	0.37- 220 0.37- 240	0.05 0.05	0.05 0.05	100 105			70 80	1.8 2.45	AB AB	2 2	No No		42 42	799.00 799.00	Mono.
LUX AUDIO	M-4000A M-120A L-580 L-480 L-450	B B I I I	180 120 100 70 50	3-100 ±1 10-100 ±1 10-100 ±1 10-100 ±1	0.008 0.015 0.03 0.03 0.03	0.008 0.01 0.08 0.03 0.03	0.008 0.01 90 90 90			300 190 190 190 190		A,AB A,AB A,AB A,AB A,AB				66 30 35 26 24	1495.00 625.00 795.00 495.00 395.00	Mono 300 watts. MC Phono. As above. As above.
MARANTZ	PM300 PM500 PM700	I I I	30 50 70	20-20 20-20 20-20	0.04 0.025 0.025	0.04 0.025 0.025	87 90 98	2.8 2.8 2.8	130 220 220		0.15 0.15 0.15	AB AB AB				13% 18% 20%	225.00 330.00 450.00	
MERIDIAN	103 103D 105	B B M, B	35 45 100	20-20 20-20 20-20	0.01 0.01 0.01	0.01 0.01 0.01	0.01 0.01 0.01				0.77 0.77 0.77			No No No		12.3 26 13	485.00 699.00 449.00	
MITSUBISHI	DA A15DC DA A10DC DA A7DC MA01	B B B B B	150 100 75 70	10-100 10-100 10-60 10-60	0.01 0.01 0.01 0.01	0.008 0.008 0.008 0.008				50 30 30 50		AB AB AB AB		No No No No		39 35 26½ 22	700.00 470.00 330.00 500.00	
MTI	245	B	40	20-20	0.05	0.05	0.05						4.5	No		18	595.00	
NAD (USA)	3020 3040 3060 3080	I I I I	20 40 60 90	20-20 20-20 20-20 20-20	0.02 0.02 0.03 0.03	0.02 0.02 0.03 0.03	75 78 76 76	0.5 0.5 0.3 0.3	270 270 200 200	15 15 30 30	30mV 30mV 20mV 20mV	AB AB AB AB	3 3 2.2 2.2			9.3 11 33 35	198.00 398.00 425.00 535.00	
NAIM AUDIO	NAP250 NAB300 NAP160 NAP110	B B B B	70 80 50 40	20-20 20-20 20-20 20-20	0.02 0.02 0.02 0.02	0.02 0.02 0.02 0.02	0.02 0.02 0.02 0.02					B B B B	5.8 5.8 7 7.7	No No No No		26 43 22 12	2250.00 2250.00 1200.00 690.00	Will not slew rate limit 5 Hz-40kHz. As above. As above. As above.
NIKKO AUDIO	Alpha 3 Alpha 220 Alpha 440 Alpha 6 NA-590 NA-690 NA-790 NA-890	B B B B I I I I	80 120 220 300 35 45 55 70	0-100 5-100 5-100 20-200 10-35 5-40 10-35 5-40	0.008 0.008 0.008 0.008 0.05 0.04 0.04 0.04	0.01 0.008 0.008 0.01 0.04 0.04 0.04 0.04		82 85 82 85	2.2 2.3 2.2 2.3	140 210 140 220	40 100 90 40	1.0 1.0 1.0 1.0 0.150 0.150 0.150 0.150	B B B B B B B B			35.2 29.7 47.3 60.5 18.7 22.4 15.2 24.2	500.00 500.00 950.00 1400.00 220.00 250.00 280.00 330.00	FET circuit. D.C. servo circuit. As above. Mono, 650 W. MC head amp.
ONKYO (Continued)	M-505 M-5060	B B	105 120	20-20 20-20	0.005 0.005	0.01 0.005				72		AB AB	1.B	No No		37% 39%	579.95 795.95	D.C. circuitry. Dual Super Servo.

AMPLIFIERS

MANUFACTURER	Model	Unit Type: Integrd. ±I, Kl. E.K.; Phono Sta. = P; Tube = T; Mono = M; Basic = B		Cont. Ave. Watts per Chan. Into 8 Ohms			Power Bandwidth, Hz to kHz	Rated THD, Percent	Rated IHF IM, Percent	Rated SMPTE IM, Percent	Phono S/N, A-Weight, dB, per IHF A-202	Phono Sensitivity, mV, per IHF A-202	Maximum Phono Input, mV	Rated Slew Rate, V/μs	High Level Sensitivity, V	Class of Output Operation	Dynamic Headroom, dB	Does Unit Invert Phase?	Weight, Lbs.	Price, \$	Notes
		50	20-20	0.026	0.02																
ONKYO (Continued)	A-7040	I	50	20-20	0.026	0.02		0.026	78	0.05	170		0.15	AB	2.6	Yes	20%	299.95		Super Servo.	
	A-7070	I	70	20-20	0.02		0.02	79	0.036	200		0.15	AB	2.4	Yes	22%	429.95		Super Servo.		
	A-7090	I	110	20-20	0.018		0.018	78	0.023	250	70	0.15	AB	1.9	Yes	39%	699.95		Super Servo.		
	A-15	I	30	20-20	0.08		0.08	75	0.083	150		0.15	AB		Yes	14%	169.95		Dual Super Servo.		
OPTONICA	SM-7305	I	70	20-20	0.01	0.02		90	2.9	300	80	0.150	AB				26.4	440.00		Two-way tape dubbing. D.C. circuitry.	
	SM-4305	I	40	20-20	0.01	0.05		85	2.9	250	35	0.15	AB				20.9	270.00			
	SX-9305	B	100	0-100	0.015	0.002											30.9	850.00			
PHASE LINEAR	300	B	120	20-20	0.002	0.005	0.005	110				100	0.88	AB	1.5		20	500.00			
	400	B	210	20-20	0.009	0.009	0.009	110				20	1.0	AB	1.5		35	700.00			
	700	B	360	20-20	0.009	0.009	0.009	110				20	1.2	AB	1.5		45	1000.00			
	D-500	B	505	20-20	0.009	0.009	0.009	110				20	1.5	AB	1.5		70	1600.00			
PHILIPS	AH380	B	100	20-20	0.05	0.01								B				469.95			
PIONEER	Spec-2	B	250	20-20	0.1	0.1						2.0	AB		No	54	995.00		†Non-switching.		
	Spec-4	B	150	20-20	0.01	0.01					1.0	AB		No	54	795.00					
	SA-9800	I	100	10-20	0.005	0.005		96	2.5	250		1.0	†	No	40%	750.00					
	SA-8800	I	80	10-20	0.005	0.005		96	2.5	250		1.0	†	No	34%	550.00					
	SA-7800	I	65	10-20	0.009	0.009		93	2.5	200		0.150	†	No	28	450.00					
	SA-6800	I	45	20-20	0.03	0.02		84	2.5	180		0.150	AB	No	18%	300.00					
SA-5800	I	25	20-20	0.03	0.03		82	2.5	140		0.150	AB	No	16	200.00						
PLASMATRONICS	Hill Type A	T/B	100†	3-250	0.1						100		Sel. †	90		75	3750.00		†Class A, Class AB 200 W.		
PROFESSIONAL SYSTEMS ENG.	Studio II	B	80	15-25	0.02						100	1.2	AB	1.0	No	33	650.00		Opt. rack mount; bridg- ing switch.		
QUAD	405	B	100	20-20	0.01	0.01	0.01								Yes	20	685.00		Current dumping circuit. Output triples.		
	303	B	45	20-20	0.03	0.03	0.03								Yes	16	395.00				
QUESTAR	QED 440	B	220	5-25	0.05	0.1	0.05	100			80	0.08	A	3	No	35	495.00				
	QED 220	B	110	5-25	0.05	0.1	0.05	100			30	0.08	A	1.2	No	25	375.00				
REVOX	B750	I	75	20-20	0.05	0.04	0.04	82	1.5/7	300	15/30	0.2	AB	1	No	28%	999.00				
ROGERS	A 100	I	55	15-80	0.01	0.01	0.01	74	1.8	150	15	0.1	AB		No	21 1/2	980.00				
	A 75/3	I	50	15-50	0.03	0.03	0.03	73	2.7, 4.0	110, 60	14	0.18	AB		Yes	20	750.00				
SAE	2201	B	100	20-20	0.025	0.025								AB	1.5		28	600.00			
	2600	B	400	20-20	0.05	0.05								AB	1.5		65	1600.00			
	2300	B	150	20-20	0.05	0.05								AB	1.5		35	775.00			
	3100	B	50	20-20	0.05	0.05								AB	1.5		19	350.00			
	X-25A	B	250	20-20	0.02	0.02	0.02							A	1.5		50	1500.00			
	X-15A	B	150	20-20	0.02	0.02	0.02							A	1.5		38				
	X-10A	B	100	20-20	0.02	0.02	0.02							A	1.5		30				
	2401	B	250	20-20	0.025	0.025								A	1.5		47	1050.00			
	Two A14	I	140	20-20	0.05	0.05		84	0.12	200			0.15	AB	1.5		32	750.00			
	Two A7	I	70	20-20	0.05	0.05		74	0.12	200			0.15	AB	1.5		28	450.00			
																				Tape EQ. As above.	
SANSUI	AU-D11	I	120	10-20	0.005		0.005	90†, 74††	2.5†, 0.1††	320†, 30††	400	0.25	AB			31.9	1000.00		Super feed forward design; DD/DC driver; †MM, ††MC. As above.		
	AU-D9	I	95	10-20	0.005		0.005	90†, 74††	2.5†, 0.1††	200†, 20††	350	0.25	AB			30.1	650.00		As above.		
	AU-D7	I	80	20-20	0.015		0.015	86	2.5†, 0.2††	250†	120	0.20	AB			26.4	480.00		Linear-A output; DD/DC driver; rack mtg. As above.		
	AU-D5	I	65	20-20	0.015		0.015	86	2.5†, 0.2††	250†	120	0.20	AB			23.5	390.00		As above.		
	AU-X1	I	160	5-20	0.007		0.007	91	2.5†, 0.1††	330†, 40††	260	0.20	AB			61.1	1450.00		Straight D.C. circuitry; DD/DC driver. As above.		
	AU-417	I	65	20-20	0.02		0.02	80	2.5	300	50	0.15	AB			26.9	395.00		Two-way dubbing; rack mtg. As above.		
	AU-217-II	I	40	20-20	0.06	0.06	0.06	76	2.5	200		0.15	AB			18.3	230.00		Rack mtg. As above.		
	AU-117-II	I	25	20-20	0.17	0.17	0.17	76	2.5	160		0.15	AB			14	190.00		As above.		
	A-80	I	65	20-20	0.05	0.05		80†, 60††	2.5†, 0.1††	180†			0.15	AB			15.7	320.00		D.C. servo design; 2-way dubbing. As above.	
	A-60	I	45	20-20	0.05	0.05	0.05	75	2.5	180			0.15	AB			13.9	230.00		D.C. servo design. As above.	
	A-40	I	25	35-20	0.09	0.09	0.09	73	2.5	150			0.15	AB			11.2	180.00		As above.	
BA-F1	B	110	10-20	0.008	0.008					200	1.0	B			45	665.00		DD/DC driver; rack mtg. As above.			
B-1	B	250	10-20	0.01	0.01					300	1.3	AB			60	1500.00		DD/DC driver.			
B-77	B	60	20-20	0.03	0.03						1.0	AB			14.1	300.00					
SANYO	Plus A35	I	50	20-20	0.02	0.02		110	2.5	250	90		AB					349.95			
	Plus A75	I	75	20-20	0.009	0.009		97	2.5	250	120		AB					509.95			
	Plus P55	B	100	20-20	0.009	0.009		110			150		AB					449.95			
H. H. SCOTT (Continued)	405A	I	25	20-20	0.08	0.03		79†			180							150.00		†Re: 10mV.	
	415A	I	30	20-20	0.07	0.03		79†			180							229.95			
	435A	I	45	20-20	0.05	0.03		79†			180							269.95			
	410A	I	30	20-20	0.1	0.1		80†			150							199.95			
	430A	I	45	20-20	0.08	0.08		85†			150							224.95			
	480A	I	85	20-20	0.03	0.03		90†			250/ 500							499.95			

AMERICA'S FOREMOST ROCK/JAZZ MAGAZINE SAYS

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AMPLIFIERS

MANUFACTURER	Model	Unit Type: Integrated = I, Kit = K, Photo Stg = P, Tube = T, Mono = M, Basic = B	Cont. Ave. Watts per Chan. into 8 Ohms	Power Bandwidth, Hz to kHz	Rated THD, Percent	Rated I/F IM, Percent	Rated SMPTE IM, Percent	Phono S/N, dB, per I/F A-202	Phono Sensitivity, mV, per I/F A-202	Maximum Phono Input, mV	Rated Slew Rate, V/μs	High Level Sensitivity, V	Class of Output Operation	Dynamic Headroom, dB	Does Unit Invert Phase?	Weight, Lbs.	Price, \$	Notes	
H. H. SCOTT (Continued)	460A	I	70	20-20	0.04	0.04		90†									429.95		
	440A	I	55	20-20	0.05	0.05		85†									349.95		
SHERWOOD	S402CP	I	40	20-20	0.2	0.2		92	2.5	200							250.00		
	S702CP	I	65	20-20	0.2	0.2		92	2.5	200							350.00		
SONY	TA-F70	I	90	20-20	0.007	0.007		79	2.5†, 0.17††	300†, 15††							725.00	†MM, ††MC.	
	TA-F55	I	65	20-20	0.008	0.008		79	2.5†, 0.17††	150†, 11††							400.00		
	TA-F45	I	50	20-20	0.008	0.008		78	2.5†, 0.17††	150†, 11††							300.00		
	TA-F35	I	40	20-20	0.015	0.015		79	2.5†, 0.17††	150†, 11††							220.00		
	TA-242	I	22	20-20	0.08	0.08		75	2.5†, 0.17††	150†, 11††								170.00	
SONY AUDIO LAB	TA-N88B	B	160	20-20	0.5	0.1											1050.00	† Pulse width modulation.	
	TA-N86B	B	AB	20-20	0.007	0.004											600.00	Class A, 18 W; mono 200 W.	
SOUNDCRAFTSMEN	PA5001	B	250	20-20	0.1	0.05	0.05	105		50	1.28	H	2.1	No		53	649.00	W. 10-band stereo EQ, test record, charts. Swit. bridging for 750 W mono, bal. & unbal. inputs.	
	MA5002	B	250	20-20	0.1	0.05	0.05	105		50	1.28	H	2.1	No		55	799.00		
	EA5003	B	250	20-20	0.1	0.05	0.05	105		50	1.28	H	2.1	No		55	949.00		
	RA7501	B	250	20-20	0.005	0.05	0.05	105		50	1.28	H	2.1	No		56	799.00		
SPECTRAL	CPU-ONE	B	75	0-10M						1000		A		No	91	3950.00	V-FET, hybrid.		
STD (USA)	D2000	B/T	75	30-20								A, AB	6	No	65	1600.00	Double monaural.		
STRELIOFF	DC-1 50/50	B	50	20-20	1.0	1.0	1.0			10	1.75	AB	1.5		30	750.00	No VI limiting; 70 joule power supply. No VI limiting; 115 joule power supply. No VI limiting; 220 joule power supply. No VI limiting; 450 joule power supply.		
	DC-1 100/100	B	100	20-20	1.0	1.0	1.0			15	1.75	AB	1.5		50	2000.00			
	DC-1 200/200	B	200	20-20	1.0	1.0	1.0			20	1.75	AB	1.5		55	2500.00			
	DC-1 400/400	B	400	20-20	1.0	1.0	1.0			25	1.75	AB	1.5		80	3500.00			
TANDBERG	TPA 3003	B	150	5-100	0.02	0.02	0.02			70					25	1200.00			
TEAC	A-9	I	60	10-80	0.001	0.001	0.001	83									750.00		
	MA-7	B	150	0-200	0.003	0.003	0.003	120		120		A, AB		Varies	16% 48				
TECHNICS	SU-Z1	I	25	20-20	0.08	0.08	0.02	73	0.45	140							160.00	Separate record and input selector, subsonic and high filters. As above; straight D.C.; †moving coil. As above; mono/stereo switch. As above with Super Bass audio muting. Straight D.C., mono 180W. D.C. design, mono 90W. D.C. design. As above.	
	SU-V2	I	40	20-20	0.03	0.03	0.02	73	0.4	140							210.00		
	SU-V4	I	55	20-20	0.02	0.02	0.02	75; 70†	0.3; 0.023†	140; 9†							18.7		
	SU-V6	I	70	20-20	0.007	0.007	0.007	77; 74†	0.3; 0.023†	130; 9†									27.6
	SU-V8	I	110	20-20	0.005	0.005	0.005	76	0.25; 0.017†	145; 10†									33.1
	SE-9060	B	70	20-20	0.02	0.02	0.02												26.5
	SEA-808	B	40	20-20	0.03	0.03	0.03												15
SE-CD1	B	40	20-20	0.03	0.03	0.03											7.7		
SU-C03	I	40	20-20	0.03	0.03	0.03	77	0.4	110								13.0		
TECHNICS R&B SERIES	SE-A3	B	200	20-20	0.002	0.002	0.002			200	1	A	1.1	No		78.3	1400.00		
THRESHOLD	Stasis 1	B, M	200	20-20	0.1	0.1				50		†		No		107	3500.00	†Stasis circuitry, no overall feedback.	
	Stasis 2	B	200	20-20	0.1	0.1				50		†		No		83	2450.00		
	Stasis 3	B	100	20-20	0.1	0.1				50		†		No		53	1675.00		
	CAS2	B	100	20-20	0.05	0.1				40		AB		No		33	990.00		
TOSHIBA	SC-665	B	65	5-70	0.02		0.02										18.7	D.C. design. Speaker switching. D.C. design. Speaker switches.	
	SC-335	B	40	5-50	0.1		0.1										13.4		
	M-15	B	40	10-70	0.02		0.02										12.8		
	M-12	B	30	10-30	0.04		0.04										11.2		
	SB-445	I	45	10-35	0.06		0.06	76	2.5	150							14.5		
	A-10	I	20		0.1		0.1	81	2.5	180							6.6		
VANDERSTEEN AUDIO	Swamp 100		150	1-100 Hz	0.01	0.01	0.01										400.00	Crossover & amp for use with subwoofers.	
YAMAHA	M-4	B	120	20-20	0.005												41		
	M-2	B	240	20-20	0.005												50		
	A-1	I	70	20-20	0.05				2.5	230							35		
	A-550	I	40	20-20	0.02	0.01			2.5	200							17		
	A-450	I	30	20-20	0.02	0.02			2.5	185							17		



An acknowledged world leader in loudspeaker design and engineering, KEF has developed a monitor-standard speaker system that is both small — only ¼-cubic foot in size—and truly “high” fidelity. While these objectives are not new, the Reference Series Model 101 speaker system represents the first time that both are available in one product.

The Model 101 is, therefore, ideal for use in locations where an accurate small speaker is required in keeping with the rest of a high quality audio system.

System Design

Despite all the ingenious ideas that have been proposed by various speaker manufacturers over the years, the three basic parameters of Enclosure Volume, Bass Response and Efficiency are still related by unchanged physical laws. What is different is the thorough manner in which KEF engineers have, with the use of advanced technology, optimized the relationships between these parameters.

Starting with the premise that prospective Model 101 users will have substantial amplification available, KEF engineers achieved a response from this small enclosure of 90Hz–30kHz \pm 2dB (–10dB at 47Hz).

KEF's leadership in computer-aided digital analysis techniques enabled them to optimize the design of the drivers, crossover network and enclosure to achieve a Target Acoustic Response without repetitious trial and error experimentation. Much of this technology, which did not previously exist, has been applied to the design and production of a small high fidelity speaker system for the first time in the Model 101.

Once the desired prototype was completed, KEF applied the same unique computer-aided techniques developed for the production of the critically acclaimed Model 105, so that the sound quality originally achieved in the laboratory prototype will be available to every user.

In addition, the high standards of the computer-aided production and assembly procedures enable precision-matched pairs of stereo loudspeakers to now be offered. For example: every Model 101 driver is tested and matched to tolerances of better than 0.5dB, and crossover networks to tolerances of 0.1dB; each pair of drive units is matched not only to each other, but to the other components in the system as well.

Loudspeaker Protection

The major problem with small, relatively less efficient loudspeakers is thermal overloading of the voice coils. KEF engineers have developed a unique self-powered electronic overload protection circuit, S-STOP (Steady State and Transient Overload Protector).

Musical peaks are generally of short duration, so tweeters can handle far in excess of their normal program rating. A similar situation exists with low frequencies and their effect on the bass unit. Consequently any form of fuse protection can reasonably limit the instantaneous peak handling ability of the system, yet fail to protect the system against a very high average power level. KEF's solution is to incorporate a protection circuit which takes into account the instantaneous power applied to each drive unit and also computes the length of time the signal is applied. The law under which it operates resembles very closely the temperature rise within the voice coil. A potentially damaging signal is immediately attenuated by about 30dB, and the full signal is automatically reconnected when it is safe to do so.

As a result, the Model 101, although only ¼-cubic foot in size, is fully protected against fault conditions when used with amplifiers of up to 100 watts per channel.

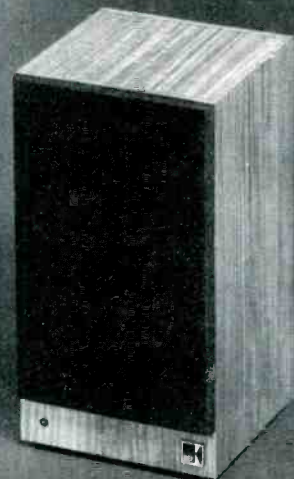
The Model 101 is obviously not your average “miniature” speaker system where the quality of sound or power handling capacity is compromised by the small size of the enclosure. Nor is it inexpensive. If you require a speaker system that

is both small and truly high fidelity, visit your authorized KEF dealer for a thorough demonstration. For his name, write: KEF Electronics, Ltd., c/o Intratec, P.O. Box 17414, Dulles International Airport, Washington, DC 20041.



KEF Reference Series Model 101:

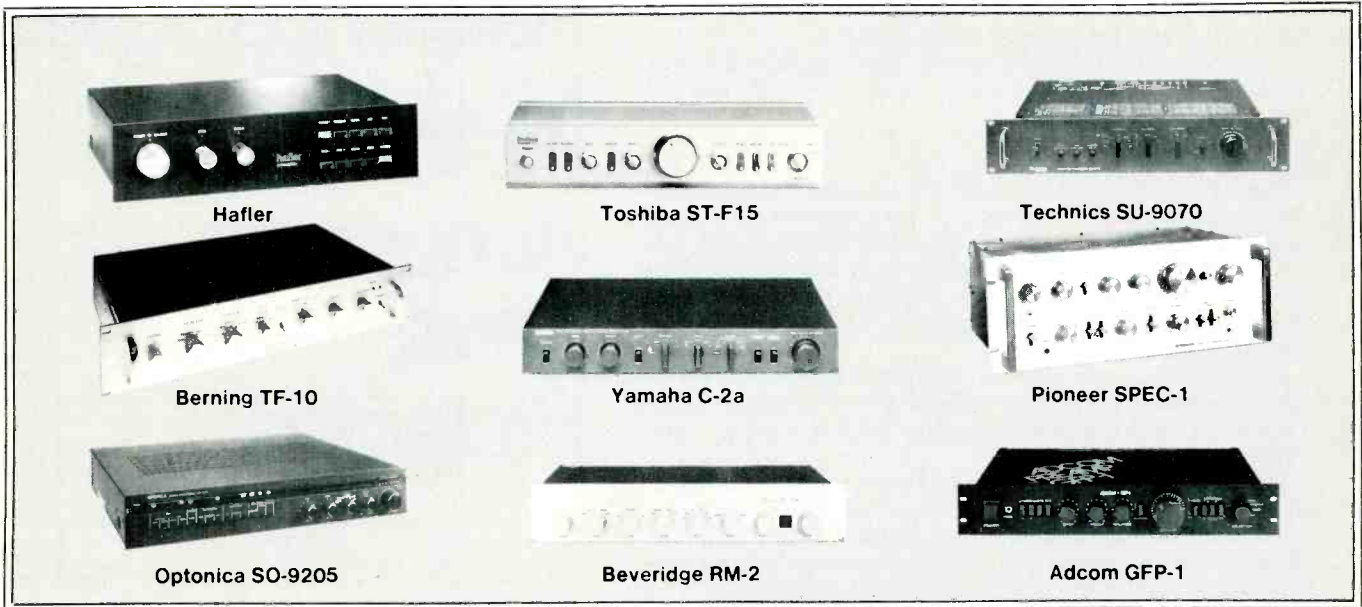
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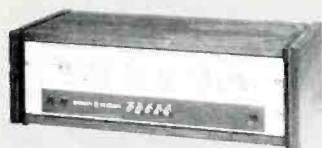
PREAMPLIFIERS

For Manufacturers' Addresses, see page 158



MANUFACTURER	Model	Unit Type	Tube(s)	Phono Sens. mV	Freq. Response Hz to kHz	Moving Coil MC	% THD	% IHF IM Distortion	Rated SMPTE IM, Percent	Phono Sensitivity mV per IHF A-202 For 0.5 V Output at 1 kHz	Phono Overload, mV	Phono S/N, A ¹ into 16 Ω 5 mV, dB per IHF A-202	High Level Sensitivity, V	Tone Controls ?	Phono Input Capacitance, pF	Phono Input Impedance, Ohms	Moving Coil Input ?	Does Unit Invert Phase?	Weight, Lbs.	Price, \$	Notes
ACOUSTAT	MRP-1		20-20 ±0.4	13	0.002	0.002		0.5	120	92	0.5	No	Sel.	50k	Yes	No	14 1/2	1050.00			
	RP-2		20-20 ±0.4	13	0.002	0.002		0.5	120	92	0.5	No	Sel.	50k	Yes	No	10 1/2	775.00			
ADCOM	GFP-1	P		10	0.009			0.5	250		0.028	Yes		47k	No	No	12	299.95			
AGI	511A		20-20 ±0.1	9.5	0.005	0.005	0.005	1.3, 0.56†	160, 70†	82	0.23	No	90††	47k	No	No	13	565.00	†Optional high gain phono, no charge; ††plug-in phono loading capacitor.		
AIWA	SA-C30U		20-20 ±0.2	0.8	0.008	0.008		2.5	200			Yes		47	No		3.8	140.00			
	SA-C50U		20-20 ±0.2	0.9	0.008	0.008		2.5, 0.25				Yes		47	Yes		4.9	145.00			
AMBER ELECTRONICS	Two	P	2-42 +0,-3	10	0.05		0.03	0.4	150			No	Sel.	Sel.	No	No	8	399.00			
APT	Holman		20-20 ±0.5	7	0.01	0.01	0.01	1.25	180	74	0.32	Yes	Var.	47k / 10k	Opt.	No	12	493.00			
AUDIBLE ILLUSIONS	Dual Mono	T	2-200 +0,-1		0.025	0.025	0.025	3.54	500	74	0.44	No	50	47k	No	Yes	15	795.00			
	Mini Mite I	T/K	2-150 +0,-1		0.05	0.05	0.05	5.0	400	70	0.44	No	100	47k	No	Yes	7	375.00†, 295.00††	†Wired, ††kit.		
	The Venusian	T	1-250 +0,-1		0.01	0.01	0.01	5.0	750	76	0.20	Yes	Var.	Var.	Yes	No	30	2195.00			
	M1		3-500 +0,-1		0.01	0.01	0.01	4	250	85	0.32	No	10,100	50k	No	Yes	18	1500.00			
AUDIO RESEARCH	SP-4A		5-100 ±1	10	0.005	0.005	0.005	0.5	300	70	0.1	Yes	Var.	50k	Opt.	No	20	1395.00			
	SP-5		5-100 ±1	10	0.005	0.005	0.005	0.5	300	70	0.1	No	Var.	50k	Opt.	No	16	1095.00			
	SP-6B	T	0.1-250 ±3	50	0.03	0.01	0.01	0.5	700	70	0.1	No		50k	No	No	22	1495.00			
	MCP-22	MC, T	0.1-250 ±3	50	0.02	0.01	0.01		400	90		No		Var.	Yes	No	22	1800.00			
AUDIO TECHNOLOGY	440		20-20 ±0.25	10	0.01	0.01	0.01	2.0	150	85	1.0	No	Sel.	Sel.	Opt.	No	2 1/2	280.00			
AUDIONICS	BT-2	P	20-20 ±0.5	6	0.01	0.01		2	150	80	0.10	No	47	47k	No	No	10	499.00			
	RS-1	P	20-20 ±0.2	7	0.01	0.01		2	165	82	0.10	No	Sel.	Sel.	No	No	10	749.00	Two-way dub.		

PREAMPLIFIERS



Crown IC-150A



Carver C-4000



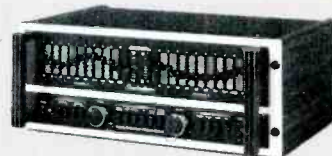
Hitachi HCA-7500



MXR 140



KM SP-100



Soundcraftsmen SP-4002



Luxman C-5000A



Audible Illusions M-1



Threshold SL-10

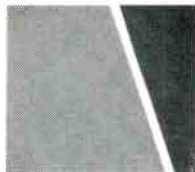
MANUFACTURER	Model	Unit Type: Kit, Tube= T, Mono= M, Moving Coil= MC	Phono S/N: \pm dB	Frequency Response: Hz to kHz, \pm dB	Maximum Output, V	% THD	% IHF IM Distortion	Rated S/N: I/F M, Percent	Phono Sensitivity, mV per I/F A-202 For 0.5 V Output at 1 kHz	Phono S/N: A: Wtd. 1/6 5 mV, dB per I/F A-202	High Level Sensitivity, V	Tone Controls ?	Phono Input Capacitance, pF	Phono Input Impedance, Ohms	Moving Coil Input ?	Does Unit Invert Phase?	Weight, Lbs.	Price, \$	Notes
AUDIRE	Diffet 2		0-100 +0, -25	20	0.001	0.001		10.8	450	80	0.10	No	160	47k	Yes	Varies	7	775.00	
	Diffet 1		0-100 +0, -25	15	0.005	0.001		5.0	175	74	0.10	No	47	47k	No	No	8	590.00	
	Legato		0-100 +0, -25	10	0.005	0.001		5.0	150	72	0.10	No	160	47k	No	No	5	370.00	
	Poco	MC	0.1-1 MHz +0, -3	0.9	0.025	0.01				100		No		Sel.	Yes	Yes	2	175.00	
BAUMAN RESEARCH	PRO-400A		20-400 +0, -3	10	0.005	0.005	0.005	1.5†	175† 25††	88† 72††	0.05	Yes	0-350	Sel.	Yes	Varies	12	1425.00	Separate power supply: † MM; †† MC.
BERNING	TF-10		10-100 -5, +5	8	0.5	0.5	0.5	1	130	64	0.25	No	60	47k	No	No	15	1395.00	Hybrid.
HAROLD BEVERIDGE INC.	RM1/RM2		0.15- 600 \pm 0.05		0.03	0.03		0.5	1V			No					49	2500.00	Two-way tape dubbing.
BGW SYSTEMS	103		20-20 \pm 0.25	10	0.01		0.01	0.5	100	87	0.05	Yes	Sel.	47k	No	No	13½	439.00	
	203		20-20 \pm 0.25	10	0.01		0.01	1.26, 0.315	100	83	0.16, 0.04	Yes	40	47k	No	No	18½	719.00	
BRYSTON	18		20-20 \pm 0.1	20	0.005	0.005	0.005	0.5	300	80	100mV	No	1000	49.9k	No	Yes	17	700.00	
CARVER	C-4000		5-200 \pm 0.1	2.5	0.02	0.01		0.85	150		0.05	Yes	Sel.	47k	No	No	10	898.00	
CERWIN-VEGA	PR-1		5-200 \pm 3	11	0.005	0.005	0.005	0.5	220	65	0.055	Yes	30	47k	No	No	15	500.00	
MITCHELL A. COTTER CO.	PSC-2	P		9				17				No	40	500k	No	No	3	550.00	
	CU-2	MC		9						0.04		No		No	Swit.	7	550.00		
	MK-2	MC										No		No	No	4	650.00		
	Type S.P., PP, X MK-2 "L"	MC												No	No	4	650.00		
CROWN	IC150A		3-100 \pm 0.6	12	0.05	0.002	0.002	0.75, adj.	33- 330	85	0.227	Yes	4.7	47k	No	No	10	529.00	Opt. cabinet.
	DL-2		1-100 \pm 0.5	11	0.0008	0.0003	0.002	0.75, adj.	33- 330	94	0.227	Yes	4.7	47k, 100k	Opt.	No	20	2495.00	Sep. phono & power mod.; computer controllable.

(Continued)

PREAMPLIFIERS

MANUFACTURER	Model	Unit Type: K=ET Tube; P=Phono; S=2- Way; MC=Moving Coil; MC	Frequency Response, Hz to kHz, ± dB	Maximum Output, V	% THD	% IHF IM Distortion	Rated SMPTE IM, Percent	Phono Sensitivity mV per IHF A-202 For 0.5 V Output at 1 kHz	Phono Overload, mV	Phono S/N, A, 1 Hz, 16:1, 5 mV, 0 dB per IHF A-202	High Level Sensitivity, V	Tone Controls ?	Phono Input Capacitance, pF	Phono Input Impedance, Ohms	Moving Coil Input ?	Does Unit Invert Phase?	Weight, Lbs.	Price, \$	Notes
CROWN (Continued)	SL-1		10-20 ±0.1	10	0.0009	.00055	0.002	0.75, adj.	33-330	94	0.227	No	4.7	47k, 100k	Opt.	No	10	599.00	Sep. phono module.
	DB-1A&2		20-20 ±0.05	9	.0008	0.001	0.001	1.8	150	77	0.12	No	100	47k	No	Varies	4.6	399.95	
	DBR-15A &2	MC	20-20 ±0.05	10	.0008	0.001	0.001	1.8	150	77	0.12	Yes	100	47k	No	Varies	7.2	699.95	
	DB-4A		10-100 ±0.1	2	.0008	0.001	0.001	Var.		98			2000	9k	Yes	No	1.1	150.00	
DENNESEN	Sirius		5-250 ±0.1	7	0.005	0.005	0.005			1V		No					10	350.00	
DYNACO	PAT-10		10-75 +0.1	20	0.008	0.01	0.01	0.5		82	0.5	Yes	250	47k	No		22	400.00	
EUMIG	C-1000		5-70 ±3	5	0.015		0.015	2.5†, 0.25-0.56††		80†, 70††	0.15	Yes		47k†, Sel.††	Yes		14.3	580.00	† Moving magnet, †† moving coil, both for 1 V output; 2-way tape dub.; hi/lo filters.
FISHER	CC 3000		20-20 ±0.5	7	0.007	0.005	0.005	1.25	230	86†, 70††	150 mV	Yes	56†, 1000††	Sel.	Yes	Yes	11	249.95	† Moving magnet, †† moving coil.
GLI	3990		20-20 ±0.25	14	0.01	0.01	0.01	2.0	330	80	0.25		100	47k		No	15	850.00	Mixer-preamp.
	1010		20-20 ±0.25	14	0.01	0.01	0.01				0.5	Yes				No	7	350.00	3990 module.
	PMX 9000		20-20 ±0.5	10	0.05	0.05	0.05	2.0	220	70	0.25	Yes	100	47k		No	12	435.00	Mixer-EQ preamp.
DAVID HAFLE CO.	DH-101K	K	20-20 -25,+0	7	0.001		0.002	10	180	80	0.05	Yes	250	47k	Opt.	No	8	199.95	Opt. rack mount; assembled, \$299.95.
HEATH	AP-1800	K	20-20 ±0.2	9	0.02	0.01	0.02	Sel.	Sel.	75	0.067	Yes	Sel.	47k	Yes	Yes	20	349.95	
HITACHI	HCA-6500		20-20 ±0.3	4	0.005				150	83		Yes					7 1/4	179.95	
	HCA-7500 MK II		20-20 ±0.02														17 1/8	350.00	
CONRAD JOHNSON	PV2	T	2-100 +25,-3	25	0.05	0.05	0.05	0.35	500	70	0.10	No	50	47k	No	No	14	585.00	
KENWOOD	L-07C		20-20 ±0.2	10	0.003			2.5	450	90	140	Yes		Yes			17.2	900.00	
KM LABORATORIES	SP100		10-500 ±0.5	16	0.001	0.002	0.001	0.75	420	78	0.5	No	Var.	50k	Opt.	No	9 1/4	699.00	
LSR&D	Leach	MC	0.5-200 +0.3		0.02	0.02	0.02						Sel.	Yes	No		1	139.00	
LUX AUDIO	C-5000A		20-20	18	0.005	0.002	0.002	2.2	300	88	0.145	Yes	50	Opt.			25	1395.00	
	C-120A		20-20	18	0.007	0.007	0.007	2.0†, 0.2††	300	88	0.130	Yes	50	Yes			12	445.00	†MM; ††MC.
MARCOF	PPA-1	MC	20-20 ±0.05	2.5	0.005	0.005	0.005	0.2	100	85		No	50	36	Yes	No	3	129.95	
	PPA-1H	MC	20-20 ±0.05	2.5	0.005	0.005	0.005	0.1	25	85		No	50	10	Yes	No	3	129.95	
	PPA-2	MC	20-20 ±0.05	2.5	0.005	0.005	0.005	0.2/0.1	100/25	85		No	50	30/6	Yes	No	3	250.00	
	MAP-4		10-100 ±1	10	0.01	0.01	0.01	2	200	80	0.3	No	80	47k	No	No	15	390.00	
MERIDIAN	101		20-20 ±0.5	10	0.01	0.01	0.01	1.4	160	90	0.45	No	100	47k	Opt.	No	4	483.00	
MITSUBISHI	DAP20		10-100 ±0.5	18	0.002	0.002			2.3† 0.1††	90/77	0.150	Yes	100	10/50	Yes	No	11 1/2	430.00	†MM; ††MC.
	M-P01		10-100 ±0.5	18	0.002	0.002			2.3† 0.1††	90/77	0.150	Yes	100	10/50	Yes	No	7	370.00	

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A new stylus (needle) can actually save you money. Even a precision crafted diamond stylus eventually wears out, and a worn or broken stylus tip can damage your records in a single play! Protect your records by checking your stylus at least once a year. Your Shure dealer can inspect it, and if necessary, replace your stylus with a Genuine Shure replacement stylus that will bring your cartridge right back to its original specifications.

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PREAMPLIFIERS

MANUFACTURER	Model	Unit Type	K/K	K/K	Table 2	Frequency Response, Hz to kHz, ± dB	Moving Coil = MC	Maximum Output, V	% THD	% IHF IM Distortion	Rates SMPTE IM, Percent	Phono Sensitivity, mV, per IHF A-202 For 0.5 V Output at 1 kHz	Phono Overload, mV	Phono S/N, A:W, 16:1, 5 mV, dB, per IHF A-202	High Level Sensitivity, V	Tone Controls ?	Phono Input Capacitance, pF	Phono Input Impedance, Ohms	Moving Coil Input ?	Does Unit Invert Phase ?	Weight, Lbs.	Price, \$	Notes
MTI	200					12		0.01	0.01	0.01	0.7/2.6	30/110		No	Adj.	47k	Yes	No	6	445.00			
	500		10-150	+0.3		24		0.01	0.01	0.01	0.7/2.6	30/110	0.2	No	Adj.	Adj.	Yes	No	18	895.00			
MXR	140		20-20	±0.25		8		0.005	0.005	0.005	5	120	87	0.80	No	Var.	47k	No	No	5	460.00		
	139		20-20	±0.25		8		0.005	0.005	0.005	5	120	87	0.80	No	Var.	47k	No	No	5	330.00		
NAGATRONICS	AG-9200	MC	5-100	±0.5				0.001	0.001			300	135				3-5	Yes	No	1 1/2	325.00	Pure silver toroidal winding in triple mu metal shielding.	
NAIM AUDIO	NAC 12S		20-20	±0.5				0.02	0.02	0.02	0.1	10	65	0.075	No			Yes	No	5	735.00		
	NAC 32		20-20	±0.5				0.02	0.02	0.02	0.1/2	10/200	65	0.075	No			Yes	No	6	1050.00		
	NAC 42		20-20	±0.5				0.02	0.02	0.02	2	200	65	0.075	No			Opt.	No	6	530.00		
NIKKO AUDIO	Beta 20		10-50	+5, -5		10		0.005			2.0	250	86	0.110	Yes			Sel.	Yes		11.4	280.00	
	Beta 40		10-50	+5, -5		10		0.005			2.0	330	83	0.110	Yes	Sel.	Sel.	Yes			14.0	450.00	
ONKYO	P303		3.5-200	+0.1, -1.5		15		0.006		0.01	0.83	330	80	0.15	No	120		Sel.	Yes	No	16 1/2	409.95	
	P-3060		0.8-170	+0.3		20		0.003		0.003	0.83	300	82	0.15	Yes	Sel.	Sel.	Yes	No	15 1/2	549.95	Dual Super Servo.	
OPTONICA	SO-9205		5-80	+0.2		10		0.001	0.002		2.8	300	90	0.15	Yes	Sel.	Sel.	Yes			14.4	350.00	Pure FET circuitry.
ORTOFON	MCA76	MC	20-50										69		No			75	Yes		2.4	310.00	
	MCA10	MC	3.5-400					0.01							No				Yes			215.00	
	STM72	MC	10-50												No				Yes			85.00	
	T-30	MC	4-120												No				Yes			550.00	
PHASE LINEAR	3300		10-135	+0.3		10		0.003		0.002	2.2	100	92		Yes				No		11	400.00	
	3500		10-135	+0.3		10		0.003		0.002	2.5†	200†	92		Yes				Yes		14 1/2	650.00	†MM, ††MC.
	4000		20-20			2		0.05		0.05	150††	60††	100	80	Yes				No		18	700.00	
PHILIPS	AH280		10-200	±2		12.5		0.005			2	240	74		Yes							369.95	
PHOENIX SYSTEMS	P-1130-pa	K	20-100	-4, +0		9		0.1		0.09	4	60	87	0.250	Yes	100	47k	No		4 1/2	90.00		
	P-1130-dm	K	20-100	-1, +0		9		0.1		0.09	4	60	87	0.25	Yes	100	47k	No		4 1/2	130.00		
PIONEER	Spec.-1		10-70	+0.5		7.0		0.03			1.25	500	76	0.150	Yes	100	50k	No	No	24 1/4	650.00		
PLEXUS AUDIO SYSTEMS	JP-1	MC	2-100	+0.3		10		0.02				50	93				Var.				2	95.00	
PROFESSIONAL SYSTEMS ENG.	Studio I		20-20	±0.25		12		0.007			9	200	80	0.25	Yes	40	47k	Opt.	Varies	15	640.00	Opt. rack mount.	
QUAD	44		30-20	+0.1		5		0.02	0.02	0.02	Var.	300	76	Var.	Yes	50/250	47k	Opt.	Yes	9	785.00		
	33		30-20	+0.1		0.5		0.02	0.02	0.02	2	140	76	0.1	Yes		68k	No	Yes	6	395.00		
QUESTAR	QED-7		10-20	-2, +2		10		0.01	0.05	0.01	4.00	1.3V	90	0.09	Yes	Sel.	Sel.	No	Varies	15	390.00	Passive RIAA.	
RG DYNAMICS	RGD3-W													Yes	Sel.	47k	No			13	595.00	Opt. black rack.	
SAE (Continued)	2100		20-20	±0.25		10		0.005		0.005	0.4-1	150-300	90	0.028	Yes	50	47k	No		20	1,125.00	Para. EQ.	
	2100L		20-20	±0.25		10		0.005		0.005	0.4-1	150-300	90	0.028	Yes	50	47k	No		20	975.00		

There are 300 voices
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This tiny diamond tipped sapphire
enables you to hear every one.



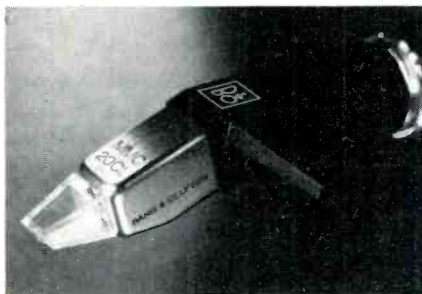
Shown actual size

What you see above is the diamond stylus/sapphire crystal cantilever of the Bang & Olufsen[®] MMC 20 CL Phono Cartridge.

We chose sapphire because it is one of the most rigid materials on Earth. So there is no audible tip resonance. No distortion of the music. Even when subjected to the 10 G forces which cantilevers encounter when tracking today's records.

And while sapphire may seem like overkill, the fact is that your cartridge, though dwarfed by the rest of your system, has an overwhelming influence on the reproduction quality you achieve. Which is why we go to great lengths to achieve optimum performance where it counts in our cartridges.

Another place the MMC 20 CL excels is its stylus. A Contact Line nude diamond. Super-polished to shun contaminants and reduce record wear. It



tracks the groove like a train on a rail.

Then there is the Moving Micro Cross, heart of the patented B&O[®] cartridge for years. Now highly refined, it maximizes stereo separation and minimizes effective tip mass (ETM). For extended record life, and unsurpassed trackability.

Since inductance is low, induced noise is negligible. And output is constant, regardless of cable or preamp capacitance.

Bang & Olufsen's other three cartridge models are the MMC 20 EN, MMC 20 E, and MMC 10 E. They are produced to the same exacting stan-

dards as the MMC 20 CL. And offer almost equivalent performance.

The top three models each come with their own computer-generated test report showing output voltage, channel balance, channel separation, and tracking ability. The MMC 20 CL is also supplied with its own individually plotted frequency response graph.

While you might wonder just how much difference all of this makes, you can hear it for yourself at your local Bang & Olufsen Dealer.

Or write to us, and we'll send you reprints of what reviewers the world over have been reporting. Which is that Bang & Olufsen Stereo Phono Cartridges are great places for your music to begin.

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PREAMPLIFIERS

MANUFACTURER	Model	Unit Type: Kit=K, Tubed=T, Photo Sig. P, Mono=MC, Moving Coil=MC	Frequency Response, Hz to kHz, -2 dB		Maximum Output, V	% THD	% IHF IM Distortion	Rated SMPTE IM, Percent		Phono Sensitivity, mV, per IHF A-202 For 0.5 Output at 1 kHz	Phono Overload, mV	Phono S/N, "A" Wtd., re: 5 mV, dB, per IHF A-202	High Level Sensitivity, V	Tone Controls ?	Phono Input Capacitance, pF	Phono Input Impedance, Ohms	Moving Coil Input ?	Does Unit Invert Phase?	Weight, Lbs.	Price, \$	Notes
			8	0.01				0.5	150												
SAE (Continued)	2900		20-20 ±0.25	8	0.01		0.01	0.5	150	84	0.028	Yes	50	47k	No			15	550.00	Para. EQ. Tape EQ.	
	3000		20-20 ±0.25	8	0.02		0.02	0.5	150	84	0.028	Yes	50	47k	No			10	350.00		
SANSUI	CA-F1		5-600 +0,-3	10	0.005		0.005	2.5†, 0.1††	350†, 24††	90†, 75††	0.15	Yes		47k†, 33††	Yes			13.4	495.00	†Moving magnet, ††Moving coil.	
	E-1		10-100 +0,-1		0.003			2†, 0.1††	320†, 15††	90†	0.20	Adj.	Adj.	Adj.	Yes			22.4	1400.00		
	C-77		5-70 +.5,-2		0.03			2.5†, 0.18††	100	80†, 60††	0.15	Yes		47k†, 10††	Yes			6.8	200.00		
SANYO	Plus C55		20-20 ±2	1	0.003			2.5	250	97		Yes			Yes				299.95		
SONY AUDIO LAB	TA-E88B	P. MC	0-500 +0,-1	15	0.002 @10V	0.002 @10V		2.5†, .125††	250†, 12†,††	84†, 75††	0.15	No	Sel.	Sel.	Yes			19½	1300.00	†Moving magnet, ††moving coil.	
	TA-E86B	P. MC	5-500 +0,-1	13	0.003 @10V	0.003 @10V		2.5†, .125††	250†, 12†,††	82†, 74††	0.15	No		Sel.	Yes			18½	600.00		
SOTA INDUSTRIES	Head Amplifier	MC	6-160 +0,-3	0.25	0.02	0.05		Var.				No		Sel.	Yes	Yes			250.00		
SOUNDCRAFTSMEN	SP4002		5-100 ±0.25	10	0.01	0.005	0.005	Adj.	300	97	0.09	EQ	Adj.	47k, 100	Yes	No		27	699.00		
	SP4001		5-100 ±0.25	10	0.01	0.01	0.01	1.4	200	97	0.09	EQ	100	47k	No	No		23	549.00		
	SP4000		5-100 ±0.25	10	0.01	0.01	0.01	1.4	200	97	0.09	EQ	100	47k	No	No		20	399.00		
SPATIAL	TVA-1 (Revised)		10-40 ±0.25	8	0.04			0.06	200	78	0.06	Yes		47k	No	No			1395.00		
SPECTRAL	MS-ONE Series 3		0.1-1M ±0.1	10				0.1	200	95	0.2	No	100	Sel.	Yes	No		35½	2,495.00†	†With a.c. sequencer.	
STRELIUFF	PA-1& RS-1		10-50 ±1.0	20	0.10	0.10	0.10	0.5	250	87	0.05	No	Sel.	Sel.	Yes			25	2250.00		
TANDBERG	TCA 3002		5-200	5	0.004	0.004		1	290	80	0.07	Yes		Sel.	Yes			12½	1000.00		
TEAC	PA-7		15-30 ±0.2		0.005	0.005	0.005			159		Yes			Yes	Varies		22½			
TECHNICS	SU-C01				0.005			1.25, .050†	200: 8†	77: 79†	0.75	Yes		47k	Yes			6.6	270.00	†Moving coil.	
	SU-9070		0-100 +0,-1	20	0.003				380: 9†	94: 72†		No		47k	Yes			7.1	460.00		
TECHNICS R&B SERIES	SU-A4		20-70 ±0.15	15	0.001	0.005	0.003	.63†, .025††	260	80	0.15	Yes	150	47k, 47††	Yes	No		19.4	850.00	†MM; ††MC	
	SU-300MC	MC	20-20 +0,-.5		0.01					78		No		47	Yes	No		2.4	80.00		
THRESHOLD	SL10		0-500 +0,-3	8	0.01	0.015		10	320	85	0.05	No	Sel.	Var.	Yes	No		24	1090.00	Cascode/Class A operation.	
TOSHIBA	C-15		10-100 ±2		0.01	0.01		2.5	300	94	0.15	Yes		47k	No			6.0	299.95	D.C. design.	
	C-12		10-35 ±1.5		0.01	0.01		2.5	180	84	0.15	Yes		47k	No			4.8	229.95		
	SY-335		10-40 ±1		0.1	0.1		2.5	150	76	0.15	Yes		47k	No			6.6	119.95		
	SY-665		7-40 ±1		0.01	0.01		2.5	250	86	0.15	Yes		47k	Yes			7.5	199.95		
VANDERSTEEN AUDIO	OL-1	MC	1-500 +0,-1	1	0.01	0.01	0.01			82		No	Adj.	Adj.	Yes	No		5	250.00		
YAMAHA	C-6		10-100 ±0.3	13	0.003	0.015		2.5	240		0.15	Yes	220	47k	Yes			13	450.00	Parametric tone control.	
	C-4		5-100 ±0.5	10	.0035	0.005		2.5	285		0.15	Yes	Var.	Var.	Yes			19	550.00		
	C-2a		10-100 ±0.2	15	0.003	0.003		2.5	350		0.15	Yes	Var.	Var.	Yes			17½	950.00		
	HA-1	MC	10-500 +0,-1		0.005									Sel.	Two			7	270.00		

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receiver characteristics to varying signal conditions.

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TUNERS

For Manufacturers' Addresses, see page 158



MANUFACTURER	Model	Unit Type: FM Only = FM, Kit = K	Mono IHF Sensitivity, μ V / dBf	Stereo IHF Sensitivity, μ V / dBf	Capture Ratio, dB	Alt. Chan Select., dB Wide / Narrow	Mono Signal Strength for 50 dB Quieting, μ V / dBf	Stereo Signal Strength for 50 dB Quieting, μ V / dBf	Separation, dB, 1 kHz	Separation, dB, 10 kHz	THD, Mono/Stereo, 100% Modulation	THD, Mono/Stereo, 6 kHz, 100% Modulation	S/N, Mix dB, Mono/Stereo	Switchable De-emphasis?	Net Weight, Lbs.	Price, \$
AIWA	AT-9700U	F		1	50/80	1.6/15.3	15.3/35.3	50		0.03/0.05		80/78	No	21.3	520.00	
	AT-9300U			1.5	72	4.5/18	44/38	42		0.2/0.3		73/68	No	9.24	210.00	
	ST-R30U		1.9	43	1.5	70		45				70/73	No	4.6	200.00	
	ST-R50U		1.9	45	1.5	65	4.5/	45		0.1/0.25		75/72	No	5.3	265.00	
AKAI	AT-K03		1.9/	1.2				52				73		11	229.95	
	AT-V04		1.6/	1.2				54				75		12	279.95	
CROWN	FM-1	F	/10.8	2.0	75	/10.8	/36.0	45	35	0.1/0.09		70/65	Yes	15%	995.00	
DRACOLABS	Micro CPU 100	F	1.6/9.31	0.5	18/85	2.1/11.67	22/32.08	55	40	0.07/0.07	0.1/0.15	82/75	Yes	34	995.00	
EUMIG	T-1000	F	1.8/10.3	10.0/25.2	0.8	/80	4.5/18.3	45.2/38.3	50		0.08/0.1		70/65	No	13.2	795.00
FISHER	FM 120		2.8/14.14	5.5/20	1.0	60	6.0/20.76	45/38.26	40	32	0.2/0.4	0.3/0.5	65/60	No	8	179.95
	FM 440		2.8/14.14	5.5/20	1.0	60	6.0/20.76	45/38.26	40	32	0.2/0.4	0.3/0.5	65/60	No	11	179.95
	FM 2121		1.9/10.77	4.6/18.5	1.0	70	2.8/14.14	38/36.8	40	32	0.12/0.2	0.2/0.4	72/68	No	10	229.95
	FM 2421		1.7/9.8	4.3/17.9	0.8	75	2.5/13.2	34/35.9	46	36	0.1/0.15	0.15/0.25	75/70	No	15	399.95
HEATH	AJ-1219	K	2/11.2		2	60/	3.5/16.1		35		0.5/0.75		65/	No	7%	149.95
	AJ-1600	K	1.8/10.3	3.5/16.1	1.2	40/80	2.5/13.2	35/36.1	45	35	0.1/0.1	0.15/0.2	83/75	No	20%	399.95
HITACHI	FT-3400				1.0				45		0.1/0.12	0.3/0.45	75/69		7.9	159.95
	FT-4400				1.5				50		0.09/0.08	0.25/0.3	75/68		9.5	249.95
	FT-5000				1.0				60		0.1/0.2	0.25/0.3	65/62		9.7	299.95
	FT-8000				1.0				50		0.12/0.15		72/68		13%	449.95
JVC (Continued)	T-V3		1.2/12.8		1.5	55	1.8/17.2	22.5/38.3	40	30	0.25/0.45	0.25/0.55	70/65		7.5	139.95
	T-X1		0.9/10.3		1.0	65	1.5/14.8	22.5/38.3	45		0.15/0.3		82/70		8.8	189.95

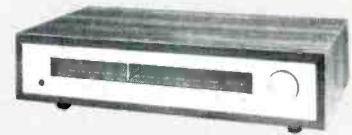
TUNERS



Philips AH-180



Yamaha T-2



Lux T-450



Pioneer TX-7800



Heath AJ-1600



Kenwood KT-917



ReVox B-760



Phase Linear 5100



Hitachi FT-8000

MANUFACTURER	Model	Unit Type: FM Only=FM, Kit=K	Mono IHF Sensitivity, $\mu\text{V}/\text{dB}$	Stereo IHF Sensitivity, $\mu\text{V}/\text{dB}$	Capture Ratio, dB	Att. Chan. Select., dB Wide/Narrow	Mono Signal Strength for 50 dB Outgoing $\mu\text{V}/\text{dB}$	Stereo Signal Strength for 50 dB Outgoing $\mu\text{V}/\text{dB}$	Separation, dB, 1 kHz	Separation, dB, 10 kHz	THD, Mono/Stereo, 100% Modulation	THD, Mono/Stereo, 6 kHz, 100% Modulation	S/N, Max. dB, Mono/Stereo	Switchable De-emphasis?	Net Weight, Lbs.	Price, \$
JVC (Continued)	T-X3		0.9/10.3	1.0	70	1.8/16.3	9.8/31.0	50		0.08/0.1	0.08/0.15	82/78		9.9	219.95	
	T-X5		0.9/10.3	1.0	65	1.8/16.3	8.7/30.0	50	40	0.08/0.1	0.08/0.15	81/78		11.0	299.95	
	T-40P		1.6/15.3	1.5	65	3.0/21.7	25.0/39.2	45	38	0.15/0.3	0.5	70/65		7.0	299.95	
KENWOOD	KT-917		1.9/10.8	0.8	60	3.4/15.8	40/37.2	60	50	0.03/0.04	0.05/0.07	90/84		15.1	1000.00	
	KT-815		1.8/10.3	1	60	3.4/15.8	40/37.2	60	45	0.04/0.05	0.065/0.1	84/80		16.7	440.00	
	KT-615		1.8/10.3	1	45	3.4/15.8	40/37.2	55	40	0.05/0.06	0.065/0.1	81/78		15.8	299.00	
	KT-413		1.9/10.8	1	60	4/17.2	40/37.2	50	40	0.01/0.15		77/72		9.26	250.00	
	KT-313		1.9/10.8	1	60	4/17.2	45/38.3	45	35	0.1/0.2	0.2/0.18	77/72		9.5	179.00	
	KT-80		1.9/10.8	1.5	75	3.3/15.5	40/37.2	48	40	0.07/0.07		83/80		9.9	209.00	
	L-07T		1.7/9.8	0.7	100	3/14.7	40/37.2	52	45	0.035/0.065		84/80		17.2	625.00	
	KT-60		1.9/10.8	1.5	60	4/17.2	40/37.2	45	35	0.1/0.15	0.2/0.18	77/72		9	155.00	
LUX AUDIO	T-450		1.8/10.3	1.3	65	3/14.8		45	33	0.08/0.1	0.2/0.25	73	No	14	395.00	
MARANTZ	ST300		2.8/14.2	40/37.3	1.0	62		45		0.15		68		9%	225.00	
	ST400		2.5/13.9	38/36.8	1.0	65		45		0.15		70		11	300.00	
	ST500		2.5/13.2	35/36.1	1.5	65		45	35	0.15		72		10	375.00	
MERIDIAN	104	F	2.5	22.0		67		50	50	0.1/0.2		67	No	4	555.00	
MITSUBISHI	DAF20	F	2.0/11.2	7.5/22.7	0.8	45/75	5.0/19	50/39.2	50	40	0.05/0.08		80/75	No	14%	430.00
	M F01	F	2.0/11.2	7.5/22.7	1.0	70	5.0/19	50/39.2	50	40	0.08/0.1		80/75	No	7%	340.00
NAD (USA)	4020A		1.8/10.3		1.5	62	3.5/16	45/38	42	32	0.2/0.3	0.3/0.4	75/70	No	9.3	198.00
	4080		1.8/10.3		1.0	70	3.0/14.8	35/36.1	40	30	0.2/0.3	0.3/0.4	74/70	Yes	19	315.00
NIKKO	Gamma 20	F	1.8/10.3		1.5	70	2.8/13.0	33/	55	30	0.1/0.15	0.14/0.2	75/68	Yes	11	380.00
	Gamma 40	F	1.8/10.3		1.0	/75	2.8/13.0	33/	55	45	0.02/0.04		86/78	Yes	13.2	450.00
	Gamma 5	F	1.8/10.3		1.5	30/80	2.8/13.0	/34.8	55	48	0.04/0.07		81/75	Yes	13.2	650.00
	NT-790		2.0/11.2		1.5	55	/16.0	/37.0	50	40	0.08/0.15		78/70	No	9.9	180.00
	NT-890		1.9/10.8		1.0	65	/14.2	/30	50	35	0.1/0.2		72/68	No	13.6	220.00
ONKYO	T-4040		1.9/10.8	4.5/18.3	1.5	60	3.5/16.1	35/36	40	30	0.15/0.3	0.15/0.3	73/66	No	12%	229.95
	T-4090		1.7/9.8	4.0/17.2	1.3	70	3.0/14.7	35/36	40	35	0.1/0.25	0.1/0.25	76/68	Yes	13	339.95
	T-909	F	1.7/9.8	4.0/17.2	1.5	80	3/14.7	35/36	45	40	0.08/0.15	0.1/0.2	80/74	Yes	13	949.95
	T-15		2/11.2	4/17.2	1.5	55	45/18.3	50/39.2	40	30	0.15/0.4	0.15/0.4	70/63	No	8%	134.95

TUNERS

MANUFACTURER	Model	Unit Type: FM Only=FM; Kit=K	Mono I/F Sensitivity, $\mu\text{V}/\text{dBf}$		Stereo I/F Sensitivity, $\mu\text{V}/\text{dBf}$		Capture Ratio, dB	Alt. Chan. Select., dB Wide/Narrow	Mono Signal Strength for 50 dB Quieting, $\mu\text{V}/\text{dBf}$		Stereo Signal Strength for 50 dB Quieting, $\mu\text{V}/\text{dBf}$		Separation, dB, 1 kHz		THD Mono/Stereo, 1 kHz, 100% Modulation	THD Mono/Stereo, 6 kHz, 100% Modulation	S/N Max., dB, Mono/Stereo	Switchable De-emphasis?	Net Weight, Lbs.	Price, \$
			1.6/9.3	1.2	35/82	2.9/14.2			36.7/36.5	50	40	0.2/0.3	75/70	No						
OPTONICA	ST-9405 ST-7405 ST-4405		1.6/9.3 1.6/9.3 1.7/9.8	1.2 1.2 1.2	35/82 35/82 70	2.9/14.2 2.9/14.2 3.3/15.4	36.7/36.5 36.7/36.5 38.9/37.0	50 50 45	40 40 40	0.2/0.3 0.2/0.3 0.2/0.3		75/70 75/70 75/70	No No No	15½ 13½ 11						1000.00 400.00 250.00
PHASE LINEAR	5100			1.9/10.8	1	60		41.1/37.5	55	44	0.08/0.05		75/80	Yes	10					450.00
PHILIPS	AH180		1.8/4.5		1.5	70					0.1/0.15		70/60							559.95
PIONEER	TX-9800 TX-7800 TX-6800		1.5/8.8 1.6/9.3 1.9/10.8	0.8/2.0 1.0 1.0	30/85 75 60	2.5/13.2 3.3/15.5 3.1/15	35/36.1 39.2/37.1 44/38	55 50 40	40 35 35	0.04/0.07 0.05/0.08 0.1/0.2		83/80 83/79 80/74	Yes Yes No	20½ 18¼ 11¼						450.00 350.00 200.00
QUAD	FM3	F	1.0/	6.0/15	3	46	5.0/13.2	40/32	40				70/70	No	4					375.00
REVOX	B760	F	1.9/5.0	15.0/22.0	2	78	2.5/10	30.0/28.0	42	33	0.1/0.25	0.2/0.2	78/74	Yes	26½					1649.00
ROGERS	T.75	F	1.5/		1.5		3.6/	3.6/	38	25	0.3/0.7	1	77/66	No	12					450.00
SAE	8000 3200 Two T14 Two T7		1.6/9.3 1.8/10.3 1.8/10.3 1.8/10.3	3.5/16.1 4.0/17.3 4.0/17.3 4.0/17.3	1.5 1.5 1.5 1.5	120 90 40/70 65	3.5/16.1 4.0/17.3 4.0/17.3 4.0/17.3	35/36.1 40/37.3 30/34.8 30/34.8	45 42 48 45	35 35 40 40	0.08/0.09 0.09/0.12 0.08/0.15 0.10/0.22	0.20/0.35 0.22/0.40 0.22/0.30 0.18/0.40	75/71 70/67 76/70 76/67	Yes	20					800.00 500.00 575.00 400.00
SANSUI	TU-X1 TU-S9 TU-S7 TU-417 TU-217 T-80 T-60 T-77		1.47/8.6 1.8/10.5 1.8/10.5 1.75/10.1 1.85/10.6 1.9/10.8 1.9/10.8 1.9/10.8	2.9/14.5 1.0 1.0 4.9/19 5.5/20 6.2/21	0.8 1.0 1.0 1.0 1.0 1.0 1.0 1.0	55/80 55 50 50 50 60 60 60	2.3/12.5 2.6/13.5 2.7/13.8 3.1/15 3.1/15 3.3/15.5	27.6/34 36.8/36.5 38.9/37 30/34.8 38.9/37 38.9/37	50 45 40 40 40 40 40 20	45 30 30 30 40 40 20	0.02/0.03 0.06/0.07 0.07/0.08 0.07/0.09 0.12/0.13 0.2/0.25 0.2/ 0.2/0.25	0.04/0.05 0.27/0.29 0.23/0.25	86/83 85/ 83/ 79/76 71/70 72/70 72/70 72/70	Yes No No No No No No No	35.7 7.0 9.9 18.3 11.7 10.6 9 6.4				980.00 400.00 320.00 275.00 190.00 270.00 150.00 270.00	
SANYO	PLUS T35 PLUS T55		1.8/10.3 1.8/10.3		1.8 1.8	80/55 80/55	3.0/14.7 3.0/14.7	36.3/36 36.3/36	42 42	35 35	0.2/0.1 0.15/0.2	0.3/0.2 0.3/0.3								349.95 399.95
H. H. SCOTT	515T 535T 570T 530T		1.8/10.3 1.9/10.8		1.2 1.2 1.0 1.5	70 69	3.5/16.1 3.8/16.8	33/35.6 35/36	50 50 50 45			0.1/0.2 0.15/0.3	71 71 75/70 72/67		13 11½					150.00 199.95 249.95 199.95
SHERWOOD	S32CP		1.7/9.84		1.0	70	2.8/14.17				0.1/0.2	0.15/0.25	74/68	Yes	14½					290.00
SONY	ST-242 ST-A35 ST-J55 ST-J60	F	1.8/10.3 1.9/10.8 1.9/10.8 1.9/10.8		1.5 1.0 1.0 1.0	60 85 85 85	3.5/16.1 4.0/17.9 4.0/17.9 4.0/17.9	40/38.3 43/37.9 43/37.9 43/37.9	45 50 50 50	40 40 40 45	0.2/0.3 0.08/0.12 0.06/0.08 0.06/0.08	0.1/0.2 0.6/0.15 0.6/0.15	75/70 82/77 78/73 77/72	No No No No	9½ 9 9½ 8½					165.00 200.00 300.00 400.00
SONY AUDIO LAB	ST-J88	F	1.8/10.3		1.0	120/65	3.2/15.3	35/36.1	50	45	0.04/0.07	0.04/0.15	80/75	No	14½					900.00
SOUNDCRAFTSMEN	ST6100 Digital		1.9/10.8		1.0		3.2/15.0	35/36.0	45	40	0.1/0.3	0.2/0.35	75/73	Yes	14					449.00
TANDBERG	TPT 3001	F	1.6/6.8		0.4	30/90	1.9/10.3	11.0/32.1	60	45	0.06/0.05	0.055/0.25	95/82		15¼					1500.00
TEAC	T-9				1.0		3.2/15.2	41.1/37.5	50	45	0.1		70/75	No	13¼					
TECHNICS	ST-Z1 ST-S1 ST-S3 ST-S7 ST-C01 ST-C03 ST-9030	F	2.0/11.2 1.9/10.8 1.9/10.8 0.95/10.8 1.9/10.8 1.9/10.8 1.2/12.8	47/38.6	1.5 1.0 1.0 1.0 1.0 1.0 1.0	60 75 75 85 75 75 25/90	3.9/17.0 3.9/17.0 3.9/17.0 1.8/16.3 3.9/17.0 3.9/17.0 2.2/18.1	47/38.6 47/38.6 47/38.6 20/37.2 45/38.3 45/38.3 22/38.1	40 45 45 55 45 45 50/40	35 35 35 35 35 35 40/30	0.15/0.3 0.15/0.3 0.15/0.3 0.1/0.15 0.1/0.15 0.08/0.15 0.08	0.3/0.4 0.3/0.4	75/ 75/70 75/70 77/72 75/70 77/72 80/	No No No No No No No	7.3 8.4 6.2 8.8 6.4 6.2 15.9				160.00 190.00 290.00 370.00 270.00 350.00 460.00	
TOSHIBA	F-15 T-10 ST-665 ST-445 ST-335	F	1.9/10.8 1.9/10.8 1.8/10.3 1.9/10.8 2.0/11.2		1.0 1.0 1.0 1.5 1.0	75 75 80 70 60			45 45 45 40 40	40 38 40 35 35	0.15/0.25 0.2/0.3 0.15/0.2 0.15/0.3 0.2/0.4		68/72 72/75 68/72 68/72 65/73	No No No No No	4.8 4.0 7.1 7.25 7.5				359.95 249.95 299.95 259.95 159.95	
YAMAHA	T-2 T-7 T-550	F	1.5/8.8 1.7/9.8 1.7/9.8	28/34.2	1.0 1.5 1.5	100 65 65	2.5/13.2 3.2/15.3 3/14.8	28/34.2 38/36.8 40/38	55 60 50	48 52	0.05/0.05 0.04 0.05/0.07	0.08/0.08 0.04	88/85 90/85 84/78	No No No	15½ 11½ 10					750.00 400.00 190.00

WE DON'T FIGHT YOUR SYSTEM. WE JOIN IT.



Steremote brings total entertainment into every room of your home.

Until now you could listen to music in only one or two rooms at a time. Now you can enjoy music throughout the house. Steremote integrates all your existing components (including your speakers), giving you remote control over them from anywhere in your home. It's control at a touch. From any room. The kind of control you've never had before. All through the portable Steremote control unit that plugs into any AC outlet.

If your system is good enough for you, it's perfect for Steremote.

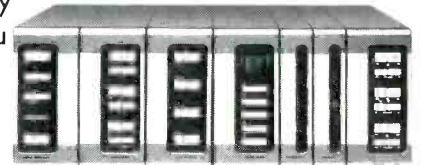
Your system may consist of just a receiver and turntable. Or it may include a cassette recorder, open reel, TV and video deck. By joining them with Steremote you'll be entertained in more ways than you've ever thought possible. One touch lets you play records, tapes, even change FM stations.



You can also take in a video performance. With Steremote control, you can switch rooms and change music. Keep different tunes for different rooms. Or fill the house with one beautiful performance. The Steremote choice is limitless.

How many modules make a Steremote?

You decide. Steremote offers you a selection of modules (six shown), each with a specific remote control capability. By combining them you can control every component in your system. You can record, play back, walk around, lay back. Change rooms and moods at will. For more flexibility just add a module and you can expand your musical environment to as many as nine rooms. Basically, it will be your system. Plus Steremote. Plus a lot of fun.



How to join.

Call any of the better high fidelity stores in your area. They'll help you select the Steremote modules best suited to your needs and show you how to install them in minutes. Call now. Don't fight it. Join it.

YOUR SYSTEM PLUS

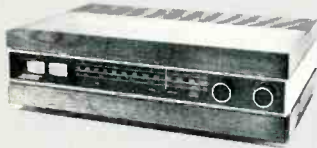
STEREMOTE

Steremote Inc., 1845 Utica Avenue, Brooklyn, N.Y. 11234
212-241-3500

Enter No. 51 on Reader Service Card

RECEIVERS

For Manufacturers' Addresses, see page 158



Bose Spatial Control



Onkyo TX-7000



Kenwood KR-770



Optonica SA-5406



Fisher RS-270



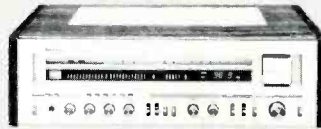
JVC R-S77

MANUFACTURER	Model	Unit Type: FM Only=FM; K1/K2=K	Ave. Watts/Chan.: B Ohms		% THD	% IHF IM	Rated Power Bandwidth, Hz to kHz	Phono S/N, "A" Wtd. (e. 5 mV dB, per IHF A-202)	Phono Overload, mV per IHF A-202	Dynamic Headroom, dB	Mono IHF Sensitivity, μ V/dB	Stereo IHF Sensitivity, μ V/dB	Capture Ratio, dB	Mono Signal Strength for 50-dB Quieting, μ V/dB		Stereo Signal Strength for 50-dB Quieting, μ V/dB		% THD, 100% Modulation, Wide/Narrow L.F. Bandwidth	Alt. Chn. Select, dB	Max. S/N, dB, Mono/Stereo	Net Weight, Lbs.	Price, \$
			15	8 Ohms										70	100	2.5/13	5.5/20					
AIWA	AX-7800U		60	0.05	0.05	20-20	80			1.9/10.8			4/17.2	40/37.2	0.11/0.2	75	90/95	23.2	520.00			
	AX-7700U		40	0.08	0.08	20-20	72			2/11.2			4/17.2	40/38	0.25/0.4	65	72/90	21	300.00			
	AX-7300U		25	0.08	0.08	20-20	72			2/11.2			4/17.2	44/38	0.25/0.4	65	72/90	18.8	210.00			
	AX-S50U		20	0.3	0.3	20-20	80	180		4.5/18.2	45/38.2	1.5					75/70	7.9	380.00			
AKAI	AA-R20		26	0.05		10-30	75					1.5			0.3/0.5		40/65	18.7	249.95			
	AA-R30		38	0.05		10-35	75					1.3			0.2/0.4		40/65	19.8	299.95			
	AA-R40		50	0.04		5-40	75					1.3			0.15/0.3		40/70	24.2	399.95			
	AA-R50		62	0.04		5-40	75					1.3			0.13/0.25		40/75	25.3	450.00			
AUDIO PRO	TA-150		75	0.1	0.1	20-20	70	150	1.0	/11	/15	2	/17	/37	0.2	80	70/65	25	1295.00			
	TPA-150		75	0.1	0.1	20-20	70	150		/11	/15	2	/17	/37	0.2	80	70/65	22	1045.00			
BANG & OLUFSEN	Beomaster 1600	FM	20 @ 4 Ω	0.4	0.2	20-20	79			/19	/24	1.5	/19	/38.9		54	70/68	15.8	495.00			
	Beomaster 2400	FM	30 @ 4 Ω	0.2	0.15	20-20	60			/19.2	/24	4.5	/18.5	/38.9	0.7/0.5	58	70/66	16.75	725.00			
	Beomaster 4400	FM	70 @ 4 Ω	0.1	0.10	20-20	60			/16.4	/27	5	/18	/38	0.7/0.7	58	70/67	22	925.00			
BOSE	Spatial Control		4x 50	0.09	0.09	20-20	83	145		1.9/10.8	3.3/15.6	1.8	3.5/16.11	35/36.11	0.1/0.25	70	65/70	36 1/2	860.00			
	550		40	0.3	0.09	20-20	76	100		2.0/11.25	3.5/16.11	1.9	3.8/16.82	40/37.27	0.25/0.5	60	60/65	15 1/2	380.00			
FISHER	RS2002		20	0.09	0.09	20-20	76	150		1.9/10.77	4.6/18.45	1.0	2.8/14.14	38/36.78	0.15/0.2	68	70/66	17.9	249.95			
	TA5000		30	0.04	0.04	20-20	76	150		1.9/10.77	4.6/18.45	1.0	2.8/14.14	38/36.78	0.15/0.2	68	70/66	17.2	299.95			
	RS2003		30	0.04	0.04	20-20	76	150		1.9/10.77	4.6/18.45	1.0	2.8/14.14	38/36.78	0.15/0.2	68	70/66	21	299.95			
	RS2004A		45	0.04	0.04	20-20	76	150		1.9/10.8	4.6/18.5	1.0	2.8/14.2	38/36.8	0.15/0.2	68	70/66	28.5	349.95			
	RS240		30	0.03	0.03	20-20	78	200		1.9/10.77	4.6/18.45	0.8	2.8/14.14	38/36.78	0.1/0.15	70	75/70	25	399.95			
	RS250		50	0.02	0.02	20-20	80	200		1.9/10.77	4.6/18.45	0.8	2.8/14.14	38/36.78	0.1/0.15	70	75/70	29	449.95			
	RS2010		100	0.03	0.03	20-20	76	200		1.7/9.8	4.3/17.86	0.8	2.5/13.15	34/35.9	0.1/0.2	80	75/70	36	599.95			
	RS270		50	0.02	0.02	20-20	80	200		1.8/10.3	4.6/18.45	0.8	2.8/14.14	38/36.78	0.1/0.2	70	75/70	29	549.95			
HEATH	AR-1219	K	15	0.5		20-20	46			2/1.8/10.3	2.5/3.5/16.1	2	3.5/4/17	40/37	0.5/0.75/0.35/0.35	60/65	65/70/65	13/25	229.95/299.95			
	AR-1429	K	35	0.1		20-20	65	90	2	1.8/10.3	3.5/16.1	1.8	2.3/12.5	35/36.1	0.3/0.35	65	70/60	36	399.95			
	AR-1515	K	70	0.08		20-20	65	100	1.5	1.8/10.3	3.5/16.1	1.8	2.3/12.5	35/36.1	0.3/0.35	65	70/60	36	399.95			
	AR-1650	K	125	0.05		20-20	65	150	2.5	1.8/10.3	3.5/16.1	1.5	2.5/13.2	36/36.1	0.1/0.1	40/80	80/73	48	779.95			
HITACHI (Continued)	SR2010		15	0.3		20-20						1.0						11	199.95			
	SR4010		25	0.05		20-20						1.0						11 1/4	229.95			

RECEIVERS



Sherwood S-7650 CP



Technics SA-818



B&O 1600



Yamaha CR-1040



Vector Research VRX-9000



Pioneer SX-3900

MANUFACTURER	Model	Unit Type: FM Only = FM; Kit = K	Ave. Watts/Chan., 8 Ohms	% THD	% IHF IM	Rated Power Bandwidth, Hz to kHz	Phono S/N, "A"	Phono Overload, mV per IHF A-202	Dynamic Headroom, dB	Mono IHF Sensitivity, μ V/dBf	Stereo IHF Sensitivity, μ V/dBf	Capture Ratio, dB	Mono Signal Strength for 50-dB Quieting, μ V/dBf	Stereo Signal Strength for 50-dB Quieting, μ V/dBf	% THD, 100% Modulation, 1 kHz, Mono/Stereo	Alt. Chan. Select., dB Wide/Narrow/F. Bandwidth	Max. S/N, dB, Mono/Stereo	Net Weight, Lbs.	Price, \$
HITACHI (Continued)	SR5010	25	0.05		20-20	130				1.0							14.3	259.95	
	SR6010	35	0.04		20-20	140				1.0							14.3	299.95	
	SR8010	50	0.05		20-20	100				1.0							22%	449.95	
JVC	R-S5	25	0.03	0.03	20-20	75		1.9/10.3		1	2.5/14.8	32.5/38.3	0.15/0.3	65	82/70	15.7	219.95		
	R-S7	50	0.03	0.03	20-20	75		1.9/10.3		1	2.5/14.8	32.5/38.3	0.15/0.3	65	82/70	18.7	299.95		
	R-S11	25	0.03	0.03	20-20	75	100	1.8/10.3		1	3.0/14.8	45.0/38.3	0.15/0.3	65	82/70	17.0	249.95		
	R-S33	40	0.007	0.007	20-20	75	140	1.8/10.3		1	3.0/14.8	45.0/38.3	0.15/0.3	65	82/70	17.8	329.95		
	R-S55	40	0.03	0.03	20-20	75		2.1/12.2		1	2.7/15.9	32.0/38.2	0.15/0.3	65	78/68	19.1	399.95		
	R-S77	60	0.005	0.004	20-20	75	180	1.8/10.3		1	3.0/14.8	40/37.2	0.15/0.3	80	80/70	23.8	529.95		
KENWOOD	KR-9050	200	0.02	0.0045	20-20	91	260	1.7/9.8		1	2.8/14.1	35/36.1	0.07/0.08	30/60	83/76	52.9	1150.00		
	KR8050	150	0.02	0.005	20-20	91	220	1.8/10.3		1	3.2/15.3	38/36.8	0.07/0.08	30/60	83/75	41.9	820.00		
	KR-770	80	0.02	0.02	20-20	91	240	1.7/9.8		1	3.5/14.2	35/35.6	0.09/0.1	60/75	74/70	26.5	679.00		
	KR-750	60	0.02	0.02	20-20	85	230	1.8/10.3		1	3.5/14.2	40/37.2	0.1/0.15	45/65	76/72	21.2	519.00		
	KR-730	40	0.03	0.02	20-20	85	230	1.8/10.3		1	3.5/14.2	40/37.2	0.1/0.15	45/65	76/72	20.5	409.00		
	KR-80	27	0.05	0.02	20-20	84	160	1.8/10.3		1	3.5/16.1	40/37.2	0.1/0.15	50	75/70	13.4	379.00		
	KR-720	40	0.03	0.025	20-20	80	200	1.9/10.8		1	4/17.2	40/37.2	0.1/0.15	52	75/71	16.5	329.00		
	KR-710	28	0.08	0.04	20-20	78	160	1.9/10.8		1	4/17.2	40/37.2	0.1/0.15	52	76/71	16.5	245.00		
LEAK	2000	35																795.00	
LUX AUDIO	R-1120A	120	0.02	0.02	15-100	86	160	1.8/10.3		0.9	2.8/14.2		0.06/0.1	48/80	75	37	995.00		
	R-1070	75	0.025	0.025	15-100	86	160	1.8/10.3		0.9	2.8/14.2		0.06/0.1	48/80	75	33	795.00		
	R-3055	55	0.05	0.05	15-60	90	160	1.9/10.8		1.3	3.1/15.0		0.1/0.15	65	75	26	595.00		
	R-3045	45	0.05	0.05	15-60	90	160	1.9/10.8		1.3	3.1/15.0		0.1/0.15	65	75	23	495.00		
	R-3030	30	0.05	0.05	15-60	87	130	1.9/10.8		1.2	3.1/15.0		0.15/0.25	55	75	21	395.00		
MARANTZ	SR8000	70	0.025	0.025	20-20	90@10mV	225	1.7/9.8	35/36.1	1.0			0.15/0.2	65	80/72	23%	695.00		
	SR6000	70	0.025	0.025	20-20	90@10mV	225	1.7/9.8	35/36.1	1.0			0.15/0.2	65	80/72	21%	550.00		
	SR4000	50	0.025	0.025	20-20	88@10mV	130	1.8/10.3	38/36.8	1.0			0.15/0.25	65	78/70	21	415.00		
	SR2000	30	0.04	0.04	20-20	86@10mV	130	1.9/10.8	40/37.3	1.0			0.15/0.25	62	75/68	17%	325.00		
	SR1000	20	0.09	0.09	20-20	84@10mV	130	1.9/10.8	42/37.7	1.0			0.15/0.3	60	75/68	16%	275.00		
MITSUBISHI	DAR20	60	0.02	0.02	10-80	78	140	1.6/9.3		1.5	3.0/15	38/36.8	0.08/0.1	60/75	84/80	31	560.00		
	DAR10	45	0.02	0.02	10-80	78	140	1.6/9.3		1.5	3.0/15	38/36.8	0.08/0.1	60/75	84/80	27	390.00		
	DAR7	30	0.02	0.02	10-80	78	140	1.8/10.3		1.5	3.5/16	38.8/37	0.08/0.2	65	82/78	22	295.00		
NAD (USA)	7020	20	0.02	0.02	20-20	75	225	1.8/10.3		1.5	3.5/10.8	40/37	0.2/0.3	62	75/70	18.5	330.00		
	7045	45	0.05	0.05	20-20	74	200	2.2	1.9/10.8	1.5	3.5/16	45/38.3	0.2/0.3	62	72/68	13.5	448.00		
	7060	60	0.03	0.03	20-20	74	200	2.2	1.9/10.8	1.5	3.5/16	45/38.3	0.2/0.3	62	72/68	15	530.00		
	7080	90	0.03	0.03	20-20	76	200	2.5	1.8/10.3	1.0	3.0/14.8	35/36.1	0.2/0.3	70	74/70	19	648.00		

RECEIVERS

MANUFACTURER	Model	Unit Type: FM Only = FM, KHz = K	Ave. Watts / Chan. - 8 Ohms	% THD	% IHF IM	Rated Power Bandwidth Hz to kHz	Phono S/N, "A" - Wtd. ... re: 5 mV dB, per IHF A-202	Phono Overload, mV per IHF A-202	Dynamic Headroom, dB	Mono IHF Sensitivity, μ V/dBf	Stereo IHF Sensitivity, μ V/dBf	Capture Ratio, dB	Mono Signal Strength for 50-dB Quieting, μ V/dBf	Stereo Signal Strength for 50-dB Quieting, μ V/dBf	% THD, 100% Modulation, 1 kHz, Mono/Stereo	Alt. Chn. Select., dB Wide/Narrow I.F. Bandwidth	Max. S/N, dB, Mono/Stereo	Net Weight, Lbs.	Price, \$	
NAKAMICHI	730	F	105	0.02	0.004	10-20	83 @ 2mV			1.5	4.5/18.3	45/38.3	0.1/0.15	70	75/68	38	1390.00			
	530	F	55	0.02	0.01	10-20	84			1.5	5/19.2	55/40	0.15/0.2	75	75/68	27%	660.00			
NIKKO AUDIO	NR-519		20	0.08	0.08	10-30	80	130		1.8	/15.2		0.2/0.3	55	70/60	15.8	240.00			
	NR-719		35	0.05	0.05	10-30	82	150		1.5	/14.2	/36.2	0.8/0.18	55	81/75	22	330.00			
	NR-819		45	0.05	0.05	10-30	82	150		1.5	/14.2	/36.2	0.8/0.18	55	81/75	22.6	370.00			
	NR-1019		70	0.03	0.03	10-40	84	200		1.5	/13.5	/35.5	0.7/0.15	75	81/75	34.1	540.00			
	NR-1219		100	0.03	0.03	10-40	84	250		1.5	/13.5	/35.5	0.7/0.15	75	81/75	38.5	650.00			
ONKYO	TX-2000		27	0.06	0.1	20-20	75	110		2.2/12	5/19.2	1.5	4.5/13.8	50/39.2	0.2/0.4	60	68/63	17%	254.95	
	TX-3000		45	0.04	0.1	20-20	76	180		2/11.2	5/19.2	1.5	4/17.2	40/37.2	0.15/0.3	60	70/65	25%	349.95	
	TX-5000		65	0.03	0.03	20-20	76	200		1.8/10.3	4/17.2	1.4	3/14.7	40/37.2	0.15/0.3	70	73/68	33	499.95	
	TX-7000		90	0.02	0.02	20-20	76	200		1.7/9.8	4/17.2	1.3	35/14.7	31/35	0.15/0.3	70	74/68	41%	699.95	
	TX-20		30	0.06	0.06	20-20	75	200		1.9/10.8	4.0/17.2	1.5	3.5/16.0	35.0/36.0	0.12/0.3	55	72/66	15%	329.95	
	CX-70		20	0.3	0.3	20-20	75	150		2.3/12.4	5.0/19.2	1.5	5.0/19.2	50/39.2	0.2/0.4	55	68/63	19%	399.95	
OPTONICA	SA-5406		65	0.035	0.035	20-20	76	240		1.8/10.3	5.6/20.2	1.2	2.45/13.0	35.2/31.6	0.2/0.4	72	73	30.9	470.00	
	SA-5206		45	0.04	0.04	20-20	73	180		1.9/10.8	5.6/20.2	1.2	3.55/16.2	35.2/31.6	0.2/0.4	60	73	27.6	360.00	
	SA-5101		25	0.04	0.04	20-20	73	150		1.9/10.8	5.6/20.2	1.2	3.55/16.2	35.2/31.6	0.1/0.2	60	73	14.4	260.00	
PHILIPS	AH 797/ AH 7971		80	0.03	0.04	20-20	70	210		2.8/	30/	1.6			0.15/0.3	100	35	400.00		
	AH 796/ AH 7961		45	0.03	0.03	20-20	70	210		2.8/	35/	1.6			0.15/0.3	100	30	329.95		
	AH 795/ AH 7951		30	0.06	0.07	20-20	70	200		4.0/	50/	1.8			0.2/0.3	90	26	239.95		
	AH 794/ AH 7941		20	0.08	0.07	20-20	70	150		4.0/	50/	1.8			0.2/0.3	90	21	199.95		
PIONEER	SX-3900		120	0.005		20-20	115	300		9.8		1.0	14.2	36.	0.005	80	83/78	44	800.00	
	SX-3800		60	0.005		20-20	115	250		10.3		1.0	16.2	37.0	0.005	75	83/78	35%	500.00	
	SX-3700		45	0.02		20-20	79	250		10.3		1.0	15	37	0.07	75	80/75	25%	375.00	
	SX-3600		30	0.05		20-20	78	140		11.2		1.0	16.1	37	0.1	60	78/72	18	275.00	
	SX-3500		20	0.05		20-20	78	120		11.2		1.0	16.1	37	0.1	75	78/72	16%	225.00	
	SX-3400		15	0.06		20-20	73	150		12.1		2.5	17.2	39.2	0.5	60	75/70	12	175.00	
	SX-780		45	0.05		20-20	82	200		10.3		1.0	16.2	37	0.07	60	80/72	24%	375.00	
	SX-680		30	0.01		20-20	81	200		10.8		1.0	16.7	37	0.07	60	80/70	19%	300.00	
	SX-580		20	0.3		20-20	79	150		10.8		1.0	16.7	37	0.07	60	80/70	18%	250.00	
	RADIO SHACK	STA-2100		120	0.05		20-20	84	230		1.8/10.3		1.5	3.0/			70	/70		699.95
		Dolby STA-2200		80	0.02		20-20	85	200		1.8/10.3		1.5	3.1/			68	/68		599.95
		STA-2250		50	0.02		20-20	85	170		2.0/11.3		1.5	3.5/			68	/68		429.95
Digital STA-2080			80	0.03		20-20	70	160		1.7/9.8		1.5	2.2/			70	/70		499.95	
STA-960			50	0.05		20-20	87	135		2.0/11.2		2.0	2.0/			50	/65		400.00	
STA-820			40	0.06		20-20	83	180		2.0/11.2		2.0	2.0/			60	/65		360.00	
STA-11			30	0.02		20-20	89	160				1.0	1.7/			70	/70		320.00	
STA-720			25	0.05		20-20	81	140				1.0	2.2/			65	/70		300.00	
STA-100			22	0.1		20-20	86	130		1.9/		1.5	2.8/			66	/70		280.00	
STA-530			16	0.2		20-20	80	111		2.5/13.2		2.0	4.5/			70	/65		200.00	
STA-7		10	0.4		20-20	80	100		2.4/14.2		3.0	5.0/			45	/60		180.00		
STA-430		10	0.6		20-20	89	90		2.8/14.2		3.0	3.5/			45	/65		160.00		
REVOX	B780	F	70	0.03	0.03	20-20	82	300	1	1.9/5.0	15.0/22.0	2	2.5/10.0	30.0/28.0	0.1/0.25	78	78/74	37%	2699.00	
SAE	Two R18		180	0.05	0.05	10-60	84	150-300	1.2	1.8/10.3	4.0/17.3	1.5	4.0/17.3	30/34.7	0.08/0.15	35/70	76/70	55	1500.00	
	Two R12		120	0.05	0.05	10-60	84	150-300	1.2	1.8/10.3	4.0/17.3	1.5	4.0/17.3	30/34.7	0.08/0.15	35/70	76/70	47	1200.00	
	Two R9		90	0.05	0.05	10-60	74	200	1.2	1.8/10.3	4.0/17.3	1.5	4.0/17.3	35/36.1	0.1/0.22	65	74/65	35	850.00	
	Two R6		60	0.05	0.05	10-60	74	200	1.2	2.0/11.25	4.0/17.3	2	4.0/17.3	40/37.3	0.15/0.25	65	72/63	30	675.00	
SANSUI	G-9700		200	0.02	0.02	20-20	78	280		1.7/9.8	3.9/17	1.0	2.3/12.5	31/35	0.05/0.07	60/80	82/76	48.9	1100.00	
	G-7700		120	0.025	0.025	20-20	78	250		1.7/9.8	3.9/17	1.0	2.8/14	34.7/36	0.1/0.15	70	76/71	39.7	800.00	
	G-6700		90	0.025	0.025	20-20	78	210		1.9/10.8	4.36/18	1.0	3.1/15	38.9/37	0.1/0.15	50	75/70	35.5	730.00	
	5900Z		75	0.03	0.03	20-20	80	180		1.9/10.8		1.0	3.1/15	38.9/37	0.15/0.18	60	76/70	20.9	600.00	
	4900Z		55	0.03	0.03	20-20	80	180		1.9/10.8		1.0	3.1/15	38.9/37	0.15/0.18	60	76/70	18.7	490.00	
	3900Z		40	0.05	0.05	20-20	73	180		1.9/10.8		1.0	3.1/15	38.9/37	0.15/0.18	60	76/70	17.9	390.00	
	R-70		65	0.08	0.08	20-20	73	100		2.2/12		1.0	3.9/17	46.6/38	0.5/0.8	55	72/67	16.5	400.00	
	R-50		45	0.09	0.09	30-20	73	100		2.2/12		1.0	3.9/17	46.6/38	0.5/0.8	55	72/67	14.8	300.00	
	R-30		25	0.09	0.09	40-20	73	100		2.2/12		1.0	3.9/17	46.6/38	0.5/0.8	55	72/67	12.3	230.00	

The tonearm that isn't.



The traditional tone arm has been replaced. By Linatrack. A revolutionary tracking system developed by Revox.

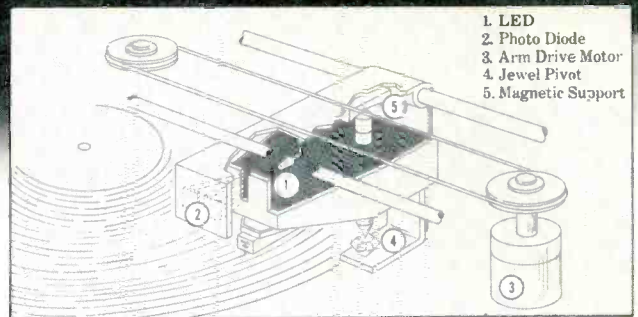
This sophisticated and highly refined electronic servo-system ensures that your records are played just the way they were cut, with perfect tangential tracking.

We've eliminated the causes of distortion inherent in conventional tone arm design. There's no need for an anti-skating device because there is no skating force. Our unique LED/photo diode array monitors the stylus angle and makes instant corrections to keep the tip absolutely perpendicular.

Pivot friction has also been dramatically reduced by our unique single-point jewelled pivot/magnetic support and suspension system.

With Linatrack, tracking error is reduced to a phenomenal 0.5° or less, virtually eliminating distortion and protecting your records from excessive wear.

The high torque direct drive motor of the Revox B790 uses Hall-Effect magnetic sensors tied to a quartz crystal to constantly read and instantly correct rotational speed. This eliminates the moment-to-moment deviations



found on even the most expensive conventional direct drive motors. You can verify speed accuracy with the fast responding LED digital readouts. The readouts also provide an accurate log of manual speed adjustments.

Even with its advanced features, the Revox B790 is a pleasure to operate with safe and convenient automation. It works with virtually every cartridge and is ruggedly built to stand up to years of daily operation.

For more good reasons to play your records without a tone arm, experience the B790 at your Revox dealer.

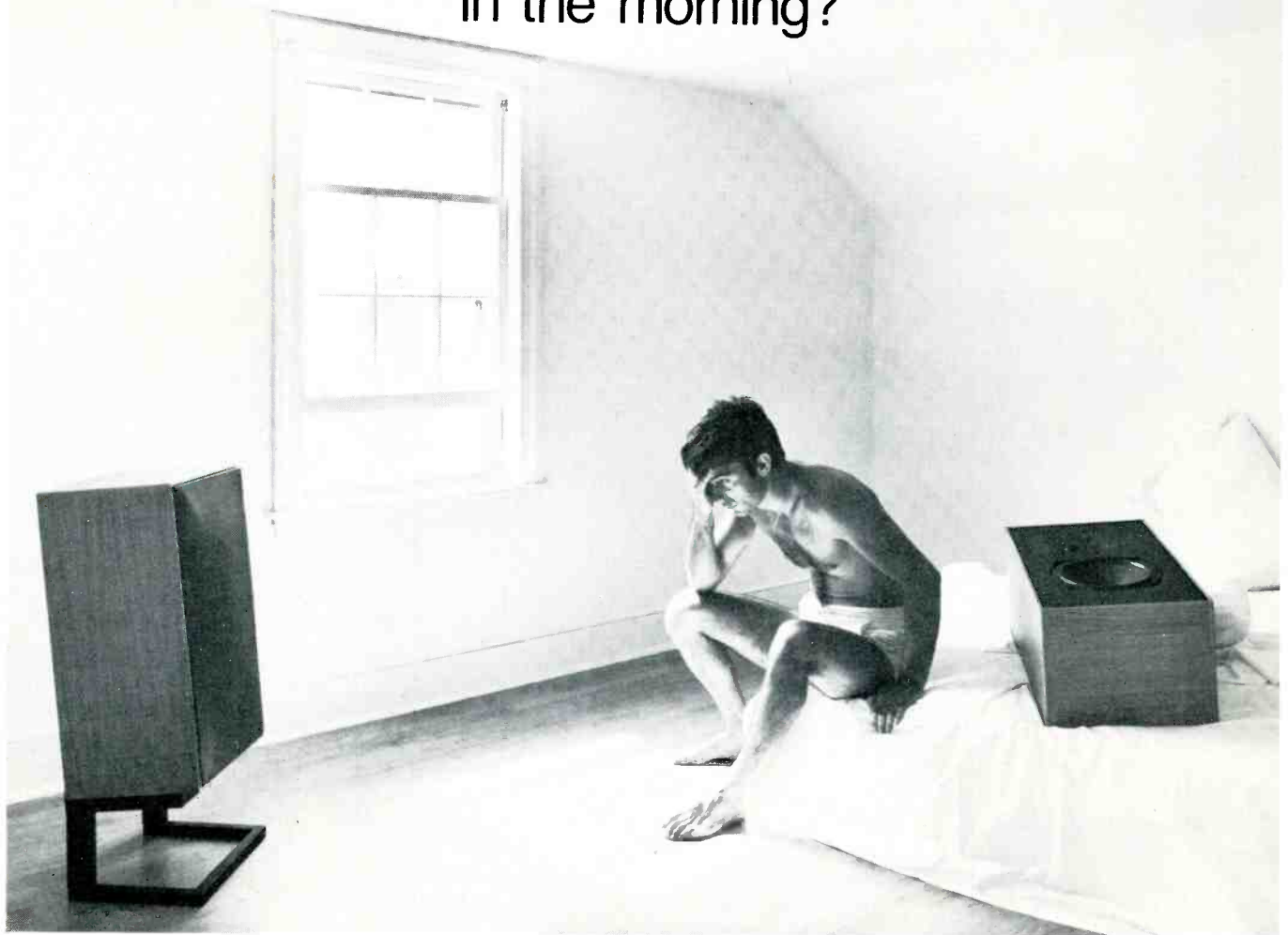
STUDER REVOX

Studer Revox America, Inc.
1425 Elm Hill Pike, Nashville, TN 37210, (615) 254-5651
Offices: Los Angeles (213) 780-4234 / New York (212) 255-4462
In Canada: Studer Revox Canada, Ltd.

RECEIVERS

MANUFACTURER	Model	Unit Type: FM Only = FM; Kit = K		Ave. Watts/Chan., 8 Ohms		% THD		% IHF I/M		Rated Power Bandwidth, Hz to kHz		Phono S/N: "A" Wid., re. 5 mV dB, per IHF A-202		Phono Overload, mV per IHF A-202		Dynamic Headroom, dB		Mono I/F Sensitivity, μ V/dB		Stereo I/F Sensitivity, μ V/dB		Capture Ratio, dB		Mono Signal Strength for 50-dB Quieting, μ V/dB		Stereo Signal Strength for 50-dB Quieting, μ V/dB		% THD, 100% Modulation, 1 kHz, Mono/Stereo		Alt. Chan. Select., dB Wide/Narrow F. Bandwidth		Max. S/N, dB Mono/Stereo		Net Weight, Lbs.		Price, \$						
		55	75	130	200	0.04	0.03	0.025	0.009	20-20	87	150	1.9/10.8	1.9/10.8	1.2	2.7/13.7	39/37	0.2/0.3	75	75/70																						
SANYO	Plus 55	55	0.04	0.04	20-20	87	150					1.9/10.8		1.2	2.7/13.7	39/37	0.2/0.3	75	75/70															449.95								
	Plus 75	75	0.03	0.03	20-20	110	200					1.9/10.8		1.2	2.7/13.7	39/37	0.2/0.3	75	75/70																609.95							
	Plus 130	130	0.025		20-20	110	250					1.8/10.3		1.2	2.6/13.5	36/36.3	0.15/0.2	80	80/74																	829.95						
	Plus 200	200	0.009		20-20	97	250					1.8/10.3		1.2	2.6/13.5	36/36.3	0.15/0.2	80	83/78																	999.95						
H.H. SCOTT	390R	120	0.03	0.03	20-20	90 @ 10mV	300/600					1.7/9.8		1.0	3.3/15.6	33/35.6	0.1/0.2	80	80/75	49																774.95						
	380R	85	0.03	0.03	20-20	90 @ 10mV	300/600					1.7/9.8		1.0	3.3/15.6	33/35.6	0.1/0.2	80	80/75	38																	599.95					
	370R	60	0.05	0.05	20-20	85 @ 10mV	200					1.8/10.3		1.25	3.5/16.1	36/36.3	0.125/0.25	60	75/70	35 1/2																	499.95					
	350R	40	0.06	0.06	20-20	85 @ 10mV	200					1.8/10.3		1.5	3.5/16.1	36.36.3	0.125/0.25	60	75/70	24 1/2																	399.95					
	325R	18	0.1	0.1	20-20	75 @ 10mV	150					2.2/12		1.5			0.15/0.3		70/65																			229.95				
	335R	27	0.08	0.08	20-20	75 @ 10mV	150					2.2/12		1.5			0.15/0.30		70/65																			279.95				
	355R	45	0.08	0.08	20-20	75 @ 10mV	180					1.5/10.5		1.5			0.15/0.30		71/66																			379.95				
	375R	65	0.05	0.05	20-20	75 @ 10mV	180					1.8/10.5		1.2			0.1/0.2		75/70																			459.95				
	330R	25	0.08	0.08	20-20	80 @ 10mV	180					1.9/10.8		2.0	3.8/16.7	39/37	0.15/0.30	50	72/67	21																	279.95					
SHERWOOD	S7150CP	18	0.2	0.2	20-20	91	140					1.9/10.8		1.2	3.5/16.11		0.15/0.25	60	70/66	18																	230.00					
	S7250CP	25	0.2	0.2	20-20	92	140					1.9/10.8		1.0	3.5/16.11		0.15/0.25	60	70/66	20																		290.00				
	S7450CP	35	0.2	0.2	20-20	92	140					1.8/10.33		1.0	3.3/15.60		0.15/0.25	60	70/66	22																		350.00				
	S7650CP	50	0.2	0.2	20-20	92	140					1.7/9.84		1.0	2.7/13.86		0.15/0.25	60	70/66	24																		425.00				
SONY	STR-V55	55	0.02	0.02	20-20	86, 77	200, 20					3.5/16.1	35/36.1	1.0	3.5/16.1	35/36.1	0.1/0.15	80	75/70	15																		520.00				
	STR-V45	40	0.04	0.04	20-20	86	200					3.5/16.1	35/36.1	1.0	3.5/16.1	35/36.1	0.1/0.15	80	75/70	18 1/2																		420.00				
	STR-V35	35	0.04	0.04	20-20	85	150					3.5/16.1	35/36.1	1.5	3.5/16.1	35/36.1	0.1/0.15	60	75/70	18 1/2																			270.00			
	STR-V25	28	0.04	0.04	20-20	83	150					3.5/16.1	35/36.1	1.5	3.5/16.1	35/36.1	0.1/0.15	60	75/70	17																			270.00			
	STR-V15	22	0.08	0.08	20-20	81	150							1.5	3.5/16.1	35/36.1	0.2/0.3	60	75/70	13 1/2																			220.00			
TANDBERG	TR-2030A	F	30	0.09	0.09	8-50	86	90	3			1.9/10.8	40/37.3	1.5	3.5/16.2	40/37	0.4/0.5	80	76/74	18																	500.00					
	TR-2045	F	45	0.09	0.09	8-50	80	90	3			1.9/10.8		1.5	3.5/16.2	32/35	0.4/0.5	80	76/74	22																		650.00				
	TR-2060	F	60	0.09	0.09	8-50	80	90	3			1.9/10.8		1.5	3.5/16.2	32/35	0.4/0.5	80	76/74	22																		800.00				
	TR-2080	F	80	0.05	0.05	8-50	82	120-500	3			1.7/9.8		0.9	3/14.8	32/35	0.2/0.3	80	78/75	27																		1200.00				
TECHNICS	SA-101	18	0.04	0.04	40-20	76	75	1.4				1.9/10.8		1.2	3.0/14.8	45/38.3	0.18/0.3	65	75/70	12.3																		180.00				
	SA-202	30	0.04	0.04	30-20	75	75	1.4				1.9/10.8		1.2	3.0/14.8	45/38.3	0.18/0.3	68	75/70	15.4																		220.00				
	SA-303	40	0.04	0.04	20-20	75	120	1.4				1.9/10.8		1.2	2.7/13.7	39.7/37.2	0.15/0.3	70	75/70	17.4																		290.00				
	SA-404	50	0.04	0.04	20-20	75	120	1.4				1.9/10.8		1.2	2.7/13.7	39.7/37.2	0.15/0.3	70	75/70	18.5																		350.00				
	SA-505	63	0.04	0.04	20-20	73	120	1.4				1.9/10.8		1.2	2.7/13.7	39.7/37.2	0.15/0.3	70	75/70	20.9																		420.00				
	SA-616	80	0.005	0.005	20-20	74	140	1.5				1.8/10.3		1.2	2.5/13.2	35.4/36.2	0.1/0.15	75	76/72	40.1																		680.00				
	SA-818	110	0.005	0.005	20-20	74	180	1.5				1.8/10.3		1.2	2.5/13.2	35.4/36.2	0.1/0.15	65/85	76/72	40.8																	850.00					
TOSHIBA	SA-725	25	0.08	0.08	10-35	74	200					1.9/10.8		1.0	3.5/16.0	50/39.2	0.2/0.3	65	65/70	21.6																		249.95				
	SA-2500	25	0.05	0.05	10-50	80	180					1.8/10.3		1.0	3.6/16.3	45/38.3	0.08/0.15	65	78/72	17.6																		249.95				
	SA-3500	35	0.04	0.04	10-50	84	200					1.8/10.3		1.0	3.6/16.3	45/38.3	0.08/0.15	75	78/72	19.8																		299.95				
	SA-5000	50	0.03	0.03	10-60	84	240					1.8/10.3		1.0	3.6/16.3	45/38.3	0.08/0.15	75	78/72	20.9																		379.95				
	SA-850	50	0.03	0.03	10-35	84	200					1.8/10.3		1.0	3.2/15.3	45/38.2	0.15/0.2	80	68/72	26.4																						

Will you still respect your speakers in the morning?



Sure, they sounded great last night.

But the real test of a speaker system is the morning after.

Will your speakers sweeten your morning coffee with Vivaldi, or will they make you wish you'd never turned your stereo on?

Do your speakers make you glad you're alive, or do they serve only to remind you of last night's excesses?

Some speakers are impressive when played loudly. But a truly great speaker is equally, if not more, impressive at low listening levels. "Loud" is desirable at times, but a speaker to be lived with must do much more.

For years, and without fanfare, ADS has been building monitor speaker systems for some of the most demanding sound engineers in the music industry. ADS technology is uniquely able to accommodate their diverse and challenging re-

quirements. This same technology, not surprisingly, produces some of the finest speaker systems available for home use.

The new ADS L730, for example, is a direct outgrowth of ADS' continuing involvement in digital recording technology. An unusual combination of extended fre-

quency range, uncanny sonic accuracy, razor-sharp stereo imaging and true-to-life dynamic range, the L730 delivers untiring musical performance. Although the system is capable of shaking walls with clean, undistorted sound, you'll appreciate it most on those mornings when quality counts more than quantity.

The L730 is only one of many ADS speakers, all meticulously engineered and superbly crafted. Your ADS dealer will be happy to help you select the model which best suits your purposes. For more information and the name of the ADS dealer nearest you, please write ADS, Dept. AU-19, or call 1-800-824-7888 (California 1-800-852-7777) toll free and ask for Operator 483.

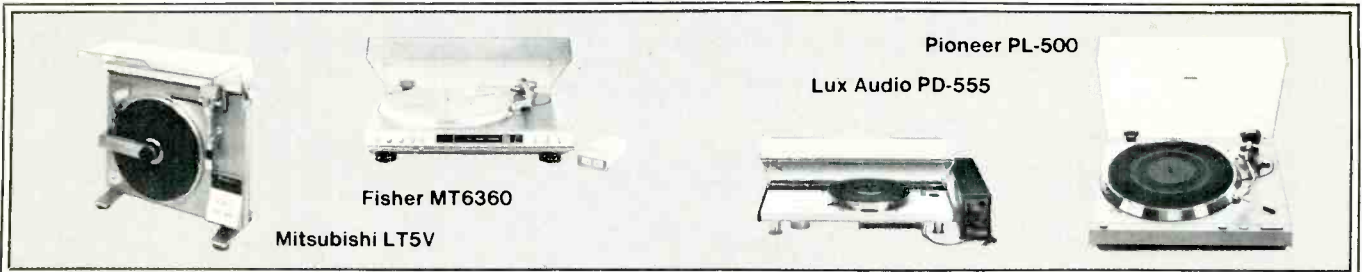


ADS Audio for the critically demanding

Analog & Digital Systems, Inc., One Progress Way, Wilmington, MA 01887 (617) 658-5100

TURNTABLES

For Manufacturers' Addresses, see page 158



LETTER CODE FOR SPEEDS		Model	Speeds—See Code	Wow & Flutter, % 23 1/3, DIN 45-507	Rumble, -dB, DIN 45-539-B	Motor Type	Drive System	Speed Inaccuracy, ±%		Speed Adjustment Range, ±%		Speed Accuracy Indicator Type		Overall Arm Length, inches	Pivot-Stylus Dist., inches	Multi-Play? Y=Yes, #=Discs	Auto. Cue = C, Auto. Off = O	Max. Tracking Error, Deg./In.	Anti-Skate Adjustment?	Tracking Force Range, Gms.	Total Cable Capacitance, pF	Damped Cueing?	Dimensions, inches	Price, \$
A—33, 45, 78	B—33, 45							C—33	D—16, 33, 45, 78	E—16, 33, 45	F—Cont. Variable	Strobe												
ADC	3001	B	0.03	70	D.C. Brushless	Direct		5	Strobe			No	No										18 1/2 X 14 X 3	249.95
AIWA	LP-3000U	F	0.025	75	Quartz Servo	Direct	.0025	6	Digital	7 1/2	7 1/2	No	C/O	0	No	0-3		Yes	19 X 17 1/2 X 6				1000.00	
	AP-2600U	F	0.025	75	Quartz PLL Servo	Direct	.0025	6	Digital		9%	No	O	2.1	Yes	0-3		Yes	19 X 16 X 16				400.00	
	AP-D50U	B	0.028		D.C. Servo	Direct		3		8 1/2		No	O		Yes	0-3		Yes	4 1/2 X 17 1/2 X 14 1/2				350.00	
	AP-D30H	B	0.035		Hall D.C. Servo	Direct		3		8 1/2		No	O		Yes	0-4		Yes	4 1/2 X 16 X 14 1/2				220.00	
	AP-2100H	B	0.07		Servo Hyst. Sync.	Belt				8%		No	O		Yes	0-4		Yes	5 1/2 X 17 1/2 X 14 1/2				150.00	
AKAI	AP-B10	B	0.05	65	Sync. Servo	Belt			No			No	O		Yes	0-3		Yes	17.3 X 14 X 5.3				99.95	
	AP-B20	B	0.05	65	Sync. Servo	Belt			No	8.8	8.8	No	O		Yes	0-3		Yes	17.3 X 14 X 5.3				99.95	
	AP-D30	B	0.05	70	D.C. Servo	Direct	0.12	5	Strobe	8.8	8.8	No	O		Yes	0-3		Yes	17.3 X 15.8 X 5.5				149.95	
	AP-D40	B	0.047	73	D.C. Servo	Direct	0.12	5	Strobe	8.8	8.8	No	C/O		Yes	0-3		Yes	17.3 X 15.8 X 5.5				169.95	
	AP-Q50	B	0.05	70	D.C. Servo	Direct	0.04	5	Strobe	8.8	8.8	No	O		Yes	0-3		Yes	17.3 X 15.8 X 5.5				189.95	
	AP-Q60	B	0.37	70	D.C. Servo	Direct		5	Strobe		8.8	No	C/O		Yes	0-3		Yes	17.3 X 15.8 X 5.5				219.95	
AUDIONICS	LK-1	B	0.065	65	D.C. Brushless Hall	Belt	0.01	10	No			No	No										19 1/2 X 15 1/2 X 7 1/2	697.00
BANG & OLUFSEN	Beogram 1600	B	0.06	62	D.C. Servo	Belt	0.02		No	10%	9%	No	C/O	0.126	Yes	1.0-1.5	150	Yes	17 1/2 X 13 X 3 1/2				325.00 w/cart.	
	Beogram 1700	B	0.045	62	D.C. Servo	Belt	0.02	3	No	10%	9%	No	C/O	0.126	Yes	1.0-1.5	150	Yes	17 1/2 X 13 X 3 1/2				395.00 w/cart.	
	Beogram 3404	B	0.025	65	D.C. Servo	Belt	0.02	3	No	10%	9%	No	C/O	0.126	Yes	1.0-1.5	150	Yes	17 1/2 X 14 1/2 X 3 1/2				495.00 w/cart.	
	Beogram 4004	B	0.025	65	D.C. Tach	Belt	0.02	3	No	6%		No	C/O	0.04	Yes	1.0-1.5	150	Yes	19 X 19 X 4				895.00 w/cart.	
B+C/AVNET	Micro 150x	B	0.1	63	Sync.	Belt	0.3		No	10%	7 1/2	6	C/O		Yes	1-4	125	Yes	16 X 14 X 6 1/2				99.95	
	Micro 250	B	0.08	64	Sync.	Belt	0.1		No	10%	7 1/2	6	C/O		Yes	1-4	125	Yes	16 X 14 X 6 1/2				109.95	
	Micro 350	B	0.08	64	Sync.	Belt	0.1	3	Strobe	10%	7 1/2	6	C/O		Yes	1-4	125	Yes	16 X 14 X 6 1/2				129.95	
	40Z	B	0.08	68	Sync. Servo	Belt	0.1		No	11%	9	6	C/O	0.27	Yes	0.5-4	125	Yes	18 1/2 X 15 X 7 1/2				149.95	
	60Z	B	0.08	68	Sync. Servo	Belt	0.1	3	Strobe	11%	9	6	C/O	0.27	Yes	0.5-4	125	Yes	18 1/2 X 15 X 7 1/2				179.95	
80Z	B	0.06	70	A.C. Servo	Belt	0.03	3	Digital	11%	9	6	C/O	0.27	Yes	0.5-4	125	Yes	18 1/2 X 15 X 7 1/2				239.95		
BSR	Pro 300	B	0.035	70	F.G.D.C.	Belt		3	Digital	12 1/2		Yes	Yes		Yes	0-4		Yes					299.95	
	Pro 200	B	0.035	70	F.G.D.C.	Belt		3	Digital	12 1/2		Yes	Yes		Yes	0-4		Yes					249.95	
	Quanta 70MX	B			Sync.	Belt						Yes	Yes		Yes	2-4		Yes					109.95	
	Quanta 60MX	B			Sync.	Belt						Yes	Yes		Yes	2-4		Yes					89.95	
	Quanta 50MX	B			Sync.	Rim						Yes	Yes		Yes	3-5		Yes					79.95	
MITCHELL A. COTTER CO.	B-1 Base	B,F			A.C. Servo	Direct		6	No														24 1/2 X 19 1/2 X 8	
DUAL	731Q	B	0.015	78	Quartz PLL	Direct		11	Strobe	12	8%	No	C/O		Yes	0.25-2	400	Yes	16 1/2 X 14 1/2 X 5 1/2				579.95	
	714Q	B	0.015	78	Quartz PLL	Direct		11	Strobe	12	8%	No	C/O		Yes	0.25-2	400	Yes	16 1/2 X 14 1/2 X 5 1/2				499.95	
	650RC	B	0.03	75	C-MOS	Direct		10	Strobe	12	8%	No	C/O		Yes	0.25-3	400	Yes	16 1/2 X 14 1/2 X 5 1/2				419.95	
	622	B	0.03	75	C-MOS	Direct		10	Strobe	12	8%	No	C/O		Yes	0.25-3	400	Yes	16 1/2 X 14 1/2 X 5 1/2				329.95	
	606	B	0.03	75	C-MOS	Direct		10	Strobe	12	8%	No	C/O		Yes	0.25-3	400	Yes	16 1/2 X 14 1/2 X 5 1/2				299.95	
	522	B	0.04	70	Sync.	Belt		6	Strobe	12	8%	No	C/O		Yes	0.25-3	400	Yes	16 1/2 X 14 1/2 X 5 1/2				235.00	
	506	B	0.04	70	Sync.	Belt		6	Strobe	12	8%	No	C/O		Yes	0.25-3	400	Yes	16 1/2 X 14 1/2 X 5 1/2				199.95	
	1264	B	0.04	70	Sync.	Belt		6	Strobe	12	8%	6	C/O		Yes	0.25-3	400	Yes	16 1/2 X 14 1/2 X 7 1/2				279.95	
	1257	B	0.05	68	Sync.	Belt		6	Strobe	9%	8%	6	C/O		Yes	0.25-3	400	Yes	16 1/2 X 14 1/2 X 7 1/2				189.95	

TURNTABLES

LETTER CODE FOR SPEEDS		Model	Speeds—See Code	Wow & Flutter, 33 1/3, DIN 45 507	Rumble, dB, DIN 45 550-B	Motor Type	Drive System	Speed Inaccuracy, ±%	Speed Adjustment Range, ±%	Speed Accuracy Indicator Type	Overall Arm Length, inches	Pivot Stylus Dist., inches	Multi-Play? If Yes, # Discs	Auto Cue = C, Auto Off = O	Max. Tracking Error, Deg./in.	Anti-Skate Adjustment?	Tracking Force Range, Grams	Total Cable Capacitance, pF	Damped Cueing?	Dimensions, inches	Price, \$
A—33, 45, 78	B—33, 45																				
EMT	948	A	0.075	70	Quartz Servo	Direct	0.1	6	No		No	C		Yes	0-5		Motor	18 1/2 x 19 x 9 1/2		3600.00	
	950	A	0.05	70	Quartz Servo	Direct	0.1	6	No		No	C		Yes	0-5		Motor	22 1/2 x 20 x 9 1/2		6200.00	
FISHER	MT6430	B	0.035	70	A.C. Servo	Direct	0.5	3	Strobe	8%	O	1.5	Yes	0.6-3.5	115	Yes	17 1/2 x 14 1/2 x 5 1/2		189.95		
	MT6435	B	0.035	70	A.C. Servo	Direct	0	3	Strobe	8%	O	1.5	Yes	0.6-3.5	115	Yes	17 1/2 x 14 1/2 x 5 1/2		249.95		
	MT6455	B	0.035	70	A.C. Servo	Direct	0	3	Strobe	8%	C/O	1.5	Yes	0.6-3.5	115	Yes	17 1/2 x 14 1/2 x 6		279.95		
	MT6360	B	0.035	70	A.C. Servo	Direct	0.3	6	Strobe	8%	C/O	1.5	Yes	0.6-3.5	115	Yes	17 1/2 x 14 1/2 x 6		349.95		
	MT6117	B	0.08	55	A.C. Servo	Belt	1		No	7 1/2	O	3	Yes	0.6-3.5	115	Yes	17 1/2 x 13 1/2 x 5 1/2		119.95		
	MT6310	B	0.04	68	D.C. Servo	Belt	0.8	3	Strobe	8%	O	2	Yes	0.6-3.5	115	Yes	17 1/2 x 14 1/2 x 5 1/2		119.95		
	MT6320	B	0.035	68	D.C. Servo	Direct	0.5	3	Strobe	8%	O	1.8	Yes	0.6-3.5	115	Yes	17 1/2 x 14 1/2 x 5 1/2		149.95		
	MT6330	B	0.035	70	A.C. Servo	Direct	0.5	3	Strobe	8%	O	1.8	Yes	0.6-3.5	115	Yes	17 1/2 x 14 1/2 x 6		169.95		
MT6335	B	0.035	70	A.C. Servo	Direct	0	3	Strobe	8%	O	1.5	Yes	0.6-3.5	115	Yes	17 1/2 x 14 1/2 x 6		199.95			
GARRARD	DDQ650	B	0.03	72	D.C. Slotless	Direct	0.02	3	LED, Strobe	9	No	O	0.38	Yes	0.75-3		Yes	17 1/2 x 14 1/2 x 6 1/2		265.00	
	DDQ550	B	0.03	72	D.C. Slotless	Direct	0.02	0	No	9	No	O	0.38	Yes	0.75-3		Yes	17 1/2 x 14 1/2 x 6 1/2		239.95	
	DD455	B	0.035	71	D.C. Slotless	Direct		3	LED, Strobe	9	No	C	0.38	Yes	0.75-3		Yes	17 1/2 x 14 1/2 x 6 1/2		219.95	
	DD450	B	0.035	71	D.C. Slotless	Direct		3	LED, Strobe	9	No	O	0.38	Yes	0.75-3		Yes	17 1/2 x 14 1/2 x 6 1/2		209.95	
	GT355	B	0.06	68	D.C. Servo	Belt		3	LED, Strobe	9	5		0.38	Yes	0.75-3		Yes	17 1/2 x 14 1/2 x 7 1/2		239.95	
	GT255	B	0.08	65	Sync. Servo	Belt	0		No	9	5		0.38	Yes	0.75-3		Yes	17 1/2 x 14 1/2 x 7 1/2		209.95	
	GT355ap	B	0.06	68	D.C. Servo	Belt	3		LED, Strobe	9		C	0.38	Yes	0.75-3		Yes	17 1/2 x 14 1/2 x 5 1/2		219.95	
	GT255ap	B	0.08	65	Sync. Servo	Belt	0		No	9		C	0.38	Yes	0.75-3		Yes	17 1/2 x 14 1/2 x 5 1/2		189.95	
GT12MKII	B	0.10	59	Ind.	Belt	0		No	7 1/2	5			Yes	2-6		Yes	16 1/2 x 13 1/2 x 6 1/2		109.95		
GT120ap	B	0.10	59	Ind.	Belt	0		No	7 1/2	5			Yes	2-6		Yes	16 1/2 x 13 1/2 x 6 1/2		99.95		
HITACHI	HT-324	B	0.06	65	Sync. Servo	Belt					No		2.0	Yes	0-3		Yes	17 1/2 x 5 x 14 1/4		109.95	
	HT-40	B	0.03	75	Uni-Torque	Direct		3			No		2.0	Yes	0-3		Yes	17 1/2 x 4 1/4 x 14 1/4		139.95	
	HT-41	B	0.03	75	Uni-Torque	Direct		3			No		2.0	Yes	0-3		Yes	17 1/2 x 4 1/4 x 14 1/4		169.95	
	HT-464	B	0.03	77	Uni-Torque	Direct					No		2.0	Yes	0-3		Yes	17 1/2 x 5 x 14 1/4		199.95	
	HT-466	B	0.025	78	Uni-Torque	Direct					No		2.0	Yes	0-3		Yes	17 1/2 x 5 x 14 1/4		239.95	
	HT-561	B	0.02	78	Uni-Torque	Direct					No		2.0	Yes	0-3		Yes	17 1/2 x 6 1/2 x 15 1/4		349.95	
HT-860	B	0.025	78	Uni-Torque D.C. Servo	Direct					No		2.0	Yes	0-3		Yes	19 x 6 x 16 1/4		699.95		
JBE	Series 3	B	0.07	73		Direct		5	Strobe										17 x 13 x 6 1/2	795.00	
JVC	L-A11	B	0.08	63	Sync. Servo	Belt							Yes	0-3	140	Yes	5 1/2 x 17 1/2 x 14 1/2		109.95		
	L-A55	B		75	D.C. Servo	Direct			Strobe				Yes	0-3		Yes	5 1/2 x 17 1/2 x 15		149.95		
	L-F66	B		75	D.C. Servo	Direct			Strobe				Yes	0-3		Yes	5 1/2 x 17 1/2 x 14 1/2		179.95		
	QL-A5	B	0.04	75	D.C. Servo	Direct	0.002	6	Strobe				Yes	0-3	80	Yes	5 1/2 x 17 1/2 x 15		219.95		
	QL-F6	B	0.04	78	D.C. Servo	Direct	0.002	6	Meter				Yes	0-3	80	Yes	5 1/2 x 18 x 15 1/4		399.95		
	QL-Y3F	B	0.04	78	D.C. Servo	Direct	0.002						Yes	0-3		Yes	6 1/2 x 18 1/2 x 17 1/4		359.95		
QL-Y5F	B	0.04	78	D.C. Servo	Direct	0.002						Yes	0-3		Yes	6 1/2 x 18 1/2 x 17 1/4		429.95			
KENWOOD	L-07D	B	0.02	94	Quartz D.C.	Direct			Yes	9 1/2						Yes			1700.00		
	KD-850	B	0.022	83	Quartz D.C.	Direct			Yes	9 1/2						Yes			595.00		
	KD-650	B	0.025	75	Quartz D.C.	Direct			Yes	9 1/2						Yes	19 1/2 x 6 1/2 x 18 1/2		400.00		
	KD-600	B	0.025	75	Quartz D.C.	Direct			Yes										350.00		
	KD-5100	B	0.03	75	Quartz D.C.	Direct			Yes	8 1/2						Yes			349.00		
	KD-4100	B	0.03	71	D.C. Servo	Direct			Strobe	8 1/2						Yes			259.00		
	KD-3100	B	0.03	71	F.G. Servo	Direct			Strobe	8 1/2						Yes	17 1/2 x 5 1/2 x 14 1/4		199.00		
	KD-2100	B	0.04	67	F.G. Servo	Belt			Strobe	8 1/2						Yes			185.00		
KD-1600	B	0.05	65	D.C. Servo	Belt				8 1/2									135.00			
KM LABORATORIES	KM Audio Linear	B	0.06	70	A.C. Sync.	Belt	0.02		No	SME Opt.	9	No	No	0.75	Yes	0.25-2.5	75/300	Yes	17 1/2 x 14 1/2 x 6	349.00	

TURNTABLES

LETTER CODE FOR SPEEDS A—33, 45, 78 B—33, 45 C—33 D—16, 33, 45, 78 E—16, 33, 45 F—Cont. Variable		Model	Speeds—See Code	Wow & Flutter % 25% DIN 45-207	Rumble—dB, DIN 45-207	Motor Type	Drive System	Speed Inaccuracy, %	Speed Adjustment Range, %	Speed Accuracy Indicator Type	Overall Arm Length, Inches	Pivot Stylus Dist., Inches	MultiPlay? If Yes # Discs	Auto. Cue = C; Auto. Off = O	Max. Tracking Error - Deg./In.	Anti-Skate Adjustment?	Tracking Force Range, Gms. of	Damped Cueing?	Dimensions, Inches	Price, \$
LINN PRODUCTS	Linn-Sondek LP12	C	0.04	60	Sync.	Belt												17½x13¼x5½	960.00	
LUX AUDIO	PD-555	A	0.03	72	D.C. Servo	Belt		4	Strobe									26¼x6¼x15½	2895.00	
	PD-441	B	0.025	75	Quartz D.C. Servo	Direct	0.002		Beacon										675.00	
	PD-277	B	0.03	70	D.C. Servo	Direct		4	Strobe	9%	No	C/O	2	Yes		Yes	Yes	18½x6 x13¼	395.00	
	PD-264	B	0.035	70	D.C. Servo	Direct		6	Strobe	9%	No	C	2	Yes		Yes	Yes	17¼x5x14¼	225.00	
MARANTZ	TT 6000	B	0.025	72	Quartz Lock.	Direct				9		C/O	0.22		0-4	Yes	Yes	5½x17½x15	310.00	
	TT 4000	B	0.025	72	Quartz Lock.	Direct				8½		C/O	0.22		0-4	Yes	Yes	5½x17½x15	250.00	
	TT 2000	B	0.03	72	D.C. Servo	Direct		4		8½		C/O	0.22		0-4	Yes	Yes	5½x17½x15	200.00	
	6370Q	B	0.02	70	D.C. Servo	Direct		6	Digital			C/O	0.07		0-3	Yes	Yes	5½x18½x15	470.00	
	6025	B	0.07	65	A.C. Sync.	Belt						C/O			0-4	Yes	Yes	5½x17½x14	130.00	
MICRO SEIKI	DD31	B	0.03	75	D.C. Servo	Direct	0.08	6	Strobe	12%	9%	No	0	1.5	Yes	0.3	150	Yes	18½x14¼x6¼	375.00
	DD24	B	0.03	73	D.C. Servo	Direct	0.09	5	Strobe	11½	8%	No	0	1.7	Yes	0.3	150	Yes	17½x14¼x5¼	275.00
	MB14	B	0.05	65	A.C. Sync.	Belt	0.3	0	No	11½	8%	No	0	1.7	Yes	0.3	150	Yes	17½x14¼x5¼	190.00
	RX-3000	B			D.C. Servo	Belt		6	Strobe			No	No						2200.00	
	RX-5000	B			D.C. Servo	Belt		6	Strobe			No	No						3500.00	
	DQX-1000	B	0.02 WRMS	75	Quartz PLL D.C. Servo	Direct	0.005	6	Strobe										900.00	
	DQX-500	B	0.02 WRMS	75	Quartz PLL D.C. Servo	Direct	0.01	0	No	12%	9%	No	No	1.5	Yes	0-3	150	Yes		600.00
	BL91L	B	0.02	78	D.C. Servo Brushless	Belt	0.002	6	Strobe									24x19½x7½	1200.00	
	BL91	B	0.02	78	D.C. Servo Brushless	Belt	0.002	6	Strobe									21x17¼x7¼	750.00	
	BL51	B	0.04	72	D.C. Servo Brushless	Belt	0.006	4	Strobe									18½x15¼x6½	450.00	
	DQ3	B	0.025	75	Brushless D.C. Servo Quartz	Direct	0.004	0	LEDs	12%	9%	No	No	1.5	Yes	0-3	150	Yes	18½x15¼x6½	500.00
MITSUBISHI	LT30	B	0.025	78	Quartz PLL D.C. Servo	Direct			LED	8%	6%		C/O	0.05	No	0-3	50	Yes	19¼x16¼x5¼	590.00
	LT5V	B	0.045	76	PLL D.C. Servo	Belt		3	LED, Strobe	8%	7%		C/O	0.1	No	0-3	100	Yes	18½x7¼x17	450.00
	DP EC7	B	0.03	73	F.G. D.C. Servo	Direct		3	Strobe	12%	9%		C/O	2.9	Yes	0-3	100	Yes	17½x15x5¼	300.00
	DP5	B	0.03	70	D.C. Servo	Direct		3	Strobe	12%	9%		C/O	2.9	Yes	0-3	100	Yes	17½x14¼x5¼	220.00
NAD (USA)	5020	B	0.06	65	A.C. Sync.	Belt			No			No	0	0.5	Yes	0-3.5	Yes	6x18½x15	198.00	
	5040	B	0.05	67	D.C. Servo	Belt		6	Strobe			No	0	0.5	Yes	0-3.5	Yes	6x18½x15	229.00	
	5080	B	0.03	70	D.C. Servo	Direct		6	Strobe			No	0	0.5	Yes	0-3.5	Yes	6x18½x15	279.00	
ONKYO	CP-1010A	B	0.12	67	F.G. Servo	Belt	0.05	2	Strobe	11%	8%	No	C/O		Yes	1-4	170	Yes	17½x14¼x5¼	144.95
	CP-1015A	B	0.12	67	D.C. Servo	Direct	0.15	2	Strobe	10%	8%	No	C/O		Yes	1-4	170	Yes		159.95
	CP-1020F	B	0.12	72	F.G. Servo	Direct	0.15	2	Strobe	11½	8%	No	C/O		Yes	0.75-4	170	Yes	17½x14¼x5¼	219.95
	CP-1030F	B	0.08	75	D.C. Servo	Direct	0.002		Strobe	11%	8%	No	C/O		Yes	0.75-4	170	Yes	17½x14¼x5¼	314.95
	CP-1260F	B		75	Quartz D.C. Servo	Direct		6	LED	12%	9%	No	C/O		Yes	0.25-3	100	Yes	18½x16¼x6¼	359.95
	CP-1280F	B		75	Quartz D.C. Servo	Direct		6	LED	12%	9%	No	C/O		Yes	0.25-3	100	Yes	18½x16¼x6¼	449.95
OPTONICA	RP-9705	B	0.028	70	F.G. D.C. Servo	Direct	0.0005	4	Digital	8.9			0		Yes	1-4	150	Yes	18.9x17.3x5.3	950.00
	RP-7705	B	0.03	70	Quartz F.G. D.C. Servo	Direct	0.0005	4	Strobe	8.3			0		Yes	1-4	150	Yes	18.9x15.1x4.3	320.00
	RP-4705	B	0.035	70	Quartz F.G. D.C. Servo	Direct	0.012	4	Strobe	8.3			0		Yes	1-4	150	Yes	18.9x15.1x4.3	220.00
PHASE LINEAR	8000	B	0.013		Hall	Direct	0.002			7½			C/O	0	Yes		200	Yes	19.4x6x17.5	750.00

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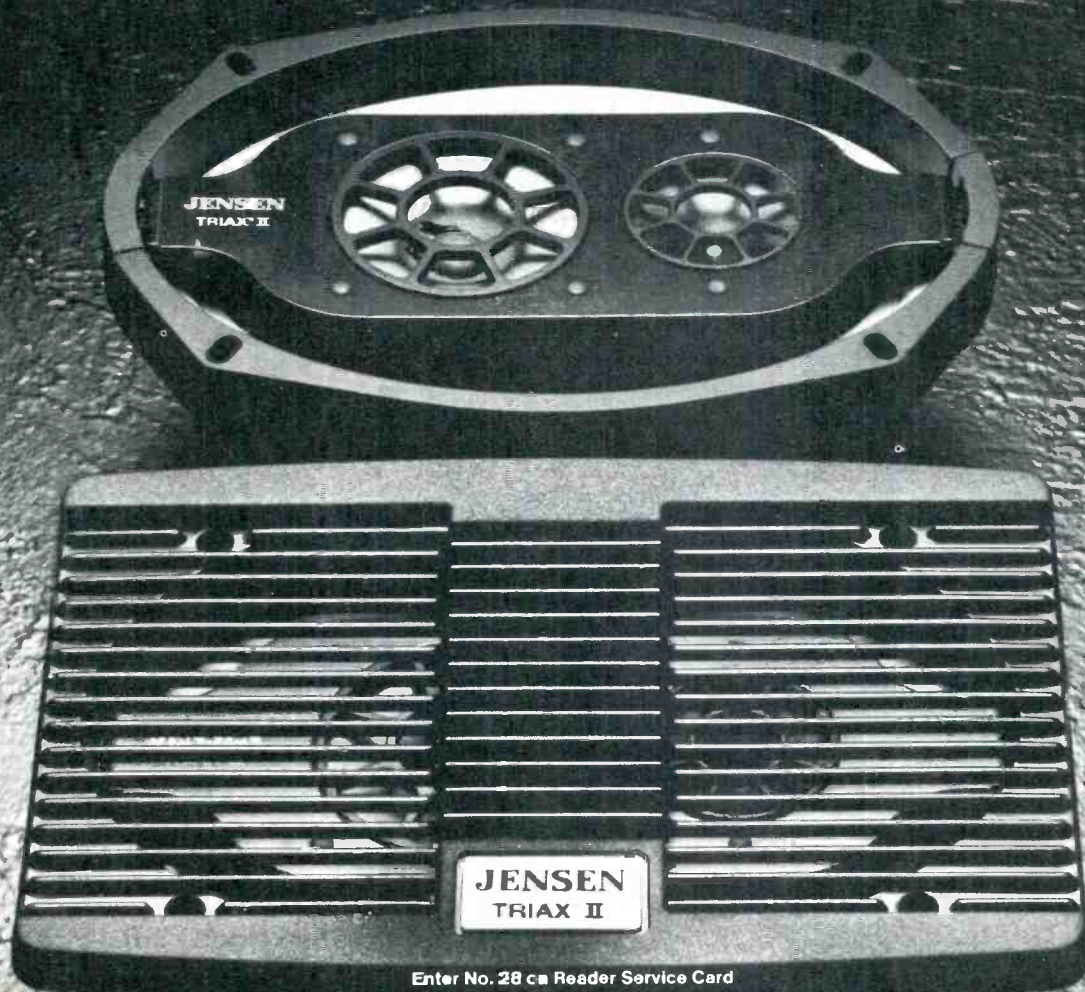
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TURNTABLES

LETTER CODE FOR SPEEDS A—33, 45, 78 B—33, 45 C—33 D—16, 33, 45, 78 E—16, 33, 45 F—Cont. Variable				Model	Speeds—See Code	Wow & Flutter: % 33 1/3: DIN 45 501	Rumble: dB, DIN 45 539-B	Motor Type	Drive System	Speed Inaccuracy: ±%	Speed Adjustment Range: ±%	Speed Accuracy Indicator Type	Overall Arm Length: Inches	Pivot Stylus Dia.: Inches	Multi-Play? If Yes, # Discs	Auto CUE = C: Auto Off = O	Max. Tracking Error: Deg./In.	Anti-Skate Adjustment?	Tracking Force Range: Gms.	Total Cable Capacitance: pF	Damped Cueing?	Dimensions: Inches	Price: \$
PHILIPS	AF977	B	0.025	73	D.C. Quartz PLL D.C. Servo	Belt		3	Digital	8%		No	C/O	0.3	Yes	0-3		Yes	16½x5½x13%		379.95		
	AF829	B	0.03	70	D.C. Servo	Belt		3	LEDS	8%		No	C/O	0.3	Yes	0-3		Yes	16½x5½x13%		279.95		
	AF887	B	0.025	73	D.C. Quartz PLL D.C. Servo	Belt			LEDS	8%		No	O	0.3	Yes	0-3		Yes	16½x5½x13%		239.95		
	AF729	B	0.05	65	D.C. Servo	Belt		3	LEDS	8%		No	C/O	0.3	Yes	0-3		Yes	16½x5½x13%		199.95		
	AF677	B	0.05	65	D.C. Servo	Belt				8%		No	O	0.3	Yes	0-3		Yes	16½x5½x13%		169.95		
PIONEER	PL-630	B	0.025		Quartz D.C. Hall	Direct		6		9%		No	O							5½x18½x16½	449.00		
	PL-600	B	0.025		Quartz D.C. Hall	Direct						No	O							5½x17½x15½	399.00		
	PL-500	B	0.025		Quartz D.C. Hall	Direct						No	O							5½x17½x15½	299.00		
	PL-400	B	0.025		Quartz D.C. Hall	Direct						No	O							3¾x16¾x14¼	199.00		
	PL-300	B	0.025		Quartz D.C. Hall	Direct						No	O							3¾x16¾x14¼	179.00		
	PL-200	B	0.025		D.C. F.G. Servo	Direct						No	O							3¾x16¾x14¼	149.00		
	PL-100	B	0.045		D.C. F.G. Servo	Belt						No	O							3¾x16¾x14¼	119.00		
QRK	12/C Custom II Galaxy	A	0.1	48	A.C. D.C.	Idler				12% 12% 12%	8% 8% 8%	No No No	No No No	1 1 1	Yes Yes Yes	1 1 1		No No No	15½x15x5 15½x15x5 17½x16½x2½	440.00 465.00			
	16SD	F	0.06	55	D.C.	Idler	1	15/80 RPM	LED	15%	11	No	No	1	Yes	1		No					
	16SA	A	0.1	58	A.C.	Idler	1	15/80 RPM		15%	11	No	No	1	Yes	1		No					
RADIO SHACK	LAB-420	B	0.03	65	D.C. Servo	Direct		4	Strobe				C/O		Yes	½-5		Yes	5¾x7¾x14	219.95			
	LAB-390	B	0.03	75	D.C. Servo	Direct		5	Strobe				O		Yes	1-5		Yes	16½x5½x14%	169.95			
	LAB-270	B	0.05	65	D.C. Servo	Belt			No						Yes	1-5		Yes	16½x5½x13	139.95			
	LAB-220	B	0.05	65	D.C. Servo	Belt			Yes		6		C/O		Yes	1-5		Yes	17½x6½x14%	139.95			
	LAB-58	B	0.08	62	D.C. Servo Sync.	Belt			No		6		C/O		Yes	2-4		Yes	17½x6½x14%	99.95			
REVOX	B790	B	0.05	68	D.C. Servo	Direct	0.01	1	LED	2½	1½			0.5	No	0.8-2.0	220	Yes	17½x15x5½	899.00			
	B795	B	0.05	70	D.C. Servo	Direct	0.01	2	LED	2½	1½			0.5	No	0.8-2.0	220	Yes	17½x15x5½	599.00			
SANSUI	XR-Q11	B	0.015 Wrms	78	Quartz D.C. Servo	Direct	0.002		Digital		9%	No	C/O		Yes	0.5		Yes	19x16½x5%	650.00			
	XR-Q9	B	0.015 Wrms	78	Quartz D.C. Servo	Direct	0.002		Digital		9%	No	C/O		Yes	0.5		Yes	19x16½x5%	500.00			
	FR-Q5	B	0.018 Wrms	75	Quartz D.C. Servo	Direct	0.002		Strobe		8%	No	C/O		Yes	0.5		Yes	17½x15½x5%	340.00			
	FR-D4	B	0.028 Wrms	72	D.C. Servo	Direct		3	Strobe		8%	No	C/O		Yes	0.5		Yes	17½x15½x5%	240.00			
	FR-D3	B	0.028 Wrms	72	D.C. Servo	Direct		3	Strobe		8%		O		Yes	1		Yes	17½x15½x5%	190.00			
	P-50	B	0.06 Wrms	60		Belt							O					Yes			140.00		
SANYO	Plus Q25	B	0.03	70	D.C. Servo	Direct			Strobe		8.66	No	C/O	1.5	Yes	0-3	75	Yes	17½x15x5½	209.95			
	Plus Q40	B	0.03	70	D.C. Servo	Direct			Strobe		8.66	No	C/O	1.5	Yes	0-3	75	Yes	17½x14½x6	249.95			
	Plus Q50	B	0.03	70	D.C. Servo	Direct			Strobe		8.66	No	C/O	1.5	Yes	0-3	75	Yes	17½x14½x6	359.95			
	Plus Q60	B	0.025	73	D.C. Servo	Direct			Strobe		9.33	No	C/O	1.5	Yes	0-3	75	Yes	17½x14½x6	619.95			
H.H. SCOTT	PS-97XV	B	0.03	60	F.G. A.C.	Direct		3	Strobe				C/O		Yes	1-3		Yes	5½x17½x13%	259.95			
	PS-87A	B	0.03	60	F.G. A.C.	Direct		3	Strobe				O		Yes	1-3		Yes	5½x17½x13%	209.95			
	PS-77XV	B	0.03	60	F.G. A.C.	Direct		3	Strobe				O		Yes	1-3		Yes	7x17½x13%	234.95			
	PS-67A	B	0.03	60	F.G. A.C.	Direct		3	Strobe				O		Yes	1-3		Yes	7x17½x13%	199.95			
	PS-47A	B	0.05	55	F.G. D.C.	Belt		3	Strobe				O		Yes	1-4		Yes	5½x17½x13%	149.95			
	PS-18	B	0.07	52	Sync.	Belt							O		Yes	1.5-4		Yes	5½x17½x13%	129.95			
	PS-78	B	0.03	60	F.G. A.C.	Direct		3	Strobe				O		Yes	1-3		Yes	7x17½x13%	219.95			
	PS-68	B	0.03	60	F.G. A.C.	Direct		3	Strobe				O		Yes	1-3		Yes	7x17½x13%	179.95			
	PS-48	B	0.05	55	F.G. D.C.	Belt		3	Strobe				O		Yes	1-4		Yes	5½x17½x13%	149.95			
	SHERWOOD	ST801	B	0.08		4-Pole F.G. D.C. Servo	Belt			No Strobe		8	No	O	4.2	Yes	0-4		Yes	18x5½x14	119.95		
ST802		B	0.06			Belt		3			8	No	O	4.2	Yes	0-4		Yes	18x5½x14	149.95			
SONY	PS-T22	B	0.025	75	B.S.L. Servo	Direct		4	Strobe		8½		O	0.6	Yes	0-3	108	Yes	5½x17x14%	150.00			
	PS-T33	B	0.025	75	B.S.L. Servo	Direct		4	Strobe		8½		C/O	0.6	Yes	0-3	108	Yes	5½x17x14%	170.00			
(Continued)	PS-X45	B	0.025	78	B.S.L. Quartz	Direct	0.003		LED		8½		C/O	0.6	Yes	0-3	70	Yes	5½x17x14%	200.00			

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Serra Stereo, Colma
Shoreline Stereo, Mill Valley
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Sound Factor, All Locations
Sound Systems, All Locations
Sounding Board, Berkeley
Stereo Factory, San Jose
Stereo Hi Fi, All Locations
Stereo Plus, All Locations
Stereo Store, San Francisco
Sun Stereo, All Locations
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University Stereo, All Locations
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Water St. Stereo, Santa Cruz
West Coast Import, Long Beach
Western Audio, Simi Valley

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Stereo Shop, Martinez

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Audio Center, Honolulu
Lakeside Audio Video, Honolulu
Sounds by Thom, Honolulu

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Sound Wave, Pocatello
Stereo Shop, Boise

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Audio Creations, Downer's Grove
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Pacific Stereo, All Locations
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Sounds Deluxe, Westmont
Team Electronics, All Locations
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Audio Specialists, South Bend
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Hi Fi Buys, All Locations
Risley Electronics, All Locations
Sound Master, All Locations
Stereo Lab, Indianapolis
Ted Fink Stereo, Evansville

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KENTUCKY

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Music City of Ky, Louisville
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Specialized Sounds, Louisville
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Sound Center, Monroe
Unlimited Sound, Lafayette
Wilson Audio, New Orleans

MAINE

Houlton Electronics, Houlton
Hi Fi Exchange, Augusta

MARYLAND

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Paragon of Sound, Bethesda

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Audio Forum, Watertown
Audio Studio, Brookline
Natural Sound, All Locations
Sonic Seasoning, Plymouth
Soundtrack, Brockton
Tweeter Etc., All Locations

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Audio Dimensions, Birmingham
Audio Shoppe, Saginaw
Audio Threshold, Mt. Clemens
Gramophone, Birmingham
Pecar Electronics, Detroit
Schaak Electronics, All Locations
Stereo Center, Flint
Stereo Shoppe, All Locations
Stereo Showcase, Grand Rapids
Stereo TV Village, Flint
Team Stores, All Locations
Williams Home Ent., All Locations

MINNESOTA

Audio King, Edina
Audio Perfection, Bloomington
Schaak Electronics, All Locations
Sound Environment, Edina
Sound World, Rochester
Team Stores, All Locations

MISSISSIPPI

Sound Advice, Gulfport

MISSOURI

Johnson Audio, Columbia
Music Systems, St. Louis
Pacific Stereo, All Locations
Sound Enterprise, Kansas City
Team Stores, All Locations

MONTANA

New Horizons, Billings
Rocky Mountain Hi Fi, Great Falls
Team Stores, All Locations

NEBRASKA

Sound Dimensions, Lincoln
Sound Environment, Lincoln
Team Stores, All Locations

NEVADA

Q. Audio, Reno
Sun Stereo, Las Vegas
Tin Ear, Reno
Wildwest Sound Co., Las Vegas

NEW HAMPSHIRE

Camera Shop of Hanover, Hanover
Tweeter Etc., All Locations

NEW JERSEY

Audio Advocate, Milburn
Hi Fi Haven, New Brunswick
Leonard Radio, Paramus
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Stereo Plus, Fairtown

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Audio Exchange, All Locations
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Ear Drum, Nanuet
Harmony House, NYC
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Innovative Audio, Brooklyr
JB Sound, Rochester
Listening Room, Scarsdale
Lyric Hi Fi, All Locations
Music Box, NYC
Park Avenue Audio, NYC
Progressive Audio, Schenectady
Sam Goody's, All Locations
Sound by Singer, NYC
Sound Mill, Mt. Kisco
Sound Odyssey, Wappingers Falls
Square Deal Elect., Patchogue
Stereo Emporium, Buffalo
Stereo Plus, Kenmore
Transcendental Audio, Amherst

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Stereo Sound, Chapel Hill

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Schaak Electronics, All Locations
Stereo Shop, Minot
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Stereo Lab, Columbus
World Wide Stereo, Solon

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Thomson Sound, All Locations
Turntable, All Locations

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Everything Electronic, Ashland
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Sun Shop, Eugene

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Ovation Audio, Pittsburgh

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Read Brothers, Charleston
Sound Ideas, Charleston
Upstairs Audio, W. Columbus

SOUTH DAKOTA

Stereo Town, All Locations
Team Stores, All Locations

TEXAS

Arnold & Morgan, All Locations
Audio Systems, Laredo
Audio Video, Austin
Brice Audio, San Antonio
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Electronic Ear, Lubbock
Electronic Svc. Co., Odessa
Fingers, All Locations
Franklin Electronics, Corsicana
Hi Fidelity Inc., Austin
Hilcrest Hi Fidelity, Dallas
Marvin Electronics, All Locations
Melody Shop, Dallas
Pacific Stereo, All Locations
Recorder Center, Dallas
Sheffield Audio, Houston
Showery Stereo, McAllen
Sound Box, San Angelo
Sound Center of the Valley, Pharr
Sound Emporium, Temple
Sound Odyssey, Beaumont

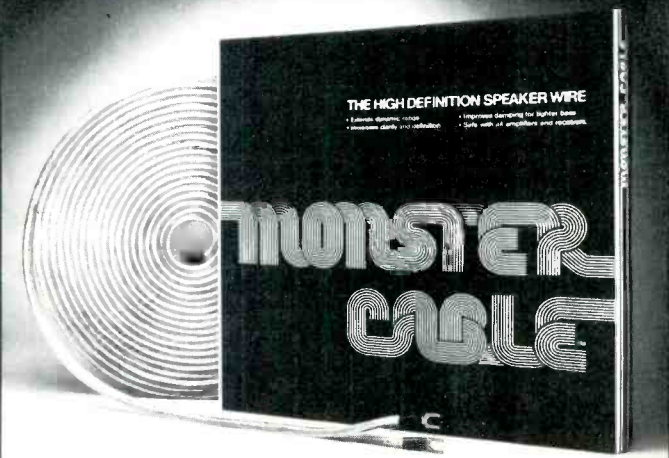
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TURNTABLES

LETTER CODE FOR SPEEDS A—33, 45, 78 B—33, 45 C—33 D—16, 33, 45, 78 E—16, 33, 45 F—Cont. Variable		Model	Speeds—See Code	Wow & Flutter, % 2% DIN 45-507	Rumble—dB DIN 45-509-8	Motor Type	Drive System	Speed Inaccuracy, %	Speed Adjustment Range, %	Speed Accuracy Indicator Type	Overall Arm Length, inches	Pivot-Stylus Dia., inches	Multi-Play? If Yes, # Discs	Auto. Cue C. Auto. Off = O	Max. Tracking Error, Deg./In.	Anti-Skate Adjustment?	Tracking Force Range, Gms.	Total Cable Capacitance, pF	Damped Cueing?	Dimensions, inches	Price, \$
SONY (Continued)	PS-X55	B	0.025	78	B.S.L. Quartz	Direct	0.003		LED	8½		C/O	0.6	Yes	0-3	80	Yes	5"X17X14"	270.00		
	PS-X65	B	0.025	78	B.S.L. Quartz	Direct	0.003		LED	9"	1	C/O	0.5	Yes	0-3	70	Yes	6½"X18½"X16½"	400.00		
	PS-X75	B	0.025	78	B.S.L. Quartz	Direct	0.003		LED	9"	1	C/O	0.5	Yes	0-3	67	Yes	6½"X18½"X16½"	500.00		
STANTON	8005A	B	0.07	70	Sync.	Belt	0.3					O	1.7	Yes	0-4		Yes	16½"X13½"X6"	350.00 Plus opt. cart.		
	8005M	B	0.07	70	Sync.	Belt	0.3					No	1.7	Yes	0-4		Yes	16½"X13½"X6"	300.00 Plus opt. cart.		
STD (USA)	305M	B	0.06	70	Sync.	Belt	0.01											19"X14½"X6"	650.00		
	305S	B	0.06	70	Sync.	Belt	0.01											19"X14½"X6"	450.00		
TEAC	P-9	B	0.045		Quartz D.C.	Direct		4		9½	9	No	C/O	Yes	1.5-2		Yes	17½"X14½"X5½"			
	P-7	B	0.045		F.G.D.C. Servo	Direct		4		9½	9	No	C/O	Yes	1.5-2		Yes	17½"X14½"X5½"			
TECHNICS	SLB5	B	0.045	70	F.G.D.C. Servo	Belt		6	Strobe	9"	6	C/O	2.5	Yes	0-2.5	88	Yes	16"X7½"X14"	190.00		
	SLB3	B	0.045	70	F.G.D.C. Servo	Belt		6	Strobe	9"	No	C/O	2.5	Yes	0-2.5	88	Yes	16"X7½"X14"	150.00		
	SLB2	B	0.045	70	F.G.D.C. Servo	Belt		6	Strobe	9"	No	O	2.5	Yes	0-2.5	88	Yes	16"X7½"X14"	130.00		
	SLB1	B	0.045	70	F.G.D.C. Servo	Belt		6	Strobe	9"	No		2.5	Yes	0-2.5	88	Yes	16"X5"X14"	100.00		
	SLD5	B	0.03	75	F.G.D.C. Servo	Direct		10	Strobe	9"	6	C/O	2.5	Yes	0-2.5	88	Yes	16"X7¼"X14"	230.00		
	SLD3	B	0.03	75	F.G.D.C. Servo	Direct		10	Strobe	9"		C/O	2.5	Yes	0-2.5	88	Yes	16"X7¼"X14"	170.00		
	SLD2	B	0.03	75	F.G.D.C. Servo	Direct		10	Strobe	9"	No	O	2.5	Yes	0-2.5	88	Yes	16"X7¼"X14"	150.00		
	SLD1	B	0.03	75	F.G.D.C. Servo	Direct		10	Strobe	9"	No		2.5	Yes	0-2.5	88	Yes	16"X5½"X14"	125.00		
	SLD33	B	0.03	75	F.G.D.C. Servo	Direct		10	Strobe	9"		C/O	2.5	Yes	0-2.5	88	Yes	16"X5½"X14"	270.00		
	SLQ3	B	0.025	78	D.C. Brushless	Quartz Direct			Strobe	9"		C/O	2.5	Yes	0-2.5	88	Yes	16"X5½"X14"	220.00		
	SLQ2	B	0.025	78	D.C. Brushless	Quartz Direct			Strobe	9"	No	O	2.5	Yes	0-2.5	88	Yes	16"X5½"X14"	190.00		
	SL1200 MkII	B	0.025	78	D.C. Brushless	Direct		8	Strobe	9"			2.5	Yes	0-2.5	88	Yes	17"X6¾"X17"	350.00		
	SL1800 MkII	B	0.025	78	D.C. Brushless	Quartz Direct		6	Strobe	9"			2.5	Yes	0-2.5	88	Yes	17"X6¾"X17"	320.00		
	SL1700 MkII	B	0.025	78	D.C. Brushless	Quartz Direct		6	Strobe	9"		O	2.5	Yes	0-2.5	88	Yes	17"X6¾"X17"	370.00		
	SL1600 MkII	B	0.025	78	D.C. Brushless	Quartz Direct		6	Strobe	9"		C/O	2.5	Yes	0-2.5	88	Yes	17"X5½"X15"	420.00		
	SL10	B	0.025	78	D.C. Brushless	Quartz Direct	0.002		Strobe	4"		C/O	0.1		1-1.5	88	Yes	12½"X3½"X12½"	600.00		
	SP10MKII	A	0.025	70	Quartz PLL D.C. Servo	Quartz Direct	0.002		Strobe		No							14½"X4"X14½"	950.00		
	SP15	A	0.025	78	Quartz PLL D.C. Servo	Quartz Direct		9.9	Strobe		No							13"X3¾"X14"	650.00		
SP25	B	0.025	78	D.C. Brushless	Quartz Direct		6	Strobe		No							13"X3¾"X14"	370.00			
TECHNICS R & B SERIES	SL-1015	A	0.025	78	Quartz D.C. Brushless	Direct	0.002	9.9	Strobe	13%	9"	No	No	Yes	¾-1¾"	90	Yes	22"X18"X6"	1200.00		
	SL-1025	A	0.025	78	Quartz D.C. Brushless	Direct	0.002	6	Strobe	13%	9"	No	No	Yes	0-2	90	Yes	20¾"X15½"X6"	900.00		
THORENS	TD 104	B	0.05	65	D.C. Servo	Belt		6	Strobe	8"	No		0.45	Yes		230	Yes	17½"X15½"X5"	270.00		
	TD 105	B	0.05	65	D.C. Servo	Belt		6	Strobe	8"	No	O	0.45	Yes		230	Yes	17½"X15½"X5"	335.00		
	TD 110	B	0.05	68	D.C. Servo	Belt		6	Strobe	8"	No		0.45	Yes		230	Yes	17½"X14"X5½"	350.00		
	TD 115	B	0.05	68	D.C. Servo	Belt		6	Strobe	8"	No	O	0.45	Yes		230	Yes	17½"X14"X5½"	435.00		
	TD 126 III	A	0.035	72	D.C. Servo	Belt		6	Strobe	9"	No	O	0.45	Yes		190	Yes	19"X15½"X6"	800.00		
	TD 160 "Super" TD126 III "B"	B A	0.04 0.035	72	Sync. D.C. Servo	Belt			No Strobe									17½"X14"X6"	400.00 w/o arm. 650.00 w/o arm.		
TOSHIBA (Continued)	SR-Q 300	B	0.025	75	Quartz D.C. Servo	Direct	.00025	0	Digital LED	8.46	No	C/O	2	Yes	¼-3	100	Yes	16.6"X15"X4.9"	299.95		
	SR-Q 200	B	0.025	75	Quartz D.C. Servo	Direct	.00025	0	LED	8.46	No	C/O	2	Yes	¼-3	100	Yes	16.6"X15"X4.9"	229.95		

TURNTABLES

LETTER CODE FOR SPEEDS		Model	Speeds—See Code	Wow & Flutter, % 33 1/3, DIN 45-207	Rumble - dB DIN 45-539-B	Motor Type	Drive System	Speed Inaccuracy, %	Speed Adjustment Range, %	Speed Accuracy Indicator Type	Overall Arm Length, Inches	Pivot-Stylus Dist., Inches	Multi-Play? If Yes # Discs	Auto. Cue = C; Auto. Off = O	Max. Tracking Error, Deg./In.	Anti-Skate Adjustment?	Tracking Force Range, Grams	Total Cable Capacitance, pF	Damped Cueing?	Dimensions, Inches	Price, \$
A—33, 45, 78	B—33, 45																				
TOSHIBA (Continued)	SR-Q 100	B	0.025	75	Quartz D.C. Servo	Direct	.00025	0	LED		8.46	No	O	2	Yes	1/2-3	100	Yes	16.6x15x4.9	199.95	
	SR-F 200	B	0.028	73	F.G. D.C. Servo	Direct		3	Strobe		8.46	No	C/O	2	Yes	1/2-3	100	Yes	16.6x15x4.9	179.95	
	SR-A 200	B	0.028	75	F.G. D.C. Servo	Direct		3	Strobe		8.46	No	O	2	Yes	1/2-3	100	Yes	16.6x15x4.9	149.95	
	SR-F 100	B	0.05	65	F.G. D.C. Servo	Belt		3	Strobe		8.46	No	C/O	2	Yes	1/2-3	100	Yes	16.6x15x4.9	139.95	
	SR-A 100	B	0.06	65	A.C. Sync.	Belt		0	No		8.46	No	O	2	Yes	1-3.5	100	Yes	16.6x5.1x14.1	114.95	
TRANS AUDIO MARKETING	The Oracle	B	0.03	78	A.C. Sync.	Belt	0.02	0	No										19X14 1/2 X 6 1/4	995.00	
YAMAHA	PX-2	B	0.01	80	Quartz PLL F.G. Servo	Direct			LED	9%	7 1/2	No	C/O	0.15		0-2.5	130	Yes	19 1/2 x 16 1/2 x 6 1/2	900.00	
	P-750	B	0.015	77	Quartz PLL	Direct			LED	11%	8%	No	C/O	3	Yes	0-3	100	Yes	17 3/4 x 14 1/2 x 5 1/2	260.00	
	P-550	B	0.015	77	F.G. Servo	Direct	3		Strobe	11%	8%	No	C/O	3	Yes	0-3	100	Yes	17 3/4 x 14 1/2 x 5 1/2	220.00	
	P-450	B	0.04	70	F.G. Servo	Belt	3		Strobe	11%	8%	No	C/O	3	Yes	0-3	100	Yes	17 3/4 x 14 1/2 x 5 1/2	180.00	
	P-350	B	0.04	70	D.C. Servo	Belt			No	11%	8%	No	O	3	Yes	0-3	100	Yes	17 3/4 x 14 1/2 x 5 1/2	140.00	
ZENITH	MC9050	B	0.03	70	D.C. Servo Ind.	Direct	3		Neon Lamp Neon Lamp			No	O		0-4		Yes	18.9x14.76x5.91	249.95		
	MC9035	B	0.08	60	Ind.	Belt						6	C/O		Yes		Yes	6.62x16.18 x15.18	139.95		
	MC9030	B	0.2	50	Ind.	Belt						6	C/O		Yes	0-3	Yes	7 3/4 x 16 1/2 x 14 1/4	149.95		
	MC9025	B	0.08	60	Ind.	Belt						6	C/O		Yes		Yes	6.62x16.18 x15.18	109.95		
	MC9020	A	0.28	46	Ind.	Belt							C/O		Yes	0-3	No	7 3/4 x 16 1/2 x 15 1/2	99.95		

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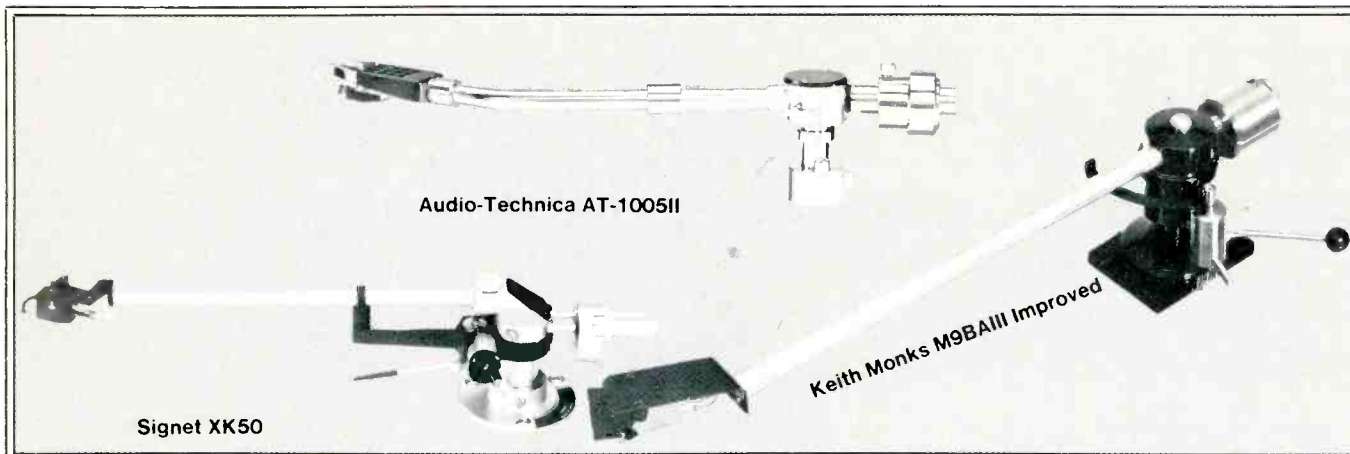
bother, because we believe it should be easy to get the most from your record collection.

Precept makes good sense and great music. Precept cartridges may be found at the most progressive audio store in your city. Precept Division, A.T.U.S., Inc., 1221 Commerce Drive, Stow, Ohio 44224. Dept. 100A.

PRECEPT™

TONEARMS

For Manufacturers' Addresses, see page 158



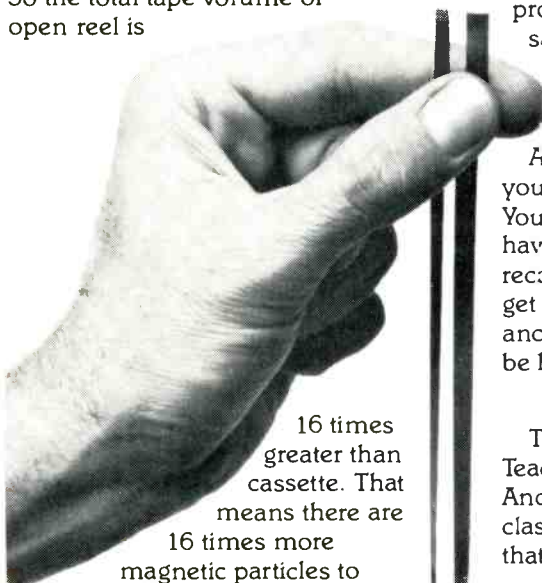
MANUFACTURER	Model	Overall Length, inches		Pivot/Style Distance, inches		Cueing?	Damped Cueing?	Removable Headshell?	Maximum Tracking Error, Degrees/Inch	Anti-Skating Adjustment?	Tracking Force Range, Gms.	Total Cable Capacitance, pF	Cartridge Weight Range, Gms.	Vertical Bearing Type	Lateral Bearing Type	Price, \$	Notes
		12.33	9.33	Yes	Yes												
ADC	LMF-1 ALT-1	12.33 12	9.33 9.33	Yes Yes	Yes Yes	No Yes	0.77 0.38	Yes Yes	1/2-2 1/4-4	240 240	4-11 3-11	Ball Ball	Ball Ball	205.00 149.95			
AUDIO-TECHNICA	AT-1005 AT-1010	12 3/4 13	9 1/2 9 1/2		Opt. Yes		1 1/2 1 1/2	Yes Yes	0-3 0-2 1/2	80 80	4-14 4-14	Ball Ball	Ball Ball	90.00 350.00			
DECCA	International		9 1/2	No	No	Yes	1/2	Yes	0-3 1/2	120	4-13	Jewelled Unipivot	Jewelled Unipivot	149.50			
DENNESEN	ABL-1	9 1/2	7 1/2	Yes	Yes	Yes	0		0-3	75	4-11	Air	Air	1250.00	Straight-line tracking.		
FIDELITY RESEARCH	FR-12 FR-14 FR-64ss FR-66ss	11 1/4 12 1/2 13 15 1/4	9 1/4 9 1/4 9 1/4 14 1/4	Yes Yes Yes Yes	Yes Yes Yes Yes	Yes Yes Yes Yes	2 1/2 2 2 1 1/2	Yes Yes Yes Yes	0-3 0-3 0-5 0-5	80 80 80 80	4-12 1-12 0-24 0-18.7	Radial Ball Radial Ball Radial Ball Radial Ball	Radial Ball Radial Ball Radial Ball Radial Ball	400.00 400.00 640.00 1300.00			
FULTON ELECTRONICS	The Fulton	11	9 1/4	No	No	No		No	0.5-4	57	3-12	Ball		1295.00			
GRACE	G-747 G-707 G-714 G-704 G-1040	11 1/4 11 1/4 11 1/4 11 1/4 12	9 1/2 9 1/2 9 1/2 9 1/2 9 1/2	Yes Yes Yes Yes Yes	Yes Yes Yes Yes Yes		1.5 1.5 1.4 1.4 1.5	Yes Yes No No Yes	0-3 0-3 0-3 0-3 0-3			Unipivot Unipivot	Unipivot Unipivot	275.00 190.00 275.00 275.00 300.00			
JML	TA-3A	10 1/2	9	Yes	Yes	No	0.35	Yes	0-5	100	2-11	Jewelled Unipivot	Jewelled Unipivot	249.00			
LINN PRODUCTS	ITTOK LV II	11 1/4	9	Yes	Yes	No		Yes	0-3	78	3-12	Gimbal	Gimbal	650.00			
LUSTRE	GST-801	13 1/2	9 1/2	Yes	Yes		1 1/2	Yes	0-4					500.00			
LUX AUDIO	TA-1	9 1/4		Yes	Yes	Yes	1	Yes	0-3	250	2-16			160.00			
MAGNEPAN	Unitrac I	11	9 1/2	Yes	Yes	Yes	1.77	Yes		110	3-12	Unipivot		295.00			
MAYWARE	Formula 4 MK III	11 1/2	9	Yes	Yes	Yes		Yes	1/2-3	110	2 1/2-11	Unipivot	Unipivot	175.00			
KEITH MONKS AUDIO	M9BA III Improved	11 1/4	9	Yes	Yes	No		No	1/2-2.8	80	4-8	Unipivot	Unipivot	241.80			
QRK	Rek-O-Kut S-320 Rek-O-Kut S260	12 1/4 15 1/4	8 1/4 11	Yes Yes	No No	Yes Yes	1 1	Yes Yes	1 1			Ball Ball	Gimbal Gimbal	110.00 122.50			
SHURE	SME 3009 III SME 3009 IIIS	9 9		Yes Yes	Yes Yes	Yes Yes	1 1/2 1 1/2	Yes Yes	0-2 1/2 0-2 1/2	293 75	0.1-13 0.1-13	Knife Knife	Ball Ball	294.00 240.00	With fluid damper.		

THE SOUND YOU'LL NEVER GET FROM A CASSETTE DECK IS NOW HERE AT A CASSETTE DECK PRICE.

Teac's new X-3 open reel deck costs no more than a good cassette deck. But its fidelity is far superior to that of even the most expensive cassette deck. For a very simple reason.

More is better.

Open reel tape running at 7½ ips is four times faster than standard cassette tape. And twice as wide. So the total tape volume of open reel is



16 times greater than cassette. That means there are 16 times more magnetic particles to imprint the signal. And that means you get as much signal as possible—especially high frequencies—without distortion. Plus a much greater capacity to pre-

serve dynamic range.

Cassette decks can't give you this kind of performance simply because there are inherent limitations in the cassette format. No matter how good the hardware. Even with improved

software, the basic problems remain: saturation, overload, distortion. And disappointment.

And fidelity isn't the only thing you get more of with the X-3. You get more time. You don't have to stop in the middle of a recording to flip the tape. So you get an uninterrupted performance. The way it was meant to be heard.

A classic idea.

The X-3 is built the way all Teac machines are built—to last. And to perform. You get the classic, 3-motor, 3-head design that established Teac's reputation 25 years ago.



And you get it for the price of a good cassette deck.

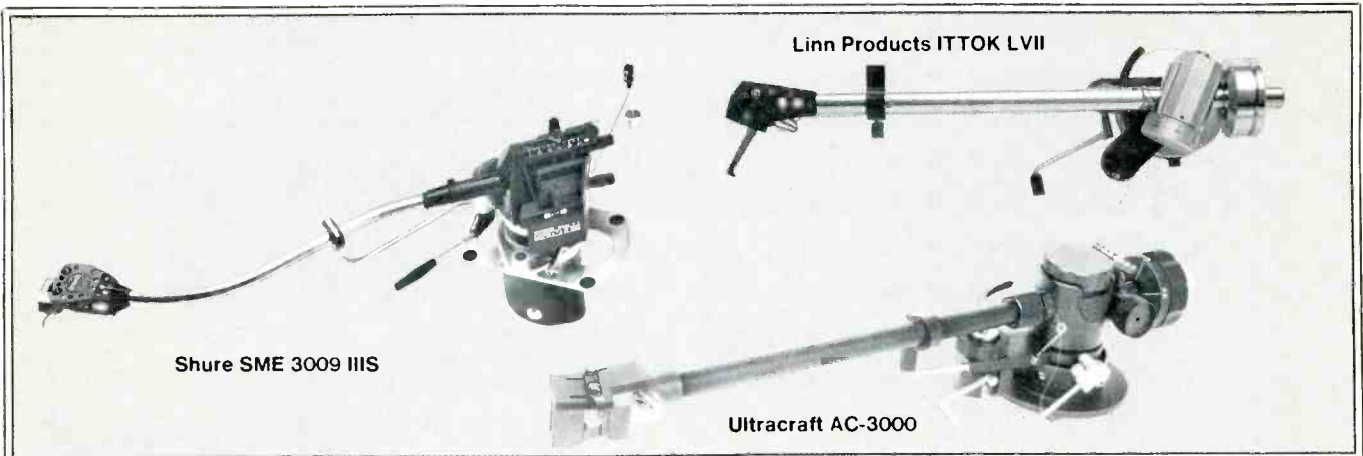
Which means you can finally have the sound you thought you couldn't afford. From Teac.

Performance specifications

Signal-to-noise ratio (overall)	58 dB (3% THD level, weighted)
Wow & flutter (NAB Weighted)	0.04% at 7½ ips; 0.06% at 3¾ ips.
Frequency Response (overall)	30–28,000 Hz at 7½ ips; 30–20,000 Hz at 3¾ ips
Playing time (both sides)	3 hours at 3¾ ips with 1800 feet of one mil tape

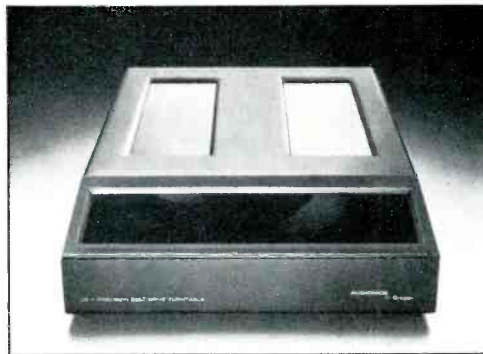
TEAC

TONEARMS



MANUFACTURER	Model	Overall Length, Inches		Pivot-Stylus Distance, Inches		Cueing?	Damped Cueing?	Removable Headshell?	Maximum Tracking Error, Degrees/Inch	Anti-Skating Adjustment?	Tracking Force Range, Gms.	Total Cable Capacitance, pF	Cartridge Weight Range, Gms.	Vertical Bearing Type	Lateral Bearing Type	Price, \$	Notes
SIGNET	XK50	13¼	9½	Yes	Yes	No	1	Yes	0.1-1.6	75	4-11	Ball	Ball	400.00			
SOUNDAIDS	Modification	Var.	Var.			No	1½		¼-2	90	2-10					90.00	Modification.
SUMIKO	The ARM	9½	8½	Yes	Yes		1.2	Yes	0-4							1200.00	
TECHNICS R&B SERIES	EPA-100	13¾	9¾	Yes	Yes	Yes		Yes	0-3	73	5-10	Gimbal	Gimbal	380.00			
	EPA-500	13¾	9¾	Yes	Yes	No†		Yes	¾-1¼	90	5-7	Gimbal	Gimbal	380.00			† Interchangeable syst. Base only, EPA-500.
	EPA-B500			Yes	Yes			Yes		90		Gimbal	Gimbal	235.00			
	EPA-A501H	13¾	9¾			No			¾-1¼		5-7			130.00			
	EPA-A501M	13¾	9¾			No			1-2		5-7			130.00			
	EPA-A501L	13¾	9¾			No			1¼-3		5-7			130.00			
	EPA-A501E	13¾	9¾			No			½-1½		5-6.5			130.00			
	EPA-A501G	13¾	9¾			No			1-2½		7-11			130.00			
EPA-A250	13¾	9¾			Yes			0-2		6-9			120.00				
ULTRACRAFT	AC-30	13.12	9.33	Yes	Yes	No	1.0	Yes	0-2	210	6-12	Unipivot	Unipivot	299.95			
	AC-300MkII	13.12	9.33	Yes	Yes	No	1.0	Yes	0-2	210	6-12½	Unipivot	Unipivot	399.95			
	AC-3000	13.12	9.33	Yes	Yes	No	1.0	Yes	0-2	210	6-12½	Unipivot	Unipivot	499.95			

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DQM-9

At first glance they look like conventional bookshelf speakers. But, at first hearing the resemblance ends. It becomes evident that such remarkable performance required substantial improvements in existing technology. Their wide dynamic range, far exceeding even that of digital recordings, coupled with their high efficiency and room-filling "big" sound, is extraordinary; yet they exhibit the silky smoothness, high definition, 3-dimensional imaging and low distortion formerly available only in a few large esoteric systems.

The DQM-7 and DQM-9 are 3-way systems utilizing high-precision, highly sophisticated driver units developed by Magnat, and available exclusively for Dahlquist's use. Each model's complement of drivers is matched for Dynamic Tracking™ to maintain correct balance and transient behavior at all levels. A new magnet structure develops a powerful *linear flux field* which, together with high winding density voice coils, using ribbon wire, provides: very fast response to transient detail; greater efficiency; wider dynamic range, and: considerably lowered distortion. Only the highest quality components are used in the excellently designed

crossover, whose circuit assures clean, undistorted response.

The multi-layer LCR enclosure is also unique, providing, in effect, a box floating within a box, isolated with a vibration-absorbing center layer. Outer surface radiation is now effectively damped to provide tighter, more open sounding bass. A special fiber treatment on the baffle surface minimizes diffraction, assuring clearly defined depth imaging.

DQM-7: 20W min., 140W max.; 9" woofer, 4" midrange, 1" tweeter; Response— 35-22,000 Hz.

DQM-9: 20W min., 200W max.; 11" woofer, 5" midrange, 1" tweeter; Response— 30-22,000 Hz.

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DAHLQUIST

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PHONO CARTRIDGES



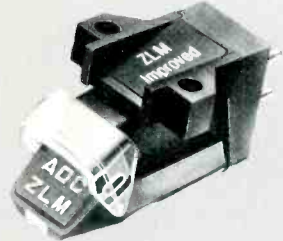
Micro-Acoustics 630



Adcom XC-LT



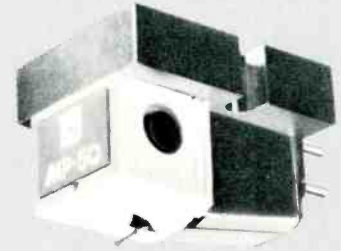
Empire EDR.9



ADC ZLM Improved



Audio-Technica AT-25



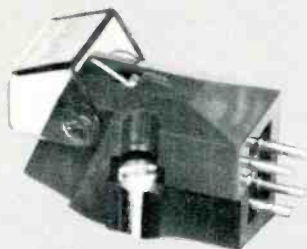
Osawa MP-50

LETTER CODE FOR STYLUS TYPE

- C—Conical
- S—Spherical
- E—Elliptical
- Q—For CD-4 use (Shibata, etc.)
- X—Line Contact, Hyper-elliptical, Long Line, Stereohedron, or similar

Model	Frequency Response, Hz to kHz, 3dB	Principal Moving Coil or MC, Moving Magnet, MM, Moving Coil, MC, Induced Magnet, IM	W. Individual Response, Curve?	Channel Separation, 1 kHz, dB	Channel Separation, 10 kHz, dB	mV Output, 1 kHz, 5 Cm/Sec. Lateral Velocity	Recommended Tracking Force Dynes	Recommended Load Resistance, Ω	Recommended Load Capacitance, pF	Stylus Type—See Code	Stylus Radius (Radius), Mils	Stylus Replacement—User or Factory?	Weight, Grams	Price, \$	Replacement Stylus Price, \$	Notes
ADC	Astrion 20-20 ±1	IM	Yes	30	20	3.2	1-1.4	47k	300	E	1.5X0.25	U	5.7	185.00	99.00	
	Integra 10-20 ±1	IM	No	28	18	3.75	0.9-1.5	47k	275	E	0.2X0.7	U	12	130.00	64.95	
	Integra XLM III 15-24 ±1	IM	No	26	15	3.75	0.9-1.5	47k	275	E	0.3X0.7	U	12	110.00	49.95	
	Integra XLM II 20-20 ±2	IM	No	24		3.75	1-1.9	47k	275	E	0.4X0.7	U	12	69.95	44.95	
	Integra XLM I 10-20 ±2	IM	Yes	30	20	3.65	¾-1¼	47k	275	X		U	5.75	135.00	79.95	
	ZLM Improved 10-20 ±1	IM	No	28	18	3.65	0.9-1.5	47k	275	E		U	5.75	110.00	54.95	
	XLM MK/3 Improved 15-24 ±2	IM	No	26	15	3.8	0.9-1.5	47k	275	E		U	5.75	100.00	49.95	
	XLM MK/2 Improved 15-20 ±2	IM	No	24	15	3.8	0.9-1.5	47k	275	E		U	5.75	79.95	44.95	
	QLM36/3 Improved 20-20 ±2	IM	No	24	15	5.5	1.5-3	47k	275	E	0.3X0.7	U	5.75	64.95	39.95	
	QLM34/3 20-20 ±3	IM	No	24		3.1	1-2	47k	275	S	0.7	U	5.75	54.95	29.95	
	QLM33/3 20-18 ±2	IM	No	20		4.6	2-4	47k	275	E	0.4X0.7	U	5.75	49.95	24.95	
	QLM32/3 20-18 ±3	IM	No	18		5.35	3-5	47k	275	S	0.7	U	5.75	34.95	19.95	
ADCOM	XC-LT 20-20 ±1	MC		25	20	2.5	1.8-2.1	47k		Q†	0.25x2	F	4.7	240.00	120.00	†Line trace.
	XC-E 20-20 ±1	MC		25	20	2.5	1.8-2.1	47k		E	0.4x0.7	F	4.7	200.00	100.00	
	LC-LT 20-20 ±1	MC		25	20	0.3	1.8-2.1	30		Q†	0.25x2	F	4.5	200.00	100.00	
	LC-E 20-20 ±1	MC		25	20	0.3	1.8-2.1	30		E	0.4x0.7	F	4.5	160.00	80.00	
AKG	P-BES 10-28	MI	Yes	35	30	3.75	¾-1	47k	470	E	0.2x0.7	U	5.8	165.00	90.00	Transversal suspension system.
	P-BE 10-23	MI	Yes	35	30	4	¾-1	47k	470	E	0.2x0.7	U	5.8	115.00	60.00	As above.
	P-7E 10-22	MI	No	25	25	4.5	1-1½	47k	470	E	0.3x0.7	U	5.8	80.00	40.00	As above.
	P-6E 20-20	MI	No	25	20	6.25	1½-2	47k	470	E	0.4x0.8	U	5.8	60.00	25.00	As above.
	P-6R 20-20	MI	No	25	15	6.25	2-4	47k	470	S	0.7	U	5.8	50.00	20.00	As above.
AUDIO-TECHNICA	AT-105 20-20	MM	No	26	16	4.5	1.5-2.5	47k	100-200	S	0.7	U	7.2	50.00	30.00	
	AT-110E 20-22	MM	No	26	17	4.5	1-2	47k	100-200	E	0.4x0.7	U	7.2	65.00	35.00	
	AT-120E 15-25	MM	No	29	20	5.0	1-1.8	47k	100-200	E	0.3x0.7	U	6.5	90.00	45.00	
	AT-130E 10-30	MM	No	30	20	5.0	0.8-1.8	47k	100-200	E	0.2x0.7	U	6.5	120.00	50.00	
	AT-125LC 15-25	MM	No	29	20	5.0	1-1.8	47k	100-200	X		U	6.5	130.00	60.00	
	AT-140LC 5-32	MM	No	30	20	5.0	0.8-1.8	47k	100-200	X	0.15	U	6.5	175.00	75.00	
	AT-155LC 5-35	MM	No	31	21	5.0	0.8-1.6	47k	100-200	X	0.12	U	8.1	225.00	100.00	
	AT-10 20-20			25	15	4.8	2-3	47k	100-200	S	0.7	U	5½	40.00	25.00	
	AT-11 15-22			26	16	4.8	1½-2½	47k	100-200	S	0.7	U	5½	50.00	30.00	
	AT-11E 15-25			26	17	4.8	1½-2½	47k	100-200	E	0.4x0.7	U	5½	60.00	35.00	
	AT-12E 15-26			27	18	4.2	1-2	47k	100-200	E	0.4x0.7	U	5½	70.00	40.00	
	AT-12XE 15-28			28	19	4.2	1-2	47k	100-200	E	0.3x0.7	U	5½	85.00	45.00	
	AT-12Sa 15-45			30	20	2.7	¾-1¼	47k	100-200	X		U	5½	120.00	60.00	
(Continued)	AT-13Ea 10-30			29	20	4.2	¾-1¼	47k	100-200	E	0.2x0.7	U	5½	100.00	50.00	

PHONO CARTRIDGES



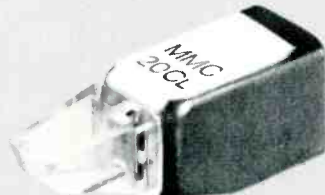
Fulton High Performance



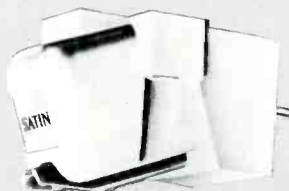
Nagatronics 9600



Shure V15 Type IV



Bang & Olufsen MMC20CL



Satin M-117S



Stanton 881S

LETTER CODE FOR STYLUS TYPE		Model	Frequency Response Hz to kHz, ±dB	Principal Mounting (to shell): C=Conical S=Spherical E=Elliptical Q=For CD-4 use (Shibata, etc.) X=Line Contact, Hyper-elliptical, Long Line, Stereohedron, or similar	Moving Magnet (MI) or Moving Coil (MC) Induced Response (MI)	W. Individual Response Curves?	Channel Separation, 1 kHz, dB	Channel Separation, 10 kHz, dB	mV Output, 1 kHz, 5 cm/Sec. rms Lateral Velocity Range, Gms.	Recommended Tracking Force, Dynes	Recommended Load Resistance, Ω	Recommended Load Capacitance, pF	Stylus Type—See code	Stylus Radius (Radius), Mil	Stylus Replacement: Lines=U; Factor=F	Weight, Gms.	Price, \$	Replacement Stylus Price, \$	Notes
C	S																		
AUDIO-TECHNICA (Continued)	AT-14Sa	5-45				31	21	2.7	¼-1%	47k	100-200	X		U	5%	150.00	75.00		
	AT-15XE	5-30				32	22	2.7	¼-1%	47k	100-200	E	0.2x0.7	U	8½	175.00	85.00		
	AT-15SS	5-45				33	23	2.7	¼-1%	47k	100-200	X		U	8%	200.00	100.00		
	AT-20SS	5-50				35	25	2.7	¼-1%	47k	100-200	X		U	8½	250.00	125.00		
	AT-30E	15-25	MC	No		25	15	0.28	1.4-2	20	100	E	0.3x0.7	U	5	135.00	65.00		
	AT-22	15-23	MM	No		30	20	2.2	0.9-1.7	47k	100-200	E	0.2x0.7	U	8%	200.00	100.00		
	AT-23a	15-23	MM	No		30	20	2.2	0.9-1.7	47k	100-200	E	0.2x0.7	U	17.3	225.00	100.00	In Shell.	
	AT-24	10-25	MM	No		35	25	2.2	0.8-1.6	47k	100-200	E	0.2x0.7	U	8%	250.00	150.00		
	AT-25	10-25	MM	No		35	25	2.2	0.8-1.6	47k	100-200	E	0.2x0.7	U	17.3	275.00	150.00	As above.	
	AT-32	10-24	MC	No		30	20	0.4	1-2	17	100	E	0.2x0.7	F	6.8	300.00			
	ATP-1	20-20	MM	No		21	16	5.3	3-5	47k		C	0.6	U	7.2	45.00	25.00		
ATP-2	15-22	MM	No		23	17	5.3	3-5	47k		E	0.4x0.7	U	7.2	60.00	35.00			
ATP-2XN	15-22	MM	No		23	17	5.3	3-5	47k		E	0.4x0.7	U	7.2	90.00	35.00	As above plus extra stylus.		
ATP-3	15-25	MM	No		23	17	5.3	2-3	47k		E	0.3x0.7	U	7.2	80.00	50.00			
BANG & OLUFSEN	MMC20CL	20-20 ±1	MI	Yes		30		2.12	1	47k	220	X		F	4	240.00			
	MMC20EN	20-20 ±2	MI	No		25		2.12	1.2	47k	220	E	0.6x0.7	F	4	140.00			
	MMC20E	20-20 ±2.5	MI	No		20		2.12	1.5	47k	220	E	0.2x0.7	F	4	90.00			
	MMC10E	20-20 ±3	MI	No		20		2.12	1.5	47k	220	E	0.2x0.7	F	4	55.00			
CONCORD	CIM50	10-20	IM	No		25	18	3.5	1.5-2.5	30k		C	0.65	U	6.2	39.95	19.95		
	CIM60	10-20	IM	No		26	19	3.5	1.5-2.5	30k		E	0.3x0.7	U	6.2	49.95	24.95		
	CMC100	10-30	MC	No		27	20	2.0	1.2-1.7	30k		S	0.5	U	2.3	99.95	69.95		
	CMC200	10-35	MC	No		28	21	2.0	1.2-1.7	30k		E	0.3x0.8	U	2.3	129.95	89.95		
	CMC300	10-40	MC	Yes		30	23	2.0	1.0-1.5	30k		X	1.57x0.26	U	2.3	159.95	109.95		
	CMC400	10-50	MC	Yes		32	25	0.2	1.0-1.5	40		X	1.57x0.26	U	2.3	179.95	119.95		
DECCA	MKVI Gold	20-20	MI	No		20		1.0	1.5-2.5	50k	300	E	0.6x0.3	†	4	199.50	80.00	†Dealer exchange.	
	MKVI Plum	20-20	MI	No		20		1.5	2.0-3.0	50k	300	S	0.6	†	4	149.50	70.00		
DUAL	ULM50E	10-25 ±3	MM	No		25		3.5	1½-2½	47k	400	E	0.2x0.7	U	2½	80.00	30.00		
	ULM55E	10-25 ±3	MM	No		25		3.5	1-1½	47k	400	E	0.2x0.7	U	2½	110.00	35.00		
	ULM60E	10-30 ±3	MM	No		28		3.5	½-1¼	47k	400	E	0.2x0.7	U	2½	150.00	64.00		
EMPIRE	600LAC	20-28 ±1¼	MI	No		30	17	5.6	1-2	47k	150	X†	0.3x3	U	5.3	175.00	87.50	†Large Area Contact (L.A.C.).	
	500ID	20-23 ±1¼	MI	No		30	17	5.6	¾-1½	47k	150	E	0.2x0.7	U	5.3	125.00	62.50		
	400TC	20-20 ±2	MI	No		28	16	5.4	¾-2	47k	150-400	E	0.2x0.7	U	5.3	100.00	50.00		
	300ME	20-20 ±3	MI	No		27	15	6.3	1-2½	47k	150-400	E	0.2x0.7	U	5.3	70.00	35.00		
	200E	20-20 ±3	MI	No		25	15	7.7	2-4	47k	250	E	0.3x0.7	U	5.3	60.00	30.00		
	100S	20-20 ±3	MI	No		23	13	7.0	2½-5	47k	250	S	0.7	U	5.3	40.00	20.00		
	EDR.9	20-35 ±1¼	MI	No		30	20	4.5	1-2	47k	150	X†	0.3x3	U	5.2	200.00	100.00		
	4000D/III	10-50 ±3	MI	No		23	15	4.2	¾-1¼	100k	100	Q	0.3x3	U	7	175.00	87.50		
	4000D/I	15-45 ±3	MI	No		20	15	4.2	1-1¼	100k	100	Q	0.3x3	U	7	100.00	50.00		
	2000Z	20-20 ±1	MI	No		30	25	4.2	¾-1¼	47k	300	E	0.2x0.7	U	7	150.00	75.00		
	2000X	20-20 ±1¼	MI	No		27	18	4.9	¾-1¼	47k	150	E	0.2x0.7	U	7	125.00	62.50		
	2000E/III	20-20 ±2	MI	No		28	20	6.3	¾-1¼	47k	400-500	E	0.2x0.7	U	7	85.00	42.50		

PHONO CARTRIDGES

LETTER CODE FOR STYLUS TYPE C—Conical S—Spherical E—Elliptical Q—For CD-4 use (Shibata, etc.) X—Line Contact, Hyper-elliptical, Long Line, Stereohedron, or similar		Model	Frequency Response, Hz to kHz, ±db	Principle: Moving Iron/MI, Moving Magnet/MM, Moving Coil/MC, Inductive/Mag/MIM	W: Individual Response Curve?	Channel Separ., 1 kHz, dB	Channel Separ., 10 kHz, dB	mV Output, 1 kHz, 5 Cm/Sec. rms Lateral Velocity	Recommended Tracking Force Range, Gms.	Recommended Load Resistance, Ohms	Recommended Load Capacitance, PF	Stylus Type—See code	Stylus Radius (Radii), Mils	Stylus Replacement: User=U, Factory=F	Weight, Gms.	Price, \$	Replacement Stylus Price, \$	Notes
EMT	XSD-15	40-12 ±2	MC	Yes	25	†	2-3	800		C	0.6	F	21	499.00		†0.15 mV at 1 cm/S; IM is 0.5 percent.		
FIDELITY RESEARCH	FR-1Mk2	20-20	MC	Yes	27	23	0.1	1½-2	47k	80	X†	0.3x0.8	F	10	150.00	75.00	†Long Line Contact.	
	FR-1Mk3F	10-40	MC	Yes	26	22	0.14	2	47k	80	X†	0.3x3	F	10	230.00	115.00		
	FR-1Mk7 FR MC201	10-45 10-45	MC MC	Yes Yes	28 26	28 22	0.2 0.16	2½ 1½	47k 47k	80 80	X† X†	0.3x3	F F	30	660.00 350.00	330.00		
FULTON ELECTRONICS	High Performance	10-60 ±0.5	MC		34	30	0.33	1.5-1.75	3-4	30	C	0.65	F	5	350.00	175.00		
GRACE	F-9E	10-45 ±2	MM		30	27	3.5	½-2	100k/47k	80	E		U	6	169.00	87.50		
	F-9L	10-40 ±2	MM		30	25	5.5	½-2	47k	250	X		U	6	159.00	79.50		
	F-8L	20-20 ±3	MM		30	25	5.0	½-2	47k	250	X		U	6½	109.00	55.00		
	F-9F	10-60 ±2	MM		30	27	3.5	½-2	100k/47k	80	O		U	6	195.00	97.50		
JVC	MC-2E	10-25	MC		25		0.2	1.3-1.7	30		E	0.07x0.14	F	8.7	199.95			
	MC-1	10-50	MC		27		0.2	1.3-1.7	30		O		F	8.7	299.95			
LINN PRODUCTS	ASAK DC2100 K	10-50 ±3	MC	No	27		0.2	1.5-1.9	3.5		E	0.2x0.8	F	6	450.00	337.50		
MAYWARE	MC-2C	10-50	MC	Yes	25		0.2	1.8-2.2	47k		C		F	6.9				
	MC-3L	10-50	MC	Yes	25		2.5	1.8-2.2	47k	450	X		F	6.9				
MICRO-ACOUSTICS	630	5-20 ±1	Elect.	Yes	30	35	3.5	0.7-1.4	N.A.	N.A.	†		U		250.00	115.00	†Micro Point II.	
	530 MP	5-20 ±1.25	Elect.	Yes	30	15	3.5	0.7-1.4	N.A.	N.A.	†		U		220.00	100.00	†Micro Point.	
	3002	5-20 ±1	Elect.	No	30	20	3.5	0.7-1.4	N.A.	N.A.	†		U		150.00	56.00	†Micro Point II.	
	2002e	5-20 ±1.5	Elect.	No	30	15	3.5	0.7-1.4	N.A.	N.A.	E	0.2x0.7	U	4	130.00	50.00		
	382	5-20 ±1	Elect.	No	30	20	3.5	0.75-1.4	N.A.	N.A.	E	0.2x0.7	U	4	120.00	47.00		
	282e	5-20 ±1.5	Elect.	No	30	15	3.5	0.75-1.4	N.A.	N.A.	E	0.2x0.7	U	5.2	100.00	45.00		
NAD (USA)	9000	20-20 ±2	MC	No	30	20	1.8	1.2-1.8	47k		E	0.4x0.7	F	6	160.00	80.00		
	9100	20-20 ±3	IM	No	24	15	5.8	1-2	47k	275	S	0.7	U	5.75	45.00	25.00		
	9200	20-20 ±2	IM	Yes	24	15	5.5	0.9-1.5	47k	275	E	0.3x0.7	U	5.75	85.00	45.00		
	9300	15-24 ±2	IM	Yes	26	15	5.5	0.9-1.5	47k	275	E	0.3x0.7	U	5.75	125.00	60.00		
NAGATRONICS	165S	10-20	IM	No	25		3.6	1.7-2.3	47k	200	S	0.5	U	5.6	35.00	15.00	Integral headshell.	
	175S	10-20	IM	No	25		3.6	1.7-2.3	47k	200	S	0.5	U	14.8	42.50	15.00		
	185E	10-22	IM	No	25		3.6	1.7-2.3	47k	200	E	0.3x0.7	U	5.6	45.00	24.00		
	195E	10-22	IM	No	25		3.6	1.7-2.3	47k	200	E	0.3x0.7	U	14.8	55.00	24.00		
	200S	10-20	IM	No	25		4.0	1.5-2.0	50k	200	S	0.5	U	5.7	45.00	23.00		
	244DE	10-25	IM	No	25		4.0	1.5-2.0	50k	200	E	0.3x0.7	U	5.8	64.00	37.00		
	210E	10-25	IM	No	25		4.0	1.5-2.0	50k	200	E	0.3x0.7	U	5.8	84.00	48.00		
	220CE	10-25	IM	No	25		4.0	1.5-2.0	50k	200	E	0.3x0.7	U	5.8	120.00	63.00		
	340S	10-20	IM	No	25		4.0	1.5-2.0	50k	200	S	0.5	U	6	55.00	24.00		
	344DE	10-25	IM	No	25		4.0	1.5-2.0	50k	200	E	0.3x0.7	U	6	70.00	39.00		
	350E	10-25	IM	No	25		4.0	1.5-2.0	50k	200	E	0.3x0.7	U	6.1	95.00	51.00		
	360CE	10-25	IM	No	25		4.0	1.5-2.0	50k	200	E	0.3x0.7	U	6.1	135.00	67.00		
	360CEX	10-25	IM	Yes	25		4.0	1.5-2.0	50k	200	E	0.3x0.7	U	6.1	165.00	67.00		
	3000J	20-20	IM	No	25		4.0	2.8-5.0	50k	200	S	0.5	U	6	65.00	30.00		
3000J Pro Pak	20-20	IM	No	25		4.0	2.8-5.0	50k	200	S	0.5	U	6	105.00	30.00	W. 2 extra styl.		
9600	20-30 -0, +1	IM	No	27		2.0	0.9-1.3	29k	200	E	†	U	7.6	225.00	104.00	Crystal boron cantilever; †Triangular stylus.		
HV-9100	20-30	†	Yes	25		0.04	1.7	10-30		E	0.4x0.8	U	18.0	275.00	117.00	†Ribbon cartridge.		
NAKAMICHI	MC1000	10-65	MC	Yes	27		0.2	1.5-2.1	200		Q	0.3x0.8	F	8.2	345.00	150.00	†Non-replaceable, trade-in avail.	
	MC500	20-35	MC	Yes	25		0.9	1.9-2.5	50k		E	0.3x0.8	F	8.2	170.00	60.00		
ONKYO	MC-100	20-50	MC	Yes	28	20	0.4	1.6-2	24	150	E	0.3x2.6	F	8.5	170.00	100.00		
ORTOFON	MC30	20-20 ±1	MC	Yes	25			1.5			X		F	7	650.00	300.00	X=Fine Line.	
	MC20MkII	20-20	MC		25			1.7			X		F	7	350.00	150.00		
	MC20	20-20 ±1	MC		25			1.5-2.0			X	0.3	F	7	215.00	100.00		
	MC10	10-20 +3, -2	MC		22			1.7-2.3			E	0.3x0.7	F	7	165.00	70.00		
(Continued)	Concorde 30	20-25	MI		25		3.0	1.2-1.8	47k	400	X		U	6½	180.00	90.00	Integrated cartridge/headshell.	

PHONO CARTRIDGES

LETTER CODE FOR STYLUS TYPE C—Conical S—Spherical E—Elliptical Q—For CD-4 use (Shibata, etc.) X—Line Contact, Hyper-elliptical, Long Line, Stereohedron, or similar		Model	Frequency Response Hz to kHz, 20dB	Principal Moving Coil Moving Magnet MM Coil MC, Integral Magnet MM	W. Individual Response Curve?	Channel Separation, 1 kHz, dB	Channel Separation, 10 kHz, dB	mV Output, 1 kHz, 5 Cm/Sec. rms at 100 Hz Velocity	Recommended Tracking Force Range, Grams	Recommended Load Resistance Ω	Stylus Type—See code	Stylus Radius (Radial), Mils	Stylus Replacement: User=U, Factory=F	Weight, Grams	Price, \$	Replacement Stylus Price, \$	Notes
ORTOFON (Continued)	Concorde 20	20-20	MI		25	3.5	1.5-2.1	47k	400	X	U	6½	140.00	70.00	As above.		
	Concorde 10	20-20	MI		20	5.0	1.7-2.3	47k	400	E	U	6½	100.00	30.00	As above.		
	FF15XE	20-20	MI		20	6.0	1.5-3.0	47k	400	E	U	5	50.00	16.00			
	MkII	20-20	MI		25	3.0	0.8-1.2	47k	400	X	U	4½	250.00	90.00	Integrated tonearm/cartridge.		
	LM30	20-25	MI		25	3.0	1.2-1.8	47k	400	X	U	2.6	160.00	90.00			
	LM30H	20-20	MI		25	3.0	0.8-1.2	47k	400	X	U	2.6	160.00	90.00			
	LM20	20-20	MI		25	3.5	1.5-2.1	47k	400	X	U	2.6	125.00	70.00			
	LM20H	20-20	MI		25	3.0	0.8-1.2	47k	400	X	U	2.6	125.00	70.00			
	LM15	20-20	MI		25	4.0	1.5-2.2	47k	400	E	U	2.6	95.00	55.00			
LM10	20-20	MI		20	5.0	1.7-2.3	47k	400	E	U	2.6	70.00	30.00				
OSAWA	MP-10	20-20	MM	No	22	5	2-2½	47k	100	C	U	6.8	59.95	34.95			
	MP-11	20-20	MM	No	23	5	1.8-2.3	47k	100	E	U	6.8	79.95	49.95			
	MP-15	20-20	MM	No	24	4.5	1½-2	47k	100	E	U	7.8	99.95	69.95			
	MP-20	20-23	MM	No	25	4	1½-2	47k	100	E	U	7.8	119.95	89.95			
	MP-30	20-25	MM	No	25	3	1.3-2	47k	100	E	U	9	149.95	109.95			
	MP-50	20-28	MM	No	27	2.5	1.1-1½	47k	100	X	U	9	229.95	149.95			
	OS-101	20-20	MI	No	18	2.8	2-3	47k		S	U		39.95	29.95			
	OS-201	20-22	MI	No	20	2.8	1¾-2½	47k		S	U		59.95	39.95			
	OS-301	20-25	MI	No	24	2.8	1¾-2	47k		E	U		79.95	59.95			
	PICKERING	XLZ7500S	10-50	MM		35	0.06	½-1½	100k	<1k	X	U	5.5	250.00	110.00		
XSV/5000		10-50	MM		35	0.7	1	47k	275	X	U	5.7	200.00	80.00			
VSV/4000		10-36	MM		35	0.7	1	47k	275	X	U	5.5	160.00	56.00			
XSV/3000		10-30	MM		35	4.6	½-1½	47k	275	X	U	5.5	115.00	49.95			
XUV/4500Q		10-50	MM		35	4	½-1½	100k	100	Q	U	5.5	150.00	60.00			
XV/15-1200E		10-30	MI		35	4	½-1	47k	275	E	U	5.5	92.00	35.00			
XV-15/750E		10-25	MI		35	4	½-1½	47k	275	E	U	5.5	74.75	31.50			
XV-15/625E		10-25	MI		35	4	½-1½	47k	275	E	U	5.5	69.00	30.00			
XV-15/625DJ		10-20	MI		30	4.4	1-4	47k	275	E	U	5.5	69.50	30.00			
XV-15/400E		10-25	MI		35	5	1-2	47k	275	E	U	5.5	62.95	28.50			
XV-15/350		10-25	MI		35	5.5	1-3	47k	275	S	U	5.5	46.00	23.95			
XV-15/200E		10-25	MI		35	7.3	2-4	47k	275	E	U	5.5	57.50	26.25			
XV-15/150		10-20	MI		35	7.3	2-4	47k	275	S	U	5.5	40.25	19.22			
XV-15/140E		10-20	MI		35	7.3	3-5	47k	275	E	U	5.5	40.25	23.95			
XV-15/100		10-20	MI		35	7.3	3-5	47k	275	S	U	5.5	34.50	17.90			
V-15 MICRO		20-20	MI		30	5	1-2	47k	275	E	U	6.5	54.95	26.25			
IV AME																	
V-15 MICRO IV AM		20-20	MI		30	5.5	1-3	47k	275	S	U	6.5	38.45	21.57			
V-15 MICRO IV ATE		20-18	MI		28	6	2-4	47k	275	E	U	6.5	43.95	23.95			
V-15 MICRO IV AT		20-18	MI		28	7.3	2-4	47k	275	S	U	6.5	32.95	18.87			
V-15 MICRO IV ACE	20-17	MI		26	7.3	3-5	47k	275	E	U	6.5	32.95	18.87				
V-15 MICRO IV AC	20-17	MI		26	7.3	3-7	47k	275	S	U	6.5	27.45	16.17				
RADIO SHACK	RXT4 42-2773	20-20	MM	No	25		¾-1½	47k		E	U		49.95		Carbon fibre brush, dyn. stabilizer.		
	R-1000 EDT	20-20	MM	No		5.0	¾-1½	47k		E	U		39.95	27.95			
	R-47 EDT	20-20	MM	No	20	3.2	1½-3	47k		E	U		27.95	15.95			
	R-25 EDT	20-20	MM	No		4.5	2-4	47k		E	U		19.95	12.95			
	QLM-30 MKII	20-18 ±3	MM	No				3-5	47k	C	U		12.95	9.95	W/E-Z mount adapter.		
SATIN	M-117Z	20-20	MC	No	20	3	1-2.2	47k		S	U	9.2	99.95	79.95			
	M-117ZE	20-20	MC	No	25	3	1-2	47k		E	U	9.2	129.95	99.95			
	M-117G	20-25	MC	No	25	3	1-2	47k		E	U	9.2	179.95	129.95			
	M-117S	15-30	MC	No	30	2.5	1-2	47k		E	U	9.2	249.95	149.95			
SHURE (Continued)	V15II-HE	10-25	MM	No	25	15	¾-1½	47k	450	X	U	6.3	127.00	79.95			
	M97HE	20-20	MM	No	25	4	¾-1½	47k	250	X	U	6.4	112.00	56.00	Dyn. stabilizer.		
	M97ED	20-20	MM	No	25	4	¾-1½	47k	250	E	U	6.4	105.00	49.00	As above.		
	M97GD	20-20	MM	No	25	4	¾-1½	47k	250	S	U	6.4	88.00	32.00	As above.		
	M97EJ	20-20	MM	No	20	4	1½-3	47k	250	E	U	6.4	88.00	32.00	As above.		
	M97B	20-20	MM	No	20	4	1½-3	47k	250	S	U	6.4	81.00	25.00	As above.		
	M72EJ	20-20	MM	No	20	6.2	1½-3	47k	450	E	U	5.8	55.95	19.20			
	M72B	20-20	MM	No	20	6.2	1½-3	47k	450	S	U	5.8	52.50	14.65			
	V15 Type IV	10-25	MM	No	25	4	¾-1½	47k	250	X	U	6.4	182.00	63.00	As above.		
	M95HE	20-20	MM	No	25	4.7	¾-1½	47k	450	X	U	6.3	107.50	35.70			
	SC39ED	20-20	MM	No	25	4	¾-1½	47k	250	E	U	6.3	110.00	56.00			
	SC39B	20-20	MM	No	20	4	1½-3	47k	250	S	U	6.3	66.00	16.00			
SC39EJ	20-20	MM	No	20	4	1½-3	47k	250	E	U	6.3	76.75	25.00				
M95ED	20-20	MM	No	25	4.7	¾-1½	47k	450	E	U	6.3	92.95	33.30				

PHONO CARTRIDGES

LETTER CODE FOR STYLUS TYPE C—Conical S—Spherical E—Elliptical Q—For CD-4 use (Shibata, etc.) X—Line Contact, Hyper-elliptical, Long Line, Stereohedron, or similar		Model	Frequency Response, Hz to kHz, ±dB	Principal Moving Element Moving Magnet or MM Coil or MC, Inductance in mH	W. Individual Response Curve?	Channel Separation, 1 kHz, dB	Channel Separation, 10 kHz, dB	mV Output, 1 kHz, 5 cm/s, rms Lateral Velocity	Recommended Tracking Force, Ohms	Recommended Load Resistance, pf	Stylus Type—See code	Stylus Radius (Radius), Mils	Stylus Replacement: User or Factory?	Weight, Grams	Price, \$	Replacement Stylus Price, \$	Notes
SHURE (Continued)	M93E	20-20	MM	No	20	6.2	1½-3	47k	450	E	0.4x0.7	U	5.7	61.50	22.90		
	M91ED	20-20	MM	No	25	5	¾-1½	47k	450	E	0.2x0.7	U	5.8	79.95	29.90		
	M75ED	20-20	MM	No	25	5	¾-1½	47k	450	E	0.2x0.7	U	6.2	79.95	29.90		
	Type II																
	M70EJ	20-20	MM	No	20	6.2	1½-3	47k	450	S	0.4x0.7	U	5.8	53.95	16.95		
	M70B	20-20	MM	No	20	6.2	1½-3	47k	450	S	0.6	U	5.8	49.95	12.65		
	M24H	20-50	MM	No	22	3	1-1½		100	Q		U	5.8	106.50	35.50		
SIGNET	TK1E	15-20	MM	No	26	17	4.8	1.5-2.5	47k	270	E	0.4x0.7	U	6.8	40.00	25.00	Premounted.
	TK1E/H	15-20	MM	No	26	17	4.8	1.5-2.5	47k	270	E	0.4x0.7	U	16	45.00	25.00	
	TK3E	15-28	MM	No	28	19	4.2	1-1.75	47k	270	E	0.3x0.7	U	6.8	60.00	30.00	
	TK5E	10-30	MM	No	25	20	4.2	0.75-1.75	47k	270	E	0.2x0.7	U	6.8	100.00	50.00	
	TK7E	5-30	MM	Yes	30	22	2.7	0.75-1.75	47k	270	E	0.2x0.7	U	6.8	170.00	75.00	Spec. stylus available. As above.
	TK7SU	5-45	MM	Yes	30	23	2.7	0.75-1.75	47k	270	Q	Shib.	U	6.8	190.00	100.00	
	TK9E	5-30 ±0.5	MM	Yes	35	25	2.2	0.8-1.6	47k	100	E	0.2x0.7	U	7.5	275.00	175.00	Linear Contact.
	TK9LC	5-35 ±0.5	MM	Yes	35	25	2.2	0.8-1.6	47k	100	X		U	7.5	295.00	195.00	
	MK111E	5-50	MC	Yes	30	20	0.4	1-2	18		E	0.2x0.7	F	4.8	300.00	110.00	Premounted.
MK112E	5-50	MC	Yes	30	20	0.4	1-2	18		E	0.2x0.7	F	15	325.00	120.00		
SONUS	Dimension 5	10-20 ±1	MI	No	30	20	2.8	1-1½	47k	250-400	X†		U	5.5	250.00	125.00	†Lambda stylus. Line Contact.
	Gold Blue Series II	10-16 ±1	MI	No	30	20	2.8	1-1½	47k	250-400	Q		U	5.5	165.00	87.00	
	Gold Red Series II	10-10 ±1	MI	No	30	20	2.8	1-1½	47k	250-400	E		U	5.5	160.00	82.00	
	Gold Green Series II	10-10 ±1	MI	No	30	20	2.8	1-1½	47k	250-400	S		U	5.5	155.00	77.00	
	Silver P Series II	10-15 ±1	MI	No	30	20	3.5	1-1½	47k	250-400	Q		U	5.5	100.00	50.00	Line Contact.
	Silver E Series II	10-15 ±1	MI	No	30	20	3.5	1-1½	47k	250-400	E		U	5.5	95.00	45.00	
	Black A Series II	10-10 ±1	MI	No	25	20	3.5	1½-2	47k	250-400	E		U	5.5	80.00	40.00	
	Black C Series II	10-10 ±1	MI	No	25	20	3.5	1½-2	47k	250-400	S		U	5.5	70.00	30.00	
	Bronze	10-40	MI	No	30	20	3	1-1½	47k		Q		U	5½	130.00	70.00	Line Contact.
SONY	VL-5	10-20	MM	No	20	3.5	1.5-2.5	47k		S	0.6	U	5	40.00			
	VL-7	10-25	MM	No	25	3.5	1-2	47k		E	0.3x0.8	U	4.9	80.00			
	XL-33	10-35	MC	No	25	0.25	1.5-2.1	40		E	0.3x0.8	F	19	100.00			
	XL-44L	10-40	MC	No	30	0.3	1.2-1.8	40		E	0.3x0.8	F	6.2	180.00			
SONY AUDIO LAB	XL-44	10-40	MC	No	27	0.25	1½-2	40		E	0.3x0.8	F		200.00		In shell, exchange. As above.	
	XL-55	10-50	MC	No	30	0.2	1½-2½	40		E	0.3x0.8	F		300.00			
STANTON MAGNETICS	980LZS	10-50	MM	No	35	0.06	½-1½	100	1000	X	0.3 x 2.8	U	5.5	250.00	110.00		
	881S	10-25	MM	No	35	3.9	¾-1½	47k	275	X		U	5.7	170.00	75.00		
	681EEE	10-12 ±½	MI	No	35	3.5	¾-1½	47k	275	E	0.2x0.7	U	5.5	105.00	45.00		
	681EE	10-10 ±½	MI	No	35	4.1	¾-1½	47k	275	E	0.2x0.7	U	5.5	87.50	39.00		
	681A	10-10 ±½	MI	No	35	5.5	1½-3	47k	275	S	0.7	U	5.5	80.00	30.00		
	681SE	10-10 ±½	MI	No	35	5.5	2-4	47k	275	E	0.4x0.7	U	5.5	87.50	39.00		
	600EE	20-20	MI	No	35	4.1	¾-1½	47k	275	E	0.3x3.7	U	5.5	62.50	27.50		
	680SL	20-20	MI	No	30	1.1	2-5	47k	275	X		U	5.5	98.50	43.75		
	680EL	20-20	MI	No	30	0.82	2-5	47k	275	E	0.4x0.7	U	6.3	96.00	30.00		
	681EEE-S	12-22	MI	No	35	0.7	¾-1½	47k	275	X		U	6.3	125.00	57.50		
	600EE	20-20 ±2.5	MI	No	35	5	1-2	47k	275	E	0.3x0.7	U	5	62.50	45.00		
	600E	20-20 ±2	MI	No	35	5	1½-3	47k	275	E	0.4x0.7	U	5	56.50	27.50		
	600A	20-20 ±2	MI	No	35	5	2-4	47k	275	S	0.7	U	5	51.50	25.00		
	500EE	10-20 ±3	MM	No	35	5	1-2	47k	275	E	0.3x0.7	U	5	42.50	20.25		
	500E	10-20 ±2	MM	No	35	5	2-5	47k	275	E	0.4x0.7	U	5	36.75	25.00		
	500A	10-20 ±2	MM	No	35	5	2-5	47k	275	S	0.7	U	5	31.50	12.00		
	500AA	10-20 ±2	MM	No	35	5	1-2½	47k	275	S	0.5	U	5	36.75	18.00		
	500AL	20-17 ±2.5	MM	No	28	5	3-7	47k	275	S	0.7	U	5	31.50	12.00		
	881E	10-25	MM	Yes	35	0.9	¾-1½	47k	275	E	0.2x0.7	U	5.7	150.00	66.00		
	880S	10-25	MM	No	35	0.9	¾-1½	47k	275	S		U	5.7	140.00	61.60		
	880E	10-22	MM	No	35	0.9	¾-1½	47k	275	E	0.2x0.7	U	5.7	120.00	52.80		
SUPEX	SDX-1000	10-60 ±3	MC	No	30	27	0.2	1.2-1.7		X		F	4.6	500.00	250.00		
	SD-900MkII	10-50 ±3	MC	No	30	27	0.2	1.2-1.7		E		F	12	350.00	175.00		
	SD-900E+ Super	10-50 ±3	MC	No	30	27	0.2	1.2-1.7		E		F	8	225.00	112.50		
	SD-901E+ Super	10-35 ±3	MC	No	30	27	2.0	1.2-1.7		E		F	9	175.00	87.50		
TECHNICS R&B SERIES	EPS-305MC	10-60	MC	Yes	25	20	0.2	1.3-1.7	30		E	0.2x0.7	F	6.7	220.00		
	EPS-300MC	10-50	MC	No	25	20	0.2	1.7-2.3	15		E	0.2x0.7	F	6.9	100.00		
THORENS	TPO 63 & TPO 70	20-20 ±2	MI	No	25	3	¾-1½	47k	400	X		U		175.00			
	TMC 63 & TMC 70	20-20 ±2	MC	Yes	25	1.25	1½-2	22		X		F		465.00			
YAMAHA	MC-1X	20-20	MC	Yes	28	25	0.2	1.6-2.0		E	0.4x0.8	F	19	270.00	165.00	Integrated headshell.	
	MC-1S	20-20	MC	Yes	28	25	0.2	1.6-2.0		E	0.4x0.8	F	7.8	220.00	125.00		
	MC-7	20-20	MC	No	28	25	0.3	1.2-1.8		E	0.2x0.8	F	5.7	120.00	80.00		

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For Manufacturers' Addresses, see page 158

MANUFACTURER	Model	Enclosure Type	Woofer Dia., Inches		Midrange Dia., Inches		Tweeter Dia., Inches		Level Controls: W=Woof, M=Midrange, T=Tweeter; S1=Super-tweeter		Anechoic Freq. Response Hz to kHz, ±dB	Recommended Min. Amp. Pwr., Watts	Crossover Frequencies, Hz	Impedance, Ohms, Nominal/Minimum	Dimensions, Inches		Finish	Grille Material, Color	Weight, Lbs.	Price, \$
			Woofer	Midrange	Woofer	Midrange	Woofer	Midrange	Woofer	Midrange					Woofer	Midrange				
ACCULAB	320	Ac. Sus.	10	3 3/4	Cone	2 3/4	Cone		40-18.5 ±4	91	4	33k, 7.5k	8	22 1/2 x 13 x 10 1/2	Vin.	Knit, Blk.	33	150.00		
	340	Ac. Sus.	12	3 3/4	Cone	2 3/4	Cone		33-18.5 ±4	91	4	33k, 7.5k	8	25 1/2 x 11 14 1/2 x 11	Vin.	Knit, Blk.	42	200.00		
	440	Ac. Sus.	12	3 3/4	Cone	2 3/4, 3 1/2	Cone, Pz.		33-30 ±4	91	5	3.3k, 7.5k, 10k	8	25 1/2 x 11 14 1/2 x 11	Vin.	Knit, Blk.	43	250.00		
	220	Ac. Sus.	10			2 3/4	Cone		40-18.5 ±4.5	90	4	6.5k	8	22 1/2 x 13 x 10 1/2	Vin.	Knit, Blk.	32	125.00		
ACOUSTAT	Model Two	ES						T	30-20 ±3	85	50	None	8	58x20x3 1/2	Opt.	Opt.	150	1195.00 Pair		
	Monitor Three	ES						T	28-20 ±3	85	50	None	8	61x28x7	Opt.	Opt.	200	1795.00 Pair		
	Monitor Four	ES						T	26-20 ±3	85	50	None	8	61x36x9	Opt.	Opt.	250	2195.00 Pair		
ACOUSTIC INTERFACE	The Intimate	Sealed	10			1	Dome		57-20 ±3	91	20	4.2k	8/	19x12x12	Opt.		26	190.00		
	The Transcendant	Vented	12			1 1/4	Dome		49-22 ±3	93	15	1.7k	8/	24x16x14 1/2	Opt.		45	275.00		
	AI100	Vented	12		Horn		Horn		49-20 ±4	94	15	1k, 5k	8/	24x16x14 1/2	Opt.		45	345.00		
	AI200	Vented	12		Horn		Horn		33-20 ±4	96	15	1k, 5k	8/	32x19x18 1/2	Opt.		72	390.00		
	AI100 Series II	Vented	12	2	Dome	1	Dome		49-20 ±2.5	94	15	700, 5k	8/	24x16x14 1/2	Opt.		45	345.00		
	AI200 Series II	Vented	12	2	Dome	1	Dome		33-20 ±2.5	96	15	700, 5k	8/	36x16x18 1/2	Opt.		72	390.00		
	AI1000	Vented	12		Horn		Horn		49-20 ±3	94	15	850, 5k	8/	24x16x14 1/2	Opt.		47	545.00		
	AI2000	Vented	12		Horn		Horn		33-20 ±3	96	15	850, 5k	8/	36x16x18 1/2	Opt.		74	590.00		
	The Sound Portal Sound Portal II	Horn	12		Horn				15-20 ±4	101	10	850, 5k	8/	36x25 1/2 x 17	Opt.		117	990.00		
		Horn	15		Horn			10-20 ±4	105	10	500, 5k	8/	40x33 1/2 x 25	Opt.		240	1900.00			
ACOUSTIC RESEARCH	AR9	Ac. Sus.	(2) 12	8, 1 1/2	Cone, Dome	3/4	Dome	(2) M, T	28-25 ±2	87	15	200, 1.2k, 7k	4/3.2	52 1/2 x 15 x 15 1/2	Oil, Wal.	Cloth Blk.	130	800.00		
	AR90	Ac. Sus.	(2) 10	8, 1 1/2	Cone, Dome	3/4	Dome	(2) M, T	32-25 ±2	87	15	200, 1.2k, 7k	4/3.2	43 1/2 x 14 1/2 x 15 1/2	Oil, Wal.	Cloth, Blk.	82	600.00		
	AR91	Ac. Sus.	12	1 1/2	Dome	3/4	Dome	M, T	35-25 ±2	87	15	700, 7.5k	4/3.2	31 1/2 x 14 x 11 1/2	Oil, Wal.	Cloth, Blk.	53	425.00		
	AR92	Ac. Sus.	10	1 1/2	Dome	3/4	Dome	M, T	44-25 ±2	87	15	700, 7.5k	4/3.2	31 1/2 x 14 x 11 1/2	Oil, Wal.	Cloth, Blk.	46	325.00		
	AR93	Ac. Sus.	(2) 8	8	Cone	1 1/4	Cone		44-22 ±2	87	15	350, 2k	6/4.5	30 1/2 x 14 x 10 1/2	Ac. Blk, Cloth		50	249.00		
	AR94	Ac. Sus.	8	8	Cone	1 1/4	Cone		44-22 ±2	87	15	350, 2k	6/4.5	30 1/2 x 14 x 10 1/2	Ac. Blk, Cloth		43	199.00		
	AR25	Ac. Sus.	8			1 1/4	Cone		48-22 ±2	86	15	2k	8	11 1/2 x 21 1/2 x 7 1/2	Wal., Vin.	Foam Blk.	24	240.00 Pair		
	AR18	Ac. Sus.	8			1 1/4	Cone		62-22 ±2	86	15	2k	8	9 1/2 x 16 1/2 x 6 1/2	Wal., Vin.	Foam Blk.	13 1/2	166.00 Pair		
ADC	B300	Ac. Sus.	12						30-0.2 ±1.5	87				23 3/4 x 23 3/4 x 22 1/2	Wood Ven.	None	95	599.00		
	B410	Ac. Sus.	8			1	Dome	T	65-17 ±1.5	88	10	100	4	16 x 10 x 9	Wood Ven.	Foam, Blk.	24	185.00		
	MS650	Ac. Sus.	6 1/2			1	Dome	T	75-17 ±1.5	88	10	1.2k	4	11 x 8 1/2 x 7 1/2	Oak Grain	Foam, Blk.	18	145.00		
ADCOM	GFW-1 Subwoofer	Inf. Baf.	10						20-20 ±5	86	30	200	4	27 x 27 x 17	Wal.	Cloth, Blk.	36	289.00		
	eff-1		4			1	Dome		47-20	87	5	1.5k	4	5 x 8 x 6 1/4	Alum., Blk.	Alum., Blk.	18 Pr.	229.00 Pair		
ADS	L2030	Ac. Sus.	(2) 14	(4) 2	Domes	1	Dome	M, T	22-20 ±3	95	10	450, 4k	6/4	55 1/2 x 27 1/4 x 13 1/2	Wal.	Cloth, Blk.	190	1900.00		
	L1530	Ac. Sus.	(2) 10	2	Dome	1	Dome	T	25-20 ±3	95	10	450, 4k	6/4	50 1/2 x 23 1/4 x 12 1/2	Wal.	Cloth, Blk.	115	945.00		
	L1230	Ac. Sus.	(2) 8	2	Dome	3/4	Dome	T	30-20 ±3	94	20	550, 4k	6/4	40 1/2 x 19 1/4 x 9 1/2	Wal.	Cloth, Blk.	87	595.00		
	PB-1500 Powered Bass Module	Ac. Sus.	(2) 10							94	inc.			16 x 22 1/2 x 23 1/2	Opt.	Cloth, Blk.	90	1195.00 w. active x-over.		
	L810	Ac. Sus.	(2) 8	2	Dome	3/4	Dome		35-23 ±3	94	20	550, 4k	6/4	25 1/2 x 14 1/4 x 11 1/4	Wal.	Metal, Bronze	46	425.00		
	L730	Ac. Sus.	10	1 1/2	Dome	3/4	Dome		30-23 ±3	92	20	650, 4k	6/4	25 1/2 x 14 1/4 x 11 1/4	Opt.	Metal, Bronze	42	365.00		

(Continued)

LOUDSPEAKERS

MANUFACTURER	Model	Enclosure Type	Woofer Dia., Inches		Midrange Dia., Inches		Tweeter Dia., Inches		Tweeter Type		Level Controls		Anechoic Freq. Response		Recommended Min. Amp. Pwr., Watts	Crossover Frequencies, Hz		Impedance, Ohms, Nominal/Minimum	Dimensions, Inches		Finish	Grille Material, Color	Weight, Lbs.	Price, \$
			Woofer	Midrange	Woofer	Midrange	Tweeter	Tweeter	W	M	M	S	Hz to kHz	dB SPL/Watt/Meter		Hz	Hz		W	W				
ADS (Continued)	L710	Ac. Sus.	(2) 7	2	Dome	1/2	Dome				40-23 ±3	93	15	550, 4k	6/4	21½x12½x10½	Wal.	Metal, Bronze	35	325.00				
	L620	Ac. Sus.	10			1	Dome				30-20 ±3	92	15	1.5k	6/4	25½x14½x11½	Wal.	Metal, Bronze	40	239.50				
	L520	Ac. Sus.	8			1	Dome				35-20 ±3	92	15	1.5k	6/4	21½x12½x10½	Wal.	Metal, Bronze	30	189.50				
	L420	Ac. Sus.	7			1	Dome				48-20 ±3	92	15	1.5k	6/4	17½x11½x7	Wal.	Metal, Bronze	16	299.00				
	400	Ac. Sus.	7			1	Dome				65-20 ±3	93	15	1.5k	6/4	11½x7½x6½	Opt.	Metal, Bronze	9	359.00				
	300	Ac. Sus.	5½			1	Dome				68-20 ±3	91	5	2.5k	6/4	8½x5½x5½	Opt.	Opt.	7	300.00				
	200	Ac. Sus.	4			1	Dome				85-20 ±3	90	5	2.5k	6/4	6½x4½x4½	Opt.	Opt.	4½	240.00				
ADVANCED ELECTRODYNAMIC SYSTEMS	Cybele	Pass. Rad.	9	2 Dia. x6	Cyl.	2 Dia. x6	Cyl.				30-15	83	20	55, 1.25k	6/5	14½x14x23½	Form. Sand	Cloth, Taupe	53	1975.00				
ADVENT	5002	Sealed	10			1	Dome	M			42-23 ±2.5	87	20	1.8k	8	26x14½x11½	Wal. Vin.	Cloth, Grey	39½	199.95				
	4002	Sealed	10			1	Dome				48-23 ±2.5	87	20	1.8k	8	21½x13½x9¾	Wal. Vin.	Cloth, Grey	31½	169.95				
	3002	Sealed	8			1	Dome				48-23 ±3	88	15	2.8k	8	20x12x8½	Wal. Vin.	Cloth, Grey	21½	129.95				
	2002	Sealed	8			1½	Cone				50-23 ±3	88	8	3.2k	8	18½x11x8	Wal. Vin.	Cloth, Grey	16½	99.95				
	400S	Sealed	5												8	6½x6x11	White Wal. Vin.	Metal, Grey		35.00				
	Powered Advent	Sealed	10			1½	Dome							1.5k			Wal. Vin.	Cloth, Grey		499.95				
AIWA	SC-E50	Bass Ref.	8	4		0.8	Dome	M, T			45-40		70	1k, 4k	8	15½x9½x9½	Siv.	Cloth, Grey	17.6	320.00				
	SC-61R	Bass Ref.	7			2					50-18		40	4k	8	13x8½x9½	Rose. Van. Metal	Cloth, Brn.	9.3	150.00				
	SC-E11A	Bass Ref.	4			2		T			60-20		50	4k	8	7½x4½x6	Metal	None	6.4	160.00				
	SC-E20Y	Bass Ref.	4½								75-17		15		4/8	9x5½x5½	Metal	None	4.9	100.00				
AKAI	SW-7R					1½	Dome							5k	8/4		Wal. Vin.	Cloth, Brn.	17					
	SW-T30		10			1½								4k	8/4	11.7x22.6x8.3	Wal. Vin.	Cloth, Brn.						
	SW-T50		10	5		1½		M						1.5k, 5k	8/4	13.8x27.4x10.8	Wal. Vin.	Cloth, Brn.	28.8					
SW-T70		12	5½		1½		M, T						1.5k, 5k	8/4	15.4x31.1x10.8	Wal. Vin.	Cloth, Brn.	40.3						
ALLISON ACOUSTICS	One	Closed Box	(2) 10	(2) 3½	Cones	(2) 1	Cone	M, T				87	30	350, 3.75k	8/7	19x10½x40	Oil. Wal.	Plast., Blk.	67	480.00				
	Two	Closed Box	(2) 8	(2) 3½	Cones	(2) 1	Cone	M, T				87	30	350, 3.75k	8/7	16x9½x36	Oil. Wal.	Plast., Blk.	57	390.00				
	Three	Closed Box	10	3½	Cone	1	Cone	M, T				87	30	350, 3.75k	4/3.5	15½x10x40	Oil. Wal.	Plast., Blk.	45	320.00				
	Four	Closed Box	8			(2) 1	Cone	M, T				87	30	2k	8/6.5	19½x10x11	Oil. Wal.	Plast., Blk.	23½	220.00				
	Five	Closed Box	8			1	Cone	T				87	15	2k	4/3.5	18½x10x11	Oil. Wal.	Plast., Blk.	21	160.00				
	Six	Closed Box	8			1	Cone	T				87	15	2k	4/3.5	11½x11½x11½	Oil. Wal. Vin.	Plast., Blk.	17	125.00				
ALTEC LANSING	4	Vented	10				Horn	T			60-20 ±3	88	20	2k	8	23x14½x12½	Wood	Knit, Blk.	35	249.95				
	6	Vented	10	5	Cone		Horn	M, T			60-20 ±2.5	90	20	700, 5k	8	25½x15½x13½	Wood	Knit, Blk.	39	349.95				
	8	Vented	12	5	Cone		Horn	M, T			55-20 ±2.5	92	20	700, 5k	8	29½x16½x14	Wood	Knit, Blk.	52	449.95				
	Santana II	Vented	12			5	Cone	T			40-20		12	2.5k	8	19x25½x16	Oil. Wal.	Knit, Blk.	57	329.95				
	14	Vented	12			1½	Cmp.	M, T			35-20 ±3	95	12	1.5k	8	30x21x16½	Oil. Wal.	Knit, Blk.	77	529.95				
	18	Vented	15			1½	Cmp.	M, T			30-20 ±4	103	10	1.5k	8	40x26x18	Oil. Wal.	Knit, Blk.	138	899.95				
	19	Vented	15			1½	Cmp.	M, T			30-20 ±4	99	10	1.2k	8	39x30x21	Opt. Wal.	Knit, Blk.	143	899.95				
	LF-1 Subwoofer	Vented	12								20-80 Hz ±5	94	10	80	8	36x36x16	Wood		84	649.95				
	LF-2 Subwoofer	Vented	15								20-80 Hz ±3	94	Inc.	40, 60, 80	8	36x36x16	Wood		84	949.95				
AMERICAN ACOUSTICS LABS (Continued)	MA-920	Bass Ref.	(2) 10	4½	Cone	1	Dome	T			35-22 ±3		10	500, 2k	4	14½x33½x11½	Rose. Vin.	Cloth, Blk.	52	299.00				
	MA-912	Bass Ref.	12	4½	Cone	1	Dome	T			35-22 ±3		5	500, 2k	8	16x26x11½	Rose. Vin.	Cloth, Blk.	41	249.00				

LOUDSPEAKERS

MANUFACTURER	Model	Enclosure Type	Woofer Dia. - Inches		Midrange Dia. - Inches		Tweeter Dia. - Inches		Level Controls		Anchored, Freq. Response Hz to Hz, ± dB	Recommended Min. Amp. Pwr., Watts	Crossover Frequencies Hz	Impedance, Ohms, Nominal/Minimum		Dimensions, Inches	Finish	Grille Material, Color	Weight, Lbs.	Price, \$
			1	2	1	2	1	2	1	2				W	S					
AMERICAN ACOUSTICS LABS (Continued)	IM-910	Bass Ref.	10	4½	Cone	1	Dome	T	38-22	±3		5	500, 2k	8	14½x23½x11½	Rose, Vin.	Cloth, Bk.	36	219.00	
	IM-98	Bass Ref.	8	4½	Cone	1	Dome	T	42-22	±3		5	1.5k	8	9½x20x12	Rose, Vin.	Cloth, Bk.	22	129.00	
	EQ-21	Bass Ref.	(2) 10	5½	Cone	2	Phen. Ring		25-22	±3		5	1k, 5k	4	34½x15½x11	Hick, Vin.	Cloth, Bk.	50	219.00	
	EQ-17	Bass Ref.	(2) 8	5½	Cone	2	Phen. Ring		25-22	±3		5	1k, 5k	4	32½x14x11	Hick, Vin.	Cloth, Bk.	42	185.00	
	EQ-15	Bass Ref.	15	5½	Cone	2	Phen. Ring		20-22	±3		5	1k, 5k	8	28x19x11	Hick, Vin.	Cloth, Bk.	47	199.00	
	EQ-13	Bass Ref.	12	5½	Cone	2	Phen. Ring		25-22	±3		5	1k, 5k	8	24x19x11	Hick, Vin.	Cloth, Bk.	41	175.00	
	EQ-11	Bass Ref.	10			2	Phen. Ring		27-22	±3		5	2.5k	8	23x14½x11½	Hick, Vin.	Cloth, Bk.	35	135.00	
	EQ-9	Bass Ref.	8			2	Phen. Ring		35-22	±3		5	2.5k	8	21x12x8½	Hick, Vin.	Cloth, Bk.	22	89.00	
	EQ-7	Bass Ref.	6½			2	Phen. Ring		50-22	±3		5	2.5k	8	12½x7½x7	Hick, Vin.	Cloth, Bk.	11	75.00	
EQ-25 Subwoofer	Bass Ref.	(2) 8						10-250	Hz ±3		5	100	8	16½x16½x16	Hick, Vin.	Cloth, Bk.	50	240.00		
APATURE	R-6	Air Sus.	6½			2 x ½	Rib.		51-34	±3	89	15	4.3k	8	8 x 8 x 12	Koa	Kntrl. Brn.	15	129.95	
	R-8	Trans. Line	8			2 x ½	Rib.	T	42-34	±2.5	90	15	5.4k	8	12 x 12 x 22	Koa	Kntrl. Brn.	32	179.95	
	R-10	Trans. Line	10	3 x 1½	Rib.	2 x ½	Rib.	M, T	35-34	±2.5	92	15	1.5k, 7k	8	13 x 12 x 26	Koa	Kntrl. Brn.	49	299.95	
	R-T Add-On	Sealed				2 x ½	Rib.	T	To 34k		92	15	5.4k, 9k Sel.	8	6 x 6 x 6	Opt.	Screen	5	99.95	
ATLANTIS	Atlantean I	Bass Ref.	10	5		1	Dome	T	55-20	±5	90	5	800, 4k	4	12½x13x23	Bir. Vin.	Cloth, Brn.	36½	199.95	
	Atlantean II	Bass Ref.	12	5		1	Dome	T	50-20	±5	92	5	800, 4k	4	14½x13½x25	Bir. Vin.	Cloth, Brn.	48½	249.95	
	Atlantean III	Bass Ref.	15	5		(2) 1	Dome	T	45-20	±5	95	5	800, 4k	4	18x14½x30	Bir. Vin.	Cloth, Brn.	63½	299.95	
	Award 802	Ac. Sus.	8			2	Cone		65-18	±7	85	2	3k	8	18x11½x9½	Hick, Vin.	Foam, Brn.	15	99.95	
	Award 1002	Ac. Sus.	10			2	Cone		80-18	±7	87	2	3k	8	22½x13x10½	Hick, Vin.	Foam, Brn.	20	129.95	
	Award 1003	Ac. Sus.	10	4		2	Cone	T	80-18	±6	88	2	800, 3k	8	24x14x11	Hick, Vin.	Foam, Brn.	23½	169.95	
	Award 1203	Ac. Sus.	12	4		2	Cone	T	55-18	±6	90	2	800, 3k	8	26x15½x12	Hick, Vin.	Foam, Brn.	26½	199.95	
AUDIO ELECTRONIC SYSTEMS	AES-28	Bass Ref.	8			2	Cone				92	5	50	8/4	10½x9½x20	Vin.	Cloth, Bk.	18½	89.95	
	AES-31	Bass Ref.	10	1½	Dome	2	Cone				92	10	700, 3k	8/4	13x10½x23	Vin.	Cloth, Bk.	35	149.95	
	AES-32	Air Sus.	12	1½	Dome	2	Cone	M, T			94	10	700, 3k	8/4	14½x11½x26	Vin.	Cloth, Bk.	45	189.95	
	AES-42	Air Sus.	12	1½	Dome	1	Dome	M, T			94	25	600, 2k	8/4	15½x11½x27	Vin.	Cloth, Bk.	65	249.95	
	AES-50T	Air Sus.	12	(2) 2	Domes	1	Dome	M, T			93	50	600, 1.5k	8/4	16x11½x34½	Vin.	Cloth, Bk.	80	379.95	
AUDIO ILLUSIONS	Kenner S-1	Air Sus.	8			1	Dome		40-20	±3	88	35	2.5k	4/3.9	10½x9x22½	Oil, Wal.	Cloth, Bk.	25	290.00 (East), 275.00 (West)	
AUDIO MARKETING	Little Red	Ac. Sus.	12			¾	Phen. Ring	M, T	40-18	±2	92	25	2k	8/6	24x16x12	Form. Rawd.	Cloth, Bk.	45	250.00	
	Big Red	Bass Ref.	15			¾	Cmp.	M, T	30-18	±2	101	50	2.7k	16/13	30x23x17½	Form. Rawd.	Cloth, Bk.	125	1050.00	
	Super Red	Inf. Baf.	15	15	Cone	¾	Cmp.	M, T	30-18	±2	101	50	100, 2.7k	16/13	30x47x17½	Form. Rawd.	Cloth, Opt.	200	1395.00	
AUDIO PRO	A4-14		(2) 5	4½	Cone	1	Dome	W, T	30-20	±2	Inc.	300, 2.5k		12½x10½x20½	Opt.	Foam, Bk.	35	1750.00 Pair		
	B2-50 Subwoofer		(2) 6½						20-200	Hz +0, -3	Inc.	Var.		18½x17½x21½	Opt.	Cloth, Bk.	64	995.00		
	B2-40 Subwoofer		(2) 7						30-200	Hz +0, -3	Inc.	Var.		14½x14½x20½	Opt.	None	40	695.00		
	S2-7	Ac. Sus.	6½			1	Dome		100-20	±2	15	2k	4	9x5½x15½	Opt.	Foam, Bk.	10	495.00 Pair		
AUDIOVALLEY	AS-1	Ac. Sus.	8			3	Dome		40-20		65	5	4k	8	22x13x6	Wal. Ven.	Cloth, Brn.	20	230.00 Pair	
	AS-3	Ac. Sus.	10	4½	Dome	3	Dome		35-20		68	5	1k, 5k	8	22x13x8	Wal. Ven.	Cloth, Brn.	24	380.00 Pair	
	AS-4	Ac. Sus.	12	5	Dome	3, 2	Dome	M, T	30-20		75	10	1.5k, 5k	8	24x15x10½	Wal. Ven.	Cloth, Brn.	42	598.00 Pair	
AUDIOMASTER	LS3/5A	Ac. Sus.	4½			1	Dome	No	80-20	±3	25	3k	15	6½x7½x11	Wal.	Cloth, Bk.	12	525.00 Pair		
	MLS 1	Ac. Sus.	6			1	Dome	No	80-20	±4	84	15	3k	8	7½x9x14½	Wal.	Cloth, Bk.	12	350.00 Pair	
	MLS 4	Bass Ref.	8			1	Dome	No	50-20	±3	85	15	3k	8	12½x10½x24½	Wal.	Cloth, Bk.	30	550.00 Pair	

LOUDSPEAKERS

MANUFACTURER	Model	Enclosure Type	Woofer Dia., Inches		Midrange Dia., Inches		Tweeter Dia., Inches		Level Control?		Anechoic Freq. Response		Recommended Min. Amp. Pwr., Watts	Crossover Frequencies Hz		Dimensions, Inches	Finish	Grille Material, Color	Weight, Lbs.	Price, \$
AURATONE	SC-Super-Sound-Cube	Sealed	5										8	6 1/2 x 6 1/2 x 5 1/2	Wal. Vln.	Foam, Blk.	4 1/2	75.00	Pair	
	SRC-Super-Road-Cube	Sealed	5										8	6 1/2 x 6 1/2 x 5 1/2	Blk. Vln.	Plas., Blk.	5	100.00	Pair	
	SW-Super-Sound-Wedge	Sealed	5										8	7 1/2 x 7 1/2 x 5	Blk. Vln.	Plas., Blk.	5 1/2	85.00	Pair	
	SS-Super-Sound-System	Sealed	5										8	6 1/2 x 10 1/2 x 4 1/2	Wal. Vln.	Foam, Blk.	5 1/2	80.00	Pair	
AVANT	1 AX	Ac. Sus.	8		2	Cone							3.5k	8	11 x 9 1/2 x 19	Lac. Wal. Vln.	Cloth, Brn.	20	148.00	
	2 AX	Ac. Sus.	10		1	Dome							2k	8	12 1/2 x 12 1/2 x 23 1/2	Wal. Vln.	Cloth, Brn.	38	256.00	
	3 AX	Ac. Sus.	8		1	Dome							2.5k	8	11 x 9 x 34	Lac. Wal. Vln.	Cloth, Brn.	31	292.00	
	4 AX	Ac. Sus.	12	5	Cone	1	Dome	M, T					700, 3k	8	14 1/2 x 12 1/2 x 23 1/2	Wal. Vln.	Cloth, Brn.	42	346.00	
	5 AX	Ac. Sus.	12	5	Cone	1	Dome	M, T					400, 2.75k	8	15 1/2 x 12 1/2 x 26	Lac. Wal. Vln.	Cloth, Brn.	53	450.00	
	6 AX	Ac. Sus.	6	6 1/2	Cone	1	Dome	M, T					400, 2.75k	8	17 x 16 x 30	Lac. Wal. Vln.	Cloth, Brn.	72	742.00	
AVID	80a	Ac. Sus.	8		1 1/2	Cone							3k	8/7	12 x 8 1/2 x 19 1/2	Wal. Vln.	Cloth, Brn.	18	99.00	
	110	Ac. Sus.	8		1	Dome							2.5k	8/6	12 1/2 x 9 1/2 x 21 1/2	Wal. Vln.	Cloth, Brn.	29	145.00	
	102a	Ac. Sus.	10		1	Dome	M, T						2.2k	8/6	15 x 9 1/2 x 25	Wal. Vln.	Cloth, Brn.	38	175.00	
	230	Ac. Sus.	10	4 1/2	Cone	1	Dome	M, T					475.4k	8/6	15 x 10 x 25	Wal. Vln.	Cloth, Brn.	40	250.00	
	330	Ac. Sus.	12	2	Dome	1	Dome	M, T					575.5k	8/6	17 x 10 1/2 x 30 1/2	Wal. Vln.	Cloth, Brn.	66	450.00	
AXIOM ENGINEERING	TLT-1a	Trans. Line	8	8	Cone	1	Dome						4.1k	8/7	13 x 13 x 38	Oil. Wal.	Cloth, Blk.	65	254.00 (West); 275.00 (East)	
	TLB-1	Trans. Line	8	8	Cone	1	Dome						4.1k	8/7	14 1/2 x 10 1/2 x 26 1/2	Blr. Vln.	Cloth, Blk.	44	185.00 (West); 199.00 (East)	
BANG & OLUFSEN	S-30	Ac. Sus.	8		1	Dome							2.5k	8/4	10 1/2 x 18 1/2 x 7 1/2	Rose.	Cloth, Blk.	11	225.00	
	S-45-2	Ac. Sus.	8		1	Dome							2k	8/4	10 1/2 x 18 1/2 x 8 1/2	Rose.	Cloth, Blk.	15.4	395.00	
	S-75	Ac. Sus.	10	2	Dome	1	Dome						700, 4k	8/4	12 1/2 x 23 1/2 x 10	Rose.	Cloth, Blk.	24.2	680.00	
	P-30	Ac. Sus.	6 1/2		1	Dome							3k	8/4	11 1/2 x 21 1/2 x 4 1/2	Rose.	Cloth, Blk.	11	350.00	
	P-45	Ac. Sus.	(2)5		1	Dome							2k	8/4	13 1/2 x 25 1/2 x 5 1/2	Rose.	Cloth, Blk.	17.6	550.00	
	C-30	Log. Line	4		1	Dome							2.5k	6	4 1/2 x 12 1/2 x 5 1/2	Blk.	Cloth, Blk.	7.1	225.00	
	C-75	Log. Line	(2)4		1	Dome							2.5k	6	4 1/2 x 12 1/2 x 7 1/2	Opt.	Cloth, Blk.	11	500.00	
	M-75	Ac. Sus.	10	2 1/2	Dome	1	Dome						500, 4.5k	8/4	15 1/2 x 29 1/2 x 12	Rose.	Cloth, Blk.	37.4	980.00	
M100-2	Vented	12	2 1/2	Dome	1 1/2, 3/4	Dome						550, 2.5k, 8k	8/4	15 1/2 x 29 1/2 x 12	Rose.	Cloth, Blk.	50.7	1800.00		
BELLES RESEARCH	Belles 1	Pos. Rad.	8		1	Dome	T						2.7k	8/5	33 1/2 x 15 x 17 1/2	Wal. Ven.	Foam, Blk.	69	750.00	
B.E.S.	SM250	Puls. Diaph.	850 Sq. in.										800	8/5.5	28 1/2 x 19 x 4 1/2	Oil Oak	Cloth, Brn.	22	199.00	
	SM255	Puls. Diaph.	850 Sq. in.										900	8/5.5	30 1/2 x 20 x 5 1/2	Oil Oak	Cloth, Brn.	34	279.00	
	SM270	Puls. Diaph.	850 Sq. in.				Pz.	M, T					800, 10k	8/6	32 1/2 x 22 x 6 1/2	Oil Oak	Cloth, Brn.	45	389.00	
	SM300	Puls. Diaph.	1750 Sq. in.										500, 5k	8/6	53 1/2 x 22 x 6 1/2	Oil Oak	Cloth, Brn.	63	549.00	
BETA SOUND	045	Bass Ref.	12	10%	Horn	2x5	Horn						650, 4.5k	8/6	25 1/2 x 17 1/2 x 14 1/2	Oil. Wal.	Foam, Blk.	70	499.95	
	065	Port & Horn	12	10%	Horn	2x5	Horn						650, 4.5k	8/6	25 1/2 x 17 1/2 x 14 1/2	Oil. Wal.	Foam, Blk.	90	599.95	
	075	Port & Horn	12	10%	Horn	2x5	Horn						650, 4.5k	8/6	38 1/2 x 20 1/2 x 16 1/2	Oil. Wal.	Foam, Blk.	120	799.95	
	1001B	Port & Horn	12	10%	Horn	2x5	Horn						650, 4.5k	8/6	41 x 25 1/2 x 21 1/2	Oil. Wal.	Foam, Blk.	150	1199.95	
HAROLD BEVERIDGE INC.	System 3	ES											250	8	21 Dia. x 78			360	3900.00	
	System 2SW-2	ES											100	N.A.	Three Pieces			360	7700.00	

LOUDSPEAKERS

MANUFACTURER	Model	Enclosure Type	Woofer Dia., Inches		Midrange Dia., Inches		Tweeter Dia., Inches		Level Controls: W= Woofer, M=Midrange, T=Tweeter, ST=Super Tweeter		Anechoic Freq. Response Hz to kHz, ± dB		Recommended Min. Amp. Pwr., Watts	Crossover Frequencies Hz		Impedance Ohms: Nominal/Minimum		Dimensions, Inches	Finish	Grille Material, Color	Weight, Lbs.	Price, \$
B • I • C/AVNET	TPR 100	Pass. Rad.	5 1/2		1 1/2	Dome						88	10		4/3	9x7 1/2x15	Wal.	Nylon, Blk.	23	129.95		
	TPR 200	Venturi	8	1 1/2	Dome		Pz.				90	5		8/6	11 1/2x11 1/2x32 1/2	Wal.	Nylon, Blk.	37	249.95			
	TPR 400	Venturi	10	1 1/2	Dome		Pz.				92	3		8/5	13x13x38	Oil. Wal.	Nylon, Blk.	49	349.95			
	TPR 600	Venturi	12	1 1/2	Dome		Pz.				93	3		8/5	15x15x41 1/2	Oil. Wal.	Nylon, Blk.	67	419.95			
BLACK ACOUSTICS	TR-1		(2) 10	4 1/2	Cone	1	Dome	No			30-22 ± 2	87	30	Var.	6/4	19 1/2x10x49	Opt.	Opt.	67 1/2	950.00		
	Black Hole		6	6	Cone	1	Dome	No			40-20 ± 3	90	15	Var.	6/4	30 Dia. x 7	Blk.	Blk.	35	600.00		
BLACKMAX SYSTEMS	Rock Monitor 8	Slot Loaded	8	5	Cone	2 1/2	Cone	M, T			40-20	92	10	1.5k, 5k	8	36x12x10.5	Wal. Vin.	Cloth, Blk.	39	299.00		
	Rock Monitor 10	Slot Loaded	10	5	Cone	2 1/2	Cone	M, T			35-20	92	10	1.5k, 5k	8	42x15x10.5	Wal. Vin.	Cloth, Blk.	51	399.00		
	Rock Monitor 12	Slot Loaded	12	(2) 5	Cones	2 1/2	Cone	M, T			30-20	92	10	1k, 5k	8	48x15x10.5	Wal. Vin.	Cloth, Blk.	60	499.00		
BML ELECTRONICS	Tracer 10	Ported	5 1/2			1	Dome				38-20 ± 5	87	25	2.2k	8/6	22x12x10	Oil. Wal.	Cloth, Blk.	30	160.00		
	Tracer 11	Ported	6			1	Dome				32-20 ± 3	88	40	2.5k	8/6	26x15x10	Oil. Wal.	Cloth, Blk.	38	250.00		
	Tracer 110	Ported	6			1	Dome				27-20 ± 3	88	60	2.5k	8/6	38x12x12	Oil. Wal.	Cloth, Blk.	55	300.00		
	Tracer 120	Ported	6			1	Dome				27-20 ± 3	88	60	2.5k	8/6	39x13x13	Wal. Black	Cloth, Blk.	60	370.00		
	Tracer 130	Ported	(2) 6			1	Dome				27-20 ± 5	91	50	2.2k	6/4	48x13x13	Wal. & Blk.	Cloth, Blk.	80	600.00		
	Tracer 2001-A	Trans. Line Planar	10	(2) 5 1/2		1 1/4	Dome				22-20 ± 2	94	150	400, 1.8k	6/4	64x27x8	Wal. & Blk.	Cloth, Blk.	200	1100.00		
	Tracer1501-B	Trans. Line Planar	5 1/2	3 1/2		1	Dome				27-20 ± 3	92	80	2.2k, 3.5k	4/4	51x20x5	Wal. & Blk.	Cloth, Blk.	75	680.00		
	Tracer 1001-B	Trans. Line Planar	5 1/2			1	Dome				30-20 ± 5	86	50	3k	8/6	33x20x5	Wal. & Blk.	Cloth, Blk.	40	440.00		
BOSE	901 Series IV	Ac. Matrix	(9) 4 1/2									10		8	12 1/2x21x13	Wal. Ven.	Cloth, Brn.	35	950.00			
	601	Ported	(2) 8			(4) 3	Dome					15	2k	8	25 1/2x15x13	Wal. Ven.	Cloth, Brn.	36	650.00			
	501	Ac. Sus.	10			3	Dome					20	1.5k/3k	4	24x14 1/2x14 1/2	Wal. Vin.	Cloth, Brn. Stripe	42	480.00			
	301	Ported	8			3	Dome					10	1.2k/3k	8	10 1/2x17x9 1/2	Wal. Ven.	Foam, Brn. & Mer.	18	260.00			
	Interaudio Model 1	Ported	6			2	Dome					10	2.2k	8	8x7x14	Wal. Ven.	Foam, Brn.	14 1/2	168.00			
BOSTON ACOUSTICS	A200	Ac. Sus.	10	4 1/2	Cone	1	Dome				36-20 ± 3	90	15	450, 3k	8/6	41x21x6 1/2	Opt.	Cloth Opt.	60	370.00		
	A100	Ac. Sus.	10			1	Dome				39-20 ± 3	89	15	1.6k	8/6	30 1/2x16 1/2x8	Opt.	Opt.	39	200.00		
	A70	Ac. Sus.	8			1	Dome				41-20 ± 3	89	15	2k	6/4	24x14x7 1/4	Vin.	Blk.	26	130.00		
BRAUN	IC-1005	Ac. Sus.	10	2	Cone	3/4	Dome				25-25	86	15	600, 5k	8	12.2x21.25x9.8	Wal.	Akum., Blk.	35.2	600.00		
	SM-2150	Ac. Sus.	(2) 10	(2) 5 1/2	Cones, Dome	3/4	Dome				18-30	88	30	400, 1.5k, 5k	8	12.4x60x10.4	Blk.	Akum., Blk.	99	4000.00		
	IC-1002	Ac. Sus.	7	2	Cone	3/4	Dome				38-20	86	15	700, 5k	8	8.8x13.6x7	Wal.	Akum., Blk.	15.4	360.00		
	IC-1003	Ac. Sus.	8	2	Cone	3/4	Dome				32-25	86	15	650, 5k	8	9.25x15.9x8.25	Wal.	Akum., Blk.	10.8	425.00		
	IC-1004	Ac. Sus.	10	2	Cone	3/4	Dome				25-25	86	15	600, 5k	8	10 1/2x19x9	Wal.	Akum., Blk.	24.2	500.00		
	Output C		4			1	Dome				50-25	84	5	1.5k	8	4 1/4x6 1/2x4 1/4	Akum., Blk.	Akum., Blk.	14	269.95		
	L-200		5 1/4			1	Dome				40-25	85	10	1.5k	8	6 1/4x10x5 1/2	Blk.	Akum., Blk.	15	299.95		
	L-300		5 1/4	2	Dome	3/4	Dome				35-25	85	10	600, 3k	8	6 1/4x10x6 1/2	Blk.	Akum., Blk.	31	449.95		
BURHOE ACOUSTICS	Crimson	Bass Ref.	4			1.1	Dome				55-16 ± 3	89	10	2.5k	8/6	12 1/2x8 1/4x7 1/2	Wal. Vin.	Foam, Brn.	12 1/2			
	Super Crimson	Bass Ref.	4			1	Dome				55-25 ± 3	89	10	2.5k	8/6	12 1/2x8 1/4x7 1/2	Wal.	Foam, Brn.	12 1/2			
	Green	Bass Ref.	8			1 1/2	Dome	M			45-16 ± 3	93	5	1.5k	8/5	18 1/2x11 1/2x10	Vin.	Foam, Brn.	25			
	White	Bass Ref.	8			1	Dome	T			35-25 ± 3	90	15	1.5k	8/5	22x13 1/2x10	Wal.	Foam, Brn.	34			
	Light Blue	Bass Ref.	10			1 1/2	Dome	T			30-16 ± 3	94	5	1k	8/5	24 1/4x14 1/4x10 1/4	Vin.	Foam, Brn.	40			

(Continued)

Are you ready for the new audio technologies?



SA2 POWER AMPLIFIER. 220 RMS watts per channel into 8 ohms 20 Hz-20 KHz, no more than .05% THD. On-board computers. Front panel LED's display peak and average output. Handles any impedance load.

DL2 CONTROL CENTER. Switching module offers selection of loudness compensation curves, sophisticated

stereo imaging with mixing for two inputs. Eight inputs, three speaker outputs. Separate connections for add-on signal processors. Separate phono pre-amp eliminates RFI and is adjustable for cartridge impedance. Moving-coil module available. Separate power module eliminates AC signals from switching and phono pre-amp modules.

Receps for eight components.

EQ2 GRAPHIC EQUALIZER. Eleven bands per channel, ± 15 dB boost/cut per band, center-points adjustable $\pm 1/4$ bandwidth. Versatile tone control center section.

FM1 TUNER. Five-station memory. Digital tuning. Phase-locked loop, crystal controlled.

Crown is.

Owning Crown Distinction components can assure that your next audio system will effortlessly adjust to the new technologies.

The Distinction Series was engineered for the dynamic range now available from direct-to-disc and digital recording.

The Crown Distinction components have S/N ratios that will complement the audio soon to be available from video-disc technology.

Your Crown Distinction system will drive any speakers, old or new, with plenty of reserve power for distortion-free sound, however inefficient the new speaker designs may be.

The Crown Distinction System is computer-compatible *now*.

A REVIEWER'S DELIGHT

Several years ago we asked our engineers to begin work on a new series of components that would be the best today and tomorrow, that would become the standards by which other components were judged in the 80's.

How well we succeeded is best expressed by what reviewers have said about the Crown Distinction Series.

"...workmanship and layout of the highest order."

"...solid...innovative."

"...can deliver prodigious power...without distortion."

"...virtual sonic perfection...utterly quiet...an exceptional product."

"better than the available test equipment."

"awesome control capability!"

"the audio enthusiast...will simply fall in love with it."

LUXURY IN SOUND

To begin to appreciate the high level of technology and performance available in the Distinction components, consider just two examples.

The gain control on the DL2 control center provides unmatched tracking accuracy and perfect resetability. Push-button digital control and display of gain, in 1/2 dB steps, are obtained from 128 precision resistors, switched by fast-acting hermetically sealed reed relays. Conventional pre-amp circuits control gain by attenuating the input, which throws away considerable S/N ratio. In the new and different DL2 circuits, reducing gain actually improves the S/N ratio, providing unusually quiet performance at low listening levels.

In the SA2 amplifier, Crown engineers have included protection systems invented at Crown, which combine absolute amplifier protection with optimum preservation of signal availability and quality, all at a realistic price. On-board computers monitor the output transistors, *adjusting* (not cancelling) the output to keep them operating. Thermal sensors prevent chassis overheating, and the Crown IOC distortion detection system alerts you to possible clipping.

Obviously these components are built for owners who seek the ulti-

mate in audio technology. They also satisfy the desire for luxury in sound, and provide a total listening experience. Their specs are impeccable, but your greatest immediate pleasure will be in hearing ALL of the music.

A SOUND INVESTMENT

Your long-range delight in the Distinction Series will be the realization that your investment is protected by Crown's innovative engineering. Crown products already have an enviable reputation for long life and higher resale values, and the new technology in the Distinction components simply enhances that value.

THINKING ABOUT TOMORROW

The Crown Information Package has over fifty pages of colorfully illustrated information about Crown Distinction products. It includes the complete text of the reviews quoted above, plus details of product design and operation, technical articles from Crown engineers, specifications, dealer names and much more. We think it's worth much more than four dollars, but if you don't agree, send it back; we'll refund your money. Send the coupon today. Begin your journey into tomorrow's greater sound.



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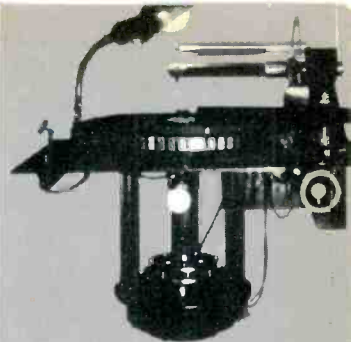
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LOUDSPEAKERS

MANUFACTURER	Model	Enclosure Type	Woofer Dia. - inches		Midrange Dia. - inches		Tweeter Type		Tweeter Dia. - inches		Level Control: W = Woofer, M = Midrange, T = Tweeter, S = Super Tweeter	Anechoic Freq. Response Hz to kHz, ± db	dB SPL/Watt/1 Meter	Recommended Min. Amp. Pwr. - Watts	Crossover Frequencies, Hz	Impedance Ohms: Nominal/Minimum	Dimensions, inches	Finish	Grille Material, Color	Weight, Lbs.	Price, \$
BURHOE ACOUSTICS (Continued)	Blue	Bass Ref.	10	1½	Dome	1	Dome	M, T	30-25 ±3	92	25	1k, 2k	8/4	24"x14"x10½	Wal.	Foam, Brn.	42				
	Royal Blue	Bass Ref.	10	2	Dome	(2) 1	Dome	M, T	27-25 ±3	93	25	650, 3k	8/4	30"x18"x11½	Wal.	Foam, Brn.	48				
	Infrared	Pas. Rad.	(2) 10							18-100 Hz ±3	90	35	100	6/3.5	29½"x17½"x14	Wal.		70			
B & W	DM11	Ac. Sus.	6			1	Dome		80-20 ±3	87	10		8.9/4.5	19"x10x10	Wal.	Cloth, Brn.	19.8	205.00			
	DM12	Ac. Sus.	6			1	Dome		65-20 ±2	85	15		8/6.4	14x8½x10½	Wal.	Cloth, Brn.	21	310.00			
	DM14	Ac. Sus.	(2) 6			1	Dome		80-20 ±2	86	15		8/6.4	22.5x10x11.5	Wal.	Cloth, Brn.	35	445.00			
	DM2/II	Vented Port	8	4	Cone	1	Dome		50-18 ±2	85	25		8/5	28x10x13	Wal.	Cloth, Brn.	48.5	545.00			
	DM7MKII	Pas. Rad.	6½	6½	Cone	1	Dome		80-20 ±2	86	40		8/6.5	36x11x15	Oil. Wal.	Cloth, Brn.	64	625.00			
	801	Ac. Sus.	10	4	Cone	1	Dome	M, T	45-20 ±2	85	50		8	37x17x22	Oil. Wal.	Cloth, Brn.	97	1465.00			
	802	Ac. Sus.	6½	4	Cone	1	Dome		55-20 ±2	85	50		8	41x17½x14½	Oil. Wal.	Cloth, Brn.	70	1145.00			
CAMBRIDGE PHYSICS	208	Vented	8			1	Dome	T	50-20 ±2	94	15	2k	5.5/4.6	11x18½x10½	Oil. Wal.	Knit, Blk.	25	144.00			
	210	Ac. Sus.	10			1½	Dome	T	38-20 ±1.5	86	35	950	11/8.5	14x24x12	Oil. Wal.	Knit, Blk.	38	209.00			
	310	Ac. Sus.	10	4½	Cone	1	Dome	M, T	30-20 ±1.5	84	50	520, 4k	8/6	15½"x26¾"x13	Oil. Wal.	Knit, Blk.	50	349.00			
CANNON-TLS	822	Ported	8			2	Cone	T	35-20 ±5	90	5	2k	8/5	21x12x10	Vin. Wal.	Cloth, Brn.	30	199.00			
	1032	Pas. Rad.	10	5½	Cone	2x5	Pz.	M, T	25-25 ±5	92	12	400, 3k	8/6	14x14½x25	Vin. Wal.	Cloth, Brn.	45	299.00			
	1232	Pas. Rad.	12	5½	Cone	2x5	Pz.	M, T	25-30 ±5	92	15	400, 3k	8/6	14x14½x25	Vin. Wal.	Cloth, Brn.	50	399.00			
	1232T	Pas. Rad.	12	5½	Cone	2x5	Pz.	M, T	20-30 ±5	90.5	18	400, 3k	8/6	14x14½x39	Vin. Wal.	Cloth, Brn.	65	499.00			
CANTON	GL-310		5½			1	Dome			87	15	1.7k		10.6x7.2x7.2	Wal.	Alum., Brn.	12	400.00 Pair			
	GLE-50	Ac. Sus.	8	1¼	Dome	¾	Dome			87	15	800, 2.2k		12.8x8.8x7.2	Wal.	Alum., Brn.	17	518.00 Pair			
	GLE-70	Ac. Sus.	10	1¼	Dome	¾	Dome			87	15	800, 2.2k		17.6x11.4x9.6	Wal.	Alum., Brn.	24	719.00 Pair			
CELESTION	Ditton 662	Pas. Rad.	12	2	Dome	1	Dome		38-20 ±3	85.5	20	700, 4.5k	8/6	41½x15½x11½	Opt.	Cloth, Beige	74.8	789.00			
	Ditton 551	Vented	10	2	Dome	1	Dome	M, T	38-20 ±3	85	20	600, 4.5k	8/6	28½x15½x13	Opt.	Cloth, Beige	55	525.00			
	Ditton 442	Ac. Sus.	12	6	Cone	1	Dome		45-20 ±3	85.5	20	600, 4.5k	8/6	30x15½x11½	Opt.	Cloth, Beige	52.8	475.00			
	Ditton 332	Ac. Sus.	10	6	Cone	1	Dome		50-20 ±3	85.5	20	600, 4.5k	8/6	25½x14x11½	Opt.	Cloth, Beige	37½	380.00			
	Ditton UL 6	Pas. Rad.	6			1	Dome		35-28	79	20	2.5k	8/4	11½x16x8½	Opt.	Cloth, Blk.	17½	250.00			
	Ditton 15XR	Pas. Rad.	8		Cone	1	Dome		30-15	83	10	2.5k	8/4	21x9½x9½	Opt.	Cloth, Blk.	11.7	199.00			
	Ditton 130	Ac. Sus.	8			1	Dome		60-20 ±3	87	10	3k	8	19x9¼x9½	Wal. Vin.	Cloth, Blk.	17.3	200.00			
	Ditton 150	Pas. Rad.	6			1	Dome		53-20 ±3	87	10	3k	8	21½x11x9½	Wal. Vin.	Cloth, Blk.	20	250.00			
	Ditton 200	Pas. Rad.	(2) 8			1	Dome		55-20 ±3	87	10	3k	8	23½x12½ x 10½	Oil. Wal.	Cloth, Blk.	25.3	300.00			
	CS 3	Ac. Sus.	8			1	Dome		62-20 ±3	86	10	2.5k	8/4	19½x9½ x 10½	Wal. Vin.	Cloth, Blk.	18	150.00			
	CS 5	Ac. Sus.	10	5	Cone	1	Dome		55-20 ±3	87	10	750, 5k	8/4	22½x13½ x 11	Wal. Vin.	Cloth, Blk.	30	250.00			
	CS 7	Ac. Sus.	12	5	Cone	1	Dome		45-20 ±3	87.5	10	800, 4k	8/4	30½x14¾x10½	Wal. Vin.	Cloth, Blk.	45	340.00			
CERWIN-VEGA	A-10	Ported	10				Dhorm	T	38-20 ±4	92	5	2k	8/4	13x11½x24	Oil. Wal.	Cloth, Blk.	38	189.00			
	A-123	Ported	12	6	Cone		Dhorm	M, T	38-20 ±4	97	5	500, 5k	8/4	14½x11½x25	Oil. Wal.	Cloth, Blk.	50	310.00			
	S-1	Ported	12	6½	Cone		Dhorm	M, T	28-20 ±4	98	5	300, 4k	8/4	14½x14x25	Oil. Wal.	Cloth, Brn.	55	435.00			
	313	Ported	12	6	Cone		Horn	M, T	30-17 ±4	100	5	700, 3.5k	8/4	15½x15½x30	Oil. Wal.	Cloth, Brn.	63	330.00			
	316R	Ported	15	6½	Cone	(2)	Horn	M, T	30-17 ±4	103	5	500, 3.5k	8/4	18½x17½x34	Oil. Wal.	Cloth, Brn.	82	499.00			
	12TR	Ported	12	6½	Cone	(2)	Horn	M, T	28-20 ±4	102	5	250, 4k	8/4	13½x13½x40	Oil. Wal.	Cloth, Brn.	76	470.00			
	Metron SUFT-FET2	Vented	8, 15	1.5	SUFT FET	1.5	SUFT FET	M, T	20-25 ±2	90	100	80, 200	8/4	72Hx32Wx20D	Wal. Rose.	Brn.	4000.00 Pair				
	SR-2	Vented	18	12	Cone	1	Horn	M, T	28-18 ±2	125	Bl-amp. 10	150, 2.5k	8/4	52x25x20	Wal.		3400.00 Pair				
	15SW Subwoofer	Ported	15						30-250Hz	100	10	250	8/4		Wal.		407.00				
	HED U-6	Ported	6				Dhorm	T	60-20 ±4	90	5	3k	8/4	10x8x14	Bir. Vin.	Cloth, Blk.	12	65.00			

(Continued)

**•1939...FIRST DIRECT-DRIVE TURNTABLE SYSTEM.
1951...FIRST MOVING-COIL CARTRIDGE.
1972...FIRST DIGITAL (PCM) RECORDING.**



In 1939, while many turntable manufacturers were trying to make the transition from horn phono-graphs to electrical record players, Denon developed its first direct-drive turntable. (shown above). Denon engineers discovered that only a direct connection between motor and platter — free of the pulleys or belts found in more primitive drive mechanisms — could completely eliminate speed fluctuations that obscure musical detail.

Today, many turntable makers have discovered the virtues of direct-drive. It is now the accepted means of approaching state-of-the-art performance. But only one company has had 40 years to refine the direct-drive principle. It is the same company that 29 years ago developed another technology now in widespread use: the Moving-Coil Cartridge. It is the same company that changed the entire process of recording music by inventing digital (PCM) recording.

The company is Denon.



•1980...DENON'S DP 60-L DIRECT-DRIVE TURNTABLE.

The latest stage in Denon's refinement of direct-drive is the DP-60L Semi-Automatic Turntable. It uses a unique AC Servomotor with a quartz "clock" speed-reference to achieve exceptional torque and speed accuracy, while eliminating the corrective speed surges that degrade the performance of other direct-drive turntables. The DP-60L is supplied with two plug-in tonearm wands — one straight and one S-shaped — to assure a precise match-up with the characteristics of any phono cartridge.

The result? Musically cleaner sound, free of sonic smearing.

The Denon turntables for 1980: Six musical instruments from the company where innovation is a tradition.

DENON
*Imagine
what we'll
do next.*

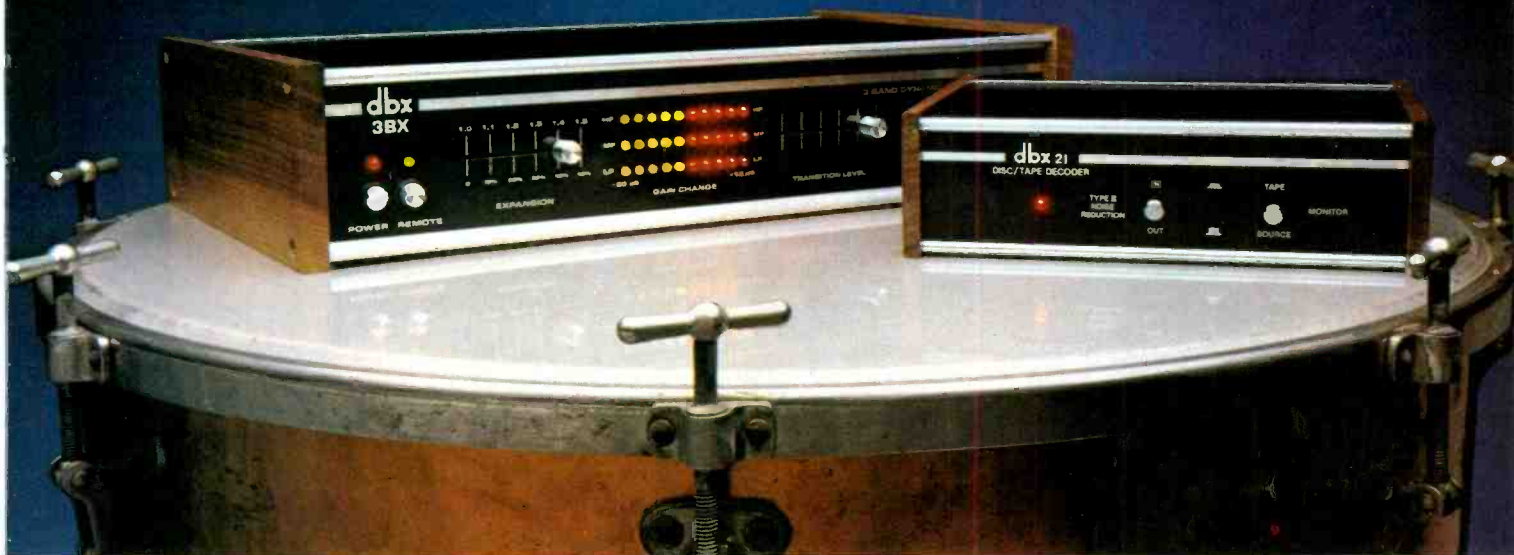
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LOUDSPEAKERS

MANUFACTURER	Model	Enclosure Type	Woofer Dia., inches			Midrange Dia., inches			Tweeter Dia., inches			Level Control W = Woofer, M = Midrange, T = Tweeter; ST = Super Tweeter			Anechoic Freq. Response Hz to Hz, ± dB			Recommended Min. Amp. Pwr., Watts	Crossover Frequencies, Hz			Impedance, Ohms, Nominal/Minimum		Dimensions, inches	Finish	Grille Material, Color	Weight, Lbs.	Price \$
CERWIN-VEGA (Continued)	HED U-10	Ported	10					Horn	T	42-20 ±4	94	5	2k	8/4	13½x11x24¼	Bir. Vin.	Cloth, Bik.	36	170.00									
	HED U-12	Ported	12					Horn	T	45-17 ±4	96	5	2k	8/4	15½x11x25	Bir. Vin.	Cloth, Bik.	37	195.00									
	HED U-123	Ported	12	5				Horn	M,T	45-17 ±4	96	5	700, 4k	8/4	12½x14½x25	Bir. Vin.	Cloth, Bik.	52	215.00									
	HED U-321	Ported	12	6	Cone			Horn	M,T	38-17 ±4	98	5	700,4k	8/4	15½x15x26½	Bir. Vin.	Cloth, Bik.	56	265.00									
	HED U-351	Ported	15	6	Cone			Horn	M,T	32-17 ±4	103	5	700,4k	8/4	19x17½x32	Bir. Vin.	Cloth, Bik.	105	375.00									
	HED UT-12R SW-12 Subwoofer	Ported/ Sealed (Opt.)	12	(2) 6	Cones			Horn	M,T	32-17 ±4 39-150 Hz, ±4	98	5	700,4k	8/4	15½x15x39½	Bir. Vin.	Cloth, Bik.	75	390.00									
CHAPMAN SOUND	250	Air Sus.	5		Cone	1	Dome	T	70-20	86	20	4k	8	13x8x6½	Wal.	Cloth, Bik.	14	490.00 Pair										
	255	Air Sus.	(2) 5		Cone	(2) 1	Dome	T	60-20	88	20	4k	4	22½x8½x7	Wal.	Cloth, Bik.	14	690.00 Pair										
	310	Air Sus.	10	5	Cone	1	Dome	T	35-20	88	20	250, 4k	4	21½x14x11	Wal.	Cloth, Bik.	45	750.00 Pair										
	SCJI	Air Sus.	12	5	Cone	1	Dome	T	30-20	89	20	125, 4k	4	28x18x13	Wal.	Cloth, Bik.	65	900.00 Pair										
CHARTWELL	PM410	Bass Ref.	12	5½	Cone	1¼	Dome	No	40-20 ±3	92	10	300, 2.4k	8	15½x13x34	Opt.	Foam Bik.	66	1,650.00 Pair										
	PM210	Bass Ref.	8			1	Dome	No	50-20 ±3	89	10	2.8k	8	13½x11½x26	Opt.	Foam Bik.	33	920.00 Pair										
	PM110	Bass Ref.	6½			1	Dome	No	65-20 ±3	86	10	2.5k	8	9x8½x18½	Opt.	Foam Bik.	16½	599.00 Pair										
	LS 3/5a	Ac. Sus.	5			1	Dome	No	70-20 ±3	50	2.5k	15	7½x6½x12	Opt.	Cloth Bik.	11½	599.00 Pair											
	PM450	Bass Ref.	12			1¼	Dome	No	40-20 ±3	94	50	2k	8	17½x15½x30	Opt.	Cloth Bik.	70½	2,400.00 Pair										
CIZEK	1	Ac. Sus.	10			1	Dome	T	35-17 ±1½	88	15	1.5k	4 or 8	25x15½x9½	Oil, Wal.	Foam, Brn.	48	458.00 Pair										
	2	Ac. Sus.	8			1	Dome	T	38-17 ±2	88	15	1.5k	4 or 8	21x13x9	Opt.	Foam, Brn.	38	378.00 Pair										
	3	Ac. Sus.	8			1	Dome	T	48-17 ±2	88	15	1.5k	4 or 8	19x11½x7½	Hick, Vin.	Foam, Brn.	25	230.00 Pair										
	MG-27	Ac. Sus.	(2) 10						27-200 Hz ±3	85	25	200	4	29x17½x12½	Oil, Wal.	Foam, Brn.	86	630.00 Pair										
	SW-1 Sound Window	Ac. Sus.	6½			1½	Cone		100-17 ±3	88	15	2k	4	12x12x3	Wal, Oak	Foam, Brn.	16	159.00 Pr.										
	KA-1	Ac. Sus.	6½			1	Dome		70-20 ±3	87½	20	1.5k	4	13x9x9	Koa	Foam, Brn.	19	590.00 Pair										
CLARKE SYSTEMS	Tempo	Tuned Port	8			1½	Ring		50-17 ±4	89	10	5k	8/6	18x10x9½	Chest.	Cloth, Brn.	24	109.00										
	Prelude	Tuned Port	8			1½	Ring		40-17 ±4	89	10	5k	8/6	22x12x11½	Chest.	Cloth	30	128.00										
	Encore	Tuned Port	8			1	Dome		40-19 ±3	89	15	2.5k	8/6	22x12x11½	Rose.	Cloth, Bik.	33	185.00										
	L-1	Trans. Line	6½			1	Dome		45-19 ±3	86	30	2.5k	8/6	17x9x10	Rose.	Cloth, Bik.	30	219.00										
	LM	Trans. Line	4			1x3	Leaf	T	85-35 ±3	89	10	3.5k	6/4	13x6x6½	Rose.	Cloth, Bik.	13	189.00										
	Premiere	Inf. Baf.	10	5	Cone	1	Dome		35-19 ±4	89	25	800, 4k	8/5	26x13x11½	Chest.	Cloth, Brn.	40	229.00										
	Precedent	Inf. Baf.	12	5	Cone	1	Dome		30-19 ±3	89	25	600, 4k	8/6	31x15x13½	Chest.	Cloth, Brn.	60	319.00										
DAHLQUIST	DQ-10	Air Sus.	10	5, 1¼	Cone, Dome	¾	Dome	T	38-27	60		400, 1k, 6k, 12.5k	8/6, 9	30½x31½x9	Opt.	Opt.	60	1000.00 Pair										
	DQM-7	Bass Ref.	9	4	Cone	1	Dome		35-22	25		550, 4k	8/6	13½x25x11½	Oak, White Lq.	Brn.	55	800.00 Pair										
	DQM-9	Bass Ref.	11	5	Cone	1	Dome		30-22	25		450, 3.5k	8/6	14½x25x13	Oak, White Lq.	Brn.	67	1200.00 Pair										
	DQ-1W Subwoofer	Air Sus.	13						20-120Hz	60			8	18½x26x14	Opt.	Opt.	70	350.00										
DCM	Time Window	Hybrid								10			8/6	14½x11½x36	Wal.	Foam, Bik.	35	660.00 Pair										
	Window QED	Trans. Line								10			12/8	11½x9½x36	Wal.	Foam, Bik.	39	480.00 Pair										
	Time Base Woofer Syst.	Hybrid Trans. Line									40-70		6/4	30x18x18	Wal.	Foam, Bik.	45	770.00 Pair										
DECCA	Super Tweeter						Rib- bon		7k-30k	10		7k	8	4x4x5½	Alum.	Bik.	8	249.50										
	London Ribbon						Horn/ Rib- bon		1k-25k	10		Inc. Needs 1k	8		Bik.		8	199.50										

THE ONLY OTHER WAY TO GET THIS KIND OF DYNAMIC RANGE IS TO HIRE YOUR OWN ORCHESTRA.



At a live performance, you normally experience about 90 decibels of dynamic range.



In other words, the difference in volume between the loudest and quietest passages is about 90dB.

But that's not what you get from your stereo.

Conventional records and tapes compress dynamic range. dbx components help restore it to the level of a live performance.

Because of conventional recording processes, your records are limited to just 50dB of dynamic range, or 60dB at the very best. Tapes and broadcast can be as limited as 40dB.

Now dbx technology solves that problem. Dramatically. In two different ways.

1. The 3BX. For conventional program sources.

The 3BX Dynamic Range Expander can restore the dynamic range of every conventional record and tape you own. FM broadcasts, too.

For example, the 3BX can deliver up to 75dB from conventional records—better than the so-called audiophile discs, including direct-to-disc and digitally mastered recordings. And the 3BX also reduces the ticks, pops and record surface noise that interfere with quiet musical passages.

2. The dbx Model 21. For dbx encoded discs.

For the ultimate in dynamic range, you can add the dbx Model 21 Disc Decoder to your present system, and play the revolutionary new dbx Discs and Digital dbx Discs.

These specially encoded discs are the world's first records to deliver the full dynamic range of live music. Up to 90dB or more. Plus they virtually eliminate record surface noise. So for the first time you can experience the dynamic range of a live performance, heard against a background of virtual silence.

And you can choose from a growing library of dbx Discs, including everything from the London Symphony and the Boston Pops, to Neil Diamond and The Who.

Hear it today.

To really appreciate what dbx technology can do for the dynamic range of your music, you have to hear it for yourself.

Visit an authorized dbx retailer near you for a demonstration, and take home the ultimate in dynamic range.

It's a lot easier than hiring your own orchestra.

dbx, Incorporated, 71 Chapel Street, Newton, MA 02195. 617-964-3210.

Free dbx 21 offer.

During the dbx "Best of Both Worlds" promotion, from Sept. 2 until Nov. 30, 1980, you can get a free dbx Model 21 with the purchase of a 3BX Dynamic Range Expander through participating U.S. dbx authorized retailers in continental U.S., Hawaii and Alaska. Also check out the latest releases from the growing DBX DISC CATALOGUE.

Offer void where prohibited by law.

dbx[®]

MAKING GOOD SOUND BETTER

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LOUDSPEAKERS

MANUFACTURER	Model	Enclosure Type	Woofer Dia., Inches	Midrange Dia., Inches	Midrange Type	Tweeter Dia., Inches	Tweeter Type	Level Control: W=Woof, M=Midrange, T=Tweeter; ST=Super Tweeter	Anechoic Freq. Response Hz to kHz, ±dB	Recommended Min. Amp. Pwr., Watts	Crossover Frequencies, Hz	Impedance, Ohms, Nominal/Minimum	Dimensions, Inches	Finish	Grille Material, Color	Weight, Lbs.	Price, \$	
																		Model
DENNESEN	ESL 110	Hybrid ES	5		(3) 2 1/4	ES			50-35	89	15	2.8k	8/4	18x7 1/2x8	Wal.	Foam, Blk.	14	300.00
	SWI Subwoofer	Trans. Line	10						20-120 Hz	89	25	120	8/4	28x12x9	Wal.	Foam, Blk.	50	350.00
DESIGN ACOUSTICS	D-12A	Ac. Sus./ Vented	(2) 8	1 1/2, (2) 5	Dome, Cones	(2) 1, (3) 1 1/2	Dome T		30-18 ±2	89	25	650, 2k	4/3	22 Dia.x26	Oil. Wal.	Cloth, Blk.	70	750.00
	D-8	Ac. Sus./ Pas. Rad.	(2) 10	5	Cones	(4) 2	Dome T		30-17 ±2	94.5	15	600, 1.5k	8/3	44x16 1/2x12 1/2	Oil. Wal.	Cloth, Blk.	70	590.00
	D-6	Ac. Sus./ Vented	10	5	Cones	(5) 2	Dome T		30-15 ±2	92	20	800, 2k	8/5	24 1/2x16 1/2 x13 1/2	Oil. Wal.	Cloth, Blk.	50	390.00
	D-4A	Ac. Sus./ Vented	(2) 8	5	Cone	1, (2) 1 1/2	Dome T		35-18 ±3	92	20	700, 2k	4/3	38x11x16 1/2	Oil. Wal.	Cloth, Blk.	55	345.00
	D-3	Ac. Sus./ Vented	10	5	Cone	1	Dome		40-20 ±3.5	88	30	500, 2.5k	6/6	25 1/2x14 1/2x12	Oil. Wal.	Cloth, Blk.	40	240.00
	D-2	Ac. Sus./ Vented	10			1	Dome		40-18 ±3.5	88	20	1.5k	8/6	34x12 1/2x24 1/4	Oil. Wal.	Brn. Cloth & Foam, Blk.	35	220.00
	D-1W	Ac. Sus./ Vented	8			1 1/2	Cone		50-15 ±3.5	87.5	15	1.5k	6/6	21 1/2x12x8	Oil. Wal.	Cloth, Blk.	19	135.00
	D-1A	Ac. Sus./ Vented	8			1 1/2	Cone		50-15 ±3.5	87.5	15	1.5k	6/6	20 1/2x11x8	Oil. Alum.	Cloth, Blk.	12	125.00
	LDM	Ac. Sus.	5			1	Dome	W, T	80-16 ±1.5	85	15	2.5k	4/3	11 1/2x7 1/2x5 1/2	Oil. Wal.	Cloth, Blk.	9	175.00
DIMENSION	MK-IV	Ac. Sus.	4			1	Dome		95-20 ±3	92	10	2.5k	4/	7 1/2x4 1/2x4 1/2	Wal. Vin.	Plas., Blk.	4 1/2	49.95 w/ brackets
	MK-I	Ac. Sus.	4 1/2			2 1/2	Cone		89-20 ±3	92	10	2.5k	4/	7 1/2x5 1/2x4 1/2	Wal. Blk.	Cloth, Blk.	4	87.00
	MK-IB	Ac. Sus.	4 1/2			2 1/2	Cone		89-20 ±3	92	10	2.5k	4/	7 1/2x5 1/2x4 1/2	Wal. Blk.	Cloth, Blk.	4 1/2	99.00 w/ brackets
	MK-II	Ac. Sus.	4 1/2			1	Dome		89-22 ±3	92	10	2.5k	4/	7 1/2x5 1/2x4 1/2	Wal. Blk.	Cloth, Blk.	4	110.00
	MK-IIB	Ac. Sus.	4 1/2			1	Dome		89-22 ±3	92	10	2.5k	4/	7 1/2x5 1/2x4 1/2	Wal. Blk.	Cloth, Blk.	4 1/2	125.00 w/ brackets
	MK-VI	Ac. Sus.	6			1	Dome		69-20 ±3	94	10	2.5k	4/	10 1/2x7 1/2x5 1/2	Wal. Blk.	Cloth, Blk.	12	149.00
	MK-VIB	Ac. Sus.	6			1	Dome		69-20 ±3	94	10	2.5k	4/	10 1/2x7 1/2x5 1/2	Wal. Blk.	Cloth, Blk.	12 1/2	169.00 w/ brackets
	MK-VIII	Ac. Sus.	8	4 1/2	Cone	1	Dome		57-20 ±3	94	10	1.5k, 4k	4/	14 1/2x10x6 1/2	Wal. Blk.	Cloth, Blk.	17	199.00
	MK-XIV Subwoofer	Ac. Sus.	12						33-100 Hz ±3		15	100	8/	22 1/2x16x12	Wal. Vin.	Cloth, Blk.	44	249.00
MK-XII Subwoofer	Ac. Sus.	12					W	30-100 Hz ±3	92	25	100	8/	24x16x12	Wal. Ven.	Cloth, Blk.	50	445.00	
PR-8	Ac. Sus.	8			3	Cone		65-20 ±3	94	10	2.5k	8/	22x13 1/2x9	Wal. Vin.	Cloth, Blk.	20	79.95	
DYNACO	A-100	Pas. Rad.	6			1	Dome		55-20 ±3	87	15	2k	8		Oil. Wal.	Cloth, Brn.		358.00 Pair
	A-150	Ac. Sus.	10			1	Dome T		50-20 ±3	89	15		8		Wal. Vin.	Cloth, Brn.		330.00 Pair
	A-250	Ac. Sus.	10	3	Cone	1	Dome M, T		50-20 ±3	89	15		8		Oil. Wal.	Cloth, Brn.		530.00 Pair
	A-350	Ac. Sus.	10	3	Cone	3/4	Dome M, T		35-25 ±3	89	15		8		Oil. Wal.	Cloth, Brn.		798.00 Pair
EGO SYSTEMS	SE-8	Tuned Port	8			3 1/2, 2 1/2	Horn, T		40-20	95	10	2k, 4-8k	4	20 1/2x12x9 1/2	Vin.	Cloth, Blk.	22	155.00
	SE-10	Tuned Port	10	4 1/2	Cone	1	Dome T		32-23	96	10	700, 5-8k	4	23 1/2x14x11 1/2	Vin.	Cloth, Blk.	36	260.00
	SE-12 Super Ego	Tuned Port Pas. Rad.	12	5	Cone	1	Dome M, T		30-23	97	10	700, 4.5k	4	26 1/2x15 1/2x15 1/2	Vin.	Cloth, Blk.	52	325.00
								26-23	97	10	600, 5-8k	4	32 1/2x18 1/2x11 1/2	Oil. Wal.	Cloth, Blk.	60	475.00	
ELECTRO-VOICE	Interface: D Series II	Vented	12	6 1/2	Cone		Horn T		28-18 ±2.5	97	1.5	40, 350, 3k	8/5	21 1/2x15 1/2x32	Wal. Ven.	Cloth, Brn.	114	927.25; EQ, 95.50.
	Interface: C Series II	Vented	10	6 1/2	Cone	1 1/2	Dome T		30-18 ±2.5	93	2.8	42, 400, 2.5k	6/4	20x12 1/2x31 1/2	Wal. Ven.	Cloth, Brn.	60	494.95 plus EQ as above.
	Interface: B Series III	Vented	12	8	Cone	1 1/2	Dome T		30-18 ±2.5	92	3.6	42, 1.5k	8/5	16x11x29 1/4	Wal. Ven.	Cloth, Brn.	42	349.95 plus EQ as above.
	Interface: A Series III	Vented	12	8	Cone	1 1/2	Dome T		35-18 ±2.5	92	3.6	49, 1.5k	8/5	15 1/2x8 1/2x24 1/2	Wal. Ven.	Cloth, Brn.	30	274.95 plus EQ as above.
	Interface: 3 Series II	Vented	12	8	Cone	1 1/2	Dome T		40-18 ±3	92	3.6	57, 1.5k	8/5	14 1/2x13 1/2x25 1/4	Wal. Ven.	Cloth, Brn.	33	239.95
	Interface: 2 Series II	Vented	10	8	Cone	1 1/2	Dome T		47-18 ±3	92	3.6	66, 1.5k	8/5	13 1/2x10 1/2x24 1/4	Wal. Ven.	Cloth, Brn.	25	189.95
Interface: 1 Series II	Vented	8			1 1/2	Dome T		56-18 ±3	92	3.6	76, 1.5k	8/5	11 1/2x9 1/2x21 1/4	Wal. Ven.	Cloth, Brn.	23	139.95	
ENERGY LOUDSPEAKER	One	Pas. Rad.	6 1/2			1.1			42-22.5 ±3	91.5	10	2.4k	8	22 1/2x12 1/2x9	Wal.	Brn.	32	159.50
	Two	Pas. Rad.	8			1.1			38-22.5 ±3	92.5	15	2.2k	8	26x13x11 1/2	Wal.	Brn.	40	269.50
	Three	Pas. Rad.	10			1.1			32-22.5 ±3	93.5	18	2k	8	33 1/2x14 1/2x13 1/2	Wal.	Brn.	65	339.50
	Four	Pas. Rad.	12	5		1.1			26-22.5 ±3	94.5	20	300, 3.5k	8	43x15x15	Wal.	Brn.	100	474.50

Here's how to make a standard \$5 tape outperform a \$10 metal tape.



The hk400XM with frequency response from 15-20kHz \pm 3dB.



Record a standard \$5 tape on one of the new Harman Kardon High Technology cassette decks with Dolby HX*. And a \$10 metal tape on a conventional deck. Any conventional deck.

Now compare.

The Harman Kardon deck with Dolby HX will give you substantially better performance from the standard tape. More dynamic headroom. And better signal-to-noise ratio.

Yet the recording made on our Harman Kardon High Technology deck costs about half as much. Which can save you a small fortune if you plan a tape library of any size.

Of course our new High Technology decks are metal capable, too. So you can use Dolby HX and metal tape for performance that can't be topped by anything less than a professional quality open reel deck.

But Dolby HX is only part of the performance story.

Our heads cost more.

And they deliver more.

The heads used in a cassette deck probably dictate the performance you'll get more than any other single component. That's why at Harman Kardon, we spent a lot more

time and money on our head designs and materials. We started with Super Sendust Alloy, the costliest and most advanced

material available. In manufacturing, we machine our head gaps to incredibly precise tolerances, and align them with equal care. Obviously, this process takes more time and costs more money. But it results in frequency response unheard of in a single speed cassette deck at any price.

Even our most economical deck, for instance, gives you ruler-flat frequency response from 15 Hz to an incredible 19,000 Hz from a conventional tape. You also get features like Dolby NR, a front panel bias fine trim, MPX filter and memory.

As you move on up the line, the specs just get better. And so do the features. Like the world's first headroom safety indicator to prevent tape saturation far more accurately than any peak level indicators. You'll also find built-in Dolby and bias test tones. Normal and slow meter ballistics. A fader control. Plus our exclusive Auto Program Search System that scans a tape automatically, sampling the beginning of each cut until you've located the one you want.

Yet the new Harman Kardon High

Technology cassette decks do share one thing in common with the conventional decks.

A conventional price tag.

So before you settle for a deck that will set you back \$10 or more every time you want a quality recording, audition the new Harman Kardon Decks with Dolby HX.

You'll get performance that beats metal. At about half the price.

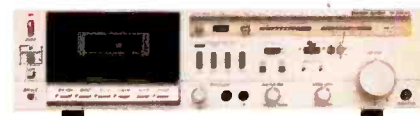
*Dolby and the double-D symbol are trademarks of Dolby Laboratories. Dolby HX is a standard feature on all Harman Kardon High Technology decks except the 100M.



The hk100M with frequency response from 15-19kHz \pm 3dB.



The hk200XM with frequency response from 15-19kHz \pm 3dB.



The hk300XM with frequency response from 15-20kHz \pm 3dB.

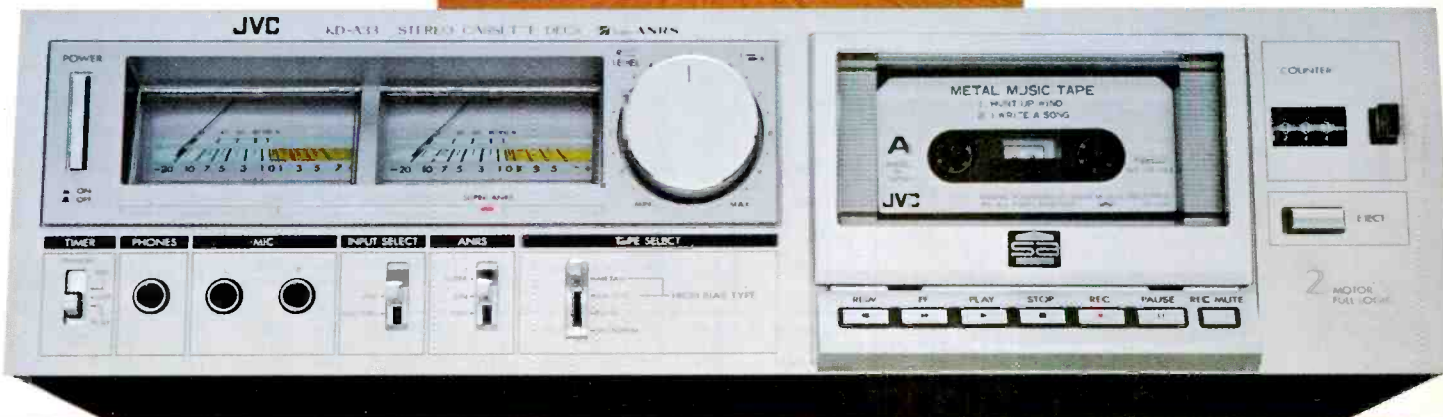
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Toll free: 1-800-528-6050 ext. 870

LOUDSPEAKERS

MANUFACTURER	Model	Enclosure Type	Woofer Dia., Inches		Midrange Dia., Inches		Tweeter Dia., Inches		Level Controls: W= Woofer, M= Midrange, T= Tweeter, S= Super-tweeter		Anechoic Freq. Response Hz to kHz, ± db	8B SPL/Watt/Meter	Recommended Min. Amp. Pwr. Watts	Crossover Frequencies, Hz		Finish	Grille Material, Color	Weight, Lbs.	Price, \$
									Nominal	Minimum									
EPI	70C	Ac. Sus.	6						58-20 ±3	86.5	10	1.8k	8/5	16x16½x7¼	Vin.	Cloth, Blk.	17½	85.00	
	100V	Ac. Sus.	8					48-20 ±3	87	12	1.8k	8/5	21x11x9	Vin.	Cloth, Blk.	25	120.00		
	120C	Ac. Sus.	10				T	38-20 ±3	88	25	1.8k	8/4	25x15x11	Vin.	Cloth, Blk.	42	175.00		
	140C	Pas. Rad.	6				T	38-20 ±3	84	25	1.8k	8/5	24x13¼x9	Oil. Wal.	Cloth, Blk.	40	210.00		
	200C	Pas. Rad.	8				T	38-20 ±3	89	15	1.8k	8/4	32½x17x11	Oil. Wal.	Cloth, Blk.	60	300.00		
	500	Pas. Rad.	10	4	Cone	1			45-20 ±3	89	15	1.8k	4/4	36x12x14	Oil. Wal.	Cloth, Blk.	62	440.00	
EPICURE	1.0	Ac. Sus.	6				Dome	50-20 ±3	87	25	1.8k	6/5	14½x10¼x8	Oil. Wal.	Cloth, Blk.	18	175.00		
	2.0	Pas. Rad.	6				Dome T	38-20 ±3	87	30	1.8k	6/5	34x10¼x12½	Oil. Wal.	Cloth, Blk.	41	300.00		
	3.0 Series II	Ac. Sus.	10	6	Cone	1	Dome T	32-20 ±3	88	30	475, 2k	6/4	41¼x16½x16½	Oil. Wal.	Foam, Blk.	62	475.00		
ESS	AMT Monitor	Pas. Rad.	12				Heil M	30-23	91	15	800	6/	39¼x15¼x16	Oil. Wal.	Cloth, Brn.	113	696.00		
	AMT IC	Pas. Rad.	12				Heil M	35-23	91	15	800	6/	35¼x16¼x16¼	Oil. Wal.	Cloth, Brn.	85	574.00		
	AMT Bookshelf	Pas. Rad.	12				Heil M	40-23	91	15	800	6/	24x14x14	Oil. Wal.	Cloth, Brn.	65	488.00		
	AMT 10C	Tuned Port	10				Heil M	40-22	91	15	1.2k	6	24x14x14	Oil. Wal.	Cloth, Brn.	55			
	Classic Pyramid	Tuned Port	10				Heil M, T	38-24	93	15	1k	6/	26¼x15½x15½	Oil. Wal.	Cloth, Brn.	61	496.00		
	Classic Pedestal	Tuned Port	(2) 8				Heil T	42-23	93	15	1.5k	6	31¼x13¼x13	Oil. Wal.	Cloth, Brn.	56	429.00		
	Classic Bookshelf	Tuned Port	10				Heil T	50-23	93	15	1.5k	6	25x15x13½	Oil. Wal.	Cloth, Brn.	50	358.00		
	PS-4A	Pas. Rad.	10				Heil T	35-24	93	15	2k	6/	35x12x12	Oil. Wal.	Cloth, Brn.	48	397.00		
	PS-5A	Pas. Rad.	10				Heil T	40-22	93	15	2.4k	6/	24x14x14	Oil. Wal.	Cloth, Brn.	36	278.00		
	PS-8A	Pas. Rad.	8				Heil T	50-22	93	15	2.4k	6/	22x10¼x10½	Vin. Wal.	Cloth, Brn.	30	211.00		
	PS-9A	Ac. Sus.	8				Heil T	55-22	92	15	2.4k	6/	19¼x11x9	Vin. Wal.	Cloth, Brn.	23	178.00		
	Targa 412T	Pas. Rad.	12	3½	Cone	1	Dome M, T	30-20	91.5	20	800	8	41¼x14¼x13	Bir. Vin.	Cloth, Brn.	69	399.00		
	Targa 312	Pas. Rad.	12	3½	Cone	1	Dome M, T	40-20	91	20	1k	8	25x14¼x13	Bir. Vin.	Cloth, Brn.	47	299.00		
	Targa 310	Pas. Rad.	10	3½	Cone	1	Dome M, T	45-20	90.5	20	1k	8	25x14¼x13	Bir. Vin.	Cloth, Brn.	45	249.00		
	Targa 210	Pas. Rad.	10				Dome T	50-20	91	15	1.5k	8	22x12¼x13	Bir. Vin.	Cloth, Brn.	36	199.00		
	Targa 206	Tuned Port	8				Cone T	50-20	90	10	200	8	21x11¼x10	Bir. Vin.	Cloth, Brn.	25	139.00		
	Eclipse M102	Pas. Rad.	10				Heil M, T	40-22	90	30	1.7k	6	40x14¼x14¼	Oil. Wal.	Cloth, Brn.	80	496.00		
	Eclipse B122	Pas. Rad.	12				Heil T	45-22	91	30	1.5k	6	25¼x15¼x15	Birch Vin.	Cloth, Brn.	51	346.00		
Eclipse B102	Pas. Rad.	10				Heil T	50-22	90	30	1.7k	6	22¼x14¼x14¼	Birch Vin.	Cloth, Brn.	47	279.00			
10	Vent'd Port	10				Dome	35-24	90	15	2.5k	4	22x12¼x13	Bir. Vin.	Cloth, Brn.	32	150.00			
ETR	280	Ported Ref.	8				Cone No	55-22 ±4	92	10	4.5k	8	20x11¼x9½	Bir. Vin.	Cloth, Blk.	21	99.00		
	310	Ported Ref.	10				Cone No	52-22 ±4	92.5	10	1.5k, 7k	8	23x12½x10½	Bir. Vin.	Cloth, Blk.	29	135.00		
	410	Pas. Rad.	10	5	Cone	3	Cone T	50-22 ±4	93	12	1.5k, 7k	8	23x12½x10½	Bir. Vin.	Cloth, Blk.	33	175.00		
	412	Pas. Rad.	12	5	Cone	3	Cone T	45-22 ±4	94	15	1.5k, 7k	8	26x14½x11¼	Bir. Vin.	Cloth, Blk.	40	219.00		
	Tower 10	Pas. Rad.	10	5	Cone	3	Cone T	38-22 ±4	96	20	1.5k, 7k	8	37¼x12½x11¼	Bir. Vin.	Cloth, Blk.	54	299.00		
	Tower 12	Pas. Rad.	12	5	Cone	3	Cone T	36-22 ±4	96	20	1.5k, 7k	8	42x14x11¼	Bir. Vin.	Cloth, Blk.	66	349.00		
	88	Ac. Sus.	5				Cone T	100-20 ±4	96	10	5k	4	10x6x5	Vinyl Opt.	Acous. Lens	16 Pr.	149.00 Pair		
FISHER	ST420	Pas. Rad.	8				Cone	50-16 ±3	90	3½	5k	8	21¼x13¼x9¼	Wal.	Cloth, Brn.	19	149.95		
	ST430	Pas. Rad.	10	5	Cone	3	Cone	50-17 ±3	90	6½	1k, 5k	8	25¼x16x12¼	Wal.	Cloth, Brn.	34	219.95		
	ST440	Bass Ref.	12	5	Cone	3	Dome M	45-18 ±3	90	12	1k, 5k	8	25¼x16x12¼	Wal.	Cloth, Brn.	259.95			
	ST450	Bass Ref.	12	(2) 5	Cones	3	Dome M, T	45-20 ±3	91	20	1k, 5k	8	27¼x17x13¼	Wal.	Cloth, Brn.	44	329.95		
	ST460	Bass Ref.	15	(2) 5	Cones	3	Dome M, T	40-20 ±3	92	25	1k, 5k	8	29¼x18¼x14¼	Wal.	Cloth, Brn.	56	389.95		

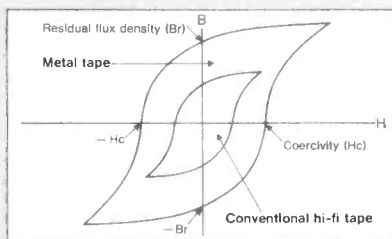
Now more people can afford JVC cassette deck technology.



Metal-compatible **KD-A33** cassette deck

If you've found that an affordable price usually means a sacrifice of performance, take heart. The JVC KD-A33 metal-compatible cassette deck includes much of the technology found in our most expensive decks. Yet it happens to be one of our least expensive decks.

For example, it uses Sen-Alloy® heads. These JVC-developed heads handle tremendously high currents



Hysteresis curves: metal vs. conventional tape

with ease, so they're especially well suited for recording and erasing metal tape. And SA's superb electromagnetic and physical properties give you accurate frequency balance, superb extension and low distortion through years of use.

When you use metal tape with the KD-A33, you'll get all the performance you expect from metal. But when your budget dictates using a less expensive ferric-oxide tape, you can still get metal-like sound thanks to another JVC development—Super ANRS™.

In recording, Super ANRS™ reduces the level of high-frequency signals so the tape can handle them without saturating. In playback, it boosts them back to their original level. As a result, sounds like cymbal crashes,

trumpet blasts, and spoken sibilants (normally the downfall of cassette recording) are reproduced with astonishing clarity and fidelity to the original.

And like our most expensive decks, the KD-A33 has logic-governed solenoid transport controls. You can switch directly between modes, even from "rewind" to "fast forward," with just a light touch of a switch. The KD-A33 also has provisions for adding a timer device and optional remote control.

Compare the KD-A33 with decks you want but can't afford. Then dial 800-221-7502 for the location of your nearest JVC dealer (in N.Y. State 212-476-8300). You'll find that high-quality cassette performance is more affordable than you thought it was.



JVC®

US JVC CORP.

58-75 Queens Midtown Expressway, Maspeth, N.Y. 11378, 212-476-8300.

Enter No. 27 on Reader Service Card

LOUDSPEAKERS

MANUFACTURER	Model	Enclosure Type	Woofer Dia., Inches		Midrange Dia., Inches		Tweeter Dia., Inches		Tweeter Type		Level Controls: W=Woofers; M=Midrange; T=Tweeter; ST=Super-tweeter		Anechoic Free Response Hz to kHz, ± dB		dB SPL / Watt, Meter		Recommended Min. Amp. Pwr., Watts		Crossover Frequencies, Hz		Impedance Ohms Nominal/Minimum		Dimensions, Inches	Finish	Grille Material, Color	Weight, Lbs.	Price, \$
			Woofer	Midrange	Woofer	Midrange	Tweeter	Midrange	Woofer	Midrange	Woofer	Midrange	Woofer	Midrange	Woofer	Midrange	Woofer	Midrange	Woofer	Midrange	Woofer	Midrange					
FISHER (Continued)	XP95B	Bass Ref.	15	(2) 3	Cones	1½	Cone	M, T	40-20 ±3	92	25	1k, 5k	8	28x17½x12½	Wal.	Brn.	44	239.95									
	MS115	Pos. Rad.	6½						80-12 ±3	90	3		8	21½x13x9	Wal.	Cloth Brn.	14	79.95									
	MS117	Pos. Rad.	6½			2	Cone		70-12 ±3	90	3		8	21½x13x9	Wal.	Cloth, Brn.	15	84.95									
	MS127	Pos. Rad.	8			2	Cone		60-14 ±3	91	4	6k	8	24½x13x9	Wal.	Cloth Brn.	16	89.95									
	MS137	Pos. Rad.	8	3	Cone	2	Cone		60-16 ±3	91	5	6k, 8k	8	25½x14x11	Wal.	Cloth, Brn.	21	99.95									
	MS147	Pos. Rad.	10	5	Cone	3	Cone		50-17 ±3	92	6½	1k, 5k	8	26½x14x11	Wal.	Cloth, Brn.	22	129.95									
MS157	Pos. Rad.	12	5	Cone	3	Cone		40-20 ±3	92	8	1k, 5k	6	29½x14x11½	Wal.	Cloth, Brn.	26	159.95										
FRANKMANN RESEARCH	Reference Standard Monitor	Inf. Baf.	(4) 12	(4) 6	Cones	(2), (2)	Horn, Cone	T	24-22 ±4	96	10	200, 5k, 10k	8/4	Three Pieces	Opt.	Cloth, Brn.	105	895.00 Syst.									
	C ₀ Module (Subwoofer)	Inf. Baf.	(8) 12						16-200 Hz	96	10	200	8/4	50x24x30	Opt.	Cloth, Brn.	130	800.00									
	8/4	Inf. Baf.	(2) 8	6	Cone		Horn		30-20 ±4	90	30	250, 5k	8/4	14x10x32	Opt.	Cloth, Brn.	100	650.00 Pair									
	C ₁ Module (Subwoofer)	Inf. Baf.	(4) 12						24-200 Hz	96	10	200	8/4	30x20x29	Opt.	Cloth, Brn.	80	400.00									
FRAZIER	Model 11	Tuned Slot	15, 12	(4) 4½	Cones	(4) 2½	Pz.	M, ST		107	5	400, 4k	4	55x30x18	Oil, Wal.	Cloth, Blk.	250	1500.00									
	MK7	Tuned Slot	12	(2) 4½	Cone	(2) 2½	Pz.	M, ST		99	5	400, 4k	8	29x19x16	Oil, Wal.	Cloth, Blk.	98	525.00									
	DD2	Tuned Slot	10			(2) 2½	Cone	T		96	5	2.7k	8	24x14x12	Oil, Wal.	Cloth, Blk.	41½	240.00									
	DD1	Tuned Slot	8			2½	Cone			93	5	2.8k	8	19x10½x12	Oil, Wal.	Cloth, Blk.	24½	132.00									
	Concerto	Tuned Slot	10	3x7	Horn		Pz.	ST		96	5	2k, 4k	8	21½x16x16	Oil, Wal.	Cloth, Blk.	56	325.00									
	CAD-1	Tuned Slot	8			3	Cone			93	5	3k	8	19x10½x10½	Wal. Vin.	Cloth, Blk.	21	105.00									
	FRIED PRODUCTS	Q	Line Tun.	8			1	Dome	M	45-16 ±3	84	25	2.5k	8/5	19½x11½x9½	Wal. Vin.	Foam, Blk.	23	300.00 Pair								
Q/2		Line Tun.	8			1	Dome	M	40-20 ±3	91	25	1.8k	8/6	22x13½x11	Wal. Vin.	Foam, Blk.	39	380.00 Pair									
G		Line Tun.	8X10	2½	Dome	1	Dome	M, T	35-20 ±3	91	25	3k	8/6	24X14X11	Wal. Vin.	Foam, Blk.	48	740.00 Pair									
W		Line Tun.	8	4	Cone	1	Dome	M	35-20 ±3	91	25	750, 3.2k	8/6	25x14x10	Wal. Vin.	Foam, Blk.	38	790.00 Pair									
R/III		Line Tun.	10	5	Cone	1	Dome	M	32-20 ±3	91	25	350, 3.2k	8/6	28x16x14½	Wal. Vin.	Foam, Blk.	55	1180.00 Pair									
B/2		Press. Release	5			1	Dome		60-20 ±3	87	25	3.2k	8/6.5	12½x8½x6½	Wal. Vin.	Foam, Blk.	14	600.00 Pair; Kits, 350.00									
C		Press. Release	6½			1	Dome		55-20 ±3	89	25	3.2k	8/6.5	13x10½x9	Blk. Matte	Foam, Blk.	18	750.00 Pair; Kits, 450.00									
T Subwoofer		Dual Trans. Line	(2) 10						20-200 Hz, ±3	89	25	110	8/6.5	44x25x21	Wal. Vin.	Foam, Blk.	175	1800.00; Kits, 620.00									
O Subwoofer		Trans. Line	10						20-200 Hz, ±3	89	25	110	8/6.5	31x24½x13½	Blk. Matte	Foam, Blk.	130	2600.00 Pair; Kits, 620.00									
S.M. Subwoofer		Trans. Line	12						20-200 Hz	95	25	85	8/6.5	38x29½x15	Opt. Vin.	Opt.	180	3250.00 Pair; Kits, 850.00									
E	Line Tun.	8						32-20 ±3	95	25	3.2k	8/6.6	33x18½x15½	Blk. Matte	Foam, Blk.		1350.00 Pair; Kits, 495.00										
FULTON ELECTRONICS	Nuance	Ac. Sus.	10	5	Cone	2½, ST	Cone	W, M, T	35-42	83	35	760, 6.5k, 15k	8	34x14x13	Oil, Wal.	Cloth, Brn.	75	595.00									
	Crescendo	Ac. Sus.	12, 10	5	Cone	2½, ST		W, M, T	24-45	84	40	95, 750, 5.5k, 22k	8	44x18x16	Oil, Wal.	Cloth, Brn.	125	1249.00									
	B Modular System Midget Monitor	Ac. Sus.	(2) 12	5	Cone	2½		W, M	22-24	81	40	122, 1.6k	8	45x14x13	Oil, Wal.	Cloth, Brn.	92	945.00									
	FMI 80	Ac. Sus.	5			2½	Cone		75-24 ±3	82	7	1.6k	8	10x7x6	Oil, Wal.	Foam, Brn.	11	149.00									
	FMI 100	Ac. Sus.	8			(2) 2½			50-22 ±3	85	7½	1.6k	8	17½x9½x8½	Oil, Wal.	Cloth, Blk.	20	209.00									
	Premiere	Ac. Sus.	10			(4) 2½		M	40-22 ±3	83	12	950	8	22x12½x9½	Oil, Wal.	Cloth, Blk.	32	299.00									
GC/AUDIOTEX (Continued)	94-1200	Ac. Sus.	8			1½	Phen. Ring		45-20	2	5k	8/4	12x17½x20½	Wal. Vin.	Knit, Brn.	14	80.95										
	94-1300	Ac. Sus.	10			1½	Phen. Ring		40-20	5	5k	8/4	13½x11½x21½	Wal. Vin.	Knit, Brn.	16	89.95										
	94-1350	Ac. Sus.	10	4½	Cone	1½	Phen. Ring		40-20	6	2.5k, 5k	8/4	14x10½x24	Wal. Vin.	Knit, Brn.	21	88.95										

IF YOU'RE NOT USING THE SCOTCH[®] RECORD CARE SYSTEM, YOU'RE USING THE SECOND BEST.

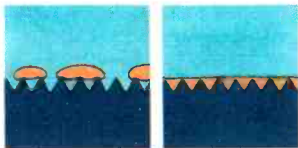
**INTRODUCING SCOTCH[®] RECORD CARE SYSTEM. IT CLEANS,
ANTI-STATS AND REDUCES FRICTION—ALL IN ONE STEP.**

Finally there's a way to give your records the kind of care and protection that hasn't been possible until now... a way to insure a long life of true sound.

The System.

The Scotch Record Care System combines new Sound Life[™] fluid with a unique dispensing applicator. To use, simply depress the supply container and Sound Life fluid is fed automatically to the pad. That's all there is to it. It's quick, easy and simple. No guesswork about how much fluid you need or how to apply it correctly. Just place the applicator on your turntable spindle, revolve it and the record is cleaned.

Super-wetting action deep-cleans grooves.



Discwasher D3[®] solution (left) beads up on the grooves. Sound Life (right) with super-wetting action deep-cleans grooves.

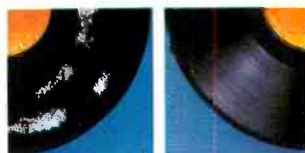
If your present cleaning solution beads up on the record surface, it may not be getting the job done.

Scotch Sound Life spreads onto the disc surface evenly—safely penetrating grooves to remove micro-dust and fingerprints. Sound Life leaves the record with a brilliant look, as brilliant as the sound is clean and true.

As it cleans, it wipes out static.

Even though your record surface is clean, it's generally the electrostatic charge that gets it dirty again. An anti-static gun is just a temporary treatment.

One application of Sound Life reduces the residual charge to near zero. And it prevents static from returning no matter how often the record is played.



(Left) Styrofoam beads are attracted to static charge left on record after cleaning with Discwasher D3[®]

Same record (right) after one treatment with new Sound Life fluid.

Friction reduction's a plus.

The same application of Sound Life that super-cleans and removes static can reduce stylus drag up to 15%.



And with your sensitive stylus that can mean less wear and improved record life.

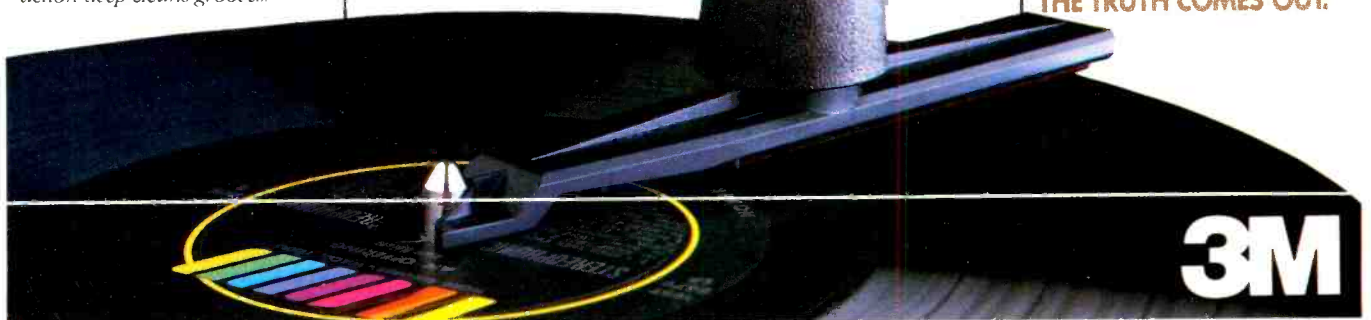
Better stereo performance.

To get all the true, pure sound you expect from your stereo, you need records that are truly clean, and protected from static and friction. Only the Scotch Record Care System gives you all three in one application. Ask to see a demonstration at your record or stereo store right now.

All of the tech data we've used to back up these statements is available free. Write to Magnetic AV Products Division, 3M Company, 3M Center, St. Paul, MN 55101. Ask for report C-242.



**SCOTCH[®]
RECORD CARE SYSTEM.
THE TRUTH COMES OUT.**



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LOUDSPEAKERS

MANUFACTURER	Model	Enclosure Type	Woofer Dia., Inches	Midrange Dia., Inches	Midrange Type	Tweeter Dia., Inches	Tweeter Type	Legal Control? W= Woofer, M= Midrange, T= Tweeter, ST= Super Tweeter	Ampelec Freq. Response Hz to kHz, ±dB	dB SPL / Watt / Meter	Recommended Min. Amp. Pwr., Watts	Crossover Frequencies, Hz	Impedance, Ohms; Nominal/Minimum	Dimensions, Inches	Finish	Grille Material, Color	Weight, Lbs.	Price, \$
GC/AUDIOTEX (Continued)	94-1400	Ac. Sus.	12	4½	Cone	1½	Phen. Ring		35-20		8	2.5k, 5k	8/4	17x12½x26	Wal. Vin.	Knit. Brn.	29	99.95
GEMINI	GMX-2380	Tuned Port	8		Cone	3	Cone		30-19		5	8k	8	22½x13x10	Wal.	Cloth, Bk.	23	49.95
	GMX-2310	Tuned Port	10	5	Cone	3	Cone		25-20		5	400, 8k	8	22½x13x10	Wal.	Cloth, Bk.	25	74.95
	GMX-2310C	Tuned Port	10	5	Cone	3	Cone	M, T	25-20		5	400, 8k	8	22½x13x10	Wal.	Cloth, Bk.	25	89.95
	GMX-12	Tuned Port	12	5	Cone	(2) 3	Cone		20-21		5	400, 8k	8	26x15x10	Wal.	Cloth, Bk.	30	99.95
	GMX-120	Tuned Port	12	5	Cone	(2) 3	Cone	M, T	20-21		5	400, 8k	8	26x15x10	Wal.	Cloth, Bk.	30	109.95
	SX-200	Tuned Port	10	5	Cone	3	Cone		30-20		5	800, 1.5k	8	22½x13x10	Wal.	Cloth, Bk.	25	99.95
	SX-300	Tuned Port	10	5	Cone	3	Cone	M, T	30-20		5	800, 1.5k	8	22½x13x10	Wal.	Cloth, Bk.	25	109.95
	SX-400	Tuned Port	12	5	Cone	(2) 3	Cone		30-20		5	800, 1.5k	8	26x15x10	Wal.	Cloth, Bk.	32	119.95
	SX-500	Tuned Port	12	5	Cone	(2) 3	Cone	M, T	30-20		5	800, 1.5k	8	26x15x10	Wal.	Cloth, Bk.	32	129.95
	SX-600	Tuned Port	12	5	Cones	(2) 3	Cone		25-20		5	800, 1.5k	8	24x16½x10	Wal.	Cloth, Bk.	34	149.95
SX-700	Tuned Port	15	(2) 5	Cones	(2) 3	Cone	M, T	20-20		5	800, 1.5k	8	28x18x13	Wal.	Cloth, Bk.	54	215.00	
R-2	Tuned Port	12	(2) 5	Cones	(2) 3	Cone		30-20		5	800, 1.5k	8	Two Pieces	Wal.	Cloth, Bk.	42	179.95	
GENESIS	410	Pas. Rad.	10	4½	Cone	1	Dome	M, T	32-20 ±3	88	20	45, 1k, 4k	8	30½x15½x15	Oil. Wal.	Cloth, Bk.	63	1000.00
	3+	Pas. Rad.	8	4½	Cone	1	Dome	M, T	32-20 ±4	88	20	45, 800, 3k	6	37½x14½x12	Oil. Wal.	Cloth, Brn.	53	399.00
	2+	Pas. Rad.	8			1	Dome	T	32-20 ±4	89	15	1.8k	8	33x14½x10½	Oil. Wal.	Cloth, Brn.	44	299.00
	2	Pas. Rad.	8			1	Dome	T	32-20 ±4	89	15	1.8k	8	26½x14½x11½	Wal. Grain	Cloth, Brn.	37	219.00
	1+	Ac. Sus.	8			1	Dome		40-20 ±4	89	15	1.8k	8	22x12½x9½	Wal. Grain	Cloth, Brn.	28	149.00
	V-6	Ported	6½			1	Dome		52-20 ±4	88	15	1.8k	8	18½x10½x7	Wal. Grain	Cloth, Brn.	19	119.00
GLI	MR11	Pas. Rad.	(4) 5¼			(3) 2x5	Horns		46-22 ±3	99		80, 5k	8	20½x17½x9	Oil. Wal.	Cloth, Brn.	36	350.00
GOODMANS	Achromat Beta	Ac. Sus.	6½			1	Dome	No	65-23	85	18	3k	8	13½x8½x9	Leath.	Cloth, Brn.	17	250.00
	Achromat Kappa	Ac. Sus.	8			1	Dome	No	45-23	85	20	2.4k	8	21½x10½x10½	Leath.	Cloth, Brn.	29	335.00
	Achromat Sigma	Pas. Rad.	8			1	Dome	No	35-23	86	20	2.4k	8	27x13x11	Leath.	Cloth, Brn.	40	480.00
	HE 1	Vented	10	(2) 5	Cones	1	Dome	No	50-20	93½	3½	1k, 5k	8	34½x13½x14	Silv. Sand	Cloth, Bk.	63	480.00
	HE 2	Vented	10	5	Cone	1	Dome	No	60-20	93½	3½	1k, 5k	8	28½x13½x14	Silv. Sand	Cloth, Bk.	53	420.00
GRAFXY AUDIO PRODUCTS	SP-10	Tuned Port	10			1	Dome	No	30-20 ±3	86	20	2k	8	28½x16x13½	Opt.	Cloth, Bk.	52	518.00
	SP-8	Tuned Port	8			1	Dome	No	40-20 ±3	89	20	2k	8	25x14x10	Vin. Wal.	Cloth, Bk.	39	358.00
	SP-8	Tuned Port	6			1	Dome	No	42-20 ±3	87	10	2k	8	20½x12x8	Vin. Wal.	Cloth, Bk.	25	278.00
	SP-6C	Tuned Port	6			2	Cone	No	55-18 ±3	87	10	2k	8	16x10x7½	Vin. Wal.	Cloth, Bk.	15	198.00
		Tuned Port																Pair
GREAT WHITE WHALE	Point 3a	Ac. Sus.	(2) 10	5			Rib- bon		20-30 ±3	92	20	150, 4.2k	8	Three Pieces	Opt.	Cloth, Bk.	80	550.00
	Point 5a	Ac. Sus.	(2) 10	5			Rib- bon		20-30 ±3	92	30	200, 4.2k	8	30x17½x12½	Opt.	Cloth, Bk.	70	865.00
	Point 4a	Ac. Sus.	(2) 10	5, 8	1½		Dome Rib- bon	M, T	20-30 ±2	90	50	80, 375, 3k, 5k	4	41½x19½x11½	Opt.	Cloth, Bk.	90	1250.00
HARBETH ACOUSTICS	HL MKII	Vented	8			1	Dome	No	50-18 ±3	87	20	2.5k	8/6	12x13x25	Opt.	Foam, Bk.	31	890.00
	ML	Ac. Sus.	5½				Dome	No	80-18 ±3	84	20	3.0k	8/6	14x7½x6½	Opt.	Foam, Bk.	12	520.00
HARTKE SYSTEMS	X	Ac. Sus.	8		1½		Cone	T	35-25 ±1.5	88	30	3.5k	8	19½x12½x10½	Opt.	Mesh, Bk.	30	350.00
	Pro-Mix Modules	Ported	5¼		(2) 2		Dome Cone		45-20 ±2	90	15	10k	8	4 Pieces	White	Foam, Bk.	5	250.00
	Tweeter Modules				1½		Cone Dome	T	5k-25k	90		Opt.	16/8	5x5x2½	Wal.	Mesh, Bk.	2	225.00
HARTLEY PRODUCTS	H-100	Air Col.	8	1½	Air Col.	2	Cone	No	50-20 ±4	93	5	2.3k	8	21½x10½x10½	Oil. Wal.	Cloth, Bk.	30	160.00
	H-200	Air Col.	10	2½	Air Col.	1	Dome	No	35-25 ±3	95	5	2.6k	8	30x15x15	Oil. Wal.	Cloth, Bk.	60	275.00
	H-300	Air Col.	(2) 10	(4) 1½	Air Col.	(2) 1	Dome	No	30-25 ±3	96	5	3.4k	4	43x15x15	Oil. Wal.	Cloth, Bk.	90	425.00
	SPL-1	Air Col.	10	3	Air Col.	(4) ¾	Pha- sor	No	25-25 ±3	95	15	3.8k	8/6	Three Pieces	Oil. Wal.	Cloth, Bk.	200	1550.00
	SW-10	Air Col.	10				Pha- sor	No	25-3.8 ±3	93	15	3.8k	6	24x16x18	Oil. Wal.	Cloth, Bk.	70	475.00
	Subwoofer	Air Col.				(4) ¾	Pha- sor	No	3.8k-25k ±2	96	15	3.8k	8	12x5x5	Oil. Wal.	Cloth, Bk.	15	175.00
	ST-4	Phasor					Dome Cone	No	16-25 ±3	91	25	250, 3k, 7k	8/5	29x18x41½	Oil. Wal.	Cloth, Bk.	150	1500.00

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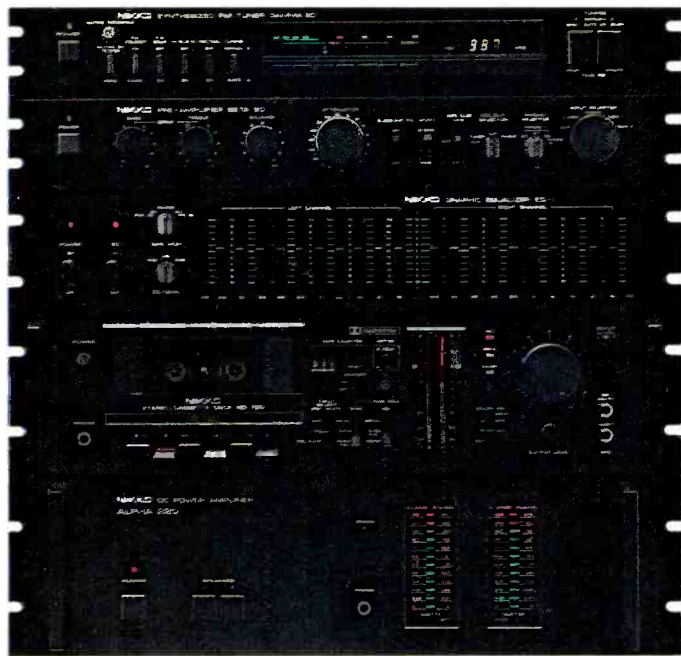
680 Discrete Head Cassette Deck

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LOUDSPEAKERS

MANUFACTURER	Model	Enclosure Type	Woofer Dia., Inches		Midrange Dia., Inches		Tweeter Dia., Inches		Level Control, Hz		Anechoic Free-Field Response, dB SPL / Watt/Meter		Recommended Min. Amp. Pwr., Watts	Crossover Frequencies, Hz		Impedance Ohms, Nominal/Minimum	Dimensions, Inches	Finish	Grille Material, Color	Weight, Lbs.	Price, \$
			24	10	Cone	1.7	Dome	No	16-25	91.5	25	250, 3k, 7k		8/5	36x24x50 $\frac{1}{4}$						
HARTLEY PRODUCTS (Continued)	Reference	Inf. Ref.	24	10	Cone	1.7	Dome	No	16-25	91.5	25	250, 3k, 7k	8/5	36x24x50 $\frac{1}{4}$	Oil, Wal.	Cloth, Blk.	300	2,000.00			
	AS-1342	Ducted Port Slot	8		2x6	Horn	T		60-14	91	5	2.5k	8/6	12x10 $\frac{1}{2}$ x22 $\frac{1}{2}$	Vin. Wal. Opt.	Cloth, Brn.	20	89.95			
	AS-1348		15	(2) 4 $\frac{1}{2}$	Cones	(3) 1	Dome	M, T	28-20	90	8	500, 3k	8/5.5	24x15x38		Cloth, Blk.	93	349.95			
	AS-1373	Sealed	10	4 $\frac{1}{2}$	Cone	1	Dome	T	40-20	88	10	500, 3k	8	14 $\frac{1}{2}$ x11 $\frac{1}{2}$ x26	Wal.	Foam	47	189.95			
ASX-1383	Ac. Sus.	10	5	Cone	1	Dome		40-25	88	10	750, 4k	8/5.5	13 $\frac{1}{2}$ x13 $\frac{1}{2}$ x36	Oil, Rose.	Cloth, Blk.	50	399.90 Pair				
HECO	100	Ac. Sus.	8	1 $\frac{1}{2}$	Dome	$\frac{3}{4}$	Dome	M, T	35-25	91	15	1k, 3k	8	16x10x8 $\frac{1}{2}$	Opt.	Cloth	21 $\frac{1}{2}$	339.95			
	200	Ac. Sus.	9 $\frac{1}{4}$	2	Dome	$\frac{3}{4}$	Dome	M, T	30-25	91	15	700, 4k	8	18 $\frac{1}{2}$ x11 $\frac{1}{2}$ x9 $\frac{1}{2}$	Opt.	Cloth	27 $\frac{1}{2}$	379.95			
	300	Ac. Sus.	9 $\frac{1}{4}$	2	Dome	$\frac{3}{4}$	Dome	M, T	25-25	91	15	700, 3k	8	20x12 $\frac{1}{2}$ x10 $\frac{1}{4}$	Opt.	Cloth	36 $\frac{1}{2}$	449.95			
	400	Ac. Sus.	12	2	Dome	$\frac{3}{4}$	Dome	M, T	20-25	91	15	600, 3k	8	26x15x10 $\frac{1}{4}$	Opt.	Cloth	42	599.95			
HITACHI	HS-3									90			8	9 $\frac{1}{2}$ x17x8 $\frac{1}{2}$		Brn.	13.6	299.95 Pair			
	HSA-2080	Ported	8			3				91			8	13 $\frac{1}{2}$ x21 $\frac{1}{2}$ x10 $\frac{1}{2}$	Rwd. Vin.	Cloth, Blk.	22	79.95			
	HSA-3100	Ported	10	5		3							8	23 $\frac{1}{2}$ x14 $\frac{1}{2}$ x11 $\frac{1}{2}$	Rwd. Vin.	Coth, Blk.	28 $\frac{1}{4}$	99.95			
	HSA-3120	Ported	12	5		3				91			8	25 $\frac{1}{2}$ x16x12 $\frac{1}{2}$	Rwd. Vin.	Cloth, Blk.	38 $\frac{1}{4}$	149.95			
	HS-310 HS-330 MKII HS-430	Bass Ref. Bass Ref. Bass Ref.	10 10 12	4 2.6 2.6	Cone Cone Cone	1 1 1	Dome Dome Dome	M, T M, T M, T		91 92 92				8 8 8	12 $\frac{1}{2}$ x22 $\frac{1}{2}$ x12 $\frac{1}{2}$ 12 $\frac{1}{2}$ x22 $\frac{1}{2}$ x12 $\frac{1}{2}$ 14 $\frac{1}{2}$ x26 $\frac{1}{2}$ x15	Brn. Cloth, Blk.	25.3 32 46.2	199.95 249.95 399.95			
IMAGE ACOUSTICS	3A	Pas. Rad.	(2) 10	(2) 5	Cones	(2) 1	Dome		30-20	91	25	800, 3.3k	4	16x16x36	Oil, Wal.	Cloth, Blk.	75	524.00			
	8A	Pas. Rad.	(2) 8	(2) 5	Cones	(2) 1	Dome		35-20	92	20	800, 3.3k	4	15x15x30	Oil, Wal.	Cloth, Blk.	50	439.00			
	4AX	Pas. Rad.	8	2	Dome	$\frac{3}{4}$	Dome		40-20	91	20	800, 3.3k	8	11x10x36	Oil, Wal.	Cloth, Blk.	40	299.00			
	6A	Pas. Rad.	(2) 6 $\frac{1}{2}$			(2) 1	Dome		45-20	90	15	2.5k	4	13x13x24	Lam. Wal.	Cloth, Blk.	35	219.00			
	1AX	Pas. Rad.	6 $\frac{1}{2}$			$\frac{3}{4}$	Dome		40-20	90	15	2.5k	8	10x10x24	Oil, Wal.	Cloth, Blk.	30	174.00			
	5A	Pas. Rad.	(2) 5			(2) 1	Dome		50-20	89	10	2.5k	4	12x12x20	Lam. Wal.	Cloth, Blk.	25	164.00			
IMF ELECTRONICS INC.	RSPM Mark IV Improved Monitor	Trans. Line	11 $\frac{1}{2}$ x8 $\frac{1}{4}$	5	Cone	1 $\frac{1}{2}$, $\frac{3}{4}$	Dome	M, T	17-20	83	50	350, 3k, 13k	8/4	39 $\frac{1}{2}$ x19 $\frac{1}{2}$ x16 $\frac{1}{2}$	Nat. Wal.	Cloth, Blk.	118	3610.00 w/ stands			
	TLS-80 Ila Studio	Trans. Line	11 $\frac{1}{2}$ x8 $\frac{1}{4}$	5	Cone	1 $\frac{1}{2}$, $\frac{3}{4}$	Dome	M, T	20-20	83	40	350, 3k, 13k	8/4	38 $\frac{1}{2}$ x18x16	Nat. Wal.	Cloth, Blk.	96	2685.00 w/ stands			
	TLS-50 Ila Studio	Trans. Line	8	4	Cone	1, $\frac{3}{4}$	Dome	M, T	23-20	82	30	375, 3k, 15k	8/4	40 $\frac{1}{2}$ x15x14	Nat. Wal.	Cloth	66	1595.00 w/ stands			
	ALS-40 Ila Studio	Active Line	(2) 8	4	Cone	1	Dome	M, T	28-20	83	25	150, 375, 3k	8/4	26 $\frac{1}{2}$ x13 $\frac{1}{2}$ x13 $\frac{1}{2}$	Nat. Wal.	Cloth, Blk.	40	1195.00			
	ALS-30 Super Compact II	Active Line	(2) 6	4	Cone	1	Dome	M, T	29-20	86	25	250, 450, 3.5k	8/4	22 $\frac{1}{2}$ x11 $\frac{1}{2}$ x11	Nat. Wal.	Cloth, Blk.	35	886.00			
		Super Bass Ref.	8	4	Cone	1	Dome	No	30-20	86	25	30, 20k	8/4	18x11 $\frac{1}{2}$ x11	Nat. Wal.	Cloth, Blk.	23	628.00			
INFINITY SYSTEMS	Reference Studio Monitor	Sealed	12	5	Dome		EMIT Rib- bon	M, T	43-32	35	500, 5k	4	26 $\frac{1}{2}$ x15x10	Oak	Cloth, Brn.	50	347.00				
	RS 1.5		12	5	Dome		EMIT Rib- bon		38-32	60	350, 5k	4	26 $\frac{1}{2}$ x15x11	Oak	Cloth, Brn.	87	410.00				
	RSe	Sealed	8				EMIT Rib- bon		45-34	10	3k	4		Oak	Cloth, Brn.		160.00				
	RSa	Sealed	10				EMIT Rib- bon		45-32	25	3k	4	25x14x10	Oak	Cloth, Brn.	40	210.00				
	RSb	Sealed	12	5	Dome		EMIT Rib- bon		45-32	25	600, 4k	4	25x14x10	Oak	Cloth, Brn.	43	275.00				
	RS 2.5		12	(2)	EMIM Ribbons	(2)	EMIT Rib- bons	M, T	30-32	100	300, 5k	4	51x18x11	Oak	Cloth, Brn.	117	1050.00				
	RS 4.5		(2) 12	(4)	EMIM Ribbons	(4)	EMIT Rib- bons	M, T	24-32	100	150, 5k	4	64 $\frac{1}{2}$ x26 $\frac{1}{2}$ x14 $\frac{1}{2}$	Oak	Cloth, Brn.	190	3900.00 Syst.				
INNTECH AUDIO SYSTEMS	D24	Trans. Line	(2) 5 $\frac{1}{2}$	1 $\frac{1}{2}$	Dome	1	Dome	No	35-20	86		3.5k, 7.5k	8/6	36 $\frac{1}{2}$ x10 $\frac{1}{2}$ x15 $\frac{1}{2}$	Oil, Wal.	Foam, Blk.	55	854.00 Pair			
INTEGRAL RESEARCH	SL ²	Dual Port	10	4 $\frac{1}{2}$	Cone	2	Dome	No	35-19	90	15	850, 3.5k	8/5.5	34 $\frac{1}{2}$ x13 $\frac{1}{2}$ x11 $\frac{1}{2}$	Wal.	Cloth, Blk.	50	299.95			
INTER-DYNAMIC SYSTEMS	IDS I	Ducted Port	8		4	Cone			50-19	91.5	5	3k	6.8/	19x11x8	Br. Vin.	Cloth, Blk.		99.75			
	IDS II	Ducted Port	10	5	Cone	4	Cone		45-19	91	10	2k, 6k	8/	22x13x10	Br. Vin.	Cloth, Blk.		149.95			
	IDS III	Ducted Port	12	5	Cone	4	Cone		40-19	91	10	1.5k, 6k	8/	27x15x10	Br. Vin.	Cloth, Blk.		199.95			
	IDS IV	Ducted Port	15	5	Cone	4	Cone		33-20	93	10	1.2k, 7k	6.8/	29x18x12	Br. Vin.	Cloth, Blk.		259.50			

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LOUDSPEAKERS

MANUFACTURER	Model	Enclosure Type	Woofer Dia., Inches		Midrange Dia., Inches		Tweeter Dia., Inches		Level Control: W=Woofers, M=Midrange, T=Tweeter, S=Super Tweeter		Resonance: A=Asynchronous, Hz to kHz, 2 dB		Recommended Min. Amp. Power, Watts	Crossover Frequencies, Hz		Impedance Ohms Nominal/Minimum	Dimensions, Inches	Finish	Grille Material, Color	Weight, Lbs	Price, \$
JANSZEN ELECTROSTATIC	Z-210B	Ac. Sus.	10			(2) 4x4	ES	T	28-30 ±3	82	20	800	4	24x13½x11	Vin.	Cloth, Blk.	28	230.00			
	Z-220	Ac. Sus.	10			(2) 4x4	ES	T	25-30 ±3	83	15	800	4	25½x15½x13½	Vin.	Cloth, Blk.	44	375.00			
	Z-10	Ac. Sus.	10			(2) 4x4	ES	T	35-30	82	15	800	4	24x13½x11	Vin.	Cloth, Blk.	41	315.00			
	Z-20	Ac. Sus.	12			(2) 4x4	ES	T	30-20 ±3	82	20	800	4	27½x14½x11½	Oil. Wal.	Cloth, Blk.	48	390.00			
	Z-30	Ac. Sus.	10			(2) 4x4	ES	T	45-30 ±3	86	15	800	4	37x13½x13½	Oil. Wal.	Cloth, Blk.	49	450.00			
	Z-40	Pas. Rad.	10			(4) 4x4	ES	M, T	33-30 ±3	86	20	800	4	49½x13½x13½	Oil. Wal.	Cloth, Blk.	64	550.00			
	Z-2	Ac. Sus.	10			(2) 4x4	ES	T	35-30	86	15	800	4	39x15½x15½	Oil. Wal.	Cloth, Blk.	65	450.00			
JBE	Diamond One	Inf. Baf.	12x8						10-200 Hz	88	10		8	15½x17½x17½	Teak, Blk.	Foam, Blk.	42	895.00			
	Diamond Two	Inf. Baf.	6			1	Dome		35-20	85	15	4k	8	19½x11x11	Teak, Blk.	Foam, Blk.	36	695.00			
	Diamond Three	Inf. Baf.	8½	4½	Cone	¾	Dome		20-20	88	10	500, 5k	8	21½x13x13	Teak, Blk.	Foam, Blk.	48	945.00			
JBL	L19	Ported	8			1.4	Cone	T		87	10	2.5k	8/	21x13x10	Oil. WI.	Brn.	29	180.00			
	L40	Ported	10			1	Dome	T		88	10	1.8k	8/	23x15x11½	Oil. WI.	Opt.	44	270.00			
	L50	Ported	10	5	Cone	1½	Cone	M, T		88	10	800, 3k	8/	24½x14½x12½	Oil. WI.	Opt.	47	350.00			
	L110	Ported	10	5	Cone	1	Dome	M, T		89	10	1k, 4k	8/	23½x14½x11½	Oil. WI.	Opt.	53	430.00			
	L112	Ported	12	5	Cone	1	Dome	M, T		89	10	1.1k, 3.7k	8/	24½x14½x13	Oil. WI.	Brn.	55	450.00			
	4311WX	Ported	12	5	Cone	1.4	Cone	M, T		91	75	1.5k, 6k	8/	23½x14½x11½	Oil. WI.	Blk.	45	390.00			
	L150	Pas. Rad.	12	5	Cone	1	Dome	M, T		88	10	1k, 4k	8/	41½x17x13	Oil. WI.	Opt.	80	650.00			
	L220	Pas. Rad.	14	5	Cone	2½x1¼	Ring	M, T		90	10	800, 5k	8/	48½x20½x15½	Oil. WI.	Opt.	106	950.00			
	L222	Pas. Rad.	14	5	Cone	2½x1¼	Ring	M, T		90	10	800, 5k	8/	48½x20½x15½	Oil. WI.	Blk.	112	975.00			
	L300	Ported	15		Horn	3½x½	Ring			93	10	800, 8.5k	8/	31½x23x22½	Oil. WI.	Opt.	152	1395.00			
	L212		12	5, 8	Cones	1	Dome			90	10	70, 800, 3k	8/	Three Pieces	Oil. WI.	Blk.	225	2200.00			
	D44000 Paragon		(2) 15	(2)	Horns	(2) 3½	Rings	M, T		95	10	500, 7k	8/	35½x103½x24½	Oil. WI.	Syst.	698	5800.00			
	Radiance 502VXA	Ported	8			3	Cone			86	10	2k	4/	21½x13½x11½	Oil. WI.	Brn.	27½	139.95			
	Radiance 702VXA	Ported	10	5	Cone	3	Cone			88	10	600, 3k	4/	25½x15½x11½	Oil. WI.	Brn.	38	189.95			
Radiance 902VXA	Ported	12	5	Cone	3	Cone			88	10	600, 3k	4/	27½x17½x12½	Oil. WI.	Brn.	44½	239.95				
Radiance 905VXA	Pas. Rad.	10	5	Cone	3	Cone	M, T		88	10	600, 3k	4/	37½x16½x12½	Oil. WI.	Brn.	59	299.95				
JENSEN	20	Ac. Sus.	8			2	Cone		70-18 ±3	88	10	4k	8/6	18½x11x8½	Wal. Vin.	Cloth, Brn.	18	99.95			
	30	Ac. Sus.	10	3½	Cone	2	Cone		60-18 ±3	89	10	1.5k, 4k	8/6	24½x15x10	Wal. Vin.	Cloth, Brn.	28	179.95			
	40	Ac. Sus.	12	3½	Cone	2	Cone	M, T	50-18 ±3	90	10	1.2k, 4k	8/6	27x17x10½	Wal. Vin.	Cloth, Brn.	30	229.95			
	50	Ac. Sus.	15	3½	Cone	(2) 2	Cone	M, T	45-18 ±3	90	10	1.2k, 4k	8/4	30½x18½x13½	Wal. Vin.	Cloth, Brn.	43	299.95			
	LS-2b	Ac. Sus.	8			2	Cone		65-18 ±3	88	10	4k	8/6	18½x11x9½	Wal. Vin.	Knit, Brn.	18	109.95			
	LS-3b	Ac. Sus.	10			2	Cone	T	60-18 ±3	88	10	3.5k	8/6	23x12½x10½	Wal. Vin.	Knit, Brn.	28	169.95			
	LS-4b	Ac. Sus.	10	3½	Cone	2	Cone	M, T	55-18 ±3	89	10	1k, 4k	8/6	24½x13½x12½	Wal. Vin.	Knit, Brn.	40	239.95			
	LS-5b	Ac. Sus.	12	(2) 3½	Cones	1	Dome	M, T	50-20 ±3	90	10	1k, 4k	8/6	26x15½x13½	Wal. Vin.	Knit, Brn.	50	309.95			
	LS-6b	Ac. Sus.	15	(2) 3½	Cones	1	Dome	M, T	45-20 ±3	90	10	1k, 4k	8/6	30½x18½x16½	Wal. Vin.	Knit, Brn.	70	399.95			
	System B	Vented	12	6, 1¼	Cone, Dome	1, 2	Dome	M, T	37-21 +2, -4	90	9	300, 1.8k, 8k	8/5	33½x16½x11½	Brn. Wal.	Knit, Brn.	78	599.95			
System C	Vented	10	2	Dome	1, 2	Dome	M, T	47-21 +2, -4	87	9	900, 5.5k	8/5	24½x14½x12½	Oak Ven.	Knit, Brn.	52	399.95				
JOHNSON SPEAKERS	Ultimus	Ac. Sus.	(3) 10	(5) 1½	Domes	(3) 1	Dome		18-22	88	50	2.4k, 5k	8	22x26x42	Oil. Wal.	Lin., Beige	160	2,400.00			
	President	Ac. Sus.	(2) 10	(5) 1½	Domes	(3) 1	Dome		25-22	88	25	2.4k, 5k	12	22x20x42	Oil. Wal.	Lin., Beige	110	1,698.00			
	Statesman	Ac. Sus.	(2) 8	(5) 5	Cones	(5) 1	Dome		30-20	88	25	1k, 5k	8	20x20x42	Oil. Wal.	Lin., Beige	95	1,378.00			
	Senator	Ac. Sus.	(2) 10	(5) 5	Cones	(5) 1	Dome		30-20	88	20	350, 1k, 5k	8	24x20x33	Oil. Wal.	Lin., Beige	90	780.00			
	Ambassador	Ac. Sus.	10	(5) 1½	Domes	(3) 1	Dome		30-22	88	20	2.4k, 5k	8	20x20x33	Oil. Wal.	Lin., Beige	90	1,210.00			
	Diplomat	Ac. Sus.	(2) 10	(5) 5	Cones	1	Dome		30-20	88	20	350, 1k, 5k	8	24x20x33	Oil. Wal.	Lin., Beige	80	650.00			
	Andante	Ac. Sus.	10			1	Dome		35-20	88	20	2.4k	8	16x12x24	Oil. Wal.	Foam, Blk.	50	250.00			
JR LOUDSPEAKERS	Metro		5¼			1	Dome		80-20 ±2	85	20	2.7k	8/5	11x6½x7½	Opt.	Cloth, Brn.	10	420.00			
	149		5¼			¾	Dome	T	55-20 ±4	83	20	3k	8/5	9 Dia. x14½	Opt.	Blk.	12	550.00			
	150	Active Line	(2) 5¼			1	Dome	T	40-40 ±3	87	15	2.2k	8/5	11 Dia. x21	Opt.	Blk.	25	860.00			

AIWA AD-M800U STEREO CASSETTE DECK

Three heads...and a brain.

Only the very best decks have three heads. But Aiwa's metal compatible deck adds wireless remote control. And a brain...DATA. Aiwa's exclusive, microcomputer Digital Automatic Tape Adaptation.

THE DATA SYSTEM

In less time than it takes to read what DATA does...DATA does it. Set DATA's computer and press START. LEDs begin to flicker. One each for LH, FeCr, CrO₂ and METAL.

DATA's electronic senses analyze the tape and an LED lights up as the others go out. Now you—and DATA—know the kind of tape being used.

Another LED flickers and lights. BIAS is set for best frequency response using a built-in 6 kHz reference signal. The next LED flickers and lights. Dolby* levels are calibrated and set using a 400 Hz reference signal.

Two LEDs remain. One flickers and lights. EQ-M is set...equalization for the mid-range 5-10 kHz. Then the next, EQ-H...equalization for the high, 10-18 kHz range is set.

Further down the panel an LED lights. It's green. OK! You're ready to record. But...if the red LED lights instead, the machine's not wrong. The tape is. Get another tape or switch to manual over-ride.

Once DATA is set, you record with maximum sonic quality, regardless of whose tapes or what type you're using. And DATA stores the tape analyses—at your command—in its memory bank. Four different tapes of your choice.

Cassette recording was never so precise. So simple. And so fast.

IT ALL ADDS UP

Precise sophistication like DATA deserves features and performance to match. You've got them, starting with built-in wireless remote control for full-function performance from across

the room, using dependable, invisible infrared projection.

You have 3-head performance using linear, ultra-hard sennet heads with Aiwa's exclusive V-cut geometry for contour effect elimination doing away with roughness at low frequencies. And each

head is designed for best performance at its specific function.

Add Double-Dolby*; IC logic controls; dual motor drive; backlit VU meters with 5-step peak reading LEDs; auto-repeat; memory replay; oil-damped eject and more.

The sum of the parts is frequency response of 30-17,000 Hz using metal tape. S/N ratio of 68dB with FeCr, Dolby on. Wow & Flutter 0.04% WRMS.

This is one of the finest decks you can get at any price. If you prefer, it's available in black with rack handles as the AD-M800BU.

Aiwa's AD-M800U is like having your own recording engineer tucked away in a small but powerful chip. The power's there for you. Listen to an Aiwa. Or write Bob Fisher, national sales manager for more information.



*Dolby is a registered trademark of Dolby Laboratories.



Upgrade to...

AIWA®

AIWA AMERICA INC.,

35 Oxford Drive, Moonachie, New Jersey 07074
Distributed in Canada by: Shiro (Canada) Ltd.

Enter No. 2 on Reader Service Card

LOUDSPEAKERS

MANUFACTURER	Model	Enclosure Type	Woofer Dia., Inches	Midrange Dia., Inches	Midrange Type	Tweeter Dia., Inches	Tweeter Type	Level Control	Woofer: W x H x D	Tweeter: W x H x D	Response	dB SPL / Watt / Meter	Recommended Min. Amp. Pwr., Watts	Crossover Frequencies, Hz	Impedance Ohms: Nominal / Minimum	Dimensions, Inches	Finish	Grille Material, Color	Weight, Lbs.	Price, \$
JUMETTE LABORATORIES	CR610	Sealed	(2) 10		3x4	Ribbon	No	34-18 ±3	89	50	600	8/4	15x15x66	Opt.	Cloth, Brn.	134	1445.00			
	CRS603	Ribbon Mid			3x4	Ribbon	No	60-18 ±3	89	10	600	8/4	11x11x26	Opt.	Cloth, Brn.	44	785.00			
JVC	SM-3	Ac. Sus.	4		1	Dome		50-20	86		2.5k	8	7½x4½x4½			4.8	169.90			
	SK-400H	Bass Ref.	8		2½	Cone		45-20	91		2k	8	17½x10½x10½	Wal.	Cloth, Brn.	17.6	149.90			
	SK-500H	Bass Ref.	10		2½	Cone		40-20	92		2k	8	19½x12½x12½	Wal.	Cloth, Brn.	23.2	209.90			
	SK-600H	Bass Ref.	10	2½	Cone	2	Cone	40-20	92		1.2k, 10k	8	19½x12½x12½	Wal.	Cloth, Brn.	24	239.90			
	SK-700H	Bass Ref.	10	5	Cone	1	Dome	M, T	35-40	93	900, 9k	8	22½x13½x13½	Wal.	Cloth, Brn.	30.9	179.95			
	SK1000H	Bass Ref.	12	5	Cone	1	Dome	M, T	30-40	94	900, 9k	8	25½x15½x13½	Wal.	Cloth, Brn.	48.5	279.95			
	SK-101	Bass Ref.	10	2½	Cone	2	Cone		40-20			8	23½x13½x9½	Wal.	Cloth, Brn.	26.8	200.00			
	SK-303	Bass Ref.	12	5	Cone	2½	Cone		35-20			8	26½x15½x11½	Wal.	Cloth, Blk.	37.8	130.00			
	Zero-3	Bass Ref.	10	2½	Dome, Cone	2½x½	Ribbon	M, T	40-50	91	1.5k, 6k	6	22½x12½x13½	Rose.	Cloth, Blk.	38.5	319.95			
	Zero-5	Bass Ref.	12	4	Dome, Cone	2½x½	Ribbon	M, T	30-50	92	500, 5k	6	25½x14½x13½	Rose.	Cloth, Blk.	47.3	399.95			
Zero-9	Bass Ref.	(2)12	4	Dome, Cone	2½x½	Ribbon	M, T	25-50	92	450, 5.5k	6	41½x16½x16½	Rose.	Cloth, Blk.	92.4	699.95				
KA/KINETIC AUDIO	200 Imp	TAL (Tapered Ac. Line)	8		1	Dome	T	36-22 ±2.5	92	10	1.8k	8	24x10½x9	Oil, Wal.	Knit, Blk.	49	279.00			
	300 Pulse	TAL	12	5	Cone	1	Dome	M, T	34-22 ±2.5	93	275, 2k	8	24x14½x14	Oil, Wal.	Knit, Blk.	68	379.00			
	Stat	Dual TAL	(2) 5		1½	Dome	T	36-22 ±2.5	94	10	1.8k	4	17½x10½x9	Oil, Wal.	Knit, Blk.	38	399.00			
	Impulse /CRM	Dual TAL	12	5	Cone	1½	Dome	M, T	20-22 ±2.5	90	35	175, 2k	8	26x14½x14	Oil, Wal.	Knit, Blk.	85	499.00		
	Trapezoid	Dual TAL	12	5	Cone	1½, 1	Dome	M, T, ST	18-22 ±2.5	91	35	150, 2k, 7.5k	8	40x16x14	Oil, Wal.	Knit, Blk.	115	699.00		
	Labyrinth	Dual TAL	12	5	Cone	1½, 1	Dome	M, T, ST	16-22 ±2.5	91	35	90, 2k, 7.5k	8	48x16x18	Oil, Wal.	Knit, Blk.	165	1299.00		
	Trapezium	Dual TAL	12	6½	Cone	2, 1½, 1	Dome	4	14-22 ±1.5	90	45	90, 1k, 3k, 7k	8	60x16x20	Oil, Wal.	Knit, Blk.	200	1999.00		
	Trapezium Subwoofer	Dual TAL	12						14-2	90	55	65, 100, 200	8	60x16x20	Oil, Wal.	Knit, Blk.	160	1299.00		
	Labyrinth Subwoofer	Dual TAL	12						16-2	91	25	65, 100, 200	8	48x16x18	Oil, Wal.	Knit, Blk.	125	699.00		
	Trapezoid Subwoofer	Dual TAL	12						18-2	91	25	65, 100, 200	8	40x16x14	Oil, Wal.	Knit, Blk.	85	399.00		
Impulse /CRM Subwoofer	Dual TAL	12						20-2	90	25	65, 100, 200	8	26x14½x14	Oil, Wal.	Knit, Blk.	55	299.00			
711 /NFM	TAL		6½	Cone	1	Dome	T	45-22	93	25	3k	8	15x7x9	Oil, Wal.	Knit, Blk.	24	179.00			
KEF	M 104aB	Bass Ref.	8		¾	Dome	M	50-20 ±2	83.5	15		8	24.4x13x10.1	Opt.	Foam, Blk.	36	475.00			
	M 105.2	Coherent Phase	12	5	Cone	1½	Dome		30-25 ±2	85	20	8	38x17.9x16.3	Opt.	Cloth, Opt.	80	1400.00			
	M 101	Inf. Baf.	5		¾	Dome		90-30 ±2	81	20		8	13.3x7.1x7.2	Opt.	Cloth, Opt.	12½	295.00			
	M 105.4	Coherent Phase	(2) 8	5	Cone	1	Dome		55-20 ±2	86		8	38x13.7x14.1	Opt.	Cloth, Opt.	45	1050.00			
	M 103.2	Inf. Baf.	8		1	Dome		60-20 ±2	86			8	20x10.4x9.5	Opt.	Cloth, Opt.	19	450.00			
	M 304	Inf. Baf.	(2) 8		1	Dome		60-20 ±3	87	10		8	26.7x11x12.2	Blk.	Cloth	30	350.00			
	M 303	Inf. Baf.	8		1	Dome		70-20 ±3	86	10		8	20x10.2x9	Blk.	Cloth	18	225.00			
	Corelli	Inf. Baf.	8		¾	Dome		50-30 ±3	82.5	25		8	18x8.6x11	Opt.	Cloth, Brn.	20	250.00			
	Calinda	Bass Ref.	8		¾	Dome		40-30 ±3	83	15		8	27.5x11x13.8	Opt.	Cloth, Brn.	42	395.00			
	Cantata	Inf. Baf.	13x9	5	Cone	1½	Dome	M, T	35-20	84.5	15		8	32.1x15.4x13.4	Opt.	Cloth, Brn.	70	725.00		
KENWOOD	LS-1900	Vented	13	5½	Cone		Horn	M, T	30-21	92	30	600, 5k	8	22½x17½x41½	Wal.	Cloth	127.9	1,165.00		
	LS-1600	Vented	13	5½	Cone		Horn	M, T	32-20	92	30	900, 5k	8	15½x12½x27½	Wal.	Cloth	64.9	550.00		
	LS-1200	Vented	10	4	Cone	¾	Cone	M, T	35-20	90	20	1k, 6k	8	13½x12½x25½	Wal.	Cloth	47	365.00		
	LS-408C	Vented	12	4½	Cone	1½	Cone	M, T	30-20	91	25	1k, 5k	8	16½x14½x29	Wal.	Cloth	47.5	330.00		
	LS-407C	Vented	10	4½	Cone	1½	Cone	M, T	40-20	90	20	2k, 5k	8	15x13½x25½	Wal.	Cloth	41	275.00		
	LS-405C	Vented	10			1½	Cone		40-20	90	20	3k	8	13½x12½x23½	Wal.	Cloth	26	189.00		
K&H	OY	Sealed	10	2	Cone		Horn	M, T	80-12.5 ±2	90	Inc.	500, 6k	4	12x19x9	Alum.		44	1,140.00		
	O-92	Sealed	(2) 10	5	Cone	1	Dome	W, M, T	80-12.5 ±1.5	102	Inc.	500, 3k	4	17½x31½x11½	Alum.		66	3,360.00		
	O-96	Sealed	10	2	¾			W, M, T	80-12.5 ±1.5	97	Inc.	600, 4k	4	12x19x11½	Alum.		48	1,645.00		



Audible
Images

Introducing AUDIBLE IMAGES...dedicated to the proposition that there is only one way of producing an "audiophile quality" recorded cassette tape. *Allow no compromises at any stage of manufacture.* It is our objective to capture the quality of the *master recording* frequently masked by surface defects and inner-groove distortions on vinyl discs. AUDIBLE IMAGES accomplishes this through a unique synthesis of *advanced technology, quality control, and personal interest.* In this introductory announcement, the techniques used to create the AUDIBLE IMAGES tapes will be reviewed.

AUDIBLE IMAGES employs a state-of-the-art 2 channel *digital recorder* to produce the "slave master" tape...a virtually *indistinguishable copy* of the stereo master recording. For the technically oriented, the 14-bit digital recorder exhibits flat frequency response from 0 Hz(DC) to 20,000 Hz \pm 1 dB, less than .03% THD, unmeasurable wow-and-flutter, and 85 dB dynamic range.

Transferring the high quality program onto cassette tape taxes the limitations of the cassette format. To overcome these limitations, AUDIBLE IMAGES slave decks record at *real time...at the actual playback speed of 1 7/8 ips.* Plus, they employ *Dolby* Noise Reduction* encoding and *Dolby HX Headroom Extension* circuitry. These allow the AUDIBLE IMAGES tapes to provide significantly improved high frequency headroom and S/N ratio, *using standard Dolby decoding.*

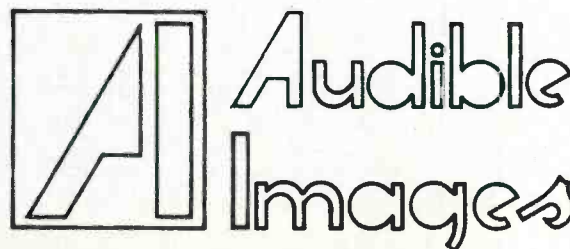
However, no discussion of cassette tape performance can be complete without specifying the type of tape under test. Of the many tapes tested for magnetic and mechanical performance, the new *metal particle coatings* offered valuable improvements in the areas of frequency response, S/N ratio, and overload characteristics, while providing *playback compatibility in the "chrome" equalization position.* Therefore, even though there is a substantial cost premium for the "metal" tape, its advantages make it the tape of choice at AUDIBLE IMAGES.

To assure uniformity of performance, AUDIBLE IMAGES must exercise exhaustive quality control. Machine maintenance is second to none. And, rather than a few random samples, *we adjust each tape* for Dolby sensitivity, bias level, and tape skew alignment prior to recording. Which overcomes tape-to-tape variations in magnetic and mechanical performance. In addition, each tape is *audibly monitored* during recording as a final quality check. And each tape carries AUDIBLE IMAGES' *lifetime guarantee* against mechanical defects other than user mishandling.

One word of caution. The maximum potential of any recorded tape will only be realized on equipment that is properly adjusted. Errors in Dolby calibration, playback head alignment, and equalization will adversely effect tape performance. Therefore, playback problems may be an indication of the need for adjustment in the consumer's deck, rather than a defect in the tape itself. If sufficient demand exists, AUDIBLE IMAGES will offer an alignment tape to verify playback parameters.

In the coming months, AUDIBLE IMAGES will introduce its first series of audiophile tapes. Because we recognize that audiophiles represent a wide variety of musical interests, we will offer an equally wide variety of musical selections. From classical, to jazz, to pop, to any other outstanding master tapes which can be obtained for duplication. The AUDIBLE IMAGES tapes will be available by mail order and by toll-free telephone order, shipped direct to you by 1st class mail. *At prices that will be competitive with audiophile discs.* We hope you will allow us to demonstrate our AUDIBLE IMAGES tapes to you.

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LOUDSPEAKERS

MANUFACTURER	Model	Enclosure Type	Woofer Dia., Inches		Midrange Dia., Inches		Tweeter Type		Tweeter Dia., Inches		Level Controls		Anechoic Freq. Response		Recommended Min. Amp. Pwr., Watts	Crossover Frequencies, Hz		Impedance, Ohms		Dimensions, Inches	Finish	Grille Material, Color	Weight, Lbs.	Price, \$
											W	M	T	W		M	T	Min	Max					
KINDEL AUDIO	Phantom	Vented w/ Pas. Rad.	(2) 5 1/4	1 1/2	Dome	3/4 x 2 1/4	Planar	M, T	40-22	±2	88	15	1.3k, 6.5k	/5	40x18x6 1/4	Wal.	Knit. Blk.	47	425.00					
KLH	1	Vented	(2) 8	4 1/2	Cone	1	Dome		30-19	±3	87	40	500, 4k	8/6	30 1/2 x 11 x 10 1/2	Oil. Wal. Oil.	Cloth, Blk.	125	1200.00					
	2	Vented	8	4 1/2	Cone	1	Dome		38-19	±3	87	40	500, 4k	8/4	21 x 8 1/2 x 10 1/2	Oil. Wal. Oil.	Cloth, Blk.	90	Syst. 725.00					
	3	Vented	6			1	Dome		40-19	±3	85	40	2.75k	8/5	12 1/2 x 8 1/2 x 6	Oil. Wal. Oil.	Cloth, Blk.	50	Syst. 495.00					
	4	Vented	6			1	Dome		63-19	±3	85	20	2.75k	8/5	12 1/2 x 8 1/2 x 6	Oil. Wal. Oil.	Cloth, Blk.	45	Syst. 320.00					
	150	Vented	8	4 1/2	Cone	1	Dome		56-19	±3	91	20	500, 3k	8/5	21 x 10 1/2 x 9 1/4	Wal. Birch Vin.	Cloth, Blk.	80	Pair 380.00					
	160	Ac. Sus.	8			1	Dome		70-19	±3	88	15	3k	8/5	19 1/2 x 10 1/2 x 7 1/2	Birch Vin.	Cloth, Blk.	55	Pair 250.00					
KLIPSCH	Belle Klipsch Klipschorn	Horn	15		Horn		Horn	No	45-17	±5	104	2	400, 6k	8/5	35 1/2 x 30 1/2 x 18 1/2	Opt.	Cloth, Opt. Cloth.	150	1119.00					
	Heresy	Closed Box	12		Horn		Horn	No	35-17	±5	104	2	400, 6k	8/5	52 x 31 1/2 x 28 1/2	Opt.	Cloth, Opt. Cloth.	240	1293.00					
	Cornwall	Vented	15		Horn		Horn	No	50-17	±5	96	15	700, 6k	8/8	21 1/2 x 15 1/2 x 13 1/2	Opt.	Cloth, Opt. Cloth.	55	380.00					
	La Scala	Horn	15		Horn		Horn	No	38-17	±5	98.5	6	600, 6k	8/5	35 1/2 x 25 1/2 x 15 1/2	Opt.	Cloth, Opt. Cloth.	108	674.00					
										45-17	±5	104	2	400, 6k	8/5	35 1/2 x 23 1/2 x 24 1/2	Raw Bir.	None	120	722.00				
KM LABORATORIES	KM 52	Pas. Rad.	5, 6 1/2			1 1/4	Dome	W, T	40-20	±3		Inc.	2.2k	4	10 1/2 x 14 x 9 1/2	Opt.	Cloth, Opt. Cloth, Blk.	18	695.00					
	KM 32	Pas. Rad.	5, 6 1/2			1	Dome	W, T	40-22	±3		Inc.	2.7k	8	14 x 9 1/4 x 8	Opt.	Cloth, Blk.		495.00					
	KM 205	Horn	(2) 12			1	Horn	T	25-15	±3		Inc.	700	8	Two Pieces	Blk.		195, 22 1/2	2500.00					
KOSS	CM/530	Pas. Rad.	8			1					89	15	2.8k		13 1/2 x 11 1/2 x 24	Oil. Pec.	Knit. Brn.	35	175.00					
	CM/1010	Pas. Rad.	8			1		T			92	15	2.5k		15 1/2 x 11 x 28	Oil. Pec. Oil.	Knit. Brn.	43.5	247.00					
	CM/1020	Twin Port	10	4 1/2	Cone	1		M, T			95	15	450, 3k		15 1/2 x 13 1/2 x 33	Oil. Pec. Oil.	Knit. Brn.	60	352.00					
	CM/1030	Twin Port	10	(2) 4 1/2	Cones	1		M, T			96	15	400, 2.5k, 6k		16 1/2 x 14 1/2 x 38 1/2	Oil. Pec. Oil.	Knit. Brn.	74	456.00					
KUSTOM ACOUSTICS	TAS	TAL (Tapered Ac. Line)	(2) 12	6 1/2	Cone	1 1/4, 1	Dome	T, ST	25-22	±2.5	97	15	300, 2.5k, 7.5k	4	40x24x18			185	1199.00					
	Amp Eater	TAL	(4) 12	(2) 6 1/2	Cones	(2) 1 1/4, (2) 1	Dome	T, ST	12-22	±2.5	99	50	300, 2.5k, 7.5k	2 or 8	48x31x18			315	1699.00					
	Titan Labyrinth Colossus	TAL	(2) 12	(2) 5	Cones	(2) 1 1/4, (2) 1	Dome	T, ST	14-22	±2.5	95	15	90, 2k, 7.5k	4	48x31x18			375	2199.00					
	Regency/CRM	TAL	(8) 12	(4) 5	Cones	(4) 1 1/4, (4) 1	Dome		8-28	±2.5	105	5	300, 2.5k, 7.5k	1 or 4	72x36x24			600	2999.00					
		TAL	12	6 1/2	Cone	1 1/4	Dome	M, T	20-22	±2.5	90	35	90, 2k	8	16x14x26			85	599.00					
		TAL		6 1/2	Cone	1	Dome	T	45-22		93	25	3k	8	15x7x9			24	179.00					
LANCER ELECTRONICS	SC8	Sealed	(2) 12	5 1/4	Dome	3 1/4	Dome	M, T	20-22		10	500, 4.5k	8	18x28x13 1/2	Oil. Wal.	Cloth, Blk.	65	359.50						
	SC7A	Sealed	12	5	Cone	3 1/2	Dome	M, T	20-22		10	500, 4.5k	8	14x25x12	Oil. Wal.	Cloth, Blk.	57	279.50						
	SC4A	Sealed	12	5	Cone	2 1/4	Cone	M, T	20-20		10	750, 6k	8	15x23 1/2 x 12 1/2	Oil. Wal. Oak	Cloth, Brn.	52	199.50						
	SC9T	Sealed	10	5	Cone	(2) 3 1/4	Dome	M/T	20-22		10	500, 4.5k	8	12x38x12	Oil. Wal.	Cloth, Blk.	62	249.50						
	SC11	Sealed	10	5	Cone	2 1/4	Cone	M/T	20-20		10	750, 6k	8	12x22 1/2 x 10	Oil. Wal.	Cloth, Tan	37	169.50						
	SC10A	Sealed	10			2 1/4	Cone	M/T	20-20		10	2.5k	8	12x20 1/4 x 10	Oil. Wal.	Cloth, Tan	33	139.50						
	9535-2	Vented	12			2 1/4	Cone		30-20		5	3k	8	14 1/2 x 25 x 11 1/4	Oil. Wal.	Cloth, Tan	33	119.50						
	9534X	Vented	8			2 1/4	Cone		40-20		5	3k	8	11 1/2 x 23 1/2 x 11 1/4	Oil. Wal.	Cloth, Tan	27	99.50						
	9711	Vented	8						45-15		3	8	8	10x20 1/4 x 9 1/2	Oil. Wal.	Cloth, Tan	19	69.50						
	SC-1	Sealed	6			1	W		35-18		5	3k	8	8x11 1/2 x 7	Oil. Wal.	Cloth, Tan	17	49.50						
LINN PRODUCTS	DMS	Isobarik	(2) 9x12	(2) 5	Cones	(2) 1	Dome		16-20	±2	50	375, 3k	4/4	15x16 1/2 x 30	Teak	Foam, Blk.	95	3740.00						
	S.A.R.A.	Isobarik	(2) 8			1	Dome		40-20	±3	40	3k	4/4	13x10x17	Teak	Foam, Blk.	33	1590.00						
	K.A.M.	Ac. Sus.	5			1	Dome		70-20	±3	25	3k	8/8	7 1/2 x 6 1/2 x 12	Teak	Cloth, Blk.	11	625.00						

LOUDSPEAKERS

MANUFACTURER	Model	Enclosure Type	Woofer Dia., Inches		Midrange Dia., Inches		Tweeter Dia., Inches		Level Control? T=Tw/Tweeter; ST=Super Tweeter		Anchok? Freq. Response Hz to kHz; ± dB		Recommended Min. Amp. Pwr., Watts	Crossover Frequencies, Hz		Impedance Ohms: Nominal/Minimum	Dimensions, Inches	Finish	Grille Material Color	Weight, Lbs.	Price, \$
			Woofer	Midrange	Midrange	Tweeter	Tweeter	Level	Control?	Level	Control?	Level		Control?	Level						
LUX AUDIO	MS-10	Vented	8		1	Dome		50-20	89	25	3k	6	28½x10½x21¼	Rswd. Ven.	Cloth, Brn.	57 Pr.	440.00	Pair			
MAGNEPAN	Tympani HD	Planar	1,026 Sq. In.		Planar	90 Sq. In.	Planar	40-20 ±3	84	100	1.2k	4	(3) 72x16x1		Cloth, Ivory	160	1550.00	Pair			
	MG II A	Planar		500 Sq. In.	Planar	68 Sq. In.	Planar	45-16 ±4	87	40	2.1k	6	22x71x2	Oak	Cloth, Ivory	45	895.00	Pair			
	MG I	Planar		428 Sq. In.	Planar	68 Sq. In.	Planar	50-16 ±4	87	40	2.4k	5	22x60x2	Oil. Oak	Cloth, Ivory	35	550.00	Pair			
	Smaller MG	Planar		50 Sq. In.	Planar	50 Sq. In.	Planar	50-16 ±4	90	15	2.3k	4	48x22x1½		Cloth, Ivory	30	395.00	Pair			
MARANTZ	200	Focus. Field	8	3½	Cone	1	Dome	36-20	88	7	2k, 8k	8	20½x12½x8½	Wal. Ven.	Cloth, Brn.		189.00				
	400	Focus. Field	10	5	Cone	1½	Dome	M, T	30-12	89	5	800, 2.4k	8	25x14½x11½	Wal. Ven.	Cloth, Brn.		299.00			
	600	Focus. Field	10	5	Cone	1½, 1	Dome	M, T, ST	25-28	88	5	750, 2.4k, 5.5k	8	36x14½x14¼	Wal. Ven.	Brn. Grain		599.00			
	M-2	Focus. Field	6½			1	Dome		30-20	81.5	30	2.4k	4	8½x13½x7½	Wal. Ven.	Cloth, Brn.		179.00			
	M-10	Focus. Field	12	5	Cone	1½	Dome	M, T	25-21	90	5	750, 2.4k	8	29½x10½x11¼	Wal. Ven.	Cloth, Brn.		429.00			
	M-16	Focus. Field	12	5	Cone	1½, 1	Dome	M, T, ST	20-28	90	5	700, 2.4k, 5.5k	8	45x19x12¼	Wal. w/ Glass	Cloth, Brn.		699.00			
MARIAH ACOUSTICS	LS-1	Ac. Sus.	10	4	Cone	1	Dome	M, T	38-35	89	40	350, 3.5k	8/6	20½x44x13	Opt.	Opt.	53	1395.00	Pair		
MASTERCRAFT AUDIO	Sound Panels SP-MK1	Ac. Sus.	8			1	Dome	T	40-27 ±3	88	30	2.6k	8/4	11½x6x26	Oil. Wal.	Cloth, Blk.	28	300.00			
MATRECS ELECTRONICS	MA216	Bass Ref.	(2) 12	6	Cone	(2) 1	Dome	M, T	30-22 ±3		8	1k, 5k	4	50x15½x10½	Wal. Vin.	Cloth, Blk.	76	399.00			
	MA206	Air Sus.	(2) 10	6	Cone	1	Dome	M, T	25-22 ±3		8	1k, 5k	4	32½x14½x11	Wal. Vin.	Cloth, Blk.	49	249.00			
	MA156	Bass Ref.	15	5	Cone	(2) 1½	Phen. Rings		30-22 ±3		8	2.5k, 5k	8	28x19½x10½	Wal. Vin.	Cloth, Blk.	38	169.00			
	MA136	Air Sus.	12	6	Cone	1	Dome	T	25-22 ±3		8	1k, 5k	8	24x15x10	Wal. Vin.	Cloth, Blk.	34	199.00			
	MA126	Air Sus.	12	5	Cone	1½	Phen. Ring		30-22 ±3		8	2.5k, 5k	8	24x15x10½	Wal. Vin.	Cloth, Blk.	26	139.00			
	MA106	Air Sus.	10			1½	Phen. Ring		35-20 ±3		5	5k	8	20x12½x10½	Wal. Vin.	Cloth, Blk.	35	99.00			
	MA86	Air Sus.	8			1½	Phen. Ring		50-20 ±3		2	5k	8	18½x11½x9	Wal. Vin.	Cloth, Blk.	15	79.00			
MERIDIAN	M2	Active Vented	(2) 5			1	Dome		38-35 ±3		1.75k		19x7.1x14.8	Wal.	Cloth	40	1995.00	Pair			
MESA	60	Ac. Sus.	5¼			1	Dome		50-20		10	4k	8	10½x6½x6¼	Wal. Vin.	Blk.	8	139.00			
	75	Ac. Sus.	6½	3½		1	Dome		50-22		10	800, 4k	8	12½x9½x7½	Wal. Vin.	Blk.	11	175.00			
	Disco I	Ported	15	(2) 9x3	Pz. Horns	(2) 4	Pz.		50-35		200	2.5k	8	29½x18x14	Wal. Blk.	Blk.	58	399.00			
	Disco Duo	Ported	(2) 12	2x5	Pz. Horn	(2) 4	Pz.		45-40		200	2.5k, 4.5k	8	Two Pieces	Wal. Blk.	Blk.	89/ Set	449.00			
	T-200	Ac. Sus.	(2) 12	5		3	Dome	M, T	40-20		200	65, 900, 6k	8/5	43x14½x13¾	Wal. Vin.	Blk.	90	425.00			
	50	Ac. Sus.	5	3		1x½	Horn		50-25		10	1.8k, 9k	8/4	9½x6½x4¼	Wal. Vin.	Cloth, Blk.	6½	324.00	Pair		
	45	Vented	8			3	Dome	T	45-22		15	85, 3k	8	21x11½x9½	Wal. Vin.	Cloth, Blk.	23	129.00			
	65	Vented	10			3	Dome	T	40-22		15	80, 2.5k	8	23x12½x10½	Wal. Vin.	Cloth, Blk.	32	185.00			
	85	Vented	10	5		3	Dome	M, T	36-22		15	65, 900, 6k	8	25½x14¼x11¼	Wal. Vin.	Cloth, Blk.	45	249.00			
	125	Vented	12	5		3	Dome	M, T	30-22		15	65, 900, 6k	8	27½x16x13	Wal. Vin.	Cloth, Blk.	55	305.00			
MS-80 Subwoofer			10				W	30-115 Hz ±5		5		8	16x18x16	Wal. Vin.	Cloth	64	270.00				
MICRO-ACOUSTICS	FRM 1ax	Ac. Sus.	10			(4) 1½	Cone	ST	30-22 ±4	89	18	1.5k, 2k	8	26x15½x13	Wal. Vin.	Cloth, Brn.	40	520.00	Pair		
	FRM 2ax	Ac. Sus.	10			(2) 1½	Cone	T	30-20 ±4	89	12	1.8k	8	26x15½x13	Wal. Vin.	Foam, Brn.	38	398.00	Pair		
	FRM 3ax	Ac. Sus.	8			2	Cone		33-20 ±4	91	8	2.5k	8	22x13x10	Wal. Vin.	Foam, Brn.	24	299.00	Pair		
	MS 1					(4) 1¼	Cone	T	3.5k-30k ±2			16	4x9x5	Oil. Wal.	Cloth, Beige	2	140.00	Pair			
MICRON	421/2/3	Ac. Sus.	4			1	Dome		125-20 ±5	86	10	2.5k	4	7½x5½x6½	Opt.	Cloth, Opt.	6	270.00	Pair		
	521/2/3	Ac. Sus.	5¼			1	Dome		100-20 ±5	87	10	2.5k	4	9x5½x7½	Opt.	Cloth, Opt.	7	330.00	Pair		
	631/2/3	Ac. Sus.	6½	2¼	Cone	1	Dome		70-20 ±5	87	10	3.8k, 13k	4	11½x7½x7½	Opt.	Cloth, Opt.	14	450.00	Pair		

LOUDSPEAKERS

MANUFACTURER	Model	Enclosure Type	Woofer Dia., Inches		Midrange Dia., Inches		Tweeter Dia., Inches		Level Control: W = Woofer, M = Midrange, T = Tweeter; ST = Super Tweeter	Anechoic Freq. Response Hz to kHz, ± dB	dB SPL, Watt/Meter	Recommended Min. Amp. Power, Watts	Crossover Frequencies, Hz	Impedance Ohms: Nominal/Minimum	Dimensions, Inches	Finish	Grille Material, Color	Weight, Lbs.	Price, \$
MICRON (Continued)	1011 Bass Extender	Tuned Port	10							91	20	100	8/5	19x18x18	Oil. Wal.	Cloth, Brn.	54	400.00	
MILLER & KREISEL	Satellite-1	Ac. Sus.	(2) 5		(2) 1	Dome	M, T		55-22 ±3		7.5	1.78k	4	6½x7½x21	Wal.	Cloth, Blk.	25	215.00	
	Voikawoofer	Servo F.B.	12				W		18-100 Hz ±3		Inc.	100		18x18x16½	Wal.	Cloth, Blk.	85	465.	
	Bottom End II Subwoofer	Ac. Sus.	12						26-300 Hz			30	4	18x18x16½	Wal.	Cloth, Blk.	52	190.00	
	Goliath II Subwoofer	Ac. Sus.	12						26-150 Hz			30	50, 75, 100, 125, 150	4	18x18x16½	Wal.	Cloth, Blk.	57	250.00
	Satellite-Voikawoofer	Ac. Sus.	12	(2) 5	Cones	(2) 1	Dome	W, M, T		18-22 ±3		7.5	1.78k	4	Three Pieces	Wal.	Cloth, Blk.	85, 25	895.00 Syst.
MITSUBISHI	MS-10	Ac. Sus.	10		2%	Cone	T		35-20 ±4	87	25	1.5k	6/5	12½x12x24%	Oil. Wal.	Cloth, Blk.	32	165.00	
	MS-40	Ac. Sus.	12	4	Cone	1%	Dome	M, T	25-20 ±4	87	50	600, 5k	6/5	15½x15½x34%	Oil. Wal.	Cloth, Brn.	77	550.00	
	MS-30	Ac. Sus.	12	4	Cone	1%	Dome	M, T	30-20 ±4	88	25	800, 5k	6/5	15½x13½x26%	Oil. Wal.	Cloth, Blk.	55	395.00	
	MS-20	Ac. Sus.	10		2%	Cone	T		35-20 ±4	88	25	1.5k	6/5	14½x12x24%	Oil. Wal.	Cloth, Blk.	40	275.00	
MODULAR ACOUSTICS	2800	Air Sus.	8		1	Dome			40-20	89	10	2.2k	8/6	19½x11½x9%	Oil. Wal.	Cloth, Blk.	32	140.00	
	2200 Satellite	Air Sus.	5½		1	Dome			65-20	90	10	2.2k	8/5	13x8x6	Oil. Wal.	Cloth, Blk.	15	154.00	
	2000 Subwoofer	Inf. Baf.	(2) 10						22-150 Hz	90	20	125	8/6	22½x25½x15%	Oil. Wal.	Cloth, Blk.	83	410.00	
	2600 Subwoofer	Tuned Port	(2) 8						32-125 Hz ±3	88	10	125	8/6	18½x16½x16%	Lac. Wal.	None	40	250.00 w/ casters	
	3000 Subwoofer	Dual Port	8		1	Dome			28-20	89	10	2.2k	8/4	26½x19x12%	Oil. Wal.	Cloth, Blk.	65	250.00	
	3200 Z	Air Sus.	10	2	Dome	1	Dome	M, T	35-20 ±3	89	20	700, 5k	8/6	38½x16x16	Lac. Wal.	Cloth, Blk.	66	400.00	
	3400 Tower	Air Sus.	(2) 8	2	Dome	1	Dome	M, T	32-20	90	15	700, 5k	4/4	36½x12½x10%	Oil. Wal.	Cloth, Blk.	64	410.00	
3800 Rollaway	Inf. Baf.	8, (2) 10	2	Dome	1	Dome	M, T	22-20	91	30	125, 700, 5k	4/4	42½x23½x12%	Oil. Wal.	Cloth, Blk.	105	640.00		
MONCRIEFF	Lab Monitor								27-30	15	98, 8k	8	4x24x24	Oil. Wal.	Cloth, Opt.	50	3980.00 Pair		
MORDAUNT-SHORT	Carnival	Inf. Baf.	8		½	Cone			85-17	10	3.5k	8	15½x9½x5%	Opt.	Cloth, Brn.	27	305.00 Pair		
	Festival	Inf. Baf.	8		¾	Dome			75-20 ±3	12	3.5k	8	17x11x7½	Opt.	Cloth, Brn.	33	425.00 Pair		
	Pageant	Ported Bass Ref.	8		1	Dome	M, T		85-20 ±3	15	3.5k	8	21x13x9	Opt.	Cloth, Brn.	49	545.00 Pair		
	Signifer	Ported Bass Ref.	12	5	Cone	1	Dome	M, T	36-20 ±2	25	500, 4k	8	31x15x13	Opt.	Cloth, Brn.	128	1740.00 Pair W/Stand		
NAMCO	221	Ac. Sus.	8	4	Cone	1	Dome		27-22	93	10	2k, 9k	8	9½x9½x19%	Wal.	Cloth, Blk.	20	139.95	
	331	Ac. Sus.	10	5	Cone	1	Dome	T	25-23	93	10	900, 9k	8	12½x11½x22	Wal.	Cloth, Blk.	33	229.95	
	551	Ac. Sus.	12	5	Cone	1	Dome	T	20-23	93	15	900, 9k	8	14½x11½x25½	Wal.	Cloth, Blk.	42	299.95	
NORMAN LABORATORIES	8a	Ac. Sus.	10		1	Dome			45-20 ±4	15	1.5k	8	23x12x10	Oil. Wal.	Cloth, Brn.	28	160.00		
	9	Ac. Sus.	(3) 10		(3) 1	Dome	W, T		35-20 ±3	30	1.5k	4/4	45½x15½x15	Oil. Wal.	Cloth, Blk.	75	500.00		
	10a	Ac. Sus.	2 (10)		(2) 1	Dome	T		40-20 ±3	30	1.5k	4/4	37½x15x13	Oil. Wal.	Cloth, Brn.	60	350.00		
	11	Ac. Sus.	10		(2) 1	Dome	T		40-20 ±3	20	1.5k	8/8	23½x15½x12%	Oil. Wal.	Cloth, Brn.	40	260.00		
	12	Ac. Sus. Bl-amp	(2) 10		(5) 1	Dome	W, M, T		30-20 ±2	75	1.5k	4/4	53½x28x14	Oil. Wal.	Cloth, Blk.	95	1800.00 2 speakers, lower & HF amp.		
OHM	F	Ac. Sus.	12						37-19 ±4	75		4/4	44x17½x17%	Wal.		103	2250.00 Pair		
	I	Vented	12	8	1½, (2) 1		M, T		32-21 ±3.5	10	100, 2k, 10k	8/4	33½x15½x15½	Wal.		93	1550.00 Pair		
	H	Pas. Rad.	8		2, 1		T		32-20 ±4	10	1.7k, 5k	8/4	26½x15x10%	Wal.		53	790.00 Pair		
	C2	Vented	10		2, 1		T		37-20 ±4	10	1.7k, 5k	8/6	25x14x9%	Wal.		43	600.00 Pair		
	L	Vented	8		(2) 2		T		42-20 ±4	10	2k, 10k	8/4	20x12x9%	Wal.		35	420.00 Pair		
	E	Ac. Sus.	8		2		T		65-19 ±4	7	1.7k	8/6	21½x11½x7%	Wal.		42	260.00 Pair		
	M	Vented	4		1				120-20 ±4	5	3.5k	4/4	7½x4½x4½	Alum.		15	290.00 Pair		
	H2	Vented	(2) 8						32-140 Hz, ±3	10		8/4	15x16x15	Wal.		70	385.00 Pair		

LOUDSPEAKERS

MANUFACTURER	Model	Enclosure Type	Woofer Dia. - Inches		Midrange Dia. - Inches		Tweeter Dia. - Inches		Level Controls: W = Woofer, M = Midrange, T = Tweeter, ST = Super Tweeter		Anechoic Freq. Response Hz to kHz, ± dB		Recommended Min. Amp. Pwr. - Watts		Crossover Frequencies Hz		Impedance Ohms, Nominal/Minimum		Dimensions, Inches		Finish	Grille Material, Color	Weight, Lbs.	Price, \$
ONKYO	E-100	Ac. Sus.	8			2x½	DDM	T			40-70	89	15	2.5k	6	13½x21½x10½	Rose. Vin.	Cloth, Blk.	25%	129.95				
	E-200	Ac. Sus.	11	4		2x½	DDM	M, T			35-70	90	20	1k, 5k	6	16½x26½x10½	Rose. Vin.	Cloth, Blk.	40%	229.95				
	F-3000	Ac. Sus.	11	4	Planar	2x½	DDM	M, T			35-70	89	40	1k, 7k	6	19½x31½x10½	Rose. Vin.	Cloth, Blk.	44	349.95				
	F-5000	Ac. Sus.	12½	4	Planar	2x½	DDM	M, T			28-70	88	50	1.2k, 5k	6	19½x31½x10½	Rose. Vin.	Cloth, Blk.	53%	499.95				
OPTONICA	CP-2121	Pas. Rad.	10			3	Cone				40-20 ±10	93	10	1.2k	8	14½x12½x28½	Vin.	Cloth, Blk.	38.9	420.00	Pair			
PERFECTIONIST AUDIO	Model One Subwoofer	Trans. Line	(2) 9x13					No			10-240 Hz, ±9	95	20	Var.	8/4	72x27x24	Opt.	Cloth, Blk.	380	3600.00				
	Model Two Subwoofer	Trans. Line	8					No			18-240 Hz, ±9	93	20	Var.	8/4	47x12x18	Opt.	Cloth, Blk.	95	2000.00	Pair			
PETROFF LABS	Matrix-4	Ac. Sus.	8			(2) ½x2	Ribbons	(2) T			40-40 ±2	88	50	2k	4/3	18x13½x9	Oil, Oak	Cloth, Brn.	23	490.00	Pair			
PHASE LINEAR	P-580	Bass Ref.	15	2½	Dome		Ribbon	M, T			28-120	91		950, 8k	8	18.3x28.3x17.3	Wal.	Cloth, Brn.	103	1200.00				
	P-560	Bass Ref.	12	2½	Dome		Ribbon	M, T			28-120	91		950, 8k	8	15.3x27x15	Wal.	Cloth, Brn.	69	850.00				
	P-530	Bass Ref.	12	5	Dome	1	Ribbon	M, T			30-30	95		1k, 5k	6.3	15x25x14.5	Wal.	Cloth, Brn.	55	500.00				
	P-510	Bass Ref.	10	4	Cone	1	Dome	M, T			38-30	93		900, 4.8k	6.3	13.8x23x12.7	Wal.	Cloth, Brn.	36	300.00				
PHILIPS	AH477	Ac. Sus.	12	2	Dome	1	Dome	M, T			32-20	85	20	1.5k, 5.5k	8	28x15½x14½	Oil, Wal.	Cloth, Blk.	54	320.00				
	AH476	Ac. Sus.	10	2	Dome	1	Dome	M			35-20	85	20	1.5k, 5.5k	8	26x13½x11½	Oil, Wal.	Cloth, Blk.	42	250.00				
	AH475	Ac. Sus.	8			1	Dome				40-20	85	10	3.5k	8	23½x13½x11	Wal, Vin.	Cloth, Blk.	38	160.00				
PIONEER	HPM-150	Bass Ref.	15½	4	Cone	1½	Cone	M, T, ST			25-40		50	750, 2.6k, 8.5k	6.3	38½x17½x17½	Wal.	Cloth, Blk.	82	550.00				
	HPM-900	Bass Ref.	12	4	Cone	1½	Cone	M, T, ST			30-50		100	2.5k, 5.5k, 16k	8	26½x15½x15½	Wal.	Cloth, Blk.	51½	375.00				
	HPM-700	Bass Ref.	10	4	Cone	1½	Cone	M, T, ST			35-50		90	1.7k, 3k, 16k	8	24x13½x12½	Wal.	Cloth, Blk.	32	275.00				
	HPM-500	Bass Ref.	10			1½	Cone	T, ST			35-50		40	2.5k, 8k	8	22½x12½x12½	Wal.	Cloth, Blk.	26	195.00				
	CS-99AA	Bass Ref.	15	4½	Cone	3	Cone	M, T			25-22		50	1.2k, 3.2k	8	24½x16½x11½	Wal.	Cloth, Brn.	43½	350.00				
	Promusica 120	Bass Ref.	10	5	Cone	1½	Cone	M, T			35-20		30	1k, 4k	8	23x13x9½	Wal.	Cloth, Brn.	26	145.00				
Promusica 80	Bass Ref.	8			1½	Cone	T			35-20		10	1.5k	8	18½x10½x8½	Wal.	Cloth, Brn.	12½	99.00					
PLASMA-TRONICS	Hill Type 1	Plasma	12	6	Cone		Plasma				18-100 ±3	100	130,700	8	57½x24½x20	Opt.	Cloth, Blk.	580 Pr.	8000.00	Pair				
PLEXUS AUDIO SYSTEMS	I Subwoofer	Trans. Line	10								26-500 Hz ±2	93	50	75-250	8	36x20 Cyl.	Opt.	Cloth, Blk.	58	675.00				
POLK AUDIO	RTA 12	Pas. Rad.	12	(2) 6½	Cone	1	Dome				29-20.5 ±2	94	10	40,2k	4	33½x16x11½	Opt.	Cloth, Blk.	75	384.95				
	10A	Pas. Rad.	10	(2) 6½	Cone	1	Dome				30-20.5 ±2	92.5	10	60,3k	6	28x16x11½	Opt.	Cloth, Blk.	56	279.95				
	7B	Pas. Rad.	10	6½	Cone	1	Dome				33-20.5 ±2	91	10	60,3k	8	24x14x9½	Opt.	Cloth, Blk.	35	199.95				
	5A	Pas. Rad.	8	6½	Cone	1	Dome				40-21 ±3	90	10	60,3k	8	21½x10½x8½	Opt.	Cloth, Blk.	29	149.95				
	Mini Monitor L.F. 14	Pas. Rad.	4½	4½	Cone	1	Dome				60-20.5 ±2	92	10	100,3k	6	13½x6x4½	Opt.	Cloth, Blk.	23 Pr.	124.95				
	Subwoofer	Pas. Rad.	12	(2) 6½	Cone			Yes					92	15	50/90/140	8	33½x16x11½	Opt.	Cloth, Blk.	65	269.95			
PSB SPEAKERS	New Avanti	Bass Ref.	7			1	Dome				90-20 ±2	20	1.7k	8	14½x8½x8½	Vin.	Cloth, Blk.		150.00					
	Avette	Bass Ref.	8			1					70-19 ±3	15	2.5k	8		Vin.	Foam, Blk.		125.00					
	New Avanti	Bass Ref.	8			1	Dome				70-20 ±2	15	1.5k	8	22½x11½x10½	Vin.	Cloth, Blk.		180.00					
	New Passif I	Pas. Rad.	8			1	Dome				65-20 ±2	15	1.5k		26x12½x10½	Vin.	Cloth, Blk.		235.00					
	New Passif II	Pas. Rad.	8			1	Dome				60-20 ±2	15	1.5k			Vin.	Cloth, Blk.		200.00					
	Subwoofer	Bass Ref.	2x8								30-150 Hz ±2		Var.			Opt.	Cloth, Blk.		550.00					
	Summit Ten	Pas. Rad.	8			1	Dome					30	2.5k			Oil, Wal.	Cloth, Blk.		575.00					
	Summit Seven	Ac. Sus.	8			1	Dome					30	2.5k			Oil, Wal.	Cloth, Blk.		350.00					
	Alpha II	Ac. Sus.	4			1	Dome					80-20 ±2	20	2k	4	4x8x5	Wal.	Cloth, Blk.		120.00				

LOUDSPEAKERS

MANUFACTURER	Model	Enclosure Type	Woofer Dia., Inches	Midrange Dia., Inches	Midrange Type	Tweeter Dia., Inches	Tweeter Type	Level Control? W = Woofer, M = Midrange, T = Tweeter, ST = Super Tweeter	Anechoic Freq. Response Hz to kHz, ± dB	8B SPL / Watt / Meter	Recommended Min. Amp. Pwr., Watts	Crossover Frequencies, Hz	Impedance Ohms: Nominal / Minimum	Dimensions, Inches	Finish	Grille Material, Color	Weight, Lbs.	Price, \$
QUAD	ESL	ES							45-18	86	15		15	34x31x10½			40	1780.00
QLC BASS MINT	10/24 Subwoofer	Vented	10						24-650 Hz, ±3				8/	26x21x19	Wal. Grain	Cloth. Blk.	80	329.00
RADIAN RESEARCH	2-10-3	Pas. Rad.	(2) 10	5	Cone	1	Dome	M, T	35-20 ±3	93.5	20	900, 6k	4/	36½x13x13%	Wal. Vin.	Cloth. Blk.	62	369.95
	12-3	Ducted Port	12	5	Cone	1	Dome	M, T	35-20 ±3	93.5	15	900, 6k	8/	25½x14½x11%	Wal. Vin.	Cloth. Blk.	49	289.95
	10-3	Ducted Port	10	5	Cone	1	Dome	M, T	40-20 ±3	93.5	15	900, 6k	8/	23x12½x10%	Wal. Vin.	Cloth. Blk.	33½	229.95
	RR 8-3	Ducted Port	8	5	Cone	4	Cone	T	54-19 ±3	92.5	10	3k, 8.5k	8/	21x11½x9%	Wal. Vin.	Cloth. Blk.	26	149.95
	RR 8-2	Ducted Port	8		4	Cone			58-20	90	10	3k	8/	19x11x9%	Wal. Vin.	Cloth. Blk.	49 Pr.	119.95
RADIO SHACK	T-200 Tower Mach I	Inf. Baf.	(2) 10	6½	Cone	1½	Horn	M, T	50-20 ±3	90		800, 6k	8	34x12½x12½	Oil. WI.	Cloth. Brn.	42	260.00
	T-100 Tower	Inf. Baf.	15	1½	Horn	1	Horn	M, T	20-20	88		900, 5k	8	28½x17½x12	Oil. WI.	Cloth. Brn.	50	240.00
	OPT-25	Inf. Baf.	(2) 8			1½	Cone	M, T	55-18				8		Oil. WI.			
	OPT-10	Pas. Rad.	12	4	Cone	1½	Cone	M, T	48-18	91	10	1.3k, 6k	8	25x14x11½	Oil. WI.	Cloth. Brn.	41	150.00
	T-70	Ported Lab.	8		1	Cone	T		42-20 ±3	90	10	2.5k	8	25x15½x10%	Oil. WI.	Cloth. Brn.	45	140.00
	Nova-10	Ported Lab.	8		1	Dome	T		55-20 ±3	90	15	3k	8	29½x10½x10½	Oil. WI.	Cloth. Brn.		130.00
	OPT-23	Pas. Rad.	8		2½	Cone	T			90			8	22x12½x10%	Oil. WI.	Cloth. Brn.		130.00
	MC-2001	Port	10		2½	Cone			55-20	91.5	10	3.5k	8	22½x12½x11½	Oil. WI.	Cloth. Brn.	24	100.00
	Minimus 11	Port	8		1½	Cone			50-18	90	10	2.5k	8	22½x13x17½	Oil. WI.	Cloth. Brn.	18	100.00
	MC-1401	Inf. Baf.	5		1	Cone			50-20		10		8	10½x7x6½	Opt.	Opt.	10	80.00
	MC-1200	Port	8		1½	Cone			80-20	91	10	2.5k	8	18x11½x7½	Oil. WI.	Cloth. Brn.	14	70.00
	Minimus 7/7S	Inf. Baf.	8		2½	Cone			85-17	86	10	4k	8	17½x10½x7½	Oil. WI.	Cloth. Brn.	15	60.00
	MC-800	Inf. Baf.	4		1	Dome			50-20	83	10	2.5k	8	7½x4½x4¼	Opt.	Metal	4½	50.00
	Super Tweeter	Inf. Baf.	5				Horn		110-20	86		7k	8	11x9x5	Oil. WI.	Cloth. Brn.	6	40.00
	Plezo Super Tweeter	Pz.					Pz.		5k-40k			5k	8	4½x3¾x2½	Plas.	None		19.95
								5k-25k	96		5k				Plas.	None		14.95
RECOTON	SM-200		4		1	Dome			60-21		15		8	4½x7x4¼	Alum.	Mesh, Blk.	20 Pr.	149.95 Pair
	CF-300		4	2½	Cone	1	Dome	M	60-20		15		8	4½x7x4¼	Blk. Alum.	Mesh, Blk.	20½ Pr.	159.95 Pair
REVOX	BR 530	Bass Ref.	12½		Dome	¾	Dome		48-25 ±3	87	20	750, 3k	4/4	15x13½x24	Oil. WI.	Cloth. Brn.	41½	399.00
	BX 350	Inf. Baf.	(8) 4%	(4) 4%	Cone	¾	Dome	T	5-20 ±3	84	20	3.2k	4/4	13¾x11½x20½	Oil. WI.	Cloth. Brn.	30%	395.00
	BX 4100	Inf. Baf.	6%	1%	Cone	¾	Dome	M, T	45-25 ±3	85	20	600, 4k	4/4	17¾x17x31	Oil. WI.	Cloth. Brn.	88	1199.00
	Triton Satellite	Inf. Baf.	(2) 9%		Dome	¾	Dome		30-25	91	20	1.3k, 3.2k	4/4	7½x12½x18%	Oil. WI.	Cloth. Brn.	11	1599.00 Syst.
	Triton Subwoofer	Inf. Baf.	(2) 9%								150			18x41½x30	Oil. Wal.	Cloth. Brn.	216	See Above
REYNOLDS ADVANCE	A2	Pas. Rad.	8		1	Dome			30-20 ±3	90	15	2k	8	10½x14½x26½	Opt.	Cloth. Brn.	44	209.00
	V2	Ac. Sus.	8		4	Dome			45-20 ±3	92	15	1.8k	8	9½x11½x20	Opt.	Cloth. Brn.	24	139.00
	D2	Vented	8		1¼	Phen.			45-17 ±3	93	10	2.5k	8	7x12x17½	Opt.	Cloth. Brn.	20	99.00
	C2	Pas. Rad.	10		1	Dome			27-20 ±3	90	20	2k	8	11½x15x35	Oil. WI.	Cloth. Brn.	55	350.00
	A22	Pas. Rad.	(2) 8		(2) 1	Dome			27-20 ±3	90	15	2k	7	10½x14½x52	Oil. WI.	Cloth. Brn.	80	450.00
RH LABS	SB-1a Subwoofer		12							86	100	60-80	8/6	40x23x19	Opt.	None	175	475.00
	SB-2 Subwoofer		12							89	50	80-125	8/6	23x19x19	Opt.	None	80	325.00
ROGERS	Monitor 2	Bass Ref.	8	1	Cone	1	Dome		40-20 ±3		50	2k, 15k	8	25x12x12	Opt.	Cloth. Blk.	31	950.00 Pair
	Compact	Ac. Sus.	8		1	Dome			50-20 ±3		50	2k	8	20x11x10%	Opt.	Cloth. Blk.	25	700.00 Pair
	LS3/5a	Ac. Sus.	5		1	Dome			70-20 ±3		50	2.5k	15	7½x6¾x12	Opt.	Cloth. Blk.	11½	599.00 Pair
	Reference Monitor	Ac. Sus.	13					W	30-150 Hz ±3	89	50	150	8	32x16½x18	Opt.	Cloth. Blk.	78	2400.00 W/amp and x-over.
	L35B/xa75	Bass Ref.	12		1¼	Dome	W, T		40-20 ±3	96	100	1.8k	8	17½x15½x30	Opt.	Cloth. Blk.	70½	5900.00 W/2 amps.
	LS5/8	Bass Ref.	12															
ROGERSOUND LABS	6600H	Bass Ref.	(2) 12	(2) 5	Cones	2x5¼	Horn	M, T	25-20	96	10	800, 5k	4	46x18x11	Wal.	Cloth. Blk.	90	574.50
	Micron	Ac. Sus.	4		1	Dome			50-20	94	15	2.5k	8	7x4½x4	Blk. Wrink.	Metal	10½ Pr.	187.50
	Formula 40	Bass Ref.	12	5	Cone	2½	Cone	M, T	40-20	88	10	1.2k, 4k	8	23½x14½x11%	Opt.	Cloth. Brn.	45	192.00
	Formula 60	Pas. Rad.	12	5	Cone	2½	Cone	M, T	35-30	88	10	1.2k, 4k	8	38x15x11	Opt. Wl. Vn.	Cloth. Brn.	58	234.00
	3300 Monitor	Bass Ref.	12	5	Cone	¾	Dome	M, T	35-21	87	12	800, 4k	8	25x14½x11½	Opt.	Cloth. Blk.	50	282.00
3600 Monitor	Bass Ref.	12	5	Cone	1	Dome	M, T	35-22	87	12	800, 4k	8	25x14½x12½	Opt.	Cloth. Blk.	50	321.00	
	Sierra	Pas. Rad.	12	5	Cone	1	Dome	M, T	32-21.5	88	10	800, 4k, 3.8k	8	40x14½x12½	Opt.	Cloth. Blk.	71	409.50

LOUDSPEAKERS

MANUFACTURER	Model	Enclosure Type	Woofer Dia., Inches	Midrange Dia., Inches	Midrange Type	Tweeter Dia., Inches	Tweeter Type	Level Controls: W=Woof, M=Midrange, T=Tweeter, ST=Subwoofer	Anechoic Freq. Response Hz to kHz, ± dB	dB SPL/Watt/Meter	Recommended Min. Amp. Pwr., Watts	Crossover Frequencies, Hz	Impedance Ohms, Nominal/Minimum	Dimensions, Inches		Finish	Grille Material, Color	Weight, Lbs.	Price, \$
														W	M				
ROGERSOUND LABS (Continued)	Nevada	Ac. Sus.	12, 8	5	Cone	2x 5 1/2	Horn	M, T	29-20	90	10	800, 5k	4	26 1/2 x 17 x 13 1/2	Opt.	Cloth Blk.	63	522.00	
	Formula 30	Pas. Rad.	8		Cone	2 1/2	Ring		50-19	85	5	2.5k	8	23x12x9	Wal. Vin.	Cloth Brn.	33	93.00	
	Formula 25	Pas. Rad.	8		Cone	2 1/2	Cone		45-20	87	5	2.5k	8	25 1/2 x 14 1/2 x 11	Wal. Vin.	Cloth Brn.	43	115.50	
	Formula 20	Bass Ref.	12	5	Cone	2 1/2	Ring		40-19	88	10	1.2k, 4k	8	25 1/2 x 14 1/2 x 11	Wal. Vin.	Cloth Brn.	45	139.50	
RTR	75D	Ac. Sus.	10	1 1/2	Dome	1	Dome	M, T	40-20 ±3	90.5	20	1.25k, 10k	6	25 1/2 x 14 1/2 x 11 1/2	Vin.	Knit, Blk.	48	250.00	
	G-40	Pas. Rad.	8		1	Dome	T		35-22	90	10	2.5k	4	23x12x9 1/2	Vin.	Knit, Blk.	31	129.00	
	G-80	Pas. Rad.	8		1	Dome	T		32-25	90	10	2.5k	4	25x14 1/2 x 11	Vin.	Knit, Blk.	40	179.00	
	G-100	Pas. Rad.	10		1	Dome	T		30-25	91	10	2.5k	4	30x14 1/2 x 11 1/2	Vin.	Knit, Blk.	45	229.00	
	G-200	Pas. Rad.	10		1	Dome	T		38-20 ±3	91	10	2k	6	36x14 1/2 x 12 1/2	Oil. Wal.	Knit, Blk.	62	279.00	
	300D	Ac. Sus.	(2) 10	1 1/2	Dome	1	Dome	M, T	36-20 ±2	90.5	25	1.25k, 10k	4	42x14 1/2 x 12 1/2	Oil. Wal.	Knit, Blk.	75	400.00	
	600D	Ac. Sus.	(2) 12	(2) 1 1/2	Domes	(2) 1	Dome	M, T	32-20 ±2	91.5	25	950, 10k	4	48x16 1/2 x 16 1/2	Oil. Wal.	Knit, Blk.	112	600.00	
	800D	Ac. Sus.	10	8, 1 1/2	Cone, Dome	1	Dome	W, M, T	36-20 ±2	90.5	25	150, 1.9k, 9.5k	6	37 1/2 x 23 x 13 1/2	Oil. Wal.	Knit, Blk.	87	600.00	
	DAC-1 Subwoofer		12						16-150 Hz, ±1.5	90	40	120	6	21 1/2 x 29 1/2 x 28	Oil. Wal.	Knit, Blk.	135	600.00	
	DR-1	ES	10, 12			14 Dia.	ES	T	30-30 ±2		Inc.	325	8	49x16 1/2 x 16 1/2	Oil. Wal.	Knit, Blk.	165	1495.00	
	ESR-6	ES Add-on				(6) 3x6	ES	W, T	1.5k-20k ±2		15	1.5k	8	14 1/2 x 14 1/2 x 12	Oil. Wal.	Knit, Blk.	23	275.00	
	PS/1 Satellite	Ac. Sus.	8	1 1/2	Dome	1	Dome	T	65-20 ±2	90.5	25	1.5k, 9.5k	6	21 1/2 x 12 1/2 x 8	Oil. Wal.	Knit, Blk.	29	325.00	
	SANSUI	SP-L750	Pas. Rad.	12			3, 1 1/2	Horn	T, ST	30-40	94		1.5k, 12k	8/	16 1/2 x 36 1/2 x 13 1/2	Wal. Ven.	Cloth Brn.	55.3	650.00
SP-L550		Bass Ref.	12			3, 1 1/2	Horn	T, ST	35-40	93		1.5k, 12k	8/	15 1/2 x 25 1/2 x 14	Wal. Ven.	Cloth Brn.	38.4	500.00	
SP-X9900		Bass Ref.	17	8 1/2	Cone	(2) 6 1/2 x 2, 1 1/2	Horn, Cone, Horn		22-23	100		1k, 7k, 10k, 15k	8/	18 1/2 x 27 1/2 x 10	Wal. Grain	Wood, Brn.	42.3	400.00	
SP-X8900		Bass Ref.	17	6 1/2	Cone	(2) 1 1/2 x 2, (3) 1 1/2	Horn, Cone	T, ST	22-23	100		1k, 6k, 10k	8/	18 1/2 x 27 1/2 x 10	Wal. Grain	Wood, Brn.	40.6	350.00	
SP-X7900		Bass Ref.	16	4 1/2	Cone	(2) 1 1/2 x 2, (2) 1 1/2	Horn, Cone	T, ST	30-22	97		2k, 7k, 12k	8/	17 1/2 x 26 1/2 x 10	Wal. Grain	Wood, Brn.	34.6	310.00	
SP-X6900		Bass Ref.	13	4 1/2	Cone	(2) 1 1/2 x 2, (2) 1 1/2	Horn, Cone	T, ST	30-22	95		2.5k, 8k, 16k	8/	14 1/2 x 24 1/2 x 10	Wal. Grain	Wood, Brn.	26.7	260.00	
SPA-3700		Ac. Sus.	12	5 1/2	Cone	Pz.		M, T	30-25		20		8/	15 1/2 x 24 1/2 x 12	Cloth	Cloth		180.00	
SPA-2700		Bass Ref.	10	5 1/2	Cone				35-18		10		8/	14 x 23 1/2 x 10	Cloth	Cloth		260.00	
SPA-1700		Bass Ref.	10			2 1/2			45-18		10		8/	14 x 23 1/2 x 10	Cloth	Cloth		200.00	
J-33		Ac. Sus.	8 1/2			1	Dome		45-20	90		2k	6/	9 1/2 x 16 1/2 x 7 1/2	Blk.	Mesh, Blk.	15.4	450.00	
J-11		Pas. Rad.	4			1	Dome		45-20	85		2.5k	5/	4 1/2 x 11 1/2 x 5 1/2	Blk., Silv.	Mesh, Blk.	6.4	290.00	
SP-M1			4				Dome		55-20	85			8/	5x8x4 1/4	Oil. Wal.	Wood, Brn.	Pair	250.00	
S-50		Bass Ref.	12 1/2	4 1/2	Cone	2 1/2	Cone		28-23	94			8	14 1/2 x 26 1/2 x 13 1/2	Oil. Wal.	Cloth, Blk.	29.3	400.00	
SARAS	11	Ac. Sus.	10			1	Dome	No	35-18 ±4	25	1.8k	8/	24x13 1/2 x 12	Wal.	Cloth, Brn.	46	220.00		
	22	Ac. Sus.	12			1	Dome	No	30-18 ±3	25	1.8k	8/	25x15 1/2 x 12 1/2	Wal.	Cloth, Brn.	55	270.00		
	30	Ac. Sus.	12			1	Dome	No	30-18 ±3	25	500, 5k	8/	25x15 1/2 x 12 1/2	Wal.	Cloth, Brn.	57	350.00		
	ST 200	Ac. Sus.	(2) 10	5	Cone	1	Dome	No	30-18 ±3	40	500, 5k	8/	43x14 1/2 x 12	Wal.	Brn.	80	600.00		
H. H. SCOTT	166	Air Sus.	6 1/2			1	Dome		55-20 ±4	92.5	10	2.2k	8/7	13x7 1/2 x 6 1/2	Hick.		22	130.00	
	176B	Bass Ref. w/ Port	8			1 1/4	Ring		60-18 ±4	93.5	5	3.5k	8/6	18x10 1/2 x 8 1/2	Wal.		17	110.00	
	177BL	Air Sus.	8	5		1 1/4	Ring		50-18 ±4	92.5	7	1.2k, 3.5k	8/6	21 1/2 x 11 x 9 1/2	Hick.		22	150.00	
	188T	Air Sus.	10	4 1/2		1	Dome	M, T	38-20 ±4	95.4	10	900, 3.5k	8/6	33 1/2 x 13 1/2 x 10 1/2	Wal.		44	280.00	
	199T	Air Sus.	12	4 1/2		1	Dome	M, T	38-20 ±4	92	15	800, 3.5k	8/6	36x15x11 1/2	Hick.		50	360.00	
	186B	Air Sus.	10	4 1/2		1	Dome	M, T	38-20 ±4	95	10	900, 3.5k	8/6	24x13 1/2 x 10 1/2	Hick.		33	250.00	
	Pro-100B	Air Sus.	15	(2) 4 1/2		(2) 1	Dome	M, T, ST	36-20 ±4	94	20	700, 3.5k	8/4	29 1/2 x 19 x 14 1/2	Oil. Wal.		67	660.00	
	197B	Air Sus.	15	4 1/2		1	Dome	M, T	38-20 ±4	95	15	750, 3.5k	8/6	27 1/2 x 16 1/2 x 13 1/2	Wal.		54	330.00	
	196B	Air Sus.	12	4 1/2		1	Dome	M, T	38-20 ±4	95	15	800, 3.5k	8/6	25 1/2 x 15 x 10 1/2	Wal.		42	280.00	

LOUDSPEAKERS

MANUFACTURER	Model	Enclosure Type	Woofer Dia., inches		Midrange Dia., inches		Tweeter Dia., inches		Tweeter Type	Level Control? W = Woofer, M = Midrange, T = Tweeter, ST = Super-tweeter	Ampechoc Freq. Response Hz to kHz, ± dB	dB SPL/Watt/Meter	Recommended Min. Amp. Pwr., Watts	Crossover Frequencies, Hz	Impedance, Ohms, Nominal/Minimum	Dimensions, inches	Finish	Grille Material, Color	Weight, Lbs.	Price, \$
SEAS	DD Tower Satellite & Subwoofer 603 Kit	Ac. Sus., Vented	13, 8	4½	Cone	1	Dome	M, T	28-25 ±3	90	40	180, 600, 4k	8/5	17½x13¼x47	Rose.	Foam, Blk.	70	1800.00 Pair		
	403 Kit	Bass Ref.	13	4½	Cone	1	Dome		30-25 ±3	91	15	600, 3k	8/5	26x15½x12½				159.00		
	253 Kit	Bass Ref.	10	4½	Cone	1	Dome		35-25 ±3	91	15	700, 3k	8/5	22½x13x11¼				109.00		
	223 Kit	Bass Ref.	8	4	Cone	1	Dome		35-25 ±3	89	15	800, 4k	8/5	19x11x10½				89.00		
	Disco 47 Kit	Ac. Sus.	8	4	Cone	2	Cone		50-20 ±3	92	10	1.5k, 5k	8/5	19x11x10½				59.00		
		Bass Ref.	(2) 12	(2) 5¼	Cones	(2) 4	Cone		40-20 ±4	100	10	1k, 3k, 8k	8/5	39½x19½x13½				239.00		
SERVOLINEAR	II	Periphonic	10	4½	Cone	1	Pz.	M, T				25	8/6	14½x14½x26½	Rose.	Cloth, Blk.	55	200.00		
	III	Periphonic	10, 8	4½	Cone	1	Pz.	M, T				50	8/6	16x16x31½	Rose.	Cloth, Blk.	78	300.00		
	IV	Periphonic	10, 8	4½	Cone	1x3	Pz.	M, T				75	8/6	17x17x34	Rose.	Cloth, Blk.	88	400.00		
	V	Periphonic	(2) 10, 8	8, 4½	Cones	1x3	Pz.	M, T				100	8/6	18x18x43	Rose.	Cloth, Blk.	108	600.00		
	VI	Periphonic	12, (2) 10	8, 4½	Cones	1x3	Pz.	M, T				150	8/6	19½x19½x46½	Rose.	Cloth, Blk.	125	800.00		
	VII	Periphonic	15, 12, 10	8, 4½	Cones	1x5	Pz.	M, T				200	8/6	23½x23½x52½	Rose.	Cloth, Blk.	225	1000.00		
	SHAHINIAN ACOUSTICS	Obelisk	Pas. Rad.	8	(2) 1%	Domes	(2) ¾	Dome		32-21 +3, -2	91	30	1.9k, 7.5k	6/4	12x14x27	Opt.	Opt.	49	576.00	
6%		Aper.	6			¾	Dome		40-21 ±3	90	25	6.5k	6/4	14x10½x23	Bir.	Brn.	24	225.00		
Contra-Bombarde Subwoofer		Horn/Slot	(2) 8						16-200 Hz ±3	89	50	Ext.	8/4	28x19x35	Opt.			1200.00		
SHURE	SR112W	Bass Ref.	(2) 8				Horn	T	45-16 ±5	87	10	2.6k	8/6	23½x15½x16½	Wal. Vin.	Cloth, Brn.	46	378.00		
	SR112B	Bass Ref.	(2) 8				Horn	T	45-16 ±5	87	10	2.6k	8/6	23x15x15¾	Wal. Vin.	Cloth, Blk.	39	367.00		
	SR116B	Bass Ref.	(2) 8				Horn	T	45-16 ±5	87	10	2.6k	8/6	23x15x15¾	Wal. Vin.	Cloth, Blk.	41	415.00		
SIARE	DB200	Vented	6½	6½	Cone	¾	Dome		50-22 ±4	91	10	4k	8	26x13¾x12	Wal. Vin.	Cloth, Brn.	35.2	269.95		
	DLK200	Vented	8	6½	Cone	¾	Dome		60-18 ±4	93	10	4k	8	22.8x13x11	Wal. Vin.	Cloth, Brn.	25.3	329.95		
	Delta 400	Vented	9	4¾	Cone	1	Dome		45-25 ±2	89	20	500, 4k	8	20x17¾x13¾	Oil. Wal. Vin.	Cloth, Brn.	75	1000.00		
	Club 5	Vented	8	8	Cone	2½	Ogive		60-18 ±4	94	20	4k	4	23¼x12x10½	Wal. Vin.	Cloth, Brn.	35.2	319.95		
	Club 7	Vented	10	8	Cone	2½	Ogive		50-18 ±4	96	20	4k	4	28x13¾x12½	Wal. Vin.	Cloth, Brn.	50.6	469.95		
	Club 9	Vented	10	8	Cone	2½	Ogive		40-18 ±4	100	20	4k	8	38½x15¾x15½	Wal. Vin.	Cloth, Brn.	88	689.95		
SNELL ACOUSTICS	Type A	Ac. Sus.	10	4	Cone	1	Dome		36-18 ±1.5	80		275, 2.5k	/4	46½x23¾x13	Oil. Wal.	Cloth, Blk.	97	1880.00 Pair		
SONIC INTERNATIONAL	MS-3	Ac. Sus.	4½			2½	Cone		50-20	86	10	4k	4/3	8½x5x4¾	Vin.	Mesh, Blk.	5			
	MS-5	Ac. Sus.	4½			2½	Cone		50-20	86	10	4k	4/3	8½x5x4¾	Bik.	Mesh, Blk.	5			
	MS-7	Ac. Sus.	(2) 4½			2½	Cone		40-20	88	10	4k	8/5	10½x8x7½	Vin.	Mesh, Blk.	10			
	MS-9	Ac. Sus.	(2) 4½			2½	Cone		40-20	88	10	4k	8/5	5x13x5½	Vin.	Mesh, Blk.	10			
	S-6000 Subwoofer	Vented	(2) 10						25-400 Hz	90	25	100, 200, 400	8/5	26x15x16¼	Vin.		39			
	DB 10.8	Pas. Rad.	12	5	Cone	2½, 3	Cone, Pz. Horn	M, T	18-40	92	50	2k, 4k, 8k	8	39x16x14½	Vin.	Cloth, Blk.	72			
	DB 10.6	Vented	12	5	Cone	2½, 3	Cone, Pz. Horn	M, T	20-40	92	30	2k, 4k, 8k	8	26½x15½x14	Vin.	Cloth, Blk.	45			
	DB 10.4	Ducted Port	10	5	Cone	2½, 3	Cone, Pz. Horn	M, T	24-40	91	20	2k, 4k, 8k	8	23¼x13x13	Vin.	Cloth, Blk.	42			
	MX 540	Vented	12	5	Cone	(2) 1¾	Cone	M, T	20-20	93	30	2k, 4k	8	26x15x10¼	Vin.	Cloth, Blk.	33			
	MX 360	Vented	10	5	Cone	1¾	Cone	M, T	25-20	92	20	2k, 4k	8	23x13x10¼	Vin.	Cloth, Blk.	31			
	MX 180	Vented	8	5	Cone	1¾	Cone	M, T	35-20	92	5	2k, 4k	8	23x13x10¼	Vin.	Cloth, Blk.	30			
	SL 150	Inf. Baf.	12	(2) 5	Cones	(3) 1¾	Cone		20-20	93	25	1.8k, 6k	8	35x14½x14¾	Vin.	Cloth, Blk.	62			
	SL 120	Ac. Sus.	12	5	Cone	(2) 1¾	Cone		20-20	92	15	2k, 8k	8	26x15x10¼	Vin.	Cloth, Blk.	35			
SL 110	Ac. Sus.	10	5	Cone	(2) 1¾	Cone		25-20	92	10	2k, 8k	8	23x13x10¼	Vin.	Cloth, Blk.	31				
MD 4000	Vented	12	5	Cone	1¾	Cone		20-20	92	30	2k, 8k	8	26x15x10¼	Vin.	Cloth, Blk.	33				

(Continued)

LOUDSPEAKERS

MANUFACTURER	Model	Enclosure Type	Woofer Dia., Inches		Midrange Dia., Inches		Tweeter Dia., Inches		Level Controls: W = Woofer, M = Midrange, T = Tweeter, ST = Super Tweeter		Anechoic Freq. Response Hz to kHz, ± dB		Recommended Min. Amp. Pwr., Watts	Crossover Frequencies, Hz		Impedance, Ohms, Nominal/Minimum	Dimensions, Inches		Finish	Grille Material, Color	Weight, Lbs	Price, \$
SONIC INTERNATIONAL (Continued)	MD 3000	Vented Bass Ref.	10	5	Cone	1 1/4	Cone		20-20	92	20	2k, 8k	8	23x13x10 1/4	Vin.	Cloth, Blk.	31					
	MD 2000	Vented Bass Ref.	8	5	Cone	1 1/4	Cone		35-20	91	5	2k, 8k	8	23x13x10 1/4	Vin.	Cloth, Blk.	30					
SONOSPHERE/POLYDAX	S 12 S		3 1/2						100-20 ±6	87	10		4		Chrm.		1 1/2	105.00				
	SP 12		3 1/2						100-20 ±6	87	10		4		Opt.		1 1/2	82.50				
	SPR 12		3 1/2						100-20 ±6	87	10		4		Blk.		1 1/2	67.50				
	SPR 16		4 1/2						100-20 ±4.5	89	10		4		Blk.		2 1/2	107.50				
	SPR 20		4 1/2		1	Cone			70-20 ±3	89	10		4		Blk.		6	217.50				
SONY	SS-U50	Bass Ref.	8			1/2x2	Rib.		35-50	88	20	5k	8/7	24 1/2x13x12 1/4	Wal.	Cloth, Blk.	28 3/4	140.00				
	SS-U60	Bass Ref.	8	2 1/2	Cone	1/2x2	Rib.	M	35-50	88	20	2.5k, 7k	8/7	24 1/2x13x12 1/4	Wal.	Cloth, Blk.	30	180.00				
	SS-U70	Bass Ref.	10	4	Cone	1/2x2	Rib.	M, T	30-50	87	50	600, 6k	8/7	35 1/2x15x14	Wal.	Cloth, Blk.	63 3/4					
	SS-U80	Bass Ref.	12	4, 2 1/2	Cones	1/2x2	Rib.	M, T, ST	28-50	88	50	500, 3k, 8k	8/8	39 1/2x16 1/2x14 1/4	Oil, Wal.	Cloth, Blk.	78 3/4					
SONY AUDIO LAB	APM-8	Vented	15	6.7, 2.4	A.P.M.s	1.2	APM	M, T, ST	25-30	92	100	315, 1.2k, 4.5k	8	43 1/2x25 1/2x17 1/4	Oil, Wal.	Cloth, Blk.	224	16,000.00				
SOUND DYNAMICS	12S	Bass Ref.	12			1x5.3	Horn	T	28-20 ±3	101	10	2.1k	8	27x15 1/2x12 1/4	Wal, Vin.	Blk.	52	299.50				
	120S	Bass Ref.	12			1x5.3	Horn	T	26-20 ±3	101.5	12	2.05k	8	33x16 1/2x13	Wal, Vin.	Blk.	72	359.50				
	15S	Bass Ref.	15			1x5.3	Horn	T	25-20 ±3	102	15	2k	8	36 1/2x19x18 1/4	Wal, Vin.	Blk.	100	449.50				
	6S	Bass Ref.	6			1x5.3	Phen. Dome	T	40-20 ±3	96	5	2.3k	8	14 1/2x9 1/2x9	Wal, Vin.	Blk.	20	149.50				
	100S	Bass Ref.	10			1x5.3	Phen. Dome	T	35-20 ±3	98	6	2.25k	8	20x12 1/2x10	Wal, Vin.	Blk.	30	179.50				
	10S	Bass Ref.	10			1x5.3	Phen. Dome	T	30-20 ±3	100	8	2.2k	8	25 1/2x14 1/2x12 1/2	Wal, Vin.	Blk.	44	224.50				
THE SOUND OF O	Gabriel	Ported	15	6, 10	Cone	1 1/2x1 1/2	Rib.		28-50 ±2	94		250, 800, 4k	8/4	49x24x24	Opt.	Cloth, Blk.	200	3500.00				
	Lorelei	Ported	12	6	Cone	1 1/2x1 1/2	Rib.		32-50 ±2	94		600, 4k	8/4	40x19x16	Opt.	Cloth, Blk.	110	2500.00				
SOUND RESEARCH	K-208	Bass Ref.	8			3	Cone	T	40-19 ±5	89	15	4k	8/3.5	18x10 1/2x9 1/2	Wal, Vin.	Cloth, Blk.	17	149.95				
	K-310	Bass Ref.	10	4 1/2	Cone	3	Cone	T	35-19 ±5	93	15	1.2k, 6k	8/3.5	22 1/2x13x10 1/4	Wal, Vin.	Cloth, Blk.	25	219.95				
	K-412	Bass Ref.	12	4 1/2	Cone	3	Cone		30-21 ±5	95	15	1.2k, 6k	8/3.5	27x15x10 1/4	Wal, Vin.	Cloth, Blk.	33 1/2	259.95				
	800-G	Bass Ref.	8				Dome		38-20 ±5	88		2k	8/3.5	17 1/2x10 1/2x8 1/4	Blk, Vin.	Cloth, Blk.	18	179.95				
	1000-G	Bass Ref.	10				Dome		32-20 ±5	90		2k	8/3.5	21 1/2x12 1/2x10 1/4	Blk, Vin.	Cloth, Blk.	26	199.95				
	1200-G	Bass Ref.	12	5 1/2			Dome		25-20 ±5	91		1k, 3k	8/3.5	25 1/2x15x10 1/4	Blk, Vin.	Cloth, Blk.	36	289.95				
	1243	Bass Ref.	12	4 1/2	Cone	1	Dome		22-22 ±5	93		800, 6k	8/	25x14 1/2x11 1/4	Wal, Ven.	Cloth, Blk.	43	519.95				
	843	Bass Ref.	8				Dome		30-22 ±5	93		1.5k	8/	22x12x9 1/2	Wal, Ven.	Cloth, Blk.	30	399.95				
	Monitor XII	Bass Ref.	12	4 1/2	Cone	1	Dome		22-22 ±5	99		800, 6k	8/3	25x24 1/2x11 1/4	Oak, Vin.	Cloth, Brn.	43	359.95				
	Monitor VII	Bass Ref.	8				Dome		30-22 ±5	96		1.5k	8/3	22x24 1/2x9 1/2	Oak, Vin.	Cloth, Brn.	30	299.95				
SOUND SOURCE	8w	Ac. Sus.	8			2	Cone		50-18	94	5	3k	8/6	11 1/2x8x2 1/2	Vin, Wl	Cloth, Blk.	20	110.00				
	10w	Bass Ref.	10	5	Cone	2	Cone		45-18	98	5	1.2k, 5k	8/6	15x10 1/2x24 1/4	Vin, Wl	Cloth, Blk.	36	160.00				
	12w	Bass Ref.	12	5	Cone	2	Cone		40-18	98	5	1.2k, 5k	8/6	15x11 1/2x28	Vin, Wl	Cloth, Blk.	40	200.00				
	Mon. A	Vented	10	4 1/2	Cone	1	Dome	M, T	40-22	94	5	900, 5k	8/6	15x11 1/2x28	Vin, Wl	Cloth, Blk.	40	275.00				
	Mon B	Ac. Sus.	12	4 1/2	Cone	1	Dome	M, T	30-22	94	5	900, 5k	8/6	15x12 1/2x32	Vin, Wl	Cloth, Blk.	50	350.00				
SOUND-LAB	R-1	ES Panel	12					M	100-25 ±1	88	100	100	150/4	50 1/2x22x10	Opt.	Opt.	50	1397.50				
	R-2 Subwoofer								28-200 Hz, ±2	89	50	100	4/3, 8	24x24x14 1/4	Opt.	Opt.	78	595.00				
SOUNDMATES	S.125	Ac. Sus.	4			1	Dome		50-20 ±4	89	10	2.5k	8	8x4 1/2x5 1/2	Oil, Wal.	Cloth, Brn.	4 1/4	109.95				
	S.375	Ac. Sus.	(2)4			1	Dome		40-20 ±3	92	10	2.5k	4	12 1/2x4 1/2x5 1/2	Oil, Wal.	Cloth, Brn.	9	135.00				
	S-1.000	Ac. Sus.	8			1 1/4	Phen. Ring	T	35-20 ±5	93	10	3k	8	20x11x10 1/2	Oil, Wal.	Cloth, Brn.	28	179.95				
	1.500	Ac. Sus.	(2)8			1 1/4	Phen. Ring	T	30-20 ±5	94	10	3k	8	24 1/2x14 1/2x12 1/4	Oil, Wal.	Cloth, Brn.	50	269.95				
	2.000	Tuned Port	12	4 1/2		1 1/4	Phen. Ring		30-20 ±4	94	10	800, 3k	8	26 1/2x15 1/2x13	Oil, Wal.	Cloth, Brn.	58	299.95				

LOUDSPEAKERS

MANUFACTURER	Model	Enclosure Type	Woofer Dia., Inches		Midrange Dia., Inches		Tweeter Dia., Inches		Level Controls: W= Woofer, M=Midrange, T=Tweeter, S1= Super Tweeter	Anechoic Freq. Response Hz to kHz, ± dB	8B SPL/Watt/Meter	Recommended Min. Amp. Pwr., Watts	Crossover Frequencies, Hz	Impedance Ohm, Nominal/Minimum	Dimensions, Inches	Finish	Grille Material, Color	Weight, Lbs	Price, \$
SPEAKERLAB	S.1	Ac. Sus.	6			1	Dome	T		88	15	2.5k	4/8	10x7x5	Wal.	Cloth, Opt.	10	115.00	
	PSW 1 Subwoofer	Ac. Sus.	(2) 10							88	15	150		18x29x15"	Wal.	Cloth, Opt.	87	400.00	
	S1	Ac. Sus.	8			1	Dome	T		92	10	2.5k		26"x11"x8"	Wal.	Cloth, Opt.	31	125.00	
	S2	Ac. Sus.	10			1	Dome	T		92	10	2k	4	26"x15"x10"	Wal.	Cloth, Opt.	51	185.00	
	S2.5	Ac. Sus.	10	6	Cone	1	Dome	M, T		91	15	600, 4k	8	26"x15"x10"	Wal.	Cloth, Opt.	56	245.00	
	S3	Ac. Sus.	12	6	Cone	1	Dome	M, T		91	15	600, 4k	8	27"x15"x11"	Wal.	Cloth, Opt.	82	320.00	
	S4	Ac. Sus.	12	6	Cone	4x8"	Horn	M, T		91	15	600, 5k	8	27"x15"x11"	Wal.	Cloth, Opt.	82	355.00	
	S6WA	Ac. Sus.	12	14"x4"	Horn	4x8"	Horn	M, T		91	15	1k, 5k	8	27"x15"x11"	Wal.	Cloth, Opt.	62	409.00	
	S7WA	Ac. Sus.	10, 12	14"x4"	Horn	4x8"	Horn	M, T		92	15	1k, 5k	4	36x18x13	Wal.	Cloth, Opt.	98	550.00	
	SK	Fold. Horn	15	17x6	Horn	4x8"	Horn	M, T		101	10	400, 5k	8	50x32"x28"	Wal.	Cloth, Opt.	225	799.00	
S30	Nestorovic Sealed	8, 10	5	Cone	1	Dome	W, M, T		91	25	750, 4k	8	31x13x10"	Wal.	Cloth, Opt.	71	359.00 Kit.		
	SD1000	12	6 1/2	Cone	1	Dome	W		94	15	160, 2k	8	Three Pieces	Wal.	Oak Ven.	200	1350.00		
S-50	Nestorovic	10, 12	6, 1 1/2	Cone, Dome		Leaf	M, T		93		350, 1.5k, 8k	8/5	16x13x50	Oil. Wal.	Cloth, Blk.	130	890.00		
SPENDOR	SA-1	Ac. Sus.	6			1	Dome	No	70-14		20	3k	8	9x9x12	Wal.	Cloth, Blk.	16	550.00	
	BC-1	Bass Ref.	8	1 1/2	Dome	3/4	Dome	No	60-14		25	3k, 13k	8	12x12x25	Wal.	Cloth, Blk.	31	850.00	
	BC-3	Bass Ref.	12	8	Cone	1 1/2, 3/4	Dome	No	60-14		50	700, 3k, 13k	8	15"x15"x31"	Wal.	Cloth, Blk.	75	1900.00	
STRELIOFF	MS-1	Ac. Sus.	(2) 5 1/2	(2) 1 1/2	Domes	(2) 1	Dome	No	70-18		78	50	800, 5k	5/2	7 1/2"x7 1/2"x19"	Opt.	Foam, Opt.	32	1250.00
	MX-1	Ac. Sus.	(2) 5 1/2	(2) 1 1/2	Domes	(2) 1	Dome	No	70-18		78	50	800, 5k	5/2	7 1/2"x7 1/2"x19"	Opt.	Foam, Opt.	29	2000.00
	ME-1 Subwoofer	Ac. Sus.	(2) 10					No	35-150		78	50	8/4	24x24x48	Opt.	Foam, Opt.	125	1250.00	
	TS-1	Ac. Sus.	(2) 10	(6) 1 1/2	Domes	(6) 1	Dome	W, M, T	38-18		87	100	800, 5k	5/2	36x18x66	Opt.	Foam, Opt.	210	7000.00
	TE-1 Subwoofer	Inf. Baf.	18						21-125		84	50	8/5	28x40x32	Opt.	Foam, Opt.	180	3000.00	
SYNERGISTICS	S-20	Vented	6 1/2			1	Dome		70-20		90	10	3k	8	17"x9"x8"	Vin.	Knit, Blk.	15	100.00
	S-30	Pass. Rad.	6 1/2			1	Dome	T	55-20		90	10	2k	8	22 1/2"x13x10 1/2"	Vin.	Knit, Blk.		150.00
	S-40	Pass. Rad.	8			1	Dome	T	42-20		90	10	1.6k	8	25"x14"x10"	Vin.	Knit, Blk.	37	225.00
	S-50	Pass. Rad.	(2) 6 1/2			1	Dome	T	38-20		90	15	2.9k	4	30x14"x11"	Vin.	Knit, Blk.	43	300.00
	S-60 Tower	Pass. Rad.	10	4 1/2			Rib.	M, T	36-30		91	15	1k, 9k	8	34x14"x12 1/2"	Oil. Wal.	Knit, Blk.	51	375.00
	S-70 Tower	Pass. Rad.	12	1 1/2	Dome		Rib.	M, T	34-30		91	15	1.9k, 9k	8	38x18x11	Oil. Wal.	Knit, Blk.	69	475.00
	S92	Ac. Sus.	(2) 12	(6) 4 1/2		(2)		M, T	24-20		91	35	140, 2k	8	Three Pieces	Oil. Wal.	Knit, Blk.	130, 70	2000.00
TANDBERG	Fasett TL 3520 Studio Monitor		5 10 12	3 1/2 2	Cone Dome	2 1/2 1 (2) 1	Dome Dome		50-20 38-20 25-20				4/ 8/ 8/						
TANNOY	Little Red Monitor	Ported				1	Com-pr.	M, T	55-20		30	1k	8/5.5	23x15.7x10.8	Oil. Wal.	Cloth, Blk.	57.3	695.00	
	Super Red Monitor	Ported				1	Com-pr.	M, T	50-20		94	150	1k	8/5.5	40 1/2"x28"x17"	Oil. Wal.	Cloth, Blk.	132	1295.00
	Classic Monitor	Ported				1	Com-pr.	M, T	40-20		92	150	1k	8/5.5	40 1/2"x28"x17"	Oil. Wal.	Cloth, Blk.	132	1295.00
	Buckingham Monitor	Ported	(2) 12			1	Com-pr.	M, T	35-20		94	150	350, 3k	8/5.5	28"x40 1/2"x17"	Oil. Wal.	Cloth, Blk.	176	2395.00
TEAC	S-9	Air Sus.	9			1	Dome	T	65-20		30	3.5k	8/3	12 1/2"x17"x12"	Wal.	Metal, Blk.	17%		
	LS-X7	Ac. Sus.	4			1	Dome		80-20		20	2.5k	8/3	4"x7", 4 1/2"	Akum.	Metal, Blk.	5%	150.00	
TECHNICS	SB-L30	Bass Ref.	9			2 1/2	Cone		55-20		93	3.5k	8	23"x11"x8"	Wal.	Cloth, Blk.	15.4	140.00	
	SB-L50	Bass Ref.	9	4	Cone	2 1/2	Cone		55-20		94	4k, 9k	8	23 1/2"x13"x9"	Wal.	Cloth, Blk.	19.2	200.00	
	SB-L70	Bass Ref.	11	4	Cone	2 1/2	Cone		45-20		94	4k, 9k	8	27x14"x11"	Wal.	Cloth, Blk.	24.3	250.00	
	SB-L100	Bass Ref.	10				Horn				89.5	3.2k	8	24x11"x10"	Wal.	Cloth, Blk.	24	160.00	
	SB-L200	Bass Ref.	10	4	Cone		Horn	T			90	1.9k, 5k	8	26x13"x12 1/2"	Wal.	Cloth, Blk.	32	210.00	

(Continued)

LOUDSPEAKERS

MANUFACTURER	Model	Enclosure Type	Woofer Dia. - Inches		Midrange Dia. - Inches		Tweeter Dia. - Inches		Level Control: W=Woof., M=Midrange, T=Tweeter; ST=Super-tweeter	Anechoic Freq. Response Hz to kHz, ±dB	dB SPL/Watt/Meter	Recommended Min. Amp. Pwr., Watts	Crossover Frequencies, Hz	Impedance, Ohms: Nominal/Minimum	Dimensions, Inches	Finish	Grille Material, Color	Weight, Lb.	Price, \$
			12	4	Cone	1	Horn	M, T											
TECHNICS (Continued)	SB-L300	Bass Ref.	12	4	Cone	1	Horn	M, T		90		1.6k, 4.5k	8	28½x14½x12½	Wal.	Cloth, Blk.	40	260.00	
	SB-6060	Bass Ref.	12	4	Cone	1	Dome	M, T	32-32	92		1.1k, 3k	8	35½x15½x12½	Wal.	Cloth, Blk.	51.8	350.00	
	SB-7070	Bass Ref.	13½	4, 6½	Cones	1	Dome	M, T	30-32	92		350, 1.2k, 4k	8	40½x17½x16½	Wal.	Cloth, Blk.	72.8	450.00	
	SB-F1	Air Sus.	4				Horn		50-20	86		8½x4x5	8		Alum.	Alum., Blk.	5.1	230.00	
	SB-F2	Air Sus.	5				Horn		48-20	88		3.5k	8	10x5½x6½	Alum.	Alum., Blk.	7.3	300.00	
	SB-F3	Air Sus.	6½				Horn		45-20	89		3k	8	12½x7x7½	Alum.	Alum., Blk.	11	360.00	
TECHNICS R&B SERIES	SB-10	Ac. Sus.	13	3½	Disc		Leaf	M, T	28-125	87		400, 4.5k	8	15½x12½x28	Oil. Rose. Wal.	Cloth, Brn.	70.5	680.00	
	SB-7	Ac. Sus.	10	3½	Disc		Leaf	M, T	34-125	87		900, 4.5k	8	14½x12½x24½	Wal. Vin. Wal. Vin.	Cloth, Brn.	42	390.00	
	SB-5	Ac. Sus.	9	3½	Disc	1½	Disc	M, T	38-35	87		800, 4.5k	8	12½x12½x22½	Wal. Vin. Wal. Vin.	Cloth, Brn.	31	300.00	
	SB-3	Ac. Sus.	9			1½	Disc	T	45-35	87		2k	8	10½x9½x17½	Wal. Vin. Alum.	Cloth, Brn.	19	400.00	
	EAS-10TH 1000						Leaf	No	4k-150k	95			8	4½x4½x5½	Alum.		7.9	800.00	
	EAS-10TH 800						Leaf	No	4k-150k	95			6	4x3½x4½	Alum.		7.5	400.00	
THIEL	04	Pas. Rad. Ported	8	6½	Cone	1	Dome		40-20 ±2	87	20	4k	8/6	10x10x36	Opt.	Cloth, Blk.	34	500.00	
	02	Pas. Rad. Ported	6½			1	Dome		45-20 ±2	92	10	2k	8/6	19x11x9½	Opt.	Cloth, Blk.	22	280.00	
	03a	Elect. EQ	10	5	Cone	1	Dome		30-20 ±2	90	20	400, 4k	8/4	12x12x38	Opt.	Cloth, Blk.	64	975.00	
3D ACOUSTICS	3D Three-Piece System	See Below	10	6	Cone	1	Dome	No	32-20 ±2	89	30	100, 2k	8	Three Pieces	Oil. Wal.	Cloth, Blk.	74	400.00	
	3D Woofer	Tuned Port	10						32-100 Hz, ±2	89	30	100	8	24x13½x16	Oil. Wal.	Cloth, Blk.	44	450.00	
	3D Bookshelf Satellite	Ac. Sus.	6			1	Dome		55-20 ±3	89	15	2k	8	14x7½x8½	Oil. Wal.	Cloth, Blk.	15	215.00	
TRANSDUCTION LTD.	T-2	Inf. Bat.	5			¾	Dome	T	55-25 ±3	87	20	3.3k	8/7	9½x7¾x14½	Oil. Wal.	Cloth, Blk.	17	225.00	
	T-5	Trans. line	13x9	5	Cone	¾	Dome	M	30-25 ±3	86	25	275, 3.3k	8/7	15x13½x30	Oil. Wal.	Cloth, Blk.	70	485.00	
	T-14	Trans. line	13x9	5	Cone	(2) ¾	Dome	M, T	14-30 ±3	85	35	275, 3.3k, 14.5k	8/7	18½x15½x56½	Oil. Wal.	Cloth, Blk.	140	995.00	
	E-1 Essence	Trans. Line	10	5	Cone	1	Dome		35-21 ±3	90	30	385, 3.5k	4/4	16 Dia. x35	Wal.	Foam, Blk.	52	279.00	
TUSK	The Wedge		10	4½	Cone	1	Dome	No	30-22 ±2	80	100	Var.	6/4.5	12x12x30	Opt. Opt.		32	800.00	
UNITRONEX	ALC-20	Air. Sus.	8			1	Dome	T	60-20		10	4k	8	21.3x11.6x9.1	Mahog. Ven.	Cloth, Blk.	27	129.00	
	ALC-30	Pas. Rad.	8			1	Dome	T	55-20		10	4k	8	22.7x14x9.8	Mahog. Ven.	Cloth, Blk.	38	159.00	
	ALC-40	Pas. Rad.	10	5	Cone	1	Dome	T	40-20		10	800, 8k	8	25.2x16.6x11.2	Mahog. Ven.	Cloth, Blk.	55	259.00	
	ALC-60	Air. Sus.	12	7	Cone	1	Dome	M, T	32-20		10	300, 7k	8	26.8x17.3x12.6	Mahog. Ven.	Cloth, Blk.	75	359.00	
	Impact-2	Ported	8			2½	Horn		60-20	98	5	3.5k	8	21.3x11.6x9.1	Oak Ven.	Cloth, Brn.	27	149.00	
	Impact-4	Ported	10			2½	Horn	T	50-20	97	5	2.5k	8	22.7x14x9.8	Oak Ven.	Cloth, Brn.	39	199.00	
	Impact-6	Ported	10	5	Cone	2½	Horn	M, T	45-22	104	10	800, 8k	8	25.2x16.6x11.2	Oak Ven.	Cloth, Brn.	55	299.00	
	Impact-8	Ported	12	7	Cone	2x5	Horn	M, T	30-23	105	10	300, 7k	8	26.8x17.3x12.6	Oak Ven.	Cloth, Brn.	77	399.00	
VANDERSTEEN AUDIO	Two	Pas. Rad.	10, 8	4	Cone	1	Dome	M, T	32-19 ±3	87	40	500, 4.5k	7.8	16½x10½x36½	Opt.	Cloth, Blk.	55	470.00	
	Three	Pas. Rad., Bi-Amp.	(2) 10, (2) 8	6½, 4	Cones	1x3	Leaf	M, T	28-50 ±3	89	40	100, 1k	7.8	21x13x48	Opt.	Cloth, Blk.	150	900.00	
	3W	Pas. Rad., Bi-Amp.	(2) 10, (2) 8						28-800 Hz +1, -3	89	40	100	4	21x13x20	Opt.	Cloth, Blk.	75	300.00	
VISONIK (Continued)	Mini-Euro	Ac. Sus.	4½			1	Dome		60-20 +4, -8		5	4k	4	9½x6½x5½	Wal. Ven.	Cloth, Brn.	7½	250.00	
	Euro 5	Ac. Sus.	8			1	Dome		35-25 +4, -8		15	1.3k	4	19x11x9.5	Wal. Ven.	Cloth, Brn.	24	400.00	

LOUDSPEAKERS

MANUFACTURER	Model	Enclosure Type	Woofer Dia. - inches	Midrange Dia. - inches	Midrange Type	Tweeter Dia. - inches	Tweeter Type	Level Controls W = Woofer, M = Midrange, T = Tweeter	Anechoic Freq. Response Hz to kHz, ± dB	Recommended Min. Amp. Per... Watts	Crossover Frequencies, Hz	Impedance, Ohms, Nominal/Minimum	Dimensions, inches	Finish	Grille Material, Color	Weight, Lbs.	Price, \$	
																		Woofer
VISONIK (Continued)	Euro 7	Ac. Sus.	(2) 7	1½	Dome	1	Dome		30-25 +4,-8	15	900, 4.5k	4	24x13.5x9.5	Wal. Ven.	Cloth, Brn.	32	720.00 Pair	
	David 4000	Ac. Sus.	4			1	Dome		50-22 +4,-8	10	2.8k	4	6½x4½x4	Grey	Alum.	4.4	220.00 Pair	
	David 5000	Ac. Sus.	4			1	Dome		50-25 +4,-8	10	2.5k	4	6½x4½x4	Grey	Alum.	5	260.00 Pair	
	David 6000	Ac. Sus.	4			1	Dome		45-25 +4,-8	10	2.5k	4	7½x5x5½	Opt.	Alum.	6½	300.00 Pair	
	David 7000	Ac. Sus.	5			1	Dome		40-25 +4,-8		2.5k	4	9½x6½x6½	Opt.	Alum.	10	330.00 Pair	
	David 9000	Ac. Sus.	7	1½	Dome	1	Dome		35-25 +4,-8		900, 4.5k	4	14½x9½x9½	Opt.	Alum.	19½	600.00 Pair	
	Sub 1 WN	Ac. Sus.	12						20-190Hz +4,-8		150	4	23½x17x13½	Wal. Ven.	Cloth, Brn.	65	600.00 Pair	
	Subwoofer Sub 2 S	Ac. Sus.	10						25-190Hz	30	150	4	19x14½x12½	Wal. Ven.	Cloth, Brn.	37	300.00 Pair	
	David 4200	Ac. Sus.	4			1	Dome		90-22 +4,-8	10	2.5k	4	2½x7½x4½	Satin Black	Alum.	2½	180.00 Pair	
VMPS	101b	Vented	8			¾, 1	Dome Cone	T	50-17 ±2	93	10	3.5k	8/8	18x12x8	Wal. Vin.	Cloth, Bik.	17	78.00
	404b	Vented	8			1	Dome	T	45-20 ±2	93	10	4k	8/8	18x12x8	Wal. Vin.	Cloth, Bik.	21	129.00
	606c	Vented	10			1	Dome	T	40-20 ±2	94	10	4.5k	8/8	23x12x12	Oil. Wal.	Cloth, Bik.	35	189.00
	707	Vented	10	5½	Cone	1	Dome	M, T	38-20 ±2	94	10	500, 5k	8/8	25x15x11	Wal. Vin.	Cloth, Bik.	45	259.00
	808c	Vented	12	5½	Cone	1	Dome	M, T	34-20 ±2	95	10	500, 5k	8/8	25x15x11	Wal. Vin.	Cloth, Bik.	50	289.00
	Mini Tower II		(2) 12	5½	Cone	(2) 1, 2	Dome Pz.	M, T, ST	28-30 -3, +2	98	10	100, 400, 4.5k, 12k	8/6	35x15x15	Oil. Wal.	Cloth, Bik.	75	439.00
	Tower II		(3) 12	5½	Cone	(3) 1, 2	Dome Pz.	M, T, ST	22-30 -3, +2	99	10	80, 200, 600, 4.5k, 12k	4/4	43x15x15	Oil. Wal.	Cloth, Bik.	90	599.00
	Super Tower/R		(2) 15, 12	(2) 5½	Cones	(4) 1, 2	Dome Rib- bon	M, T, ST	20-50 -3, +2	100	15	80, 200, 600, 4k, 10k	4/4	49x18x18	Rwd.	Cloth, Bik.	140	969.00
	Super Tower II a/R		(3) 15, (3) 12	(4) 5½	Cones	(5) 1, Rib.	Dome Rib- bon	No	17-50 -3, +1	101	20	80, 200, 600, 4k, 10k	6/6	76x21x17	Rwd.	Cloth, Bik.	300	1699.00
WHARFEDALE	E-20	Bass Ref.	7½			1	Horn	T	62-18 ±3	95	15	4k	8	24½x12x9½	Wal. Ven.	Mesh, Bik.	25½	299.00
	E-30	Bass Ref.		(2) 6½	Cones	1	Horn	T	63-18 ±3	95	15	4k	8	13½x10½x26½	Wal. Ven.	Mesh, Bik.	34	340.00
	E-50	Bass Ref.	10	4	Cone	1	Horn	M, T	55-18 ±3	95	15	800, 7k	8	13½x13½x26	Wal. Ven.	Mesh, Bik.	42	480.00
	E-70	Bass Ref.	10	(2) 4	Cones	1	Horn	M, T	50-18 ±3	95	15	800, 7k	8	13½x14x32	Wal. Ven.	Mesh, Bik.	70	560.00
	E-90	Bass Ref.	(2) 10	(2) 4	Cones	1	Horn	M, T	43-18 ±3	95	15	1k, 5k	8	15½x14½x45½	Wal. Ven.	Mesh, Bik.	112	850.00
	TSR-108	Bass Ref.	8		Cone	1	Dome	T	35-25 ±3	90	15	3.5k	8	11½x12½x23	Wal. Ven.	Mesh, Bik.	31	375.00
	TSR-110	Ac. Sus.		(2) 8	Cones	1	Dome	T	35-25 ±3	90	15	300, 3.5k	8	13½x13½x27½	Wal. Ven.	Cloth, Bik.	39	475.00
	TSR-112	Ac. Sus.	(2) 10	8	Cone	1	Dome	M, T	30-25 ±3	90	15	100, 600, 3.5k	8	15x15½x43	Wal. Ven.	Cloth, Bik.	88	950.00
	Laser 40	Ac. Sus.		6½	Cone	2	Dome		65-18 ±3	88	15	3.5	6	9½x9½x14	Wal. Ven.	Cloth, Bik.	12	105.00
	Laser 60	Ac. Sus.		7½	Cone	¾	Dome		63-20 ±3	88	15	3.5k	6	9½x10½x16½	Wal. Ven.	Cloth, Bik.	16	135.00
	Laser 80	Ac. Sus.		7½	Cone	¾	Dome		60-20 ±3	88	15	650, 3.5k	6	9½x10½x18½	Wal. Ven.	Cloth, Bik.	20	185.00
	Laser 100	Ac. Sus.		10	4	Cone	¾	Dome		55-20 ±3	88	15	700, 3.5k	6	9½x12x22½	Wal. Ven.	Cloth, Bik.	30
YAMAHA	NS-1000	Ac. Sus.	12	3½	Dome	1½	Dome	M, T	40-20	90	50	500, 6k	8/4	15½x14½x28	Ebony Bik.	Cloth, Bik.	85½	950.00
	NS-1000M	Ac. Sus.	12	3½	Dome	1½	Dome	M, T	40-20	90	50	500, 6k	8/4	14½x12½x26½	Ebony Bik.	Cloth, Bik.	68½	650.00
	NS-690H	Ac. Sus.	12	3	Dome	1½	Dome	M, T	35-20	90	30	800, 6k	8	13½x12½x24½	Wal.	Cloth, Bik.	59½	400.00
	NS-344	Ac. Sus.	10	4½	Cone	1½	Dome	M, T	50-38	90		700, 6k	8	13x12x22	Wal. Vin.	Cloth, Bik.	30½	260.00
	NS-244	Ac. Sus.	10			1½	Dome	T	50-38	90		2k	8	12½x11½x21	Wal. Vin.	Cloth, Bik.	25	200.00
	NS-10M	Ac. Sus.	7			1½	Dome		60-20	90		2k	8	8½x7½x15	Bik.	Cloth, Bik.	13	155.00
	NS-6	Ac. Sus.	10			1	Dome		45-20 ±3.5	91	10	1k	8	13x10½x23	Wal. Vin.	Cloth, Bik.	35	150.00
	NS-4	Ac. Sus.	8			1	Dome		50-20 ±4	90	10	1k	8	11½x8½x19	Wal. Vin.	Cloth, Bik.	22½	110.00
ZENITH	MC4000	Tuned Port	12	5	Cone	3½	Horn	M, T	35-20	91.5	5	600, 2k	8	28x17x12	Wal.	Cloth, Brn.	47½	224.95
	MC3000	Tuned Port	10			3½	Horn	T	40-20	90	5	2k	8	24½x15½x9½	Wal.	Cloth, Brn.	31½	249.95
	MC2500	Tuned Port	8			3½	Horn	T	50-20	89	5	2k	8	22½x14½x8½	Wal.	Cloth, Brn.	19½	199.95
	MC1500	Tuned Port	8			2½	Cone		60-18	87	3	3k	8	22½x14½x8½	Wal.	Cloth, Brn.	17	149.95

MICROPHONES

For Manufacturers' Addresses, see page 158



MANUFACTURER	Model	Directional Pattern	Operating Principle	Case Material	Most Common Use	Actual Impedance, 1 kHz, Ohms	Operating Range, Hz to kHz	Open-Circuit Sens., 1 kHz, μ V/bar	1 V/1 μ V bar, μ B re	Mike Connector Type	Cable Length, Feet	Connector on Equipment End of Cable	Dimensions, inches, Length x Diameter	Weight, Ounces	Mounting Method	Price, \$	Notes
AKG ACOUSTICS	C424	Card. x4	Cond.	Brass	Studio	200	20-20	64.4	XLR	66	Multi	10 1/2 x 1 1/2	18	3/8 x 27	2200.00	Quad mike with preattenuator.	
	C422	Var. X2	Cond.	Brass	Studio	200	20-20	66	XLR	66	Multi	9 1/4 x 1 1/2	15 1/2	3/8 x 27	2100.00	Stereo mike—9 pattern remote control.	
	C34	Var. X2	Cond.	Brass	Studio	200	20-20	64.4	XLR	66	Multi	7 3/4 x 1 1/2	9	3/8 x 27	1450.00	As above.	
	C33	Card X2	Cond.	Brass	Studio	200	20-20	64.4	XLR	66	Multi	7 3/4 x 1 1/2	9	3/8 x 27	850.00	Stereo mike.	
	C414EB	Var.	Cond.	Brass	Studio	200	20-20	42	XLR	66	Not Furn.	5 1/2 x 1	12	3/8 x 27	695.00	Four-pattern selection with bass roll-off and preattenuator.	
	C451E	Mod.	Cond.	Brass	Studio	200	20-20	39.5	XLR		Not Furn.	5 3/4 x 1	3 1/2	3/8 x 27	323.00	Modular system.	
	C502E	Omni	Elect.	Brass	Studio	200	20-20	48	XLR		Not Furn.	5 3/4 x 1	3 1/2	3/8 x 27	150.00	As above.	
	C505E	Card.	Elect.	Brass	Studio	200	40-20	48	XLR		Not Furn.	5 3/4 x 1	5 1/2	3/8 x 27	155.00	As above.	
	D-224E	Card.	Dyn.	Brass	Studio	200	20-20	56.5	XLR		Not Furn.	7 3/4 x 1	10	3/8 x 27	400.00	Two-way with bass roll-off.	
	D-222EB	Card	Dyn.	Zinc	Studio	200	20-17	55.5	XLR		Not Furn.	8 1/4 x 1	9	3/8 x 27	215.00	As above.	
	D-200E	Card.	Dyn.	Alum.	Instr.	200	20-16	56	XLR		Not Furn.	7 3/4 x 1	8 1/2	3/8 x 27	135.00	Two-way system.	
	D-330BT	Hypercard.	Dyn.	Zinc	Pro-Vocal	200	50-20	60.2	XLR		Not Furn.	7 1/2 x 1 1/2	12	3/8 x 27	185.00	Bass and treble EQ.	
	D-320B	Hypercard.	Dyn.	Zinc	Vocal	200	80-18	57	XLR		Not Furn.	7 1/2 x 2	10 1/2	3/8 x 27	145.00	Bass EQ.	
	D-310	Hypercard.	Dyn.	Zinc	Vocal	200	80-18	58	XLR		Not Furn.	7 1/2 x 2	8 1/2	3/8 x 27	110.00	On/Off switch opt.	
D-2000E	Sup. Card	Dyn.	Zinc	Music/Vocal	200	35-17	52	XLR		Not Furn.	6 1/2 x 2 1/2	11	3/8 x 27	165.00	B-M-Off switch.		
D-1000E	Card.	Dyn.	Brass	Music/Vocal	200	40-17	52	XLR		Not Furn.	6 1/4 x 1 1/2	8 1/2	3/8 x 27	110.00	B-M-S EQ switch		
D-190E	Card.	Dyn.	Brass	Gen.	200	30-15	52	XLR		Not Furn.	6 1/4 x 1 1/2	6 1/2	3/8 x 27	95.00	On/Off switch opt., stereo pair opt.		

(Continued)

MICROPHONES

MANUFACTURER	Model	Directional Pattern	Operating Principle	Case Material	Most Common Use	Actual Impedance 1 kHz, Ohms	Operating Range, Hz to kHz	Open-Circuit Sens., 1 V/1 μ bar	Mike Connector Type	Cable Length, Feet	Connector on Equipment End of Cable	Dimensions Inches, Length x Diameter	Weight, Ounces	Mounting Method	Price, \$	Notes
AKG (Continued)	D-160E	Omni	Dyn.	Brass		200	40-20	58	XLR		Not Furn.	5½x¼	4½	5x27	96.00	Elastic suspension. On/Off switch opt., stereo pair opt. Elastic-steel suspension, swivel joint.
	D-120E	Card.	Dyn.	Alum.	Gen.	200	100-17	54	XLR		Not Furn.	6½x2¼	5¼	5x27	80.00	
	D-12E	Card.	Dyn.	Brass	Instr.	400	40-17	52	XLR		Not Furn.	5½x2¼	18	5x27	205.00	
	D-125	Card.	Dyn.	Zinc	Gen.	200	100-18	53.5	XLR		Not Furn.	7x1¼	8	5x27	80.00	
	D-130	Omni	Dyn.	Zinc	Gen.	200	50-15	54.5	XLR		Not Furn.	6½x1¼	9	5x27	80.00	
C5350B	Card.	Elect.	Zinc	Gen.	200	50-15	53.5	XLR		Not Furn.	6½x2¼	12	5x27	340.00		
D-170E	Sup. Card	Sup. Card	Dyn.	Zinc	Gen.	200	50-15	53.5	XLR		Not Furn.	6½x2¼	12	5x27	125.00	
AUDIO-TECHNICA	AT801	Omni	Back Elect.	Alum.	Instr.	600	40-18	48	XLR	16½	Phone, XLR	7½x1½	5½	5x27	75.00	Remote power only—9 to 52 V d.c.; voice/music switch.
	AT802	Omni	Dyn.	Alum.	Voice	600	50-16	56	XLR	16½	Phone, XLR	7½x1½	5	5x27	80.00	
	AT803S	Omni	Elect.	Alum.	Lav./Instr.	600	50-15	57		16½	None, XLR	1x¼	0.1	Clip	90.00	
	AT803R	Omni	Elect.	Alum.	Lav./Instr.	250	50-15	53	XLR	10	XLR	1x¼	0.1	Clip	125.00	
	AT805S	Omni	Elect.	Alum.	Lav./Instr.	600	50-15	57	XLR	16½	Phone, XLR	2x½	1	Clip	55.00	
	AT811	Card.	Back Elect.	Alum.	Instr.	600	50-20	56	XLR	16½	Phone, XLR	8x½	7	5x27	90.00	
	AT812	Card.	Dyn.	Alum.	Instr.	600	50-15	60	XLR	16½	Phone, XLR	8x½	7½	5x27	95.00	
	AT813	Card.	Back Elect.	Alum.	Vocal/Instr.	600	40-20	55	XLR	16½	Phone, XLR	8x2	6½	5x27	105.00	
	AT813R	Card.	Back Elect.	Alum.	Vocal/Instr.	250	40-20	55	XLR	16½	XLR	8x2	6½	5x27	125.00	
AT814	Card.	Dyn.	Alum./Zinc	Vocal	250	50-16	56	XLR	16½	Phone, XLR	7½x1¼	10	5x27	120.00		
BEYER DYNAMIC	M600	Hypercard.	Dyn.	Alum.	Vocal	250	40-16	-149 dBm	XLR	24.6	Not Furn.	7½x1¼	8¾	5x27	279.00	Three-pos. to filter, locking on/off switch.
	M500	Hypercard.	Rib.	Alum.	Vocal	200	40-18	-153 dBm	XLR	16.5	Not Furn.	7½x1¼	8.5	5x27	199.00	
	M400	Sup. Card.	Dyn.	Alum.	Vocal	200	50-15	-146 dBm	XLR	24.6	Not Furn.	7x1¼	9	5x27	119.00	
	M818	Card.	Dyn.	Zinc	Gen.	500	50-16	-150.6 dBm	No	6.5	Var.	5½x1¼	11.3	5x27	149.95	
	M111	Omni	Dyn.	Zinc	Vocal	200	60-15	-153 dBm	No	33	Var.	3½x¼	2.65	Cord	169.00	
	M69	Hypercard.	Dyn.	Brass		200	50-16	-144 dBm	XLR	16.5	Not Furn.	7½x1	10.8	5x27	149.95	
	M57	Omni	Dyn.	Metal	Comm.	600	300-4	-146 dBm		6.5	Not Furn.	3½x3¾	8.3		59.95	
CERWIN-VEGA	UE-1	Card.	Elect. Cond	Alum.	Inst.	10k/600	80-20	70	A3M	16	3 Cond Phone	7.9x1.9		¼x27	125.00	
	UD-1	Card.	Dyn.	Alum.	Vocals	200	70-15	73	A3M	16	3 Cond Phone	7.3x1.6		¼x27	100.00	
CROWN	PZM 6 LP	Hemis.	Press. Zone	Alum. & Carbon Fiber	Studio	150	50-15	76	Swcft. A3F	15	Yes	5x6	3		349.00	Pressure Zone microphone (TM).
	PZM 30 GP	Hemis.	Press. Zone	Alum. & Carbon Fiber	Studio	150	50-15	76	Swcft. A3F	6	Yes	2½x3	9		349.00	As above.
ELECTRO-VOICE	RE55	Omni	Dyn.	Steel		150	40-20	150	Swcft. A3F	15	Not Furn.	10½x1¼	8½	5x27	235.00	Used as secondary lab standard.
	DD54	Omni	Dyn.	Steel		150	50-18	149	Swcft. A3F	15	Not Furn.	5½x1¼	6½	5x27	125.40	
	636	Omni	Dyn.	Steel & Zinc		150/150	60-13	154	E-V QC4M Swcft. A3F	15	Not Furn.	10½x1¼	15	5x27	106.80	Mounted on switch stud.
	635A	Omni	Dyn.	Steel	Voice	150	80-13	149	Swcft. A3F	15	Not Furn.	6x1¾	6	5x27	79.00	
	631B	Omni	Dyn.	Zinc	Voice	150/150	80-13	150	Swcft. A3F	15	Not Furn.	6x1¾	6	5x27	73.80	Removable on-off switch actuator.
	CO15P	Omni	Cond.	Steel		150	20-20	141	Swcft. A3F	15	Not Furn.	6½x1¼	7½	5x27	257.00	
	RE85	Omni	Dyn.	Steel	Voice	150	90-10	155	No	30	Not Furn.	2½x1	8	Neck Cord	117.50	Lavaller.
	647AL	Omni	Dyn.	Alum.	Voice	150	60-12	155	No	18	Not Furn.	3½x¾	2	Neck Cord	85.80	Lavaller; 647AH for HI Z.
	RE20	Card.	Dyn.	Steel		50/150/250	45-18	150	Swcft. A3F	15	Not Furn.	8½x2½	26	Neck Cord	404.50	Variable-D for no up-close bass boost.
	RE15	Super Card.	Dyn.	Steel		150	80-15	150	Swcft. A3F	15	Not Furn.	6½x1¼	6	5x27	222.00	As above.
	RE10	Super Card.	Dyn.	Steel		150	90-13	150	Swcft. A3F	15	Not Furn.	6½x1¼	6	¼x27	140.25	As above.
	660	Super Card.	Dyn.	Zinc		150/150	90-13	150	Swcft. A3F	15	Not Furn.	6½x1½	10½	¼x27	93.90	As above.
	DS35	Super Card.	Dyn.	Steel	Voice	150	60-17	148	Swcft. A3F	15	Not Furn.	7½x1¼	9.2	¼x27	125.00	Single-D for up-close bass boost.

(Continued)

MICROPHONES

MANUFACTURER	Model	Directional Pattern	Operating Principle	Case Material	Moat Common Use	Actual Impedance 1 kHz, Ohms	Operating Range Hz to kHz	Open-Circuit Sens. 1 V/1 μ bar	Mike Connector Type	Cable Length, Feet	Connector on Equipment End of Cable	Dimensional Length x Diameter	Weight, Ounces	Mounting Method	Price, \$	Notes
ELECTRO-VOICE (Continued)	671A	Card.	Dyn.	Zinc	Voice	150/ HI Z	60-14	151	Swcft. A3F	15	Not Furn.	6½x2	8	¼x 27	98.40	As above.
	CS15P	Card.	Cond.	Steel	Flat	150	40-18	137	Swcft. A3F	15	Not Furn.	7x1½	8	¼x 27	239.00	As above; phantom powered.
	1776A	Card.	Cond.	Zinc	Voice	150	60-18	144	Swcft. A3F	15	Not Furn.	7½x2	12	¼x 27	122.10	Single-D for up- close bass boost; bat. powered (use 1777 for phan- tom).
	CO90	Omni.	Cond.	Brass	Voice	150	40-15	148	No	6	Swcft. A3M		1	Tie Clasp	125.40	Lavalier.
	RE18	Card.	Dyn.	Steel		150	80-15	150	Swcft. A3F	15	Not Furn.	7x1½	8	¼x 27	247.50	Shock-mounted variable-D.
	DO56	Omni	Dyn.	Steel & Alum.	Voice	150	80-18	155	Swcft. A3F	15	Not Furn.	6½x1½	6½	¼x27	110.00	Shock-mounted.
	PL80	Card.	Dyn.	Zinc & Alum.	Vocal	150	60-17	150	Swcft. A3F	No	Not Furn.	7½x2	12.3	¼x 27	199.95	
GC/AUDIOTEX	30-2312	Card.	Dyn.	Alum.	Vocal	200/ 50k	100-10	85/62		15	Phone	7x1	4	¼x27	36.75	On-off switch, windscreen, slip- out stand clamp.
	30-2314	Card.	Dyn.	Alum.	Music	500/ 30k	50-13	77/58		20	Phone	6½x1	8½	¼x27	41.60	Volume control with on-off switch, lavalier holder.
	30-2310	Card.	Dyn.	Alum.	Music	600/ 50k	100-12	73/54		10	Phone	5½x¾	6	¼x27	33.60	On-off switch, desk stand, slip- out stand clamp.
	30-2318	Omni	Cond.	Plas.	Vocal	1k	20-20	72		13	Phone	1½x½	2½	¼x27	26.05	Lapel mike with tie-tack holder and mercury bat- tery.
	30-2316	Card.	Cond.	Alum.	Music	600	50-13	69		20	Phone	7½x¾	9	¼x27	57.10	On-off switch, table stand.
GC/CALECTRO	Q4-157	Omni	Dyn.	Alum.	Vocal	250/ 50k	55-13	78/60		15	Phone	7x1	4	¼x27	29.95	Swivel holder, on- off switch.
	Q4-152	Card.	Dyn.	Alum.	Music	30k	50-17	58		16½	Phone	6½x1	8½	¼x27	33.95	As above, lavalier strap.
	Q4-158	Card.	Dyn.	Alum.	Music	600/ 50k	100-12	73/54		10	Phone	5½x¾	6	¼x27	29.00	On-off switch, desk stand, slip- out stand clamp.
	Q4-142	Card.	Dyn.	Alum.	Music	30k	70-12	57	Att.	16	Mini	3½x¾	2½	¼x27	13.95	Hand-held or la- valier, neck strap inc.
JVC	M-201	Uni.	Elect.	Alum.		600	40-18		Phone	10	Phone	8½x3½	13	¼x27	59.95	
	M-510	Super Dir.	Elect.	Alum.		600	40-20		Phone	15	Cannon	16x1	9	¼x27	189.95	
	MU-S80	Binaural													199.95	
NAKAMICHI	CM 300	Card./ Omni	Elect.	Metal	Studio	200	30-18	76	XLR-3	15	Phone			¼x27	165.00	
	CM 100	Card.	Elect.	Metal	Studio	200	30-18	76	XLR-3	15	Phone			¼x27	100.00	
NEUMANN	KM83	Omni	Cond.	Alum.	General	200	40-20	†	Swcft. QG3M		Not Furn.	4½x¾	3	¼x27	386.00	†7mV/Pa.
	KM84	Card.	Cond.	Alum.	General	200	40-20	†	Swcft. QG3M		Not Furn.	4½x¾	3	¼x27	386.00	†10mV/Pa.
	KM86	Swit.	Cond.	Alum.	Studio	200	40-20	†	Swcft. QG3M	25	A3F	7½x1½	7.1	¼x27	1050.00	†9.5mV/Pa.
	KM88	Swit.	Cond.	Alum.	Concert Hall	200	40-16	†	Swcft. QG3M	25	A3F	5½x¾	3.5	¼x27	1114.00	†6.5mV/Pa.
	U87	Swit.	Cond.	Alum.	Hall Studio	200	40-16	†	Swcft. QG3M	25	A3F	8x2¼	20	¼x27	1155.00	†8mV/Pa.
	SM69	2 Capsule Var.	Cond.	Alum.	Concert Hall	200	40-16	†	Spez.	33	Spez.	10x1½	16	¼x27	2660.00	†19mV/Pa.
	QM69	4 Capsule Card.	Cond.	Alum.	Concert Hall	200	40-16	†	Spez.	33	Spez.	10x1½	16	¼x27	3106.00	†11mV/Pa.
	KU80	Stereo Head	Cond.	Alum.	Acoustic Study	200	40-20	†	Spez.	25	A3F		96	¼x27	3187.00	†15mV/Pa.
	U89	Swit.	Cond.	Alum.	Studio	200	40-18	†	Swcft. QG3M	25	A3F	7½x1¼	14	¼x27	1285.00	†8mV/Pa.
NUMARK	UC935	Card.	Elec. Cond.	Alum.	Rec./Voc.	600	30-16	68	XLR	12	Phone				59.95	
	UC945	Card.	Elec. Cond.	Alum.	Rec./Voc.	600	30-18	68	XLR	12	Phone				79.95	
	UC965	Card.	Elec. Cond.	Alum.	Rec./Voc.	600	20-20	68	XLR	12	Phone				79.95	
	UD975	Card.	Dyn.	Alum.	Music	600	50-16	73	XLR	12	Phone				99.95	
	UD985	Card.	Dyn.	Alum.	Music	600	50-16	73	XLR	12	Phone				119.50	
	TC995	Card.	Elec. Cond.	Alum.	Voice	800	50-16	66	XLR	12	Phone				39.95	Tie pin.
PIONEER	DM-21	Uni.	Dyn.			500	100-15	77							30.00	
	DM-51	Uni.	Dyn.			600	80-12	75							100.00	
	DM-61	Uni.	Dyn.			130	80-12	75							130.00	

MICROPHONES

MANUFACTURER	Model	Directional Pattern	Operating Principle	Case Material	Most Common Use	Actual Impedance, 1 kHz, Ohms	Operating Range, Hz to kHz	Open-Circuit Sens., 1 kHz, dB re. 1 V/1 p bar	Mike Connector Type	Cable Length, Feet	Connector on Equipment End of Cable	Dimensions, Inches: Length x Diameter	Weight, Ounces	Mounting Method	Price, \$	Notes	
PML	DC21	Card.	Cond.	Alum.	Vocal/Music	30, 50, 200, 1k	30-20 ±3		Att.	33	Preh.	2½x1	1%	¼x27	230.00	Balanced, except Hi-Z.	
	DC20	Omni	Cond.	Alum.	Vocal/Music	30, 50, 200, 1k	30-20 ±3		Att.	33	Preh.	2½x1	1%	¼x27	220.00	As above.	
	TC4-USV	Var.	Cond.	Alum.	Vocal/Music	200	30-20 ±3		Tuchel	20	Preh.	1¼x5%	5	¼x27	895.00	Remote pattern control, balanced.	
	VM-41-4130	Card.	Cond.	Alum.	Vocal/Music	200	30-20 ±3		XLR 3-12	20	Preh.	10x¼	5	¼x27	950.00	Interference condenser type, balanced.	
RADIO SHACK	33-984	Uni.-Dir.	Dyn.	Metal	PA Vocal	Hi/Lo Bal.	80-13		XLR Male	16	Phone			¼x27	47.95	Built-in windscreen & on/off sw. & case.	
	33-919	Dual Pat. Stereo Card.	Elect. Cond. Elect. Cond.	Metal	Groups	600	30-15		No	10	Phone			¼x27	39.95	W. case.	
	33-1045			Metal	PA Record.	600	30-15		No	10	Phone			¼x27	29.95	Windscreen, stand adapter & case.	
	33-992	Sup. Card.	Dyn.	Metal	PA Vocal	Hi-LoZ	80-12		4 Pin Screwlok	10	Phone			¼x27	29.95	W. stand adapter.	
	33-1050	Omni	Elect. Cond.	Metal	Record.	600	20-13			9	Phone			¼x27	17.95	W. windscreen, desk stand.	
	33-1085	One Point Stereo Card.	Back Elect. Cond. Back Elect. Cond.	Metal	Pro Record.	600	20-20			16	Phone			¼x27	59.95	W. stand adapter & case.	
	33-1080			Metal	Pro Record.	LoZ Bal.	20-20		XLR Male	16	Phone			¼x27	49.95	W. windscreen, swivel adapter, & case.	
	33-985	Omni	Dyn. Elect. Cond.	Metal Alum.	General PA Recording	Hi-LoZ 600	90-11 20-12			15 10	Phone Phone			¼x27 Tie Clip	19.95 19.95	W. stand adapter. W. tie tack and tie clip & mini adapt.	
	RECOTON	MM330	Card.	Dyn.	Alum.	Vocal/Music	500, 50k	80-15			18	Phone				37.99	
		MM600	Card.	Elect.	Alum.	Vocal/Music	600	50-13			9	Phone				29.99	
MM610		Card.	Elect.	Alum.	Vocal/Music	600	40-15	66		18	Phone				39.99		
MM620		Card.	Elect.	Alum.	Vocal/Music	600	30-16	68		18	Phone				44.99		
MM630		Card.	Elect.	Alum.	Vocal/Music	600	30-16	66		18	Phone				59.99		
MM660		Stereo Card	Elect.	Alum.	Vocal/Music	600	50-16			10	Phones				49.99		
MM750		Omni	Elect.	Alum.	PA Voice	600	50-12	72		20	Mini	1¼x¼			25.99		
REVOX	M3500	Sup. Card.	Dyn.	Alum.	General	600	40-18	72	XLR	16	Phone	6x1	10½		160.00		
SANSUI	DM-11	Card.	Dyn. Elect. Cond.	Alum.	Vocal Instr./Vocal	600	100-15 50-15	76 71.5		19½ 19½	Phone Phone			¼x27 ¼x27	110.00 80.00		
	EM-1	Card.	Dyn. Elect. Cond.	Alum.	Vocal Instr./Vocal	600	100-15 50-15	76 71.5		19½ 19½	Phone Phone			¼x27 ¼x27	110.00 80.00		
SCHOEPS SCHALLTECHNIK	CMC 32	Omni	Cond.	Nick.	Orch. ORTF	20	20-20 40-20	35 36	XLR-3M			5x¼ 5x¼	5 5	¼x 27 ¼x 27	640.00 640.00	12/48 V powering As above.	
	CMC 34	Card.	Cond.	Nick.	Stereo Blumlein	20	20-20 40-20	35 36	XLR-3M			5x¼ 5x¼	5 5	¼x 27 ¼x 27	780.00	As above.	
	CMC 38	Bi-Dir.	Cond.	Nick.	Blumlein	20	40-16	37	XLR-3M			5¼x¼	5	¼x 27	780.00	As above.	
	CMC 341	Hypercard. Card./Omni	Cond. Cond.	Nick. Nick.	X-Y M-S	20 20	40-20 40-20	35 37	XLR-3M XLR-3M			5x¼ 5¼x1¼	5 5	¼x 27 ¼x 27	730.00 985.00	As above. As above.	
	CMC 36	Bi-Dir.	Cond.	Nick.	M-S	20	40-20	37	XLR-3M			5x¼ 5¼x1¼	5 5	¼x 27 ¼x 27	985.00	As above.	
	CMTS 301U	Card./Omni	Cond.	Nick.	X-Y, M-S	20/20	40-16	38	XLR-5M			9x1¼	11¼	¼x27	2125.00	As above.	
	MSTC 34	Dual Card.	Cond.	Nick.	ORTF Stereo	20/20	40-20	36	XLR-5M			7x¼	8	¼x 27	1315.00	As above.	
	CMH 34	Speech Card.	Cond.	Anod. Alum.	Pop Solo	20	80-20	38	XLR-3M			7x1¼	8	¼x 27	835.00	As above.	
	CM 03	Omni	Cond.	Brass	Lav.	20	20-20	35	XLR-3M	3	Coll.	1¼x ¼	1½		935.00	As above.	
SENNHEISER	MD211	Omni	Dyn.	Brass	Studio/Instr.	200	30-20	153	A3M	15	Pgtis.				356.00		
	MD402K	Sup. Card.	Dyn.	Alum.		750	80-12.5	152	A3M	5	Phone				76.00	Unbalanced.	
	MD402U	Sup. Card.	Dyn.	Alum.		200	80-12.5	152	A3M	15	A3M				79.50	Balanced.	
	MD421	Card.	Dyn.	Plastic		200	30-17	151	A3M	15	Pgtis.				327.00	Adj. bass resp.	
	MD431	Sup. Card.	Dyn.	Zinc		200	30-20	151	A3M	15	Pgtis.				352.00	Inc. EQ & shock mount.	
	MD441	Sup. Card.	Dyn.	Alum.	Vocal	200	40-16	151	A3M	15	Pgtis.				455.00	Inc. internal shock mount.	
	MKE203	Omni	Elect. Cond.	Metal		200	50-15	144	A3M						234.00		
	MKE403	Sup. Card.	Elect. Cond.	Metal		200	50-15	144	A3M						247.00		
	MKE803	Shotgun	Elect. Cond.	Metal		200	50-15	138	A3M						319.00		
	MKE10	Omni	Elect. Cond.	Brass		1k	40-20								159.00	Tie clas.	
	MKE2002	Binaural	Cond.	Metal	Music	1.5k	40-20	135							495.00		
	MKH106TU	Omni	Cond.	Metal	Studio	2	20-20								556.00		
MKH406TU	Card.	Cond.	Metal	Studio	2	40-20								652.00	12-V powering.		
MKH406P48	Card.	Cond.	Metal	Studio	10	40-20								652.00	48-V powering.		
MKH416TU	Sup. Card.	Cond.	Metal	Studio	20	40-20								695.00	12-V powering.		

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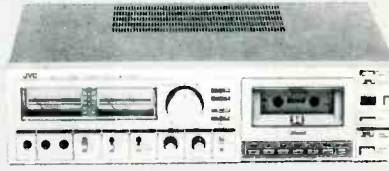
MANUFACTURER	Model	Directional Pattern	Operating Principle	Case Material	Most Common Use	Actual Impedance, 1 kHz, Ohms	Operating Range, Hz to kHz	Open-Circuit Sens., 1 kHz, -dB re.	Mike Connector Type	Cable Length, Feet	Connector on Equipment End of Cable	Dimensions - Inches, Length x Diameter	Weight, Ounces	Mounting Method	Price, \$	Notes
SENNHEISER (Continued)	MKH416P48	Sup. Card.	Cond.	Metal	Studio	10	40-20								695.00	48-V powering. 12-V powering. 48-V powering.
	MKH816TU	Shotgun	Cond.	Metal	Studio	20	40-20								918.00	
	MKH816P48	Shotgun	Cond.	Metal	Studio	10	40-20								918.00	
SHURE	SM63	Omni	Dyn.	Alum.	Vocal	285	50-20	76	Swcft. A3F	25	Swcft. A3M	5 1/2 x 1 1/4	2.8	1/2 x 27	100.00	
	SM77	Card.	Dyn.	Alum.	Vocal	180	50-15	79	Swcft. A3F	25	Swcft. A3M	5 1/2 x 1 1/4	6	1/2 x 27	117.00	High output, hum-bucking coll. LF roll-off.
	SM78	Card.	Dyn.	Alum.	Vocal	180	50-15	79	Swcft. A3F	25	Swcft. A3M	5 1/2 x 2	7.2	1/2 x 27	150.00	
	SM17	Omni	Dyn.	Alum.	Instr.	200	50-15	85	Att.	10	Swcft. A3M	1 1/2 x 3/4	0.28		84.60	As above.
	516EQ	Card.	Dyn.	Zinc	Instr.	170	50-15	81	Swcft. A3F	15	A3M Phone	6 1/4 x 1 1/2	9.5	1/2 x 27	111.00	Built-in filters.
	545SD	Card.	Dyn.	Zinc	Vocal	240/39k	50-15	78	Swcft. A3F	15	Not Furn.	6 1/4 x 1 1/4	9	1/2 x 27	106.20	On-off switch.
	565SD	Card.	Dyn.	Zinc	Vocal	240/39k	50-15	77	Swcft. A3F	15	Not Furn.	6 1/4 x 2	10.5	1/2 x 27	117.60	As above.
	589S	Card.	Dyn.	Zinc	Vocal	160/34k	90-13	83	Swcft. A3F	15	Not Furn.	7 x 1 1/2	12	1/2 x 27	80.40	As above.
	SM57	Card.	Dyn.	Zinc	Instr./Vocal	65/270	40-15	82	Swcft. A3F	20	Not Furn.	6 1/4 x 1 1/4	10	1/2 x 27	130.80	
	SM58	Card.	Dyn.	Zinc/Alum.	Instr./Vocal	65/270	50-15	83	Swcft. A3F	20	Not Furn.	6 1/4 x 2	15	1/2 x 27	163.80	
	SM59	Card.	Dyn.	Alum.	Instr./Vocal	160	50-15	83	Swcft. A3F	20	Swcft. A3M	7 1/4 x 1 1/4	7.6	1/2 x 27	175.80	Hum-bucking coil, shock mount.
	SM81	Card.	Elect. Cond.	Steel	Prof. Rec.	85	20-20	64	Swcft. A3F	25	Swcft. A3M	8 1/2 x 1	8	1/2 x 27	274.80	Two-position roll-off.
	515SB	Card.	Dyn.	Zinc	Speech	170	80-13	82	Att.	15	Not Furn.	6 1/2 x 1 1/2	22	1/2 x 27	49.05	On-off switch.
	SM61	Omni	Dyn.	Alum.	Vocal	175	50-14	82	Swcft. A3F	20	Not Furn.	7 1/4 x 1 1/2	5.2	1/2 x 27	117.60	
SONY	C-48	Var.	Cond.	Alloy	Instr./Vocal	150	30-16	60	XLR-3			9 x 2 1/4	22	1/2 x 27	795.00	Dual diaphragm battery or phan. power, 10dB pad, lo-cut switch.
	ECM989	Ms Stereo	Back Elect. Cond.	Alloy	Instr./Vocal	600	20-20	68	XLR-5	8	XLR-3 x2	10 1/2 x 1 1/4	11.3	1/2 x 27	435.00	Var. direct., remote to 300 ft.
	ECM33F	Card	Back Elect. Cond.	Alloy	Instr.	250	20-20	74	XLR-3	20	XLR-3	7 x 1	6.5	1/2 x 27	195.00	Battery or phantom power, 8dB pad, lo cut.
	ECM30	Omni	Elect. Cond.	Alloy	Voice	250	50-14	75	Atch.	10	XLR-3	1 1/2 x 3/4	0.2	Tie Clip	115.00	
	ECM23F	Card.	Back Elect. Cond.	Alloy	Instr./Vocal	250	20-20	76	XLR-3	20	Phone	7 x 1	6.7	1/2 x 27	115.00	8 dB pad, lo cut, opt. bal. out.
	F520	Card.	Dyn.	Alloy	Instr./Vocal	250	80-12	77	XLR-3	20	XLR-3	6 1/2 x 2	9.2	1/2 x 27	100.00	
	ECM170A	Omni	Elect. Cond.	Alloy	Vocal Music	200	20-16	76	Sony	16	Phone	6 1/2 x 1	5.6	1/2 x 27	75.00	Lo cut swit., opt. bal. out.
	ECM260F	Card.	Back Elect. Cond.	SBMC	Instr./Vocal	200	50-14	74	XLR-3	16	Phone	7 x 1 1/2	4.4	1/2 x 27	65.00	
	F-400A	Card.	Dyn.	SBMC	Vocal	250	100-12		Atch.	12	Phone	7 x 2	4.6	1/2 x 27	50.00	
SUPERSCOPE	EC-33S	Uni./Bi.	Elect.	Alum.		1k	50-15			10					66.00	Stereo or 2 mono; pressure gradient.
	EC-15P	Omni	Elect.	Alum.		250	70-15			15					100.00	pressure gradient. Tie clasp.
	EC-12B	Omni	Elect.	Alum.		250	100-15			10					54.00	
	EC-9P	Card.	Elect.	Alum.		250	30-17			10	Can.				110.00	10-dB pad, lo filter.
	EC-7	Card	Elect.	Alum.		250	40-16								64.00	Lo filter; on/off switch.
	EC-5	Card	Elect.	Alum.		2.2k	40-15			10					42.00	
	EC-3S	Card	Elect.	Alum.		1.5k	50-15			10					32.00	Remote on/off.
EC-3	Card	Elect.	Alum.		1.5k	50-15			10					28.00		
EC-1	Omni	Elect.	Alum.		2k	60-13			10					18.00		
TEAC	MC-10	Card.	Dyn.	Alum.	Vocal	500	50-20	77	Phone	10		6 1/2 x 1	3 1/4		20.00	
	ME-15	Omni	Elect. Cond.	Plas.	Vocal	500	50-20	65	Phone	10		6 3/4 x 1	3 3/4		30.00	
	ME-20	Card.	Elect. Cond.	Plas.	Vocal	500	50-20	67	Phone	10		6 3/4 x 1	3 3/4		40.00	
	ME-50	Card.	Elect. Cond.	Alum.	Vocal	200	50-20		Phone	10		7 1/4 x 1 1/4	6 1/4		50.00	
	ME-80	Card	Cond.	Alum.	Vocal	200	30-22		XLR	10		7 1/4 x 1 1/4	9 1/4		90.00	
	MM-100	Card	Dyn.	Alum.	Vocal	200	30-22		XLR	10		7 1/4 x 1 1/4	8 1/4		100.00	
ME-120	Card & Omni	Cond.	Alum.	Vocal	200	25-22		XLR	10		8 1/4 x 1 1/4	9 1/4		120.00		
TECHNICS	RP-3330	Card.	Dyn.		Vocal	400	50-12	78		10	Phone	6 1/2 x 2	3.7	Adpt.	30.00	
	RP-3500E	Card.	Elect.		Music	600	50-12	68		16.4	Phone	8 1/2 x 1.8	4.23	Adpt.	60.00	
	RP-3210E	Double Card.	(2) Elect.		Music	600	50-12	70		10	Phone	7 1/4 x 2 1/4	3.17	Adpt.	60.00	
	RP-3540E	Card.	Elect.		Music	600	40-14	70		16.4	Phone	10 x 1.65	6.35	Adpt.	70.00	
TOSHIBA	EM 220	Uni.	Back Elect.	Alum.		1k	50-18	70		16	Phone	9 1/2 x 1	9.2	Clip	39.95	
	EM 420	Uni.	Back Elect.	Alum.		600	50-20	71	Swcft. A3F	16	Phone	8 1/2 x 1 1/4	9.5	Clip	69.95	

CASSETTE DECKS

For Manufacturers' Addresses, see page 158



Uher/Mineroff CR240



JVC KD-A77



Yamaha K-950



Pioneer CT-F1250



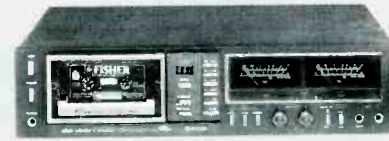
B+C/Avnet T-4M



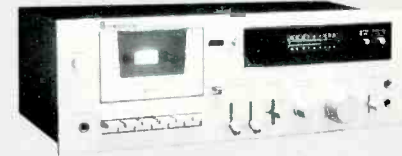
Tandberg TCD-3004



Philips N5788



Fisher DD280



Sherwood CD201CP

MANUFACTURER	Model	Frequency Response, Hz/kHz, ±dB	Top Load/F, Front Load/F	Number of Heads	% Wow & Flutter, W rms	S/N, dB, without Dolby NR	S/N, dB, with Dolby NR	Auto Off?	Free Bias Adjust?	No. Preset Bases?	No. Micro Miting Inputs	Locking Pause Control?	Metal Tape Capable?	Limiter?	Memory Rewind?	Peak Level Indicator(s)?	Dimensions, Inches	Net Weight, Lbs.	Price, \$	Notes
AIWA	AD-M800BU	30-17 ±2.5	F	3	0.04	58	Yes	Yes	4	Yes	Yes	No	Yes	Yes	4% x 18% x 11%	20.9	795.00			
	AD-M800U	30-17 ±2.5	F	3	0.04	68	Yes	Yes	4	Yes	Yes	No	Yes	Yes	4% x 18% x 11%	20.9	770.00			
	AD-M700BU	30-17 ±2.5	F	3	0.04	55	Yes	Yes	3	Yes	Yes	No	Yes	Yes	4% x 18% x 11%	16.8	500.00			
	AD-M700U	30-17 ±2.5	F	3	0.04	55	Yes	Yes	3	Yes	Yes	No	Yes	Yes	4% x 18% x 11%	16.8	490.00			
	AD-R500U	30-17 ±2.5	F	2	0.04	64	Yes	No	3	Yes	Yes	No	Yes	Yes	4% x 18% x 11%	22.5	450.00			
	AD-M600U	30-17 ±2.5	F	2	0.04	65	Yes	Yes	3	Yes	Yes	No	Yes	Yes	4% x 18% x 11%	16.8	390.00			
	SD-L50U	30-16 ±2.5	F	2	0.04	64	Yes	No	3	Yes	Yes	No	No	Yes	4% x 9% x 10	9.9	320.00			
	AD-L450U	30-16 ±2.5	F	2	0.04	65	Yes	Yes	3	Yes	Yes	No	No	Yes	4% x 16% x 11	16.8	295.00			
	AD-L300U	30-14 ±2.5	F	2	0.06	62	Yes	Yes	3	Yes	Yes	No	No	Yes	5% x 16% x 11½	10.4	240.00			
	AD-M250	30-14 ±2.5	F	2	0.06	60	Yes	Yes	3	Yes	Yes	No	No	No	6% x 16% x 11½	9.9	195.00			
AD-M100U	30-14 ±2.5	F	2	0.07	60	Yes	Yes	3	Yes	No	No	No	No	6% x 16% x 11½	9.9	179.00				
AKAI	CS-M40R	30-18 ±3	F	2	0.06	60	70	No	4	No	Yes	Yes	No	No	17.3x5.9x11.4	17.7	349.95	Auto reverse rec/play.		
	GX-F60R	30-19 ±3	F	2	0.04	60	70	No	4	No	Yes	Yes	Yes	Yes	17.3x5.9x11.4	23.6	499.95	As above.		
	CS-M01A	30-18 ±3	F	2	0.05	59	69	No	3	No	Yes	Yes	No	No	17.3x5.6x9.8	11	179.95			
	CS-M02	30-18 ±3	F	2	0.045	60	70	No	3	No	Yes	Yes	No	No	17.3x5.6x9.8	12	229.95			
	GX-M10	30-19 ±3	F	2	0.04	61	71	No	4	No	Yes	Yes	Yes	No	17.3x5.6x9.8	13	299.95			
	GX-M50	25-21 ±3	F	3	0.04	62	72	Yes	4	2	Yes	Yes	Yes	Yes	17.3x6.2x10.9	16	375.00			
	GX-F80	25-21 ±3	F	3	0.035	62	72	No	4	2	Yes	Yes	Yes	Yes	17.3x5.3x13.4	20	495.00			
	GX-F90	25-21 ±3	F	3	0.03	62	72	No	4	2	Yes	Yes	Yes	Yes	17.3x4.1x14.6	22	595.00			
BANG & OLUFSEN	Beocord 1900	30-15	T	2	0.15	56	64	Yes	No	2	No	Yes	No	Yes	Yes	15% x 3¼ x 9%	11	525.00	DIN standards.	
	Beocord 8000	30-16 ±2.5	T	2	0.1	58	65	Yes	No	2	No	Yes	No	Yes	Yes	20% x 5¼ x 11%	16.5	995.00	As above, microcomputer control.	
B+C/AVNET	T-05M	30-19 ±3	F	2	0.07	54	63	Yes	No	3	No	Yes	Yes	No	No	Yes	15% x 5½ x 9%	11.3	209.95	Swift MPX filter.
	T-2M (1%)	25-19 ±3	F	2	0.06	56	64	Yes	No	3	No	Yes	Yes	No	Yes	Yes	16% x 6 x 9%	12.8	349.95	As above; two speeds — specs. here, 1½ ips. Specs. here, 3% ips.
	T-2M (3%)	25-21 ±3			0.04	60	67													
	T-3M (1%)	20-20 ±3	F	3	0.05	59	67	Yes	No	3	No	Yes	Yes	No	Yes	Yes	17% x 6½ x 10	14.8	499.95	Record cal., dual capstan; two speeds — specs. here, 1½ ips. Specs. here, 3% ips.
	T-3M (3%)	20-23 ±3			0.03	63	70	Yes												
	T-4M (3%)	20-23 ±3			0.03	64	71	Yes	Yes	3										Specs. here, 3% ips; see T-4M (1%).

(Continued)

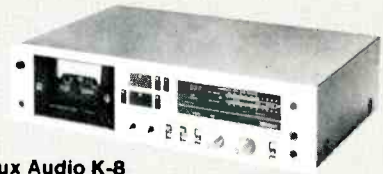
CASSETTE DECKS



Vector Research VCX-600



Optonica RT-6905



Lux Audio K-8



Onkyo TA-2080



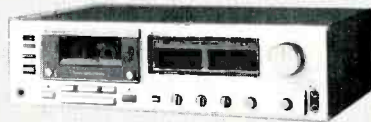
Phase Linear 7000



Bang & Olufsen Beocord 8000



Technics RS-M95



Kenwood KX-800



Hitachi D-75S

MANUFACTURER	Model	Frequency Response, Hz-kHz, ±dB	Top Load? T, Front Load? F	Number of Heads	% Wow & Flutter, W rms	S/N, dB, without Dolby NR	S/N, dB, with Dolby NR	Auto Off?	Fine Bias Adjust?	No. Preset Bias/EO Points	No. Mike Mixing Inputs	Locking Pause Control?	Metal Tape Capable?	Limiter?	Memory Rewind?	Peak Level Indicator(?)	Dimensions, Inches	Net Weight, Lbs.	Price, \$	Notes
B+C/AVNET (Continued)	T-4M (1½)	20-21 ±3	F	3	0.05	60	68	Yes	Yes	3	2	Yes	Yes	No	Yes	Yes	17¼x6½x10	18	749.95	Full logic, 2 mtrs., oscillator; two speeds — specs. here, 1½ ips.
DUAL	812	20-19 ±3	F	2	0.04	67	Yes	No	4	6	No	Yes	Yes	Yes	Yes	Yes	17¼x5¼x13¼	22	299.95	
	820	20-19 ±3	F	2	0.04	67	Yes	No	4	6	No	Yes	Yes	Yes	Yes	Yes	17¼x5¼x13¼	22	419.95	
	830	20-19 ±3	F	3	0.035	69	Yes	No	6	6	Yes	Yes	Yes	Yes	Yes	Yes	17¼x5¼x13¼	23	499.95	
	839RC	20-20 ±3	F	2	0.03	69	Yes	No	6	6	Yes	Yes	Yes	Yes	Yes	Yes	17¼x5¼x13¼	22	875.00	
EUMIG	FL-1000	20-20 ±3	F	3	0.035	70	62	Yes	Yes	3	2	Yes	Yes	No	Yes	Yes	19x7x13	26½	1,550.00	Computer interface.
FISHER	CR4013	40-12 ±3	F	2	0.1	48	58	Yes	No	2	No	Yes	No	No	No	No	15½x9x5½	16	149.95	
	CR110	30-15 ±3	F	2	0.08	52	60	Yes	No	3	No	Yes	Yes	No	No	No	15¼x8x4¼	11	169.95	
	CR120	30-15 ±3	F	2	0.08	52	60	Yes	No	3	No	Yes	Yes	No	No	No	15¼x8x4¼	11	199.95	
	CR4016M (1¼)	40-15 ±3	F	2	0.1	50	60	Yes	No	3	No	Yes	Yes	No	No	No	17¼x9½x5¼	10	249.95	Auto search. Two-speed; specs. here, 1½ ips. Specs. here, 3¼ ips.
	CR4016M (3¼)	40-20 ±3	F	2	0.09															
	CR4028	30-15 ±3	F	2	0.04			Yes	No	4	No	Yes	Yes	No	Yes	No	17¼x12¼x4¼	17	279.95	
	DD280	30-15 ±3	F	2	0.04	54	62	Yes	No	3	No	Yes	Yes	No	No	Yes	17¼x10½x4	13	299.95	
	DD300	30-15 ±3	F	2	0.04	54	62	Yes	No	3	No	Yes	Yes	No	No	Yes	17¼x10½x4	13	349.95	
	CR4029 (1¼)	30-18 ±3	F	3		52	62	Yes	Yes	4	No	Yes	Yes	Yes	No	Yes	17¼x12¼x4¼	17	399.95	Two-speed; specs. here, 1½ ips. Specs. here, 3¼ ips.
	CR4029 (3¼)	30-25 ±3	F	3																
HITACHI	D-22S	30-15 ±3	F	2	0.07												17¼x4¼x7¼	7½	139.95	
	D-33S	30-15 ±3	F	2	0.07												17¼x4¼x10	9½	199.95	
	D-45S	30-15 ±3	F	2	0.05												17¼x4¼x7	9½	249.95	
	D-75S	30-17 ±3	F	2	0.04												17¼x4¼x10½	13	349.95	
	D-90S	30-15 ±3	F	3	0.04												17¼x4¼x10½	15	449.95	
	D-980M	30-17 ±3	F	3	0.03												17x6½x10	18	499.95	
	D-3300M	30-15 ±3	F	3	0.023												17x6½x10	18½	699.95	
	D-5500M	30-20 ±3	F	3	0.028												17¼x7¼x12¼	30½	999.95	
JVC	KD-A11	40-15 ±3	F	2	0.05	60	70		No	3	Yes	Yes			No	16¼x5¼x10¾	11	169.95		
	KD-A22	40-15 ±3	F	2	0.05	60	70		No	3	Yes	Yes			No	16¼x5¼x10¾	11	199.95	Music scan system.	
	KD-A33	30-16 ±3	F	2	0.04	60	70		No	3	Yes	Yes			No	16¼x4¼x11¼	14.5	299.95		
	KD-A55	30-16 ±3	F	2	0.04	60	70		No	3	Yes	Yes			Yes	16¼x4¼x11¼	15.2	349.95	As above.	
	KD-A66	30-16 ±3	F	2	0.04	60	70		Auto	3	Yes	Yes		Yes	Yes	17¼x4¼x12¼	17.4	499.95	Computer-set bias, EQ, & sensitivity.	
	KD-A7	25-17 ±3	F	2	0.04	60	70		No	3	Yes	Yes		Yes	Yes	17¼x4¼x12¼	18.3	449.95		
	KD-A77	25-18 ±3	F	3	0.04	60	70		No	3	Yes	Yes		Yes	Yes	17¼x4¼x12½	18.3	569.95		
	KD-A8	25-17 ±3	F	2	0.035	60	70		Auto	3	Yes	Yes		Yes	Yes	17¼x4¼x15½	24.2	749.95	As above.	
	KD-2	30-16 ±3	T	2	0.09	57	67		No	3	Yes	No		No	No	10¼x3¼x11¼	7.9	349.95		

CASSETTE DECKS

MANUFACTURER	Model	Frequency Response, Hz/kHz, \pm dB	Top Load=1, Front Load=2		No. of Heads	% Wow & Flutter	S/N, dB, without Dolby NR	S/N, dB, with Dolby NR	Auto Off?	Fine Bias Adjust?	No. Preset Bases?	No. Preset Bases/EO Points	Locking Pause Control?	Metal Tape Capable?	Limiter?	Memory Rewind?	Peak Level Indicator(s)?	Dimensions, inches	Net Weight, lbs.	Price, \$	Notes
			F	T																	
KENWOOD	KX-2060	25-17.5	F	3	0.04	60	70	Yes	Yes	3		Yes	Yes	Yes	Yes	Yes	17 1/2 x 6 x 14 1/2	20.5	649.00		
	KX-1060	30-19	F	3	0.045	55	65	Yes	Yes	3		Yes	Yes	Yes	Yes	Yes	17 1/2 x 6 x 14 1/2	18.5	450.00		
	KX-800	30-18	F	3	0.045	54	64	Yes	Yes	4		Yes	Yes	Yes	Yes	Yes	17 1/2 x 5 1/2 x 14	15	369.00		
	KX-600	30-16	F	2	0.05	54	64	Yes	Yes	4		Yes	Yes	Yes	Yes	Yes	17 1/2 x 5 1/2 x 11 1/2	13	269.00		
	KX-500	30-16	F	2	0.05	54	64	Yes	Yes	4		Yes	Yes	Yes	Yes	Yes	15 1/2 x 5 1/2 x 11 1/2	9.5	239.00		
	KX-400	30-16	F	2	0.05	52	62	Yes	Yes	2		Yes	Yes	Yes	Yes	Yes	15 1/2 x 5 1/2 x 11 1/2		189.00		
LUX AUDIO	5K-50	30-18 \pm 3	F	3	0.03	68	70	Yes	Yes	3	2	Yes	Yes	No	Yes	Yes	17 1/2 x 14 1/2 x 5 1/2	27 1/2	1,995.00	Dolby HX system.	
	K-15	30-18 \pm 3	F	3	0.04	58	65	Yes	Yes	3	2	Yes	Yes	No	Yes	Yes	17 1/2 x 4 1/2 x 14 1/2	25	895.00		
	K-12	30-20 \pm 3	F	2	0.04	60	69	Yes	No	3	2	Yes	Yes	No	Yes	Yes	17 1/2 x 14 1/2 x 5	23	745.00		
	K-8	20-17 \pm 3	F	2	0.055	58	65	Yes	Yes	3	2	Yes	Yes	No	Yes	Yes	18 1/2 x 11 1/2 x 5 1/2	14	495.00		
	K-5A	20-18 \pm 3	F	2	0.06	58	65	Yes	Yes	3	2	Yes	Yes	No	Yes	Yes	17 1/2 x 10 1/2 x 6	13	399.00		
	K-1	20-17 \pm 3	F	2	0.06	58	65	Yes	No	3	2	Yes	Yes	No	Yes	No	17 1/2 x 10 1/2 x 6	12	299.00		
MARANTZ	SD 9000 (1%)	31.5-14 \pm 2	F	3	0.03	69		Yes	Yes	4	2	Yes	Yes	Yes	Yes	Yes	16 1/2 x 5 1/2 x 11 1/2	22 1/2	800.00	Two speeds—specs. here, 1 1/2 ips.	
	SD 9000 (3%)	31.5-25 \pm 2				72														Specs. here, 3 1/4 ips.	
	SD 8000 (1%)	31.5-14 \pm 2	F	2	0.03	69		Yes	Yes	4	2	Yes	Yes	Yes	Yes	Yes	16 1/2 x 5 1/2 x 11 1/2	22 1/2	700.00	Two speeds—specs. here, 1 1/2 ips.	
	SD 8000 (3%)	31.5-25 \pm 2				72														Specs. here, 3 1/4 ips.	
	SD 6000 (1%)	31.5-14 \pm 2	F	2	0.03	68		Yes	Yes	4	2	Yes	Yes	Yes	Yes	Yes	16 1/2 x 5 1/2 x 11 1/2	19 1/2	550.00	Two speeds—specs. here, 1 1/2 ips.	
	SD 6000 (3%)	31.5-25 \pm 2				71															Specs. here, 3 1/4 ips.
	SD 4000 (1%)	31.5-14 \pm 2	F	3	0.04	67		Yes	No	4	2	Yes	Yes	Yes	Yes	Yes	16 1/2 x 5 1/2 x 9 1/2	14 1/2	450.00	Two speeds—specs. here, 1 1/2 ips.	
	SD 4000 (3%)	31.5-25 \pm 2				70															Specs. here, 3 1/4 ips.
	SD 3020 (1%)	31.5-14 \pm 2	F	2	0.05	64		No	No	4			Yes	Yes	Yes	Yes	Yes	16 1/2 x 5 1/2 x 9 1/2	15 1/2	330.00	Two speeds—specs. here, 1 1/2 ips.
	SD 3020 (3%)	31.5-25 \pm 2				67															Specs. here, 3 1/4 ips.
MITSUBISHI	DT-40	40-20 \pm 3	F	3	0.05	60	68	Yes	Yes	4	2	Yes	Yes	No	Yes	Yes	16 1/2 x 6 1/2 x 15	26 1/2	550.00		
	DT-7	40-14 \pm 3	F	2	0.07	58	66	Yes	No	3	2	Yes	Yes	No	Yes	Yes	16 1/2 x 6 1/2 x 15	17	260.00		
	MT01	40-15 \pm 3	F	2	0.05	56	64	Yes	No	3	2	Yes	Yes	No	Yes	Yes	10 1/2 x 9 1/2 x 5 1/2	13 1/2	560.00		
NAD (USA)	6040	40-18 \pm 3	F	2	0.07	59	65	Yes	No	4	No	Yes	Yes	No	Yes	Yes	16 1/2 x 9 x 4 1/2	9 1/2	279.00	MPX filter, Dolby HX	
	6140	35-19 \pm 3	F	2	0.045	59	65	Yes	No	4	No	Yes	Yes	No	Yes	Yes	16 1/2 x 11 x 4 1/2	16	479.00	As above.	
NAKAMICHI	480	20-20	F	2	0.06	62	Yes	No	3	No	Yes	Yes	No	Yes	Yes	Yes	17 1/2 x 5 1/2 x 11 1/2	14	495.00	Auto azimuth adj.	
	481	20-20	F	3	0.06	63	Yes	No	3	No	Yes	Yes	No	Yes	Yes	Yes	17 1/2 x 5 1/2 x 11 1/2	14	655.00		
	482	20-20	F	3	0.06	63	Yes	No	3	No	Yes	Yes	No	Yes	Yes	Yes	17 1/2 x 5 1/2 x 11 1/2	14	775.00		
	580M	20-20	F	2	0.05	64	Yes	Yes	3	No	Yes	Yes	No	Yes	Yes	Yes	19 1/2 x 13 1/2 x 5 1/2	18 1/2	690.00		
	581	20-20	F	3	0.05	66	Yes	Yes	3	No	Yes	Yes	No	Yes	Yes	Yes	19 1/2 x 13 1/2 x 5 1/2	18 1/2	770.00		
	582	20-20	F	3	0.05	66	Yes	Yes	3	No	Yes	Yes	No	Yes	Yes	Yes	19 1/2 x 13 1/2 x 5 1/2	18 1/2	890.00		
	680	10-22	F	3	0.04	66	Yes	No	3	No	Yes	Yes	No	Yes	Yes	Yes	19 x 12 x 4 1/2	18	1,350.00		
	6602X	10-22	F	3	0.04	66	Yes	No	3	No	Yes	Yes	No	Yes	Yes	Yes	19 x 13 x 5 1/2	19 1/2	995.00		
	6702X	10-22	F	3	0.04	66	Yes	No	3	No	Yes	Yes	No	Yes	Yes	Yes	19 x 13 x 5 1/2	19 1/2	1,150.00		
	6802X	10-22	F	3	0.04	66	Yes	No	3	No	Yes	Yes	No	Yes	Yes	Yes	19 x 13 x 5 1/2	19 1/2	1,550.00		
1000ZXL	10-25	F	3	0.04	66	Yes	Auto	3	3	Yes	Yes	No	Yes	Yes	Yes	10 1/2 x 20 1/2 x 12 1/2	41	3,800.00			
NEAL FERROGRAPH	302	35-15 \pm 2	T, F	2	0.09 \dagger	55	64	Yes	Yes	2	No	Yes	No	No	No	Yes	17 1/2 x 9 x 6	17 1/2	995.00	Full logic; \dagger DIN.	
	312	35-15 \pm 2	T, F	2	0.09	57	66	Yes	Yes	3	No	Yes	Yes	No	No	Yes	17 1/2 x 9 x 6	17 1/2	1,195.00	Full logic; Dolby HX.	
NIKKO	ND-590	30-18 +3, -3	F	2	0.055	58	63	Yes	No	3	No	Yes	Yes	No	No	No	4.7 x 16.5 x 9.8	10.3	210.00	Rack mtg. opt. kit.	
	ND-790	30-20 +3, -3	F	2	0.05	58	68	Yes	Yes	3	No	Yes	Yes	No	Yes	Yes	4.3 x 16.5 x 10	11.6	330.00	As above.	
ONKYO	TA-1900	30-14 \pm 3	F	2	0.07	56	66	No	No	3	2	Yes	Yes	No	No	No	16 1/2 x 4 1/2 x 11 1/2	10 1/2	189.95		
	TA-2020	30-15 \pm 3	F	2	0.06	60	70	Yes	Yes	3	2	Yes	Yes	No	No	No	16 1/2 x 4 1/2 x 10 1/2	10 1/2	224.95		
	TA-2040	20-19	F	2	0.055	60	70	Yes	Yes	3	2	Yes	Yes	No	No	No	16 1/2 x 4 1/2 x 13	14 1/2	369.95		
	TA-2050	30-18 \pm 3	F	2	0.045	60	70	Yes	Yes	3	2	Yes	Yes	No	Yes	Yes	16 1/2 x 4 1/2 x 10 1/2	14 1/2	299.95		
	TA-2080	20-20	F	3	0.045	62	72	Yes	Yes	3	2	Yes	Yes	No	Yes	Yes	17 1/2 x 6 1/2 x 14 1/2	22 1/2	799.95		
	TA-6300	20-18	F	2	0.055	58	68	Yes	Yes	3	2	Yes	No	No	Yes	Yes	16 1/2 x 6 1/2 x 12	13 1/2	349.95		
OPTONICA	RT6905	30-20 \pm 3	F	4	0.038	60	70	Yes	Yes	4	2	Yes	Yes	Yes	Yes	Yes		35	1,600.00	APMS, 42 memory, timer, infrared remote control.	
	RT6502	30-18 \pm 3	F	2	0.045	58	68	Yes	No	4	2	Yes	Yes	No	Yes	Yes	17 x 14 x 5 1/2	17.6	400.00	Computer control, 5 memories, APLD, MPX filter.	
	RT6202	30-19 \pm 3	F	2	0.4	57	67	Yes	No	4	2	Yes	Yes	No	No	Yes	17 x 10 1/2 x 5 1/2	16.1	380.00	Full logic solenoid, 2 motors, APLD, auto. edit.	
	RT6101	30-16 \pm 3	F	2	0.055	57	67	Yes	No	4	2	Yes	Yes	No	No	Yes	17 x 10 1/2 x 5 1/2	13.2	290.00	APLD search.	

(Continued)

CASSETTE DECKS

MANUFACTURER	Model	Frequency Response, Hz-kHz, ±dB	Top Load/T. Front Load/F	Number of Heads	% Wow & Flutter	S/N, dB, without Dolby NR	S/N, dB, with Dolby NR	Auto Off?	Fine Bias Adjust?	No. Preset Bias/EO Poses	No. Mike Mixing Inputs	Locking Pause Control?	Metal Tape Capable?	Limiter?	Memory Rewind?	Peak Level Indicator(s)?	Dimensions, Inches	Net Weight, Lbs.	Price, \$	Notes
OPTONICA (Continued)	RT6002	30-16 ±3	F 2	0.06	57	67	Yes	No	4		Yes	Yes	No	No	Yes	17x10½x5%	12.8	210.00	Auto program search.	
PHASE LINEAR	7000	25-19 ±3	F 3	0.03	60	70	Yes	Yes	9	2	Yes	Yes		Yes	Yes	19 x 8½ x 15	44	1,350.00		
PHILIPS	N5788	20-20 ±3	F 3	0.045	64	72	Yes	Yes	4	2	Yes	Yes	Yes	Yes	Yes	6x19x10%		599.95		
	N5781	20-20 ±3	F 3	0.045	64	72	Yes	Yes	4	2	Yes	Yes	Yes	Yes	Yes	6x16½x10%		569.95		
	N5631	30-18 ±3	F 2	0.06	62	70	Yes	Yes	3		Yes	Yes	Yes	No	Yes	6x16½x10%		369.95		
	N5391	30-18 ±3	F 2	0.06	62	70	Yes	No	3		Yes	Yes	No	No	Yes	6x16½x10%		269.95		
	N5171	30-16 ±3	F 2	0.08	58	66	Yes	No	2		Yes	No	No	No	No	6x16½x10%		179.95		
PIONEER	CT-F1250	20-20	F 3	0.03		69		Yes		2	Yes	Yes	Yes	Yes	Yes	16% x 14% x 7%	24	695.00		
	CT-F9590	20-19	F 3	0.04		69			3	No	Yes	Yes	Yes	Yes	Yes	16% x 14½% x 7%	22½	595.00		
	CT-F850	20-19	F 3	0.04		69			3	No	Yes	Yes	No	No	Yes	16% x 14½% x 5%	20%	495.00		
	CT-F750	20-18	F 3†	0.05		69			3	No	Yes	Yes	No	No	Yes	16% x 13% x 5%	17%	395.00	†For auto-reverse play & record.	
	CT-F650	20-18	F 2	0.05		69			3	No	Yes	Yes	No	No	No	16% x 13½% x 5%	15%	295.00		
CT-F500	30-16	F 2	0.05		64			3	No	Yes	No	No	No	No	15x10½x5%	11	195.00			
RADIO SHACK	SCT-3100	30-21 ±3	F 3	0.04	59	67	Yes	Yes	4	2	Yes	Yes		Yes	2	4½x17½x10½		599.95	Twin Tone bias adj.	
	SCT-31	30-21 ±3	F 3	0.05	58	66	Yes	Yes	4	2	Yes	Yes		Yes	Yes	17½x4½x10		429.95	Dolby FM sw.	
	SCT-21	30-20 ±3	F 2	0.06	58	66	Yes	Yes	4	2	Yes	Yes		Yes	Yes	16½x4½x9½		299.95	Dolby FM sw.	
	SCT-22	30-19 ±3	F 2	0.07	57	65	Yes	Yes	3	2	Yes	Yes		No	No	5x16½x8½		219.95	Sw. MPX filter.	
	SCT-24	30-14 ±3	F 2	0.15	56	64	Yes	Yes	3	2	Yes	Yes		No	No	4½x15½x9		149.95		
SAE	Two C4	30-18 ±2.5	F 2	0.06	57	55	Yes	Yes	3		Yes	Yes	No	Yes	No	5.25x18.25x13.4	20	550.00	Logic control.	
	Two C3D	30-18 ±3	F 2	0.06	55	62	Yes		3		Yes		Yes	No	No	5.25x18.25x13.4	20	400.00	Logic & remote control.	
SANSUI	SC-5330	20-20 ±3	F 2	0.038	59	69	Yes	No	3	2	Yes	Yes	No	Yes	Yes	19x7½x12½	19.9	520.00		
	SC-3330	20-16 ±3	F 2	0.04	59	69	Yes	No	3	No	Yes	Yes	No	Yes	Yes	19x6¼x12½	18	420.00		
	SC-1330	20-16 ±3	F 2	0.05	59	69	Yes	No	3	No	Yes	Yes	No	No	Yes	19x6¼x12%	15.1	320.00		
	D-100	20-16 ±3	F 2	0.055	59	69	Yes	No	3	No	Yes	Yes	No	No	Yes	16½x5½x9½	10.9	250.00		
	D-90	20-15 ±3	F 2	0.055	59	69	Yes	No	3	No	Yes	No	No	No	No	16½x5½x9½	10.8	200.00		
SANYO	Plus D45	30-17 ±3	F 2	0.05	58	66	Yes	No	3	2	Yes	Yes	No	No	Yes	5½x16½x11½		299.95		
	Plus D55	20-17 ±3	F 2	0.04	57	67	Yes	No	3	2	Yes	Yes	No	No	Yes	5½x17½x11%		329.95		
	Plus D60	20-17 ±3	F 2	0.04	59	67	Yes	No	3	2	Yes	Yes	No	No	Yes	5½x17½x11%		369.95		
	Plus D62	20-17 ±3	F 2	0.04	59	67	Yes	No	4	2	Yes	Yes	No	Yes	Yes	5½x17½x11%		379.95		
	Plus RD5370	30-17 ±3	F 3	0.04	61	69	Yes	No	4	2	Yes	Yes	Yes	Yes	Yes	6½x17½x12%		389.95		
	Plus D64	20-17	F 2	0.04	59	67	Yes	No	4	2	Yes	Yes	No	Yes	Yes	5½x17½x11%		459.95		
	Plus D65	20-16	F 2	0.04	61	69	Yes	No	4	2	Yes	Yes	No	Yes	Yes	5½x16½x10%		469.95		
Plus RD5372	30-18 ±3	F 3	0.04	61	69	Yes	No	4	2	Yes	Yes	No	Yes	Yes	6½x17½x12%		469.95			
H.H. SCOTT	675DM	25-18	F 2	0.045		66	Yes						Yes	Yes	Yes	4x17x10		349.95		
	665DM	25-18	F 2	0.05		66	Yes						Yes	Yes	Yes	4x17x10		299.95		
	671DM	25-18	F 2	0.04		66	Yes						Yes	Yes	Yes	5½x17x11%		249.95		
SHARP	RT-10	40-14 ±3	F 2	0.09	52	62	Yes	No	3	No	Yes	Yes	No	No	Yes	15½x5x8%	7.1	130.00		
	RT-20	40-14 ±3	F 2	0.09	54	64	Yes	No	3	No	Yes	Yes	No	No	Yes	15½x5x8%	7.9	190.00		
	RT-30	40-15 ±3	F 2	0.075	56	66	Yes	No	4	No	Yes	Yes	No	No	Yes	16½x5½x9%	9.3	190.00		
	RT-1178	40-16 ±3	F 2	0.065	57	67	Yes	No	4	No	Yes	Yes	No	No	Yes	16½x5½x9%	13.2	220.00		
	RT-1199	40-16 ±3	F 2	0.065	57	67	Yes	No	4	2	Yes	Yes	No	No	Yes	16½x5½x9%	15.0	280.00		
	RT-4488	30-18 ±3	F 2	0.048	58	68	Yes	No	4	2	Yes	Yes	No	Yes	Yes	16½x5½x14	17.6	390.00		
SHERWOOD	CD201CP	30-17 ±3	F 2	0.08	55	65	Yes	Yes	3	No	Yes	Yes	No	No	No	17x6x9½	12½	300.00		
SONY	TC-K22	30-15 ±3	F 2	0.07	58	68	Yes		4	No	Yes	Yes	No		Yes	4½x17x11%	10	190.00		
	TC-K44	30-15 ±3	F 2	0.06	56	68	Yes		4	No	Yes	Yes	No		Yes	4½x17x11%	11	230.00		
	TC-K61	30-17 ±3	F 2	0.04	59	69	Yes	Yes	4		Yes	Yes	No	Yes	Yes	5½x17x11%	12%	320.00	Dual capstan, sole-noid transport.	
	TC-K71	30-18 ±3	F 3	0.04	60	70	Yes	Yes	4		Yes	Yes	No	Yes	Yes	5½x17x11%	12%	430.00		
	TC-K81	30-18 ±3	F 3	0.04	60	70	Yes	Yes	4		Yes	Yes	No	Yes	Yes	5½x17x11%	13%	500.00		
	TC-K65	30-17 ±3	F 2	0.04	59	69	Yes		4	2	Yes	Yes	No	Yes	Yes	5½x17x11%	12%	530.00		
	TC-K77R	30-17 ±3	F 2	0.05	59	69	Yes		4		Yes	Yes	No	Yes	Yes	6½x17x12%	18%	600.00	Remote.	

CASSETTE DECKS

MANUFACTURER	Model	Frequency Response, Hz/kHz, ±dB	Top Load/F	Number of Heads	% Wow & Flutter, W rms	S/N, dB, without Dolby NR	S/N, dB, with Dolby NR	Auto Off?	Five Bias Adjust?	No. Preset Bases/EO Points	No. Mike Milling Inputs	Locking	Pause Control?	Metal Tape Capable?	Limiter?	Memory Rewind?	Peak Level Indicator?	Dimensions, inches	Net Weight, lbs.	Price, \$	Notes
SONY (Continued)	TC-DSM	30-17 ±3	T	2	0.06	59	69	Yes	No	4	No	Yes	Yes	Yes	No	Yes	1 1/2 x 9 3/4 x 6 1/2	3 1/4	700.00		
SONY AUDIO LAB	TC-K88	30-17 ±3	F	2	0.03	60	70	Yes	No	4		Yes	Yes	No	Yes	Yes	3 1/2 x 18 1/2 x 15 1/4	22 1/4	1,200.00		
TANDBERG	TCD-420A	30-18 ±3	T	2	0.13	58	68	Yes	Yes	3	No	Yes	Yes	No	No	Yes	18 1/2 x 4 1/4 x 9	15	850.00	Dyn. EQ and actilinear rec. system, 3 motors.	
	TCD-340A	40-18 ±3	T	3	0.08	56	66	Yes	No	2	No	No	No	No	Yes	Yes	18 1/2 x 4 1/4 x 9	15	1,200.00	Actilinear rec. system, 3 motors, dual capstan.	
	TCD-440A	20-20 ±3	T	3	0.06	58	70	Yes	Yes	3	No	No	Yes	No	No	2	18 1/2 x 4 1/4 x 9	15	1,600.00	Dyn. EQ and actilinear rec. system, 3 motors, logic, flying start.	
	TCD-3004	20-20 ±3		3	0.06		70						Yes				17 x 9 3/4 x 14		2,800.00		
TEAC	M-124	30-16	F	2	0.07	55	65	Yes	No	2	2	Yes	No	No	Yes	No	16 1/2 x 6 1/2 x 11 1/2	15 1/2	450.00	Record sync.	
	M-144	20-18	T	2	0.06	63	68	Yes	No	1	5	Yes	No	No	Yes	No	18 1/2 x 4 1/4 x 14 1/4	20	1,100.00		
	CX-310	30-19	F	2	0.06	58	68	Yes	No	3	2	Yes	Yes	No	No	No	16 1/2 x 5 1/2 x 11 1/2	13 1/2	200.00		
	CX-350	30-19	F	2	0.05	58	68	Yes	No	3	2	Yes	Yes	No	No	Yes	16 1/2 x 5 1/2 x 11 1/2	13 1/2	230.00		
	CX-400	30-20	F	3	0.05	58	68	Yes	No	3	2	Yes	Yes	No	Yes	Yes	16 1/2 x 5 1/2 x 11 1/2	13 1/2	320.00		
	A-660	30-19	F	2	0.05	59	69	Yes	No	3	2	Yes	Yes	No	Yes	Yes	17 x 5 1/2 x 11 1/2	15 1/2	360.00	IC logic.	
	A-510MKII	30-20	F	2	0.045	56	66	Yes	No	3	2	Yes	Yes	No	Yes	Yes	17 1/2 x 5 1/2 x 13 1/2	20	475.00	As above.	
	A-550RX	20-19	F	2	0.05	56	66	Yes	No	3	2	Yes	Yes	No	Yes	Yes	17 1/2 x 5 1/2 x 13 1/2	22	550.00	Built-in dbx.	
	CX-650R	30-16	F	3	0.06	56	66	Yes	No	3	2	Yes	Yes	No	Yes	Yes	17 1/2 x 5 1/2 x 13 1/2	26 1/2	700.00	Bi-directional rec/play.	
	A-770	30-19	F	3	0.05	59	69	Yes	No	3	2	Yes	Yes	No	Yes	Yes	17 x 5 x 11 1/2	15 1/2	600.00	Built-in Dolby HX.	
	C-3X	20-20	F	3	0.045	59	69	Yes	Yes	3	2	Yes	Yes	Yes	Yes	Yes	19 x 5 1/2 x 13 1/2	19 1/2	650.00	LSI function control.	
	C-1 MKII	20-20	F	3	0.04	60	70	Yes	Yes	3	2	Yes	Yes	No	Yes	Yes	18 1/2 x 6 1/2 x 13 1/2	32	1,350.00		
TECHNICS	RS-M6	30-15	F	2	0.08	56	66	Yes	No	3		Yes	No	No	No	No	5 1/2 x 16 1/2 x 8 1/2	8 1/2	145.00	Soft-touch controls.	
	RS-M8	20-17	F	2	0.07	56	66	Yes	No	3		Yes	Yes	No	No	Yes	5 1/2 x 16 1/2 x 8 1/2	8 1/2	175.00		
	RS-M14	20-18	F	2	0.05	57	67	Yes	No	4		Yes	Yes	No	No	Yes	4 1/2 x 16 1/2 x 9 1/2	9 1/2	200.00		
	RS-M24	20-18	F	2	0.05	57	67	Yes	No	4		Yes	Yes	No	No	Yes	4 1/2 x 16 1/2 x 11 1/2	11	260.00	Opt. remote.	
	RS-M04	20-18	F	2	0.05	57	67	Yes	No	4		Yes	Yes	No	No	Yes	4 1/2 x 16 1/2 x 9 1/2	9 1/2	320.00	Auto tape select.	
	RS-M45	20-20	F	2	0.035	58	68	Yes	No	4		Yes	Yes	No	No	Yes	3 1/2 x 16 1/2 x 13 1/2	13 1/2	330.00	Solenoid & remote controls.	
	RS-M63	20-20	F	3	0.05	57	67	Yes	Yes	4	2	Yes	Yes	No	Yes	Yes	5 1/2 x 16 1/2 x 10 1/2	14	380.00	Auto tape select.	
	RS-M51	20-18	F	2	0.045	57	67	Yes	No	4		Yes	Yes	No	No	Yes	4 1/2 x 16 1/2 x 10 1/2	13 1/2	420.00		
	RS-M56	30-17	F	2	0.045	57	67	Yes	Yes	3	2	Yes	No	No	Yes	Yes	5 1/2 x 16 1/2 x 10 1/2	17	500.00		
	RS-M68	20-17	F	2	0.06	57	67	Yes	No	3		Yes	No	No	Yes	Yes	6 1/2 x 17 1/2 x 13 1/2	24	500.00	Auto reverse.	
	RS-M02	20-20	F	2	0.035	58	68	Yes	Yes	4		Yes	Yes	No	No	Yes	3 1/2 x 11 1/2 x 9	12 1/2	500.00		
	RS-M85II	20-20	F	2	0.035	59	69	Yes	Yes	4	No	Yes	Yes	No	Yes	Yes	3 1/2 x 19 x 15 1/2	23 1/2	700.00	Three memory, remote control.	
	RS-M95	20-20	F	3	0.03	60	70	Yes	Yes	4	No	Yes	Yes	No	Yes	Yes	5 1/2 x 17 1/2 x 13 1/2	26 1/2	1,300.00		
TOSHIBA	PC-X-60	20-20 ±3	F	2	0.035	63	73	Yes	No	3	No	Yes	Yes	No	Yes	Yes	16.6x4.8x11	13.2	399.95	2 motor; IC logic transport.	
	PC-X-40	20-18 ±3	F	2	0.05	58	68	Yes	No	3	No	Yes	Yes	No	Yes	Yes	16.6x4.3x11	11	379.95	MMQ Selection system.	
	PC-X-33	25-18 ±3	F	2	0.04	60	70	Yes	No	4	No	Yes	Yes	No	Yes	Yes	16.6x4.3x11	11	329.95	2 motor; IC logic transport.	
	PC-X-20	20-18	F	2	0.05	58	68	Yes	No	3	No	Yes	Yes	No	No	Yes	16.6x4.6x11	11 1/4	299.95	Auto-repeat; cue/review.	
	PC-X-22	25-18	F	2	0.05	60	70	Yes	No	4	No	Yes	Yes	No	No	No	16.6x4.8x11	10.1	249.95	Soft-touch push buttons.	
	PC-X-12/ X-12B	30-18	F	2	0.06	58	68	Yes	No	3	No	Yes	Yes	No	No	Yes	16.6x5.6x8.3	9.4	199.95	One-touch record.	
	PC-X-10M	25-17 ±3	F	2	0.05	59	69	Yes	No	3	No	Yes	Yes	No	No	No	16.6x5.7x8.3	8.4	209.95		
	PC-D12	35-18	F	2	0.05	60	70	Yes	No	3	No	Yes	Yes	No	Yes	Yes	10.1x4.2x8.4	11	349.95	IC logic, 2 motor.	
	PC-D10	35-18	F	2	0.05	60	70	Yes	No	3	No	Yes	Yes	No	No	Yes	10.1x4.2x8.4	7.2	259.95	Auto-repeat; cue/review.	
UHER/MINEROFF	CR210	20-16	F	2	0.1	58		Yes	Yes	3	No	Yes		Yes	No	Yes	8x8x4	6	1,100.00	A.C./battery, auto rev., film sync.	
	CR240	20-18	F	2	0.1	60	64	Yes	Yes	3	Yes	Yes		Yes	No	Yes	10x8x4	7	1,300.00	A.C./battery, sync. sound.	
VECTOR RESEARCH	VCX-600	30-20 ±3	F	3	0.05	56	65	Yes	Yes	3		Yes	Yes	No	Yes	Yes	17 1/2 x 14 1/2 x 5 1/2	22	750.00	Music search, auto rewind/play, 2 motors, solenoids, IC logic, opt. remote.	
	VCX-500	30-20 ±3	F	2	0.05	56	65	Yes	Yes	3		Yes	Yes	No	Yes	Yes	17 1/2 x 14 1/2 x 5 1/2	22	575.00	Music search, 2 motors, solenoids, IC logic, opt. remote.	
	VCX-300	30-19 ±3	F	2	0.08	56	65	Yes	Yes	3		Yes	Yes	No	Yes	Yes	17 1/2 x 14 1/2 x 5 1/2	17	400.00	Music search.	
YAMAHA	K-950	30-22 ±3	F	2	0.028	60	69	Yes	Yes	3		Yes	Yes	No	Yes	Yes	17 1/2 x 12 x 5 1/2	19 1/2	490.00	Auto functions.	
	K-850	30-19 ±3	F	2	0.04	60	69	Yes	No	3		Yes	Yes	No	No	No	17 1/2 x 12 x 5 1/2	14	360.00		
	K-350	40-18 ±3	F	2	0.06	57	66	Yes	No	3		Yes	Yes	No	No	No	17 1/2 x 10 1/2 x 5 1/2	10	240.00		
ZENITH	MC9070	30-15 ±3	F	2	0.08	65	55	Yes	No	3	No	Yes	No	No	No	Yes	16.77x5.98x9.33	16	249.95		

EQUALIZERS

For Manufacturers' Addresses, see page 158



Audio Control 520B



Superex GEM-1



Cerwin-Vega GE-2



Delta-Graph EQ-10



Nikko EQ-1



Symmetric EQ-2K

MANUFACTURER	Model	No. of Channels		No. of Bands	Bandwidth, Octaves		Boost/Cut Range, % db	Rated Output, rms V	% THD at Rated Output	dB S/N at Rated Output	Variable Center Frequencies?	Variable Filter "Q"?	Dimensions, inches	Weight, lbs.	Price, \$	Notes
		2	10		15	7										
AKAI	EA-G80	2	10		10		0.005						17.3x3.8x11.6	15	339.95	
	EA-G40	2	8		10		0.005						17.3x2.8x11.4	11.2	229.95	
AUDIMATION	EQ-10	2	10	1	15	10	0.02†	90	No	No			19x1½x6½	7	219.50	†At 5 V.
AUDIO CONTROL	C-101	2	10	1	15	7	0.02	108	No	No			3.5x19x6.5	7	549.00	Built-in real time analyzer; pink-noise generator; measurement mike.
	C-22	2	10	1	15	7	0.02	108	No	No			3.5x19x6.5	7	249.00	Stereo paired sliders, EQ tape switch.
	520b	2	5	1	12-15	7	0.04	108	No	No			3.5x12.3x5	2½	119.00	Swept pink-noise generator; SPL meter, meas. mike.
	D-10	2	10	1	12	7	0.04	108	No	No					169.00	
	D11	2	10	1	12	7	0.04	108	No	No					229.00	
Richter Scale	2	5	½	12	7	0.02	108	No	No						189.00	
CERWIN VEGA	GE-2	2	13	½, 1	12	2	0.05	85	No	No			19x5¼x7¼	12	600.00	Half octave below 250 Hz, subsonic filter, separate tape output circuits and switching.
COURT ACOUSTICS	GE 60	2	30	½	10		0.01	85	No	No			19x5¼x10	13.2	1690.00	
CROWN	EQ-2	2	11	½	15	2.5	0.01	90	Yes	Yes			19x14½x7½	16	1,195.00	Opt. Walnut cabinet.
DELTA-GRAPH ELECTRONICS	EQ-10M	1	10	1	15	7	0.03	106	No	No			9½x5¼x2½	2¾	79.95	Mono kit, ISO octave centers, bal. & unbal. in/outputs.
	EQ-10SP	2	10	1	15	7	0.03	106	No	No			19x5¼x2½	5½	179.95	As above, stereo kit, walnut cabinet opt., separate power supply incl.
	EQ-10QP	4	10	1	15	7	0.03	106	No	No			19x10½x2½	11	329.95	As above, 4-channel kit.
	EQ-1082P	8	10	1	15	7	0.03	106	No	No			19x21x2½	22	639.95	As above, 8-channel kit.
	EQ-10M-B	1	10	1	15	9	0.005	110	No	No			9½x5¼x2½	2¾	89.95	Mono. kit, ISO octave centers, bal. & unbal. in/outs.
	EQ-10-SP-B	2	10	1	15	9	0.005	110	No	No			19x5¼x2½	5½	194.95	As above, stereo kit, walnut cabinet opt., separate power supply incl.
	EQ-10QP-B	4	10	1	15	9	0.005	110	No	No			19x10½x2½	11	359.95	As above, 4-channel kit.
EQ-1082P-B	8	10	1	15	9	0.005	110	No	No			19x21x2½	22	699.95	As above, 8-channel kit.	

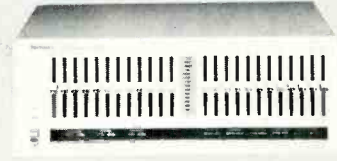
EQUALIZERS



Shure M610



Pioneer SG-9800



Technics SH-8020



MXR Stereo Fifteen Band



JVC SEA-80



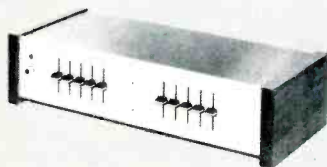
Crown EQ-2

MANUFACTURER	Model	No. of Channels	No. of Bands	Bandwidth, Octaves	Boost/Cut Range, \pm dB	Rated Output, rms V	% THD at Rated Output	dB S/N at Rated Output	Variable Center Frequencies?	Variable Filter "Q"?	Dimensions, Inches	Weight, Lbs.	Price, \$	Notes
FISHER	EQ2322	2	10		12 7	0.01	110	No	No	17 $\frac{1}{2}$ x11 $\frac{1}{2}$ x3 $\frac{1}{2}$	9.2	249.95		
GLI	EQ-1500	2	10	1	12 2	0.05	90			19x3 $\frac{1}{2}$ x7 $\frac{1}{2}$	7	250.00		
HEATH	AD-1305	2	5	2	12 1.5	0.05	90†	No	No	17 $\frac{1}{2}$ x8x4 $\frac{1}{4}$	8 $\frac{1}{2}$	134.95	†Unweighted.	
JVC	SEA-20GL SEA-70 SEA-80	2 2 2	7 12 10		12 4 † 2 12 2	0.03 0.003 0.003	70 118 118			4x15 $\frac{1}{2}$ x10 $\frac{1}{2}$ 6 $\frac{1}{4}$ x16 $\frac{1}{2}$ x12 $\frac{1}{2}$ 6 $\frac{1}{4}$ x17 $\frac{1}{2}$ x12 $\frac{1}{2}$	7.5 13.2 17.6	189.95 359.95 599.95	†6 or 12. Inc. pink noise generator.	
KENWOOD	GE-80	2	5		10 5	0.06	110			17 $\frac{1}{2}$ x2 $\frac{1}{2}$ x6 $\frac{1}{4}$	5.9	165.00		
MARANTZ	EQ-10	2	10	1	10 1V	0.005	110	No	No	16 $\frac{1}{2}$ x2 $\frac{1}{2}$ x7 $\frac{1}{2}$	6 $\frac{1}{4}$	200.00		
MXR	Stereo Graphic Stereo Fifteen Band One-Third Octave	2 2 1	10 15 31	1 2/3 1/3	12 1 12 1 12 1	0.05 0.02 0.01	95 95 90	No No No	No No No	9 $\frac{1}{2}$ x2x7 19x3 $\frac{1}{2}$ x6 19x3 $\frac{1}{2}$ x6	4.5 7 7	219.95 325.00 350.00	ISO centers. As above. As above.	
NEPTUNE ELECTRONICS	2711 1021 341	1 2 1	27 10 4	$\frac{1}{3}$ 1 0.1-3.5	12 8 12 8 12 8	0.01 0.01 0.01	82 82 80	No No Yes	No No Yes	19x3 $\frac{1}{2}$ x11 $\frac{1}{2}$ 19x3 $\frac{1}{2}$ x11 $\frac{1}{2}$ 19x1 $\frac{1}{2}$ x6 $\frac{1}{2}$	8 8 6	475.00 425.00 299.00		
NIKKO	EQ-1 EQ-2	2 2	10 6		12 1 12 1	0.007 0.01	100 100	No No	No No	3 $\frac{1}{2}$ x19x9.1 3 $\frac{1}{2}$ x16 $\frac{1}{2}$ x13	11 10.8	300.00 200.00	Pre-post tape mon. swit.	
NUMARK	EQ2300 EQ2500	2 2	10 10	$\frac{1}{2}$ $\frac{1}{2}$	12 2 12 2	0.02 0.02	80 80	Yes Yes		12 $\frac{1}{2}$ x9 $\frac{1}{2}$ x3 $\frac{1}{2}$ 19x10x3 $\frac{1}{2}$	6 4	249.00 249.00	Level indicator.	
ONKYO	E-30	2	11	$\frac{1}{3}$	† 1.5	0.01	100	No	No	17 $\frac{1}{2}$ x14 $\frac{1}{2}$ x3 $\frac{1}{4}$	14 $\frac{1}{2}$	549.95	†10 dB boost, 5 dB cut.	
PHASE LINEAR	1100	2	5	0.18-1.8	12 2	0.02	100	Yes	Yes	19x5 $\frac{1}{2}$ x8	12	650.00		
PHOENIX SYSTEMS	P-94-S P-94-SA	2	2	0.16-2.0	20 0.775	0.01	89	Yes	Yes	11x2 $\frac{1}{2}$ x5 $\frac{1}{2}$	3.3	150.00	Kit, 99.00; volume compensation circuit corrects boost/cut for Q.	
RADIO SHACK	31-2000 31-1987	2 2	10 5	1	12 0.02 12 0.02	80 80				4 $\frac{1}{2}$ x16 $\frac{1}{2}$ x10 $\frac{1}{2}$ 4 $\frac{1}{2}$ x10 $\frac{1}{2}$ x6		179.95 69.95	Zero-gain level controls w. 6 LED indicators for exact level matching. Tape monitoring switch, tape in/out facilities, center detent controls.	

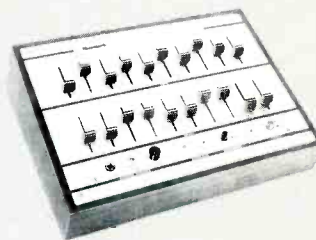
EQUALIZERS



Marantz EQ-10



Heath AD-1305



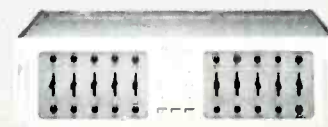
Numark EQ-2300



Soundcraftsmen AE2420-R



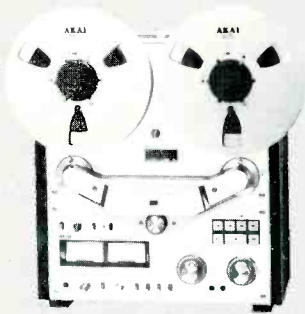
Radio Shack 31-2000



Phase Linear 1100

MANUFACTURER	Model	No. of Channels	No. of Bands	Bandwidth, Octaves	Boost/Cut Range, ± dB	Rated Output, rms V	% THD at Rated Output	dB S/N at Rated Output	Variable Center Frequencies?	Variable Filter 'Q'?	Dimensions, Inches	Weight, Lbs.	Price, \$	Notes
PIONEER	SG-9800	2	12	1	10	7.5	0.02	92	No	No	5½x16½x14	15½	395.00	
SAE	2800	2	4	½-3½	16	2.5	0.02	95	Yes	Yes	19x8¼x3½	14	700.00	Tape EQ.
	1800	2	2	½-3½	16	2.5	0.02	95	Yes	Yes	19x5¼x3½	10	400.00	As above.
	180	2	2	½-3½	16	2.5	0.02	90	Yes	Yes	17½x4¼x3½	8	300.00	As above.
SANSUI	SE-7	2	10	1	12	1	0.008	110	No	No	17x6¼x11	8.8	300.00	Tape EQ.
	SE-5B	2	8	1	12	1	0.008	110	No	No	19x4¼x11½	8.6	230.00	As above.
	P-1	2	4	Var.	16		0.005	102	Yes	Yes	19x3½x17	18.9	950.00	
H. H. SCOTT	825Z		10		12		0.01	87					274.95	
SHURE	M610	1	8	1	12†	5	0.5	71			12x7x2½	4	326.00	†Cut only.
	SR107	1	10	1	15	6.2	1	99			18x8x1¾	7¾	300.00	
SONTEC	HF-230	2	3	Var.	12	1	0.001	84	Yes	Yes	19x6x1¼	9	990.00	
SOUND-CRAFTSMEN	AE2420-R	2	10	1	16	10	0.01	105	No	No	19x5¼x11	30	499.00	Diff. comp. analy. w. pink noise gen., line/tape EQ, LED balancing, test record and charts.
	RP2215-R	2	10	1	22	10	0.01	114	No	No	19x5¼x11	22	370.00	Line/tape EQ, LED balancing, zero-gain controls, test record and charts.
	TG3044-R	2	21	1/3, 2/3	22	10	0.01	114	No	No	19x5¼x11	23	550.00	As above plus bal. or unbal. output.
	RP2201-R	2	10	1	16	10	0.01	105	No	No	19x5¼x11	21	299.00	Line/tape EQ, zero-gain controls, test record and charts.
	SE450	2	10		16	19	0.01	105	No	No	17x3½x10	14	249.00	As above.
	TG2245-R	2	10	1	12	10	0.01	105	No	No	19x3½x11	18	399.00	Bal. or unbal. in/out, separate swit. each chan., subsonic filter, hi & lo shelving, front in/out.
SUPEREX	GEM-7	2	8	Var.	18	6	0.01	89	Yes	Yes	19x7.4x5.3	11	449.00	
	GEM-3	2	10	½	14	2	0.03	85	No	No	19x7.4x5.3	10	239.95	
	GEM-2	2	5		14	2	0.02	92	No	No	15x7.4x5.3		119.95	
	GEM-1	2	5		12	2	0.02	92	No	No	6.25x4.75x2.75		89.95	
SYMMETRIC SOUND SYSTEMS	EQ-2K	2	12	5/6	10	2	0.02	92	No	No	10x3¼x4¼	4	100.00†	†KIT; 165.00 assembled.
TEAC	GE-20	2	10	1	12	0.3	0.03	82	Yes	Yes	17½x3¾x6¾	10	350.00	
TECHNICS	SH-8010	2	10	1.6	12	4	0.05	95	No	No	3¼x17x9¾	7.1	190.00	Source-Rec. out;
	SH-8020	2	24	1	†	6	0.01	100	No	No	6¼x17x9¾	13.2	370.00	†variable range, ±12 or ±3 dB.
	SH-9030	2	10	1.6	12	5	0.02	90	Yes	Yes	4x19x14¼	13.2	540.00	

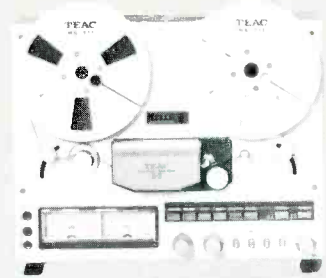
OPEN/REEL TAPE DECKS



Akai GX-635D



ReVox B77



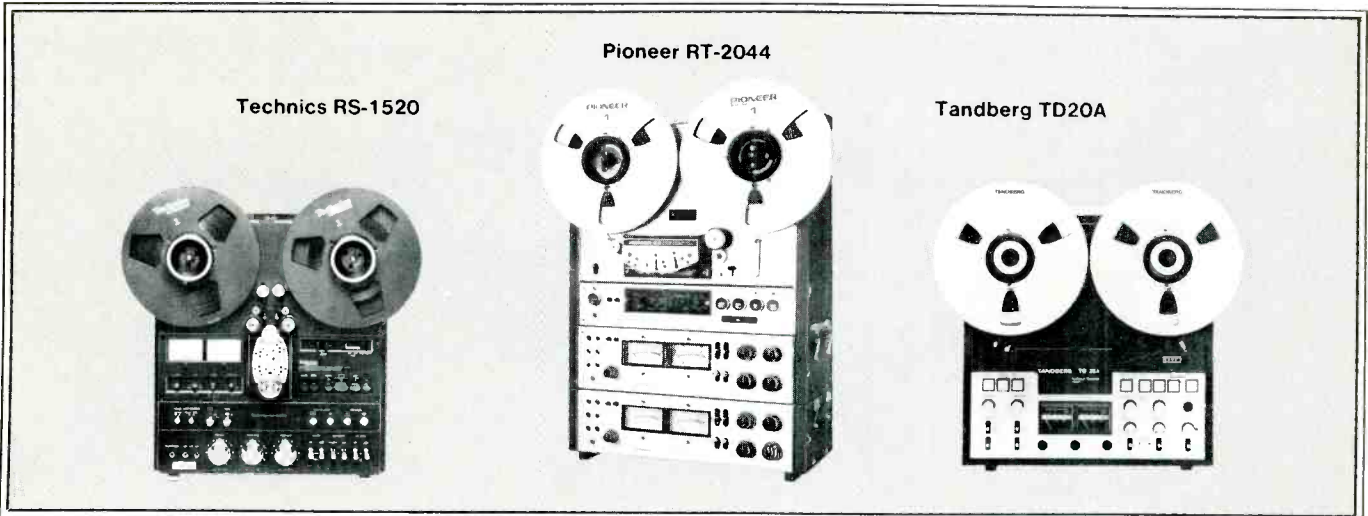
Teac X-3

LETTER CODE FOR SPEEDS

- A—7½, 3¾, 1½
- B—7½, 3¾
- C—7½, 3¾, 1½, 15/16
- D—1½
- E—15, 7½, 3¾
- F—15, 7½
- G—15, 7½, 3¾, 1½
- H—1½, 15/16

MANUFACTURER	Model	Speeds — See Letter Code					Maximum Reel Size, Inches	Number of Heads	Number of Tracks	Number of Channels	Number of Motors	Drive Motor Type	Drive to Capstan	Freq. Resp., Hz/kHz, ±dB with Best Tape at Highest Machine Speed	Wow & Flutter, DN 45-507, %	S/N, -dB	Output Level at 0 VU, mV	Dolby NR Included?	Mike Mixing?	Mike Input Z, Ohms	Record Level Indicator(s)? Type and Quantity	Dimensions, Inches	Weight, Lbs.	Price, \$	Notes
		B	7	3	4	2																			
AKAI	GX-40000	B	7	3	4	2	1				Belt	30-24 ±3	0.08	60		No	Yes	600	2 Mtrs.	17.3x12.4x9.1	29	399.00			
	GX-255	B	7	3	4	2	3				A.C. Direct	30-24 ±3	0.04	61		No	Yes	600	2 Mtrs.	17.3x16.5x9.5	35	650.00			
	GX-267D	B	7	3	4	2	3				A.C. Direct	30-25 ±3	0.06	60		No	Yes	2.4k	2 Mtrs.	17.3x18.5x9.8	45½	850.00			
	GX-625D	B	10½	3	4	2	3				A.C. Direct	30-27 ±3	0.03	62		No	Yes	600	2 Mtrs.	17.3x17.6x9.5	39	749.95			
	GX-635D	B	10½	6	4	2	3				A.C. Direct	30-27 ±3	0.03	62		No	Yes	600	2 Mtrs.	17.4x19x10	46.4	995.00	Auto reverse rec./play.		
NEAL FERROGRAPH	SP7	E/A	10½	3	2/4	2	3				Idler	30-20 ±2	0.08	60	300	Opt.	Yes	200	2 Mtrs.	18½x16½x10	58	1463.00			
PHILIPS	N4504	A	7	3	4	2	3					35-26 ±3	0.05		250	†	No		2 Mtrs.	16½x16½x7¼	22	479.95	†Dynamic Noise Limiter.		
	N4506	A	7	3	4	2	3					35-26 ±3	0.05		250	†	Yes		2 Mtrs.	21½x17x8¼	23	629.95			
PIONEER	RT-2044	F	10½	3	4	4	3	Hys. Sync.			Belt	30-28 ±3	0.04	55	450	No	Yes	27k	4 Mtrs.	18½x27½x10½	95	2010.00			
	RT-2022	F	10½	3	2	2	3	Hys. Sync.			Belt	30-28 ±3	0.04	57	450	No	Yes	27k	2 Mtrs.	18½x21½x10½	78	1590.00			
	RT-909	B	10½	4	4	2	3	F.G.D.C. Servo				20-30 ±3	0.04	60	450	No	Yes	2.6k	3 Mtrs.	18½x13½x12½	47½	895.00	Auto-reverse.		
	RT-901	B	10½	3	4	2	3	F.G.D.C. Servo				20-20 ±3	0.04	60	450	No	Yes	2.6k	3 Mtrs.	18½x13½x12½	46	795.00			
	RT-707	B	7	4	4	2	3	Servo			Direct	30-24 ±3	0.05	58	450	No	Yes	27k	2 Mtrs.	19x14x9	44	695.00	Auto-reverse.		
RT-701	B	7	3	4	2	3	F.G. A.C. Servo			Direct	30-24 ±3	0.05	58	450	No	Yes	27k	2 Mtrs.	19x14x9	43	595.00				
RADIO SHACK	TR-3000	B	7	3	2/4	2/4	3	Hys. Sync.			Idler	30-28 ±3	0.06	58	775	No	Yes	10k	2 Mtrs.	12½x16½x9		499.95			
REVOX	B77	†	10½	3	2/4	2	3	A.C. Servo			Direct	30-20 +2, -3	0.06	67	775	Opt.	Yes	2.2k 110k	2 Mtrs. & Peak	16½x17½x8½	37½	1499.00	† Any two adjacent speeds from 15/16 to 15 ips.		
	A77	B, F	10½	3	2/4	2	3	A.C. Servo			Direct	30-20 +2, -3	0.08	66	775	Opt.	Yes	2.2k, 110k Bal. 6k	2 Mtrs.	16½x14x7¼	33	1399.00			
	A700	E	10½	3	2/4	2	3	A.C. Servo			Direct	30-22 +2, -3	0.06	68	775	No	Yes		2 Mtrs. & Peak	19x18½x6¼	53	2999.00			
SONY	TC-765	B	10½	3	2/4	2	3	A.C. Servo			Belt	30-25 ±3	0.07	61	775		Yes		2 Mtrs.	20½x17½x9½	58	1200.00	Closed-loop dual capstan, IC logic.		
	TC-766-2	F	10½	4	4	2	3	A.C. Servo			Belt	30-30 ±3	0.035	64	775		Yes		2 Mtrs.	20½x17½x11½	58	1300.00	As above.		
	TC-399		7	3	4	2	1	A.C. Servo			Idler	30-25 ±3	0.09	61	775		Yes		2 Mtrs.	17½x16½x7½	27½	500.00			
TANDBERG	TD20A	B, F	10½	3	2, 4	2	4	Phase Lock			Belt	20-26 ±2	0.04	69	1.5V	No	Yes	50-700	2 Mtrs.	17½x17½x6	38	1500.00			

OPEN/REEL TAPE DECKS



LETTER CODE FOR SPEEDS

- A—7½, 3¾, 1½
- B—7½, 3¾
- C—7½, 3¾, 1½, 15/16
- D—1½
- E—15, 7½, 3¾
- F—15, 7½
- G—15, 7½, 3¾, 1½
- H—1½, 15/16

MANUFACTURER	Model	Speeds — See Letter Code	Maximum Reel Size, inches	Number of Heads	Number of Channels	Number of Motors	Drive Motor Type	Drive to Capstan	Freq. Resp., Hz-kHz, ±dB, with Beat Type at Highest Machine Speed	Wow & Flutter, OIV 45-507, % S/N, -20	Output Level at 0 VU, mV	Dolby NR included?	Mike Mixing?	Mike Input Z, Ohms	Record Level Indicator(s)? Type and Quantity	Dimensions, inches	Weight, Lbs.	Price, \$	Notes		
TEAC	32-2B	F	10½	3	½	2	3	D.C. Servo	Belt	40-24 ±3	0.02	63	850	No	Yes	200	2 Mtrs.	17x17¼ x10½	44½	1125.00	Four-track sync record. As above, plus pitch control. As Model 40-4, plus mike-line mixing. Twin capstan, auto reverse. Closed-loop dual capstan. Bi-directional rec/play. Closed-loop dual capstan. Bi-directional rec/play.
	35-2B	F	10½	3	½	2	3	D.C. Servo	Belt	40-22 ±3	0.03	65	850	No	No		2 Mtrs.	18½x16½ x10½	85	1990.00	
	40-4	F	10½	3	¾	4	3	Hys. Sync.	Belt	40-22 ±3	0.04	65	850	No	No		4 Mtrs.	17x17¼ x10½	71		
	A-3300SX-2T	F	10½	3	½	2	3	Hys. Sync.	Belt	30-26 ±3	0.04	60	615	No	Yes	600	2 Mtrs.	17¾x15½ x8¼	39	1050.00	
	A-3440	F	10½	3	¾	4	3	D.C. Servo	Belt	25-24 ±3	0.04	58	615	No	No	600	4 Mtrs.	17½x20½ x9¼	53	1650.00	
	A-2340	B	7	3	¾	4	3	Hys. Sync.	Belt	40-20 ±3	0.08	47	615	No	Yes	600	4 Mtrs.	17¾x18¼ x8¾	46	1175.00	
	A-6600	B	10½	4	2/4	2/4	3	F.G. Servo	Belt	30-28	0.04	58	450	No	Yes	600	2 Mtrs.	18¼x21¼ x10½	66½	1575.00	
	X-10	B	10½	3	2/4	2/4	3	D.C. Servo	Belt	30-28	0.03	63	450	No	Yes	200	2 Mtrs.	17x17¼ x10½	44	1000.00	
	X-10R	B	10½	6	2/4	2/4	3	D.C. Servo	Belt	30-28	0.03	63	450	No	Yes	200	2 Mtrs.	17x17¼ x10½	44	1150.00	
	X-7	B	7	3	2/4	2/4	3	D.C. Servo	Belt	30-28	0.03	63	450	No	Yes	200	2 Mtrs.	17x14¼ x10½	39.6	700.00	
X-7R	B	7	6	2/4	2/4	3	D.C. Servo	Belt	30-28	0.03	63	450	No	Yes	200	2 Mtrs.	17x14¼ x10½	39.6	800.00		
X-3	B	7	3	2/4	2/4	3	D.C. Servo	Belt	30-28	0.04	58	450	No	Yes	200	2 Mtrs.	16½x12¼ x9¾	30%	550.00		
TECHNICS	RS-1500	E	10½	4	2/4	2	3	Quartz Direct	Quartz Direct	30-30 ±3	0.018	68	550	No	Yes	4.7k	2 Mtrs.	17½x19¾ x10½	57%	1500.00	½ track rec. & play, ¼ track play.
	RS-1506	E	10½	4	4/2	2	3	Quartz Direct	Quartz Direct	30-30 ±3	0.018	66	550	No	Yes	4.7k	2 Mtrs.	17½x19¾ x10½	57%	1500.00	¼ track rec. & play, ½ track play.
	RS-1700	E	10½	6	4	2	3	Direct	Quartz Direct	30-30 ±3	0.018	66	550	No	Yes	4.7k	2 Mtrs.	17½x19¾ x10½	56%	2000.00	Auto-reverse
	RS-1520	E	10½	4	2/4	2	3	Direct	Quartz Direct	30-30 ±3	0.018	68	550	No	Yes	4.7k	2 Mtrs.	19¼x18x10½	61%	2000.00	Oscillator, bal. in & out, bias & EQ adj.
TELEFUNKEN	M-12A	B, F	10½	3	½	¼	3	Hys. Sync. Servo	Idler	30-16 ±1.5	0.05	65	1.2V	No	Yes	200	Std. VU Mtrs.	19x17½x8	60	6000.00	
	M-15A	F	12½	3	1 to 32	1 to 32	3	Hys. Sync. Servo	Idler	30-16 ±1.5	0.03	65	1.2V	No	No	No	Std. VU Mtrs.	25½x20½x12	110 to 600	13,000.00 to 86,000.00	
UHER/MARTEL	4400 IC	C	5	2	4	2	1	Servo	Idler	35-20 ±2	0.15	62	1 V	No	No	Low	2 Peak Mtrs.	11x3½x9	8½	949.00	
	5000	†	5½	2	2	1	1	Hys. Sync.	Idler	40-16 ±3	0.2	60	900	No	No	Low	1 Peak Mtr.	13x6x13	19	979.00	† 3¾, 1½, and 15/16 ips.
	4000 IC	C	5	2	2	1	1	Servo	Idler	35-20 ±2	0.15	64	1 V	No	No	Low	1 Peak Mtr.	11x3½x9	8	869.00	
UHER/MINEROFF	4000	C	5	3	2	1	1	Servo	Belt	20-25 ±2	0.1	66	500			2k	1 Peak Mtr.	11.2x3.8x9.08	8	950.00	A. C./battery, film sync.
	4200	C	5	3	2	2	1	Servo	Belt	20-25 ±2	0.1	66	500			2k	2 Peak Mtrs.	11.2x3.8x9.08	8	1150.00	As above.
	4400	C	5	3	4	2	1	Servo	Belt	20-25 ±2	0.1	64	500			2k	2 Peak Mtrs.	11.2x3.8x9.08	8	1150.00	As above.

HEADPHONES

For Manufacturers' Addresses, see page 158



MANUFACTURER	Model	Operating Principle	Frequency Range, Hz to kHz	Impedance, Ohms	Sensitivity, dB SPL for 1 mW input	Maximum Input, mV	Cord Length, Feet	% THD at 95 dB SPL	Cord Style: Flat — F Coiled — C	Weight, Ounces	Circumference C, Supra-aural = S	Price, \$	Notes
AKG	K-340	ES/Dyn.	15-25	400	95	10V	10	0.1	C	14	C	189.00	Two-way design with passive diaphragms in each earcup; no external polarization required.
	K-240	Dyn.	15-20	600	102	11V	10	0.3	F	10½	C	89.00	Semi-open design.
	K-141	Dyn.	20-20	600	98	11V	10	0.5	F	9½	C	69.00	As above.
	K-140S	Dyn.	20-20	600	97	11V	10	0.5	F	9	S	59.00	As above.
	K-41	Dyn.	20-19	200	94	9V	10	0.9	F	8	C	39.00	As above.
	K-40	Dyn.	50-18	200	94	7V	10	1.0	F	6	S	29.00	As above.
AUDIO-TECHNICA	ATH-1	Dyn.	30-20	4-16	93		8¼	0.8	F	4¼	S	29.95	W/impedance matching adapter. As above plus program and peak LEDs.
	ATH-2	Dyn.	30-20	4-16	93		8¼	0.7	F	7	S	49.95	
	ATH-3	Dyn.	25-20	4-16	94		11½	0.5	F	7	S	64.95	
	ATH-5	Dyn.	20-20	4-16	96		11½	0.4	F	7¼	S	84.95	
	ATH-6	ES	20-22	4-16	98		8¼	0.35	F	7½	S	99.95	
	ATH-7	ES	10-22	4-16	98		8¼	0.25	F	7½	S	149.95	
BANG & OLUFSEN	U-70	Ortho.	16-20	140	94†	2V	10		F	10.6	S	95.00	Design especially comfortable for eyeglass wearers; fat 8 mW.
BEYER DYNAMIC	DT 220	Dyn.	20-20	400	102	2 V	10	1	F	9	C	59.95	Chrome finish. As above, black matte finish. Phones alone, without power supply, 159.00. †99 @ 1 V; †† 240 mW. As above. †Cordless infrared system; phones only, 146.25.
	DT 302	Dyn.	20-20	600	97	12 V	10	1	F	2.3	S	29.95	
	DT 440	Dyn.	20-20	600	100	5 V	10	1	C	9.2	S	64.95	
	DT 441	Dyn.	20-20	600	100	5 V	10	1	C	9.2	S	74.95	
	ET 1000S	ES	10-25	N.A.	100	8 V	8	1	F	13	S	279.00	
	DT 301	Dyn.	30-18	600	†	††	5	1	F	0.75	S	16.00	
	DT 303	Dyn.	20-20	200	†	††	22.5	1	F	2.3	S	34.95	
	INF 200S	Dyn.	20-20	†	†	††		1	†	11	S	429.00	
GC ELECTRONICS	90-108	Dyn.	20-20	4-16	98		6		F	5.7	C	35.00	Open air design. As above.
	90-106	Dyn.	20-20	4-16	100		6		F	10.1	C	18.00	
	90-104	Dyn.	30-18	4-8			10		C	13.4	C	16.00	
	90-102	Dyn.	30-18	4-8			10		C	10.6	C	13.00	
	90-100	Dyn.	50-15	4-16			10		C	11.25	C	10.00	
HERVIC ELECTRONICS	HP-1	Dyn.	18-22	100	100		8		C	6.7		55.00	
JVC <i>Napier</i>	HP-550	Dyn.	20-20	32	100	100	6.6			58		39.95	Built-in binaural mikes.
	HP-880	Dyn.	20-20	100	106	200	9.9			6		64.95	
	HP-1100	Dyn.	20-20	100	102	200	9.9			7		79.95	
	HP-200E	Dyn.	20-20	600	96	500	6.6			24		99.95	
KOSS	ESP/10	ES	20-22	180	103.5 @ 1W		10	0.04	C	14	C	350.00	Volume/balance control. As above. Volume/balance controls. As above. As above. As above.
	PRO/4AAA	Dyn.	10-22	220	96.5		11	0.05	C	15.5	C	85.00	
	Tech/VRF	Dyn.	10-22	245	98		11	0.03	C	16.8	C	80.00	
	HV/XLC	Dyn.	15-35	90	89.5		10	0.03	C	7.8	C	79.95	
	HV/X	Dyn.	15-35	90	89.5		10	0.03	C	7.8	C	69.95	
	Tech/2	Dyn.	10-22	245	97		10	0.03	C	15.9	C	59.95	
	HV/1LC	Dyn.	15-30	132	90.5		10	0.05	C	10.8	S	59.95	
	HV/1A	Dyn.	15-30	157	93		10	0.05	C	10.1	S	49.95	
	K/6ALC	Dyn.	10-16	100	107		10	1.0	C	14	C	39.95	
	K/6A	Dyn.	10-16	100	106.5		10	1.0	C	14	C	29.95	
	KC/180	Dyn.	20-26	100	97		8	1.0	F	6.2	C	19.95	

HEADPHONES




MANUFACTURER	Model	Operating Principle	Frequency Range, Hz to kHz	Impedance, Ohms	Sensitivity, dB SPL for 1mW Input	Maximum Input, mV	Cord Length, Feet	% THD at 95 dB SPL	Cord Style: Flat — F Coiled — C	Weight, Ounces	Circumaural=C, Supra-aural=S	Price, \$	Notes
PICKERING	OA-3A	Dyn.	20-20	100	110	0.2 W	10	0.5†	F	7½	S	45.00	†At 110 dB.
	OA-5A	Dyn.	20-22	100	110	0.1 W	10	0.5†	F	7½	S	60.00	
	OA-7	Dyn.	20-22	100	110	0.1 W	10	0.5†	F	6	S	70.00	
	OA-202	Dyn.	10-20	50	100	0.2 W	7	0.5†	F	6	S	29.95	
	OA-4	Dyn.	10-20	40	105	0.15 W	7	0.5†	C	2	S	49.95	
PIONEER	SE-700	HPM	20-20	4-16	100	30 V	10		F	10		100.00	Adjustable headband. As above. As above. As above. As above, professional type.
	SE-650	Dyn.	20-20		103	1 W	9½		F	10		75.00	
	SE-550	Dyn.	20-20		103	1 W	9½		F	9		55.00	
	SE-450	Dyn.	20-20		105	1 W	9		F	11		45.00	
	Monitor 10	Dyn.	20-20	22	100	700 mW	16½		C	19		80.00	
	SE-6	Dyn.	20-20	250	102	200 mW	10		F	7.2		70.00	
	SE-4	Dyn.	20-20	250	96	200 mW	10		F	7.6		50.00	
	SE-2	Dyn.	20-20	250	99	200 mW	9		F	7.3		30.00	
	SE-505	2 way Dyn.	20-20	4-16	108	500 mW	16½		C	24		75.00	
	SE-405	Dyn.	20-20	4-16	113	500 mW	16½		C	17		55.00	
SE-305	Dyn.	20-20	4-16	108	500 mW	16½		C	15		45.00		
SE-205	Dyn.	20-20	4-16		500 mW	16½		F	15		30.00		
P M L	D42 Deluxe	Dyn.	30-20	200	0.3		8			9.5		44.95	Mono or stereo. Mono/stereo switch.
	RD-224	Dyn.	20-18	8	1.0	100	8		C	12		30.00	
RADIO SHACK	PRO II A	Dyn.	10-22	8			10		C		C	50.00	High acoustic isolation design, volume controls.
	LV-10	Dyn.	20-20	8			10		C		S	42.00	
	PRO-30	Dyn.		8			10		C		C	40.00	
	Nova-PRO	Dyn.	20-20	8			10		C		C	37.00	
	PRO-20	Dyn.	20-16	8			10		C		C	30.00	
	Nova-40	Dyn.	30-18	8			10		C		C	25.00	
	Nova-10	Dyn.		8			10		C		C	15.00	
Nova-16	Dyn.		8			10		C		C	20.00		
RECOTON	ST10	Dyn.	50-15	8	110		6		C		C	11.99	
	ST11	Dyn.	20-20	8	110		10		C		C	19.99	
	ST16	Dyn.	20-18	8	110		10		C		C	20.99	
	ST22	Dyn.	20-22	8	110		10		C		C	30.99	
	ST55	Dyn.	18-21	50	103		10		C	5	C	44.99	
REVOX	RH 310	Dyn.	40-18	600	100	240	6½	0.5	F	18	S	80.00	
	RH 31	Dyn.	40-18	600	95	220	6½	1.5	F	12	S	67.50	
SAE	7000	Dyn.	45-18	600			10		F			60.00	
SANSUI	SS-40	Dyn.	20-20	25	108	500	6½		F	13.1	C	42.00	
	SS-30	Dyn.	20-20	8	108	500	6½		F	11.5	C	30.00	

HEADPHONES

MANUFACTURER	Model	Operating Principle	Frequency Range, Hz to kHz	Impedance, Ohms	Sensitivity, dB SPL for 1 mW input	Maximum Input, mV	Cord Length, Feet	% THD at 95 dB SPL	Cord Style, Flat — F Coiled — C	Weight, Ounces	Circumaural—C; Supra-aural—S	Price, \$	Notes
SENNHEISER <i>Teardrop Thompson</i>	HD 400	Dyn.	20-18	600	88	15V	10	1.3	F	3	S	46.00	Ear surround cush. Infrared wireless. Transmitter for above system.
	HD 414	Dyn.	16-20	2k	102	18V	10	1	F	4.8	S	79.00	
	HD 420	Dyn.	18-20	600	94	8V	10	0.6	F	4.5	S	89.00	
	HD 424	Dyn.	16-20	2k	102	18V	10	0.9	F	6.7	S	115.00	
	HD 430	Dyn.	16-20	600	94	8V	10	0.6	F	6.7	C	126.00	
	HDI-434	Dyn.	20-20							13.5	S	222.00	
	SH-434	Dyn.	20-20								S	185.00	
SIGNET	TK22	Dyn.	20-20	4-16	96	4.5	11.5	†	F	9.2	S	80.00	†0.4 percent THD at 110 dB. Electret condenser type, ††0.1 percent THD at 110 dB.
	TK33	ES	10-22.5	4-16		20	8.2	††	F	9.7	S	250.00	
SONIC INTERNATIONAL	Pro-5	Dyn.	15-24	4-32	115		9		F	6.5	C		Open-air design. Dual volume controls. Dual volume controls. As above; stereo/mono switch. As above.
	Pro-10	Dyn.	15-22	4-32	110		10		C				
	Pro-52	Dyn.	19-25	4-32	110		10		C				
	Pro-60	Dyn.	20-20	4-32	110		10		F				
	Pro-70	Dyn.	15-25	4-32	115		10		F				
	Pro-80	Dyn.	15-25	4-32	115		10		F				
	Pro-90	Dyn.	20-22	4-32	105		10		F	9.7	C		
	Sonic A	Dyn.	40-12	4-16	105		6		F		C		
	Sonic 20	Dyn.	40-12	4-16	105		10		C		C		
	Sonic 30	Dyn.	20-15	4-16	105		10		C		C		
	Sonic 40	Dyn.	20-20	4-16	103		10		F		C		
	Sonic 101	Dyn.	20-15	4-16	104		10		C		C		
	Pro 18	Dyn.	10-24	4-16	105		10		C		C		
SONY	MDR-7	Dyn.	16-22	55	101	100 mW	9		F	1.9	S	79.95	Volume & tone controls.
	MDR-5a	Dyn.	18-22	32	98	100 mW	9		F	1.8	S	64.95	
	MDR-3	Dyn.	20-20	32	96	100 mW	9		F	1.4	S	49.95	
	MDR-2	Dyn.	22-18	32	94	100 mW	9		F	1.5	S	39.95	
	DRZ-7	Dyn.	20-25	110	104	50 mW	6	0.03	F	15	C	100.00	
	DR-S5	Dyn.	20-20	14	102	100	9		C	14	C	50.00	
	DR-S3	Dyn.	20-20	14	102	100	9		C	12.5	C	30.00	
STANTON	Micro-Wafer XII	Dyn.	10-20	40	105	0.15	7	0.5	F	2	S	49.95	
	Dyna 25	Dyn.	10-20	50	100	0.2	7	0.5	F	6	S	29.95	
	Dyna 55	Dyn.	20-22	100	110	0.25	10	0.25	F	5½		60.00	
	Dyna 35	Dyn.	20-20	15	100	0.2	10	0.5	F	7		45.00	
	XXI	Dyn.	20-22	100	100	0.2	10	0.5	F	6		70.00	
SUPEREX	PEP-81	ES	15-19 ±1.8	4-16			15	0.2	C	10		150.00	† 110 dB SPL for 10 mV. As above. As above. As above. † 100 dB SPL for 6 mV. As above.
	PEP-79E	ES	15-18 ±2	4-16			15	0.2	C	10		90.00	
	Studio Master SM-1000	Dyn.	10-20 ±3	4-35			15	0.2	C	10		70.00	
	Studio Master SM-700	Dyn.	10-20 ±3	4-35	†		15	0.2	C	10		69.95	
	Classic CL-1	Dyn.	10-20 ±4	4-35	†		15	0.3	C	10		59.95	
	TRL-99	Dyn.	15-20 ±4	4-35	†		15	0.3	C	10		54.95	
	TRL-88	Dyn.	20-22 ±4	4-35			15		C	5½		49.95	
	TRL-3	Dyn.	40-20	4-80	†		15	0.5	C	10		44.95	
	TRL-77	Dyn.	45-20	4-80	†		7	1.0	F	11½		34.95	
	Pro B VI	Dyn.	15-22 ±5	4-16			10		C	16		65.00	
TRL-66	Dyn.	40-15	4-16			7		F	11		19.95		
TECHNICS	EAH-T805	Dyn.	20-20	125		200	12		F			30.00	
	EAH-810	Dyn.	20-25		121	1 V	12	0.5	C	11		40.00	
	EAH-820	Dyn.	15-30		128	3 V	12	0.3	C	12		60.00	
	EAH-830	Dyn.	15-35		131	3 V	12	0.3	C	13		80.00	
TOSHIBA	HR-811	Back Elect.	20-20	8/600†	101††		8	0.5	F	8½	S	74.95	† Switchable impedance; †† for 3 V. With mini and phone plugs.
	HR-X1	Back Elect.	20-20	8/600†	101††		8	0.5	F	5.6	S	64.95	
	HR-F1	Back Elect.	20-20	8/600†	101††		8	0.5	F	6.0	S	49.95	
	HR-10M	Dyn.	20-20	32	97	100mW	8		F	1½	S	29.95	
YAMAHA	YH-1000	Ortho.	20-20	150		10 W	8	0.3	F	18	S	220.00	
	YH-100	Ortho.	20-20	150		10 W	8	0.3	F	12	S	95.00	
	YH-1	Ortho.	20-20	150		10 W	8	0.3	F	9	S	65.00	
	YH-2	Ortho.	20-20	150		10	8	0.3	F	7	S	50.00	
	YH-3	Ortho.	20-20	150		3	8	0.3	F	6	S	35.00	

Continued from p. 16

Finally, the new products from Mark Levinson are always noteworthy... his ML3 stereo power amplifier has been upgraded with even larger electrolytic capacitors to go along with the 1.6-kilowatt toroidal power transformer. Certain internal wiring is of a new high power type, and other refinements have been made. The result is an amplifier with great reserves and prodigious current output, better than 30 amperes per channel! Mark's pride and joy is his totally new ML-7 preamplifier. The unit looks exactly like the slim line design of the current ML-1 preamplifier, but there the resemblance ends. This is a much more complex design than the ML-1, with completely new circuit topology. Gone are the potted circuit modules, replaced by open-frame interchangeable modules, each with its own heat sink plate. There are many unusual parts within the modules, such as a new type of very close tolerance capacitor and precision resistors. There are interchangeable modules for specific purposes and, in fact, the type of module determines the overall cost of the ML-7. For example, all units have the two L1 modules for left and right line-level output. If ordered with the L2 module, which is for moving-magnet and high-output moving-coil cartridges, the price is \$3000. If ordered with the L3 module for low-output moving-coil cartridges, the price is \$3500. The rear of the ML-7 features a four-layer PC board, with input and output connectors mated with the board by very short leads. This affords improved rejection of crosstalk and suppression of r.f., along with superior grounding. There is an entirely new super-regulated, separate power supply with eight-pin interconnect cables including separate ground returns. There are many other technical innovations on this ML-7 preamplifier, and the unit should be in limited production by the time you read this. As usual, Mark had his HQD speaker system set up in his demo room, with its six Class-A amplifiers in tri-amp configuration. Pete McGrath was on hand with more of his 30-ips master recordings made with just one pair of Bruel and Kjaer mikes and the Levinson LNP-2 recording preamplifier on the ML-5 Studer/Levinson tape recorder. Pete had recorded a rather exotic piece with voices, woodwinds and percussion, including some unusual drums and temple bells. The sound was stunning, with a smoothness, utter cleanness, and a clarity that was very close indeed to the live experience. Once again, the best sound at the Show. 



Look Into It!

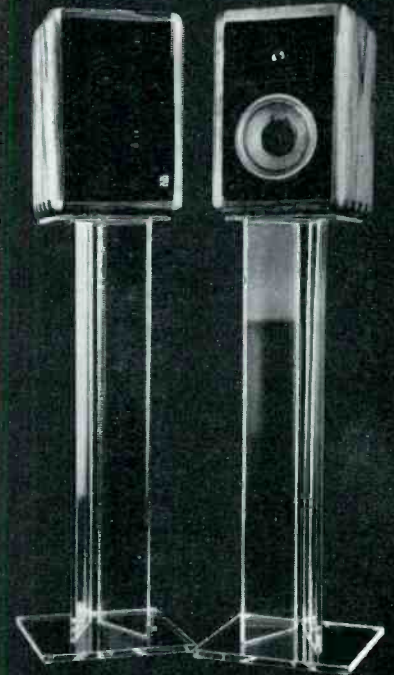


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Top of the pile



Dukas: The Sorcerer's Apprentice. Chabrier: Espana. Debussy: Fetes; Prelude to the Afternoon of a Faun. Philharmonia Hungarica, Zoltan Rozsnyai. **RealTime Digital Masterpiece Series, Vol. II.** dbx coded, stereo, \$18.00.

A new label to me, this one, and this series (five volumes so far) is the first to combine digital recording (Sony) with dbx coding to preserve the full dynamic range of the original digital tape. As so often happens right now, the series is both of purely musical interest and as "hi-fi demo". The music is, to be sure, pretty much the conventional classic showpiece type of old-

fashioned orchestral repertoire — long-familiar warhorses or chestnuts (take your choice) that do, indeed, show the orchestra off at its most brilliant. Each record, like this one, is musically consistent in the listening, well-programmed in every case, and therefore legitimate musical material quite aside from the matter of hi-fi.

This expatriate Hungarian orchestra, founded by the conductor of this series, has (under him, at least) a curious playing style, technically skillful but remarkable unidiomatic. The French music glitters all right but the performances are lumpy and unimaginative,

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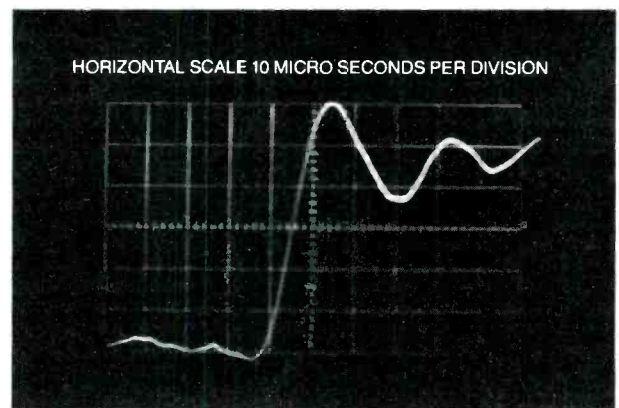
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Actual unretouched oscilloscope photograph showing rise time of 980LZS using CBS STR112 record.



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tending towards slow, beefy tempos and a sort of clinical examination of the inner detail work, you hear a lot of things you hadn't remembered were there at all. Interesting in a way, but this is not at all what French music is about! And oddly enough, the Liszt and Tchaikovsky, the Dvorak and Smetana, on other discs in the series, though nearer to the Hungarian homeland, are even less idiomatic. "Romeo and Juliet" is one of the duller performances I have ever heard of that dramatic work and the Liszt "Les Preludes" is the same. Curious — could it simply be this conductor is

perhaps a better orchestra organizer than a musician? This is, after all, a leading orchestra among world orchestras.

The recording, digital side, is conventionally good, nothing to startle. Why not? The dbx coding allows for some really startling dynamics — sudden silences, super-pianissimo details, unexpected loud blasts of sound (well, isn't that what we are after?) The surfaces are strictly B-type, i.e. average for today, and there seems to be a remarkable quantity of adhering gunk to my copies, after a few playings. The dbx system reduces the loudest pops and

ticks to discreet little sounds and removes all hiss and scratch down to sub-audible levels. E.T.C.

Sound: A+ Recording: B
Surfaces (minus the coding): B-

Stravinsky: Petrouchka. Prokofiev: Suite from Love for Three Oranges. Minnesota Orch., Skrowaczewski. **Dbx-Vox Candide QCE 31103** (encoded).

Superb sound! Just ask your friends, cagily, to put stylus to disc on this one and watch what happens. Except for the tiny thump as the stylus hits the groove, there is silence — then WHAM, top volume. The Prokofiev will practically knock you over.

Of these two classics from the early part of the century, the *Petrouchka* is best favored by dbx's noiseless code-decode treatment of the 1977 Vox Candide recording. It is music full of sudden silences, very soft passages, violent explosions, and in this recording, made in a very quiet hall. It is a rather curious performance, the complete ballet score for dancing but done in many places rather slowly — not at all a danceable version. For us this is marginal; the slower, more analytical playing brings out a wealth of detail work which is superbly handled by the dbx process. I found it fascinating.

Prokofiev's early (Chicago, 1919) opera, the orchestral suite derived from it, is as loud and raucous as any 1920s music you ever heard, but all in all it's good humored and the occasional familiar bits of tuneful melody are lovely. Not as many sudden and dramatic silences here, yet, as in other dbx recordings, the silent background makes for a clarity of instrumental texture that is at once noticeable — as is the wide dynamic range. E.T.C.

Annette DiMedio Plays Piano. Programs include **Chopin, DTR-7907RD, \$8.95; Debussy, DTR-7907RX-2T, \$8.95; Ginastera, DTR-7907C, \$8.95.** (Direct-To-Tape Recording Co., 14 Station Avenue, Haddon Heights, N.J. 08035.)

This direct-to-tape recording is probably the next logical step following direct discs, direct-pressed discs, and direct-to-digital discs. The direct-to-tape concept, as developed by producer/engineer Bob Sellman, involves making a high-quality master tape from which carefully made one-to-one copies are produced. The master recording is made using only two Schoeps microphones, a high-quality analog tape recorder, and dbx II noise reduction. As is usual in recordings of this nature, no limiting, compression

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or equalization is used during the master recording or when copies are made. Copies are available for cassette, 7.5 ips, quarter-track open-reel or half-track open-reel with the option of Dolby B, dbx II or no noise reduction.

For this review, I listened to three different versions of the same recording utilizing the Dolby B cassette, Dolby B quarter-track open-reel and dbx II half-track open-reel formats. The recordings were of a solo piano recital by Annette DiMedio and although I'm unaware of any previous recordings by Ms. DiMedio, I was very impressed by her artistry in this difficult program of works by Chopin, Debussy and Ginastera. Of particular note is the fact that although extensive editing could have been done, only one slight edit (in the Chopin *Scherzo*) was made in the entire program.

Recording the solo piano is one of the toughest challenges facing any recording engineer. The piano is basically a percussion instrument and this requires the recording equipment to have excellent transient response. The instrument also produces sustained tones that are unmodulated by any sort of vibrato and call for rock-steady tape motion. In the hands of a master the piano has an incredible dynamic

range which can tax the finest of recording and playback systems.

Engineer Bob Sellman has met all these challenges with apparent ease in both his original master and the carefully made copies. The Dolby B 70- μ S cassette (played back on a Technics M-85 deck which has a phase-locked servo-drive system with excellent speed stability) was free of any audible wow and flutter and contained only the slightest discernable tape hiss. Surprisingly, the 7.5 ips quarter-track Dolby B open-reel tape did not sound noticeably quieter than the cassette. The only audible difference was some slight compression on signal peaks on the cassette due to the slower speed.

The dbx II half-track copy was truly superb. A carefully made copy utilizing the dbx process can be virtually indistinguishable from the original, and this tape is one such. There is no tape hiss or electronic noise of any kind. The lack of noise and the ability of the dbx process to encompass a 100-dB dynamic range enables the listener to recreate the sound of Ms. DeMedio's Steinway at very realistic levels, that is, if your playback system is up to it.

These tapes are probably the closest the average audiophile can come to owning a master tape unless, of course, he goes out with a pair of mi-

crophones and records something for himself. And they're available at a price that is far less than the typical audiophile disc. *Charles P. Repka*

The Classic Trumpet Concerti of Haydn & Hummel. "Y" Chamber Orchestra of New York. Gerard Schwarz, Conductor and trumpet solo. **Delos Digital Master Series DMS-3001, \$7.98.**

The Sound of Trumpets. "Y" Chamber Orchestra of New York, The New York Trumpet Ensemble. Gerard Schwarz, Conductor and trumpet solo.

Delos Digital Master Series DMS-3002, \$7.98.

It seems apparent that more and more record companies are turning to digital technology as a means of establishing themselves as producers of high-quality recordings. Not surprisingly, most of them are utilizing Dr. Stockham's Soundstream process which is the only complete digital recording and editing system that has been readily available.

The Soundstream system was used to produce this new series of digital recordings from Delos, a small California-based company that up until now has concentrated in producing high-quality analog recordings of non-standard works. However this initial

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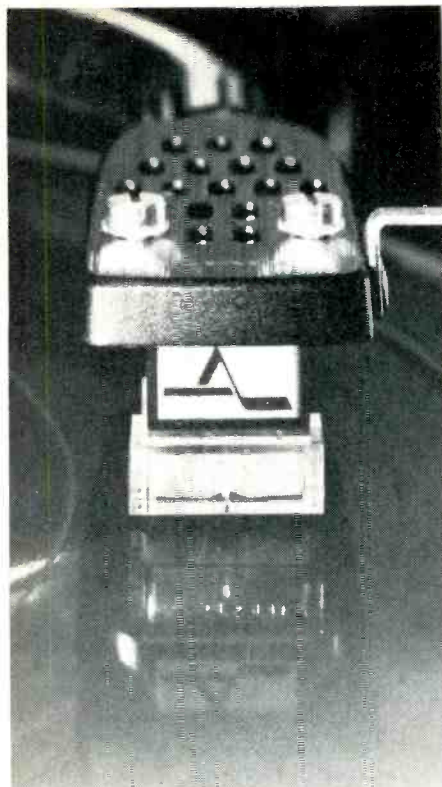
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series of digital recordings is from the more standard musical repertory.

These discs represent a number of firsts in addition to being among the first digital recordings from Delos. These are also the first recordings of Gerard Schwarz in the role of conductor. At age 32, Mr. Schwarz has achieved the status of being one of the premier trumpet players in the world today. He is now embarking on a new career in conducting, and in that role he is principal conductor and music director of the Los Angeles Chamber Orchestra and "Y" Chamber Orches-

tra, as well as Music Director of the Waterloo Music Festival. In these recordings, Mr. Schwarz is featured both as soloist and conductor of the "Y" Chamber Orchestra in their debut recording and the New York Brass Ensembles which is a gathering of some of the top brass players in New York City.

These recordings also feature Stan Ricker's initial appearance as recording engineer. Mr. Ricker, well-known to readers of this column as the man who has produced so many superb direct disc and digital recordings as a disc cutter, has also branched out into new territory by trying his hand as recording engineer for Dolos.

I had the opportunity to attend one of the recording sessions which took place in a Masonic Temple located in New York City. The recording site was of particular interest to me since the same building also houses the main offices and recording studios of Vanguard Records. As a recording engineer for Vanguard, I participated in many recording sessions in this location and was very curious about which approach would be used by Mr. Ricker and the recording team from Soundstream.


Mr. Ricker chose the classic three omni microphone technique, using three B & K condenser microphones with 4134 capsules. The outputs of the microphones were fed to custom-built low-noise amplifiers (designed by John Meyer) and then sent to the line input of a Studer 169 mixing console where the three signals were blended into two channels before being converted into digital form.

The end result is a clear, well-balanced sound with an excellent stereo image and hall perspective. The pressings, plated and pressed by JVC in Japan, are virtually flawless as expected in an Audiophile recording such as this. My only criticism, a minor one, with the sound is the use of the 4134 capsule (which has a rising on-axis frequency response) and produces a brightness (especially in the string sound) that is not quite my taste. Also, some use has been made of low-frequency filtering to remove the ever-present New York City traffic rumble. While this filtering does not really affect any music fundamentals, it removes some of the warmth of the hall sound.

The performances by Mr. Schwartz and the various instrumental ensembles are excellent, played with great style and spirit. Mr. Schwartz is also blessed with the ability to play the difficult solo passages with apparent ease. There is never any sense of strain or stress.

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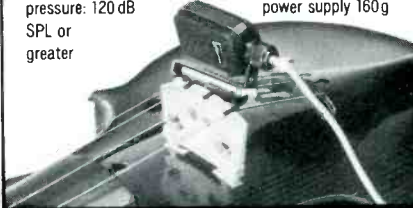
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What I enjoyed most about these recordings is the obvious attention that has been paid to the *music*. Delos has avoided the temptation to hit us with yet another sonic blockbuster. There are no lease-shattering orchestral climaxes, no woofer-destroying cannon blasts, just good music, well played and superbly recorded. I think we need more of that. *Charles P. Repka*

Moussorgsky: Pictures at an Exhibition; Night on a Bald Mountain. The Cleveland Orchestra, Maazel. **Telarc Digital 10042**, stereo, \$17.98.

Telarc is royally exploiting its long initial lead in classical digital recording, as described some time back in this column. For that beginning, Jack Renner of Telarc brashly hired a considerable section of the Cleveland Orchestra; here he has the whole outfit complete, and its regular conductor too — at the highest list price for a single LP in the entire industry, as far as I know! Well, I've just listened. And I'll hafta admit, Jack has done it again. I have not yet heard RCA's rather late digital entry, at half the price (Bartok's *Concerto for Orchestra*) but I'll bet it won't stand up to this one.

In seconds after the rather gauche opening "silent" grooves — too many

of them — this recording simply jumps out of the speakers at you. There can be no doubt of the extraordinary improvement that an original digital job can make, even when produced on a standard analog LP. And, conversely, we can now hear on our own home equipment just how much of a loss in quality *still* exists in the analog tape process — on which we have worked so hard and for so long! It's joyous and it's tragic. One would almost think that if the LP record is so deficient and limited the improvements possible via the digital original would mostly be filtered out. Not so. Oh definitely, not so! Food for thought, all right.

Loren Maazel can be a rather chilly and autocratic leader but he knows this kind of musical business. The great orchestra that was once perfectionist George Szell's still plays a first-rank virtuoso job in music of this showy kind. And Telarc's three-mike transformerless pickup (transformerless, too, all the way through the cutter heads at JVC) merely preserve the perfection that is inherent in the digital system. As I say, and I'll hafta admit, it's a milestone. *E.T.C.*

Sound: A Recording: A- Surfaces: B+

Continued on p. 157

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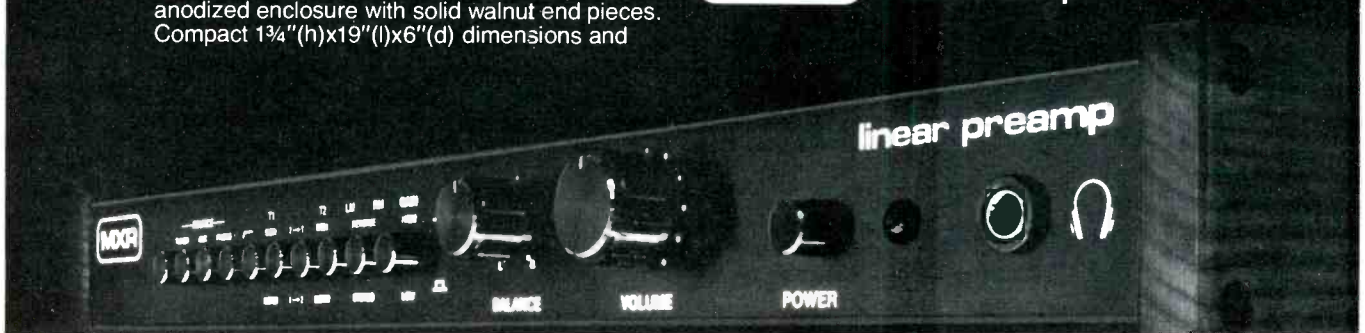
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Jon Tiven

Michael Tearson

The column



The Game: Queen Elektra 5E-513, stereo, \$8.98.

Freddie: You're supposed to grow the hair on top of your head, not above your lip! Roger: No question about it, You've become a first-class writer (somewhat New Wave style) with *Coming Soon* (you filthy boy) and *Prime Jive*. John: OK, so you can write these guaranteed AM hits/tin pan alley songs, let loose a little bit or you'll start to look like Carole King. Brian: Why such sad songs, buddy? I mean, they're really good but I don't want to listen to Queen to make me cry or nuffin

The Game shows Queen becoming more and more democratic, as each of the band's original writers gets three songs, while the rhythm section contributes two apiece. I've no argument against that, but what seems imminent is a solo album by either (or both) Freddie Mercury or Brian May, both of whom are not only excellent writers but ones with loads of depth. Personally, I wish Freddie's more rocking side could develop a little more, for with the exception of the single *Crazy Little Thing Called Love* he's still crooning behind the piano. Brian's once again tugging at the heart strings with *Save*

Me (which should have been the single here) and *Sail Away Sweet Sister* (We Will Cling Together part 2), and only on *Dragon Attack* does he give us one of his rockers (which is pretty good but no *Tie Your Mother Down*). Both of Roger's tunes are exceptional and will probably win him as many fans this tour as his good looks and fine playing have in the past. And John Deacon's songs could have been written in the Brill Building in any given year, the only fault one can pick is that he's somewhat predictable (and has yet to sing his own tunes — come on J.D.!).

Although I haven't heard a Queen album I've disliked yet, I've recently longed for an album from them that equals the power and majesty of their first two. Then they were a great album band that made mildly successful singles, but now they're a terrific singles band that makes nice albums, and I suppose any band that's projecting four different personalities for any length of time falls victim to losing their wholistic approach.

Can't wait for the solo albums . . .
Jon & Sally Tiven

Performance: B+ Sound: A+

Empty Glass: Pete Townshend
Atco SD32-100: stereo, \$8.98.

As the first true solo album Pete Townshend has done outside of The Who, *Empty Glass* is a class act. Some of it is as wonderful as I would expect Townshend to deliver — especially the anthemic *Rough Boys*, dedicated both to the Sex Pistols and his own two children and Peter's open letter to critics *Jools and Jim*, and the bright *Let My Love Open the Door*. Clearly there is life beyond Who.

But too much of the rest never catches fire, however workmanlike it is. *Gonna Get Ya* carries on a bit too long for its own good, as one instance, but the album never gives up any of its classiness.

The versatile Chris Thomas (Procol Harum to Sex Pistols to Pretenders among many) is a most sympathetic producer, never intruding. The dependable Bill Price is engineer.

Maybe it is a case of over-extended hopes, but although I quite like *Empty Glass*, it is paling on me rapidly. The album lacks the cutting edge of a killer instinct. It never draws blood. *M.T.*

Sound: B Performance: B-

Me, Myself I: Joan Armatrading
A&M SP-4809, stereo, \$7.98.

Never one to be called a shrinking violet, Joan Armatrading remains one

of the most determinedly personal of artists. For *Me, Myself I*, Joan has abruptly changed producers and players in pursuit of freshness. And she gets it. Richard Gottehrer gets you a punchier sound than Glyn "Clean" Johns who had done Joan's last several records. Gottehrer also goes well to the gut, the first clear clue being the album's first drum kick one verse into the opening song for which the album is named. Anton Fig, the drummer, gets you rudely in the stomach. A clean blow to the body.

Joan's passionate singing soars, cajoles, caresses, fakes nothing. Her ad-

mitted Van Morrison influence has never been clearer as Joan uses little nuances for effect. But her work is by no means derivative. Quite the reverse, no one but Armatrading could have concocted these songs. She explores relationships in many forms — from friends of long standing, to lovers united, to lovers anticipating, lovers apart with the love draining dry and to purest solitude. They never seem to work for Joan, but her faith keeps her plugging away at them. Joan Armatrading is nothing if not a very strong woman.

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men producer Gottehrer has assembled are drummer Fig; organist Danny Federici and saxist-supreme Clarence Clemons, both from Springsteen's E Street Band; bassist Will Lee, and guitarists Chris Spedding and Hiram Bullock. These are guys who play for keeps, a necessity given the individuality and commitment Joan herself brings to her music and requires of her cohorts. When the surroundings are as right as they are here, it frees the lady to realize her potential at its fullest range.

Very few artists constantly challenge you with a song the way Joan Armatrading does. She deserves to be widely heard. M.T.

Sound: A- Performance: A+

Best of Styx: Styx

RCA AFL-1-3597, stereo, \$7.98.

Polish American Dance Music: The Early Recordings 1927-1933

Folklyric 9026, stereo, \$7.98.

Ostensively the same works but with a slightly different time signature, both of these records are somewhat outdated in approach but equally stand the test of time. The lyrics from Styx's first hit single, *Lady*, seem to

share much with Stanislaw Mermel's *Krakowski Z Bochni* which originated the classic line: "I like you more than a pair of horses; I can only tie the horses to a carriage, but my girl can prepare my bed." It only goes to show that a true classic lives forever, even though the beat may change through the years. Sally & Jon Tiven

Performance: A+ Sound: A+

Stuntman: Edgar Froese

Virgin International VI 2139, stereo, \$7.98.

As the founder of Tangerine Dream, Edgar Froese is largely responsible for the initial birth and growth of contemporary electronic music. His own albums, made apart from Tangerine Dream, have always had unique conceptual approaches that made them distinct but related entities. **Stuntman** continues this relationship as Froese utilizes a shorter compositional format than the lengthy trips associated with T. Dream.

Stuntman's six pieces seek a resolve and synthesis between Froese's Western heritage and the inner probings of Eastern music and philosophy. This accounts for some very surreal titles such as *Detroit Snackbar Dreamer* and

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Drunken Mozart in the Desert. On Detroit . . . Froese uses his synthesizers to set up a tambura-like droning and a subliminal pulse that floats the poignant melody, as well as a call and response between near and distant Indian violinists. *Drunken Mozart . . .* is an Indian fugue with Baroque counterpoints, pendulum rhythms, and that feeling of suspended time which dominates Indian music.

Froese's combination of Western and Eastern harmonics creates a music that is accessible yet often tugs at memories that have been forgotten or obscured. A song such as *It Would Be Like Samoa* with its sympathetic sitar drones, insistent rhythms, and symmetrical melodic inventions suggests the inward meditation derived from mandalas. *Scarlet Score for Mescalero* evokes the hymn *Amazing Grace* as it might be interpreted on Alpha Centauri.

Like much contemporary music created electronically, this album is beautifully recorded with each element of sound carefully crafted and mixed. On the other hand, this music is pressed into a vinyl surface that never yields the necessary amount of silence.

Stuntman, because of its overt melodicism and shortened times, is not as enveloping a listening experi-

ence as previous Froese albums. But he is still pushing forward and experimenting both individually and with T. Dream. He lacks only the headlong cerebral abandon of those early days.

John Diliberto

Sound: B+

Performance: B+

Pressure: Bram Tchaikovsky
Polydor PD-1-6273, stereo, \$8.98.

Tenement Steps: The Motors
Virgin VA 13139, stereo, \$8.98.

The Motors were an unlikely combo when they first emerged, a slick but driving pop group combining three disparate songwriters who only recorded together out of convenience. Dictators McMasters and Garvey were obviously inferior songwriters to Tchaikovsky, but they ruled the roost for two albums until Bram formed his own combo. Although it's been awhile since The Motors released an LP, Bram Tchaikovsky was quick to record and release a fine sounding record on his own that hardly took its time to race up the charts, although owing to Nick Garvey's production. The Motors have returned as a duo, hiring Rockpile's Terry Williams and Man's Martin Ace to play drums and guitar respectively, and Tchaikovsky's second album is

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upon us at the same time — both flawed, one-dimensional projects which have redeeming merits, but neither well-endowed with interesting songs.

Tchaikovsky has a winning sound, led by his old vocals supported by ringing guitars and Keith Line's Keith Moonish drumming; his first album established itself with strong songs but on **Pressure** he relies too heavily upon the sound without having the material to back it up. The mid-Sixties Beatles sounds of *Can't Give You Reasons* is the best tune of the typically

Tchaikovsky ones but is placed in the unfortunate position of being fourth song on the first side, followed by the next best tune *Pressure* which is far more frantic and amusing. The production sound is a little ragged at times — often the instrumental sounds aren't allowed to work in the track as they're too "flat" sounding, but the choice of self-production is responsible here. This might be somewhat appealing to Bram's diehard fans, but isn't going to win him much of a new audience unless he gets lucky with a smash single.

The Motors' **Tenement Steps** is, on the other hand, produced to the gills — you expect the entire cast of *West Side Story* to jump out of your left speaker at any moment. Tom Petty producer Jimmy Iovine has given them more echo, flanging, and delay than 10 Pink Floyds could muster, but with songs this weak it makes **Tenement Steps** simply overblown. They're full of Americanism and romantic visions of lower class melodrama, but it's about as real as Meatloaf's vision — hamburger a la mode, please.

Jon & Sally Tiven

Bram Tchaikovsky

Sound: C- Performance: C-

The Motors

Sound: B+ Performance: C-

The Up Escalator: Graham Parker
Arista AL 9517, stereo, \$8.98.

Let's be blunt. **The Up Escalator** is Graham Parker's finest moment so far. Song after song hits the bullseye right in the retina. Writing, execution, production combine to make this as nearly perfect an album as 1980 has had.

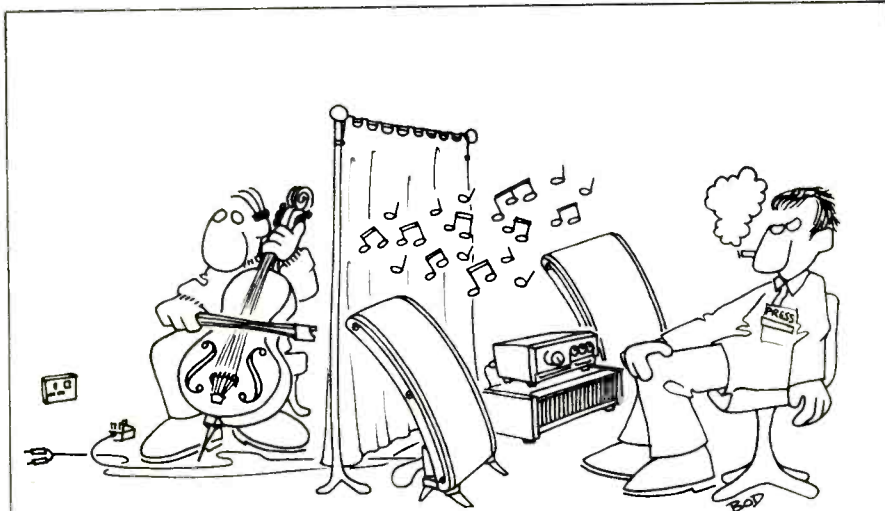
Hey, Graham Parker's first album **Howling Wind** was one of the very first albums I ever wrote about for *Audio*, and why Parker is not one of our most treasured stars is way beyond me. He has a *great* and classic voice for rock and roll. His stance has an indefinable electricity that, like Bruce Springsteen in concert, triggers something primal that lets/makes magic happen.

In fact, Bruce joins in on one cut, *Endless Night*, that is sheer magic. As Graham sputters out lyrics that hit with an acidic bite like the one Bob Dylan stumbled onto in 1965 with *Subterranean Homesick Blues*, Springsteen's part drives even higher this gush of drive and determination.

Stupifaction, the first single off the album, is marvelous. With a great swinging groove, it has excellent lyrics about the Angel City way of life. No *Holding Back* and *Devil's Sidewalk* are just plain mean. There is no holding back. *Empty Lives* is the best yet in a line of anti-star songs that goes back to *Don't Ask Me Questions* on that first album.

Maneuvers is this year's *Mercury Poisoning*. It is all about backbiting in the music biz and includes a terrific anecdote — true even — of the LA punk rock club/Chinese restaurant Madame Wong's citing the time someone slipped on a tape plugging the show next door.

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Greed closing side two is a most curious counterpoint to the song that closes side one *The Beating of Another Heart*. *Greed* is pure bitchy. *Beating* is one of Graham's most touching and tender lyrics and melodies ever.

The Up Escalator is that rarest of albums, one with no bad cuts on it. And every one is a gem.

Jimmy Iovine produced it with a flair similar to the job he did on Tom Petty's **Damn the Torpedoes**. He showcases Parker's fury as well as he did Petty's thinblooded power.

If **The Up Escalator** isn't the one to push Graham Parker beyond the barriers, then there is surely no justice left.

M.T.

Sound: B+

Performance: A+

Roadie-Original Soundtrack: Various Artists.

WB 2HS-3441, stereo, \$15.98.

Whatever the film starring Meat Loaf (who does not sing) is, the album is a most pleasant surprise. There are swell, often top-rate brand-new songs from Cheap Trick *Everything Works if You Let It*, Jerry Lee Lewis *Hot Damn I'm a One-Woman Man*, Roy Orbison and Emmylou Harris *That Lovin' You Feelin' Again*, Teddy Pendergrass *Can't We Try*, and Hank Williams, Jr. *The American Way*. Pat Benatar, Alice Cooper twice — his manager produced the film — with Sue Saad and the Next also represented. Quite a diverse lot. Then there is The Joe Ely Band's *Brainlock* which is a killer. A revelation.

Some don't measure up. Blondie's live version of *Ring of Fire* is a throwaway. So is Styx's live *Crystal Ball*. But nearly everything included is new and much more engaging than I would dare expect.

Recording quality ranges from negligible (especially the remotes of Blondie and Styx) to standard for the artists. Jerry Lee Lewis, Cheap Trick and Joe Ely are about the best.

Whether or not "Roadie" bombs as a movie, the soundtrack is one of the best done specially for a film. M.T.

Sound: ?

Performance: B

Robin Lane & the Chartbusters

Warner Bros. BSK 3424, stereo, \$7.98.

An impressive and nervy debut. The no-frills music of Robin Lane & the Chartbusters forces full attention to the songs which in turn must bear the load of the album. And for the most part they do. Emotional commitment and honesty without or through compromise run through the album as Robin's major themes.

She opens the album with *When Things Go Wrong*. The intensity of the song forces one thought — things sometimes go right. The vulnerable underbelly of optimism surfaces. Her best stuff throbs and pulses. *Be Mine Tonight* directly confronts someone she wants now for a lover. *Don't Wait Til Tomorrow* is about a hitchhiker and the encounter she wants with him. Perhaps the best of the bunch is *I Don't Want to Know* which was inspired by the pathetic nightmare of Sid Vicious and still finds hope.

The album's production couldn't be

more minimal. There are no keyboards at all. There is little evidence of anything not done live in the studio. In fact, the production probably holds back the album from its full potential. A more assertive job is easy to imagine. Perhaps Joe Wissert, an excellent producer, was simply a bad choice.

The songs and sultry deep voice of Robin Lane make this an album to savor. That underbelly of optimism is a source of wonderment in the usually bleak stance of current music. M.T.

Sound: D+

Performance: A-

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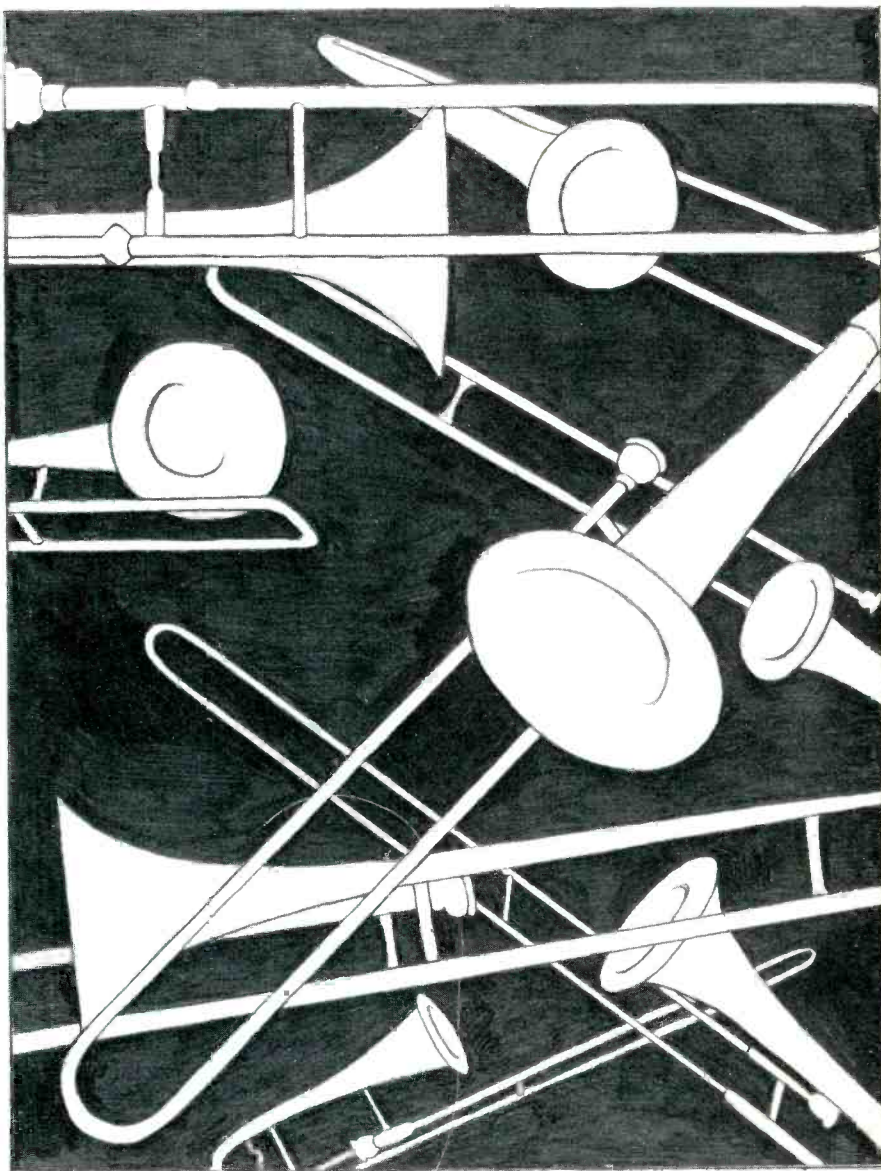
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Edward Tatnall Canby

Classical reviews



80 Trombones and 30 Basses. (Henry Brant: *Orbits*. Gerhard Samuel: *What of My Music*). Bay Bones Trombone Choir and Assisting Artists; Int. Soc. of Bassists and percussion; Amy Snyder, voice, Nalga Lynn, soprano, dir. Samuel. **CRI SD 422**, stereo, \$7.95.

Sometimes (quite often) I wonder why certain records are ever sent out to general record reviewers, supposedly to reach the general public. Like sending an engineering report to a literary magazine. As for CRI, there are no doubts: In addition to supporting its professional composers and their

performing artists, they're definitely out to interest and educate the general listener and, indeed, the hi-fi man too. But what of the originators of all its music?

Nuts on at least half of this one! Praise for the other half. Take the nuts first. A good title and in fact there are 36 double basses on side two, not 30. But this piece was never intended for the likes of you and me! Specifically, it was written for the Summer School of the International Society of Bassists — hence the numbers. A solo for all. Now this could be quite OK if the sonic results were interesting for us. But

what you will hear is something else again.

The work belongs to that exaggerated school of no-rhythm sonics which originated in the first (and many subsequent) "tape" pieces — but here the familiar zooming and sighing effects are applied to "real" instruments, which do their best to sound like tape. Some of the results are fine — not this. Mr. Samuel blows up a 30-second poem of Emily Dickenson into an enormous, humorless monstrosity headed off by a solo soprano who vocalizes shrieks and howls and enormous jumps, on-and-on at a snail's pace — cruelty to a mere human being. (More the fool she, for undertaking it!) These agonies are supported largely by a pitchless mumbling in the background — the mighty 36 basses. It may be stirring music for them, from inside, but out here, where I listen to the result in my living room, I found the whole thing a very conventional and, as I say, humorless lump of supposed radicalism, endlessly long and pompous for its content. Where have I heard all these sounds before? A million times over, if not for double basses. Even the strangled soprano is familiar, only she strangles more this time. For all its big show, the work is unoriginal, a me-too piece.

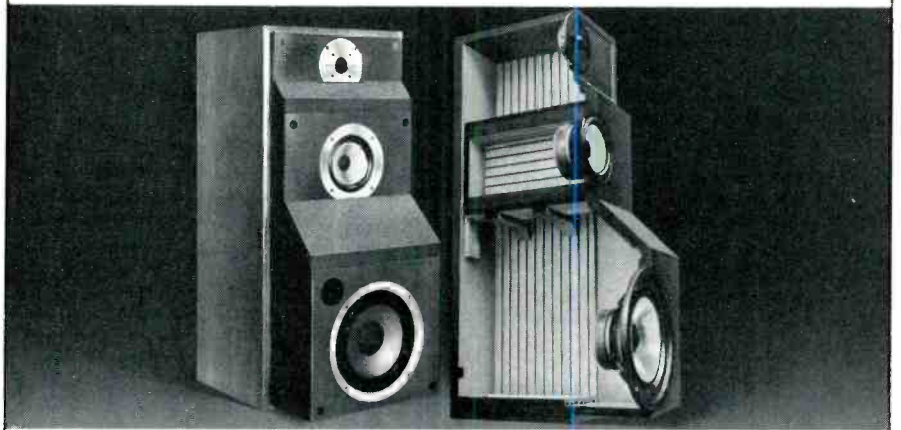
Henry Brant is a much more authentic radical, and I enjoyed his 80 trombones, which sound like trombones even in the wildest sonics. Idiomatic noises. Actually, much of the music is a vast sea of churning sonic mud, huge pitchless growls and rumbles (how do they play it?), elephantine sliding. Maybe you'll be reminded of a herd of walrus bellowing in an Aleutian storm. A "sopranino" — a very high soprano voice (not tortured) and a brace of well-chosen percussion help the wails and the joyful yawps of the trombone choirs, all in a surround perspective (at least as of the live performance). Definitely it's alive and fun, this music, even via remote control, i.e. on a hi-fi disc. Getting together practically all the trombones in California for the event must have been a big deal in itself, almost like an AES convention.

Henry Brant once put on another surround piece (his hobby) via assorted outdoor "balconies and plaza" at Lincoln Center in New York, only to be drowned in local traffic noise plus a thunderstorm. He merely observed that NOW he understood the true sonic scale on which he should have composed. Maybe we need a Brant thunderstorm piece to replace the 1812?

Sound: A- Recording: ?? Surfaces: B+

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Schubert: Piano Sonata in B Flat, Op. posth. Lili Kraus. Vanguard VSD 71267, stereo, \$7.98.

Superb — one of the great ladies of European pianism. Ever since I heard Ruth Geiger play this work back in the mid-'40s it has been my favorite of all Schubert; it is a towering, gentle masterpiece of expression. But very seldom is there a really moving and understanding performance, even among the pianistic great. Immensely long, it is a great sprawling thing with millions of notes, not notably difficult for professional fingers but requiring a

profound musical sense — a brain piece, a drama piece on the grandest and yet simplest scale of values. Many otherwise splendid pianists are baffled by it. The notes come out, but the music isn't there.

Lili Kraus has it wonderfully well set out in her brain and emotions. The vast shape is under perfect control, set forth with casual ease from the first moments. Her fingers are no more than the able medium that gets it over to you, the listener. Perhaps there is something in this work that goes more deeply into a woman pianist's con-

sciousness than a man's? I note with surprise that all the performances which I can remember disliking were by males. Perhaps it's a matter of negative machismo — the music is strong enough, loud enough, even fierce and stark at times, but it never shows off, it is inward and full of grace.

In the confusing Schubert chronology, this work seems to have been the very last on a large scale, a couple of months before his death. That accounts for much of its power.

Sound: B Recording: B+ Surfaces: B

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Wilhelm Furtwangler Conducts Weber, Der Freischutz (1954). Grummer, Hopf, Bohme, Streich, Vienna Philharmonic, Vienna State Opera Chorus. Vox Turnabout THS 65148/50, 3 discs, mono, \$14.94.

This Salzburg performance of 1954 finds Furtwangler in his latter rehabilitated days, after a somewhat unfortunate career among the Nazis during the war years. With a fine cast and the best of Viennese musicians, it is bound to be a good version, very much in fine style and full of the right kinds of feeling. But my impression is that the great conductor is nervous and a bit hasty, sometimes to the point of confusing his performers. Not really at his best, as of earlier on.

This is very, VERY much a live performance! Almost the loudest sounds in the whole thing come from the rattly floorboards of the stage in Salzburg, a bit of realism that is maybe just a bit too real. There are all sorts of rustlings and bustlings, war whoops, cries, clanks, squeaks — actually, all this is rather fun to listen to. The company is vivacious as a whole, the chorus very much on its musical toes in the peasant-like big scenes. And the solo voices are recorded at a merciful distance, blending into the orchestra and chorus as they should. Too many recent opera recordings use the all-out close-up solo technique.

This is a *Singspiel*, the type of popular opera in the German language that includes large amounts of German dialog. Such vigorous chatter! Even if you don't understand it, you'll be amused. They really go to town — vast excitement (thump, thump on the floorboards), a positive plethora of dramatic projection. Just to round out the realism, there are plenty of audience coughs, hacks, gargles and chokings — it must have been a rainy day.

Don't quail at the somewhat unfortunate beginning; the very shaky soft notes of the overture, almost lost in a mass of audience noise. Was this early

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tape recording? It gets off to a very doubtful start but when the body of the opera is underway things seem miraculously better. Good listening.

Sound: C- to C+ Recording: B
Surfaces: B

American Brass Journal Revisited. Empire Brass Quintet & Friends, Frederick Fennell. *Sine Qua Non SAS 2017*, stereo, dbx encoded.

Wherever you may find him, Frederick Fennell and his band music will make your toes twinkle. He is the best. On this interesting disc, he "revisits" a 19th-century band-music publication, reviving a whole series of really splendid pre-Sousa marches that probably have not been heard for more than a century anywhere. His performers, the Empire Brass Quintet, plus a lot of extra players, are top-notch, too. All in all, the music rates in the almost-awesome category and surely merits our present term "classical" as well as classic.

Band-music listeners know that there is a rather large gulf in style and content between British band music and American, this last, of course, typified by the music of Sousa. In this collection of unknowns, the most interesting thing to hear is the clearly American band style, as of the 1860s and 1870s after the Civil War, and this, curiously, in spite of the fact that some of the composers are European. There is even a transcription of music by Robert Schumann. A matter of publisher's choice, I would think — by publishing his own canny preferences for this kind of music, the man who was responsible for the *Brass Band Journal* helped to set the tone for Sousa himself, as anyone can hear.

The recording is excellent, even though the original standard stereo issue sells at list for only \$4.98. Easy to hear why dbx chose this one for encoding.

Cornet Solos: Herbert L. Clarke. Sousa Band, Victor Orchestra. *Crystal S450*, mono, \$7.98.

The big trumpet that is called a cornet was a prime solo vehicle for astounding display back as far as the late 19th century and through the great era of acoustic recording. Like the human voice (notably the tenor, as in Caruso), both the power and the overtone content of this instrument suited the acoustic limitations of the old recording system to a remarkable degree. Clarke was the Caruso of the cornet, though his musical medium was not opera but those salon-type tidbits

(with the big cadenzas at the end) which were the very height of musical fashion in simpler days.

These reissues are all from old Victor records, with the house (acoustic-style) orchestra of that label and the Sousa band — they don't tell us here whether old Sousa himself did the conducting job in person. (Probably not, I would guess. His band got around for a passel of commercial dates without benefit of the maestro.) The orchestra and band sound typically acoustic, unmistakably tubby and muffled; but the cornet comes

through astonishingly well — you would think its sound purely electrical, via microphone. And what a technique! Absolutely effortless in the most incredibly complex and brilliant passages. Only trouble is the usual one — how can you listen to all that sugary music, one piece after another! Like eating a half pound of maple sugar.

One amusing extra moment: Herbert L. Clarke's own voice, announcing something unintelligibly in the old-style, high-flying manner, is dubbed in at the beginning of the first item. This sets the tone nicely.

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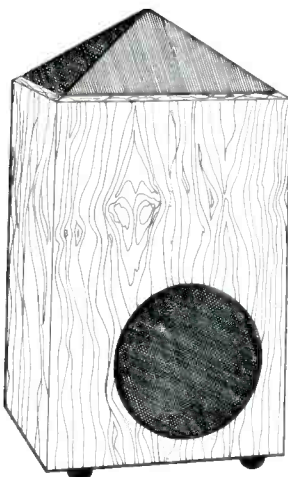
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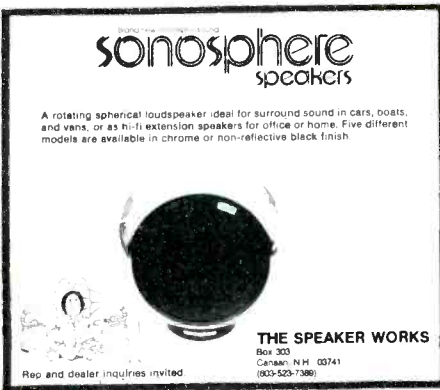
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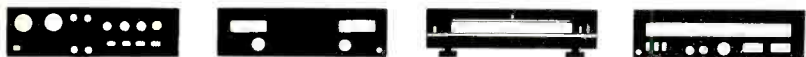
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Continued from p. 127

Mark Levinson Presents . . . Dbx Recording Technology Showcase Series, Vol. 1. **Dbx RTS-1**, stereo, \$20. (Dbx dealers, audiophile outlets.)

Short of the all-digital discs, not yet available, there is absolutely nothing in the present range of high-technology LP records to compare with the dead, solid, audibly total silence that dbx offers via its dbx II code-decode (compression-expansion) system in this and numerous other recent dbx releases — all of which must be played via dbx II decoding. Direct comparison with even the finest contemporary noncoded recordings, wherever they may be pressed, reveals the difference immediately and bears out dbx's specs, which call for a 30-dB reduction in disc noise, plus enormous dynamic range, via the code-decode process. This is a priceless "sound" for all of us who listen — the same will be the case when we arrive at the all-digital stage, a good while hence.

Even more important, as exemplified by this first of dbx's own productions (other items are remastered from various other labels), is the extraordinary sound quality which is achieved in spite of the compression/expansion electronics. To aid my own older ears, I have introduced a number of young people to an assortment of these dbx discs, and none of us has found any trace of audible distortion of any sort that might be attributed to the code-decode procedure involved.

That certainly is true of this modest but interesting musical demo "sampler," jazz-oriented on one side, classical on the other. The several percussion items on the jazz side are particularly revealing — if you have doubts, this is the place to begin, assuming you have cash and decoder. (The decoder, if you have no dbx II circuitry around, is the new Model 21 at \$109 list.) But in small ways almost anything on the record will prove the point — no noise, no ticks, no groove echo, no distortion of the sound. None that this ear can notice, anyhow. Very impressive.

Levinson is one of those younger audio men who has considerable experience in music of many sorts and a wide, rather mystical love for it. He plays jazz string bass himself here in one of his own pieces, and presumably he chose and/or recorded the program. Excellent. Never show-off, never flamboyant, often interesting as music, both sides.

The jazz side, for instance, opening with percussion, ends with an absolutely memorable two minutes of sim-

ple Beatles music, *Penny Lane* arranged for a brass ensemble with the original brass solo ornamentation built right in. On the classical side we begin modestly with solo guitar, a superbly played transcription of the familiar Bach *Prelude to the E Major Partita*, known in dozens of other transcriptions that aren't as good as this one by the player himself, Eliot Fisk, an extraordinary classical performer. Then, improbably, we hear a movement from a Haydn piano sonata on a vast concert grand but — surprise! — the lady (Lois Shapiro) plays it exactly right, without a trace of grand-piano bombast. OK with me, lady! Then more Bach, a segment of the *Art of the Fugue* on a Baroque organ, and finally a church-type chorus with organ by an English Baroque composer named Greene — astonishing, since Greene has largely been unknown and is just now coming to light; few Baroque fans will have heard of him. Welcome aboard.

So — a very personal, modest, pleasantly surprising "demo" disc that does its job better than most big noisy sensational types. Good start, dbx. E.T.C.

Boito: Prologue to Mephistofele. Verdi: Te Deum. Atlanta Symphony Orch. and Chorus, Morehouse-Spelman Chorus, Young Singers of Callanwolde, John Cheek, bar., Robert Shaw. **Telarc Digital DG 10045**, stereo, \$17.98.

If Telarc's digital recording reached full maturity with the Philadelphia Orchestra under Ormandy (Saint-Saens Organ Symphony), then this recording, numerically earlier, is as much a triumph in its own way. It seems to me that the perfection of digital plus all the necessary intelligent co-arts that go along and sustain that technique in the processing to disc, are matched here by the astonishingly fine micro-phoning. I should simply say the recording (as far as the recorder input) of these very large massed forces — big orchestra, solo voice, numerous choruses, remote brass; and, to add to the glory, would seem to be the *chef d'oeuvre* and ultimate realization of the talents of that often controversial leader, Robert Shaw, originator of the "chorale" idea via his Collegiate Chorale in the 1940s.

It all comes together — all these elements — so that one is pressed to find a place to begin. Music? Digital? Performance? Acoustics? Everything is right. Boito, librettist for Verdi operas, composed his own gigantesque opera, of which the long excerpt filling a side and a half here is merely the beginning, the prologue. Perhaps it is as well

we stop at that point! It is stirring, superbly dramatic music of the high Italian opera variety, on the grandest scale, and the Shaw aggregation does wonders with it — perfectly recorded. Big boy's chorus, a terrific young bass who looks just out of high school and sings like Wotan himself (years from now, at an advanced age, he'll reach his Met debut, er — pardon me, he already did, in 1977), and the orchestra, all beautifully balanced, emoting in superbly musical fashion.

The Verdi *Te Deum*, also a grand big piece for the utmost in orchestral and choral forces, is an ideal partner for the Boito — what could be more appropriate? This too receives a stunning performance and recording to match.

This is for you if you like (a) Italian grand opera and/or (b) if you like the thrilling sound of enormous vocal and instrumental climaxes. Also (c) if you like hi-fi! E.T.C.

Sound: A Recording: A Surfaces: A-

The World of Red Seal Digital. Brahms, Mendelssohn, Mozart, Schumann, Stravinsky. RCA digital sampler XRC1 3624, stereo, \$9.98.

This is the first of RCA's digitals that has reached me — it samples a number of RCA recordings presumably now available or set for future release. A very well-mannered and musical sampler, featuring complete musical excerpts, whole movements and no cuts or fades. Side one is all-Philadelphia, with Ormandy, a movement of the Schumann "Spring" Symphony and the Mendelssohn "Hebrides" Overture (Fingel's Cave), except for a Mozart cadenza — this not such a good filler-out — at the end. Side two gives us six Brahms Hungarian Dances, orchestral version, then the two little Stravinsky Suites for Small Orchestra, No. 1 of 1925 and No. 2 of 1921. (Well, the music for No. 1 dates originally from 1917), these last jumping to the Dallas Symphony under Eduardo Mata.

My impression is simple enough — these are simply very good and typical RCA recordings, mellow and rather distantly miked (compared with Columbia's long-accustomed close-up microphoning), always in a big resonant space, which is fine for the older Romantic music but quite inappropriate for the snazzy, hard-boiled Stravinsky, out of the 20s. I wouldn't know whether they were digital or not, if somebody hadn't told me. RCA is perfectly capable of producing fine ana-

log discs too. Factors other than the digital aspect, really, are the determining ones. Fortunately, as of last notice RCA charged only a dollar extra for their digitals, so all is quite nicely in balance.

An excellent and candid account of the digital process here ("Unfortunately, the disc in this jacket is in purely analog form, since . . .") by John Pfeiffer of the RCA staff. E.T.C.

Sound: A- Recording: B Surfaces: B-

Richard Strauss: Don Juan; Till Eulenspiegel; Dance of the Seven Veils (Salome); First waltz sequence from Der Rosenkavalier. Cincinnati Symphony Orch., Thomas Schippers. Dbx-Turnabout QTV-S 34666 (encoded).

Here's a first-rate orchestral offering in the initial dbx-encoded noiseless disc series, remastered from a Vox Turnabout recording of 1976. Thomas Schippers started as a somewhat flamboyant protege of Menotti, but here he has matured into a splendidly alive and imaginative interpreter of Strauss. I haven't heard such fresh and interesting playing for a long time — and the dbx coding helps.

Like a good many in this dbx series, this record is double-coded — it was originally made through the QS four-channel encoder and now is also and simultaneously coded for dbx compression/expansion. No conflict! The two unrelated codings work together beautifully if you have a QS decode facility. The dbx system, of course, allows for a very wide dynamic range in playback (only 50 dB on the disc), and thus the dynamics of this large orchestra are preserved; in fact, they are vital to the sense of the music and the "story line" of the two early tone poems — so full of violent contrasts of loud and soft, of energy and repose. I especially enjoyed *Till*, the humorous scamp who dashes hither and yon, giggling insanely until he is captured in a wild chase and condemned by a solemn tribunal of heavy (musical) brass. Never was dynamic range more useful!

There is a good deal of natural ambient background sound in this recording which, of course, is not removed by the dbx coding. The fades up and down from absolute silence to this noise are well managed here at the beginnings and endings, though they are noticeable. E.T.C.

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Stravinsky: Firebird Suite (1919); Symphony in Three Movements (1945). Dallas Symphony Orch., Eduardo Mata. RCA Digital ARC1-3459, stereo, \$9.98.

There is no mention on the label of this RCA disc concerning digital, though that word appears on the cover — and is reflected in the modestly higher price, only a dollar more.

As I've noted elsewhere, a big portion of what goes into most audiophile recordings today is no more than tomorrow's, or even today's, state-of-the-recording art. Digital recording is rapidly getting around, as tape recording did back in the early fifties; already it is merely the up-to-date way of producing first-line original material. RCA is thus absolutely right and on a very sensible course, avoiding the super-sensational approach. You will note that for many years it has been customary to charge a dollar premium for discs of a new type. Stereo began that way and, later, quadraphonic.

The two Stravinsky works, both for good old-fashioned symphony orchestra (non-electronic), are beautifully recorded in a characteristic RCA acoustic, very live and rather distant with little suggestion of accent close-miking, if any. The opulent *Firebird* score, tail-end of an era (the ballet was 1911), fits into this acoustic better than the much later *Symphony*, which by its nature and time needs a dry sound — no harm done, even so. The Dallas interpretations are on the softish side, oddly more modern in *Firebird* than the lush playings of the age of Leopold Stokowski, and faster too; the *Symphony*, on the other hand, is not nearly as hardboiled as the early recordings of the work, which made the teeth grate. That was the spirit of the neo-classic forties! A good common mean.

E.T.C.

Sound: A Recording: B- Surfaces: B to A-

Shostakovich: Symphony No. 5, Op. 47 (1937). New York Philharmonic, Bernstein. CBS Masterworks IM 35854, digital, \$14.98.

Why CBS eschews its own familiar label for its digital production I do not know, but herewith that saintly word Columbia, follows after the equally hallowed name Victor, long since dropped by RCA. End of an era.

This first CBS audiophile entry offers, of course, the sort of top-flight digital recording and processing that has already made the audiophile disc a sensation in our hi-fi world. For its relatively modest audiophile price (but higher than RCA's \$9.98 digital) it promotes some extra innovations of interest, a new type of packaging — for instance, a European-style soft cardboard inner sleeve enclosed in a heavy vinyl outer envelope sealed with sticky tape. No shrink wrapping.

But what a performance! That is what should sell this superb recording. The New York Philharmonic is famed for its Big Apple show-me attitude towards conductors and/or music it doesn't like and it can play like nails when it feel uncooperative. Show me, indeed! After years of that long conductorial icicle, Pierre Boulez (icicle except in contemporary music and French), and now a new man at the helm, here the boys get back their Romantic maestro of old, Lennie himself, and you can just tell they love it. Hearts of gold beneath the brass. They play Shostakovich as the Philharmonic has not played for decades. To cap it off, the whole thing takes place a billion miles from Manhattan, in Tokyo.

Very fine recording, Japanese or no, exactly right in sound for the big music, and Columbia — I mean CBS — has really got audiophile quality into the entire production. Which is something for a big company.

E.T.C.

Sound: A Recording: A- Surfaces: A-

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DIRECTORY OF MANU- FACTURERS



Because the charts of specifications contained in this issue cannot adequately cover all features of audio equipment, we recommend that readers contact the manufacturers for more detailed explanations. To that end, herewith we present our "yellow pages" of all firms which supplied data for this Directory—from AB Systems to Zenith.

A

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Folsom, Cal. 95630

Acculab
See: RTR Industries

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Ft. Lauderdale, Fla. 33315

Acoustic Interface
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Goleta, Cal 93017

Acoustic Research
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Acoustical Mfg.
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England PE18 7DB

ADC Audio Dynamics Corp.
230 Pickett District Rd
New Milford, Conn. 06776

Adcom
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New Brunswick, N.J. 08901

ADS
1 Progress Way
Wilmington, Mass. 01887

Advanced Electrodynamic Systems
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Orange, Cal. 92667

Advent
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Cambridge, Mass. 02139

AGI Audio General, Inc.
1631 Easton Rd.
Willow Grove, Pa. 19090

AIWA America
35 Oxford Dr.
Moonachie, N.J. 07074

Akai
2139 East Del Amo Blvd.
Compton, Cal. 90224

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Duo-Beta

Negative feedback is a corrective measure to maintain sound purity by lowering THD. While doing that, however, it can increase TIM. A "no-win" solution. So Lux designed amplifiers that needed no correction.

Too much feedback can destabilize amplifiers and cause damage. Too little reduces damping and increases low frequency noise and rumble.

Duo-Beta delivers the precise amount of feedback needed through two circuit paths, eliminating the last vestiges of audio impurity. That's the Lux touch.

CLL Tuning

Most good tuning systems use quartz lock synthesizers. And they work. But they only work on the local oscillator or front end. Lux's CLL circuitry, on the other hand, controls all the stages of a tuner, from front end to IF and detector circuits.

CLL circuitry, based on the crystal controlled frequency transmission of the broadcasting station provides total tuning...stable and accurate.

Acculock

This is the typical Lux touch. A simple way to assure tuning precision. So simple, you can't mistune even if you want to. Because at the exact center tuning point, the Acculock system puts a mechanical lock on the tuning knob. For about one second, you can't even move that knob. The CLL system says when. The Acculock system does it.

Pure and simple systems

T-400 AM/FM Stereo Tuner

T-450 CLL Acculock AM/FM Stereo Tuner: IHF usable sensitivity; 10.3dB (1.8µV)

L-450 Integrated Amplifier: A Duo-Beta unit; 50 watts per channel RMS, both channels driven into 8 ohms, from 20-20,000 Hz with no more than 0.03% THD.

L-480 Integrated Amplifier: A Duo-Beta unit; 70 watts per channel RMS, both channels driven into 8 ohms, from 20-20,000Hz with no more than 0.05% THD.

L-580 Integrated Amplifier: A Duo-Beta unit; 100 watts per channel RMS, both channels driven into 8 ohms, from 20-20,000Hz with no more than 0.03% THD

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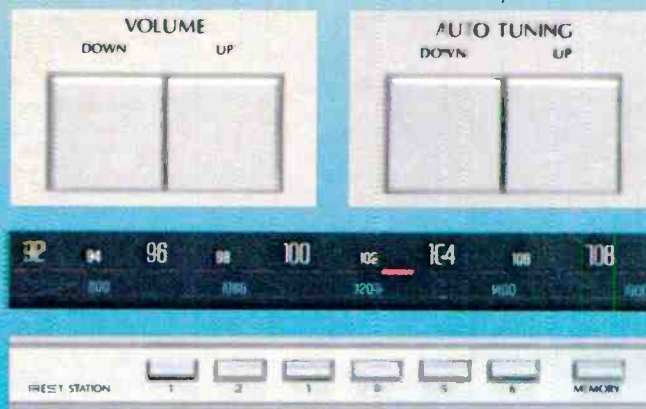
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PML
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"...an outstanding product on any absolute scale of measurement without regard to price." -STEREO REVIEW



Read more of what Stereo Review magazine had to say about the Yamaha CR-840 receiver:

"The harmonic distortion of the CR-840 was so low that without the most advanced test instruments it would have been impossible to measure it."

When speaking of the OTS (Optimum Tuning System), an easy-to-use Yamaha feature that automatically locks in the exact center of the tuned channel—for the lowest possible distortion, Stereo Review said, "The muting and OTS systems operated flawlessly."

Among Yamaha's most significant features is the continuously variable loudness control. By using this control, the frequency balance and volume are adjusted simultaneously to compensate for the ear's insensitivity to high and low frequency sound at low volume settings. Thus, you can retain a natural-sounding balance regardless of listening level. As Stereo Review states, "...another uncommon Yamaha feature."

And there's more. Like the REC OUT/INPUT SELECT feature. These separate controls allow you to record from one program source while listening to another program source. All without disturbing the recording process. Stereo Review's comment was, "...the tape-recording functions of the CR-840 are virtually independent of its receiving functions." One could not ask for greater flexibility.

In summing up their reaction to the CR-840, Stereo Review said, "Suffice it to say that they (Yamaha) make it possible for a

moderate-price receiver to provide performance that would have been unimaginable only a short time ago."

And the CR-840 is only one example in Yamaha's fine line of receivers. For instance, High Fidelity magazine's comment about the Yamaha CR-640 receiver: "From what we've seen, the Yamaha CR-640 is unique in its price range."

And Audio magazine has remarks on the Yamaha CR-2040 receiver: "Without a doubt, the Yamaha CR-2040 is the most intelligently engineered receiver that the company has yet produced, and that's no small feat, since Yamaha products have, over the last few years, shown a degree of sophistication, human engineering, and audio engineering expertise which has set them apart from run-of-the-mill receivers."

Now that you've listened to what the three leading audio magazines had to say about Yamaha receivers, why not listen for yourself? Your Yamaha Audio Specialty Dealer is listed in the Yellow Pages.



To obtain the complete test report on each of these receivers, write: Yamaha International Corp., Audio Division, P.O. Box 6600, Buena Park, CA 90622.

Quotes excerpted from June 1979 issues of Stereo Review, High Fidelity and Audio magazines. All rights reserved.



DIRECTORY OF MANUFACTURERS

Polk Audio
1205 S. Carey St.
Baltimore, Md. 21230

Posthorn Recordings
142 West 26th St.
New York, N.Y. 10001

Professional Systems Eng.
2021 West County Road
St. Paul, Minn. 55113

PSB Speakers
480 Dutton Drive
Waterloo, Ontario
Canada N2L 4C6

Q

QLC
1006 Berkshire Rd.
Dayton, Ohio 45419

QRK Broadcast Electronics
1568 N. Sierra Vista Ave.
Fresno, Cal. 93703

Quad
See: Acoustical Manufacturing

Questar Electronic Design (QED)
2210 Cemo Circle
Rancho Cordova, Cal. 95670

Quintek Distribution
4721 Laurel Canyon Blvd.
Suite 209
North Hollywood, Cal. 91607

R

Radian Research
See: Becker Electronics

Radio Shack
1400 One Tandy Center
Fort Worth, Tex. 76102

Rank
260 North Route 303
West Nyack, N.Y. 10994

RCS Audio International
1314 34th St. N.W.
Washington, D.C. 20007

Recoton
46-23 Crane St.
Long Island City, N.Y. 11101

Reference Monitor Int'l.
2380 "C" Camino Vida Roble
Carlsbad, Cal. 92008

ReVox
1425 Elm Hill Pike
Nashville, Tenn. 37210

Reynolds Advance
432 Lafayette Rd.
Hampton, N.H. 03842

RG Dynamics
4448 W. Howard Street
Skokie, Ill. 60076

RH Labs
P.O. Box 2358
Portland, Ore. 97202

Rocelco
1669 Flint Rd.
Downsview, Ontario
Canada M3J 2J7

Rogers
See: Reference Monitor

Rogersound Labs
8381 Canoga Ave.
Canoga Park, Cal. 91304

RTR Industries
8116 Deering Ave.
Canoga Park, Cal. 91304

S

SAE, Inc.
P.O. Box 60271
Terminal Annex
Los Angeles, Cal. 90060

Sansui
1250 Valley Brook Ave.
Lyndhurst, N.J. 07071

Sanyo
1200 W. Artesia Blvd.
Compton, Cal. 90220

Saras
4150 Glencoe Ave.
Venice, Cal. 90291

Satin
See: Osawa

Schoeps Schalltechnik
See: Posthorn Recordings

H.H. Scott
20 Commerce Way
Woburn, Mass. 01801

SEAS Fabrikker A.S.
See: Nyco Sound

Sennheiser
19 W. 37th St.
New York, N.Y. 10018

Servolinear Audio Products
P.O. Box 4276
Modesto, Cal. 95352

Shahinian Acoustics
4 Selden Court
Selden, N.Y. 11784

Sharp Electronics
Consumer Electronics Div.
10 Keystone Pl.
Paramus, N.J. 07652

Sherwood
500 E. Carson Plaza Dr.
Suite 221
Carson, Cal. 90745

Skure Bros.
222 Hartrey Ave.
Evanston, Ill. 60204

S.I.A.R.E. Corp.
80 13th Ave.
Ronkonkoma, N.Y. 11779

Signal
4701 Hudson Dr.
Stow, Ohio 44224

Snell Acoustics
10 Prince Pl.
Newburyport, Mass. 01950

Sonic International
2515 N.E. Riverside Way
Portland, Ore. 97211

Sonic Research
P.O. Box 399
Danbury, Conn. 06810

Sonosphere/Polydax
2 Park Ave.
New York, N.Y. 10016

Sontec Electronics
10120 Marble Court
Cockeysville, Md. 21030

Sonus
See: Sonic Research

Sony, Sony Audio Lab
9 West 57th St.
New York, N.Y. 10019

SOTA Industries
P.O. Box 7075
Berkeley, Cal. 94707

Sound Dynamics
161 Don Park Rd.
Markham, Ontario
Canada L3R 1C2

The Sound of O
2009 Hopkins St.
Berkeley, Cal. 94707

Sound Research
1000 E. Del Amo Blvd.
Carson, Cal. 90746

Sound Source
Setiles Bros.
1435 Jacqueline Dr.
Columbus, Ga. 31907

Sound-Lab
5226 South 300 West
Suite #2
Salt Lake City, Utah 84107

SoundAids
395 Riverside Dr.
New York, N.Y. 10025

Soundcraftsmen
2200 S. Ritchey
Santa Ana, Cal. 92705

Soundmates
796 29th Ave. S.E.
Minneapolis, Minn. 55414

Spatial, Inc.
1270 Lawrence Station Rd.
Sunnyvale, Cal. 94086

Speakerlab
735 N. Northlake Way
Seattle, Wash. 98103

Speakers & Assoc. Sound
420 Austin Place
Bronx, N.Y. 10455

Spectral Audio
Box 4475
Mountain View, Cal. 94042

Spendor Audio Systems
See: RCS Audio

Stanton Magnetics
Terminal Drive
Plainview, N.Y. 11803

STD (USA)
See: Barry Foster Co.

Strelloff System Designs
5305 Tendilla Ave.
Woodland Hills, Cal. 91364

Studer ReVox
See: ReVox

Sumiko
P.O. Box 5046
Berkeley, Cal. 94705

Superex Electronics
151 Ludlow St.
Yonkers, N.Y. 10705

Superscope
20525 Nordhoff St.
Chatsworth, Cal. 91311

Supex
See: Sumiko

Symmetric Sound Systems
912A Knobcone Pl.
Loveland, Colo. 80537

Synergistics
8116 Deering Ave.
Canoga Park, Cal. 91304

T

Tandberg
Labriola Court
Armonk, N.Y. 10504

Tannoy
See: BGW Systems

TEAC Corp.
7733 Telegraph Rd.
Montebello, Cal. 90640

Technics
One Panasonic Way
Secaucus, N.J. 07094

Technics R&B
One Panasonic Way
Secaucus, N.J. 07094

Telefunken
See: Gotham Audio

Thiel Audio
4158 Georgetown Rd.
Lexington, Ky. 40511

3D Acoustics
5 Sunrise Plaza
Valley Stream, N.Y. 11581

Thorens
See: Epicure Products

Threshold
1832 Tribute Rd., Suite E
Sacramento, Cal. 95815

Toshiba America, Inc.
82 Totowa Road
Wayne, N.J. 07470

Trans Audio
P.O. Box 5909
Santa Monica, Cal. 90405

Transduction Ltd.
P.O. Box 508
Bristol, Penna. 19007

Trusonic
10530 Lawson River Ave.
Fountain Valley, Cal. 92708

Tusk Speakers
Suite A-22
1760 Monrovia St.
Costa Mesa, Cal. 92627

U

Uher/Martel
970-A E. Orangethorpe
Anaheim, Cal. 92801

Uher/Mineroff Electronics
946 Downing Rd.
Valley Stream, N.Y. 11580

Ultracraft
See: Osawa

United Audio Products
120 S. Columbus Ave.
Mt. Vernon, N.Y. 10553

Unitronex Corp.
1171 Landmeier Rd.
Elk Grove Village, Ill. 60007

V

Vandersteen Audio
1018 South Mooney Blvd.
Visalia, Cal. 93277

Vector Research
20600 Nordhoff St.
Chatsworth, Cal. 91311

Visonik of America
701 Heinz St.
Berkeley, Cal. 94710

VMPS Audio Products
7301 Rockway
El Cerrito, Cal. 94530

W

Wharfedale
See: Rank Hi-Fi USA

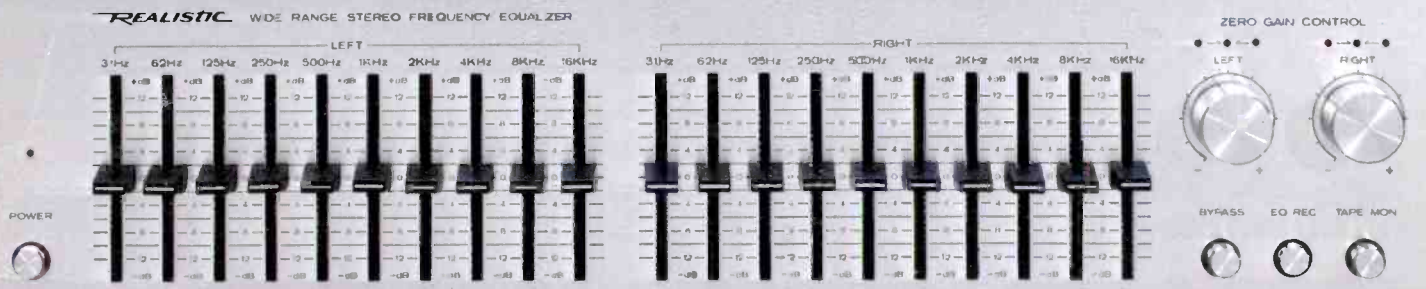
Y

Yamaha
6600 Orangethorpe Ave.
Buena Park, Cal. 90620

Z

Zenith
Acoustics Dept.
1000 Milwaukee Ave.
Glenview, Ill. 60025

REALISTIC WIDE RANGE STEREO FREQUENCY EQUALIZER



Five Important Reasons Why You Should Own This New Realistic® 10-Band Equalizer.

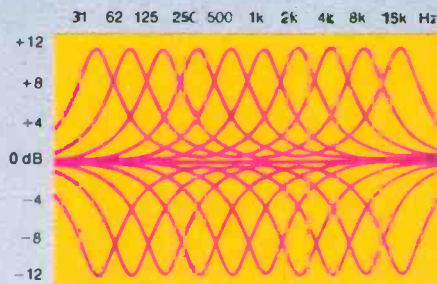
1. Matches your system to any room.

Some rooms are acoustically "dead" due to thick carpeting and tons of overstuffed furniture. Some are acoustically "live" because of tile floors and hardwood paneing. Either environment will murder your music by altering the sound you hear by 6 decibels or more. Ordinary *broadband* bass and treble controls can't compensate for these imbalances because they alter far too much of the audio spectrum. But the Realistic wide-range equalizer, with 10 *narrow bands* and 10 controls for each channel, gives you total command from 31 to 16,000 Hz. You can add to or subtract from the music by up to 12 dB for a complete, creative control range of 24 dB.

2. Improves records, tapes, FM.

Remove annoying record scratches from old LPs and 78s without removing the music. Just reduce the audio level at 8 and 16

kHz. Rumble is eliminated with the 31 and 62 Hz controls but the bass remains intact. Substandard audio from careless radio stations can be cleaned up by a little re-equalization on your part.



Graphic display of narrow band boost and cut action

Bands: 31, 62, 125, 250, 500, 1000, 2000, 4000, 8000 and 16,000 Hz. Frequency Response: 5 to 50,000 Hz. Tone Control Range: ± 12 dB. THD: .02%, 20-20,000 Hz. Dynamic Range: Up to 10 volts RMS, flat setting. Total Gain: 0 dB, flat setting. Electrical: 120VAC, 15 watts. U.L. listed. Size: 4 $\frac{3}{8}$ x 16 $\frac{3}{4}$ x 10 $\frac{1}{4}$ "

3. Improves your speakers.

Moving a speaker 6" out from a wall can degrade bass response by

8 to 10 dB. But sometimes you have to. This equalizer restores the lost performance. And you can enhance the sound of the best speakers even when they're perfectly placed. Electronic equalization is the only way you can extend the response of a speaker.

4. Makes you a recording pro.

Now you can record professional-sounding tapes without professionally priced equipment. Using a 3-head deck, you can monitor off the tape and adjust the equalizer for the results you want.

5. Low priced.

The efficiencies of engineering and manufacturing this equalizer in our own factory help us to price it lower than any 10-band design of comparable features and quality that we know of. Yet it adds value, versatility and enjoyment to your stereo system, no matter what you paid for it! Can you afford *not* to own this equalizer? Come in and let us demonstrate a little "audio magic!"

Our Innovative \$179.95* Audio Upgrader
Does It All!

Radio Shack®

THE NATIONWIDE SUPERMARKET OF SOUND
*Retail price may vary at individual stores and dealers



Technics direct-drive.
The turntable 73 of the
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Performance and reliability. That's why 73 of the top 100 radio stations that use turntables use Technics direct-drive turntables. In fact, of those stations surveyed by Opinion Research Corporation, Technics was chosen 6 to 1 over our nearest competitor.

Why did station engineers choose Technics direct drive: "Low rumble"—as low as -78 dB. "Fast start"—as fast as 0.7 sec. "Wow and Jitter"—as low as 0.025%. "Direct drive and constant speed"—as constant as 99.998%. Perhaps one engineer said it best when he described Technics direct drive as the "latest state of the art."

But Technics state of the art goes beyond performance.

Station engineers also depend on Technics direct-drive turntables because of "reliability and past experience" as well as "quality and durability." In fact, the most listened to classical music station, WQXR in New York, has depended on Technics direct-drive turntables since 1972.

You'll choose Technics direct-drive turntables for the same performance and reliability that's made Technics the turntable top radio stations use. And there are eleven Technics direct-drive turntables from manuals, to semi-automatics, to fully automatics, to changers. Starting at \$125 to \$600 (Technics suggested retail prices). So listen to Technics and hear the Science of Sound.

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