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About  
High Fidelity

# Audio

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## *Annual Equipment Directory*

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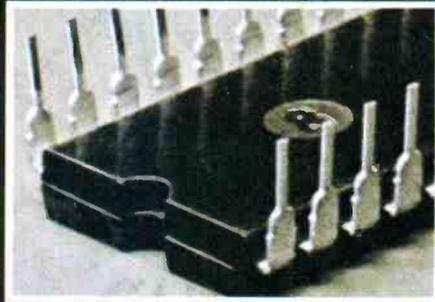


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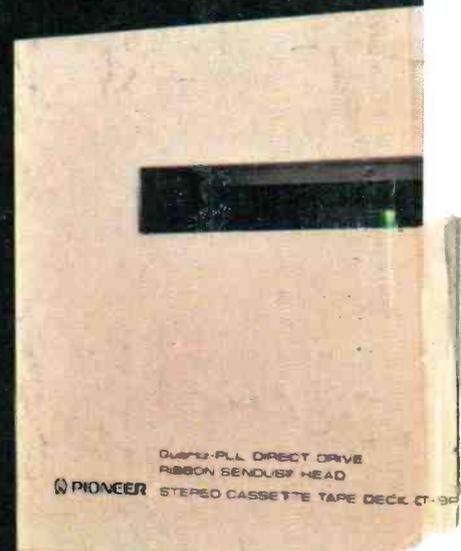
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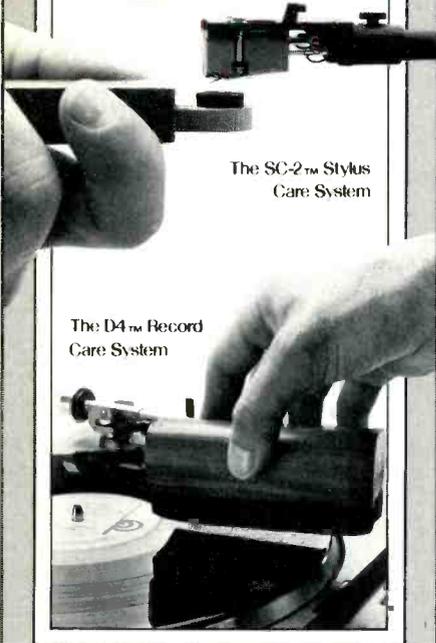
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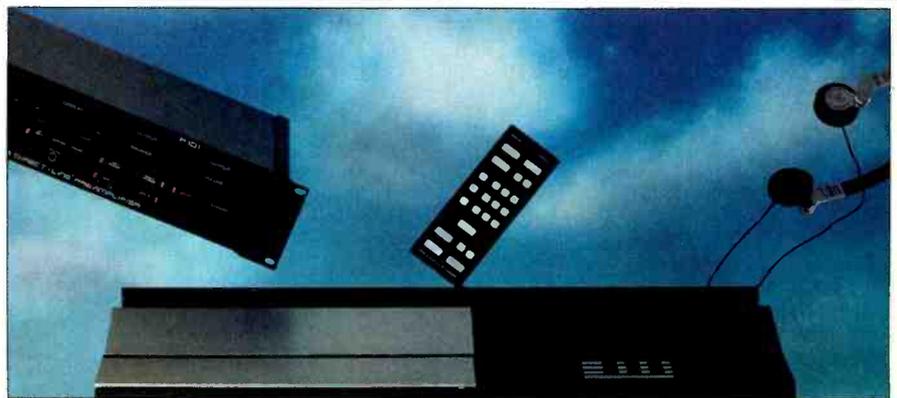
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OCTOBER 1981 VOL. 65, No. 10



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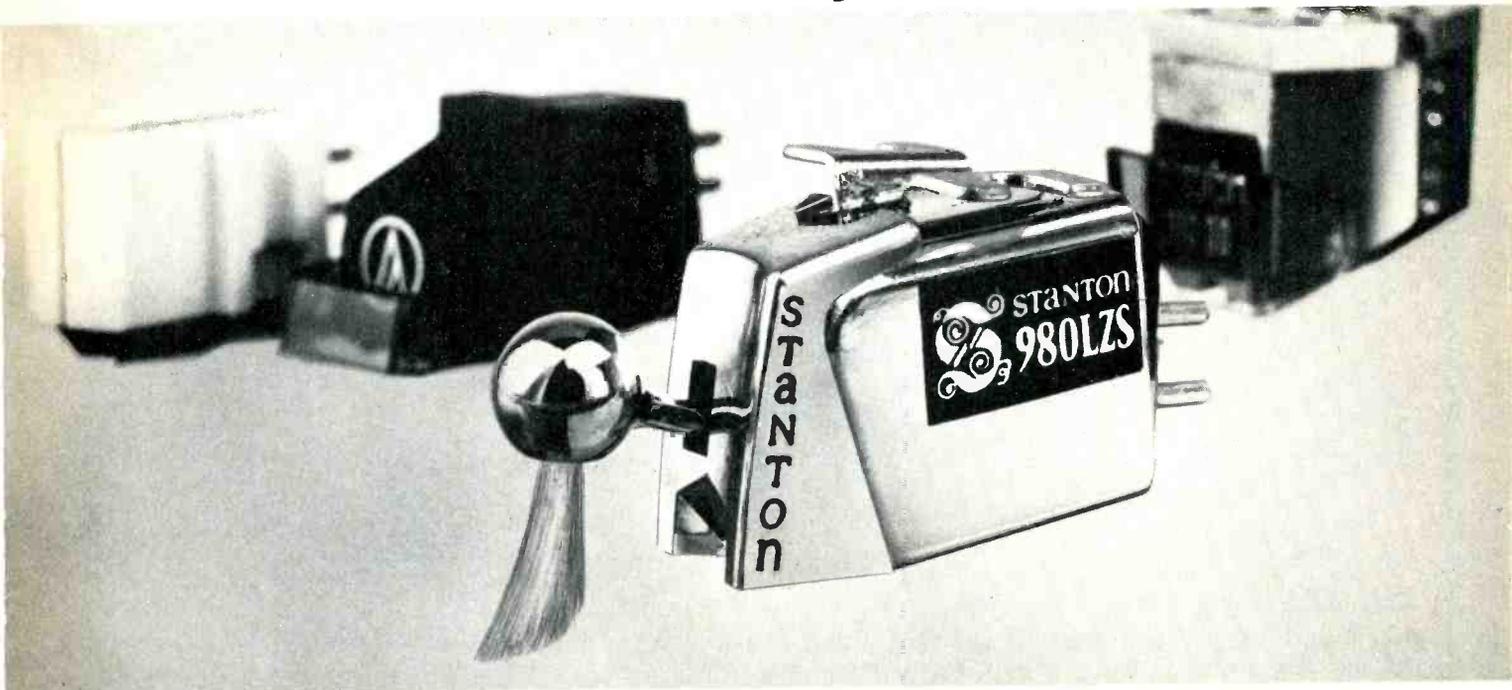
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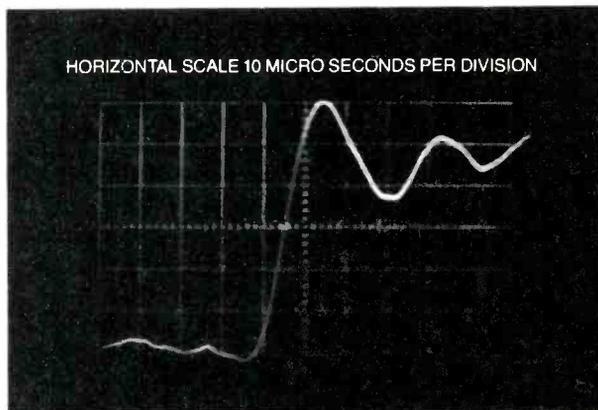
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Actual unretouched oscilloscope photograph showing rise time of 980LZS using CBS STR112 record.

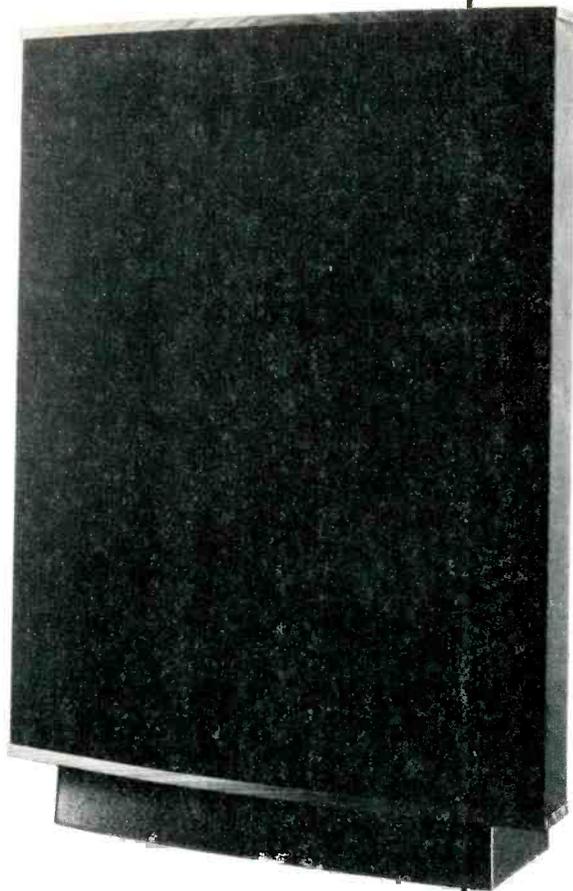


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---

# The "Discrete" Difference in Head Technology

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## Nakamichi Spoken Here.

Let's not kid ourselves. All 3-head recorders are not the same. One perusal of specifications—one audition in the showroom—will establish that! We'd like to explain the difference—the "Discrete" difference—in Nakamichi 3-head technology.

Separate record and playback heads *should* produce wider frequency response with less noise and distortion than a combination head, but all too frequently they don't. Why? Because having separate record and play gaps introduces a new problem—*azimuth misalignment*—that rapidly diminishes high frequency response, destroys phase coherence, and impairs stereo imaging. Most 3-head decks employ "sandwich" heads in which record and playback cores are housed in the same structure. Even with careful quality control, the best that can be achieved is *mechanical* parallelism between the gaps, and, once the head is fabricated, there is no way to adjust one gap with respect to the other. Since mechanical parallelism does *not* insure *magnetic* alignment, it is no wonder that "sandwich" heads fail to live up to their potential.

From the time we created the world's first 3-head cassette recorder in 1973, we have employed special "Discrete Head Technology." Nakamichi heads are *mechanically* as well as magnetically independent so that record and playback gaps can be *magnetically* aligned *after* fabrication. For our best models, we developed a unique *Auto Azimuth Alignment* system to insure perfect alignment on *each and every* cassette despite eccentricities in cassette housings. With Auto Azimuth Alignment, a precision phase comparator detects the misalignment error and activates a servo motor to pivot the record head until the error disappears. Within seconds, perfect azimuth alignment is achieved, and the *full* potential of the cassette system is realized.

The advantages of the Discrete 3-Head system are so important that we offer several recorders featuring this technology *without* the monitoring feature normally associated with a 3-head design. At less cost, these recorders provide the same perfection that our "monitoring" recorders do.

As you can see, there *is* a difference among 3-head recorders. Why not hear that difference now—the "Discrete" difference—at your Nakamichi dealer.



To learn more about Nakamichi's unique technology, write directly to:  
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## THE DL-300 SERIES



**DL-301** To control resonances, the cantilever fulcrum of all Denon MC cartridges is independent of the damping rings. The DL-301 uses two damping rings, each optimized for its portion of the frequency range.

In addition a special magnetic structure eliminates pole pieces, reducing both weight and cost for the best sonic value in MC cartridges.



**DL-303** The first of the DL-300 Series, the DL-303 has repeatedly been judged "best of its class." It features Denon's cross-shaped coil and dual cantilever design and a special tensioning device that maintains ultra-high performance for extended periods.



**DL-305** The ultimate Denon cartridge for 1981. It combines the cross-shaped coil, dual-section cantilever, double damping, special tensioning device, advanced stylus shape and amorphous boron cantilever (for the greatest rigidity-to-mass ratio known to man). The DL-305 is the top of the Denon line and, therefore, the finest cartridge available today.

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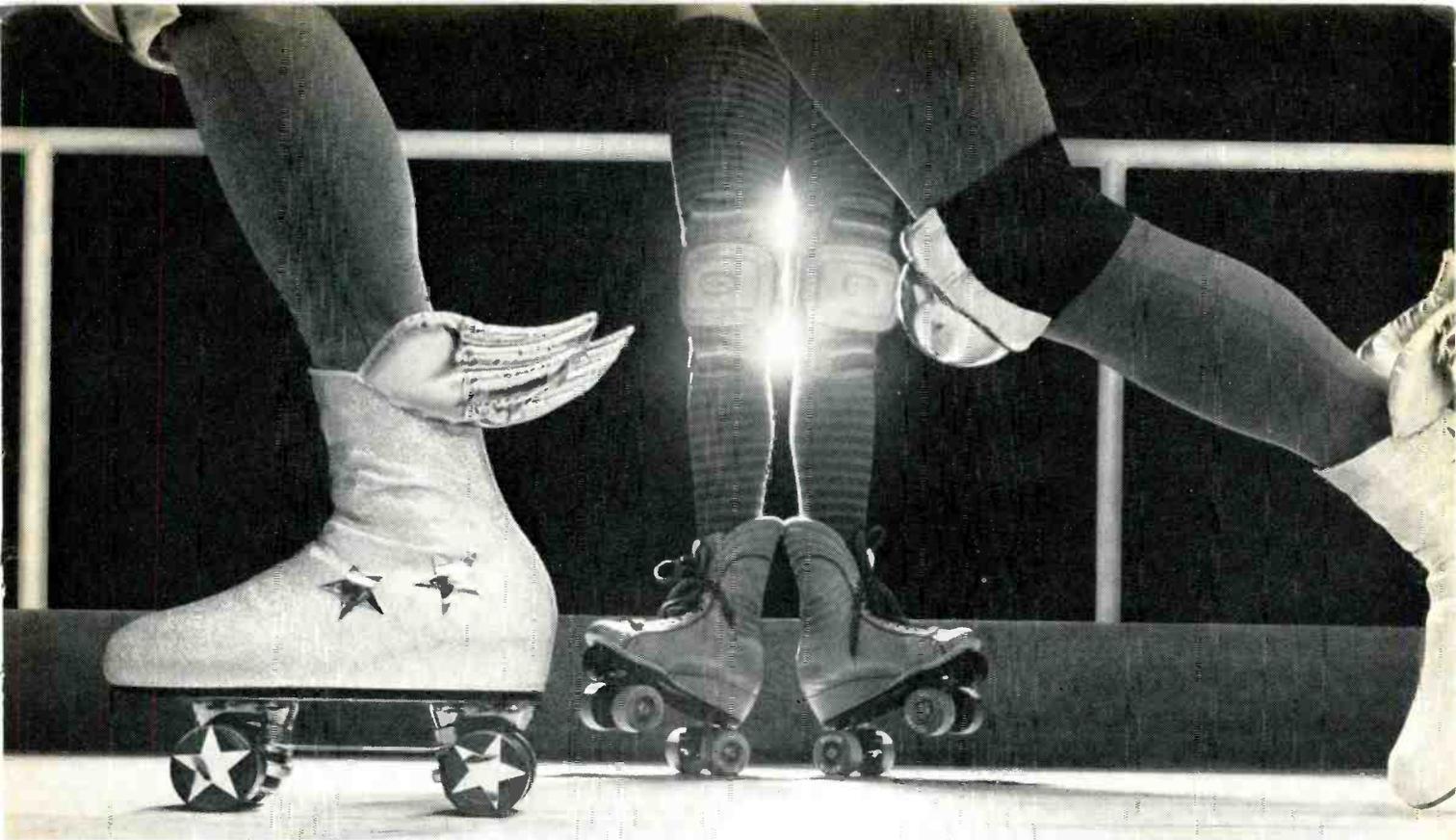
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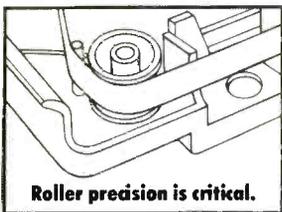


## If you think "pads and rollers" are just a California craze, you're not ready for New Memorex.

Pads and rollers are key components of a cassette's tape transport system.

This system guides the tape past your deck's tape head. It must do so with unerring accuracy.

And no cassette does it more accurately than totally new Memorex.



**Roller precision is critical.**

The new Memorex tape transport system is precision engineered to exacting tolerances.

Flanged, seamless rollers guide the tape effortlessly and exactly. An oversize pad hugs the tape to the tape head with critical pressure: firm enough for precise alignment, gentle enough to

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Our unique ultra-low-friction polyolefin wafers help precision-molded hubs dispense and gather tape silently and uniformly, play after play. Even after 1,000 plays.

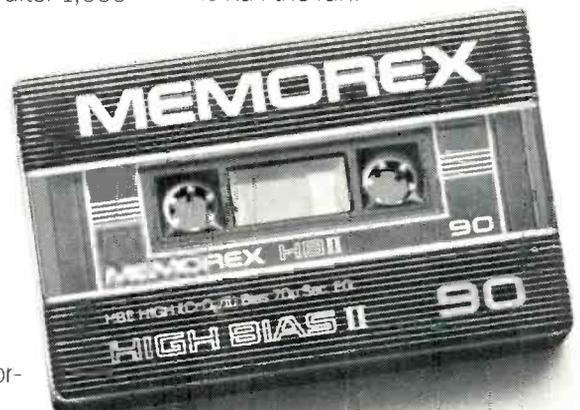
In fact, our new Memorex cassette will always deliver true sound reproduction, or we'll replace it. Free.

Of course, reproduction that true and that enduring owes a lot to Permapass™, our extraordinary new binding process. It even owes a little to our unique new fumble-free storage album.

But when you record on new Memorex, whether it's HIGH BIAS II, normal bias MRX I or

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And remember: getting it there is half the fun.



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This new arm is a 9" version of the Model 3012-R and is suitable for standard decks.

Special features include:

- Thin-walled stainless steel tone arm.
- New design lateral balance system with longitudinal and lateral fine adjustment for cartridges weighing from 1½ - 26 grams, or plug-in heads up to 33½ grams.
- Extra-rigid low mass shell with double draw-in pins.
- Geometry optimised for 12" records.

The 3009-R has a typical effective mass of 12.7 grams and is intended for cartridges requiring a vertical tracking force of 1.5 grams and upwards. It is therefore particularly suitable for the many MC's in this category.

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Full details will be sent on request.



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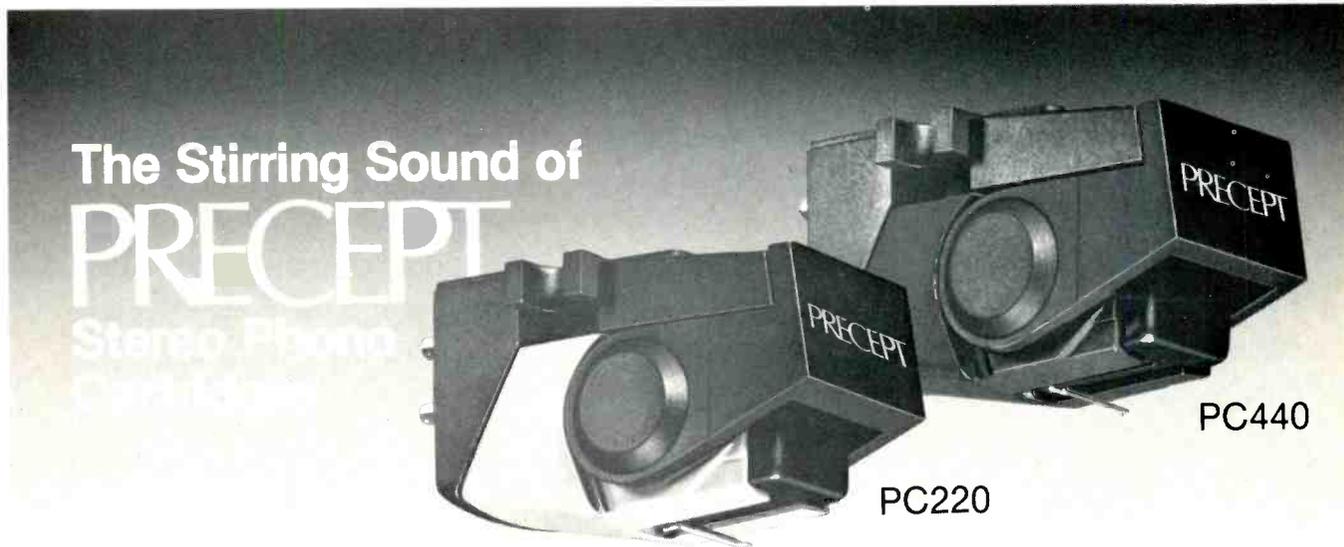
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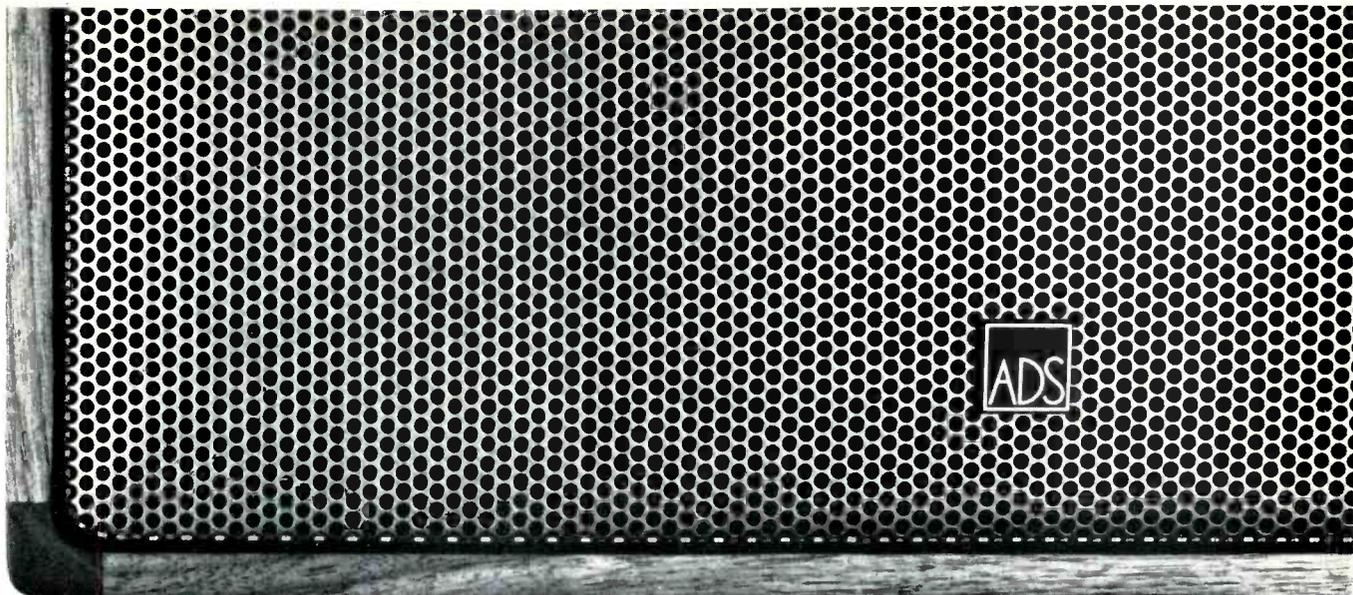
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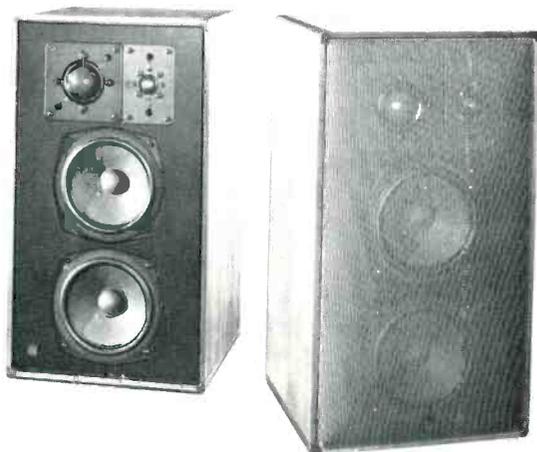
The ADS L710 shares the advanced engineering, design, and manufacturing techniques of the ADS monitor loudspeakers. Both are capable of reproducing with remarkable clarity and focus the added detail that digital recording technology has made possible.

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Hear how ADS speakers earned their reputation for quality and pacesetter performance.



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## Hightailing High End

*Q. My cassette tapes lose much of their high end within six months after recording. The heads are cleaned regularly but unfortunately demagnetized very infrequently. Could this be the reason for the treble loss? —Glen Carrick, Sandy Hook, Conn.*

*A.* In general, tapes tend to lose a bit of their high-end response with repeated playing, although most of the effect occurs during the first few plays; in the case of high-quality tapes, the loss is quite slight. The losses you mention seem more severe than the ones I have just described, and they could very well be due to magnetized tape heads. Some heads apparently become more easily magnetized than others. For example, according to Nakamichi, ferrite heads are more susceptible than other types to becoming magnetized. This seems to be a function not only of use but also of time (i.e. stresses in the head material tend to produce magnetization even when the head isn't used). Hence, in the future, I would urge more frequent demagnetization of the heads.

## Homing in on Dolby

*Q. Which is appropriate for home use, Dolby A or Dolby B noise reduction? —Donnie Andrews, Jr., Brooklyn, N.Y.*

*A.* Dolby A noise reduction is intended for professional use. It divides the audio spectrum into three parts and deals with each part separately. Dolby B noise reduction is intended for home use, is far less expensive than Dolby A circuitry, and deals only with the treble range, where noise is most audible to the human ear.

## Suggestion Vox

*Q. I record old 78-rpm records and am trying to make good tapes from these recordings. May I have your suggestions? —Emmett Smith, Baltimore, Md.*

*A.* Taping at slow speed — no more than 3¾ ips — may provide a useful cutoff of high frequencies, which contain more noise than desired audio signal; this works best with the older tape machines that go out only to about 8,000 or 10,000 Hz at 3¾ ips. You can achieve a sharp cutoff of high frequencies by increasing bias. One of the single-ended noise-reduction devices would serve to filter out noise; these de-

vices reduce high-frequency response only at low signal levels, thus eliminating noise when it is most apparent and affecting highs when they are least audible. Sometimes you will find that an elliptical stylus intended for microgroove records will do a good job on 78s as well.

## Treblesome Swish

*Q. When recording strong plucked bass notes at 3¾ ips, on playback I can hear a swishing noise that accompanies each bass note. If I switch to 7½ ips, the swishing disappears. Why? —Guy Camenisch, Bischwiller, France*

*A.* On a strong plucked bass note, there is an accompanying transient which may be considerably stronger than indicated by your record level meter. This transient is of high frequency and subject to a good deal of boost by the record equalization circuit of your tape deck. Such treble boost is substantially greater at 3¾ ips than at 7½ ips in order to compensate for the more pronounced treble losses which occur in recording at the lower speed. Hence, at 3¾ ips there is more chance of overloading the record electronics, the tape head, the tape, or any combination of these. Have you tried recording at reduced volume? This may eliminate the swishing.

## Compromising Position

*Q. I noticed in Audio's Annual Equipment Directory that the most expensive open-reel tape deck also has virtually the poorest high-end frequency response, namely to only 16 kHz even at 15 ips. Why? —Daniel Temianka, Palos Verdes Estates, Cal.*

*A.* Electronically, the criteria of good performance are extended and flat frequency response, low noise, and low distortion. In designing a tape deck, particularly at the lower speeds (3¾ and 7½ ips), the design engineer has to achieve a compromise among these three aspects of good performance. In other words, an improvement in one aspect often has to be traded off for a deterioration in another. For example, treble response can be extended at the cost of higher noise or higher distortion or both. The designers of the deck in question may have decided to extend response "only" to 16 kHz in order to minimize noise and distortion.

Further, there is the question of de-

livering what one has promised. To make sure that every unit produced will permit no more than, say, a 1.5-dB loss at 16 kHz, a manufacturer must allow a margin of safety. This means that most of its units permit the 1.5-dB loss no earlier than 18 or 20 kHz. Another consideration is to ensure that treble response won't plummet suddenly. If a deck is down 1.5 dB at 16 kHz, it may still be no more than 3 dB down at something like 20 kHz or higher. A responsible manufacturer also allows for factors such as wear of a deck, tapes that don't always deliver their promise, slight gradual misalignment, etc. The company has to keep in mind that you will require response out to at least 16 kHz not only today but also tomorrow. Finally, it is possible that the manufacturer has deliberately decided to cut off response above 16 kHz on the premise that signals above this frequency can do more harm than good. Such harm may be in the form of oscillation, beating with the oscillator frequency, etc. He may have possibly decided that since there is little or no music at these frequencies, there would be no real point in providing response there, except as a demonstration of technical expertise.

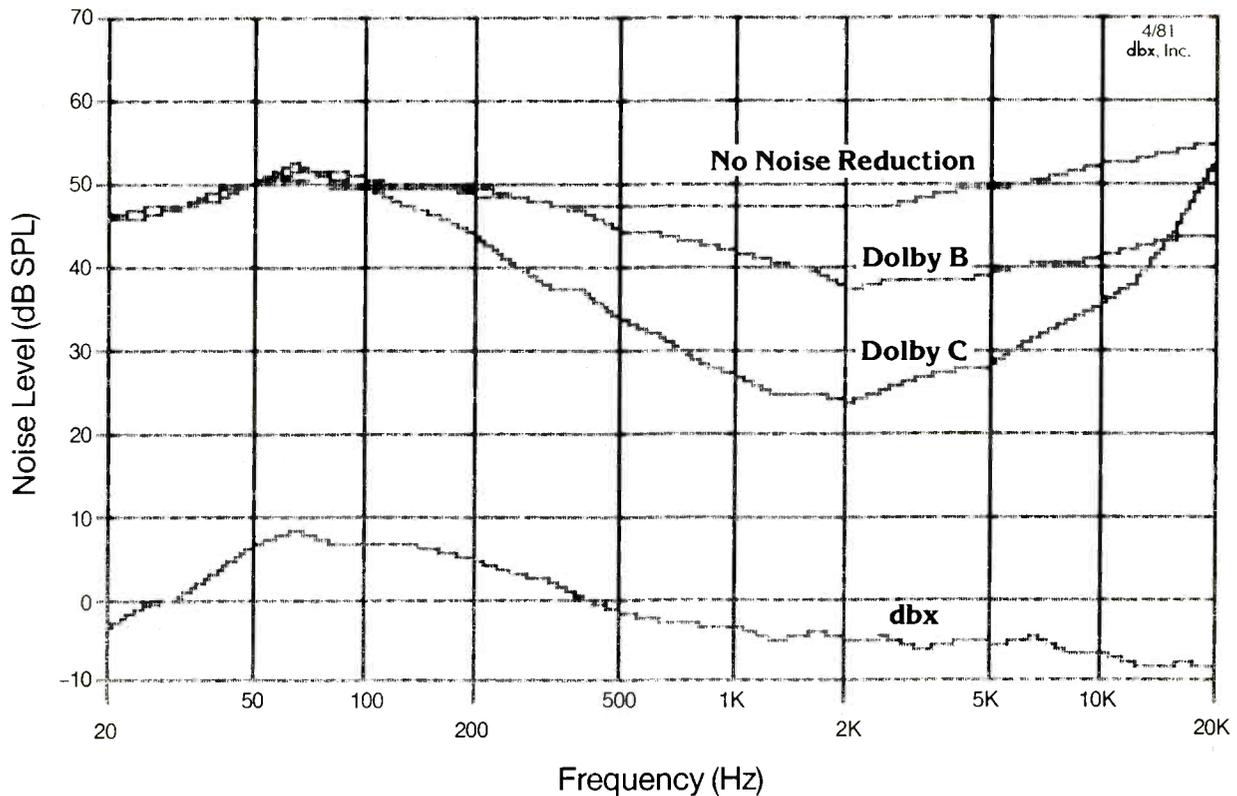
## Mismatched Couples?

*Q. I am contemplating the purchase of a receiver which specifies a tape input impedance of 33 kilohms and a cassette deck which specifies a line input (load) impedance of 50 kilohms. Do these specs rule out coupling these units? —Gustav Mattersdorf, Lakehurst, N.J.*

*A.* I doubt that there is anything significant to worry about. The general rule is that the source impedance (at the output of the unit supplying the audio signal) should be one-tenth or less of the load impedance (at the input to the unit to which the signal is fed) in order to avoid distortion or perceptible alteration of frequency response. The source impedance of most decks is on the order of several hundred ohms, so that in your case the ratio of source/load impedance will be well under one-tenth. Today one rarely finds a serious mismatch. 

**If you have a problem or question on tape recording, write to Mr. Herman Burstein at AUDIO, 1515 Broadway, New York, N.Y. 10036. All letters are answered. Please enclose a stamped, self-addressed envelope.**

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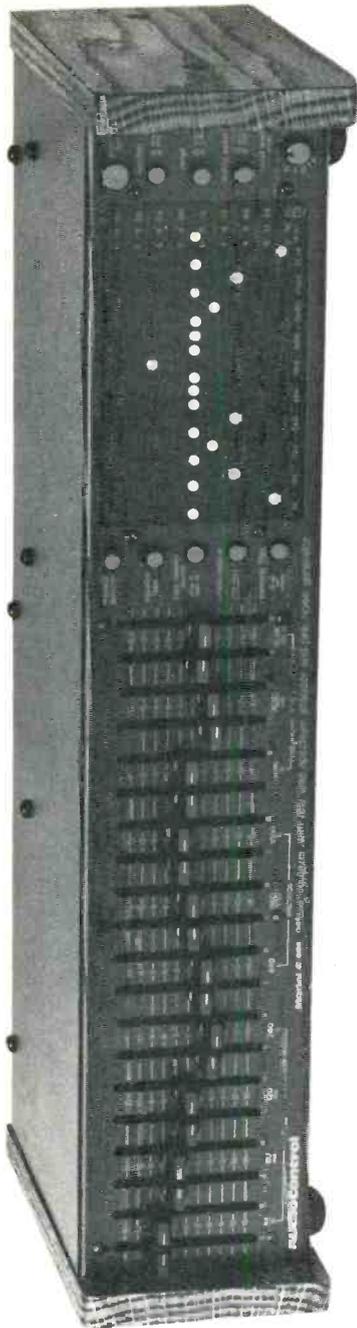
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### His Mastered Voice

*Q. When I was at a record store, I noticed an audiophile release of Bruce Springsteen's album Born to Run. The sticker on it said that it was mastered at one-half speed.*

*I am not knowledgeable about what this means in terms of my ears. (That is why I read Audio and I learn a little bit more every time.) I am really asking two questions: What does being mastered at half speed signify? Would I really need a good, high-quality system to be able to hear the difference? — Eileen Margaret Pelton, Ft. Worth, Tex.*

**A.** Most cutting heads do not "like" high frequencies. They do, however, find bass frequencies no problem to handle. Therefore, some studios have taken to cutting their master discs at one-half playing speed, with the tape recorder and the turntable both running at one-half their proper speed for normal sounding playback. The result during ultimate playback at correct speed is, once again, a perfectly normal sound.

Because the cutting head had an easier time of it at higher frequencies, the transparency is sometimes a bit better than that same disc would have had if the mastering had been done at normal speed. However, the use of the half-speed cutting technique does not necessarily insure a beautiful sounding recording. If the original tape was mediocre, the final product will also be mediocre.

The aural differences are subtle, but, if they can be heard at all, they should produce some improvement when played on even a moderately good sound system.

### Equalizer Lacks Bass

*Q. When I use my equalizer, one channel is fine but the other channel lacks bass. When I disconnect the equalizer, the bass comes back. — Phil Ochino, Jr., Bronx, N.Y.*

**A.** It seems that your loss of bass in one channel is caused by a defective equalizer. To prove this, interchange the wiring of the left and right channels of the equalizer and see if the problem moves over to the opposite channel. If it does, the problem is definitely in the equalizer. It should be serviced (I hope under warranty).

The two most obvious causes of such a condition are either defective inter-stage-coupling capacitors or defective

emitter-bypass capacitors. Poor soldering of the low frequency controls and circuitry could also account for the problem you describe.

### Unheavenly Hash

*Q. I am receiving bad "hash" noise from light dimmers. Noise can be picked up anywhere in our house using a battery-operated good-quality AM radio. This hash is not heard on FM, and the sound of the hash varies as the dimmer setting is changed — C.E. Mervine, Palmyra, Pa.*

**A.** The simplest solution to your problem is to get rid of the dimmer. Such devices are noted for creating exactly the kind of problems you described. While it is sometimes possible to bring about improvement by using rather expensive, complex filters, you might install them and realize little improvement.

There is a device made by GE which can eliminate some "spikes" from the powerline, varistor No. MOV130 LA10. You can write General Electric for more information at 727 Lynnway, Lynn, Mass. 01910.

Another more complex device, working more as a filter than as a peak suppressor, is produced by Corcom, whose address is: 2635 N. Kildare Ave., Chicago, Ill. 60639. These devices are designated as RFI Powerline Filters for low-frequency noise applications.

Devices of the latter kind, especially, must be placed at the source of the interference — the dimmer — if reasonable results are to be obtained. This often means that the installation must be done in the wall on which the dimmer is located, a somewhat troublesome process.

You may find it easier merely to use lighting provided by lamps that accommodate multi-power bulbs, such as 100/200/300 watts, etc. Thus, various light intensities can be achieved without using an SCR dimmer. A "Variac" can be used as a dimmer with the understanding that it is somewhat cumbersome physically. However, it is efficient and will not produce the heat build-up associated with a rheostat. **A**

**If you have a problem or question about audio, write to Mr. Joseph Giovanelli at AUDIO Magazine, 1515 Broadway, New York, N.Y. 10036. All letters are answered. Please enclose a stamped, self-addressed envelope.**

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## A President's Posture On Polypropylene

Dear Editor:

I read with special interest your interview with Mr. von Recklinghausen of KLH in the February issue.

I would like to amplify some facts concerning the introduction of polypropylene driver technology which may be of particular interest to your readers.

The use of polypropylene for loudspeaker diaphragms was patented by my colleagues and myself in 1976. Twelve patents have been granted worldwide, including the United States (U.S. Patent #4,190,746) and Great Britain, and applications are in progress in a further 13 countries. It is felt by many acoustic engineers and that select group of "golden-ears," the mixdown staff in the BBC, that this technology represents a major advance in the state of the art.

Mr. von Recklinghausen of KLH and the engineers at Infinity and Peerless must be congratulated on their foresight in so wholeheartedly embracing this new technology, especially in a world confined by the traditional, conservative approach to audio. It is sanguine to note that by far the most dominant cone material used today is still paper (as described in the 1926 patent of Rice and Kellogg).

Most of the engineering fraternity would agree that a practical new cone technology is long overdue, and that polypropylene has an outstanding cost/sound quality/ease of manufacture performance which shows signs of revolutionizing the future of moving-coil transducers.

Thank you for such a stimulating article on the problems of designing loudspeakers as expressed by Mr. von Recklinghausen.

David W. Stebbings  
President  
KM Laboratories, Inc.  
New York, N.Y.

## Going to the Source for "Stare"

Dear Editor:

As another Ken Nordine fanatic, I highly commend Michael Tearson's review of *Stare with Your Ears*. I haven't heard it yet, but I'm sure it's amazing.

When I had no luck finding it around here, I called Snail Records in Chicago. After asking the receptionist many ques-

tions, she offered to put Ken on the phone since he was right there. I was awed — it was *the voice* on the phone! This was perhaps better than meeting him in person.

Anyway, he commented that Snail's distribution is very small. Therefore, I thought you might want to print Snail's address so that readers can mail-order the album. Send \$7.00 for the album to: Snail Records, 6106 North Kenmore, Chicago, Ill. 60660.

Fred Dalrymple  
Princeton, N.J.

## Leach Pre-Preamp Update

Dear Editor:

The pre-preamp construction project I presented in *Audio's* February 1978 issue can be updated by changing R1 to 39 ohms, R2 and R5 to 5.1 kilohms each, R3 and R4 to 15 kilohms each, C1 to a 0.1- $\mu$ F polyester cap, C3 and C4 to 100-pF silver mica or polystyrene caps, and C2 and C5 to 220- $\mu$ F, 10-V electrolytic caps. In addition, two 150-ohm resistors should be added — one in series with the emitter of Q1 and one in series with the emitter of Q2. (The emitter leads have the arrow.) Finally, C8 should be omitted. For minimum hum, the signal ground for each channel should be kept isolated from the other channel and from chassis ground. The input impedance is calculated as R1 in parallel with 133.5 ohms. With R1 = 39 ohms, it is 30 ohms. The value of R1 can be changed to change the input impedance if desired.

W. Marshall Leach, Jr.  
Atlanta, Ga.

## Super Featherweights

Dear Editor:

I've just received my May issue of *Audio Magazine*, and, to my delight, found an article on "The New Featherweight Headphones." Having seen various lightweight headphones in *Audio* and other hi-fi magazines, as well as various reviews on them, I don't remember ever coming across one with separate left and right volume controls.

It would seem to me that such controls could be added without adding significantly to the price or the weight of such headphones. I hope some of the top brass of the audio companies read this and keep the idea in mind, as I'm sure that others besides myself would

find these new lightweight phones even more attractive with the added convenience of volume controls.

Dwight Gaines  
Cleveland, Ohio

## Missing "Data"

Dear Editor:

A few months ago I saw the column "All That Data." The explanations were excellent and immensely improved my enjoyment of your magazine. Previously I understood parts of what you were saying but not all. My belief is that I and many amateur audio buffs would be thrilled if there was a whole special issue of "All That Data," separate from your regular monthly issues, available to subscribers.

The latest issues have not included the "All That Data" column. I would really appreciate knowing what has happened to it.

Michael D. Laganella, M.A.  
Cinnaminson, N.J.

*The Editor Replies:* The reason we haven't published more "All That Data" columns is that Mr. Laganella's letter is the sum total of the response we've received. We will continue it if readers want it, but so far it appears that other materials should be featured.

## Addenda: Pioneer F-9 Tuner

Some important test results were omitted from our August 1981 review of Pioneer's F-9 tuner, and we present them here. The IHF mono sensitivity was 11.2 dBf (2.0  $\mu$ V), stereo sensitivity 25 dBf (9.8  $\mu$ V), the 50-dB quieting in mono was 15 dBf (3.0  $\mu$ V), the 50-dB quieting in stereo was 35.6 dBf (33.0  $\mu$ V), and, finally, the capture ratio was 1.0 dB in the narrow i.f. position and 2.7 dB in the wide position. We apologize to our readers for this oversight and thank Mr. Robert Moore of Atlanta, Ga., for calling it to our attention.

## Erratum:

### How Impedant, Two

A typo was smuggled by a Maxwell's Demon into the item entitled "How Impedant of You" in the "Audioclinic" column on page 14 of the May 1981 issue. The impedance of three 8-ohm speakers in parallel is 2.66, rather than 3.66 as was stated in the item; the method of calculation shown further on is correct. Our apologies.

Reprinted from  
**AUDIOPHILE NEWSLETTER**

AN IRREGULAR NEWSLETTER

NUMBER 16

6/81

### LINN KANS (\$625 per pair)

The KANS are LS 3/5a sized mini-monitors and constitute the first level of entry into high performance speakers. The final assembly of the robust boxes is made in Linn's in-house manufacturing plant. This company understands that the baffleboard, box, and mechanical frame of the driver constitute a mechanical ground, quite analogous to the electrical ground of audio circuits, against which the cone vibrates in its elaborate pattern. The techniques of box construction, legendary in the Isobariks, are utilized here with huge success, seemingly more impressive in relation to the diminutive size of the speaker. They accept standard dual banana plugs for convenience.

At the Summer CES these boxes were demonstrated with a Naim 160 amp in a medium sized room with such impact that the press and seasoned dealers were awe-struck by the sheer volume of pure sound. The Kans, by design, are inefficient and can take amplifier powers of up to 150 watts per side, sounding bigger and bigger; but, whereas other speakers dissipate the electrical energy into heat, negating the advantages of large amps, these speakers convert the electrical energy into SPL and INSTANTANEOUS DYNAMIC PEAKS. There is no fear of damage with typical American audiophile power amps, and indeed, more damage may result to the tweeter from the clipping of small amps than from the use of large amps. The impedance is very flat, never falling below 6 ohms, and does not stress lesser quality amps or receivers into the bane of higher amperage production, which they should be able to produce but typically cannot. Mid-bass hump, frequently employed to provide an illusion of deep bass, is absent, and the woofer, a KEF B110, exhibits no offensive deep bass resonance. Certainly, for a given white noise input, the deep bass response exhibits increasing distortion and gradually falling level as dictated by theory; however, Linn's recommendation of placement of the boxes against the back wall forces the bass radiation into 180 degrees of space and subjectively improves the low end weight ratio to the mids and highs.

"More information retrieval and detail" is the casual response of the listeners, and naively they try to relate this to frequency band-width. This phenomenon is not directly related to HF response but to dynamic range yet to be discovered in any other speaker line. The Kans were compared to medium sized speakers with 6" to 12" woofers and exotic tweeters, and in every instance, the dynamic range of the Linns produced "more

bass music." Side-by-side with floor standing monitors, they paled the comparison overall, and performance held up well into the bass frequencies.

It would seem probable that the Kans would most frequently be sold with Naim 110 amps, and this combination is excellent. We have used Haflers with excellent results, and the superb Naim 250, the latter combination seemingly improbable — a \$2,250 amp with a \$625 pair of speakers. At identical power inputs the Isobariks, at a premium of \$3,115 over the Kans, are more efficient in producing SPL of the same quality sound. The rationale is that, beyond a certain watt size, amps cannot maintain cleanliness, and a larger, more efficient box is necessary. A good receiver is quite acceptable in this application but beware that most receivers have so many problems of time smearing, inadequate power supplies, and interaction that the potential of these little boxes will never be realized. The over-riding concern should be, as always, clean power.

The embodiment of Linn philosophy and production technique has yielded the first true mini-monitor speakers that provide a generous slice of the sound of the Isobarik. The Kans are truly universal, nearly indestructible, reference audio components which do not require finicky consideration of "mating components" or constitute unusual parameters.

They have a sufficient band-width with incredible dynamic range to evaluate other components' value; each future improvement of upstream components does not necessitate speaker replacement. All sound parameters are balanced: they are classical music reproducers, and rock music reproducers, and folk music reproducers. All other boxes of LS 3/5a size with pretense of mini-monitoring capability sound like FM radio while playing discs, a fault of such compound dimensions that it would take a treatise on speaker design to explain. This product is priced to be the biggest bargain in the Linn product line and the low priced speaker field. Linn, once only a turntable manufacturer, has propelled itself to the fore-front of speaker manufacturer for the folk.

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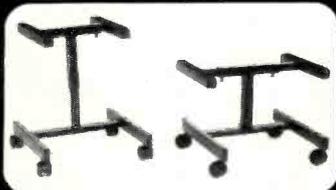
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## TOP OF THE PILE

**Mendelssohn: Rondo Capriccioso, Op. 14; Schuman: Sonata in G minor, Op. 22; Schubert: Fantasy in C major ("Wanderer").** David Bar-Illan, piano.  
**In-Sync Labs C-4061** (2211 Broadway, New York, N.Y. 10024), stereo cassette, \$14.98.

Performance: A      Recording: A+  
Processing: A

This cassette affords an interesting comparison in that the three selections were recorded in two separate sessions, almost a year apart, by two different engineers with differing equipment. The Mendelssohn was engineered by Marc Aubort using Schoeps microphones and a highly modified Ampex with all-tube electronics in a small midtown church in New York in April, 1980. The Schuman/Schubert was engineered by Ray Rayburn using all-solid-state Studer equipment and AKG 451 mikes in the General Theological Seminary in downtown New York. In both cases Dolby A noise-reduction equipment was used. The astounding item here is the similarity of piano sound. While there are differences audible, I would wager most are the effects of the rooms in which the recordings were made and only minutely so due to the different equipment and engineers. This is a good example of how much an expert and knowledgeable producer can affect the final product.

The bass, once more, is realistically solid, and the lower octaves are sonorous and perfectly balanced. Unfortunately, there is a little pre-echo at the beginning of the Mendelssohn which mars this otherwise splendid cassette. The sonic rendition of the piano is, however, life-like and faithful to the environment in which it was recorded. There is no wandering of the piano's image during fortissimos and, more specifically, in the Schubert "Wanderer" the dynamics of the piano are so realistically rendered as to raise the hair on the back of the neck.

David Bar-Illan, an Israeli pianist and teacher residing in New York, deserves greater exposure than he's received. Here he delivers very exact performances that verge on the superb and often transcend into it. In the Schubert especially, he executes a musical performance that is both hard to fault and as exciting as possible — all this with ex-

quisite musical taste. A great piano recording of a great pianist.

C. Victor Campos

**Telemann: Suite in G minor, Sonata in B major, Partita II in G Major, Sonata in G minor.** Paul Dombrecht, oboe; Wieland Kuijken, cello; Robert Kohnen, harps.

**Accent ACC 8013** (dist. by Audio Source, 1185 Chess Dr., Foster City, Calif. 94404), stereo disc, \$11.98.

Performance: B+      Recording: B+  
Surfaces: A

If you'd like to take a trip in a time machine and hear what this music must have sounded like to its composer, just listen to this record on state-of-the-art equipment. The instruments are, but for one, authentic baroque instruments, an Andrea Amati violoncello dating to 1570 and a J.C. Dulcken harpsichord from 1720. The exception, the hautbois (oboe), is a copy made by one of the producers of this record from an original Stanesby dated at 1720. These musicians are very good at ornamentation, which was the norm for that period, and their performances are very precise — in the manner of musicians well versed in their music and very familiar with their instruments. (As a matter of interest, the B major Sonata is believed to be the last published musical composition of Georg Philipp Telemann.)

These musical selections were written for amateur, apprentice and virtuoso alike and provided the advanced musician plenty of opportunity to embellish through ornamentation and other devices. They are very melodic in character and joyful enough to lift spirits to an almost incredible degree. This is perfect music for early weekday morning listening or to greet the beginning of a beautiful Sunday morning.

The recording is very good, conveying a close pickup, but with a reasonable amount of the hall ambience still present. The instrumental balance is excellent, and since the baroque instruments themselves are not capable of large dynamics, the recording technique aims at providing a very realistic and pleasurable representation of the performances. Highly recommended for anyone with even the slightest interest or love of baroque music. Recorded in the Royal

# Bob Carver tells you (briefly) how Sonic Holography works. (Others tell you how it sounds.)



**Q.** Exactly what is Sonic Holography?

**A.** It's a term I use to point up the similarity of the sonic illusion that enables one to hear a stereo recording in three dimensions, and the optical holographic illusion that allows one to see a flat photograph in three dimensions.

**Q.** What does Sonic Holography sound like?

**A.** I'll let others answer that for me. Hal Rodgers, Senior Editor of Popular Electronics: "When the lights were turned out we could almost have sworn that we were in the presence of a real live orchestra."

Julian Hirsch of Hirsch-Houck Labs: "The effect strains credibility—had I not experienced it, I probably would not believe it... the 'miracle' is that it uses only the two normal front speakers."

Larry Klein, Technical Director of Stereo Review: "...it brings the listener substantially closer to that elusive sonic illusion of being in the presence of a live performance."

And High Fidelity put it this way: "...seems to open a curtain and reveal a deployment of musical forces extending behind, between and beyond the speakers... terrific."

**Q.** How many speakers are needed for Sonic Holography?

**A.** Just your usual two. But for optimum Sonic Holography, the speakers *must* be equidistant from the listening position, and somewhat closer together than is usually required for stereo.

**Q.** What do I hear when I'm not in the middle?

**A.** We'll let Julian Hirsch describe what he heard: "still noticeably better than normal stereo, particularly in respect to a greater sense of 'warmth' such as is experienced in a concert hall."

**Q.** How does Sonic Holography differ from stereo reproduction?

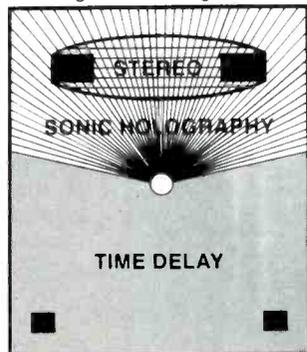
**A.** Very significantly. Simply put, in a live performance, each instrument is a source of sound that reaches your ears as two sound arrivals—one for each ear.

The difference in strength and arrival times at each ear provides the primary cues that your brain uses to localize and create all the sonic images.

In stereo reproduction, *four* sound arrivals produced by each instrument reach your ears—two arrivals from each speaker for each ear.

That's precisely two too many for accuracy. And that's why directionality in stereo is limited by the positions of the speakers.

Sonic Holography eliminates those unwanted extra arrivals by carefully calculated and controlled electronic techniques, including complex cross-fed interference signals. These signals combine in space with the primary signals, creating sonic images outside



and beyond the boundaries of the two speakers.

There is a clear sense of the acoustic space, and the spatial information (phase and timing) of the original performance is deployed naturally over a broad, deep arc in front of you.

That's why Larry Klein described Sonic Holography in Stereo Review as producing "a far more plausible

sonic illusion of space and localization than is produced by normal stereo."

**Q.** Isn't Sonic Holography something like time delay?

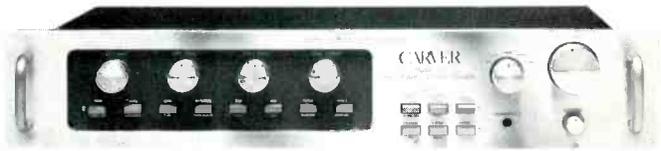
**A.** Not at all. The goal of time delay is to recreate only the spatial *ambience* of the original recording environment. And to do that it requires additional amplifiers and rear speakers.

**Q.** How can I add Sonic Holography to my system?

**A.** Three different ways.



**The C-4000** Control Console includes the Sonic Hologram Generator plus: a full-function stereo preamplifier, a time-delay system with built-in 40 watt (total) power amplifier for time delay speakers, the Autocorrelator system that reduces noise up to 8 dB with any source material, and a peak limiter/downward expander that nearly doubles dynamic range.



**The C-1** combines the Sonic Hologram Generator with a full-function preamplifier.



**The C-9** Sonic Hologram Generator allows you to add Sonic Holography to any system, including one with a receiver.

**Q.** How can I get more information?

**A.** Easily. Just write to us.

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Chapel of l'Eglise Protestante de Bruxelles in February, 1980.

C Victor Campos

**The Digital Sounds of English Handbells.** With the Martin Ringers (Rockford, Illinois). Richard Litterst, Dir. **Golden Crest CRDG 4196**, digital, stereo, \$8.98.

Sound: A Recording: A Surfaces: A-

This is an unexpectedly delightful and musical specialty disc, far more interesting than you might expect for such a recherché kind of sound. And Golden

Crest, its digital promoter, has picked me up on my recent prophecy that digital and "audiophile" would eventually integrate with ordinary or standard records: The Golden Crest digitals sell at the same price as the regular analog items. How's that for progress!

English handbells are quite different from those marvelously jangling peels of big church bells that you can hear in England when the bell-ringer teams get to work up in their towers. These are hand-held, high-pitched and more closely related to the carillon, which plays tunes and harmonies. Also, remarkably, to the old-fashioned music box — but

these are people playing, not a machine. Plenty of school children here in the U.S. play in bell-ringing teams but few are really advanced, like these, where older players have also joined in. The bells are divided up, so that tunes and harmonies bounce along from one person to another. This takes high precision and teamwork, which is part of the fascination.

But what is lovely here is the sheer musical intensity which Richard Litterst, the single-minded director, has managed to instill into his performing team. They not only play "as one," fluently and easily — they play with feeling and style, and the arrangements for bells of various non-bell works are excellent and, again, played with real understanding. The side 1 classical material ranges surprisingly through Mozart, Beethoven, Handel, Brahms, even Debussy, all excellent. Side 2, semi-pop, gets into Leroy Anderson and such, but no less musically. The digital sound of it all is sharp and clear as a bell. E.T.C.

**Schubert-Liszt: Die Forelle; Erlkonig; Auf dem Wasser zu Singen; Du bist die Ruh; Hark, hark the Lark (Standchen); Wohin?; Fruhlingsglaube; Gretchen am Spinnrade.** Antonio Barbosa, piano. Producer, E. Alan Silver; engineering, Ray A. Rayburn.

**In Sync Labs C 4058** (2211 Broadway, New York, N.Y. 10024), cassette, \$14.98.

Recording: A+ Processing: A+  
Performance: A

This Steinway piano is not quite as exciting sonically as the Baldwin SD-10 — a factor clearly brought out by the magnificent recording. Nevertheless, the Steinway does have a rock-bottom low end of spine-tingling solidity (witness the left-hand playing). This particular recording was made in May 1979 with Studer and Dolby A equipment but only two AKG omni microphones — and the locale was the General Theological Seminary in downtown New York rather than the midtown church used for other In Sync sessions.

Antonio Barbosa has had a long recording career, primarily for the Connoisseur Society. His records show him to be a pianist of remarkable musicianship, and on this cassette he turns out some beautiful interpretations. "Erlkonig" is simply marvelous with incredible musical command and pianistic control; "Auf dem Wasser zu Singen" is gorgeously turned out with loving care, and just listen to the "Ave Maria!"

This is a very desirable cassette for anyone truly loving the piano and/or with equipment fine enough to reveal all the subtleties and power contained here.

C. Victor Campos



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**John Corigliano: Concerto for Clarinet and Orch. Barber: Third Essay for Orch.** Stanley Drucker, cl., New York Philharmonic, Mehta.  
**New World NW 309**, stereo, \$8.95.

Fantastic record! It was a real sleeper for me, arriving as a test pressing last autumn, reaching me when I was ill and could not play it, finally landing on my turntable many months later. Wow! This is a brilliant concerto and, surely, a major work of the present time, conservative in that it is written, like Bartok or Hindemith or Stravinsky, for "conventional" symphony orchestra, wildly radical in the extraordinary sounds it evokes from that orchestra and, especially, from the clarinet. Unbelievable! Benny Goodman should listen (he played Bartok with Bartok himself) — but could he manage this amazing music?

If I am right (no annotations with the test pressing), John Corigliano is son of a fiddler who was concertmaster of the Philharmonic in New York and thus is very familiar with the ins and outs of the big ensemble. He writes superbly for orchestra and for clarinet, in a style that is, shall I say, neo-Bartok, very much influenced by that composer's works but in a manner wholly of today, a half century later. If you like the well-known Bartok Concerto for Orchestra, you will find yourself quickly at home in this piece, which is similarly expansive, imaginative and easy in the listening.

Such astonishing clarinet figurations, full of high-speed chortles and whoops, dashing madly all over the spectrum, stressing ultra-high notes that are absolutely piercing, screaming, of the like I have never heard before except once in a while in jazz. Such a marvelous apt and cooperative orchestra, also full of astonishing sounds! Yet the piece is indeed conservative, following concerto tradition with an opening slow segment followed by allegro, a marvelously sustained slow movement, and a last movement of prodigious force that ends in a percussion wham-bang such as you will not hear anywhere else. Best of all is the keen sense of rhythm and tempo, the very fast, the long, sustained slow . . . I have listened to this piece four times through, at the expense of 50 other records; that's what I think of it.

Can't tell all from a test pressing, and this one had scratches and ticks near the beginning. But I'd judge that the finished release should be excellent in the surfaces and very fine in the hi-fi sound. The performance is totally dedicated, the very best of the Philharmonic.

How do these "small companies" get hold of the big outfits' property like this? The Philharmonic has been at CBS exclusively for ever and ever. I can only say that CBS will have to work hard to match this disc.

**A. Scarlatti: St. Cecilia Mass (1720).** Harwood, Eathorne, Cable, Evans, Keyte, Choir of St. John's College, Cambridge, Wren Orch., Guest.  
**Argo ZRG 903**, stereo, \$9.98.

Sound: A- Recording: B- Surface: A-

Domenico Scarlatti, born the same year as Bach and Handel (1685), is the better known of the Scarlattis today for his hundreds of little Spanish-flavored harpsichord sonatas. But his father Alessandro, who composed this Mass, was famous in his time as one of the founders of the mature classic Italian opera style; he was primarily a vocal and dramatic composer. This big Mass is composed in the prevailing big, semi-operatic style of high Baroque church music, with a brace of soloists, orchestra and chorus. It's one of those big "oratorio" pieces, like the newly circulated works of Vivaldi, solid and heavy with all the traditional brilliance of the Italian manner.

No, it isn't as meaty as Bach. It isn't

intended to be. This is Italy! Easy opulence was the idea, music that was brilliant and impressive as well as entertaining in a relaxed fashion, church or no church. Obviously, you settled down for a long, comfortable listen when you went to hear this Mass in the original. That's what you have on records too.

The performance is dynamic, especially the very lively chorus (with boys' voices) interjecting its comments into the solos, and has a very competent orchestra. But things go too slowly and the reason is fairly clear—the solo parts. These are typical modern oratorio singers and they tend towards operatic pomposness; they can do no more than feign grotesquely at the fancy running parts they're supposed to sing. Wrong voices! But do no fear; this is merely normal for oratorio today and these are good musicians, even if they can't quite sing the notes. But with lighter, fleetier, more accurate soloists the whole thing could have taken on the greater brilliance that both chorus and orchestra are obviously ready to provide.

D—— it, those soloists are too loud and too close! Why do they have to record them in this conventional fashion, a few feet from your nose and louder than the whole chorus en masse? It puts them at an even worse disadvantage, and disturbs the musical sense. Some day, we'll get away from this dreadfully old-fashioned technique. Maybe the answer will come with the new PZM microphones, which are said to give better definition at a distance . . . Nevertheless, the performance comes through wonderfully in spite of these problems. Music conquers all.

**Miles Anderson Plays His Slide Trombone Again.** With Virko Baley, pf., The L.A. Slide Trombone Ensemble.  
**Crystal 90065**, stereo, \$7.98.

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

On the cover, a cherubic face with a big gnome's smile beams out of an enormous beard, past a gleaming trombone; on one side a discreet bottle of wine, open, with glass handy, looks inviting. To a good extent that's the atmosphere of this very professional trombone record — though not all of the music, which is entirely French contemporary, is that relaxed. Even so, it goes to prove that a seemingly specialized recording of this

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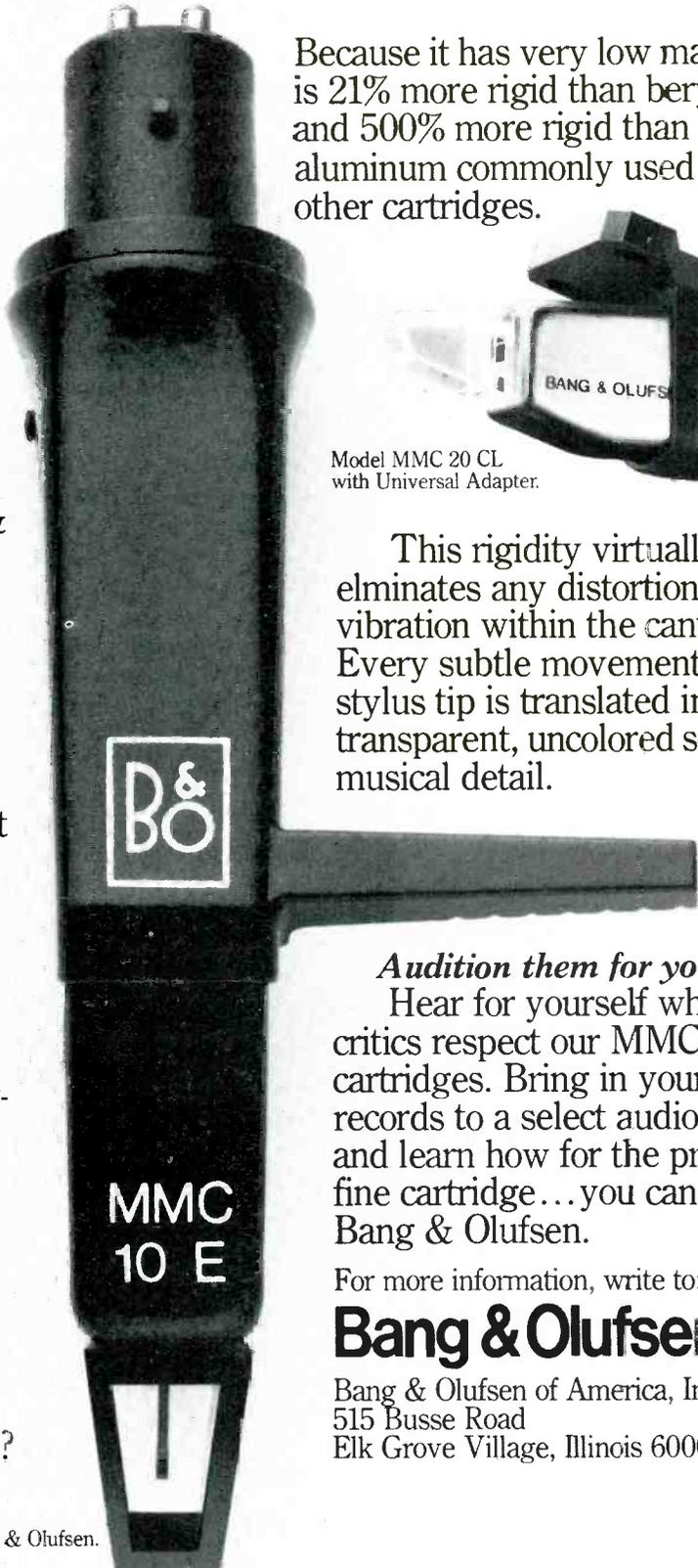
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sort can still be interesting to us, on the outside, if done with humor, imagination, intelligence and so on. Crystal has been good at this, as I've said before, and Crystal's fi and recording technique remain excellent on anybody's scale.

Side one should really send you. It opens modestly with Carlos Salzedo, a once-famous French harpist of the last generation, here writing for trombone in a rather conventional late-late Romantic style, all flowers and perfume. It does sound sort of harpy, come to think of it. Luckily, it's short, seven minutes or so; now (says Anderson) we'll show you what this instrument can do. Wow! "Impulsions" by Charles Chaynes (in his late

50s) is a real saucy bit, the two slow movements full of stunts. The man has to sing through his trombone as well as play, and even, at one point, give a gusty sigh through its pipes — the two fast movements violently dynamic in a neo-classic manner, enough to knock you off your feet. (No, this is *not* for background listening.) Two short "Dances" by another Frenchman, Jean-Michel Defaye, jolt again but in the other direction: This man (you'll know instantly) has done film music and the like. Very smooth, and with Miles Anderson's help he manages to make the trombone sound like a tenor sax.

Side two may please trombonists but

not necessarily me and you — it is the quintessence of conservatory writing, French style. Two more French composers, very much champions of professionalism, show their colleagues how good they are. You might call these "engineering papers" in music. Jacques Casterede really rubs me the wrong way, at length — such a self-consciously studied melange of anything and everything recent-French, and even a bit of Frenchy Hindemith and Stravinsky! The music has it all, but I found it cold as so many flatfish, and not even Miles Anderson could change that.

The last piece, by Roger Boutry, also highly professional, is for four trombones, and maybe less annoying for us out here. It is more limited, relatively short, the slow parts extremely dissonant and the faster segments violently "jazzy" in the approved neoclassical manner of conservatories and music departments these days, but its acrid sounds are interesting.

So — all that for one out-of-the-way LP? That's not all; there's another Miles Anderson, too, if you like this one, and I'd bet on more to come. The LP record, never forget, is a very productive music medium, one of the most versatile ever invented. How else could you get to take all this home with you?

**Mostly Mozart, Volume Four. (Mozart, Sonatas K. 282, K. 310. Beethoven: Bagatelles, Op. 33.)** Alicia de Larrocha, piano.

**London CS 7179**, stereo, \$9.98.

Sound: B+ Recording: B+ Surface: A

**Mozart: Sonatas No. 12, K. 332, No. 13, K. 33.** Malcolm Bilson, fortepiano.

**Nonesuch N-78004**, stereo, \$9.98.

Sound: A- Recording: A- Surface: B

Here is Mozart for the piano, and some Beethoven, in an interesting contrast not only between the instruments themselves — a grand piano and a reconstruction of Mozart's own instrument — but in the corresponding styles of playing of these two excellent artists.

Alicia de Larrocha is Spanish and does the piano music of recent Spain with marvelous instinct — nobody is better. Astonishingly, she can also play the other standard classics, including an unlikely Mozart. Here, she takes the traditional stance of the older generation of Mozart pianists who play on the huge modern grand: A certain delicacy and restraint, which is almost a necessity for Mozart on that instrument. Which is not to say that, on occasion, de Larrocha doesn't let out the big basso sounds, with no harm to Mozart at all. Even so, her approach is the best of recent grand-piano tradition.



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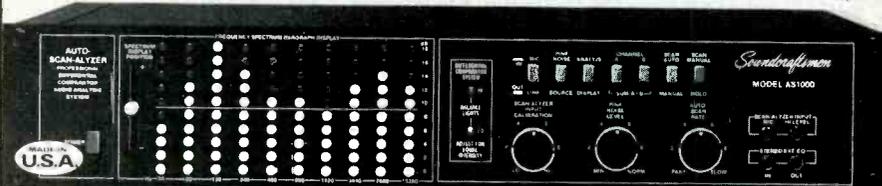
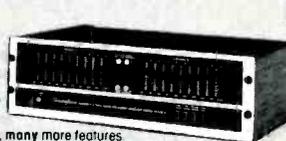
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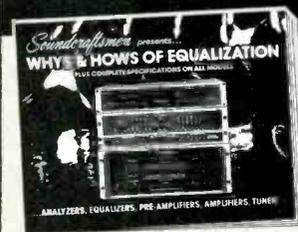
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The fortepiano (pianoforte backwards) is a convenient name for the pre-1800 instrument, roughly through early Beethoven, after which the machinery began to be beefed up for bigger sounds. We've had recordings of numerous restored pianos of Mozart's day; this one is newly built. If you have enjoyed the quaint buzzing and clattering of the actual old pianos, you may find this one at first a bit tame, until you listen further, and think a bit. Did Mozart's instrument actually clatter and buzz and clank? Or is that merely instrumental arthritis of extreme old age, in spite of restoration? Two hundred years!

What you will find here is the brighter,

stronger, less bassy sound of the much smaller instrument, a bit hard in the treble, almost guitar-like in the bass. And, most striking, a seemingly fuller effect, less on the precious, delicate side. This is an acoustic phenomenon. On the big modern grand, Mozart sounds paradoxically small; on the little, more brilliant piano, his music fills out as it should — and on records, of course, volume level is the same; you set it for yourself.

Stylistically, then, the grand-piano pianists are almost forced into a delicacy of a sort, since the music simply will not sound brilliant and full, given the printed notes. But on the old-type fortepiano the same notes come out with full musical

"health." Thus in contrast to the de Laroche (and many others), Bilson plays us a robust, hearty, roast-beef Mozart, not in the least precious or held-back, and this is surely right though it may surprise you at first. Just wait for his climax moments — quite startling.

The grand piano is recorded somewhat "small" in sound by London, perhaps deliberately, within the style. The Bilson fortepiano gets a loud, close recording with a lot of mechanical action and maybe a trace of extra boom in the bass. It's effective. But the level is high and there are too many pre-echos for comfort on my copy. (I suppose we should have a fourth letter to grade the disc-cutting job. . . . or is it tape pre-echo?)

**Van de Vate: Music for Viola, Percussion and Piano. Iannaccone: Trio for Flute, Clarinet & Piano.**  
Orion ORS 80386, stereo, \$8.98.

Sound: A- Recording: A Surfaces: B-

The second of these two composers, an indefatigable publicist for his own music, sent me this disc. Hate to say so, but I was really intrigued instead by the first item, a wild and zany percussion piece by a feminine whirlwind of a musical activist who, by the sound of her brief biography on the jacket, never stops running. Except maybe to compose. Ms. Van de Vate's piece is definitely for the hi-fi fan as well as the adventuresome listener.

The Iannaccone Trio is a model of its type, highly professional, fresh and good hearted, full of a multitude of counterpoints and other expert ingenuities; yet my mind kept wandering. Reminded me, somehow, of Felix Mendelssohn, the happy one, who tended to the same sort of fluency back in the early 1800s. Also reminded me of entirely too many other neo-classic university-based works, still full of the learned "modern" devices and the jagged rhythms of the 1940s. As backing for Ms. Van de Vate, the Trio is certainly not a minus; just a rather pallid plus.

As for the lady, she is an original, all right! Crazy, mixed-up styling, yet consistent too. Strong feeling of the very early 1920s, brash, acrid, noisy, jazzy. Like Prokofiev's early "Age of Gold" music; but she also likes to spring a dim, mystical little melody, like Satie or even Scriabin, then blast it to smithereens with an enormous sonic bomb burst to knock you flat. Flying glass (percussion) in every direction. Also, she writes foot-tapping early-twenties oom-pah marches, excruciatingly dissonant. Not at all learned sounding, as you can imagine, but nevertheless very expertly put together, as of 1976. You'll enjoy.

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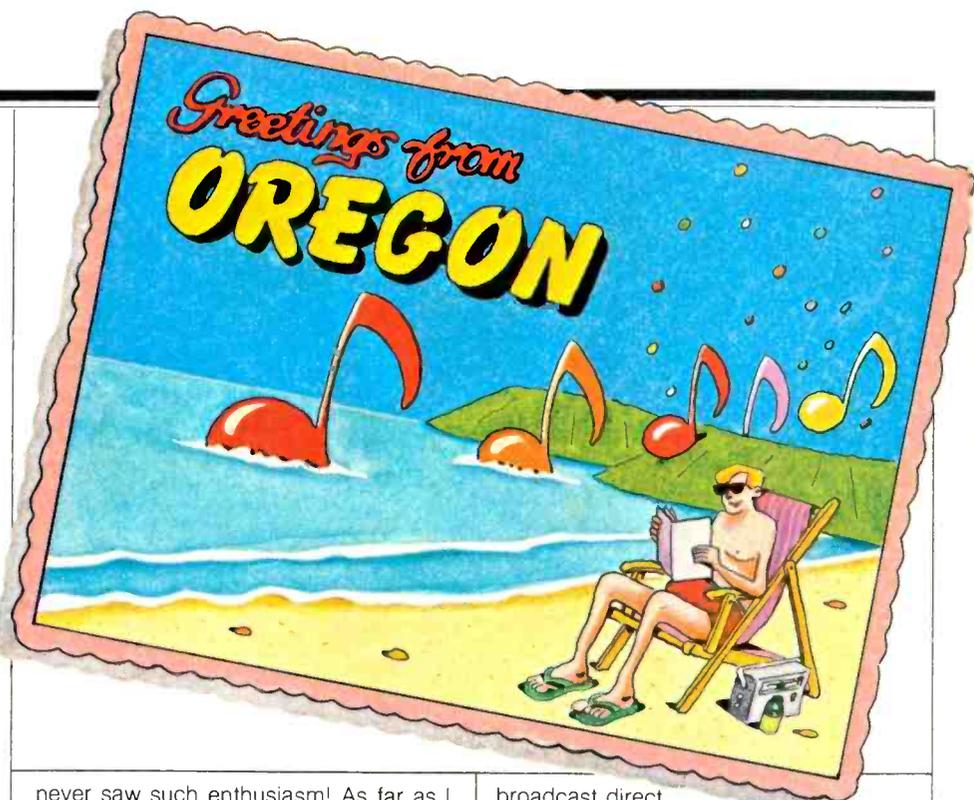
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**T**here's nothing like a vacation, totally removed from audio, recordings, hi-fi, et al., for garnering ideas to put in this space. Must be my karma, or my what-have-you. Ideas look for me. I don't lift a finger. Like, say, PZM. I'd been hoping for many months for a chance to witness these revolutionary new microphones in action. So last July I went away from the Eastern steam-bath climate for my annual concert binge, live, in the superb climate of central Oregon. And there they were, right in front of my vacationing nose. Bullseye.

It was the 12th annual Oregon Bach Festival in Eugene (I went last year too) under the German choral conductor Helmuth Rilling, and I managed to take in three concerts a day for a couple of weeks, live — and I do not mean live on tape. I was *there*, body and soul, the complete music listener again, and who ever heard of audio? Not my hosts and concert neighbors! We were all immersed in a special Bach experience, with trimmings, and I fairly basked in the lovely emanations of live music. Phew! A free concert at noon each day and a bigger one each evening, not at all free. Then at 5:15 each weekday Helmuth Rilling expounded "live" on a Bach Cantata, a new one every day, with musical illustrations direct from the chorus, orchestra and soloists. An experience almost unique in the world of Bach. After Herr Rilling's absolutely fascinating analysis-with-music, the whole Cantata would be done straight through, a half hour or so, each movement conducted by a different student conductor; for this was a triple-purpose event, not only a lecture-concert but also a sort of examination in public for a conductors' class in Bach, the educational aspect of this particular festival.

At the end of each Cantata, humorously, the chorus, orchestra, several soloists — and up to eight conductors — simultaneously came on stage to take bows. I laughed each day at this slightly preposterous concert spectacle but I was very much aware of the excellence of the triple system of presentation, where practical musicians got to know Bach with unexcelled thoroughness through actual performance, while the capacity audience for once really understood what the old composer was doing in these wonderful works, so often listened to in total incomprehension. You



never saw such enthusiasm! As far as I could see, every performance was sold out.

If you think audio engineers work long hours, you must understand that these musicians, the instruments, voices and conductors, had to master a complete Bach Cantata each day, rehearsing all morning and all afternoon to perform at 5:15, and in addition they somehow learned and produced a Bach Mass and a Haydn Mass for two evening performances plus the gigantic early 19th century oratorio "Elijah" by Mendelssohn lasting some 2½ hours, also performed twice. They never stopped working. Rehearsals went straight on through the evenings when the main concert was some outside group or soloist, they rehearsed all Saturday morning, performed Saturday night and again Sunday. A stirring musician's "vacation" if you had the guts! That sort of work generates incredible musical enthusiasm and the excitement communicated itself to the audience day after day. Yes, live music can easily be both thrilling and exhausting.

I found the third element in that triple array the afternoon I arrived. Public Radio broadcast of most of the Festival via the U. of Oregon ("OR-gan") station KWAX-FM, something to do with a duck, the University's athletic symbol. Almost everything was taken down on tape or

broadcast direct.

The Cantatas were recorded "live" and broadcast, complete with lecture, the next morning. Some of the major evening events, including "Elijah," were aired live in real time and also recorded, later to go on National Public Radio (NPR) via satellite August 24 through 27. (If I am right, these events are taped by the local stations ad lib and appear on their schedules during the following months. Also perhaps on all sorts of exotic stations a half-world away, tapping that 22,000-mile-high radio source. Astonishing.)

It happened this way. I do, indeed, try hard to be the pure musician at live concerts and I am, as long as I keep my eyes closed. But once they open, I can't help but look around and, after considerable practice, I begin to notice things. At the very first Cantata my wandering attention was immediately caught by something odd up front in Beall Hall ("Bell"), where most of the musical events occurred. On stage were the chorus in back, the orchestra in front, and on one side a couple of solo voices. Right off, I had noticed a standard stereo mike array, a coincident pair (AKG 414s) hanging out front of stage center. That would take in the over-all. Automatically, out of habit, I looked in back of me and discerned two pencil-like mikes hanging far in the rear of the hall. Ambience! But

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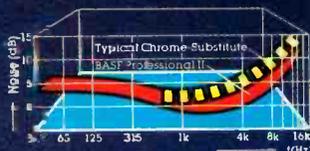
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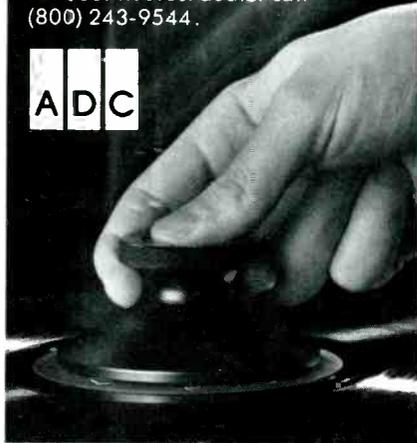
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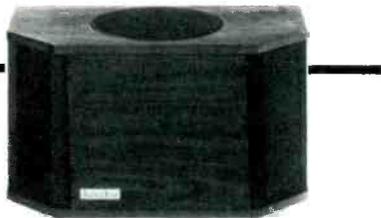
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Friends could not locate the hanging pair of PZMs, and even the mike cables seemed to disappear.

what of the soloists? They were much too far from the overhead stereo mikes, yet there appeared to be no solo mikes at all. This was odd. I began to get interested in spite of myself.

Then I saw, down below them and set on the floor in front of the stage, what seemed, for the moment, to be two music stands, angled diagonally upwards at the level of the singers' ankles. Cue sheets? Music desks for far-sighted singers? What WERE those things? Crazy, because they were made of clear plastic, a pair of desk-like pieces maybe three feet by two and a half. And then I saw that there was nothing on them at all. Nothing except a small dark metal square at the center of each — and wires.

Wow — my inner light bulb flashed. PZM microphones! Hand mounted in Plexiglas. It had to be them. Nothing else made sense. I was so excited that I began to mutter to my hostess in the next seat and was rewarded with a shhh — where were my concert manners? Then, almost forgetting poor Bach, I discovered more. In front of the squarely modern pipes of a "Baroque" organ at the rear of the stage, high in the air, I began to discern two more vague little metal squares, seemingly floating in space. Very odd! Then a faint pair of lines manifested themselves — the almost invisible edges of two larger Plexiglas plates in which the metal squares were centered. Plexiglas is an incredibly transparent material! The organ pipes showed right through those squares without a trace of distortion, as though they weren't there. It was impossible to make out all four sides at once and the faint trace of a piano-wire guy that tied the two plates together and (mostly) motionless.

So, back to Bach, and I had to keep the big secret to myself. For days. I just let things happen, and went to more concerts. (But I listened to the morning Cantata broadcasts with avid interest, you may be sure.)

Then towards the end of the Festival there was a grand reception for the Visiting Music Critic, Harold Schonberg of *The New York Times*, who happened to be an old-time friend of mine from years back. He gave two lectures, old singers and old pianists (recorded), and we spent a couple of informal evenings at my hostess' house before I was to

"meet" him at the big reception. Ha! Mr. S. was the visiting lion that day but the person I instantly noticed was a young man with a large KWAX button on his lapel. My moment had duly arrived. WERE those PZM mikes? Yes! And to whom should I talk about them? Alan Yordy, he's your man, the Operations Director of KWAX and that's him, right over there on the couch.

Alan Yordy turned out to be a long-time reader of this mag and of my department, so in moments we were deep into PZMs from the inside out, as of what could be one of the earliest true-classical pickups with this remarkable new species of mike, worked out and operated by Yordy himself. That meeting was followed the next day (between rehearsals and broadcasts) by an on-the-spot tour of the Beall Hall set-up and a long discussion which took both of us through our lunch time. Worth starving for.

At this point I'd better pause for station identification. What IS a PZM? Though PZMs are already several years old, not everyone has found out about them.

The pressure recording theory behind the PZM was developed by that versatile engineer Ed Long and his associate Ron Wickersham, and prototype mikes came from Ken Wahrenbock in 1978 — that recently. A batch of working capsules, mainly for further development, I gather, were emanated by Syn-Aud-Con before Crown took over the whole idea commercially a year or so back. Crown already has two production models available and two more coming. The PZM is fundamentally unlike any mike before used. Not the capsule itself, though it is tiny enough to go inside a phono cartridge. It's the placing, in a curious acoustic zone just above a flat plane where direct and reflected sounds are totally coherent within the audible range, minus cancellations or colorings of any sort. Stick your picking-up unit right there, your sound is extraordinarily clear and "flat," minus directionality, and the mike shows unusual properties never before observed. I was briefly reminded of "floor bounce" mike placement, but the PZM distance from the primary flat plane, floor or otherwise, is on the order of four thousandths of an inch. Extraordinary! Down in that micro-sonic (non-TM) world, impinging sound on the tiny capsule is to ordinary sound as laser light is

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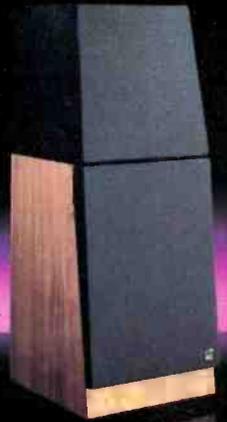
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**R-11 Chrome and Glass System Cabinet.** Custom-designed system cabinet displays all components behind stylish tempered glass doors.

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These mikes have a coverage which is hemispherical and can detect whispers at long distances.

to ordinary light. Well, not exactly . . . but anyhow, something altogether new in audio. Totally coherent, precisely the original acoustic "signal." No internal mike coloration in theory.

The PZM uses a tiny cartridge or capsule, mounted against a flat plate which may be — must be — extended by larger plane surfaces, anything from clear Plexiglas to a piano lid, if you are to reproduce adequate bass. (Here there is a definite relationship to the old flat speaker baffle — the larger the area of the plane, the lower the bass pickup.) The two Crown PZMs come ready assembled on two sizes of metal square; Alan Yordy's PZMs in Plexiglas were handmade, out of the capsules that were sold separately by, I think, Syn-Aud-Con. To an extent, Yordy had to make do with what was available; his 3/16-inch plastic sheets were not as thick or as big as he would have liked — optimum would be four by four feet and a quarter inch thickness for stability. But for voice pickup, chorus or soloist, the slightly smaller rectangles were OK. I got a good close-up look at them and must report that they were elegantly put together and machined, without so much as a scratch or even a smudge on the plastic. Far clearer than even plate window glass! So if you think that these big flat plates are going to be clumsy to use, keep in mind that in practice (and with care) they are virtually invisible to an audience. And they can be set up in unusual and even bizarre ways, such as an ankle-level diagonal aiming from down below used by Alan Yordy for his Bach solo voices.

Note that the PZM coverage is, as you might guess, hemispherical, and in theory the response is absolutely flat and unchanging right out to the edge of that hemisphere. Thus movement of the sound source through the mike's pickup range does not result in the changes in sound that occur with virtually all other microphones. Also, the PZM has extraordinary "reach." It can detect intelligible whispers at astonishing distances and the same with musical details — a shotgun mike but with total clarity and broad semi-omni range. Finally, the PZM won't blast, even inside a bass drum. It'll take 150 dB but maybe not an "1812" cannon at two feet, in case you wanted to try. More on Bach and Yordy next month.

A

# The Onkyo CP-1130F. It will startle you, shake you, satisfy and soothe you.



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# VIDEO SCENES

BERT WHYTE

Last month I reported on some new advanced video products shown at Matsushita's giant special exhibit Matsushita Technology Today at the SCES. Herewith a peek at a few more video marvels from that fascinating exhibit.

I'm sure you have all seen TV news cameramen at political conventions and other events, struggling under the burden of the so-called ENG (Electronic News Gathering) color video camera perched on his sagging shoulder. It would seem that the ideal guys for this job are former linebackers from the NFL. Actually, use of these ENG units is a two-man job . . . one handles the shoulder camera and another the video-recorder and battery pack. The tape used with these ENG units is in the  $\frac{3}{4}$  inch format. Now Matsushita in a joint effort with RCA has developed a compact ENG color video camera and tape recorder combination using  $\frac{1}{2}$ -inch tape. This single-unit camera/recorder system, complete with batteries, weighs about two-thirds the old  $\frac{3}{4}$ -inch units and can be carried by a single person. This single-unit configuration was made possible by a new high-precision compact VTR mechanism, new circuit technology, and the development of a three-tube color camera. Although  $\frac{1}{2}$ -inch tape is used, picture quality is better than with the old  $\frac{3}{4}$ -inch systems because of the new recording system and a new type of head. Recording time with the new ENG is 20 minutes. The editing system for this ENG consists of two VTR units and one editing controller.

Another interesting item from the Matsushita Technology Today exhibit is the Teletext Home Information System. Through an ordinary TV set, Teletext can provide a user with selected information such as weather reports, news, stock market quotes, shopping news, recipes, and, in fact, any kind of educational text or graphic data. The system works by inserting the data signal in the 15th and 16th vertical blanking interval, transmitting the signal on air or via cable to the home TV set, and decoding the signal for display. The teletext system requires that a decoder be added to the TV set, and data is displayed independently or superimposed on regular TV programming. This type of broadcasting service has been in use in England for some time, as well as in several European



countries. The Electronic Industries Association is studying several systems for use in the United States.

Let us suppose that you are a rancher in East Boondock, Nevada, several hundred miles from any town or city of consequence. There are no movie theatres, and you cannot even receive television or FM radio since these are horizon-limited services. Even if a station broadcasts from a 1500-foot-high antenna, 40 miles is about as far as these signals can be received with acceptable quality. Supposing if you went to the trouble and expense of erecting a 100-foot-high tower with a rotor-driven antenna, it still wouldn't help. Under such circumstances, you have two options which can furnish you with visual entertainment. One is to purchase a videocassette recorder or videodisc player, and needless to say, software for either the tape or disc systems is very heavily oriented towards feature movies. Since the videocassette machines have been on the market considerably longer than the videodisc systems, and since there is a much greater library of films on videocassette than on videodisc at least for now, we will presume you have had a videocassette machine for some time. On your trips to the nearest big town, you buy a batch of movie videocas-

ettes; you might also purchase some by mail order.

Now it might seem odd to consider whether or not you are satisfied with the picture quality of the videocassette movies you have bought, since nothing else is available. The fact is, however, that picture quality can vary considerably, depending on what company is selling the videocassettes and how good the quality control on their duplication process is. For example, the grade of blank tape they use for their productions can vary. By no means do all of these duplicators use premium tape, and thus one may encounter many drop-outs, generalized picture hash, horizontal and vertical picture distortion, and generally poor resolution. One must also be aware that there are plenty of bootleg cassettes being peddled, some of which are of really awful quality.

Fortunately, there are some sources of videocassettes that offer not only consistently high-quality cassettes, but have large libraries of major feature films. One such is Magnetic Video, a division of 20th Century Fox. I have enjoyed viewing quite a few feature films on their videocassettes. Such titles as "Alien," "The Fog," "Raise The Titanic," and "All that Jazz" come to mind. In every production, picture quality was exem-

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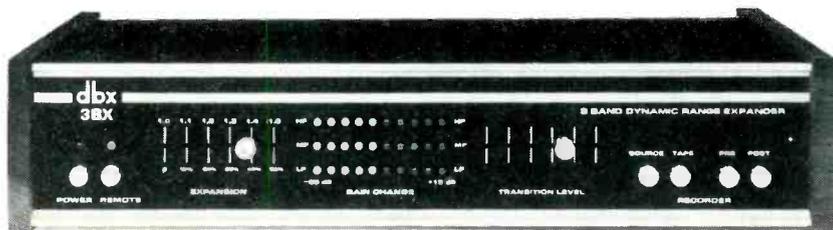
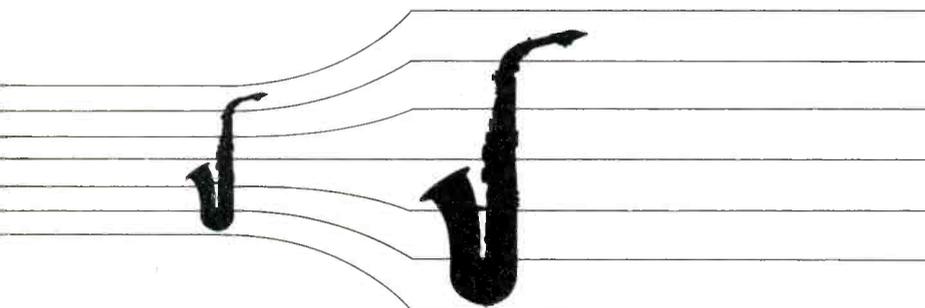
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plary . . . no distortions of any type were noted, background hash was virtually eliminated, the picture resolution, through a JVC HR-6700 and a good 25-inch TV set, was really excellent, color balance nicely maintained from start to finish, and there were fine brightness and contrast ratios, and clean blacks and whites. In short, there was no strain and it was a pleasure to watch.

As an aside, I must confess I am somewhat baffled by one aspect of movie videocassettes. As I am sure you are aware, these video movies range from \$45.00 to \$100.00 in cost, with an average of around \$55.00 to \$60.00. It was my feeling a few years ago, at the beginning of the videocassette era, that prerecorded videocassette movies would not sell in any considerable quantity. My reasoning was based on the fact that each costs some ten times the cost of an individual movie ticket and that, no matter how great the movie was, very few people would watch it more than five or six times. How wrong can someone be?

Not only is our rancher in Nevada buying them, but people all over the country as well and in quantities that are causing a shortage of duplicating tape. Just to compound my error, I felt that the advent of the videodisc, with its average cost for a feature film in the area of \$30.00 to \$35.00, would cut into videocassette sales. Admittedly, there aren't that many videodisc players on the market yet, but this apparently will have little effect on future videocassette sales.

Getting back to our rancher, his second option is to install an earth satellite receiver. This usually consists of a 12- to 16-foot diameter parabolic dish antenna, low-noise signal-boosting amplifier, and special receiver. With this rig, friend rancher has a choice of nine or more pay movie channels (and with his VTR, he can tape movies off the satellite) or a vast diversity of other program choices. A few years ago, the cost of such a satellite-receiving station was almost prohibitive, in the range from \$20,000.00 to \$35,000.00. But my, how things have changed! Outside McCormick Place, where buses used to discharge the hordes of SCES attendees, a dozen or more such dishes were lined up, available at prices starting well under \$5,000.00. Not only has this aspect of the video boom been growing at a startling rate, but the satellite receivers are by no means the exclusive province of ranchers in the boonies. Now, even people in suburbia are installing such systems, and there are currently more than 50 companies making such satellite systems and eager for business. Next month, a closer look at this fast growing phenomenon.



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1981

# ANNUAL EQUIPMENT DIRECTORY



**A**udio Magazine's 1981 Annual Equipment Directory is our 24th such compendium, and this year our listings contain over 50,000 specifications on more than 3150 hi-fi products. These data have been supplied by the makers and are not the result of our own testing, since obviously such an undertaking is impractical. We suggest that the manufacturer be contacted for further information, and a listing

of addresses begins on page 6.

The question headings for the various sections have been revised again this year; for example, we are no longer including a microvolt sensitivity spec for tuners and receivers. As we plan to revise the headings again next year, we will welcome suggestions along these lines from readers and manufacturers.

Addenda, with data received too late for inclusion here, will appear in the January 1982 issue.

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# PREAMPLIFIERS



SAE X-1P



Quad 44



Mark Levinson ML-7



Adcom GFP-1

MANUFACTURER	Model	Type	Unit Price (Kit/Kit, Tube = T, Mono/MC, Moving Coil/MC)		Frequency Response, Hz to kHz, ± dB	Maximum Output, V	% THD	% IFF IM Distortion	Rated SMPTE IM, Percent	MM Phono Sensitivity, mV per IIF A-202 For 0.5 V Output at 1 kHz	MM Phono Overload, mV	MM Phono S/N, "A" Wtd., 1 cc, 5 mV, 20 dB, per IIF A-202	High Level Sensitivity, mV	Tone Controls ?	Phono Input Capacitance, pF	Phono Input Impedance, Ohms	Moving Coil Input ?	Does Unit Invert Phase ?	Weight, Lbs.	Price, \$	Notes
			5-100 ±0.25	4																	
AB SYSTEMS	911		5-100 ±0.25	4	0.01	0.01		2.0	250	84	250	Yes		47k		No	7	695.00			
	912		5-100 ±0.25	4	0.01	0.01		2.0	250	84	250	No		47k		No	14	595.00			
ACCUHASE	C-230	P	20-20 +0,-2	8	0.005	0.005		0.96		87	160	Yes		Sel.	Yes	Varies	22	1440.00			
	C-240	P	20-20 +0,-2	10	0.005	0.005		2.0		85	126	Yes		Sel.	Yes	Varies	33	2630.00			
ACOUSTAT	RP-2	P/MC	10-80 ±3				0.002		125			No	Var.	50k	Yes	No	10	650.00			
ADC	B100	T	2-150 +0,-3	10	0.1		0.1	1	300	64		No	Var.	Var.	Yes	No	22	1199.00			
ADCOM	GFP-1		20-20 ±0.25	10	0.015		0.015		250	82		Yes	85	47k	No		16	350.00			
AGI	511A		20-20 ±0.1	9.5	0.005	0.005	0.005	1.3	160	82	230	No	90	47k	No	No	13	565.00			
	511AH		20-20 ±0.1	9.5	0.005	0.005	0.005	0.56	70	82	230	No	90	47k	No	No	13	565.00			
	511AM		20-20 ±0.1	9.5	0.005	0.005	0.005	0.13	16	96	230	No	90	47k	Yes	No	13	625.00			
AIWA	SA-C30U		20-20 ±0.2	0.8	0.008	0.008		2.1	200			Yes		47	No		3.8	115.00			
	SA-C50U		20-20 ±0.2	0.9	0.008	0.008		2.5				Yes		47	Yes		4.9	155.00			
AMBER ELECTRONICS	Control Center	P	1-125 ±3	20	0.02		0.009	0.5	300	80	70	Yes	Sel.	Sel.	No	No	10	469.00			
APT	Holman		20-20 ±0.5	7	0.01	0.01	0.01	1.25	180	74	320	Yes	Var.	Sel.	Opt.	No	12	575.00			
AUDIBLE ILLUSIONS	Mini Mite I	T	2-100 +0,-1		0.05	0.05		5.0	400	66	500	No	75	47k	No	Yes	8	449.00†	†Wired; kit, \$349.00.		
	Uranus 1A	T	2-200 +0,-1		0.02	0.02		5.0	700	70	350	No	100	47k	No	No	16	1195.00			
	The Venusian	T	1-150 +0,-1		0.01	0.01		5.0	900	70	350	No	100	47k	No	No	24	2295.00			
AUDIONICS	RS-1		20-20 ±0.5	7.5	0.01	0.01	0.01	1	150	82	75	No	Sel.	Sel.	No	No	13	849.00			
AUDIO PRO	TPA-150	†	16-100 +0,-3	4	0.10	0.10		1.8	150	70	54	Yes		47k	Opt.		20	1045.00	†Tuner/preamp combination.		
AUDIO RESEARCH	SP-6C	T	1-100 +0,-3	60	0.01		0.002	0.5	900	74	25	No	40	50k	No	No	22	2195.00			
	SP-8	T	1-100 +0,-3	60	0.01		0.002	0.5	900	74	25	No	40	50k	No	No	22	1495.00			

# PREAMPLIFIERS

MANUFACTURER	Model	MC	Unit Gain	Frequency Response	Maximum Output	% THD	% IFF IM Distortion	Rated SMPTE IM, Percent	MM Phono Sensitivity, mV, per IFF A-202	For 0.5 V Output at 1 kHz	MM Phono Overload, mV	MM Phono S/N, A: Wtd. re. 5 mV, dB, per IFF A-202	High Level Sensitivity, mV	Tone Controls ?	Phono Input Capacitance, pF	Phono Input Impedance, Ohms	Moving Coil Impedance	Does Unit Invert Phase?	Weight, Lbs.	Price \$	Notes
			10-100 ±0.5	8	0.5																
AUDIRE	Poco	MC	0.1-1M +0, -3	0.9	0.025	0.01			100				No					2	175.00		
	Legato		1-100 +0, -1/4	10	0.005	0.001		5.0	150	72	100	No	160	47k	No	No	5	370.00			
	Diffret 2		1-100 +0, -1/4	18	0.005	0.001		5.0	285	86	100	No		47	Yes	Varies	7	775.00			
BEDINI ELECTRONICS	6677		5-500 ±1	8.5	0.25	0.25		100	85			No	100	47k	No	Yes	17	889.95	Dual mono.		
DAVID BERNING CO.	TF-10	T	10-100 ±0.5	8	0.5	0.5	0.5	1	130	64	250	No	60	47k	No	No	15	1695.00			
BROADCAST ELECTRONICS	EP-1	P	30-20 ±0.5	8.7	0.01	0.01	0.01	0.5	320	82		No	110	47k	No	No	4 1/2				
	EP-2	P	30-20 ±1	8.7	0.25	0.10	0.10	0.5	320	82		No	110	47k	No	No	4 3/4				
BRYSTON	1B		20-20 ±0.1	10	0.005	0.005				80		No			No	Yes	14	700.00			
CARVER	C-4000		5-200 ±0.5	5	0.05	0.05	0.05	0.85	150	74	50	Yes	Sel.	47k	No	No	11	960.00	With sonic hologram generator. As above.		
	C-1		5-200 ±0.5	5	0.05	0.05	0.05	0.85	150	74	50	Yes	Sel.	47k	Yes	No	8	550.00			
CERWIN-VEGA	PR-1		5-200 ±3	11	0.005	0.005	0.005	0.5	220	65	55	Yes	30	47k	No	No	15	500.00			
CM LABS	CM301a		0-80	10	0.05	0.05	0.009	2.2	150	85	200	No	50	47k	No	No	9	399.00	CX decoder inc.		
	CM301 ACX		0-80	10	0.05	0.05	0.009	2.2	150	85	200	No	50	47k	No	No	9	449.00			
CONRAD-JOHNSON	PV3	T	10-50 +0, -1	10	0.05	0.05	0.05		400	70			150	47k	No	No	10	399.00			
	PV2a	T	5-100 +0, -0.5	25	0.05	0.05	0.05		500	72			150	47k	No	No	15	685.00			
	Premier Two	T	5-100 +0, -0.5	25	0.05	0.05	0.05		500	72			150	47k	No	No	24	1585.00			
	HV-1	T/ MC	5-100 +0, -0.5	5	0.05				100				100	Yes	Yes	10	695.00				
COTTER	PSC-2	P	10-40 ±0.1	10	0.0001	0.0001	0.0001	15	300			No	40	500k	No	No	2 1/2	600.00			
	MK2	MC	1-60 +0, -1	30	0.0001	0.0001	0.0001								Yes	No		625.00			
	MK2L	MC	1-60 +0, -1	30	0.0001	0.0001	0.0001								Yes	No		700.00			
COUNTERPOINT	SA-1	T	16-35 ±0.5	35	0.05	0.05	0.01	0.75	1V	78	200	No	100	47k	No	Yes	22	1595.00			
CROWN	DL-2		1-100 ±0.5	11	.0008	.0003	0.002	Adj.	33-330	88	227	Yes	5	Sel.	Opt.	No	20	2695.00			
	Straight Line Two		10-50 ±0.25	11	.0009		0.002	Adj.	33-330	87	227	Yes	50	47k	Opt.	No	11	479.00			
DAYTON WRIGHT	SPS MK5		5-100 ±1	8	0.004	0.003		1	120	80	500	No		47	No			478.00			
	SPA MK1A		3-300 ±1	8	0.002	0.0015		1	150	87	500	No		47	Yes			1300.00			
	SPA MKII		3-300 ±1	8	0.002	0.0015		1	160	90	500	No		47	Yes			1980.00			
	SPA MKII	M	3-300 ±1	8	0.002	0.0015		1	160	90	500	No		47	Yes			2190.00			
	535 MKII		3-300 ±1														3	492.00	Pre-preamp.		
DB SYSTEMS	DB-1A&2		20-20 ±0.04	9	0.0008	0.001	0.001	1.8	150	77	120	No	100	47k	No	Varies	4.6	445.00			
	DBR-15A &2		20-20 ±0.04	10	0.0008	0.001	0.001	1.8	150	77	120	Yes	100	47k	No	Varies	7.2	775.00			
	DB-4A	MC	10-100 ±0.1	2	0.0008	0.001	0.001	Var.		98			2000	9k	Yes	No	1.1	175.00			
DENNESEN	Sirius		5-250 ±0.1	8	0.05	0.05	0.05	6	100	80	125	No	100	47k	No	Yes	4	350.00	Dual mono.		
	Lyra		5-250 ±0.1	8	0.05	0.05	0.05	6	200	85	125	No	100	Var.	Yes	Yes	10	895.00			
	JC80		2-100 ±0.1	10	0.01	0.01	0.01	10	300	94	500	No	Var.	Var.	Yes	Sel.	20	3000.00			
	Cetus	MC	5-250 ±0.1	0.5	0.1	0.1	0.1						50	Var.	Yes	Yes	2	300.00			

# PREAMPLIFIERS

MANUFACTURER	Model	Unit Type: K=K, T=Tube, P=Phono Stg., M=Mono, MC=Moving Coil, MC	Frequency Response, Hz to kHz, ± dB	Maximum Output, V	% THD	% IHF IM Distortion	Rated S/N† IM, Percent	MM Phono Sensitivity, mV per 100 μV Input at 1 kHz	MM Phono Overload, mV	MM Phono S/N, A-Wtd. re: 5 mV dB per IHF A-202	High Level Sensitivity, mV	Tone Controls?	Phono Input Capacitance, pF	Phono Input Impedance, Ohms	Moving Coil Input?	Does Unit Invert Phase?	Weight, Lbs.	Price, \$	Notes
DENON	PRA2000		10-500 +0, -1	23	0.002	0.002	0.002	2.5	380	86	150	No	50/100	Yes		24½	1300.00		
EIDOLON RESEARCH	Julia	T	0.5-100 +0, -1.5	40	0.03	0.01	0.01	0.1	380	76	250	No	Adj.	Adj.	No	Adj.	23	2695.00	Dual mono.
	Mentat	T	0.5-100 +0, -1.5	40	0.03	0.01	0.01	0.1	380	76	250	No	Adj.	Adj.	No	Adj.	15	1695.00	
	Salesia	T	1.5-100 +0, -1.5	40	0.03	0.01	0.01	0.1	380	74	250	No	Adj.	Adj.	No	Adj.	12	799.95	
ESOTERIC AUDIO RESEARCH		T/ MC	5-80 +0, -1	10	0.03			2.0	250	60	150	No	100	47k	Yes		22¼	1400.00	
EUMIG	C-1000		5-70 ±3	5	0.015		0.015	2.5		80	150	Yes		Sel.	Yes		14.3	495.00	
FISHER	CC3000	MC		1	0.007	0.005		2.5	230	86		Yes		Sel.	Yes		11	269.95	
GLI	PMX-9000A		20-20 ±0.5	10	0.05	0.05	0.05	10	220	70	80	EQ		47k	No	No	12	450.00	Mixer inc.
DAVID HAFNER CO.	DH-101A		20-20 +0, -25	7	0.001		0.002	10	180	80	50	Yes	250	47k	Opt.	No	8	299.95	Kit, DH-101K, \$199.95. Kit, DH-110K, \$299.95.
	DH-110A		5-250 +0, -3	12	0.001		0.002	11	300	80	56	Yes	Adj.	47k	Opt.	No	8½	399.95	
HARMAN/KARDON	hk725		1-150 +0, -1	6	0.009	0.009	0.006	2.3	250	90	145	Yes	200	47k	No	No	9¼	329.95	
HEATH	AP-1800	K	20-20 +0, -2	9	0.02	0.01	0.02	Sel.	Sel.	75	67	Yes	Sel., 80 Min.	47k	Yes	Yes	20	369.95	
HEGEMAN	Hapi 2		2-350		0.03	0.03	0.03					No	36	47k	No		5	650.00	Kit, \$479.00.
KENWOOD	L07CII		20-20	10	0.003			2.5	450	90	140			600	Yes		17.2	900.00	
KM LABORATORIES	SP-100		3.5-2M +0, -3	16	0.001	0.002	0.0015	2.5	420	87	100	No	47	50k	Opt.†	No	11¼	699.00	†MC phono input, \$99.00.
KRELL ELECTRONICS			1-500	10	0.01	0.01	0.001	1.5	500	78	100	No	200	47k	Yes	No	15	1600.00	Dual mono.
MARANTZ	SC9		20-20 ±0.2		0.006		0.006	2.0	230	80		Yes		Var.	Yes			950.00	
	SC6		20-20 ±0.2		0.008		0.006	2.2	220	86		Yes			Yes			650.00	
MARK LEVINSON AUDIO SYSTEMS	ML-6A	M	20-20 ±0.1	20	0.01	0.01	0.01			86		No	Sel.	Sel.	Yes	No	18	3000.00	
	ML-7		20-20 ±0.1	20	0.01	0.01	0.01			86		No	Sel.	Sel.	Yes	No	21	4500.00	
	ML-10		20-20 ±0.1	20	0.02	0.02	0.02			86		No	Var.	Var.	Yes	No	18	2650.00	
LSR&D	Leach Pre-Amp	MC	0.5-250 +0, -3	10	0.01	0.01	0.01		1.2V	80		No	Adj.	Adj.	No	No	15	689.00	
	Leach Pre-Pre-Amp		0.5-200 +0, -3	4	0.005	0.005	0.005						10	Sel.	Yes	No	1	159.95	
McINTOSH LABORATORY	C504		20-20 +0, -5	10	0.02	0.02	0.02	0.4	100	84	250	Yes	50	47k	No	No	14		
	C27		20-20 +0, -5	10	0.05	0.05	0.05	0.4	100	79	250	Yes	100	47k	No	No	20		
	C29		20-20 +0, -5	10	0.02	0.02	0.02	0.4	100	84	250	Yes	65	47k	No	No	21		
	C32		20-20 +0, -5	10	0.05	0.05	0.05	0.4	100	84	250	Yes	65	47k	No	No	26		
	MX113	†	20-20 ±0.5	10	0.1	0.1	0.1	0.4	150	72	250	Yes	98	47k	No	No	26		†Tuner-preamp.
	MX117	†	20-20 ±0.5	10	0.02	0.02	0.02	0.4	100	84	250	Yes	50	47k	No	No	24		
MERIDIAN	101		20-20 ±0.5	775 mV	0.01	0.01	0.01	1.4	160		150	No	100	47k	Opt.	No	4	495.00	
MISSION ELECTRONICS	776		20-20 ±0.2	11	0.05	0.05		1.0	150	80	100	No	150	47k	Yes	No	25	997.00	

# PREAMPLIFIERS

MANUFACTURER	Model	Unit Type Phono Stage	Kt=K tube? P=Moving Coil=MC	Frequency Response, Hz to kHz, ± dB	Maximum Output, V	% THD	% IHF IM Distortion	Rated SMPTE IM, Percent			MM Phono Sensitivity, mV per IHF A-202 For 0.5 V Output at 1 kHz	MM Phono Overload, mV	MM Phono S/N, -A, IFRd, re: 5 mV, dB, per IHF A-202	High Level Sensitivity, mV	Tone Controls?	Phono Input Capacitance, pF	Phono Input Impedance, Ohms	Moving Coil Input?	Does Unit Invert Phase?	Weight, Lbs.	Price, \$	Notes
								20-20	120	82												
MITSUBISHI	DA-P30			10-100 +0. -5	19	0.0015	0.0015		2.8	380	81	150	Yes	Sel.	47k	Yes	No	15.7	450.00	Dual Mono.		
	M-P01			5-80 +0. -5	14	0.005	0.005		2.5	220	78	150	Yes		50k	Yes	No	5.7	260.00			
MODULAR AUDIO PRODUCTS	4003	†		30-20	17	0.5						400	No		51k	No	No	1	125.00	†M/mike.		
	4009	M/P		30-20 ±1	17	0.3						1.2V	No	10		No	No	1	96.50			
MUSIC REFERENCE	RM-4	MC		72-700 +0. -3	20	0.01					90				Sel.	Yes		10	650.00			
	RM-5			17-350	1	0.15	0.07		2	600	87							18	930.00			
MXR INNOVATIONS	System Preamp			20-20 ±0.25	7	0.005	0.005	0.005	5	120	82	800	No	Adj.	47k	No	No	5	500.00			
	System Preamp II			20-20 ±0.25	7	0.005	0.005	0.005	5	120	82	800	No	Adj.	47k	No	No	5	550.00			
	Linear Preamp			20-20 ±0.25	7	0.005	0.005	0.005	5	120	82	800	No	Adj.	47k	No	No	4	350.00			
NAD	1020			20-20 ±0.5	15	0.02	0.02	0.02	1.25	200	75	80	Yes	Sel.	47k	No	No	9	148.00			
NAIM AUDIO	NAC42N			20-20 ±0.5					2.0	200		75	No		47k	No	No	6	560.00			
	NAC32			20-20 ±0.5					2.0	200		75	No		47k	Yes	No	6	1050.00			
	PNA6	MC		20-20 ±0.5					0.1							Yes	No	3	320.00			
	NAC42S			20-20 ±0.5												Yes	No	6	560.00			
NIKKO AUDIO	Beta 20			10-50 +0. -5	10	0.005	0.005	0.005	1	300	86	110	Yes	270	Sel.	Yes		11.4	300.00			
	Beta 40			10-50 +0. -5	10	0.003	0.003	0.003	1	350	83	110	Yes	Sel.	Sel.	Yes		14	470.00			
NYTECH AUDIO	CTP 102	†		20-24 ±1	1	0.02	0.02		1.5		65		Yes			Yes		9	650.00	†Tuner-preamp.		
ONKYO	P-3060			0.8-170 +0. -3	20	0.003		0.003	2.5	300	82	150	Yes	Sel.	Sel.	Yes		15%	549.95	Super servo.		
	P-3090			0.8-170 +0. -3	20	0.002		0.002	2.5	380	88	150	Yes	Sel.	Sel.	Yes		26%	1249.95	As above.		
ORTOFON	MCA10	MC		3½-400 +0. -3		0.1							No		11	Yes			235.00			
	T30	MC		4-120 +0. -3									No	Sel.	Sel.	Yes			575.00			
PHASE LINEAR	3300			10-135 +0. -3	10	0.003	0.008	0.002	0.55	100	80	56	Yes	100	47k	No	No	11	450.00			
	3500			10-135 +0. -3	10	0.003	0.008	0.002	0.625	6	80	37.5	Yes	Sel.	47k	Yes	No	14½	725.00			
	4000			20-20	10	0.04	0.04	0.05	0.50	100	68	50	Yes	100	47k	No	No	18	425.00			
PHOENIX SYSTEMS	P-10-MM	K		20-100 ±1	8	0.01	0.01	0.01	Adj.	150	85	1V	No	100	47k	No	Sel.	3½	99.00			
	P-10-MC			20-100 ±1	8	0.01	0.01	0.01		5	88	1V	No	20	200	Yes	Sel.	3½	99.00			
PICKERING	P-20	MC		10-100	82	0.08				0.03	60				6k	Yes	No	1.2	189.00			
POWERLIGHT STUDIO	MC-5	MC		1-9M	75	0.015	0.025		0.15	75	77				Adj.	Yes	No	1½	360.00			
PRECISION FIDELITY	C-7A	T		20-20 ±0.5	5	0.01	0.01		0.5	400	73		No	85	47k	No	No	8	549.00			
	C-8	T		20-20 ±0.5	25	0.1	0.1		0.25	300	75	100	No	70	47k	No	Yes	8	579.00			
	C-9	T		20-20 ±0.25	40	0.1	0.1		0.15	300	85	100	No	70	47k	No	No	22	2200.00			
PS AUDIO	PSMC	MC		2-2M	8	0.008	0.008	0.008	0.2						1000	Sel.	Yes	No	4	180.00		
	PS2B	P		2-150	16	0.001	0.001	0.001	1	1.2V	85				Sel.	Sel.	No	No	4	166.00		
	PS4A	P		2-150	16	0.001	0.001	0.001	1	1.2V	85				Sel.	Sel.	No	No	4	279.00		
	PS4	P		2-150	16	0.001	0.001	0.001	1	1.2V	85	500	No		Sel.	Sel.	Yes	No	10	550.00		

# PREAMPLIFIERS

MANUFACTURER	Model	Unit Type: KE=K Tubes; P=Phono Sigs. SP=Mono/M. Moving Coil=MC	Frequency Response, Hz to kHz, ± dB		Maximum Output, V	% THD	% IM Distortion	Rated SMPTE IM, Percent	MM Phono Sensitivity, mV, per IIF A-202			High Level Sensitivity, mV	Tone Controls ?	Phono Input Capacitance, pF	Phono Input Impedance, Ohms	Moving Coil Input?	Does Unit Invert Phase?	Weight, Lbs.	Price, \$	Notes
			MM Phono Sensitivity, mV, per IIF A-202 For 0.5 V Output at 1 kHz	MM Phono Overload, mV					MM Phono S/N, "A" Wtd. re: 5 mV, dB, per IIF A-202											
PSE	Studio One		20-20 +0-.25	12	0.005			9	200	80	250	Yes	60	47k	Opt.	Sel.	15	679.00		
QUAD	33		30-20 ±0.5	1.5	0.02			2.5.6	120	80	100	Yes	0	68k	No	No	6	460.00		
	44		30-20 ±0.5	5	0.02			Var.	300	82	500	Yes	Var.	47k	Opt.	No	8	795.00		
QED AUDIO PRODUCTS	MC-EQ	P/ MC	20-20 ±0		0.05					85		No	Sel.	Sel.	Yes		1½	79.95		
	MM-EQ	P	20-20 ±0		0.05					85		No	Sel.	Sel.	No		1½	49.94		
	MCA-1	P/ MC	20-22 ±1		0.05	0.05						No		470	Yes		1½	85.00		
QUESTAR ELECTRONIC DESIGN	7		10-60 ±0.5	10	0.009					225	81	Yes	Sel.	Sel.	Yes	Varies		415.00		
RADIO SHACK	42-2101		30-15 ±3	6	0.5					100	55	No			No	No		19.95		
RAINDIRK	Status 20		20-20 ±0.1	8	0.002	0.002	0.002	1-5		87	200	Yes	Adj.	Adj.	Opt.	No	10	970.00	Separate power supply.	
REVOX	B739	†	20-20 +0-.7	4	0.02	0.03	0.03	1.35	300	82	150	Yes	220	47k	No	No	28¾	2399.00	†Tuner-preamp; tuner as B780.	
RGR	Four		0.5-80 ±.5-.3	9	0.012	0.012		2.0	150	72	60	Yes	Sel.	47k	No	Varies	13	650.00		
ROTEL	RC-1010		0-100	3	0.003	0.002		2.5	300	90	150	No		Sel.	Yes		10	290.00		
RTS SYSTEMS	405	P	20-20 ±0.5	12	0.003	0.003	0.005			72			Adj.	Adj.	No	No	2	345.00		
	444		20-20 +0-.1	12	0.006	0.006	0.008									No	1½	312.00		
	465		20-20 +0-.1	10	0.03	0.03	0.05									No	1¾	392.00		
SAE	X-1P		20-20 ±0.1	17	0.01	0.01	0.01	0.7	250	80	47	No	50-400	Sel.	Yes	No	15	1200.00		
	P101		20-20 ±0.1	11	0.008	0.008	0.008	0.5	240	78	32	No	100-400	Sel.	Yes	Sel.	20	650.00		
	Two PA-10		20-20 ±0.5		0.01	0.01	0.01	0.5	200	74	30	Yes	100-400	Sel.	Yes	Varies	12	349.00		
	2100		20-20 ±0.25	10	0.005	0.005	0.005	0.4-1	150-300	72	28	Yes	50-400	47k	No	Varies	20	1125.00		
	2100L		20-20 ±0.25	10	0.005	0.005	0.005	0.4-1	150-300	72	28	No	50	47k	No	No	20	975.00		
	2900		20-20 ±0.25	8	0.01	0.01	0.01	0.5	150	70	28	Yes	50	47k	No	Varies	15	550.00		
3000		20-20 ±0.25	8	0.02	0.02	0.02	0.5	150	70	28	Yes	50	47k	No	Varies	10	350.00			
SANYO	Plus C55		20-20 ±0.2	1	0.003			2.5	250	97†		Yes	100	47k	Yes			249.95	†At 10 mV.	
SONY	TA-E88B		0-500 +0-.1	15	0.002	0.002	0.002	2.5	250	88	150	No	Sel.	Sel.	Yes		19¾	1300.00	Dual mono.	
	TA-E86B		5-500 +0-.1	13	0.003	0.003	0.003	2.5	250	87	150	No	100	Sel.	Yes		18¾	600.00	As above.	
SONY ESPRIT	TA-E900		0-300 +0-.1	10	0.005	0.005	0.005	2.5	180	90	150	No	Sel.	Sel.	Yes		28¾	3200.00	Dual mono.	
SOTA INDUSTRIES	Head Amp.	MC	6-160 +0-.3	.25	0.02	0.05	0.05					No		Sel.	Yes	Yes	3½	275.00†	†With D cell power supply; with rechargeable A.C. power supply. \$350.00.	
	RIAL	P/ MC	6-160	1	0.01	0.02	0.02					No		Var.	Yes			650.00		

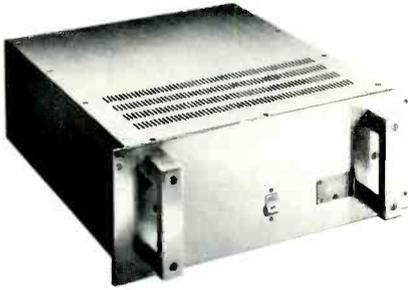
# PREAMPLIFIERS

MANUFACTURER	Model	Unit Type: K1-K, Tube=1, Photo Sig.=P, Mono=1, M. Moving Coil=MC	Frequency Response: Hz to kHz. ± dB	Maximum Output: V	% THD	% IHF IM Distortion	Rated SMPTE IM, Percent	IHF Mono Sensitivity: mV per IHF A-202 For 0.5 V Output at 1 kHz	IHF Mono Sensitivity: mV per IHF A-202 5 mV dB per IHF A-202	High Level Sensitivity: mV	Tone Controls ?	Photo Input Capacitance: pF	Photo Input Impedance: Ohms	Moving Coil Input ?	Does Unit Invert Phase?	Weight: Lbs.	Price: \$	Notes	
SOUND-CRAFTSMEN	SP4002		5-100 ±0.25	10	0.01	0.005	0.005	Adj.	300	97	90	Dual EQ	Adj.	Sel.	Yes	No	27	699.00	
	SP4001		5-100 ±0.25	10	0.01	0.01	0.01	1.4	200	97	90	Dual EQ	100	47k	No	No	23	549.00	
	SP4000		5-100 ±0.25	10	0.01	0.01	0.01	1.4	200	97	90	Dual EQ	100	47k	No	No	20	399.00	
SPATIAL	TVA-1D		10-40 +0.-.5	10	0.05	0.05		0.3	200	80	60	Yes	25	47k	No	No	22	1600.00	
SPECTRAL	MS-One Series 3A DMC-10		0.1-1M ±0.1	10	0.01	0.01	0.01	0.11		95	100	No	100	Sel.	Yes	No		2495.00	
			0-1M ±1	3	0.01	0.01	0.01	0.17		95	100	No	100	47k	Yes	No	31	1595.00	
STANTON MAGNETICS	310	P	20-20		0.05			0.5	120	70		Yes	Adj.	47k	No	No		240.00	
	BA-26	MC	10-100	.82	0.08				0.03	60				6k	Yes	No	1.2	189.00	
STAX	CA-X		20-20 ±0.3	20	0.002	0.003	0.003	1	200	90	100	No		Var.	Yes	No	34	3500.00	Dual mono.
	CA-Y		20-20 ±0.3	20	0.003	0.003	0.003	1.2	180	78	143	No		Var.	Opt.	No	14	1400.00	FET.
	CA-Z		20-20 ±1.0	20	0.005	0.005	0.005	2	180	74	100	No		47k	No	No	5 1/4	530.00	As above.
SUMO ELECTRIC	Elektra		20-20 ±0.1	10	0.01	0.01	0.01	0.36	150	94	180	Yes	100	47k	Yes	No	20	369.00	
SYMMETRY	The Phono-amp	P. MC	20-100 ±0.2	10	0.03		0.03	Var.	400	80		No	100	Var.	Yes	No		595.00	
TANDBERG	TCA3002	MC	5-130 +0.-1.5	10	0.004	0.004	0.004	1	290	80	70	Yes	Sel.	Sel.	Yes	No	12 1/2	1000.00	
TECHNICS	SU-A8		0-100 +0.-3	8	0.007			1.25	140	76	75	Yes		47k	Yes	No	9.9	350.00	
	SU-C01			7.5	0.009	0.009	0.009	1.25	200	77	75	Yes		47k	Yes		6.6	300.00	
TECHNICS R&B	SU-A4		0-250 +0.-3	15	0.001			0.63		80	150	Yes		47k	Yes		19 1/2	900.00	
	SU-A6		0-100 +0.-3	8	0.006			0.25		79	150	Yes		47k	Yes		12	500.00	
	SU-300 MC	MC	20-20 +0.-5		0.01					78		No		47	Yes		2 1/2	100.00	
THRESHOLD CORPORATION	SL10		20-20 ±0.1	9	0.02	0.02		10	200	85		No	Sel.	47k	Yes	No	24	1290.00	
TIBI ELECTRONICS	MCP-100	MC	20-20 ±0.1	5	0.02	0.03	0.03	0.1	100	75		No	50	80	Yes	No	1 1/2	139.00	
TOSHIBA	SY-665		10-40	8	0.01	0.01		2.5	150	92	95	Yes	15	47k	Yes		9	199.95	
	SY-335		10-40	6	0.01	0.01		2.5	150	87	92	Yes		47k	Yes		8	139.95	
	MK II		0-40	8	0.01	0.01		2.5	200	92	95	Yes	100	47k	Yes		7	299.95	
	SY-C15 SY-C12		15-30	6	0.01	0.01		2.5	130	88	88	Yes	100	47k	Yes		6	229.95	
VANDERSTEEN	OL-1	MC	Adj.										Adj.	Yes	No	3	285.00		
YAMAHA	C-2a		10-100 ±0.2	15	0.003	0.003		2.5	350		150	Yes	Sel.	Sel.	Yes		17 1/2	950.00	
	C-4		5-100 ±0.5	10	0.0035	0.005		2.5	285		150	Yes	Sel.	Sel.	Yes		18 3/4	570.00	
	C-6		10-100 ±0.5	13	0.005	0.015		2.5	240		150	Yes	220	47k	Yes		13 3/4	450.00	

# AMPLIFIERS



LSR&D Leach Super Amp



Krell 100



Sumo Electric Nine



VSP Labs Trans MOS

MANUFACTURER	Model	Unit Type	Integr. to: K=K; P=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 SMP TE IM, Percent	MM Phono S/N, A	MM Phono Sensitivity, mV per IMF A-202	Maximum Phono Input, mV	Rated Slew Rate, V/μS	High Level Sensitivity, mV	Class of Output Operation	Dynamic Headroom, dB	Does Unit Invert Phase?	Weight, Lbs.	Price, \$	Notes	
AB SYSTEMS	105	B		50	5-50	0.05					750	AB	No	18	464.00					
	205	B		100	10-35	0.1					750	AB	No	30	599.00				LED indicators.	
	1210	B		250	10-35	0.1					1V	AB	No	48	1099.00					
	1200	B		300	10-35	0.1					1V	AB	No	72	1399.00					
ACCUPHASE	P-400	B		200†	.4-250	0.01	0.003	100	1.6				AB/A	No	68¼	2500.00			†Class A, 70 watts.	
	P-260	B		130†	.4-250	0.01	0.003	100				AB/A	No	43½	1580.00			†Class A, 30 watts.		
	E-303	I		130	4-150	0.08	0.02	100	2.5	300		160	AB/A	No	44	1785.00			Head amp input.	
	E-203	I		70	2-200	0.01	0.005	100	1.8	200		120		No	32¼	920.00			As above.	
ADCOM	GFA-1A	B		200		0.05	0.01				80	AB	2.8		23	450.00			Peak LEDs.	
	GFA-2	B		100		0.05	0.05					AB				360.00			Peak LEDs, dual power supplies.	
ADS	Power Plate 1000	B		500†	5-100	0.05	0.05				100	2V	Dyn. A		40	319.95			†At 4 ohms, 2 chan. for bi-amping, with x-over.	
AIWA	SA-P30U	B		35	10-50	0.03	0.01	115						No	8.8	195.00				
	SA-A30U	B		15	20-20	0.005	0.005	82	2.5	150				No	7	150.00				
	SA-P50U	B		50	10-50	0.02	0.01	115		200				No	5.4	245.00				
	SA-A60U	I		30	30-20	0.1	0.05	85						No	9.3	245.00				
	SA-A10U	I		9	20-20	1.5	0.5	72						No	5.31	140.00				
	AA-8500U	I		50	20-20	0.006	0.003	89						No	14.6	335.00				
AKAI	AM-U06	I		68	6-60	0.008		84	3			150	B		18.3	399.95				
	AM-U04	I		48	6-60	0.008		82	3			150	B		22.2	329.95				
	AM-U03	I		37	6-60	0.008		75	3			150	B		19	239.95				
AMBER ELECTRONICS	Series 70	B		70	20-20	0.09		0.02				AB	2	No	29	499.00			Mono, 200 watts.	
	Series 50A	I		50	20-20	0.09		0.03	85	1.5	250	30	AB	2¼	No	25	499.00			With pre-preamp.
APT	Power Tracking 1	I		80	20-20	0.03	0.01	0.01	74	0.6	150	60	AB	6	No	12				
		B		100	20-20	0.03	0.01	0.03				60	AB	3	No	23	680.00			
AUDIBLE ILLUSIONS	Mini Mite IIA M80	T		50	18-20	1	1					15	AB	3	No	46	1095.00			
		T/M		80	16-20	0.5	0.5					20	A	3	No	44	2495.00†			†Pair.
AUDIONICS	CC-2 Series II BA-150	B		80	20-20	0.1	0.1	0.1				50	1V	AB†	No	20	579.00			†Pure Class A up to 12 watts.
		B/T		150	30-20								1.75V	B	No	60	3250.00			

# AMPLIFIERS

MANUFACTURER	Model	Unit Type	Integr. Filter	Tube	Cont. Ave. Watts	Power Bandwidth	Rated THD	Rated IHF IM	Rated SMTTE IM	MM Phono S/N	MM Phono Sensitivity	Maximum Phono Input	Rated Slew Rate	High Level Sensitivity	Class of Output Operation	Dynamic Headroom	Does Unit Invert Phase?	Weight, Lbs.	Price, \$	Notes
			1:1, KHz-K;	Mono=M; Basic=B	Watts per Chan. into 8 Ohms	Hz to KHz	Percent	Percent	Percent	dB, per IHF A-202	mV, re 5 mV	V, per IHF A-202	V / $\mu$ S	mV		dB				
AUDIO RESEARCH	D40	B/T	35	12-54	1		0.5				8	750	AB		No	44	1595.00			
	D60	B	60	1-100	0.25		0.04				40	1.1V	AB		No	39	1795.00			
	D79B	B/T	75	12-35	1		0.5				10	750	AB		No	85	3950.00			
	D90	B/T	80	10-60	1		0.5				15	1.2V	AB/A		No	64	2195.00			
	D111	B	120	1-100	0.25		0.04				40	1.5V	AB		No	92	3950.00			
	D120	B	120	1-100	0.25		0.04				40	1.5V	AB		No	43	2195.00			
	D400	B	400	1-100	0.25		0.1				80	1.35V	AB		No	105	5000.00			
	M360	B/T/M	400	12-35	1		0.5				20	1.5V	AB		No	100	6000.00			
AUDIRE	Crescendo	B	75	2-50	0.05		0.01				50		AB		No	25	395.00			
	Forte	B	125	2-50	0.05		0.01				50		AB		No	44	895.00		Dual mono.	
	Forte 250	B	250	2-50	0.05		0.01				50		AB		No	44	1195.00		As above.	
	DM1000	B	500	2-50	0.05		0.01				100		AB		No	75	3800.00		Dual mono bridged.	
BEDINI ELECTRONICS	200/200	B	200	20-20	0.25	0.25	0.25	100	0.5		60		A	2	Yes	115	4000.00			
	100/100	B	100	20-20	0.25	0.25	0.25	100	0.5		55		A	2	Yes	46	2000.00			
	45/45	B	45	20-20	0.25	0.25	0.25	100	0.5		40		A	2	Yes	42	1299.00			
	25/25 III	B	25	1-250	0.2	0.2	0.2	100	0.5				A	3	Yes	45	1995.00			
	25/25 II	B	25	20-50	0.25	0.25	0.25	100	0.5		40		A	2	Yes	27	1299.00			
	25/25 A	B	25	20-30	0.25	0.25	0.25	100	0.5		40		A	1	Yes	27	845.00			
BELLES RESEARCH	A	B	70	1-100	0.05						35	1.58V	A		No	69 1/4	1895.00			
	A-Mod	M/B	50	1-100	0.3						950		AB		No	19	490.00			
DAVID BERNING CO.	EA-230	B/T	30	30-30	1	1	1				10		B		No	30	875.00		Mono, 60 watts.	
BGW SYSTEMS	75	B	25	20-20	0.05	0.01	0.01					700	AB,B		No	15	379.00			
	150	B	50	20-20	0.01	0.01	0.01				1V	AB,B		No	18 1/2	549.00				
	250D	B	100	20-20	0.1	0.02	0.02				1.5V	AB,B		No	33	729.00				
	250E	B	100	20-20	0.1	0.02	0.02				1.5V	AB,B		No	33	829.00				
	600	B	175	20-20	0.1	0.02	0.02				880	AB,B		No	44	949.00				
	750B	B	225	20-20	0.1	0.02	0.02				2.12V	AB,B		No	57	1299.00		LED indicators.		
	750B	B	225	20-20	0.1	0.02	0.02				2.12V	AB,B		No	57	1299.00		Model above without LEDs.		
	750C	B	225	20-20	0.1	0.02	0.02							No	57					
BRB SYSTEMS	200	B	100	20-20	0.05						125		A†				909.00		†Quasi Class A.	
BRYSTON MFG.	2B	B	50	1-100	0.02	0.01		100			60		AB		No	20	525.00		Opt. pro version, bridging switch, clipping indicators.	
	3B	B	100	1-100	0.02	0.01		100			60		AB		No	35	900.00		As above.	
	4B	B	200	1-100	0.02	0.01		100			60		AB		No	50	1400.00		As above.	
CARVER	M400	B	200	1-250	0.05	0.05	0.05				40		†	2		12	399.00		†Magnetic field.	
	C500	B	250	1-250	0.05	0.05	0.05				80		AB	2.5		40	689.00			
	M500	B	250	1-250	0.05	0.05	0.05				40		†	2		15	550.00			
CERWIN-VEGA	M-200	B	125	7-100	0.02	0.02	0.02				70	125	AB	0.8	No	31	600.00			
	A-400	B	225	7-100	0.03	0.03	0.03				80	95	AB	0.8	No	45	900.00			
	A-600	B	350	7-100	0.04	0.04	0.04				80	75	AB	0.8	No	70	1400.00			
	A-4000	B	350	7-100	0.02	0.02	0.02				70	107	AB	0.8	No	79	1600.00			
C.M. LABS	CM920	B	250	20-20	0.15	0.1	0.1				40	1.5V	AB	1.4	No	49	1099.00			
	CM914C	B	150	20-20	0.1	0.1	0.1				40	1V	AB	1.4	No	38	679.00			
	CM914A	B	150	20-20	0.1	0.1	0.1				40	1V	AB	1.4	No	38	599.00			
	CM910C	B	60	20-20	0.08	0.1	0.1				40	1V	AB	1.6	No	28	449.00			
	CM910	B	60	20-20	0.08	0.1	0.1				40	1V	AB	1.6	No	28	499.00			
CONRAD-JOHNSON DESIGN	MV45	B/T	45	15-40	1.0	1.0	1.0						AB		No	40	799.00			
	MV75	B/T	75	15-40	1.0	1.0	1.0						AB		No	50	1345.00			
	Premier one	B/T	200	15-40	1.0	1.0	1.0						AB		No	140	3850.00			
COTTER	LA2		1-40	.0001	.0001	.0001					Sel.	A		No	3	650.00				
CROWN	SA-2	B	220	0-20	0.05		0.01				20	2.1V	AB		No	57	1799.00			
	Power Line	B	165	0-20	0.03		0.025				16	1.76V	AB+B		No	55	1199.00			
	Four Power Line	B	90	0-20	0.03		0.025				12	1.3V	AB+B		No	25	799.00			
	Three Power Line	B	50	20-20	0.03		0.025				8	970	AB+B		No	15	479.00			





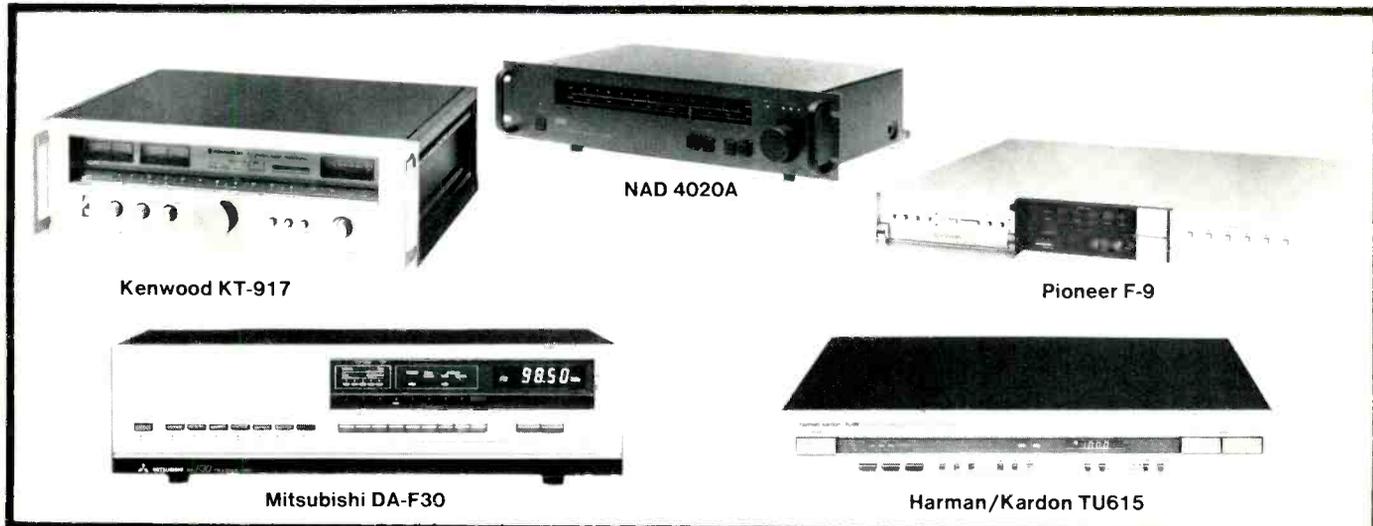
# AMPLIFIERS

MANUFACTURER	Model	Unit Type: Integrated = I; Kit = K; Photo Sig = P; Tubes = T; Mono = M; Basic = B	Cont. Ave. Watts per Chan. into 8 Ohms	Power Bandwidth, Hz to kHz	Rated THD, Percent	Rated IM, Percent	Rated SMPTE, IM, Percent	MM Phono S/N, dB per IHF A-202	MM Phono Sensitivity, mV per IHF A-202	Maximum Phono Input, mV	Rated Slew Rate, V / $\mu$ S	High Level Sensitivity, mV	Class of Output Operation	Dynamic Headroom, dB	Does Unit Invert Phase?	Weight, Lbs.	Price, \$	Notes
OPTONICA	SM-3300 SM-4305 SM-9005	I I I	30 40 100	40-20 20-20 20-20	0.08 0.01 .0095	0.05 0.05 0.01	80 85 86	3.0 2.5 2.5	160 250 150	26 35 60	150 150 150	AB AB †				9.3 20.9 26.5	200.00 270.00 520.00	†Zero-switching.
PHASE LINEAR	300 400 700	B B B	120 210 360	20-20 20-20 20-20	0.009 0.009 0.009	0.005 0.009 0.009				100 20 20	1.5V 1V 1.2V	AB AB AB	1.5 1.5 1.5	No No No	20 35 45	615.00 840.00 1120.00		
PIONEER	A-9 A-8 A-7 A-6 A-5	I I I I I	110 90 70 60 35	20-20 20-20 20-20 20-20 20-20	0.003 0.005 0.007 0.008 0.009		96† 96† 94† 92† 76†	2.5 2.5 2.5 2.5 2.5	250 200 200 150 140		150 150 150 150 150	AB AB AB AB AB		No No No No No	35% 30½% 28% 15½% 14%	800.00 550.00 450.00 325.00 225.00	†Re: rated power.	
PLASMATRONICS	Hill Type A	T/B	100†	3-250	0.1					100		Sel.	90			75	3750.00	†Class A; AB, 200 W.
PRECISION FIDELITY	M-7 M-9 M-9X2 M-8	B/T B/T/M B/T/M B/T	50 75 150 100	25-45 5-22 10-21 5-80	1 1 1 0.1	1 1 1 0.1					1.2V 1.75V 2 V 1.5V	AB A A AB	2 3 3 3			44 51 60 27	1095.00 1050.00 1650.00 599.00	
P S AUDIO	II	B	40†	2-150	0.1	0.08	0.08	100		80	1V	AB	0	No		21	329.00	†160 mono.
PSE	Studio Two	B	80	15-25	0.02					100	100	AB	1.0	No		33	689.00	Bridging switch.
QUAD	303 405	B B	45 100	20-20 20-20	0.03 0.01	0.03 0.01	0.03 0.01							Yes Yes		18 20	395.00 675.00	
QUESTAR	220 440	B B	111 222	10-38 10-38	0.05 0.05		0.1 0.1	103 103		80 80	1.2V 1.2V	A A	2.7 2.7	No No		26 26	499.00 699.00	Switched mono bridge. Switchable impedance.
RADIO SHACK	SA-102 SA-10	I I	2.1 1.2		1 10			56									59.95 29.95	
RAINDIRK	Status 500	B	250	20-20	0.03	0.03	0.03			60	1.2V	AB	1	No		42	1495.00†	†Metered; \$1395.00 without meters.
REVOX	B750 A740	I B	75 100	20-20 20-20	0.05 0.04	0.04 0.04	0.04 0.04	82	1.5/7	300	15/30 15/30	200 1V	AB AB	1 2	No No	28¼ 44	999.00 1949.00	
ROGERS	A100 A75		55 50	15-80 15-50	0.01 0.35	0.01 0.03	0.01 0.03	74 73	1.8 Sel.	150 Sel.	15 14	100 180	AB AB		No Yes	21½ 20	990.00 775.00	
ROTEL	RB-1010 RMA-90 RA-1010 RA-700 RA-560	B I I I I	100 30 60 40 40	5-100 5-35 5-70 5-70 5-35	0.006 0.02 0.03 0.009 0.03	0.006 0.02 0.02 0.009 0.03	0.006 0.02 0.02 0.009 0.03	75 78 87 80	2.5 2.5 2.5 2.5	140 190 390 175	40 40 40 40	A† B† AB A A	1.76 1.76 1.76 1.76 1.5			22 10 16½ 16 15½	450.00 250.00 350.00 300.00 235.00	†Non-switching. MC input. As above.
RTS SYSTEMS	410	I/M	14	20-20	0.05	0.05	0.07			7		B	15	No		4	230.00	Opt. 70-volt output.
SAE	A1001 A501 A301 A201 P-10 X-25A X-15A X-10A Two A14 Two A7 3100	B B B B B B B B I I B	500 250 175 100 100 250 150 100 140 70 50	20-20 20-20 20-20 20-20 20-20 20-20 20-20 20-20 20-20 20-20 20-20	0.025 0.025 0.025 0.025 0.025 0.02 0.02 0.02 0.05 0.05 0.05	0.025 0.025 0.025 0.025 0.025 0.02 0.02 0.02 0.05 0.05 0.05	0.025 0.025 0.025 0.025 0.025 0.02 0.02 0.02 0.05 0.05 0.05				2.5V 2.24V 1.87V 1.42V	AB AB AB AB A A A AB AB AB				67 47 37 28 28 49 39 30 47 32 21	1900.00 1050.00 800.00 650.00 399.00 1500.00 1100.00 900.00 799.00 499.00 350.00	With parametric EQ. Tape EQ.
SANSUI	AU-D11 AU-D9 AU-D7B/ AU-D7S AU-D5B/ AU-D5S	I I I I I	120 95 80 65	10-20 10-20 20-20 20-20	0.005 0.005 0.02	0.005 0.005 0.02		2.5 2.5 2.5	200 200 200	350 300 220	250 250 200	B B A A		No No No No		38.5 30.2 25.4 21.6	1000.00 650.00 480.00 420.00	
SANYO	Plus P55 Plus A35	B I	100 50	20-20 20-20	0.009 0.02	0.009 0.02		97† 2.5	250	150		AB					399.95 219.95	†At 10mV.

# AMPLIFIERS

MANUFACTURER	Model	Unit Type	Intergr. P. Tube=K, Mono=M, Basic=B	Phono Stg. = P	Cont. Ave. Watts per Chan. into 8 Ohms	Power Bandwidth, Hz to kHz	Rated THD, Percent	Rated IHF IM, Percent	Rated SMPTE IM, Percent	MM Phono S/N, A	MM Phono S/N, A Wtd. re. 5 mv	Maximum Phono Input, mv	Rated IHF A-202	High Level Sensitivity, mV	Class of Output Operation	Dynamic Headroom, dB	Does Unit Invert Phase?	Weight, Lbs.	Price, \$	Notes
H.H. SCOTT	405A	I	25	10-90	0.05	0.05	0.05	75	2.5	150		150						12 1/2	150.00	MC capability.
	418A	I	30	5-70	0.05	0.05	0.05	80	2.5	160		150						12 1/2	165.00	
	428A	I	35	5-70	0.05	0.05	0.05	80	2.5	160		150						12 1/2	225.00	
	438A	I	45	5-75	0.05	0.05	0.05	80	2.5	180		150						12 1/2	265.00	
	458A	I	65	5-80	0.03	0.03	0.03	86	2.5	240		150						12 1/2	350.00	
SHERWOOD	S-202 CP	I	25		0.1	0.1	0.1	86	2.5	140		150	AB	1.93	No			13 1/2	159.95	
	S-302 CP	I	40		0.03	0.03	0.03	96	2.5	150		150	AB	1.90	No		23 1/2	229.95		
	S-602 CP	I	60		0.03	0.03	0.03	96	2.5	220		150	AB	1.88	No		24	299.95		
SONY	TAN-88B	B	160		0.5	0.1	0.1						D					24 1/4	1200.00	V-FETs. A, B or mono operation. MC input. As above. As above. As above.
	TAN-86B	B	80		0.007	0.004	0.004						B/A					17 1/4	600.00	
	TA-F70	I	90		0.007	0.007	0.007	79	2.5	300		150	AB	1.4				19 1/4	725.00	
	TA-F55	I	65		0.008	0.008	0.008	79	2.5	150		150	AB	1.4				10 1/4	420.00	
	TA-F45	I	50		0.008	0.008	0.008	78	2.5	150		150	AB	1.2				9 1/4	310.00	
	TA-F35	I	40		0.015	0.015	0.015	79	2.5	150		150	AB	1.8				13 1/4	220.00	
SONY ESPRIT	TA-N900	M/B	200	5-70	0.05	0.05	0.05				150		A†					23 1/8	1750.00	†Non-switching, power MOS-FETs.
SOUND-CRAFTSMEN	PA5001A	B	250	20-20	0.09	0.05	0.05				50	1.28V	H	2.1	No			53	749.00	Clipping LEDs. As above; mono bridge. 750 watts. As above. As above with LED spectrum display.
	MA5002A	B	250	20-20	0.09	0.05	0.05				50	1.28V	H	2.1	No			55	849.00	
	RA7501	B	250	20-20	0.09	0.05	0.05				50	1.28V	H	2.1	No			55	849.00	
	RA7502	B	250	20-20	0.09	0.05	0.05				50	1.28V	H	2.1	No			56	949.00	
	RA7503	B	250	20-20	0.09	0.05	0.05				50	1.28V	H	2.1	No			58	1149.00	
SPECTRASCAN	BPA-100M	B	100	0-20	0.05	0.03	0.03	100			50	1V	AB	1.0	No			28	1795.00	Metered; model BPA-100B, less meters, \$1295.00.
STAX	DA-100M	B/M	100	5-60	0.008	0.008	0.008	155			100	1.4V	A	20	No			34	2000.00	
SUMO ELECTRIC	Titan	B	400	20-20	0.05	0.05	0.05					2.6V	AB		No			80	1349.00	
	Andromeda	B	200	20-20	0.05	0.05	0.05					1.8V	AB		No			32	599.00	
	Gold II	B	125	20-20	0.05	0.05	0.05					1.3V	A		No			80	1349.00	
	Nine	B	70	20-20	0.05	0.05	0.05					1V	A		No			32	599.00	
TANDBERG	TPA3003	B	150		0.02	0.02	0.02				70	1V	AB	0.35	No			25	1200.00	Two peak LEDs.
TECHNICS	SE-A7	B	60	20-20	0.003		0.003						†		No			21	500.00	†New A.  Servo power supply, regulated. As above.
	SE-C01	B	40	20-20	0.03		0.03						†	1.7	No			7.7	400.00	
	SU-V3	I	40	20-20	0.007		0.007	75	0.4	150		150	†	1.5	No			7.2	280.00	
	SU-V5	I	60	20-20	0.005		0.005	76	0.32	150		150	†	1.5	No			7.8	350.00	
	SU-V7	I	80	20-20	0.003		0.003	77	0.25	150		150	†	0	No			23.2	450.00	
	SU-V9	I	120	20-20	0.003		0.003	76	0.25	150		150	†	0	No				650.00	
	SU-C03	I	40	20-20	0.03		0.03	77	0.4	110		250	AB	1.2	No			6.2	360.00	
SU-C04	I	30	20-20	0.007		0.007	74	0.45	120		250	†	1.5	No			9.9	250.00		
TECHNICS R&B	SE-A3	B	200	20-20	0.002	0.002	0.002				70	†						78 1/4	1500.00	†New A.
	SE-A5	B	120	20-20	0.002	0.002	0.002				90	†						40 1/2	700.00	
THRESHOLD	Stasis 2	B	200	20-20	0.1	0.1					50	†			No			83	2790.00	†Stasis circuitry; no overall loop feedback. As above.
	Stasis 3	B	125	20-20	0.1	0.1					50	†			No			53	1890.00	
TOSHIBA	SC-665	B	65	0-80	0.02	0.02							AB					18.7	349.95	
	SC-335 MKII	B	40	20-20	0.1	0.1							AB					13.7	199.95	
	SC-M15	B	45	0-80	0.02	0.02							AB					14	340.00	
	SC-M12	B	30	20-20	0.08	0.08							AB					12	280.00	
VSP LABS	Trans MOS	B	100	20-20	0.05	0.05	0.05						AB	2.5	No			35	749.00	
YAMAHA	A-1060	I	140	20-20	0.005	0.002				280	200	150						27 1/2	800.00	
	A-960	I	100	20-20	0.01	0.002		93	2.5	250	200	150						23	495.00	
	A760	I	80	20-20	0.01	0.002		74	2.5	180		150						20	420.00	
	A560	I	55	20-20	0.015	0.003		78	2.5	150		150						15 1/2	300.00	
	A460	I	35	20-20	0.015	0.005		77	2.5	150		150						12 1/2	220.00	
	M-2	B	240	10-100	0.005	0.002												50 1/4	1200.00	
	M-4	B	120	10-100	0.005	0.002												41	650.00	
B-6	B	200	10-100	0.003	0.003												19 1/4	950.00		

# TUNERS



MANUFACTURER	Model	Unit Type: FM Only=FM, K=K, Mono IHF	Mono IHF Sensitivity, dBf	Stereo IHF Sensitivity, dBf	Capture Ratio, dB	All. Chan. Select., dB Wide/Narrow	Mono Signal Strength for 50 dB Quieting, dBf	Stereo Signal Strength for 50 dB Quieting, dBf	Separation, dB, 1 kHz	Separation, dB, 10 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, \$
ACCUPHASE	T-105	FM	11.2	28.8	1.5	60/22			50	45	0.03/0.03		80/75	Yes	18½	995.00
ADCOM	GFT-1		11.2		2.0	70	17.2	34.7			0.15/0.22		75/70	No	15	375.00
AIWA	ST-R30U ST-R50U ST-R10U AT-9500U		10.8 10.8 11.2 10.8	32	1.5 1.5 1.8 1.5	70 65 65 70					0.1/0.2 0.3/0.6 0.07/0.13		73/70 75/72 70/67 80/77	No No No No	4.6 5.3 3.5 8.8	175.00 280.00 140.00 275.00
AKAI	AT-V04 AT-K03		9.3 10.8		1.2 1.2				54 52		0.08/0.1 0.09/0.12		75 73	No No	12.1 11	329.95 239.95
AUDIO PRO	TPA-150 Tnr.-Preamp		15	19	2.0	80	17	37	35	35	0.2/0.2	0.2/0.2	70/65	No	20	1045.00
CROWN	FM-1 FM-2	FM FM	10.8 9.31		2.0 1.5	75 75	10.8 11.2	36.0 36	45 60	35 45	0.1/0.09 0.05/0.05		70/65 80/75	Yes Yes	15½ 9½	995.00 599.00
DENON	TU530 TU750 TU900		9.8 9.8 9.8		1.0 1.0 1.0	80/70 60 50/90			55 55 60		0.06/0.08 0.006/0.008 0.025/0.035		82/79 80/76 88/85	No No No	13¼ 11 13½	275.00 285.00 590.00
EUMIG	T-1000	FM	10.3	25.2	0.8	80	18.3	38.3	50		0.08/0.1		70/65	No	13.2	795.00
FISHER	FM120 FM440 FM350 FM130 FM550 FM660 FM2421		14.14 14.14 10.77 14.14 10.77 10.77 9.8	20 20 18.45 20 18.45 18.45 17.9	1.0 1 1.0 1.0 1.0 1.0 0.8	60 60 60 60 75 70 75	20.76 20.76 13.2 20.76 13.2 14.14 13.2	38.26 38.26 35.9 38.26 35.9 36.8 35.9	40 40 46 40 46 46 46	32 32 36 35 36 36 36	0.2/0.4 0.2/0.4 0.1/0.1 0.2/0.4 0.1/0.1 0.1/0.15 0.1/0.15	0.3/0.5 0.3/0.5 0.15/0.2 0.3/0.5 0.15/0.2 0.15/0.25 0.15/0.25	65/60 65/60 75/70 70/65 75/70 72/68 75/70		8 11 8 8 8 12 12	179.95 179.95 199.95 299.95 349.95 379.95 399.95
HARMAN/KARDON	710 715 610 615			10.5 10 10.5 10	1.0 1.0 1.0 1.0	70 70 70 70	16 15 16 15	36 35 36 55	46 50 47 50	42 46 42 46	0.08/0.1 0.07/0.09 0.08/0.1 0.07/0.09		75/77 77/79 75/77 77/79		9¼ 9¼ 10¼ 10¼	249.95 279.95 219.95 349.95
HEATH	AJ-1600 AJ-1219	K K	10.3 11.2	16.1	1.2 2	40/80 60	13.2 16.1	36.1	45 35	35	0.1/0.1 0.5/0.75	0.15/0.2	83/75 65	No No	20¼ 7¼	439.95 154.95
JVC	T-10X T-X1 T-X2 T-X3 T-X6		11.2 10.3 14.2 10.3 9.8		1.0 1.0 1.5 1.0 1.0	63 65 65 70 80	23.3 14.8 31.2 16.3 14.8	43.3 38.3 39.2 31.0 31.0	45 45 40 50 55		0.1/0.2 0.15/0.3 0.15/0.3 0.08/0.1 0.05/0.08	0.08/0.15 0.05/0.15	78/70 82/70 75/70 82/78 83/78	No No No No No	6.2 8.8 8.8 9.9 9.9	189.95 310.00 219.95 350.00

# TUNERS

MANUFACTURER	Model	Unit Type: FM Only = FM; Kit = K	Mono IHF Sensitivity, dBf	Stereo IHF Sensitivity, dBf	Capture Ratio, dB	Alt. Chan. Select., dB Wide/Narrow	Mono Signal Strength for 50 dB Quieting, dBf	Stereo Signal Strength for 50 dB Quieting, dBf	Separation, dB, 1 kHz	Separation, dB, 10 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, \$
KENWOOD	KT-1000		10.3	0.8	65	16.4	37.2	60	47	0.03/0.04	0.05/0.06	90/85		14.3	450.00	
	KT-900		10.8	1	65	16.4	37.2	55	45	0.03/0.04	0.05/0.07	88/83		11.2	350.00	
	KT-800		10.8	1.5	60	16.4	38.4	50	40	0.07/0.09	0.11/0.14	74/71		4.8	275.00	
	KT-917		10.8	0.8	60	15.8	37.2	60	50	0.03/0.04	0.05/0.07	90/84		15.1	1000.00	
	KT-815		10.3	1	60	15.8	37.2	60	45	0.04/0.05	0.065/0.1	84/80		16.7	440.00	
	KT-615		10.3	1	45	15.8	37.2	55	40	0.05/0.06	0.065/0.1	81/78		15.8	299.00	
	KT-80		10.8	1.5	75	15.5	37.2	48	40	0.07/0.07		83/80		9.9	219.00	
	KT-60		10.8	1.5	60	17.2	37.2	45	35	0.1/0.1	0.2/0.18	77/72		9	165.00	
KLH	T-101			1.8				40		0.15/0.3		68/62			229.95	
	T-201			1.5				45		0.1/0.2		70/65			349.95	
	T-500			1.2				50		0.1/0.2		75/70			449.95	
McINTOSH LABORATORY	MX113 Tnr.-Preamp		7	1.5	68/88	10		35		0.3/0.5		70/68	No	26		
	MX117 Tnr.-Preamp		5.1	1.8	75	10		45	34	0.18/0.38	0.22/0.38	70/68	No	24		
	MR74		7	1.5	68/88	10		35		0.3/0.5		70/68	No	25		
	MR75		5.1	1.8	75	10		45	34	0.18/0.38	0.22/0.38	70/68	No	23		
	MR78	FM	7	0.25	55/90	7.1	27	40	30	0.2/0.2	0.2/0.2	75/68	No	27		
	MR80	FM	7	1.5	90/110	8	33	50	35	0.2/0.2	0.2/0.2	75/68	Yes	28		
MERIDIAN	104	FM						50	50	0.1/0.2			No	4		
MITSUBISHI	DA-F30	FM	10.3	1.0/1.5	45/75	16.1	37.3	50	43	0.05/0.08		82/74	No	11	400.00	
	M-F01		11.2	1.5	60	16.4	38.3	40	35	0.2/0.4		80/73	No	6½	270.00	
NAD	4020A		10.8	1.5	65	16	37	42	32	0.2/0.3	0.3/0.4	75/70	Yes	9.3	218.00	
	4080		10.3	1.0	65	14.8	36.1	40	30	0.2/0.3	0.3/0.4	74/70	Yes	24	315.00	
NAIM AUDIO	NAT 301	FM												20	3500.00	
NIKKO AUDIO	Gamma 20	FM	10.3	1.5	70	13.2	36	55	30	0.08/0.12		75/68	Yes	11	400.00	
	Gamma 40	FM	10.3	1.0	30/80	13.2	36	55	45	0.02/0.04		86/78	Yes	13.2	470.00	
	NT990		11.2	1.5	60	14.8	40	50	40	0.1/0.2		75/65	Yes	9.9	320.00	
	NT700		10.3	1.5	60	16.1	43	45	30	0.1/0.2		75/70	No	9.7	300.00	
	NT500		11.2	1.5	60	17.3	46	45	30	0.2/0.4		70/65	No	9.9	180.00	
ONKYO	T-15		11.2	1.5	55	18.3	39.2	40	30	0.15/0.4		70/63	No	8½	139.95	
	T-25		10.8	1.5	60	16.1	36.1	40	30	0.15/0.25		73/65	No	7½	249.95	
	T-35		9.8	1.0	80	14.7	36.1	40	33	0.08/0.15		80/72	Yes	8½	379.95	
	T-909	FM	9.8	1.5	80	14.7	36.0	45	40	0.08/0.15		80/74	Yes	13	949.95	
OPTONICA	ST-3300		10.8	1.5	60	16.2	36.4	40	30	0.2/0.3	0.15/0.3	70/65	No	6	200.00	
	ST-4406		9.8	1.5	65	14.4	35.4	45	35	0.18/0.25	0.15/0.3	75/70	No	11	260.00	
PHASE LINEAR	5100		10.8	19	1	60	15.2	37.5	55	0.08/0.05		80/75	Yes	10	500.00	
PIONEER	F-9		10.8	1.0/2.5	40/85	15.0	37.0	55/40	48	0.03/0.05		90/85	Yes	10	425.00	
	F-7		10.8	1.0	60	16.0	37.2	50	40	0.06/0.08		85/80	Yes	10	325.00	
	F-5		10.8	1.0	60	17.3	39.2	40	30	0.1/0.2		75/70	Yes	10	225.00	
PRECISION FIDELITY	T-8	FM	7.2	21.7	2.1	95	14	28	40	0.1/0.4	0.07/0.2	85/78	Yes	6	299.00	
PROFESSIONAL SYSTEMS ENGINEERING	Studio Three	FM											Yes	8	459.00	
QUAD	FM3	FM		3	46	22	34	40		0.3/		70	No	6	395.00	
RADIO SHACK	TM-102		10.2									60/				
REVOX	B760	FM	5.0	22.0	2	78	10	28.0	42	0.1/0.25	0.2/0.2	78/74	Yes	26½	1649.00	

# TUNERS

MANUFACTURER	Model	Unit Type: FM Only = FM; kHz = K	Mono IHF Sensitivity, dBf	Stereo IHF Sensitivity, dBf	Capture Ratio, dB	Alt. Chan. Select., dB Wide/Narrow	Mono Signal Strength for 50 dB Quieting, dBf	Stereo Signal Strength for 50 dB Quieting, dBf	Separation, dB, 1 kHz	Separation, dB, 10 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, \$
ROGERS	T-750	FM	8.8		1.5		15.5	36	38	25	0.3/07		77/66	No	10½	490.00
ROTEL	RT-1010 RT-700 RT-560 RMT-90		10.8 10.8 11.2 11.2	36 36 37.2 37.2	1.0 1.0 1.0 1.0	62 60 60 60	16.1 15.5 16 16	36.2 36 36 36	46 48 48 45		0.09/0.25 0.08/0.2 0.08/0.2 0.1/0.25	0.1/0.3 0.1/0.26 0.1/0.26	75/70 75/70 75/70 60/55	No No No No	9.5 8.6 8.6 6	325.00 275.00 250.00 250.00
SAE	Two T14 Two T7 T101 8000 3200	FM FM	10.3 10.3 9.3 10.3	17.3 17.3 16.1 17.3	1.5 1.5 1.5 1.5	40/70 65 120 90	17.3 17.3 16.1 17.3	34.8 34.8 36.1 37.3	48 45 45 42	40 40 35 35	0.08/0.15 0.10/0.22 0.08/0.09 0.09/0.12	0.22/0.30 0.28/0.40 0.20/0.35 0.22/0.40	76/70 76/67 75/71 70/67	No Yes No	17 16 20 20 15	599.00 429.00 850.00 800.00 500.00
SANSUI	TU-S9 TU-S7B/ TU-S7S TU-S5B/ TU-S5S		10.5 10.5 10.5		1.0 1.0 1.0	60 57 40	14.5 14.5 14.5	36 36.5 36.5	52 50 50	42 40 33	0.06/0.07 0.07/0.08 0.06/0.07	0.06/0.07 0.07/0.08 0.06/0.07	85/80 83/78 84/78	No No No	9.3 9.5 9.5	420.00 340.00 290.00
SANYO	Plus T55 Plus T35		10.3 10.3		1.2/1.8 1.2/1.8	55/80 55/80	14.7 14.7	36.3 36.3	48/42 48/42	40/35 40/35	0.09/0.1 0.09/0.2	0.15/0.2 0.15/0.2			8.4 8.4	249.95 199.95
H. H. SCOTT	515T 528T 558T	FM FM FM	10.8 10.3 9.8		1.25 1.2 1.2	70 65 75	16.8 16.8 15.9	36.0 38 36	45 50 50			0.15/0.3 0.08/0.15	72/66 72/66 75/70		9	150.00 159.95 279.95
SEQUERRA	Model 1	FM	5.0	15.0	0.70	130/94	7.5	20.0	53	40	0.085/ 0.15	0.06/ 0.15	70/79	Yes	48	3750.00 inc. spec- trum, mul- tipath, & vector an- alyzers
SHERWOOD	S-41 CP S-43 CP		10.8 9.8		1.5 1.0	/65 80	14.8 14.8	38.3 36.5	50 50	40 40	0.1/0.15 0.08/0.1		78/73 80/73	No No	9 17	179.95 219.95
SONY	ST-J88B ST-J75 ST-J55 ST-A35	FM FM	10.3 10.8 10.8 10.8		1.0/1.7 1.5 1.0 1.0	65/120 90 85 85	15.3 16.8 17.3 17.3	36.1 37.3 37.9 37.9	50/45 60 50 50	45/40 45 40 40	0.07/0.3 0.05/0.07 0.06/0.08 0.06/0.08	0.15/0.6 0.05/0.2 0.06/0.15 0.1/0.2	80/75 92/87 78/73 82/77	No No No No	14½ 10½ 9½ 9	900.00 450.00 310.00 200.00
SOUNDCRAFTSMEN	ST6001 Digital		10.8		1.0		15.0	36.0	45	40	0.1/0.3	0.2/0.35	75/73	Yes	14	449.00
SUMO ELECTRIC	Charles The 2nd	FM			1	90/50			35	30	0.15/0.3	0.15/0.3	72/66	No	20	499.00
TANDBERG	TPT3011 TPT3001	FM FM	9.8 6.8	25.2	0.9 0.4	100 30/90	14.8 9.3	35 25.2	40 70	40 50	0.2/0.3 0.03/0.04	0.3/0.4 0.03/0.1	78/75 95/92	Yes Yes	12.6 15.3	850.00 1500.00
TECHNICS	ST-S4 ST-S6 ST-S8 ST-C04 ST-C03 ST-C01	FM FM FM FM FM FM	11.2 10.8 10.8 11.2 10.8 10.8		1.0 1.0 1.0 1.0 1.0 1.0	60/22 55/25 55 60 75 75	17.5 16.3 16.3 17.5 17 17	39 37.2 37.2 39 38.3 38.3	50 55 55 40 45 45	40 55 55 40 35 35	0.08/0.1 0.04/0.06 0.04/0.06 0.15/0.25 0.08/0.15 0.1/0.15	0.08/0.07 0.07/0.07 0.05/0.06 0.08/0.08 0.06/0.1 0.15/0.25	78/73 80/74 80/74 78/73 77/72 75/70		3.2 3.3 4.1 4 6.2 6.4	280.00 380.00 500.00 250.00 370.00 290.00
TOSHIBA	ST F-15 ST 335MKII	FM	10.3 11.2		1.0 1.0	80 60			40 40		0.1/0.2 0.2/0.4		72/68 73/65	No No	5 7½	360.00 180.00
YAMAHA	T-2 T-7 T-1060 T-760 T-560 T-460	FM	8.8 9.8 10.3 11.2 12.8 11.2		1.0 1.5 1.2 1.5 1.5 1.5	100/55 90/55 85/25 70/25 65 55	13.2 15.3 14.7 17.3 14.8 15.1	34.2 36.8 35.3 33.9 37.3 37.7	55/35 60/30 60/28 50/25	48/30 52/25 50/25	0.05/0.05 0.04/0.04 0.03/0.04 0.05/0.05 0.04/0.06 0.1/0.2	0.08/0.07 0.07/0.07 0.05/0.06 0.08/0.08 0.06/0.1 0.15/0.2	88/85 90/85 88/83 82/79 86/84 86/84	No No No No No No	15½ 11½ 8½ 6½ 8½ 8¼	750.00 410.00 350.00 285.00 230.00 180.00

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# RECEIVERS



Sony STR-VX6



JVC R-S77



Yamaha R-2000



Sansui R-99Z

MANUFACTURER	Model	Unit Type: FM Only=FM; Kit=K	Ave. Watts/Chan. 8 Ohms		% THD	% IHF-IM	Rated Power Bandwidth, Hz to kHz	MM Phono S/N, dB	MM Phono A. Wtd. r/e. 5 mV, per IHF A-202	Dynamic Overload, mV per IHF A-202	Mono IHF Sensitivity, dB <sub>1</sub>	Stereo IHF Sensitivity, dB <sub>1</sub>	Capture Ratio, dB	Mono Signal Strength for 50dB Quieting, dB <sub>1</sub>	Stereo Signal Strength for 50dB Quieting, dB <sub>1</sub>	% THD, 100% Modulation, 1 kHz, Mono/Stereo	All Chan. Select, dB	Wide Narrow I.F. Bandwidth	Max. S/N, dB Mono/Stereo	Net Weight, Lbs.	Price, \$
			15	50																	
ADVENT	300 350	FM FM	15 50	0.05 0.04	0.01 0.015	40-20 20-20	77 73	100	1.85	11.9	11.9	1.6	15.6	36 37.2	0.15/0.2 0.15/0.2	65	73/70 70/67	11 20	299.95 599.95		
AIWA	AX-S50U		20	0.3	0.3	20-20	80	180		18.2	38.2	1.5					75/70	7.9	400.00		
AKAI	AA-R51 AA-R41 AA-R31 AA-R21		62 50 38 26	0.04 0.04 0.05 0.05	0.04 0.04 0.05 0.05	5-40 5-40 10-35 10-30	75 75 80 78			9.8 10.3 10.8 10.8		1.3 1.3 1.5 1.5		0.15/0.25 0.15/0.25 0.15/0.25 0.2/0.3		75 75 70 65	26 1/2 24 21 20	499.95 439.95 349.95 289.95			
AUDIO PRO	TA-150		70	0.10	0.10	20-20	70	150	1.0	15	19	2.0	17	37	0.2	80	70/65	25	1295.00		
BANG & OLUFSEN	Beomaster 8000 Beomaster 2400 Beomaster 1600 Beomaster 4400	FM FM FM FM	100 25 18	0.05 0.2 0.4	0.1 0.15 0.2	20-20 20-20 20-20	75 60 79 60	Sel. 77	2 1.5	13 19	15 24 24	1.8 4.5 1.5	19 18.5 19	34 38.9 38.9		65 58 54 58	76/72 70/66 70/68	46.6 16.75 15.8	2400.00 695.00 525.00 925.00		
BOSE	Spatial Control		100	0.09	0.09	20-20	89	145		10.8	15.6	1.8	16.11	36.11	0.1/0.25	70	70/65	36 1/2	925.00		
BSR	RX 300 RX 100 MR 20		30 20 20	0.01 0.01 0.3		20-20 20-20 20-20	75	150	3.0 3.0		50 50		13.2 13.2					14 13			
DENON	DRA600		60	0.03	0.03	5-100	82		2	9.8		1.0				60	75/70	22	540.00		
FISHER	RS110 RS220 TA5000 RS2004A RS240 RS245 RS250 RS270 RS2010 RS280		20 20 30 45 30 30 50 50 100 100	0.1 0.07 0.04 0.04 0.03 0.07 0.02 0.02 0.03 0.05	0.1 0.07 0.04 0.04 0.03 0.07 0.02 0.02 0.03 0.05	40-20 20-20 20-20 20-20 20-20 20-20 20-20 20-20 20-20 20-20	70 70 70 76 78 70 80 80 76 70	130 130 150 200 130 200 200 200 200		14.14 14.14 10.77 10.77 10.77 14.14 10.3 9.8 10.77	21.45 21.45 18.45 18.45 18.45 21.45 18.45 18.45 17.86 18.45	1.0 1.0 1.0 1.0 0.8 1.0 0.8 0.8 0.8 0.8	21.45 21.45 14.14 14.14 14.14 39.17 14.14 14.14 13.15 20	39.17 39.17 36.78 36.78 36.78 39.17 36.78 36.78 35.9 38.26	0.2/0.4 0.2/0.4 0.15/0.2 0.15/0.2 0.1/0.15 0.2/0.4 0.1/1.5 0.1/0.15 0.1/0.2 0.3/0.3	60 60 68 68 70 60 70 70 80 70	65/60 66/62 70/66 70/66 75/70 66/62 75/70 75/70 75/70 70/65	16 16 17.2 28.5 25 18 29 29 36 36	229.95 249.95 299.95 349.95 399.95 429.95 429.95 529.95 599.95 629.95		

# RECEIVERS

MANUFACTURER	Model	Unit Type: FM Only=FM; Kit=K	Ave. Watts/Chan.	% THD	% IHF IM	Rated Power Hz to kHz	MM Phono S/N	MM Phono S/N, dB "A" Wtd. res. 5 mV. per IHF A-202	Dynamic Headroom, dB	Mono IHF Sensitivity, dB	Stereo IHF Sensitivity, dB	Capture Ratio, dB	Mono Signal Strength for 50-dB Quieting, dB	Stereo Signal Strength for 50-dB Quieting, dB	% THD, 100% Modulation, 1 kHz, Mono/Stereo	All Chan. Select., dB Wide Narrow I.F. Bandwidth	Max. S/N, dB Mono/Stereo	Net Weight, Lbs.	Price, \$
HARMAN/KARDON	hk350i		20	0.09	0.09	20-80	80	1.5	13		1.9	16	38	0.2/0.3	60	65	18	249.95	
	hk460i		30	0.08	0.07	10-100	83	1.5	12		1.3	15	37	0.12/0.2	67	70	19	329.95	
	hk570i		45	0.03	0.05	10-100	85	1.5	11		1	15	36	0.1/0.15	70	75	21	429.95	
	hk580i		45	0.03	0.05	10-100	85	1.5	10		1	14	36	0.09/0.1	75	75	21	529.95	
	hk680i		60	0.02	0.04	8-100	88	1.5	10		1	14	36	0.09/0.1	75	75	28	629.95	
	hk740		30	0.08	0.07	10-80	83	1.5	12		1.3	15	37	0.12/0.2	67	70	17	349.95	
HEATH	AR-1650	K	125	0.05		20-20	65	150	2.5	10.3	16.1	1.5	13.2	36.1	0.1/0.1	40/80	80/73	48	789.95
	AR-1429	K	35	0.1		20-20	65	90	2	10.3	16.1	1.8	17	37	0.35/0.35	65	70/65	25	299.95
JVC	R-1X		25	0.03	0.03	20-20	74			10.3		1.0	14.8	38.3	0.1/0.3	65	82/75	14	240.00
	R-2X		40	0.03	0.03	20-20	74			10.3		1.0	14.8	38.3	0.1/0.3	65	83/75	13	330.00
	R-S11		25	0.03	0.03	20-20	75			10.3		1.0	14.8	38.3	0.15/0.3	65	82/70	15.8	260.00
	R-S33		40	0.007	0.007	20-20	75			10.3		1.0	14.8	38.3	0.15/0.3	65	82/70	17.8	345.00
	R-S77		60	0.005	0.004	20-20	75			10.3		1.0	14.8	37.2	0.15/0.3	80	80/70	23.8	560.00
KENWOOD	KR-9050		200	0.02	0.0045	20-20	91	260		9.8		1	14.1	36.1	0.07/0.08	30/60	83/76	52.9	1150.00
	KR-8050		150	0.02	0.005	20-20	91	220		10.3		1	15.3	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		9.8		1	14.2	35.6	0.09/0.1	60/75	74/70	26.5	719.00
	KR-750		60	0.02	0.02	20-20	85	230		10.3		1	14.2	37.2	0.1/0.15	45/65	76/72	21.2	549.00
	KR-730		40	0.03	0.02	20-20	85	230		10.3		1	14.2	37.2	0.1/0.15	45/65	76/72	20.5	435.00
	KR-80		27	0.05	0.02	20-20	84	160		10.3		1	16.1	37.2	0.1/0.15	50	75/70	13.4	399.00
	KR-720		40	0.03	0.025	20-20	80	200		10.8		1	17.2	37.2	0.1/0.15	52	75/71	16.5	349.00
	KR-710		28	0.08	0.04	20-20	78	160		10.8		1	17.2	37.2	0.1/0.15	52	76/71	16.5	259.00
KLH	R-301		30	0.08	0.08	15-30	76		2					0.15/0.3		68/62		299.95	
MARANTZ	SR8100		90	0.06	0.03	20-20	90	225		9.8	1.0	13.2	36.1				24.2	750.00	
	SR7100		63	0.06	0.03	20-20	90	225		9.8	1.0	13.6	36.1				22	600.00	
	SR5100		65	0.09	0.04	20-20	88	130		10.3	1.0	13.9	36.8				22	430.00	
	SR3100		44	0.09	0.04	20-20	86	110		10.8	1.0	14.2	37.3				17.6	350.00	
McINTOSH LABORATORY	MAC4100		75	0.05	0.05	12-45	79	100		5.1		1.8	10		0.18/0.38	75	70/68	42	
MITSUBISHI	DA-R35		85	0.01	0.01		77	250	2.0	10.3		1.5	15.0	36.8	0.08/0.1	55/75	84/74	31.25	650.00
	DA-R25		60	0.015	0.015		77	250	2.0	10.3		1.5	15.0	36.8	0.08/0.1	55/75	84/74	27.5	540.00
	DA-R15		45	0.015	0.015		77	140	2.0	10.3		1.5	15.0	36.8	0.08/0.1	55/75	84/74	24.6	440.00
	DA-R8		35	0.015	0.015		77	140	2.0	10.3		1.5	16.0	37.0	0.08/0.2	65	84/74	21	295.00
NAD	7020		20	0.02	0.02	10-70	75	270	3	10.8		1.5	16	37	0.2/0.3	65	75/70	18.4	348.00
	7045		45	0.05	0.05	5-50	74	200	2.2	10.8		1.5	16	38.3	0.2/0.3	62	72/68	30	448.00
	7080		90	0.03	0.03	5-50	76	200	2.5	10.3		1.0	14.8	36.1	0.2/0.3	70	74/70	42	648.00
NAKAMICHI	730	FM	105	0.02	0.01	10-20	83	120				1.5	18.3	38.3	0.1/0.15	70	75/68	38	1390.00
NIKKO AUDIO	NR-1000		65	0.03	0.03	10-50	88	150		11.2		1.5	14.7	15.5	0.1/0.2	60	70/60	22.4	620.00
	NR-800		50	0.04	0.04	10-35	80	150		11.2		1.5	14.7	20.3	0.2/0.3	60	70/60	19.8	520.00
	NR-700		40	0.04	0.04	10-35	75	150		11.2		1.5	14.7	20.3	0.2/0.3	60	70/60	18.7	430.00
	NR-500		35	0.05	0.05	10-35	78	150		11.2		1.5	14.7	20.3	0.1/0.2	60	70/65	15.8	330.00
	NR-300		25	0.08	0.08	15-35	80	100		11.2		1.5	14.7	20.3	0.1/0.2	55	70/60	15.8	250.00
NYTECH	CTA 252XDII	FM	25	0.05	0.2	20-20	65		12					0.4/0.7	65/60	60/	10	950.00	
ONKYO	TX-2000		27	0.06	0.1	20-20	75	110		12	19.2	1.5	13.8	39.2	0.2/0.4	60	68/63	17%	259.95
	TX-3000		45	0.04	0.1	20-20	76	180		11.2	19.2	1.5	17.2	37.2	0.15/0.3	60	70/65	25%	359.95
	TX-4000		45	0.04	0.1	20-20	76	180		11.2	19.2	1.5	17.2	37.2	0.15/0.25	60	70/65	25%	419.95

(Continued)

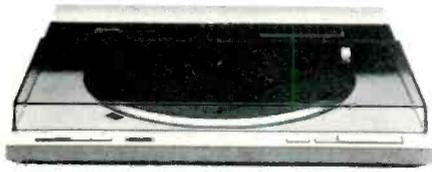
# RECEIVERS

MANUFACTURER	Model	Unit Type: FM Only=FM; Kit=K	Ave. Watts/Chan., 8 Ohms	% THD	% IIF IM	Rated Power Bandwidth, Hz to KHz	MM Phono S/N, dB	MM Phono S/N, dB: A: Wtd., re: 5 mV, per IIF A-202	Dynamic Overload, mV, per IIF A-202	Mono IIF Sensitivity, dB	Stereo IIF Sensitivity, dB	Capture Ratio, dB	Mono Signal Strength for 50-dB Quieting, dB	Stereo Signal Strength for 50-dB Quieting, dB	% THD, 100% Modulation, 1 kHz, Mono/Stereo	Alt. Chan. Select., dB Wide/Narrow I.F. Bandwidth	Max. S/N, dB, Mono/Stereo	Net Weight, Lbs.	Price, \$
ONKYO (Continued)	TX-5000		65	0.03	0.03	20-20	76	200		10.3	17.2	1.4	14.7	37.2	0.15/ 0.3	70	73/68	33	519.95
	TX-6000		70	0.03	0.03	20-20	76	200		10.3	17.2	1.4	14.7	37.2	0.12/ 0.25	70	73/68	33	549.95
	TX-7000		90	0.02	0.02	20-20	76	200		9.8	17.2	1.3	14.7	35	0.15/ 0.3	70	74/68	41%	719.95
	TX-20		30	0.08	0.08	20-20	75	200		10.8	17.2	1.5	16.0	36	0.12/ 0.3	55	72/66	15%	329.95
	TX-30		40	0.03	0.03	20-20	75	180		10.8	17.2	1.5	16.2	36.2	0.12/ 0.25	60	70/66	17%	429.95
	CX-70		20	0.3	0.3	20-20	75	150		12.4	19.2	1.5	19.2	39.2	0.2/ 0.4	55	68/63	19%	419.95
OPTONICA	SA-5107		25	0.08	0.05	40-20	73	150		10.8	20.2	1.2	16.2	35.2	0.1/0.2	60	70/65	12.1	250.00
	SA-5207		40	0.05	0.02	20-20	73	150		10.8	20.2	1.0	16.2	35.2	0.1/0.2	65	73/66	16.5	400.00
	SA-5407		60	0.04	0.01	20-20	86	160		10.8	20.2	1.0	16.2	35.2	0.1/0.2	65	73/66	18.7	500.00
PIONEER	SX-7		60	0.02		20-20	86	150		10.3		1.0	15.7	37.0	0.07/ 0.1	80	80/75	21%	550.00
	SX-6		45	0.02		20-20	85	150		10.3		1.0	15.7	37.0	0.07/ 0.1	80	80/75	18%	425.00
	SX-5		30	0.02		20-20	81	130		11.2		1.0	16.3	37.2	0.15/ 0.3	60	75/70	12%	325.00
	SX-4		20	0.08		20-20	76	130		11.2		1.0	16.3	37.2	0.15/ 0.3	60	75/70	11%	250.00
RADIO SHACK	STA-2300		120	0.05	0.05	20-20	85	230	3		10.3	1.5		14.7	0.2	75	73	47%	699.95
	STA-2290		90	0.05	0.05	20-20	85	230	2.5		10.3	1.5		14.7	0.2	70	71		599.95
	Digital STA-2080		80	0.03	0.04	20-20	90	200	1.0		9.8	1.5		14.7	0.3	75	70	49	499.95
	Digital STA-2250		50	0.02	0.02	20-20	85	170	1.6		11.3	1.5		16.1	0.3	65	67		439.95
	Digital STA-850		50	0.08	0.12	20-20	86	130	1.0		10.8	1.5		14.7	0.2	53	72		379.95
	STA-111		30	0.02	0.008	20-20	90	130			9.8	1.0		14.7	0.3	70	70		359.95
	Digital STA-11		30	0.02	0.01	20-20	89	170	1.9		9.8	1.0			0.3	70	70		319.95
	STA-720		25	0.05	0.03	20-20	81	140	1.94		10.8	1.0			0.3	55	70		299.95
	STA-110		22	0.08	0.08	20-20	85	105	1.2		10.8	1.5		14.7	0.5	60	72		279.95
	STA-530		16	0.2	0.06	20-20	83	110	1.0		13.2	2.0				65	65		199.95
	STA-7		10	0.4	0.07	20-20	80	100	2.0		12.0	3.0			0.6	45	60	18%	179.95
	STA-430		10	0.6	0.25	20-20	89	90	2.5		14.1	3.0			0.6	45	65		159.95
REVOX	B780	FM	70	0.03	0.03	20-20	82	300	1	5.0	22.0	2	10.0	28.0	0.1/ 0.25	78	78/74	37%	2699.00
ROTEL	RX-1010		60	0.03	0.03	5-50	76	240	1.76	10.3		1	15.2	36	0.10/ 0.15	70	72/68	20	495.00
	RX-700		35	0.08	0.07	5-50	76	220	1.8	10.3		1	15.2	36	0.10/ 0.15	62	72/68	18	350.00
	RX-550		40	0.08	0.07	5-50	80	200	1.8	10.8		1	15.2	36	0.15/ 0.15	55	72/68	19	300.00
	RX-400		20	0.08	0.07	10-50	82	160	1.5	11.2		1.2	14.5	38	0.15/ 0.15	55	70/65	12	200.00
	RMX-70		20	0.08	0.07	20-20	78	140	1.7	11.2		1.0	14.5	38	0.15/ 0.15	55	70/65	10%	180.00
SAE	Two R9		90	0.05	0.05	20-20	74	200	1.2	10.3	17.3	1.5	17.3	34.7	0.1/ 0.22	65	74/65	33	849.00
	Two R6		60	0.05	0.05	20-20	74	200	1.2	11.25	17.3	2	17.3	34.7	0.15/ 0.25	65	74/65	32	675.00
SANSUI	9900Z		160	0.015	0.015	20-20	80	200		10.3	19	1.0	14	37	0.05/ 0.07	75/50	80/76	38.6	1130.00
	8900ZDB		125	0.02	0.02	20-20	80	200		10.3	19	1.0	14	37	0.1/ 0.15	60	80/76	32.6	900.00
	7900Z		100	0.02	0.02	20-20	80	200		10.3	19	1.0	14	37	0.1/ 0.15	60	80/76	30	780.00
	5900Z		75	0.03	0.03	20-20	80	180		10.8		1.0	15	37	0.1/ 0.15	60	76/70	20.9	600.00
	4900Z		55	0.03	0.03	20-20	80	180		10.8		1.0	15	37	0.1/ 0.15	60	76/70	18.7	500.00
	3900Z		40	0.03	0.03	20-20	73	180		10.8		1.0	15	37	0.1/ 0.15	60	76/70	17.9	400.00
	R-99Z		30	0.05	0.05	30-20	73	160		10.8	22	1.0	17	37	0.25/ 0.35	60	72/68	12.3	330.00
SANYO	2033		33	0.04		20-20	73	130			1.5	13.7		0.2/0.3		75/70		229.95	
	Plus 75		75	0.03	0.03	20-20	97@ 10 mV			10.8	1.2	13.7	37	0.2/0.3	75/	75/70		449.95	
	Plus 130		130	0.025		20-20	97@ 10 mV			10.3	1.8/ 1.2	13.5	36.3	0.15/0.2	55/80	80/74		649.95	
H.H. SCOTT	385R	FM	85	0.03	0.03	20-15	85	200		10.3		1.0				65	78/70		599.95
	375R	FM	65	0.03	0.03	20-15	84	200		10.3		1.0	16.9			60	76/70		459.95
	355R	FM	45	0.04	0.04	20-15	81	200		10.8		1.2	16.9			60	72/67		379.95
	335R	FM	30	0.05	0.05	30-15	75	150		10.8		1.5	17.3	39.0		55	70/65		279.95
	325R	FM	20	0.05	0.05	30-15	75	150		10.8		1.5	17.3	39.0		55	70/65		229.95

# RECEIVERS

MANUFACTURER	Model	Unit Type: FM Only=FM; KHz=K	Ave. Watts / Chan. - 8 Ohms			Rated Power Watts to KHz	MM Phono S/N, dB: A	MM Phono Overload, mV, per IHF A-202	Dynamic Headroom, dB	Mono IHF Sensitivity, dB	Stereo IHF Sensitivity, dB	Capture Ratio, dB	Mono Signal Strength for 50-dB Quieting, dB	Stereo Signal Strength for 50-dB Quieting, dB	% THD 100% Modulation, 1 kHz, Mono/Stereo	All Chan. Select. dB Wide/Narrow I.F. Bandwidth	Max. S/N, dB, Mono/Stereo	Net Weight, Lbs.	Price, \$
			% THD	% IHF IM	% IHF IM														
SHERWOOD	S-9600 CP		60	0.05	0.05	96	200	1.54	9.3		1.2	14.8	36.5	0.1/0.1	70	80/75	25½	479.95	
	S-9400 CP		40	0.05	0.05	96	160	1.76	9.8		1.2	15.3	36.5	0.1/0.15	70	80/75	21½	399.95	
	S-9300 CP		30	0.06	0.06	91	140	2.13	9.8		1.2	15.3	37.2	0.12/0.15	70	80/75	18½	319.95	
	S-9200 CP		20	0.08	0.08	91	140	1.93	10.3		1.5	15.8	37.2	0.15/0.2	65	80/75	17	249.95	
	S-9180 CP		18	0.08	0.08	91	140	2.0	10.3		1.5	15.8	37.2	0.15/0.2	65	80/75	16½	219.95	
SONY	STR-VX6		70	0.006	0.006	81	200	0.5	11.2		1.0	17.3	36.8	0.08/0.15	80	85/80	13%	670.00	
	STR-VX5		55	0.007	0.007	81	200	0.5	11.2		1.0	17.3	36.8	0.08/0.15	80	84/79	13%	530.00	
	STR-VX4		40	0.008	0.008	81	150	1.4	11.2		1.0	17.3	36.8	0.08/0.15	80	83/78	16%	430.00	
	STR-VX3		35	0.008	0.008	81	150	1.4	11.2		1.0	17.3	38.3	0.15/0.25	60	83/78	14½	330.00	
	STR-VX2		28	0.07	0.07	76	150		11.2		1.0	17.3	38.3	0.15/0.25	60	83/78	13%	260.00	
	STR-VX1		22	0.08	0.08	72	150		11.2		1.5	17.3	38.3	0.2/0.3	60	75/70	13%	225.00	
TANDBERG	TR3030	FM	20		0.02	20-30	60	1.7	10.8		1.5	16.2	32	0.41	60	65/63	19	399.00	
	TR2045		45	0.09	0.09	8-50	80	90	3	10.8		1.5	16.2	37	0.4/0.5	80	76/74	22	545.00
	TR2060		60	0.09	0.09	8-50	80	90	3	10.8		1.5	16.2	37	0.4/0.5	80	76/74	22	695.00
	TR2080		80	0.05	0.05	8-50	82	120-500	3	9.8		0.9	14.8	35	0.2/0.3	80	78/75	27	995.00
TECHNICS	SA-103	FM	20	0.04	0.04	20-20	75	120	0.7	10.8	1.2	14.8	38.3	0.15/0.2	68	75/70	11	200.00	
	SA-203	FM	30	0.04	0.04	20-20	75	120	0.7	10.8	1.2	14.8	38.3	0.15/0.2	68	75/70	12.3	260.00	
	SA-222	FM	30	0.04	0.04	20-20	75	120	0.7	10.8	1.2	13.7	37.2	0.15/0.2	70	75/70	13	320.00	
	SA-424	FM	45	0.007	0.01	20-20	74	130	1.6	10.8	1.2	13.7	37.2	0.15/0.2	75	75/70	15.5	435.00	
	SA-626	FM	65	0.005	0.01	20-20	78	130	1.3	10.8	1.2	13.7	37.2	0.09/0.15	75	75/70	23.1	585.00	
	SA-828	FM	100	0.005	0.01	20-20	78	145	1.3	10.8	1.2	13.7	37.2	0.08/0.1	75/75	77/71	33.1	875.00	
TOSHIBA	SA-R1		18	0.09	0.09	20-20	80	150	11.3		1.5			0.1/0.2	60	68/73	22	199.95	
	SA-2500		25	0.05	0.05	20-20	80	180	10.3		1.0	16.3	38.3	0.08/0.15	65	78/72	17.6	249.95	
	SA-3500		35	0.04	0.04	20-20	84	200	10.3		1.0	16.3	38.3	0.08/0.15	75	78/72	19.8	299.95	
	SA-5000		50	0.03	0.03	20-20	84	240	10.3		1.0	16.3	38.3	0.08/0.15	75	78/72	20.9	379.95	
	SA-555		55	0.03	0.03	20-20	84	240	10.3		1.0	16.3	38.3	0.08/0.15	75	78/72	24.2	499.95	
VECTOR RESEARCH	VRX-9500		90	0.02	0.02	20-20	82	180	2.5	9.8	1.0	15.0	35.0	0.06/0.08	70	75/70	30½	1000.00	
	VRX-9000		80	0.05	0.05	20-20	82	180	2.5	9.8	1.0	15.0	35.0	0.07/0.09	65	75/70	30½	750.00	
	VRX-8000		50	0.02	0.02	20-20	82	180	2.3	9.8	1.0	15.0	35.0	0.07/0.09	65	75/70	28	600.00	
	VR-7000		65	0.05	0.05	20-20	82	180	2.0	10.8	1.0	15.0	35.0	0.1/0.25	55	78/71	26	550.00	
	VR-5000		45	0.05	0.05	20-20	82	180	1.7	10.8	1.0	15.0	35.0	0.1/0.25	55	78/71	24	400.00	
	VR-3000		25	0.1	0.1	40-20	82	180	1.6	10.8	1.0	15.0	35.0	0.1/0.25	55	78/71	22	300.00	
	VR-2500		22	0.2	0.2	20-20	82	100	1.6	10.8	1.0	15.0	35.0	0.1/0.25	55	78/71	22	265.00	
YAMAHA	R-2000		150	0.015	0.01	20-20	90	250	3	11.3	1.2	14.2	33.2	0.06/0.07	30/82	85/81	29¼	900.00	
	R-1000		100	0.015	0.01	20-20	90	250	3	11.3	1.2	14.2	33.2	0.06/0.07	30/82	85/81	27½	700.00	
	R-900		70	0.015	0.01	20-20	90	200	3	13.2	1.5	15.3	33.2	0.06/0.07	30/82	84/80	21	550.00	
	R-700		50	0.015	0.01	20-20	85	200	2.5	13.2	1.5	15.3	33.2	0.06/0.07	30/82	84/80	19¼	450.00	
	R-500		40	0.015	0.01	20-20	85	180		14.2	1.5	14.8	31.2	0.1/0.15	55	84/80	17½	330.00	
	R-300		30	0.015	0.01	20-20	85	180		14.2	1.5	14.8	37.3	0.1/0.2	55	84/80	17	260.00	

# TURNTABLES



Technics SL-DL1



Dual 741Q



ADC 3001

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

MANUFACTURER	Model	Speeds—See Code	Wow & Flutter, % 33 1/3, DIN 45-507	Rumble, -dB, DIN 45-539-B	Motor Type	Drive System	Speed Inaccuracy, %	Speed Adjustment Range, %	Speed Accuracy Indicator Type	Straight-Line Tracking Arm?	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, Gms. pf	Damped Cueing?	Dimensions, Inches Inc. Dust Cover	Price, \$
ADC	3001	B	0.035	70	A.C. Servo	Direct	5	Strobe	No									18 1/2 x 14 1/4 x 6	249.95
AIWA	AP-D50U	B	0.028		D.C. Hall F.G. Servo	Direct	3		No	No	0		Yes	0.5-2.59		Yes	4 1/4 x 17 1/4 x 14 1/2	370.00	
	AP-D60U	B	0.035		D.C. Servo	Direct		Strobe	Yes	No	0	3.5	Yes			Yes	16 1/2 x 2 1/4 x 14 1/4	245.00	
	AP-D30H	B	0.035		D.C. Servo	Direct	3		No	No	0		Yes	0-4		Yes	4 1/2 x 16 1/4 x 14 1/4	220.00	
	AP-D35H	B	0.07		4-Pole Sync.	Belt			Yes	No	0		Yes	0-4		Yes	16 1/2 x 4 1/4 x 14	135.00	
AKAI	AP-L95	B	0.02	75	Quartz D.C. Brushless	Direct	0.002	LED	Yes	7.2	No	C/O		0-3		Yes	17.3 x 4.9 x 16.1	575.00	
	AP-L45	B	0.02	75	Quartz D.C. Brushless	Direct	0.002	LED	Yes	7.2	No	C/O		0-3		Yes	17.3 x 4.9 x 16.1	399.95	
	AP-Q80	B	0.025	74	Quartz D.C. Servo	Direct	0.002	3 Digital	No	8.7	No	C/O	Yes			Yes	17.3 x 5.5 x 15.8	475.00	
	AP-Q60	B	0.033	70	Quartz D.C. Servo	Direct	0.002	5 Strobe	No	8.7	No	C/O	Yes			Yes	17.3 x 5.5 x 15.8	199.95	
	AP-Q50	B	0.035	70	Quartz D.C. Servo	Direct		5 Strobe	No	8.7	No	0	Yes			Yes	17.3 x 5.5 x 15.8	179.95	
	AP-D40	B	0.033	73	D.C. Servo	Direct	5	Strobe	No	8.7	No	C/O	Yes			Yes	17.3 x 5.5 x 15.8	159.95	
	AP-D30	B	0.035	70	D.C. Servo	Direct	5	Strobe	No	8.7	No	0	Yes			Yes	17.3 x 5.5 x 15.8	139.95	
	AP-B20	B	0.05	65	4-Pole Sync.	Belt			No	8.7	No	0	Yes			Yes	17.3 x 5.3 x 14	105.00	
APATURE	T-2	B	0.025	78	D.C. Quartz Brushless	Direct	0.002	Strobe									22 x 17 1/2 x 6	249.95	
ARISTON AUDIO	Rd80	B	0.03	74	A.C. Sync.	Belt	0.05	No	No									17 1/2 x 14 x 5 1/2	479.00
	Rd110	B	0.03	74	A.C. Sync.	Belt	0.05	No	No									17 1/2 x 14 x 5 1/2	799.00
	Rd115	B	0.03	74	A.C. Sync.	Belt	0.05	No	No									17 1/2 x 14 x 5 1/2	699.00
AUDIONICS	LK-1	B	0.05		Hall	Belt	0.05	10	LED	No									749.00
BANG & OLUFSEN	Beogram 8000	B	0.2	70	D.C. Servo	Mag.	3		Yes	No	C/O	0.04	No			Yes	19 1/2 x 3 1/2 x 14 1/4	1100.00	
	Beogram 3404	B	0.025	65	D.C. Servo	Belt	3		No	No	C/O	0.126/cm	No			Yes	17 1/4 x 3 1/2 x 14 1/4	495.00	
	Beogram 1700	B	0.045	62	D.C. Servo	Belt	3		No	No	C/O	0.126/cm	No			Yes	17 1/4 x 3 1/2 x 13	395.00	
	Beogram 1600	B	0.045	62	D.C. Servo	Belt	3		No	No	C/O	0.126/cm	No			Yes	17 1/4 x 3 1/2 x 13	325.00	

# TURNTABLES

MANUFACTURER		Model	Speeds—See Code		Wow & Flutter, % 33 1/3, DIN 45-507	Rumble, -dB, DIN 45-530-B	Motor Type	Drive System	Speed Inaccuracy, ±%		Speed Accuracy Range, ±%	Straight-Line Tracking Arm?			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, Gms.		Damped Cueing?	Dimensions, Inches, Inc. Dust Cover	Price, \$
			33 1/3	45					Strobe	±%		±%	Yes	No						C/O	Yes			
BSR	150SX	B	0.02	67	D.C. Servo Elect. Cont.	Direct		4	Strobe		9.37	No	C/O		Yes	1.5-5		Yes						
	75MX	B				Belt		3	Strobe		8	6	O		Yes			Yes					99.95	
	72MX	B				Belt	+3	0	No		8	6	O		Yes			Yes					89.95	
	65SX	B			D.C.	Belt	+3	3	Strobe		8	No	O		No			No					89.95	
	62SX	B			D.C. Elect. Cont.	Belt	-1	0	No		8	No	O		No			No					79.95	
COTTER	B-1	A	0.03	75	Quartz A.C. Servo	Direct	0.001	10	No												25 1/2 x 20 x 12	2850.00		
DENNESEN	Zolt	B	0.05	45	D.C.	Belt	0.05	2															600.00	
DENON	DP31L	B	0.012	78	A.C. Servo	Direct	0.02	0	Quartz Lamp Strobe	No	9	No	C/O		Yes	0.1-2.5		Yes		17 x 5 1/4 x 15 1/4	225.00			
	DP30LS	B	0.018	78	A.C. Servo	Direct	0.002	6	Strobe	No	9	No	C/O		Yes	0.1-2.5		Yes		18 x 5 1/2 x 16	275.00			
	DP32F	B	0.012	78	A.C. Servo	Direct	0.02	0	Quartz Lamp Strobe	No	9		C/O		Yes	0.1-2.5		Yes		17 x 5 1/4 x 15 1/4	325.00			
	DP33F	B	0.015	78	A.C. Servo	Direct	0.002	0	Quartz Lamp Strobe	No	9		C/O		Yes	0.1-2.5		Yes		17 x 5 1/4 x 15 1/4	395.00			
	DP40F	B	0.015	78	A.C. Servo	Direct	0.002	0	Quartz Lamp Strobe	No	9%		C/O		Yes	0.1-2.5		Yes		19 1/2 x 17 1/2 x 5%	495.00			
	DP55K	B	0.015	78	A.C. Servo	Direct	0.002	6	Strobe	No					Yes	0.1-2.5		Yes		20 1/2 x 7 1/2 x 17	425.00			
	DP60L	B	0.015	78	A.C. Servo	Direct	0.002	6	Strobe	No	9%	No	C/O		Yes	0.1-2.5		Yes		19 1/2 x 7 1/4 x 16 1/2	585.00			
	DP100	A	0.005	92	A.C. Servo	Direct	0.0005	10	Digital														5000.00	
DUAL	1258	B	0.05	68	Sync.	Belt		6	Strobe	No	8%	6	O		Yes	0.25-3		Yes		16 1/2 x 14 1/2 x 7 1/4	149.95			
	1268	B	0.4	70	Sync.	Belt		6	Strobe	No	8%	6	O		Yes	0.25-3		Yes		17 1/2 x 15 1/2 x 7 1/4	199.95			
	508	B	0.4	70	Sync.	Belt		6	Strobe	No	8%	No	C/O		Yes	0.25-3		Yes		17 1/2 x 15 1/2 x 5 1/2	159.95			
	528	B	0.4	70	Sync.	Belt		6	Strobe	No	8%	No	O		Yes	0.25-3		Yes		17 1/2 x 15 1/2 x 5 1/2	179.95			
	607	B	0.3	75	Elect.	Direct		11	Strobe	No	8%	No	C/O		Yes	0.25-3		Yes		17 1/2 x 15 1/2 x 5 1/2	219.95			
	6270	B	0.025	78	Quartz PLL	Direct		11	Strobe	No	8%	No	O		Yes	0.25-3		Yes		17 1/2 x 15 1/2 x 5 1/2	259.95			
	608	A	0.03	75	Elect.	Direct		11	Strobe	No	8%	No	C/O		Yes	0.25-3		Yes		17 1/2 x 15 1/2 x 5 1/2	329.95			
	7080	B	0.025	78	Quartz PLL	Direct		11	Strobe	No	8%	No	C/O		Yes	0.25-3		Yes		17 1/2 x 15 1/2 x 5 1/2	349.95			
	7280	B	0.025	78	Quartz PLL	Direct		11	Strobe	No	8%	No	O		Yes	0.25-3		Yes		17 1/2 x 15 1/2 x 5 1/2	369.95			
	7410	B	0.015	80	Quartz PLL	Direct		12	Strobe	No	8%	No	O		Yes	0.25-3		Yes		17 1/2 x 15 1/2 x 5 1/2	499.95			
EMT	948	A	0.075	70	Quartz Servo	Direct	0.1	6	No	No		No	C		Yes	0-5		Yes		18 1/2 x 19 x 9 1/2	3790.00			
	950	A	0.05	70	Quartz Servo	Direct	0.1	6	No	No		No	C		Yes	0-5		Yes		22 1/2 x 20 x 9 1/2	6174.00			
FISHER	MT6117	B	0.08	55	4-Pole A.C. Servo	Belt	0.1		No	No	7%	No	O	3	Yes	0.6-3.5		Yes		17 1/2 x 13 1/2 x 5 1/2	119.95			
	MT6410	B	0.04	68	D.C. Servo	Belt	0.8	3	Yes	Yes	8%	No	O	2	Yes	0.6-3.5		Yes		17 1/2 x 14 1/2 x 5 1/2	119.95			
	MT6410C	B	0.04	68	D.C. Servo	Belt	0.8	3	Yes	Yes	8%	No	O	2	Yes	0.6-3.5		Yes		17 1/2 x 14 1/2 x 5 1/2	149.95			
	MT6420	B	0.035	68	D.C. Servo	Direct	0.05	3	Yes	Yes	8%	No	O	1.8	Yes	0.6-3.5		Yes		17 1/2 x 14 1/2 x 5 1/2	149.95			
	MT6420C	B	0.035	68	D.C. Servo	Direct	0.05	3	Yes	Yes	8%	No	O	1.8	Yes	0.6-3.5		Yes		17 1/2 x 14 1/2 x 5 1/2	179.95			
	MT640	B	0.035	70	D.C. Servo	Direct	0.5	3	Yes	Yes	8%	No	C/O	1.8	Yes	0.6-3.5		Yes		17 1/2 x 14 1/2 x 4 1/2	179.95			
	MT640C	B	0.035	70	D.C. Servo	Direct	0.5	3	Yes	Yes	8%	No	C/O	1.8	Yes	0.6-3.5		Yes		17 1/2 x 14 1/2 x 4 1/2	199.95			
	MT6430	B	0.035	70	D.C. Servo 120-Pole	Direct	0.5	3	Strobe	Yes	8%	No	O	1.5	Yes	0.6-3.5		Yes		17 1/2 x 14 1/2 x 5 1/2	189.95			
	MT6430C	B	0.035	70	A.C. Servo 120-Pole	Direct	0.5	3	Strobe	Yes	8%	No	O	1.5	Yes	0.6-3.5		Yes		17 1/2 x 14 1/2 x 5 1/2	219.95			
	MT650	B	0.035	70	A.C. Servo Quartz PLL	Direct				Yes	8%	No	C/O	1.8	Yes	0.6-3.5		Yes		17 1/2 x 14 1/2 x 4 1/2	229.95			
	MT650C	B	0.035	70	D.C. Servo Quartz PLL	Direct				Yes	8%	No	C/O	1.8	Yes	0.6-3.5		Yes		17 1/2 x 14 1/2 x 4 1/2	259.95			
	MT6435	B	0.035	70	D.C. Servo 120-Pole	Direct		3	Strobe	Yes	8%	No	O	1.5	Yes	0.6-3.5		Yes		17 1/2 x 14 1/2 x 5 1/2	229.95			
	MT6435C	B	0.035	70	Quartz PLL 120-Pole	Direct		3	Strobe	Yes	8%	No	O	1.5	Yes	0.6-3.5		Yes		17 1/2 x 14 1/2 x 5 1/2	259.95			
	MT6455	B	0.035	70	Quartz PLL	Direct			Strobe	Yes	8%	No	C/O	1.5	Yes	0.6-3.5		Yes		17 1/2 x 14 1/2 x 6	279.95			
	MT6455C	B	0.035	70	D.C. Servo Quartz PLL	Direct			Strobe	Yes	8%	No	C/O	1.5	Yes	0.6-3.5		Yes		17 1/2 x 14 1/2 x 6	299.95			
	MT6360	B	0.035	70	D.C. Servo A.C. Servo	Direct	0.3	6	Strobe	No	8%	No	C/O	1.5	No			Yes		17 1/2 x 14 1/2 x 5 1/2	349.95			
GARRARD	B-20	B	0.06	65	A.C. Servo	Belt		0	No	No	9	No	C	0.03B	Yes	0.75-3		Yes		17 1/2 x 14 1/2 x 5	129.95			
	B-30	B	0.045	70	Sync. D.C. Servo	Belt		3	LED Strobe	No	9	No	C	0.03B	Yes	0.75-3		Yes		17 1/2 x 14 1/2 x 5	164.95			
	B-35	B	0.045	70	D.C. Servo	Belt		3	LED Strobe	No	9	No	C/O	0.03B	Yes	0.75-3		Yes		17 1/2 x 14 1/2 x 5	194.95			



# 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 45-507	Rumble, -dB, DIN 45-539-B	Motor Type	Drive System	Speed Accuracy, ±%			Speed Adjustment Range, ±%	Straight-Line Tracking Indicator Type	Pivot-Stylus Tracking Arm?	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, Inc. Dust Cover	Price, \$
MANUFACTURER	0							No	Yes													
MICRO SEIKI	MB12ST	B	0.06	62	Sync.	Belt	0.5	0	No	No	8.4	No	O	1.5	Yes	0.5-3	200	Yes	17 1/2 x 13 1/4 x 5 1/2	149.00		
	MB14ST	B	0.05	65	Sync.	Belt	0.4	0	No	No	8.4	No	O	1.5	Yes	0.5-3	200	Yes	17 1/2 x 13 1/4 x 5 1/2	209.00		
	MB18	B	0.025	72	F.G. Servo	Belt	0.1	3.5	Strobe	No	8.4	No	O	1.5	Yes	0.5-3	200	Yes	17 1/2 x 13 1/4 x 5 1/2	279.00		
	DD31	B	0.025	70	D.C. Servo	Direct	0.1	3.5	Strobe	No	9.3	No	C	1.5	Yes	0.5-3	165	Yes	18 1/2 x 14 x 6 1/2	399.00		
	MB38	B	0.025	72	F.G. Servo	Belt	0.1	3.5	Strobe	No	8.4	No	O	1.5	Yes	0.5-3	200	Yes	17 1/2 x 15 1/2 x 5 1/2	469.00		
	DQ3	B	0.025	70	D.C. Servo	Direct	0.02	0	No	No	9.3	No	No	1.5	Yes	0.5-3	165	Yes		499.00		
	DQX500	B	0.025	70	D.C. Servo	Direct	0.02	0	No	No	9.3	No	No	1.5	Yes	0.5-3	165	Yes		649.00		
	BL21	B	0.025		F.G. Servo	Belt	0.02	3.5	Strobe										17 1/2 x 15 x 6 1/2	329.00		
	BL51	B	0.025		D.C. Servo	Belt	0.02	3.5	No										20 x 16 x 6.9	499.00		
	BL91	B	0.025		D.C. Servo	Belt	0.02	3.5	No										20.9 x 17.3 x 6.9	799.00		
	BL91L	B	0.025	75	D.C. Servo	Belt	0.02	3.5	No										23.6 x 18.6 x 7.3	1299.00		
	DQX1000	B	0.025	72	D.C. Servo	Direct	0.01	3.5	Strobe										17 1/2 x 17 1/2 x 5	999.00		
	BL111	B	0.01	90	D.C. Servo	Belt		6	No										21 x 17.3 x 9	2500.00		
	RX3000	B	0.01	90	D.C. Servo	Belt		6	No										22.2 x 12.3 x 4.5	2500.00		
	RX5000	B		90	D.C. Servo	Belt		6	No										22.2 x 12.3 x 4.5	4000.00		
SX8000	B		90	D.C. Servo	Belt		6	No										22.2 x 12.3 x 6.5	10,000.00			
MISSION ELECTRONICS	775	B			A.C.	Belt						No								697.00		
MITSUBISHI	LT-30	B	0.04	78	Quartz PLL D.C. Servo	Direct	0.001	No	No	Yes	6%	No	C/O	0.05	No	0-3	55	Yes	19 1/2 x 16 1/2 x 5 1/2	690.00		
	LT-5V	B	0.045	76	PLL D.C. Servo	Belt		3	Strobe	Yes	7 1/2%	No	C/O	0.1	No	0-3	80	Yes	7 1/2 x 17 x 18%	450.00		
	LT-20	B	0.04	75	Quartz PLL D.C. Servo	Direct		No	No	Yes	6%	No	C/O	0.1	No	0-3	55	Yes	16 1/2 x 16 1/2 x 5 1/2	410.00		
	DP-EC8	B	0.04	75	Quartz PLL D.C. Servo	Direct		No	No	No	9	No	C/O	3.0	Yes	0-3	200	Yes	14 1/2 x 16 x 5 1/2	300.00		
	DP-6	B	0.05	70	Quartz PLL D.C. Servo	Direct		No	No	No	8 1/2%	No	O	3.0	Yes	0-3	200	Yes	14 1/2 x 16 x 5 1/2	220.00		
NAD	5020A	B	0.08	65	A.C. Sync.	Belt	0.05		No	No	9	No	C/O	0.38	Yes	0.5-3	170	Yes	17 1/2 x 14 1/2 x 5 1/2	198.00		
NIKKO AUDIO	NP-500	B	0.08	65	4-Pole Sync.	Belt		0	No	Yes	8%	No	O		Yes			Yes	16 1/2 x 5 x 15 1/2	130.00		
	NP-900	B	0.05	68	F.G. D.C. Servo	Direct		4	Strobe	Yes	8%	No	O		Yes			Yes	16 1/2 x 5 1/4 x 15 1/2	220.00		
ONKYO	CP-1000A	B	0.08	62	Sync.	Belt		0	No	Yes	8%	No	No		Yes		110	Yes	16 1/2 x 15 x 5 1/2	124.95		
	CP-1012F	B	0.05	67	D.C. Servo	Belt		3	LED	Yes	8%	No	No		Yes		110	Yes	16 1/2 x 14 1/2 x 5 1/2	149.95		
	CP-1015A	B	0.035	70	D.C. Servo	Direct		3	Strobe	Yes	8%	No	C/O		Yes		110	Yes	16 1/2 x 14 1/2 x 5 1/2	159.95		
	CP-1027F	B	0.028	72	D.C. Servo	Direct		3	LED	Yes	8%	No	C/O		Yes		100	Yes	16 1/2 x 15 x 5 1/2	189.95		
	CP-1030F	B	0.03	75	D.C. Quartz	Direct		3	Strobe	Yes	8%	No	C/O		Yes		120	Yes	17 1/2 x 14 1/2 x 5 1/2	314.95		
	CP-1130F	B	0.025	72	D.C. Servo	Direct		3	LED	Yes	8%	No	C/O		Yes		100	Yes	16 1/2 x 15 x 5 1/2	249.95		
	CP-1150F	B	0.025	75	D.C. Quartz	Direct		3	LED	Yes	8%	No	C/O		Yes		100	Yes	16 1/2 x 15 x 5 1/2	329.95		
	CP-1260F	B	0.025	75	PLL D.C. Quartz	Direct		6	LED	Yes	9%	No	C/O		Yes		100	Yes	18 1/2 x 16 1/2 x 6 1/2	359.95		
	CP-1280F	B	0.025	75	D.C. Quartz	Direct		6	LED	Yes	9%	No	C/O		Yes		100	Yes	18 1/2 x 16 1/2 x 6 1/2	449.95		
OPTONICA	RP-3300	B	0.04	65	F.G. D.C. Servo	Direct	0.04	3	Strobe	Yes	8.5	No	O		Yes	1-4	150	Yes	17 x 13.8 x 4.5	170.00		
	RP-4705	B	0.035	70	F.G. D.C. Servo	Direct	0.012	4	Strobe	No	8.3	No	C/O		Yes	1-4	150	Yes	18.9 x 15.1 x 4.3	220.00		
PHASE LINEAR	8000	B	0.013	78	Hall	Direct	0.002						C/O	0	Yes		200	Yes	19.4 x 6 x 17.5	649.00		
PIONEER	PL-L800	B	0.012	78	Quartz PLL D.C. Servo	Direct		No	No	Yes	6%	No	C/O	0	No		120	Yes	16 1/2 x 4 1/2 x 16 1/2	450.00		
	PL-8	B	0.012	78	Quartz PLL D.C. Servo	Direct		No	No	No	8%	No	C/O	0.5	Yes		120	Yes	16 1/2 x 4 1/2 x 15 1/2	300.00		
	PL-7	B	0.012	78	Quartz PLL D.C. Servo	Direct		No	No	No	8%	No	C/O	0.5	Yes		120	Yes	16 1/2 x 4 1/2 x 14 1/2	200.00		

# 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

MANUFACTURER	Model	Speeds—See Code	Wor & Flutter % 33 1/3, DIN 45-507	Rumble - db DIN 45-507	Motor Type	Drive System	Speed Inaccuracy, ±%	Speed Adjustment Range, ±%	Speed Accuracy Indicator Type	Straight-Line Tracking Arm?	Pivot Stylus Dist., Inches	Multi-Play? If Yes, # Discs	Auto Cue ↑/↓, Auto Off ↑/↓	Max. Tracking Error Deg./In.	Anti-Skate Adjustment?	Tracking Force Range, Gms.	Total Cable Capacitance, pF	Damped Clamping?	Dimensions, Inches, Inc. Dust Cover	Price, \$
PIONEER (Continued)	PL-5	B	0.025	78	Hall D.C. Servo	Direct	6	Strobe	No	8 1/2	No	C/O	0.5	Yes		120	Yes	16 1/2 x 14 1/2 x 14 1/2	180.00	
	PL-4	B	0.025	78	Hall D.C. Servo	Direct	6	Strobe	No	8 1/2	No	0	0.5	Yes		120	Yes	16 1/2 x 14 1/2 x 14 1/2	160.00	
	PL-2	B	0.05	68	D.C. Servo	Belt		No	No	8 1/2	No	0	0.5	Yes		120	Yes	16 1/2 x 14 1/2 x 14 1/2	130.00	
RADIO SHACK	Lab-440	B	0.035	70	D.C. Servo	Direct		Strobe	Yes	No	C/O		Yes	0-4		Yes	5 1/2 x 16 1/2 x 14 1/2	219.95		
	Lab-395	B	0.05	70	D.C. Servo	Direct	4.5	Strobe	No	No	0		Yes	0-4		Yes	5 1/2 x 16 1/2 x 14 1/2	169.95		
	Lab-290	B	0.05	70	D.C. Servo	Belt		No	Yes	No	0		Yes	0-3		Yes	5 1/2 x 16 1/2 x 14 1/2	139.95		
	Lab-120	B			D.C. Servo	Belt		No	No	No	C/O		Yes	0-4		Yes	5 1/2 x 15 1/2 x 14 1/2	89.95		
REGA	Planar 2	B			24-Pole Sync.	Belt	0.5	No	No	9 1/2	No	No	1.5	Yes	0-3	85	Yes	17 1/2 x 14 1/2 x 4 1/2	435.00; armless, 310.00	
	Planar 3	B			24-Pole Sync.	Belt	0.05	No	No	9 1/2	No	No	1.5	Yes	0-3	85	Yes	17 1/2 x 14 x 5	550.00; armless, 420.00	
REVOX	B790	B	0.05	68	DC Servo	Direct	0.01	7	Digital	Yes	1 1/2	0	0.5		0.8-2	220	Yes	7 1/2 x 15 x 5 1/2	899.00	
	B795	B	0.05	70	DC Servo	Direct	0.01		LED	Yes	1 1/2	0	0.5		0.8-2	220	Yes	7 1/2 x 15 1/2 x 5 1/2	649.00	
ROTEL	RP-1010	B	0.025	74	PLL Quartz D.C. Servo	Direct			Strobe	9 1/2	No	C/O		Yes	0-3	130	Yes	17 1/2 x 14 1/2 x 5 1/2	250.00	
	RP-700	B	0.025	74	D.C. Servo	Direct	0.002	3	Strobe	9 1/2	No	C/O		Yes	0-3	130	Yes	17 1/2 x 14 1/2 x 5 1/2	220.00	
	RP-560	B	0.03	72	D.C. Servo	Direct	0.002	3	Strobe	9 1/2	No	0		Yes	0-3	130	Yes	17 1/2 x 14 1/2 x 5 1/2	170.00	
	RP-400	B	0.05	65	4-Pole Hyst.	Belt		3	No	9 1/2	No	0		Yes	0-3	130	Yes	17 1/2 x 14 1/2 x 5 1/2	120.00 w/cart.	
SANSUI	XR-Q11	B	0.015	78	D.C. Quartz Servo	Direct			Strobe	No	9 1/2	No	C/O	Yes			Yes	19 x 16 1/2 x 5 1/2	680.00	
	XR-Q9	B	0.015	78	D.C. Quartz Servo	Direct			Strobe	No	9 1/2	No	C/O	Yes			Yes	19 x 16 1/2 x 5 1/2	525.00	
	FR-D55C	B	0.025	72	D.C. Servo	Direct		3	Strobe	No	8 1/2	No	C/O	Yes			Yes	17 1/2 x 14 1/2 x 5	400.00	
	FR-D45	B	0.025	72	D.C. Servo	Direct		3	Strobe	No	8 1/2	No	C/O	Yes			Yes	17 1/2 x 14 1/2 x 5	270.00	
	FR-D35	B	0.025	72	D.C. Servo	Direct		3	Strobe	No	8 1/2	No	0	Yes			Yes	17 1/2 x 14 1/2 x 4 1/2	175.00	
	FR-D25	B	0.03	65	D.C. PLL Servo	Belt		3	Strobe	No	8 1/2	No	0	Yes			Yes	17 1/2 x 14 1/2 x 4 1/2	130.00	
SANYO	TPX1	B	0.06	60	D.C. Servo	Belt			Strobe	Yes		0	1.5	Yes	0-3		Yes	16 1/2 x 13 1/2 x 4 1/2	89.95	
	TPX1S	B	0.06	60	D.C. Servo	Belt		3	Strobe	Yes		0	1.5	Yes	0-3		Yes	16 1/2 x 13 1/2 x 4 1/2	99.95	
	TPX2	B	0.06	65	D.C. Servo	Belt		3	Strobe	Yes		C/O	1.5	Yes	0-3		Yes	17 1/2 x 17 1/2 x 4 1/2	119.95	
	TPX3	B	0.05	67	D.C. Servo	Direct		3	Strobe	Yes		C/O	1.5	Yes	0-3		Yes	17 1/2 x 17 1/2 x 4 1/2	149.95	
	TP1012/A	B	0.04	70	D.C. Servo	Direct			Strobe			0		Yes			Yes	17 1/2 x 14 1/2 x 5 1/2	139.95	
	Plus Q40	B	0.03	70	D.C. Servo	Direct			Strobe	Yes	8.66	C/O	1.5	Yes	0-3	75	Yes	17 1/2 x 14 1/2 x 6	149.95	
	Plus Q50	B	0.025	73	D.C. Servo	Direct		2	Strobe	Yes	9.33	C/O	1.5	Yes	0-3	75	Yes	17 1/2 x 14 1/2 x 6	199.95	
Plus Q60	B	0.025	73	D.C. Servo	Direct		2	Strobe, Digital	Yes	9.33	C/O	1.5	Yes	0-3	75	Yes	17 1/2 x 14 1/2 x 6	449.95		
H.H. SCOTT	PS28	B	0.07	55	A.C. Sync.	Belt			Strobe	Yes		C/O		Yes	1-4		Yes	17 1/2 x 13 1/2 x 5 1/2	134.95	
	PS48A	B	0.05	55	F.G. D.C.	Belt		3	Strobe	Yes		C/O		Yes	1-3		Yes	17 1/2 x 14 1/2 x 5 1/2	159.95	
	PS68A	B	0.03	60	F.G. D.C.	Direct		3	Strobe	Yes		C/O		Yes	1-3		Yes	17 1/2 x 14 1/2 x 5 1/2	189.95	
	PS78	B	0.03	60	Quartz F.G. D.C.	Direct		3	Strobe	No		C/O		Yes	1-3		Yes	17 1/2 x 15 1/2 x 5	224.95	
SHERWOOD	ST-901 MTD	B	0.075	66	Sync.	Belt			No	8 1/2	No	0	3	Yes	0.5-3	100	Yes	17 1/2 x 14 1/2 x 4 1/2	129.95	
	ST-902 MTD	B	0.06	70	F.G. Servo	Belt		3	Strobe	No	8 1/2	No	0	3	Yes	0.5-3	100	Yes	17 1/2 x 14 1/2 x 4 1/2	159.95
SONY	PS-X800	B	0.03	78	Brushless D.C. Servo	Direct	0.003		Lamp	Yes	7 1/2	No	C/O	0.05	No	0.5-3	50	Yes	17 1/2 x 17 1/2 x 4 1/2	850.00
	PS-X600	B	0.03	78	Brushless D.C. Servo	Direct	0.003		Lamp	No	8 1/2	No	C/O	3	No	0-3	50	Yes	17 x 15 1/2 x 4 1/2	400.00
	PS-X500	B	0.03	78	Brushless D.C. Servo	Direct	0.003		Lamp	No	8 1/2	No	0	3	No	0-3	50	Yes	17 x 15 1/2 x 4 1/2	350.00
	PS-X555	B	0.04	78	Brushless D.C. Servo	Direct	0.003		LED	No	8 1/2	No	C/O	3	Yes	0-3	50	Yes	17 x 14 1/2 x 5 1/2	300.00

# 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																				
MANUFACTURER	Model	Speeds—See Code	Wow & Flutter, % 33% DIN 45-507	Rumble, dB DIN 45-509-B	Motor Type	Drive System	Speed Inaccuracy, ±%	Speed Adjustment Range, ±%	Speed Accuracy Indicator Type	Straight-Line Tracking Arm?	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, Inc. Dust Cover	Price, \$
SONY (Continued)	PS-LX5	B	0.04	78	Brushless D.C. Servo	Direct	0.003	Lamp	No	8½	No	C/O	3	Yes	0-3	90	Yes	17x14x4¼	220.00	
	PS-LX4	B	0.04	78	Brushless D.C. Servo	Direct	0.003	Lamp	No	8½	No	O	3	Yes	0-3	90	Yes	17x14x4¼	190.00	
	PS-LX3	B	0.04	75	Brushless D.C. Servo	Direct	0.05	Lamp	No	8½	No	C/O	3	Yes	0-3	90	Yes	17x14x4¼	200.00	
	PS-LX2	B	0.04	75	Brushless D.C. Servo	Direct	0.05	Lamp	No	8½	No	O	3	Yes	0-3	90	Yes	17x14x4¼	150.00	
SOTA	Sapphire	B	0.04	73	D.C. Servo	Belt		3	Strobe									20¼x16¼x7½	695.00	
S.T.D.	305-M	B	0.06	70	16-Pole Sync	Belt												18½x14½x6¼	750.00	
	305-S	B	0.06	70	16-Pole Sync	Belt												18½x14½x6¼	550.00	
SUMIKO	Gem/707 II	B	0.04	72	Sync	Belt	0.005		No	9.33	No	No	0.4	Yes	0-3	86	Yes	18x15x6½	725.00	
	Gem/747	B	0.04	72	Sync	Belt	0.005		No	9.33	No	No	0.4	Yes	0-3	86	Yes	18x15x6½	800.00	
TECHNICS	SL-B101	B	0.045	70	F.G. D.C. Servo	Belt		6	Strobe	No	9½	No	2.5	Yes	0-2.5	135	Yes	17x4¼x14¼	100.00	
	SL-B202	B	0.045	70	F.G. D.C. Servo	Belt		6	Strobe	No	9½	No	O	2.5	Yes	0-2.5	135	Yes	17x4¼x14¼	135.00
	SL-B303	B	0.045	70	F.G. D.C. Servo	Belt		6	Strobe	No	9½	No	C/O	2.5	Yes	0-2.5	135	Yes	17x4¼x14¼	155.00
	SL-B5	B	0.045	70	F.G. D.C. Servo	Belt		6	Strobe	No	9½	6	C/O	2.5	Yes	0-2.5	145	Yes	17x7x14¼	205.00
	SL-D202	B	0.025	78	D.C. Servo	Direct		10	Strobe	No	9½	No	O	2.5	Yes	0-2.5	135	Yes	17x4¼x14¼	160.00
	SL-D303	B	0.025	78	Brushless D.C. Servo	Direct		10	Strobe	No	9½	No	C/O	2.5	Yes	0-2.5	135	Yes	17x4¼x14¼	180.00
	SL-Q202	B	0.025	78	Brushless Quartz D.C. Servo	Direct			Strobe	No	9½	No	O	2.5	Yes	0-2.5	135	Yes	17x4¼x14¼	220.00
	SL-Q303	B	0.025	78	Brushless Quartz D.C. Servo	Direct			Strobe	No	9½	No	C/O	2.5	Yes	0-2.5	135	Yes	17x4¼x14¼	240.00
	SL-D5	B	0.025	75	Brushless D.C. Servo	Direct		10	Strobe	No	9½	6	C/O	2.5	Yes	0-2.5	145	Yes	17x7¼x14¼	250.00
	SL-1600II	B	0.025	78	Brushless Quartz D.C. Servo	Direct		6	Strobe	No	9½		C/O	2.5	Yes	0-2.5	78	Yes	5½x17½x15½	450.00
	SL-1700II	B	0.025	78	Brushless Quartz D.C. Servo	Direct		6	Strobe	No	9½		O	2.5	Yes	0-2.5	78	Yes	5½x17½x15½	390.00
	SL-1800II	B	0.025	78	Brushless Quartz D.C. Servo	Direct		6	Strobe	No	9½		2.5	Yes	0-2.5	78	Yes	5½x17½x15½	340.00	
	SL-1200II	B	0.025	78	Brushless Quartz D.C. Servo	Direct		8	Strobe	No	9½		2.5	Yes	0-2.5	70	Yes	6½x17½x14¼	400.00	
	SP-25	B	0.025	78	Brushless Quartz D.C. Servo	Direct		6	Strobe	No	9½		2.5	Yes	0-2.5	70	Yes	6½x19½x15½	400.00	
	SP-15	E	0.025	78	Brushless Quartz D.C. Servo	Direct		9.9	Strobe	No	9½		2.5	Yes	0-2.5	70	Yes	6½x19½x15½	700.00	
	SP-10MKII	E	0.025	70	Brushless Quartz D.C. Servo	Direct			Strobe	No	9½		2.5	Yes	0-2.5	70	Yes	6½x22½x18½	1100.00	
	TECHNICS R & B	SL-DL-1	B	0.025	78	Brushless D.C. Servo	Direct		10	Strobe	Yes	4½		C/O	0.1	1-1.5	170	Yes	17x3½x13¾	360.00
SL-7		B	0.025	78	Brushless Quartz D.C. Servo	Direct			Strobe	Yes	4½		C/O	0.1	1-1.5	170	Yes	12½x3½x12½	400.00	
SL-Q4		B	0.025	78	Brushless Quartz D.C. Servo	Direct			Strobe	Yes	4½		C/O	0.1	1-1.5	170	Yes	17x3½x13¾	470.00	
SL-10		B	0.025	78	Brushless Quartz D.C. Servo	Direct			Strobe	Yes	4½		C/O	0.1	1-1.5	150	Yes	12½x3½x12½	620.00	
SL-15		B	0.025	78	Brushless Quartz D.C. Servo	Direct			Yes	Yes	4½		C/O	0.1	1-1.5	150	Yes	12½x3½x12½	875.00	
SL-D33 With Remote		B	0.025	75	Brushless D.C. Servo	Direct		10	Yes	No	9½		C/O	2.5	Yes	0-2.5	145	Yes	17x5½x14¼	290.00
SL-1015		A	0.025	78	Quartz Brushless D.C. Servo	Direct	0.002	9.9	Strobe	No	9½	No		Yes	0.75-1.75	90	Yes	22x18x6	1250.00	
SL-1025	B	0.025	78	Quartz Brushless D.C. Servo	Direct	0.002	6	Strobe	No	9½	No		Yes	0-2	90	Yes	20¾x16½x6¾	950.00		
THORENS	TD104	B	0.05	65	D.C. Servo	Belt		6	Strobe	No	8¼	No	0.45	Yes	0-3	230	Yes	17½x15½x5	270.00	
	TD105	B	0.05	65	D.C. Servo	Belt		6	Strobe	No	8¼	No	C/O	0.45	Yes	0-3	230	Yes	17½x15½x5	335.00
	TD110	B	0.05	68	D.C. Servo	Belt		6	Strobe	No	8¼	No	0.45	Yes	0-3	230	Yes	17½x14x5½	350.00	
	TD115	B	0.05	68	D.C. Servo	Belt		6	Strobe	No	8¼	No	C/O	0.45	Yes	0-3	230	Yes	17½x14x5½	430.00
	TD126 MKIIC	A	0.035	72	D.C. Servo	Belt		6	Strobe	No	9	No	C/O	0.45	Yes	0-3	190	Yes	19½x15½x6¾	800.00
	TD126 MKIII/SME	A	0.035	72	D.C. Servo	Belt		6	Strobe	No	9	No	C/O		Yes	0-2.5	290	Yes	19½x15½x6¾	1175.00
	TD126 MKIIIB	A	0.035	72	D.C. Servo	Belt		6	Strobe	No	9	No	C/O		Yes	0-2.5	290	Yes	19½x15½x6¾	645.00
	TD160 Super	B	0.04	72	Sync.	Belt												17½x14¼x6½	395.00	
	TD160 MKIIB	B	0.04	70	Sync.	Belt												16½x14¼x5½	295.00	

# TURNTABLES

LETTER CODE FOR SPEEDS		Model		Speeds—See Code	Wow & Flutter % 33 1/2, DIN 45-507	Rumble—dB, DIN 45-539-B	Motor Type	Drive System	Speed Inaccuracy, ±%	Speed Adjustment Range, ±%	Speed Accuracy Indicator Type	Straight-Line Tracking Arm?	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, Gms.	Total Cable Capacitance, pF	Damped Cueing?	Dimensions, Inches, Inc. Dust Cover	Price, \$
TOSHIBA	SR-B150	B	0.07	60	A.C. Sync.	Belt					7.83	No	O	2	Yes	1-3		100	Yes	16.6x15x5.1	115.00	
	SR-F100	B	0.05	65	D.C. Servo	Belt		3	Strobe		7.83	No	C/O	2	Yes	1-3		100	Yes	16.6x15x4.9	140.00	
	SR-A200	B	0.028	73	D.C. Servo	Direct		3	Strobe		7.83	No	O	2	Yes	1-3		100	Yes	16.6x15x4.9	150.00	
	SR-F200	B	0.028	73	D.C. Servo	Direct		3	Strobe		7.83	No	C/O	2	Yes	1-3		100	Yes	16.6x15x4.9	180.00	
	SR-Q100	B	0.025	75	D.C. Quartz	Direct					7.83	No	O	2	Yes	1-3		100	Yes	16.6x15x4.9	200.00	
	SR-Q200	B	0.025	75	D.C. Quartz	Direct					7.83	No	C/O	2	Yes	1-3		100	Yes	16.6x15x4.9	230.00	
	SR-Q300	B	0.025	75	D.C. Quartz	Direct					7.83	No	C/O	2	Yes	1-3		100	Yes	16.6x15x4.9	300.00	
TRANS AUDIO	Oracle	B	0.03	72	Hall D.C.	Belt	0.02	5	Strobe											19x14x6 1/2	1095.00	
VECTOR RESEARCH	VT-150	B	0.08	65	A.C. Sync.	Belt				Yes	8%		O		Yes	0-4		170	Yes	17x14x5 1/2	130.00	
WIN LABORATORIES	SDC-10	B	0.02	85	D.C. Servo	Belt	0.001	5	Quartz											21x16x8	2925.00	
	Catherine	B	0.03	85	D.C. Servo	Belt	0.01	5	Strobe											21x16x8	950.00	
YAMAHA	PX-2	B	0.01	80	Quartz PLL F.G. Servo	Direct			LED	Yes	7 1/2	No	C/O	0.15		0-2.5		130	Yes	19x16 1/2x6 1/2	900.00	
	P-751	B	0.015	77	Quartz PLL F.G. Servo	Direct			LED	Yes	8%	No	C/O	3	Yes	0-3		100	Yes	17x14x5 1/2	270.00	
	P-550	B	0.015	77	F.G. Servo	Direct		3	Strobe	Yes	8%	No	C/O	3	Yes	0-3		100	Yes	17x14x5 1/2	220.00	
	P-450	B	0.04	70	F.G. Servo	Belt		3	Strobe	Yes	8%	No	C/O	3	Yes	0-3		100	Yes	17x14x5 1/2	190.00	
	PX-3	B	0.015	77	Quartz PLL F.G. Servo	Direct			LED	Yes	7 1/2	No	C/O	0.15		0-2.5		130	Yes	18 1/2x16 1/2x5 1/2		
	P-850	B	0.015	77	Quartz PLL F.G. Servo	Direct			LED	Yes	8%	No	C/O	3	Yes	0-3		100	Yes	17x14x5 1/2	360.00	
	P-350	B	0.04	70	D.C. Servo	Belt			No	Yes	8%	No	O	3	Yes	0-3		100	Yes	17x14x5 1/2	150.00	

## Ever hear a Ruby?

It takes more than a ruby cantilever to make a moving coil cartridge capable of excellent sound reproduction. It takes imagination, engineering knowledge and dedication to perfection.

The Dynavector DV/Karat series is the culmination of these efforts.

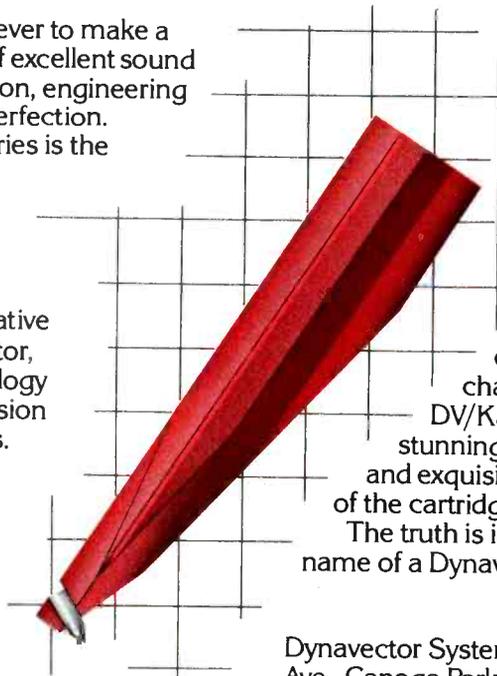
$$C_B = a\sqrt{2\pi f} \left[ 1 - \frac{1}{4}\beta\frac{2\pi f}{\alpha^2} + \frac{1}{4}\delta(2\pi f)^2 + \dots \right]$$

$$\alpha^4 = \frac{EI}{m}, \quad \beta = \rho\alpha^4 \left( \frac{1}{E} + \frac{\gamma}{G} \right), \quad \delta = \frac{\rho^2 r \alpha^4}{EG}$$

Dr. Noboru Tominari, the creative genius and founder of Dynavector, developed a radical new technology taking into account wave dispersion and cantilever vibration theories.

Dr. Tominari reasons that the "soft" sound of most cartridges was due to the various delays of frequencies along the length of the cantilever.

The role of the cantilever as a sound dispersing medium has been mitigated by making it as



short and as hard as possible. As a result, a solid laser cut synthetic ruby cantilever only 2.5mm in length with a diamond contact tip is utilized.

Another benefit of the short/hard ruby cantilever is the high resonance frequency above 50 kHz. Therefore, the elimination of rubber damping.

Without the "creeping time effects of rubber" (temperature changes and age deterioration), the DV/Karat's ability to produce sound with stunning realism, brilliant tonal balance and exquisite detail is maintained over the life of the cartridge.

The truth is in the listening. Call or write for the name of a Dynavector audio specialist near you.

Dynavector Systems U.S.A., 7042 Owensmouth Ave., Canoga Park, CA 91303. (213) 702-8025.

# Dynavector

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# TONEARMS



Sonus Formula IV



ADC ALT-1

MANUFACTURER	Model	Overall Length, Inches	Pivot-Stybus Distance, Inches	Cueing?	Straight-Line Tracking Arm?	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
ADC	ALT-1	12.33	9.33	Yes	No	Yes		Yes	0-4	238	3-11	Ball	Ball	149.95	
AUDIO-TECHNICA	AT-1005	12¾	9½	Opt.	No	Yes	1½	Yes	0-3	80	4-14	Ball	Ball	125.00	
	AT-1010	13	9½	Yes	No	Yes	1½	Yes	0-2½	80	4-14	Ball	Ball	350.00	
CADAWAS ACOUSTICS	Columbia One			Yes	No			Yes	0-10	1-25				500.00	Modification.
DECCA	New International		9½	No	No	Yes		Mag.	0-3½		4-13	Unipivot	Unipivot	149.50	
DENNESEN	ABLT-1	12	Sel.		Yes	Yes	0	No	Sel.	150	Sel.	Air	Air	1250.00	
DENON	DA307	12.9	9¾	Yes	No	Yes	2½	Yes	0-2½		5-10			275.00	
	DA401	12.9	9¾	Yes	No	Yes	2½	Yes	0-2		4-10			360.00	
FIDELITY RESEARCH	FR-64ss	12.68	9.65	Yes	No	Yes	2	Yes	0-5	80	0-24	Ball	Ball	735.00	†Integral headshell.
	FR-64s Plain	12.68	9.65	Yes	No	Yes	2	Yes	0-5	80	0-24	Ball	Ball	680.00	
	FR-64fx	12.68	9.65	Yes	No	Yes	2	Yes	0-5	80	0-24	Ball	Ball	725.00	
	FR-66ss	15.06	12.08	Yes	No	Yes	1½	Yes	0-5	80	0-18.7†	Ball	Ball	1400.00	
	FR-66s w/VTA adj.	15.05	12.08	Yes	No	Yes	1½	Yes	0-5	80	0-18.7†	Ball	Ball	900.00	
FULTON		11½	9¾	No	Yes	No	1	No	½-6	55	3-11			1295.00	
GRACE	G-707II	11.7	9.33	Yes	No	No	0.4	Yes	0-3	86	4-10	Gimbal	Gimbal	225.00	
	G-747	11.7	9.33	Yes	No	Yes	0.4	Yes	0-3	86	4-10	Gimbal	Gimbal	300.00	
	G-1040	11.7	9.33	Yes	No	Yes	0.4	Yes	0-3	86	3-14	Gimbal	Gimbal	330.00	
JML	TA-3A	10¾	9	Yes	No	No	0.33	Yes	0-4	100	2-11	Unipivot	Unipivot	299.00	
LINN	ITOK	11¾	9	Yes	No	No		Yes	¾-3	100	3-12	Ball	Ball	650.00	With cartridge.
	LV-II Basik LV-V	11¾	9	Yes	No	Yes		Yes	¾-3	100	3-11	Ball	Ball	149.00	
LUSTRE	GST-801	13¾	9.45	Yes	No	Yes	0.4	Yes	0-2½	100	4-22	Gimbal	Gimbal	500.00	Magnetic VTF and antiskate; VTA adjustable during play.
MAGNEPAN	Unitrac I	11.41	9.5	Yes	No	Yes	1.77	Yes		110	3-12	Unipivot		325.00	
MAYWARE	MK III	11½	9	Yes		Yes		Yes	½-3	110	2½-11	Unipivot	Unipivot	175.00	
MICHELL	Focus	11	9.13	Yes	Yes	Yes		Yes	½-3	220	4-11	Unipivot	Unipivot	260.00	Silicon damping opt.

# TONEARMS



Southern Engineering S.L.A.-1



Signet XK50

MANUFACTURER	Model	Overall Length, Inches	Pivot-Stylus Distance, Inches	Cueing?	Straight-Line Tracking Arm?	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
MICRO SEIKI	MAX282	15	11.1	Yes	No	No	1.5	Yes	1/2-3	80	4-33	Micro Needle	Micro Dual	1000.00	Interchangeable tubes.
	MAX505II	12.7	9.3	Yes	No	Yes	1.5	Yes	1/2-3	100	4-16	Needle	Dual Radial	375.00	
	CFX-1	12.4	9.3	Yes	No	Yes	1.5	Yes	1/2-3	100	4-12	Needle	Dual Radial	225.00	
	CFX-2	11.8	9	Yes	No	Yes	1.6	Yes	1/2-3	100	4-10	Needle	Dual Radial	160.00	
MISSION ELECTRONICS	774		9	Yes	No	Yes†		Yes		180	2-12		Ball	397.00	†Arm tube.
REGA RESEARCH	R-200	12 1/8	9 1/2	Yes	No	Yes	1 1/2	Yes	0-3	85	2-15	Needle	Conical	180.00	
SAEC	WE407/23	13	9 1/2	Yes	No	Yes		Yes	0-4		4-15 1/2	Knife	Knife	479.95	
SIGNET	XK50	13 1/4	9 1/2	Yes	No	Yes†	1	Yes	0.1-1.6	75	4-11	Ball	Ball	400.00	†Replaceable arm tube.
SONUS	Formula IV	12	9 1/2	Yes	No	No	1 1/2	Yes	1/2-3	112	3-10	Unipivot	Unipivot	265.00	
SOUNDAIDS	Mod-2	Var.	Var.	Yes	No	No	1 1/2	Yes	1/2-2	90	2-10			90.00	Modification of integrated arms, original bearings retained.
SOUTHERN ENGINEERING PRODUCTS	S.L.A.-1	9 3/4	2.0	Yes	Yes	Yes†	0		1/2-3		1 1/2-15	Conical	Ball	500.00	†Tonearm removes.
STAX	UA-9	13	9.4	Yes	No	Yes	0.1†	Yes	0.1-3	84	4-13.5	Unipivot	Unipivot	480.00	†Degrees/cm.
	UA-90	16 1/4	12.3	Yes	No	Yes	0.08†	Yes	0.1-3	84	4-17	Unipivot	Unipivot	520.00	
	UA-7/cf	13 3/8	9.4	Yes	No	Yes	0.1†	Yes	0.1-3	84	2-16	Unipivot	Unipivot	335.00	
SUMIKO	MDC-800	10.4	9	Yes	No	No		Yes	0-1 1/2	100		Gimbal	Gimbal	1200.00	
TECHNICS R&B	EPA-100	13 3/4	9 3/8	Yes	No	Yes		Yes	0-3	73	5-10	Gimbal	Gimbal	425.00	Changeable arm tubes, inc. stylus pressure gauge. Base for A50 series arm tubes. Arm tube for EPA- B500.
	EPA-500	13 3/4	9 3/8	Yes	No	No		Yes	3/4-1 1/4	90	5-7	Gimbal	Gimbal	400.00	
	EPA-B500			Yes	No	No		Yes	3/4-1 1/4	90	5-7	Gimbal	Gimbal	250.00	
	EPA-A50/H	13 3/4	9 3/8	No	No	No			1-2		5-7			140.00	
	EPA-A50/M	13 3/4	9 3/8	No	No	No			1 1/4-3		5-7			140.00	
	EPA-A50/L	13 3/4	9 3/8	No	No	No			1 1/2-1 1/2		5-6.5			140.00	
	EPA-A50/E	13 3/4	9 3/8	No	No	No			1-2 1/2		7-11			140.00	
	EPA-A50/G	13 3/4	9 3/8	No	No	No			0-2		6-9			130.00	
ULTRACRAFT	AC-3000MC	13.2	9.33	Yes	No	No	1	Yes	0-2	210	6-12 1/2	Unipivot	Unipivot	500.00	
	AC-300 MKII	13.2	9.33	Yes	No	No	1	Yes	0-2	210	6-12 1/2	Unipivot	Unipivot	400.00	
	AC-30	13.2	9.33	Yes	No	No	1	Yes	0-2	210	6-12	Unipivot	Unipivot	300.00	
WIN	SDA-10	11.64	9 3/8	Yes		Yes	2	Yes	1-4	108		Jewel	Jewel	1000.00	

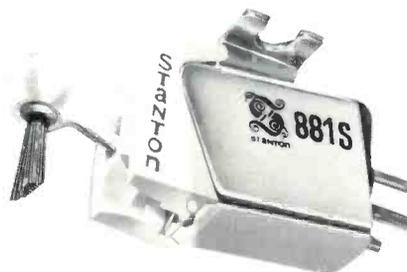
# PHONO CARTRIDGES



Empire EDR.9



Signet MK112E



Stanton 881S

		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, Fine Line, Stereohedron, or similar																
Model	Frequency Response, Hz to kHz, ±dB	Pinpoint Moving Iron/Moving Magnet	Moving Magnet	W. Individual Response Curve?	Channel Separation, 1 kHz, dB	Channel Separation, 10 kHz, dB	mV Output, 1 kHz, 5 cm/Sec. rms Lateral Velocity	Recommended Tracking Force Range, Gms	Recommended Load Resistance, Ohms	Recommended Load Resistance, pF	Stylus Type—See Code	Stylus Radius (Radius), Mils	Stylus Replacement—User or Factory?	Weight, Gms	Price, \$	Replacement Stylus Price, \$	Notes	
ACUTEX	M420STR	20-20 ±0.75	IM	Yes	33	29	3.5	0.8-1.8	47k		X	0.3x1.6x0.5	U	5.45	195.00	75.00		
	M415STR	20-20 ±0.75	IM	Yes	32	28	3.5	0.9-1.9	47k		X	0.3x1.6x0.6	U	5.45	145.00	60.00		
	M412STR	20-20 ±1	IM	No	30	27	3.5	1.2-2.5	47k		X	0.3x1.6x0.6	U	5.45	110.00	45.00		
	M410E	20-20 ±1	IM	No	28	25	3.5	1.5-2.8	47k		E	0.3x0.7	U	5.45	90.00	30.00		
	M210II E	20-20 ±1.5	JM	No	27	25	4.5	1.8-2.8	47k		E	0.3x0.7	U	5.45	80.00	26.00		
	M207II E	20-20 ±1.5	IM	No	27	25	4.5	1.8-2.8	47k		E	0.3x0.7	U	5.45	70.00	15.00		
	M206II	20-20 ±1.5	IM	No	27	25	4.5	2-3	47k		C	0.65	U	5.45	50.00	15.00		
	M110E	20-20 ±1.5	IM	No	27	25	4.5	1.8-2.8	47k		E	0.3x0.7	U	5	85.00			
	M107E	20-20 ±1.5	IM	No	27	25	4.5	2-3	47k		E	0.3x0.7	U	5	69.95			
	M106	20-20 ±1.5	IM	No	27	25	4.5	2-3	47k		C	0.65	U	5	49.95			
ADC	MC1.5	20-10 ±1	MC	Yes	25	18	1	1.2-1.8	200		E	0.2x0.7	F	5	235.00	99.00		
	Astron	20-20 ±1	IM	Yes	30	20	4.5	1-1.4	47k	300	X	1.5x0.25	U	5.7	235.00	99.00		
	ZLM	10-20 ±1	IM	Yes	30	20	5	¾-1¼	47k	275	X		U	5.7	150.00	75.00		
	Improved XLM MKIII	10-20 ±1	IM	No	28	18	5.6	0.9-1.5	47k	275	E	0.2x0.7	U	5.7	125.00	62.50		
	Improved Integra XLM III	10-20 ±1	IM	No	28	18	5.6	0.9-1.5	47k	275	E	0.2x0.7	U	5.7	135.00	67.50		
	Integra XLM II	15-24 ±2	IM	No	26	15	5.6	0.9-1.5	47k	275	E	0.3x0.7	U	5.7	120.00	59.95		
	Integra XLM I	20-20 ±2	IM	No	24		6	1.1-1.9	47k	275	E	0.4x0.7	U	5.7	80.00	39.95		
	XLM MKII	15-24 ±2	IM	No	26	15	5.6	0.9-1.5	47k	275	E	0.3x0.7	U	5.7	110.00	55.00		
	Improved STXLM III	10-20 ±1	IM	No	28	18	5.6	0.9-1.5	47k	275	E	0.2x0.7	U	5.7	135.00	67.50		
	STXLM II	15-24 ±2	IM	No	26	15	5.6	0.9-1.5	47k	275	E	0.3x0.7	U	5.7	120.00	59.95		
	STXLM I	20-20 ±2	IM	No	24		6	1.1-1.9	47k	275	E	0.4x0.7	U	5.7	80.00	39.95		
	OLM 36MK II	15-20 ±2	IM	No	24	15	5.5	0.9-1.5	47k	275	E	0.3x0.7	U	5.7	90.00	44.95		
	Improved OLM 34MK III	20-20 ±2	IM	No	24	15	9	1½-3	47k	275	E	0.3x0.7	U	5.7	70.00	34.95		
	OLM 33MK III	20-20 ±3	IM	No	24		7	1-2	47k	275	S	0.7	U	5.7	60.00	29.95		
	OLM 32MK III	20-18 ±2	IM	No	20		7.8	2-4	47k	275	E	0.4x0.7	U	5.7	54.95	27.50		
	OLM 30MK III	20-18 ±3	IM	No	18		7.5	3-5	47k	275	S	0.7	U	5.7	49.95	24.95		
ADCOM	HC-E	20-20 +2.5-1	MC	No	22	22	2.5	1½-2¼	47k		E	0.3x0.7	F	4.7	130.00	65.00		
	XC/E	20-40 ±1	MC	No	25	25	2.5	1.5-2.1	47k		E	0.4x0.7	F	4.7	220.00	110.00		
	XC/LT	20-40 ±1	MC	No	25	25	2.5	1.5-2.1	47k		X	0.25x1.5	F	4.7	260.00	130.00		
	XC/VDH	20-40 ±1	MC	No	25	25	2.5	1.9	47k		X†	0.15x3.3	F	4.7	400.00	200.00	†Van den Hul.	
	LC/E	20-40 ±1	MC	No	25	25	0.35	1.5-2.1	100		E	0.4x0.7	F	4.7	180.00	90.00		
	LC/LT	20-40 ±1	MC	No	25	25	0.35	1.5-2.1	100		X	0.25x1.5	F	4.7	220.00	110.00		
	LC/VDH	20-40 ±1	MC	No	25	25	0.35	1.9	100		X†	0.15x3.3	F	4.7	360.00	180.00		

# 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, Fine Line, Stereohedron, or similar		Model	Frequency Response, Hz to kHz, ±dB	Preload Moving Magnet, Moving Magnet Inductance, Moving Magnet Weight	W Individual Response Curves?	Channel Separation, 1 kHz, dB	Channel Separation, 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, µF	Stylus Type—See Code	Stylus Radius (Radius), Mils	Stylus Replacement: User=U; Factory=F	Weight, Gms	Price, \$	Replacement Stylus Price, \$	Notes
AKG ACOUSTICS	P-25MD	10-28 ±1	MI	Yes	30	25	2.7	1.0			X	Analog 6	U	3½	250.00	150.00	Transversal suspension system. As above. As above.	
	P-15MD	10-23 ±1.5	MI	Yes	30	20	3.4	1.25			X	0.18x0.8	U	3½	165.00	82.50		
	P-10ED	20-20 ±2	MI	No	25	20	5.8	1.5			E	0.18x0.8	U	3½	115.00	55.00		
ANDANTE	E	12-30	MM	No	30		5.0	1-1.9	47k	100	E	0.2x0.7	U	6	90.00	45.00		
	S	18-27	MM	No	28		5.0	1-2½	47k	100	S	0.5	U	6	75.00	37.50		
	H	18-23	MM	No	27		10.0	1-2½	47k	100	S	0.5	U	6	50.00	25.00		
ASTATIC	MF-100	10-20 ±1	MF+	No	30	25	3.5	1-1½	47k	100	X	Parabolic	U	5½	267.50	133.75	† Moving flux. In shell.	
	MF-100H	10-20 ±1	MF+	No	30	25	3.5	1-1½	47k	100	X	Parabolic	U	5½	290.00	133.75		
	MF-200	10-20 ±2	MF+	No	28	20	4.2	1½-2	47k	100	X	Parabolic	U	5½	160.00	80.00	As above.	
	MF-200H	10-20 ±2	MF+	No	28	20	4.2	1½-2	47k	100	X	Parabolic	U	5½	182.50	80.00		
	MF-300	10-20 ±2.5	MF+	No	25	18	4.2	1½-2	47k	100	E	0.3x0.7	U	5½	100.00	50.00	As above.	
	MF-300H	10-20 ±2.5	MF+	No	25	18	4.2	1½-2	47k	100	E	0.3x0.7	U	5½	122.50	50.00		
	MF-400	10-18 ±3	MF+	No	22	18	4.2	1½-2½	47k	100	S	0.5	U	5½	80.00	40.00	As above.	
	MF-400H	10-18 ±3	MF+	No	22	18	4.2	1½-2½	47k	100	S	0.5	U	5½	102.50	40.00		
	IM 10	10-15 ±3	IM	No	22	15	4.2	2-2½	47k	100	S	0.5	U	7½	40.00	25.00		
	IM 10E	10-15 ±3	IM	No	22	15	4.2	2-2½	47k	100	E	0.3x0.7	U	7½	51.50	35.00	As above.	
	IM 10EH	10-15 ±3	IM	No	22	15	4.2	2-2½	47k	100	E	0.3x0.7	U	7½	65.00	35.00	As above.	
	AUDIO-TECHNICA	AT105	20-20	MM	No	26	16	4.5	1½-2½	47k	100-200	S	0.6	U	7	50.00	30.00	
AT110E		20-22	MM	No	26	17	4.5	1-2	47k	100-200	E	0.4x0.7	U	7	65.00	35.00		
AT120E		15-25	MM	No	29	20	5	1-1.8	47k	100-200	E	0.3x0.7	U	6.4	90.00	45.00		
AT125LC		10-28	MM	No	29	20	5	1-1.8	47k	100-200	X	†	U	6.4	130.00	60.00	† Linear contact.	
AT130E		10-30	MM	No	30	20	5	0.8-1.8	47k	100-200	E	0.2x0.7	U	6.4	120.00	50.00		
AT140LC		5-32	MM	No	30	20	5	0.8-1.8	47k	100-200	X	†	U	6.4	175.00	75.00		
AT155LC		5-35	MM	No	31	21	5	0.8-1.8	47k	100-200	X	†	U	8.2	225.00	100.00	Direct plug-in for LT turntables. As above.	
AT132EP		10-30	MM	No	30	20	5	0.8-1.8	47k	100-200	E	0.2x0.7	U	6.1	135.00	65.00		
AT152LP		5-35	MM	No	31	21	5	0.8-1.8	47k	100-200	X	†	U	6.1	225.00	100.00	Integral shell. Integral arm and shell.	
AT30E		15-25	MC	No	25	15	0.28	1.4-2	20		E	0.3x0.7	U	5	135.00	65.00		
AT30HE		15-30	MC	No	29	20	2	1.4-1.8	47k		E	0.3x0.7	U	5	135.00	65.00		
AT31E		15-50	MC	No	29	20	0.4	1.2-1.8	10		E	0.2x0.7	U	4.8	175.00	80.00		
AT35E		15-50	MC	No	30	20	0.4	1.2-1.8	10		E	0.2x0.7	U	4.3	250.00	100.00		
AT55XE		15-25	MM	No	28	18	3.5	1.2-1.8	47k	100-200	E	0.3x0.7	U	2.8	125.00	60.00		
AT57XE		15-25	MM	No	28	18	3.5	1.2-1.8	47k	100-200	E	0.3x0.7	U	7.1	145.00	60.00	Integral shell.	
AT59XE		15-25	MM	No	28	18	3.5	1.2-1.8	47k	100-200	E	0.3x0.7	U	7.5	145.00	60.00	Integral shell.	
AT22		15-23	MM	No	30	20	2.2	0.9-1.7	47k	100-200	E	0.2x0.7	U	8.5	200.00	100.00	Integral shell.	
AT23a		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		
AT24	10-25	MM	No	35	25	2.2	0.8-1.6	47k	100-200	E	0.2x0.7	U	8.3	250.00	150.00			
AT25	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.		
ATP-1	20-20	MM	No	21	16	5.3	3-5	47k	100-200	S	0.6	U	7.2	45.00	25.00			
ATP-2	15-22	MM	No	23	17	5.3	3-5	47k	100-200	E	0.4x0.7	U	7.2	60.00	35.00			
ATP-2XN	15-22	MM	No	23	17	5.3	3-5	47k	100-200	E	0.4x0.7	U	7.2	90.00		With extra stylus.		
ATP-3	15-25	MM	No	23	17	5.3	2-3	47k	100-200	E	0.3x0.7	U	7.2	80.00	50.00			
BANG & OLUFSEN	MMC 20CLC	20-20 ±1	MI	Yes	30	20	2.12	1.2	47k	220	X			4	240.00			
	MMC 20ENC	20-20 ±1	MI	Yes	25	20	2.12	1.4	47k	220	E	0.2x0.7		4	140.00			
	MMC 20EC	20-20 ±1	MI	Yes	20	20	2.12	1.7	47k	220	E	0.2x0.7		4	90.00			
	MMC 20CLB	20-20 ±1	MI	Yes	30	20	2.12	1.2	47k	220	X			4	240.00			
	MMC 20ENB	20-20 ±1	MI	Yes	25	20	2.12	1.4	47k	220	E	0.2x0.7		4	140.00			
	MMC 20EB	20-20 ±1	MI	Yes	20	20	2.12	1.7	47k	220	E	0.2x0.7		4	90.00			
	MMC 10EC	20-20 ±1	MI	No	20	20	2.12	1.7	47k	220	E	0.2x0.6		4	55.00			
	MMC 10EB	20-20 ±1	MI	No	20	20	2.12	1.7	47k	220	E	0.2x0.6		4	55.00			
CONCORD ELECTRONICS	CIM50	10-20 ±3	IM	No	25	18	3.8	1.5-2.5	30k-100k	50	C	0.65	U	6.2	39.95			
	CIM60	10-20 ±3	IM	No	26	19	3.8	1.5-2.5	30k-100k	50	E	0.3x0.7	U	6.2	49.95			
	CMC100	10-30 ±2	MC	No	27	20	2.0	1.2-1.7	30k-100k	50	E	0.5	U	2.3	99.95			
	CMC200	10-35 ±2	MC	No	28	21	2.0	1.2-1.7	30k-100k	50	E	0.3x0.8	U	2.3	139.95			
	CMC300	10-40 ±2	MC	No	30	23	2.0	1.0-1.5	30k-100k	50	X	1.57x0.26	U	2.3	179.95			
	CMC400	10-50 ±2	MC	No	32	25	0.2	1.0-1.5	40-100		X	1.57x0.26	U	2.3	189.95			
CONRAD-JOHNSON	Argent MC 110	20-20 ±2	MC	Yes	25		0.2	2.0	100		E		F	9½	385.00	195.00		
COTTER	ADB1	10-50 ±1	MC	Yes	30	25	0.45	3-6			X		F	22	400.00	275.00		
DECCA	Gold Plum	20-20	MI	No	20		1.0	1.5	47k		E	0.6x0.3	F	4	199.50	80.00		
		20-20	MI	No	20		1.5	2.0	47k		S	0.6	F	4	149.50			
DENON	DL300	20-60 ±1	MC	Yes	28		0.3	1.2-1.6	100		X	0.14x0.07	F	4.7	99.95	55.00		
	DL301	20-60 ±1	MC	Yes	28		0.3	1.2-1.6	100		X	0.14x0.07	F	4.7	175.00	105.00		

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DENON (Continued)	DL300	20-60 ±1	MC	Yes	28		0.3	1.2-1.6	100		X	0.14x0.07	F	4.7	99.95	55.00			
	DL301	20-60 ±1	MC	Yes	28		0.3	1.2-1.6	100		X	0.14x0.07	F	4.7	175.00	105.00			
	DL303	20-70 ±1	MC	Yes	28		0.2	1-1.4	100		X	0.05x0.1	F	5.8	395.00	237.00			
	DL305	20-75 ±1	MC	Yes	28		0.2	1-1.4	100		X	0.05x0.1	F	5.8	395.00	357.00			
	DL103C	20-45 ±1	MC	Yes	25		0.3	2.2-2.8	100		C	0.65	F	8.5	150.00	90.00			
	DL103S	20-60 ±1	MC	Yes	25		0.3	1.5-2.1	100		X		F	7.8	195.00	117.00			
	DL103D	20-65 ±1	MC	Yes	28		0.25	1.3-1.7	100		X		F	7.5	295.00	177.00			
	DL103/T	20-45 ±1	MC	Yes	25		0.3	2.2-2.8	100		C	0.65	F	8.5	200.00	90.00			
DYNAVECTOR	DV-100D	20-70	MC	Yes	20		0.2	1½	47k		X†	0.1x0.1	F	5.3	1000.00	550.00		†Line contact, diamond cantilever.	
	DV-100R	20-50	MC	Yes	20		0.2	1½	47k		X†	0.1x0.1	F	5.3	290.00	159.50		†Line contact, synthetic ruby cantilever.	
	20B2	20-20	MC	Yes	20		3.6	1.8	47k		E	0.3x0.7	F	5.3	298.00	163.90			
	20A2	20-20	MC	Yes	20		3.6	1.8	47k		E	0.3x0.7	F	5.3	240.00	132.00			
	10X2	20-20	MC	Yes	20		2.3	1½	47k		E	0.3x0.7	F	9.5	126.00	69.30			
EMPIRE	EDR.9	20-35 ±1½	MI	No	30	30	4.5	1-2	47k	150	X	0.3x3	U	5.2	200.00	100.00			
	600LAC	20-28 ±1½	MI	No	30	18	4.0	1-2	47k	150	X	0.3x3	U	5.3	175.00	87.50			
	500T0	20-23 ±1½	MI	No	30	18	4.0	¾-1½	47k	150	E	0.2x0.7	U	5.3	125.00	62.50			
	400TC	20-20 ±2	MI	No	28	17	3.8	¾-2	47k	350	E	0.2x0.7	U	5.3	100.00	50.00			
	300ME	20-20 ±3	MI	No	27	16	4.5	1-2½	47k	350	E	0.2x0.7	U	5.3	70.00	35.00			
	200E	20-20 ±3	MI	No	25	16	5.5	2-4	47k	250	E	0.3x0.7	U	5.3	60.00	30.00			
	100S	20-20 ±3	MI	No	23	14	5.0	2½-5	47k	250	S	0.7	U	5.3	40.00	20.00			
	800UFR	20-20 ±1	MI	Yes	30	20	3.0	¾-1¼	47k	300	E	0.2x0.7	U	5.3	150.00	75.00			
	BC100	20-20 ±1½	MI	No	25	15	4.5	2-3½	47k	300	C	0.7	U	5.3	45.00	21.00			
	BC200	20-20 ±1.2	MI	No	25	15	4.5	1½-3½	47k	300	C	0.7	U	5.3	70.00	30.00			
EMT	XSD-15	40-12.5 ±2	MC	Yes	25		0.15†	2-3	800		C	0.6	F	21	499.00			†At 1 cm/S.	
FIDELITY RESEARCH	MC-702	10-45	MC	Yes	28		0.2	2-3			X	0.155	F	29	700.00	490.00			
	MC-201	20-35	MC	No	27		0.16	1½-2			X	0.3x2	F	7½	375.00	262.50			
	FR-1 MK3F	10-40	MC	Yes	26	22	0.14	2			X	0.3x3	F	10	265.00	185.50			
	FR-1 MK2	20-20	MC	Yes	27	23	0.1	1½-2			E	0.3x0.8	F	10	175.00	122.50			
FULTON ELECTRONICS	High Performance	10-60 ±0.5	MC	No	34	30	0.33	1½-1¾	3-4	30	C	0.65	F	5	350.00	175.00			
GOLDRING	G900/IGC	20-20 ±2	MM		25		4.5	¾-1½	47k	150-200	X†		U	4	240.00	135.00		†Van den Hul.	
	G920/IGC	20-20 ±2	MM		25		6.5	1-2½	47k	150-200	X†		U	4¼	125.00				
	G900/E	20-20 ±3	MM		20		6.5	1-3	47k	200-400	E		U	4¼	65.00	52.00			
	G950/E	10-20 ±5	MM		20		6	1-3	47k	200-400	E		U	5	40.00	24.00			
GRACE	F-11	10-45	MC	Yes			0.75	1.3-2.3	30		X		F	8.6	600.00	300.00			
	F-9E	10-40	MM	No			3.5	½-2	47k	100	E		U	6	200.00	100.00			
	F-9L	20-20	MM	No			5.5	½-2	47k	350	X		U	6	180.00	90.00			
	F-8L	20-20	MM	No			5.0	½-2½	47k	100	X		U	6.5	125.00	62.50			
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	1.35-1.65	30		Q		F	8.7	299.95				
KOETSU	Black Onyx	10-50 ±2	MC		25			1.7-2.2	30		X		F	9½	600.00	1100.00			
LINN PRODUCTS	ASAK DC-2100K	10-50 ±3	MC	No	27		0.2	1½-1¾	3.5		E	0.2x0.8	F	6	450.00	337.50			
JOHN MAROVSKIS AUDIO SYSTEMS	MIT-1	20-20 ±2	MC	No	30	20	0.25	2½	3-20	50-100	†	†	F	5	550.00			†Van den Hul.	
MAYWARE LTD.	MC-3L	10-50	MC	Yes	27	28	2.5	1.8-2.2	47k		X		F	6.9	200.00	100.00			
	MC-2V	10-50	MC	Yes	27	28	0.2	1.8-2.2	47k		X		F	6.9	220.00	115.00			
MICRO-ACOUSTICS (Continued)	630	5-20 ±1	†	Yes	30	25	3.5	0.7-1.4	5k-100k	25-1500	X		U	2.5	265.00	117.00		†Elect. cond.	
	3002	5-20 ±1¼	†	No	30	20	3.5	0.7-1.4	5k-100k	25-1500	X		U	2.5	170.00	57.00			

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MICRO-ACOUSTICS (Continued)	382	5-20 ±1½	†	No	30	20	3.5	0.75-1.5	5k-100k	25-1500	E	0.2x0.7	U	4	140.00	48.00	†Elect. cond.		
	309	5-20 ±2	†	No	27	20	3.5	0.7-1.5	5k-100k	25-1500	E	0.2x0.7	U	4	120.00	38.00			
	100E	5-20 ±2½	†	No	25	18	3.5	0.8-1.6	5k-100k	25-1500	E	0.2x0.7	U	4	99.00	30.00			
MICRO SEIKI	LF-7	10-25 ±2	†	No	25	25	3.2	1-1.6	47k		E	0.3x0.7	U	5.4	100.00		† Moving flux.		
	LC40W Improved	10-45 ±1	MC	No	30	20	0.12	1.7	3-100		E	0.3x0.7	F	7.5	225.00				
	LC80W Improved	10-45 ±1	MC	Yes	30	25	0.09	1.7	3-100		X	0.1x0.1	F	7.5	400.00				
MISSION ELECTRONICS	773	20-20 ±1	MC	Yes	40	30	1.7	1.7-2.2	47k	100	X		F	5.7	397.00	218.35			
NAD	9000	20-20 ±2	MC	No	28	18	1.8	1.2-1.8	47k	200	E	0.4x0.7	F	6	160.00	80.00			
	9100	20-20 ±3	IM	No	24	12	5.8	1-2	47k	275	S	0.7	U	6	45.00	25.00			
	9200	15-20 ±2	IM	Yes	24	15	5.5	0.9-1.5	47k	275	E	0.3x0.7	U	6	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	6	125.00	60.00			
NAGATRONICS	165S	10-20	IM	No	25		3.6	1.7-2.3	50k	200-400	S	0.5	U	5.6	55.00	17.00	Integral shell.		
	175IS	10-20	IM	No	25		3.6	1.7-2.3	50k	200-400	S	0.5	U	14.8	65.00	17.00			
	185E	10-22	IM	No	25		3.6	1.7-2.3	50k	200-400	E	0.3x0.7	U	5.6	65.00	27.00	As above.		
	195IE	10-22	IM	No	25		3.6	1.7-2.3	50k	200-400	E	0.3x0.7	U	14.8	75.00	27.00			
	200S	20-20	IM	No	25		4	1½-2	50k	200-400	S	0.5	U	5.7	65.00	26.00	As above with two extra styli.		
	244DE	20-25	IM	No	25		4	1½-2	50k	200-400	E	0.3x0.7	U	5.8	85.00	43.00			
	210E	10-25	IM	No	25		4	1½-2	50k	200-400	E	0.3x0.7	U	5.8	110.00	55.00	As above with two extra styli.		
	220CE	10-25	IM	No	25		4	1½-2	50k	200-400	E	0.3x0.7	U	5.8	150.00	75.00			
	3000J	20-20	IM	No	25		4	2.8-5	50k	200-400	S	0.5	U	6	70.00	30.00	As above with two extra styli.		
	3000J Pro Pak	20-20	IM	No	25		4	2.8-5	50k	200-400	S	0.5	U	6	100.00	30.00			
	340S	20-20	IM	No	25		4	1½-2	50k	200-400	S	0.5	U	6	75.00	27.00	As above with two extra styli.		
	344DE	20-25	IM	No	25		4	1½-2	50k	200-400	E	0.3x0.7	U	6	95.00	45.00			
	350E	10-25	IM	No	25		4	1½-2	50k	200-400	E	0.3x0.7	U	6.1	125.00	60.00	As above with two extra styli.		
	360CE	10-25	IM	No	25		4	1½-2	50k	200-400	E	0.3x0.7	U	6.1	185.00	80.00			
	360CEX	10-25	IM	Yes	25		4	1½-2	50k	200-400	E	0.3x0.7	U	6.1	215.00	80.00	As above with two extra styli.		
	9600	20-30 +1, -0	IM	No	27		2	0.9-1.3	47k	200-400	X		U	7.6	275.00	124.00			
1400ER	20-22	IM	No		20		3.5	1½-2½	50k	200-400	S	0.6	U	5.4	55.00	14.00	Integrated shell.		
1440E	20-22	IM	No		22		3.5	1½-2½	50k	200-400	E	0.4x0.7	U	5.4	65.00	22.00			
1466E	20-22	IM	No		25		3.5	1½-2	50k	200-400	E	0.4x0.7	U	5.4	80.00	35.00	Integrated shell.		
1460IE	20-22	IM	No		22		3.5	1½-2½	50k	200-400	E	0.4x0.7	U	9	90.00	40.00			
ORTOFON	MC30	20-20 ±1	MC	Yes	25			1.5			X		F	7	695.00	370.00	Integrated cartridge/headshell.		
	MC20 MKII	20-20 ±1	MC		25			1.7			X		F	7	295.00	170.00			
	MC10 MKII	20-20 ±1.5	MC		25			1.5			E		F	7	195.00		As above.		
	Concorde 30	20-20	MM		25		3.0	1.2-1.8	47k	400	X		U	6.5	200.00	100.00			
	Concorde 20	20-20	MM		25		3.5	1.5-2.1	47k	400	X		U	6.5	165.00	75.00	As above.		
	Concorde 10	20-20	MM		20		5.0	1.7-2.3	47k	400	E		U	6.5	115.00	40.00			
	Concorde STD	20-20	MM		20		5.0	2.0	47k	400	E		U	15	90.00	40.00	As above.		
	Concorde EC10	20-20	MM		20		5.0	2.0	47k	400	E		U	15	65.00	40.00			
	FF15XE MKII	20-20	MM		20		6.0	1.5-3	47k	400	E		U	5	60.00	20.00	Integrated cartridge and arm tube.		
	SME30H	20-20	MM		25		3.0	0.8-1.2	47k	400	X		U	4.5	275.00	100.00			
	LM30	20-25	MM		25		3.0	1.2-1.8	47k	400	X		U	2.6	185.00	100.00	As above.		
	LM30H	20-20	MM		25		3.0	0.8-1.2	47k	400	X		U	2.6	185.00	100.00			
	LM20	20-20	MM		25		3.5	1.5-2.1	47k	400	X		U	2.6	150.00	75.00	As above.		
	LM20H	20-20	MM		25		3.0	0.8-1.2	47k	400	X		U	2.6	150.00	75.00			
LM15	20-20	MM		25		4.0	1.5-2.2	47k	400	E		U	2.6	115.00	55.00	As above.			
LM10	20-20	MM		20		5.0	1.7-2.3	47k	400	E		U	2.6	85.00	40.00				
VMS30 MKII	20-20	MM		27		5	1.3	47k	400	X		U	5	175.00	90.00	As above.			
VMS20E MKII	20-20	MM		25		5	1.0	47k	400	E		U	5	150.00	70.00				
VMS10E MKII	20-20	MM		25		5	2.0	47k	400	E		U	5	125.00	50.00	As above.			
VMS5E MKII	20-20	MM		20		6	2.0	47k	400	E		U	5	75.00	30.00				
OSAWA	MP-50	20-28	MM	No	27		2.5	1.1-1.5	47k	100	X	Triangle	U	9	230.00	150.00	† In shell, \$250.00.		
	MP-30	20-25	MM	No	25		3	1.3-2	47k	100	E	0.4x0.7	U	9	150.00	110.00	† In shell, \$170.00.		
	MP-20	20-23	MM	No	25		4	1.5-2	47k	100	E	0.4x0.7	U	7.8	120.00	90.00	† In shell, \$140.00.		
	MP-15	20-20	MM	No	24		4.5	1.5-2	47k	100	E	0.3x0.7	U	7.8	100.00	70.00	† In shell, \$120.00.		
	MP-11	20-20	MM	No	23		5	1.8-2.3	47k	100	E	0.3x0.7	U	6.8	80.00	50.00	† In shell, \$100.00.		
	MP-10	20-20	MM	No	22		5	2-2.5	47k	100	C	0.5	U	6.8	60.00	35.00	† In shell, \$80.00.		
	OS-3001	15-30	IM	No	26		2.5	1-1.8	47k		E	0.4x0.7	U	4.2	100.00	80.00			
	OS-2001	18-22	IM	No	24		2.5	1.3-2	47k		E	0.4x0.7	U	4.2	80.00	60.00			
	OS-1001	20-20 +3, -2	IM	No	20		2.5	1.5-2	47k		C	0.5	U	4.2	60.00	40.00			

# 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, Fine Line, Stereohedron, or similar		Model	Frequency Response, Hz to kHz, ±dB	Private Moving Coil, Moving Magnet, MM, MC	W. Individual Response Curve?	Channel Separation, 1 kHz, dB	Channel Separation, 10 kHz, dB	mV Output, 1 kHz, 5 Cm/Sec. Range, Gms.	Recommended Tracking Force, Ohms	Recommended Load Resistance, Ω	Stylus Type—See Code	Stylus Radius (Radius), Mils	Stylus Replacement, User=U, Factory=F	Weight, Gms.	Price, \$	Replacement Stylus Price, \$	Notes
PICKERING	XLZ/7500S	10-50	MM		35		0.06	¾-1½	100k	1000	X	0.3x2.8	U	5.5	220.00	90.00	
	XSV/5000	10-50	MM		35		0.7	1	47k	275	X	0.3x2.8	U	5.7	220.00	80.00	
	XSV/4000	10-36	MM		35		0.7	1	47k	275	X	0.3x2.8	U	5.5	180.00	56.00	
	XSV/3000	10-30	MM		35		4.6	½-1½	47k	275	X	0.3x2.8	U	5.5	140.00	49.95	
	XV-15/1200E	10-25	MI		35		4	½-1	47k	275	E	0.2x0.7	U	5.5	110.00	35.00	
	XV-15/750E	10-25	MI		35		4	½-1½	47k	275	E	0.3x0.7	U	5.5	90.00	31.50	
	XV-15/625E	10-25	MI		35		4	½-1½	47k	275	E	0.3x0.7	U	5.5	80.00	30.00	
	XV-15/625DJ	20-20	MI		30		4.4	1-4	47k	275	E	0.3x0.7	U	5.5	75.00	30.00	
	XV/15/400E	10-25	MI		35		5	1-2	47k	275	E	0.4x0.7	U	5.5	50.00	28.50	
	XV-15/350	10-25	MI		35		5.5	1-3	47k	275	S	0.7	U	5.5	55.00	23.95	
	XV-15/200E	10-25	MI		35		7.3	2-4	47k	275	E	0.4x0.7	U	5.5	65.00	26.25	
	XV-15/150	10-20	MI		35		7.3	2-4	47k	275	S	0.7	U	5.5	50.00	19.22	
	XV-15/140E	10-20	MI		35		7.3	3-5	47k	275	E	0.4x0.7	U	5.5	50.00	23.95	
	XV-15/100	10-20	MI		35		7.3	3-5	47k	275	S	0.7	U	5.5	45.00	17.90	
	V-15 Micro	10-20	MI		30		5	1-2	47k	275	E	0.4x0.7	U	6.5	65.00	26.25	
	IV AME																
	V-15 Micro IV AM	10-20	MI		30		5.5	1-3	47k	275	S	0.7	U	6.5	45.00	21.57	
	V-15 Micro IV ATE	20-18	MI		28		6	2-4	47k	275	E	0.4x0.7	U	6.5	50.00	23.95	
	V-15 Micro IV AT	20-18	MI		28		7.3	2-4	47k	275	S	0.7	U	6.5	40.00	18.87	
	V-15 Micro IV ACE	20-17	MI		26		7.3	3-5	47k	275	E	0.5x0.7	U	6.5	40.00	18.87	
V-15 Micro IV AC	20-17	MI		26		7.3	3-7	47k	275	S	0.7	U	6.5	35.00	16.17		
PIONEER	PC-70MC	10-80	MC	Yes	35		0.2	1.2	40-100		E	0.2x0.8	F	4	300.00		
	PC-50MC	10-60	MC	Yes	30	30	0.2	1.5	40-100		E	0.3x0.7	F	4	200.00		
	PC-4MC	10-35	MC	No				2.0	47k		E		U	4	125.00		
	PC-14S		MM	No					47k		E		U		45.00		
	PC-13S		MM	No					47k		C	0.5	U		40.00		
PREMIER	LMX	10-36	MC	Yes	30		0.3	1.8-2.2	100		X		F	5	200.00	100.00	
	LME	10-36	MC	No	30		0.35	1.3-2	100		E		F	5	149.00	74.50	
	LMS	10-30	MC	No	27		0.35	1.3-2	100		S		F	5	109.00	54.50	
PROMETHEAN AUDIO PRODUCTS	Phase II	15-25 ±1	MI				4	1½-2	10k	500	E	0.3x0.7	F	4½	155.00	90.00	
RADIO SHACK	RXT4	20-20	MM	No	25			¾-1½	47k		E	0.2x0.7	U		49.95		
	R1000 EDT	20-20	MM	No				¾-1½	47k		E	0.4x0.7	U		39.95		
	R47EDT	20-20	MM	No	20		5	1½-3	47k		E	0.4x0.7	U		29.95	19.95	
	R25EDT	20-20	MM	No			4.5	2-4	47k		E	0.4x0.7	U		19.95	14.95	
	QLM30	20-18	MM	No				3-5	47k		C	0.4x0.7	U		12.95	9.95	
	MKIII																
REGA RESEARCH	R-100	1-20 ±1	MM	No			4.5	1.75	47k	300	X	0.2x0.8	U	6.1	95.00	50.00	
SATIN	M-21P	8-50	MC	No	35		0.6	½-1½	47k		X	0.1x3.0	U		1200.00	500.00	
	M-21B	8-45	MC	No	35		1.2	¾-2	47k		X	0.15x3.0	U		850.00	400.00	
	M-21	8-30	MC	No	35		1.8	1-2	47k		E	0.2x0.8	U		550.00	250.00	
	M-20	10-30 ±2	MC	No	35		2.8	1-2½	47k		E	0.2x0.8	U		400.00	200.00	
	M-117S	15-30	MC	No	30		2.5	1-2	47k		E	0.2x0.8	U	9.2	250.00†	150.00	† In shell, \$270.00.
	M-117G	20-25	MC	No	25		3	1-2	47k		E	0.2x0.8	U	9.2	180.00†	130.00	† In shell, \$200.00.
	M-117ZE	20-20	MC	No	25		3	1-2	47k		E	0.2x0.8	U	9.2	130.00†	100.00	† In shell, \$150.00.
	M-117Z	20-20	MC	No	20		3	1-2.2	47k		C	0.5	U	9.2	100.00†	80.00	† In shell, \$120.00.
SHURE BROTHERS	V15III-HE	10-25	MM	No	25	15	3.5	¾-1½	47k	450	X		U	6.3	133.00	40.00	
	M97HE	20-20	MM	No	25		4	¾-1½	47k	250	X		U	6.4	118.00	58.80	Dynamic stabilizer.
	M97ED	20-20	MM	No	25		4	¾-1½	47k	250	E	0.2x0.7	U	6.4	110.00	51.50	As above.
	M97GD	20-20	MM	No	25		4	¾-1½	47k	250	S	0.6	U	6.4	93.00	33.60	As above.
	M97EJ	20-20	MM	No	20		4	1½-3	47k	250	E	0.4x0.7	U	6.4	93.00	33.60	As above.
	M97B	20-20	MM	No	20		4	1½-3	47k	250	S	0.6	U	6.4	86.00	26.30	As above.
	M72EJ	20-20	MM	No	20		6.2	1½-3	47k	450	E	0.4x0.7	U	5.8	58.75	20.20	
	M72B	20-20	MM	No	20		6.2	1½-3	47k	450	S	0.6	U	5.8	55.75	15.40	
	V15 Type IV	10-25	MM	No	25	15	4	¾-1½	47k	250	X		U	6.4	191.00	66.00	As above.
	M95HE	20-20	MM	No	25		4.7	¾-1½	47k	450	X		U	6.3	113.50	37.50	
	SC39ED	20-20	MM	No	25		4	¾-1½	47k	250	E	0.2x0.7	U	6.3	116.00	59.00	
	SC39B	20-20	MM	No	20		4	1½-3	47k	250	S	0.7	U	6.3	69.50	17.00	
	SC39EJ	20-20	MM	No	20		4	1½-3	47k	250	E	0.4x0.7	U	6.3	80.75	27.25	
	M95ED	20-20	MM	No	25		4.7	¾-1½	47k	450	E	0.2x0.7	U	6.3	97.95	35.00	
	M93E	20-20	MM	No	20		6.2	1½-3	47k	450	E	0.4x0.7	U	5.7	64.50	24.10	
	M91ED	20-20	MM	No	25		5	¾-1½	47k	450	E	0.2x0.7	U	5.8	83.95	31.40	
	M75ED	20-20	MM	No	25		5	¾-1½	47k	450	E	0.2x0.7	U	6.2	83.95	31.40	
	Type II																
	M70EJ	20-20	MM	No	20		6.2	1½-3	47k	450	E	0.4x0.7	U	5.8	56.75	17.80	
	M70B	20-20	MM	No	20		6.2	1½-3	47k	450	S	0.6	U	5.8	52.75	13.30	
M24H	20-20	MM	No	22		3	1-1½	47k	100	Q		U	5.8	112.00	37.30		
M97HE-AH	20-20	MM	No	25		4	¾-1½	47k	250	X		U	12.6	126.00	58.80	Integral shell.	

# 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, Fine Line, Stereohedron, or similar		Model	Frequency Response, Hz to kHz, ±dB	Principle Moving Iron—MI; Moving Magnet—MM; Moving Coil—MC; Induced Magnetism—IM	W. Individual Response Curves?	Channel Separation, 1 kHz, dB	Channel Separation, 10 kHz, dB	mV Output, 1 kHz, 5 cm/Sec. rms Lateral Velocity	Recommended Tracking Force Range, Gms. Ohms	Recommended Load Resistance, Ω	Stylus Type—See Code	Stylus Radius (Radius), Mils	Stylus Replacement: User ±U; Factory ±F	Weight, Gms.	Price, \$	Replacement Stylus Price, \$	Notes
SHURE (Continued)	M7SHE Type 2	20-20	MM	No	25		5	¾-1½	47k	450	X		U	6.2	92.00	39.00	
	M7SHE-J Type 2	20-20	MM	No	20		5	1½-2½	47k	450	X		U	6.2	79.00	33.00	
	M97EJ-AH	20-20	MM	No	20		4	1½-3	47k	250	E	0.4x0.7	U	12.6	101.00	33.60	Integral shell.
SIGNET	TKIE	15-25	MM	No	26	17	4.8	1½-2½	47k	270	E	0.4x0.7	U	6.8	40.00	25.00	
	TK3E	15-28	MM	No	28	19	4.2	1-1½	47k	270	E	0.3x0.7	U	6.8	70.00	30.00	
	TK5E	10-30	MM	No	29	20	4.2	¾-1¾	47k	270	E	0.2x0.7	U	6.8	120.00	50.00	
	TK7E	5-30	MM	No	32	22	2.7	¾-1¾	47k	270	E	0.2x0.7	U	6.8	180.00	75.00	
	TK7SU	5-45	MM	No	33	23	2.7	¾-1¾	47k	270	X	†	U	6.8	200.00	100.00	†Shibata.
	TK9Ea	5-30	MM	No	35	25	2.2	0.8-1.6	47k	100	E	0.2x0.7	U	7.5	275.00	175.00	†Straight line contact.
	TK9LCa	5-35	MM	No	35	26	2.2	0.8-1.6	47k	100	X	†	U	7.5	295.00	195.00	
	MK110E	15-50	MC	No	29	20	0.4	1.2-1.8	18		E	0.2x0.7	U	5	125.00	70.00	
	MK111E	5-50	MC	No	30	20	0.4	1-2	18		E	0.2x0.7	F	4.8	300.00	150.00	MK111E in integral shell.
	MK112E	5-50	MC	No	30	20	0.4	1-2	18		E	0.2x0.7	F	15	325.00	172.50	†Straight line contact.
TK100LC	5-35	MM	No	35	26	2.2	0.8-1.6	47k	100	X	†	U	7.5	1200.00	500.00		
SONUS	Calibrated Dimension 5	10-20 ±1	MI	Yes	30	30	4.0	1-1½	47k	0-400	X		U	5½	350.00	175.00	
	Dimension 5	10-20 ±1	MI	No	30	30	4.0	1-1½	47k	0-400	X		U	5½	250.00	125.00	
	Gold Blue	10-20 ±1.5	MI	No	30	30	4.0	1-1½	47k	0-400	X		U	5½	165.00	87.00	
	Gold Red	10-20 ±1.5	MI	No	30	30	4.0	1-1½	47k	0-400	E		U	5½	160.00	82.00	
	Gold Green	10-20 ±1.5	MI	No	30	30	4.0	1-1½	47k	0-400	S		U	5½	155.00	77.00	
	Bronze	10-20 ±1.5	MI	No	30	30	4.0	1-1½	47k	0-400	X		U	5½	130.00	70.00	
	Silver P	10-20 ±1.5	MI	No	30	30	5.0	1-1½	47k	0-400	X		U	5½	100.00	50.00	
	Silver E	10-20 ±1.5	MI	No	30	30	5.0	1-1½	47k	0-400	E		U	5½	95.00	45.00	
	Black A	10-20 ±2	MI	No	25	25	5.0	1½-2	47k	0-400	E		U	5½	80.00	40.00	
	Black C	10-20 ±2	MI	No	25	25	5.0	1½-2	47k	0-400	S		U	5½	70.00	30.00	
SONY	XL-44	10-40	MC	No	27		0.25	1.5-2.1	40		X	0.3x0.8	F	20	200.00		Integrated headshell.
	XL-44L	10-40	MC	No	30		0.3	1.2-1.8	40		X	0.3x0.8	F	6.2	180.00		
	XL-33	10-35	MC	No	25		0.25	1.5-2.1	40		E	0.3x0.8	F	19	100.00		As above.
	XL-33L	10-35	MC	No	25		0.3	1.2-1.8	40		E	0.3x0.8	F	6.5	100.00		
	VL-7	10-25	MM	No	25		3.5	1-2	50-100		E	0.3x0.8	U	4.9	90.00	30.00	
	VL-5	10-20	MM	No	20		3.5	1.5-2.5	50-100		S	0.6	U	5.0	50.00	15.00	
SONY ESPRIT	XL-88D	10-50	MC	NO	33		0.4	1.2-1.8	40		X	0.3x0.8	F	6.9	1000.00		One-piece diamond stylus cantilever.
STANTON MAGNETICS	980LZS	10-50	MM		35		0.06	¾-1½	100	1000	X	0.3x2.8	U	5.5	220.00	90.00	
	981LZS	10-50	MM	Yes	35		0.06	¾-1½	100	1000	X	0.3x2.8	U	5.5	250.00	90.00	
	980HZS	10-50	MM		35		0.8	¾-1½	47k	275	X	0.3x2.8	U	5.5	220.00	90.00	
	981HZS	10-50	MM	Yes	35		0.8	¾-1½	47k	275	X	0.3x2.8	U	5.5	250.00	90.00	
	881S	10-25	MM		35		3.9	¾-1½	47k	275	X		U	5.7	179.00	75.00	
	881E	10-25	MM		35		0.9	¾-1½	47k	275	E	0.2x0.7	U	5.7	158.00	66.00	
	880S	10-25	MM		35		0.9	¾-1½	47k	275	X		U	5.7	147.00	61.60	
	880E	10-22	MM		35		0.9	¾-1½	47k	275	E	0.2x0.7	U	5.7	126.00	52.80	
	681EEE	10-12 ±0.5	MI		35		3.5	¾-1½	47k	275	E	0.2x0.7	U	5.5	116.00	45.00	
	681EEES	10-22	MI		35		0.7	¾-1½	47k	275	X		U	6.3	138.00	57.50	
	681EE	10-20	MI		35		4.1	¾-1½	47k	275	E	0.2x0.7	U	5.5	97.00	39.00	
	681A	10-10 ±0.5	MI		35		5.5	1½-3	47k	275	S	0.7	U	5.5	88.00	30.00	
	681SE	10-10 ±0.5	MI		35		5.5	2-4	47k	275	E	0.4x0.7	U	5.5	97.00	39.00	
	680SL	20-20	MI		30		1.1	2-5	47k	275	X		U	5.5	109.00	43.75	With "long-hair" brush.
	680EL	20-20	MI		30		0.82	2-5	47k	275	E	0.4x0.7	U	6.3	106.00	30.00	Extra stylus inc.
	600EE	20-20 ±2.5	MI		35		5	1-2	47k	275	E	0.3x0.7	U	5	62.50	27.50	
	600E	20-20 ±2	MI		35		5	1½-3	47k	275	E	0.4x0.7	U	5	56.50	25.00	
	600A	20-20 ±2	MI		35		5	2-4	47k	275	S	0.7	U	5	51.50	20.25	
	500EE	10-20 ±3	MM		35		5	1-2	47k	275	E	0.3x0.7	U	5	42.50	25.00	
	500E	10-20 ±2	MM		35		5	2-5	47k	275	E	0.4x0.7	U	5	36.75	20.00	
500A	10-20 ±2	MM		35		5	2-5	47k	275	S	0.7	U	5	31.50	12.00		
500AL	20-17 ±2.5	MM		28		5	3-7	47k	275	S	0.7	U	5	31.50	12.00		
STAX	CP-Y	10-30 ±1	†	Yes	22	22	200	1.4			X		U	7.4	560.00	200.00	†Cond.

# 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, Fine Line, Stereohedron, or similar		Model	Frequency Response, Hz to kHz, ±3dB	Principal Moving Coil Yes	W. Moving Coil Yes	Individual Response Curves?	Channel Separation, 1 kHz, dB	Channel Separation, 10 kHz, dB	mV Output, 1 kHz, 5 cm/sec. rms Lateral Velocity	Recommended Tracking Force, Grams	Recommended Load Resistance, Ohms	Stylus Type—See Code	Stylus Radius (Radius), Mils	Stylus Replacement User ±U, Factory ±F	Weight, Gms.	Price, \$	Replacement Stylus Price, \$	Notes
SUPEX	SDX-1000	20-45	MC	Yes	30		0.2	1.5-2.1	2	E	0.3x0.7	F	4,7	500.00	250.00			
	SD-900E+ Super	20-45	MC	Yes	30		0.2	1.2-1.7	3.5	E	0.3x0.8	F	9	225.00	112.50			
	SD-901E+ Super	10-50	MC	Yes	30		2.0	1.2-1.7	3.5	E	0.3x0.8	F	9	175.00	87.50			
TECHNICS	EPC-P	5-80	MM		25	20	2	1-1½	47k	150	E	0.2x0.7	U	6	210.00	115.00	Linear tracking. As above.	
	205CMK3	10-40	MM		22		2.5	1-1½	47k	170	E	0.3x0.7	U	6	70.00	25.00	As above.	
	23	10-60	MC		25	20	0.2	1-1½	30	150	E	0.2x0.7	6	130.00		As above.		
	EPC-P 310MC																	
TECHNICS R&B	EPS-305MC	10-60	MC	Yes	25	20	0.2	1.3-1.7	30		E	0.2x0.7	F	6.7	225.00			
	EPS-300MC	10-50	MC	No	25	20	0.2	1.7-2.3	15		E	0.2x0.7	F	6.7	100.00			
TECTRON CORP.	T1C-12S	20-20	IM	Yes	24		5	1½-2½	47		S	0.6	U	5½	74.95		Opt. pre-mounted headshell. As above. As above. As above.	
	T1C-12E	15-28	IM	Yes	25		5	1.2-2.2	47		E	0.3x0.7	U	5½	89.95			
	T1C-12X	10-40	IM	Yes	26		4	1-2	47		X	Parabolic	U	5½	139.95			
	TC-10	10-50	MC	Yes	25		0.2	1.3-1.7			E	0.3x0.8	F	8½	199.95			
WIN LABORATORIES	SDT-10	5-35	IC		28	22	1V	2	600		X		U	3	600.00	200.00	With current source. Opt. transformer.	
	MC-10	10-35	MC	Yes	27		0.2	2			X		F	7	325.00			
YAMAHA	MC-1X	10-20	MC	Yes	28	25	0.2	1.6-2			E	0.3x1.5	F	19	270.00	165.00	Integrated shell.	
	MC-1S	10-20	MC	Yes	28	25	0.2	1.6-2			E	0.3x1.5	F	7.8	220.00	125.00		
	MC-7	10-20	MC	No	28		0.3	1.2-1.8			E	0.28x0.55	F	5.7	120.00	80.00		
	MC-5	10-20	MC	No	28		0.3	1-1.4			E	0.28x0.55	F	5.7	180.00			

## AKG

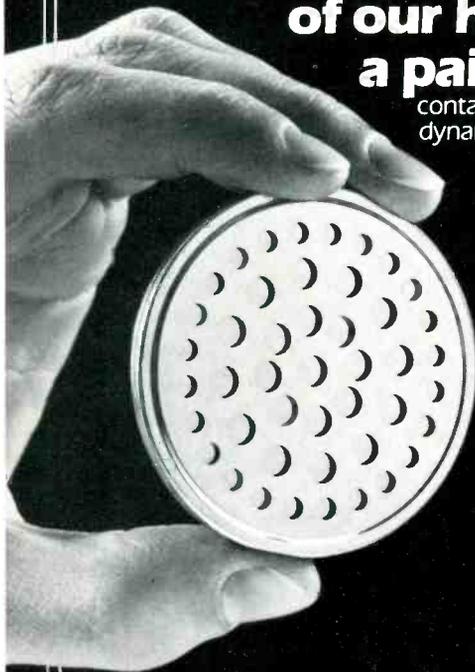
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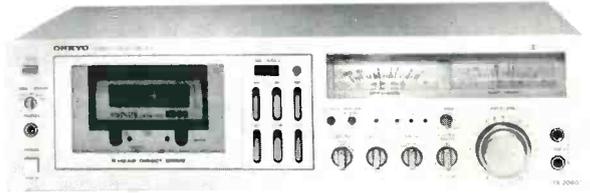
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# CASSETTE DECKS



Nakamichi 1000ZXL



Onkyo TA-2060



Technics RS-M270X



Vector Research VCX-800

MANUFACTURER	Model	Frequency Response, Hz-MHz, $\pm$ dB	Top Load/T. Front Load/F	Number of Heads	% Wow & Flutter	Whol. Pk.	S/N, dB, with Dolby B NR	Dolby B NR?	dBs NR?	Fine Bias Adjus?	No. Preset Bias/EQ Posns.	No. Mike Mixing 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,-3	F	3	0.4	68	No	No	Yes	4	2	Yes	Yes	No	Yes	Yes	18 $\frac{1}{2}$ x4 $\frac{1}{2}$ x11 $\frac{1}{2}$	17.6	790.00	With Dolby HX. Auto reverse.	
	AD-M800U	30-17 +2,-3	F	3	0.4	68	No	No	Yes	4	2	Yes	Yes	No	Yes	Yes	18 $\frac{1}{2}$ x4 $\frac{1}{2}$ x11 $\frac{1}{2}$	17.6	760.00		
	AD-3600U	30-17 +2,-3	F	3	0.029	68	No	No	No	3	2	Yes	Yes	No	No	Yes	16 $\frac{1}{2}$ x4 $\frac{1}{2}$ x11 $\frac{1}{2}$	11.7	460.00		
	AD-R500U	30-17 +2,-3	F	2	0.4	65	No	No	No	1	2	Yes	Yes	No	No	Yes	18 $\frac{1}{2}$ x4 $\frac{1}{2}$ x13	22.5	450.00		
	AD-3500U	25-17 +2,-3	F	3	0.035	65	Yes	No	Yes	3	2	Yes	Yes	No	No	Yes	16 $\frac{1}{2}$ x4 $\frac{1}{2}$ x9 $\frac{1}{2}$	12.1	395.00		
	AD-3300U	20-16 +2,-3	F	2	0.045	63	Yes	No	Yes	3	2	Yes	Yes	No	No	Yes	16 $\frac{1}{2}$ x2 $\frac{1}{2}$ x11 $\frac{1}{2}$	14.3	370.00		
	AD-3200U	25-15 +2,-3	F	2	0.038	62	Yes	No	Yes	3	2	Yes	Yes	No	No	Yes	16 $\frac{1}{2}$ x4 $\frac{1}{2}$ x9 $\frac{1}{2}$	12.1	295.00		
	AD-3100U	25-15 +2,-3	F	2	0.038	62	No	No	Yes	3	2	Yes	Yes	No	No	Yes	16 $\frac{1}{2}$ x4 $\frac{1}{2}$ x9 $\frac{1}{2}$	12.1	240.00		
	AD-M250U	30-14 +2,-3	F	2	0.06	60	No	No	Yes	3	2	Yes	Yes	No	No	Yes	6x16 $\frac{1}{2}$ x11 $\frac{1}{2}$	9.9	195.00		
AKAI	GXF95	20-21 $\pm$ 3	F	3	0.028	72	No	No	No	†	2	Yes	Yes	No	Yes	Yes	17.3x6.5x14.3	27.5	1195.00	† Auto tuning syst.	
	GXF90	25-21 $\pm$ 3	F	3	0.03	72	No	No	No	4	2	Yes	Yes	No	Yes	Yes	17.3x4.1x14.6	21.6	599.95	Auto rev., bi-directional record/play. As above. Program search.	
	GXF80	25-21 $\pm$ 3	F	3	0.035	72	No	No	No	4	2	Yes	Yes	No	Yes	Yes	17.3x5.3x13.4	19.6	499.95		
	GXF60R	30-19 $\pm$ 3	F	3	0.04	70	No	No	No	4		Yes	Yes	No	Yes	Yes	17.3x5.9x11.4	23.6	525.00		
	CSF33R	30-18 $\pm$ 3	F	3	0.04	70	No	No	No	3		Yes	Yes	No	No	No	17.3x4.6x10.6	16.5	399.95		
	GXF35	30-19 $\pm$ 3	F	2	0.04	70	No	No	No	4		Yes	Yes	No	Yes	Yes	17.3x4.6x11.2	15	349.95		
	GXF25	30-19 $\pm$ 3	F	2	0.04	70	No	No	No	4		Yes	Yes	No	Yes	Yes	17.3x4.6x11.2	15	299.95		
	CSF11	30-18 $\pm$ 3	F	2	0.04	70	No	No	No	3		Yes	Yes	No	No	No	17.3x4.6x11.2	15	249.95		
	CSM3	30-18 $\pm$ 3	F	2	0.05	68	No	No	No	3		Yes	Yes	No	No	No	17.3x5.6x9.8	11			
BANG & OLUFSEN	Beocord 8002		T	2	0.045	68		No	No		1	Yes	Yes		Yes	Yes	21x5 $\frac{1}{2}$ x12	16 $\frac{1}{2}$	1100.00		
	Beocord 1600		T	2				No	No			Yes	Yes		Yes	Yes			550.00		
	Beocord 1900		T	2	0.15	56		No	No		1	Yes			Yes	No	15 $\frac{1}{2}$ x3 $\frac{1}{2}$ x9 $\frac{1}{2}$	11	525.00		
BSR	CX 300	40-14	F	2		61	No	Yes	No	3	No	Yes	Yes		No	Yes	16x10x4 $\frac{1}{2}$	13.2			
	CX 100	40-12	F	2		59	No	No	No	3	No	Yes	Yes		No	Yes	16 $\frac{1}{2}$ x8 $\frac{1}{2}$ x4 $\frac{1}{2}$	8.8			
	MC-10	40-12.5	F	2		59	No	No	No	3	No	Yes	Yes		No	Yes	12x4 $\frac{1}{2}$ x10	8.8			
DENON	DR 240	25-19 $\pm$ 3	F	2	0.04	65	No	No	No	4	2	Yes	Yes	No	Yes	Yes	17 $\frac{1}{2}$ x4 $\frac{1}{2}$ x12	15 $\frac{1}{2}$	350.00	Music search.	
	DR 320	20-22 $\pm$ 3	F	3	0.04	67	No	No	No	4	2	Yes	Yes	No	Yes	Yes	17 $\frac{1}{2}$ x4 $\frac{1}{2}$ x12	15 $\frac{1}{2}$	425.00	As above.	
	DR 330	20-22 $\pm$ 3	F	3	0.04	67	Yes	No	Yes	4	2	Yes	Yes	No	Yes	Yes	17 $\frac{1}{2}$ x4 $\frac{1}{2}$ x12	15 $\frac{1}{2}$	500.00	As above.	
DUAL	814	20-18 $\pm$ 3	F	2	0.045	66	No	No	No	4	No	Yes	Yes	No	No	Yes	17 $\frac{1}{2}$ x10 $\frac{1}{2}$ x4 $\frac{1}{2}$	17 $\frac{1}{2}$	299.95		
	822	20-19 $\pm$ 3	F	2	0.04	67	No	No	No	4	No	Yes	Yes	No	No	Yes	17 $\frac{1}{2}$ x10 $\frac{1}{2}$ x4 $\frac{1}{2}$	17 $\frac{1}{2}$	375.00		

# CASSETTE DECKS

MANUFACTURER	Model	Frequency Response, Hz/kHz		Top Load/Front Load/F		Number of Heads	% Wow & Flutter	S/N, dB, with Dolby B NR	Dolby C NR?	dbx NR?	Fine Bias Adjust?	No. Preset Bases/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
		F	2	F	2																	
DUAL (Continued)	828	30-19 ±3	F	2	0.04	69	No	No	No	4	No	Yes	Yes	No	Yes	Yes	17½x10½x4¼	20	500.00	Auto reverse, one-button record. Two speeds — specs here, 3½ ips. Specs here, 1½ ips.		
	844 (3%)	20-24 ±3	F	3	0.025	68	Yes	No	No	6	Yes	Yes	Yes	No	Yes	Yes	17½x10½x4¼	22	700.00			
	844 (1%)	20-20 ±3				0.03	66															
EUMIG	FL-1000	20-20 ±3	F	3	0.035†	70	No	No	Yes	3	2	Yes	Yes	No	Yes	Yes	19x7x13	26½	1550.00	†W rms; computer controllable.		
FISHER	DD280	30-14 ±3	F	2	0.04	62	No	No	No	3	No	Yes	Yes	No	No	Yes	17½x10½x4	13	299.95	Opt. wire remote control. As above.		
	DD350	40-14 ±3	F	2	0.04	62	No	No	No	3	No	Yes	Yes	No	No	Yes	17½x4x10%	13	299.95			
	CR150	40-14 ±3	F	3	0.06	62	No	No	Yes	3	No	Yes	Yes	No	No	Yes	17½x4¼x10½	13	349.95			
	DD300	30-14 ±3	F	2	0.04	62	No	No	No	4	No	Yes	Yes	No	Yes	Yes	17½x5¼x9½	13	399.95	As above.		
	DD450	30-14 ±3	F	3	0.04	62	No	No	Yes	4	No	Yes	Yes	No	Yes	Yes	17½x4x10½	15½	579.95			
	CRM200	40-12.5 ±3	F	2	0.06	60	No	No	No	3	No	Yes	Yes	No	No	No	11½x4¼x9½	10	249.95			
	CR4012	40-11 ±3	F	2	0.1		No	No	No	2	No	Yes	No	No	No	No	15½x9x5½"	16	119.95	Auto search.		
	CR4013M	40-11 ±3	F	2	0.1	58	No	No	No	2	No	Yes	Yes	No	No	No	15½x5¼x9	16	139.95			
	CR110	30-12.5 ±3	F	2	0.08	60	No	No	No	3	No	Yes	No	No	No	No	15½x8x4¼"	11	169.95			
	CR120	30-12.5 ±3	F	2	0.08	60	No	No	No	3	No	Yes	Yes	No	No	Yes	15½x4¼x8	11	199.95	As above.		
	CR125	30-14 ±3	F	2	0.06	62	No	No	No	3	No	Yes	Yes	No	No	No	17½x4¼x10½	11	249.95			
	CR130	30-14 ±3	F	2	0.06	62	No	No	No	3	No	Yes	Yes	No	No	Yes	17½x4¼x10½	11	269.95			
	CRM300	30-14 ±3	F	2	0.05	62	No	No	No	3	No	Yes	Yes	No	No	No	11½x4x8¼	11	349.95	Dolby HX.		
CRM500	40-8 ±3	F	2	0.07	56	No	No	No	2	No	Yes	Yes	No	No	No	8½x2¼x10¼	8	479.95				
FOSTEX	250	40-14 +2, -3	T	2	0.07	70	Yes	No	No	1	4		No			Yes	17x3¼x14	19	1300.00	4-track record, 3½ ips.		
HARMAN/ KARDON	HK 70S		F	2	0.04	68	No	No	No	4		Yes	Yes	No	Yes	Yes	15.2x12.6x2.9	13.7	449.95	Dolby HX.		
	HK 100 M	15-19 ±3	F	2	0.05	63	No	No	Yes	4		Yes	Yes	No	Yes	Yes	17½x13½x5½	17	279.95	As above.		
	HK 200XM	15-19 ±3	F	2	0.05	64	No	No	Yes	4		Yes	Yes	No	Yes	Yes	17½x13½x5½	18	349.95			
	HK 300XM	15-20 ±3	F	2	0.04	65	No	No	Yes	4	2	Yes	Yes	No	Yes	Yes	17½x13½x4¼	19	479.95	As above.		
	HK 400XM	15-24 ±3	F	3	0.04	67	No	No	Yes	4	2	Yes	Yes	No	Yes	Yes	17½x13½x4¼	20	679.95			
JVC	KD-D2	40-15 ±3	F	2	0.09	68	No	No	No	2	2	Yes	Yes	No	No	Yes	16½x4¼x10¼	9.9	180.00			
	KD-D3	40-15 ±3	F	2	0.05	68	No	No	No	2	2	Yes	Yes	No	No	Yes	16½x4¼x10¼	9.9	215.00			
	KD-D35	40-15 ±3	F	2	0.05	68	No	No	No	2	2	Yes	Yes	No	No	Yes	16½x5¼x11½	9.9	330.00			
	KD-D4	40-15 ±3	F	2	0.05	68	No	No	No	2	2	Yes	Yes	No	No	Yes	16½x4¼x11½	9.9	390.00			
	DD-5	30-16 ±3	F	2	0.021	70	No	No	No	3	2	Yes	Yes	No	Yes	Yes	16½x4¼x11½	13.2	390.00			
	DD-7	25-18 ±3	F	3	0.021	70	No	No	No	3	2	Yes	Yes	No	Yes	Yes	17½x4¼x13	15.4	600.00			
	DD-9	25-18 ±3	F	3	0.019	80	Yes	No	Auto	3	2	Yes	Yes	No	Yes	Yes	17½x4¼x12½	16.7	900.00			
KENWOOD	KX-2060	25-17.5	F	3	0.04	60	No	No	Yes					Yes	Yes	Yes	17½x6x14¼	20.5	685.00			
	KX-1060	30-19	F	3	0.045	50	No	No	Yes					Yes	Yes	Yes	17½x6x14¼	18.5	450.00			
	KX-70	20-18	F	2	0.04	60	No	No	No					Yes	Yes	Yes	17½x4¼x10¼	11.5	349.00			
	KX-600	30-16	F	2	0.05	54	No	No	Yes					Yes	Yes	Yes	17½x5¼x11¼	13	285.00			
	KX-500	30-16	F	2	0.05	54	No	No	Yes					Yes	Yes	Yes	15½x5½x11¼	9.5	255.00			
	KX-50	20-16	F	2	0.05	67	No	No	No					Yes	Yes	Yes	17½x4¼x9¾	9.9	225.00			
	KX-40	30-16	F	2	0.06	60	No	No	No					Yes	Yes	Yes	17½x4¼x9¾	9.5	184.00			
KLH	CD-101	30-15 ±3	F	2	0.08	60	No	No	No	3	No	Yes	Yes	No	No					249.95		
	CD-500	30-16 ±3	F	2	0.04	66	No	No	No	4		Yes	Yes	No	Yes	No				499.95		
MARANTZ	9000	25-20 ±3	F	3	0.05	69		No	Yes					Yes		Yes	16½x5¼x11¼	22½	830.00	Two speeds.		
	5010	35-18	F	2	0.05	64		No	Yes					Yes		Yes	16½x2¼x12¼	13¼	450.00			
	3030	35-18	F	1	0.05	74	Yes	No	No					Yes		Yes	16½x4¼x11¼	13¼	395.00			
	2030	35-17	F	1	0.07	64		No	No					Yes		Yes	16½x4¼x11¼	13¼	275.00			
	1015	35-17	F	1	0.08	63		No	No					Yes		Yes	16½x5¼x9¾	12¼	200.00			

# CASSETTE DECKS

MANUFACTURER	Model	Frequency Response, Hz-KHz. ±dB		Top Load/F.T. Front Load/F	Number of Heads	% Wow & Flutter	S/N, dB, with Dolby B NR	Dolby C, NR?	dbx NR?	Fine Bias Adjust?	No. Preset Biases/EQ Posns.	No. Mike Mixing Inputs	Locking Pause Control?	Metal Tape Capable?	Limiter?	Memory Rewind?	Peak Level Indicator(s)?	Dimensions, inches	Net Weight, Lbs.	Price, \$	Notes
		F	2																		
MITSUBISHI	DT-25	30-19 ±3	F 2	0.04	66	No	No	No	No	4	2	Yes	Yes	No	Yes	Yes	8 1/2 x 5 1/2 x 11 1/2	14 1/2	370.00	Logic transport.	
	MT-04	35-16 ±3	F 2	0.05	64	No	No	No	No	4	2	Yes	Yes	No	No	Yes	10 x 5 1/2 x 9 1/2	14	460.00		
NAD	6040	30-17 ±3	F 2	0.15	59	No	No	No	No	4	No	Yes	Yes	No	Yes	Yes	16 1/2 x 4 1/2 x 9	9 1/2	278.00	Dolby HX.	
	6150C	30-17 ±3	F 2	0.15	66	Yes	No	Yes	Yes	3	No	Yes	Yes	No	Yes	Yes	16 1/2 x 4 1/2 x 9 1/2	12 1/2	479.00		
NAKAMICHI	1000ZXL	18-25 ±3	F 3	0.08	66	No	No	Auto	†	3		Yes	No	Yes	Yes	Yes	20 3/4 x 10 1/2 x 12 1/2	41 1/2	3800.00	†Auto; computing cassette deck. Computing cassette deck. Auto tuning.	
	700ZXL	18-24 ±3	F 3	0.08	66	No	No	Auto	3	3		Yes	No	Yes	Yes	Yes	19 3/4 x 10 3/8 x 9 3/8	30 3/8	3000.00		
	700ZXE	18-23 ±3	F 3	0.08	66	No	No	Auto	3	3		Yes	No	Yes	Yes	Yes	19 3/4 x 10 3/8 x 9 3/8	30 3/8	2400.00		
	682ZX	20-22 ±3	F 3	0.08	66	Yes	No	Yes	Yes	3	No		Yes	No	Yes	Yes	19 x 5 1/2 x 13 3/8	19 1/2	1800.00	Auto cal. azimuth level. As above.	
	681ZX	20-22 ±3	F 3	0.08	66	Yes	No	Yes	Yes	3	No		Yes	No	Yes	Yes	19 x 5 1/2 x 13 3/8	19 1/2	1600.00		
	680ZX	10-22 ±3	F 3	0.08	66	No	No	No	No	3	No		Yes	No	Yes	Yes	Yes	19 x 5 1/2 x 13 3/8	19 1/2	1550.00	Auto azimuth, two-speed. Two speeds.
	680	10-22 ±3	F 3	0.08	66	No	No	No	No	3	No		Yes	No	Yes	Yes	Yes	19 x 5 1/2 x 13 3/8	19 1/2	1350.00	
	582Z	20-20 ±3	F 3	0.10	66	Yes	No	Yes	Yes	3	No		Yes	No	Yes	Yes	Yes	19 3/4 x 5 1/2 x 13 3/8	18 3/8	1250.00	
	581Z	20-20 ±3	F 3	0.10	66	Yes	No	Yes	Yes	3	No		Yes	No	Yes	Yes	Yes	19 3/4 x 5 1/2 x 13 3/8	18 3/8	1150.00	
	482Z	20-20	F 3	0.11	63	Yes	No	Yes	Yes	3	No		Yes	No	Yes	Yes	Yes	17 3/4 x 5 1/2 x 11 1/2	14 1/2	950.00	
	481Z	20-20	F 3	0.11	63	Yes	No	Yes	Yes	3	No		Yes	No	Yes	Yes	Yes	17 3/4 x 5 1/2 x 11 1/2	14 1/2	850.00	
	480ZB	20-20	F 2	0.11	62	Yes	No	Yes	Yes	3	No		Yes	No	Yes	Yes	Yes	17 3/4 x 5 1/2 x 11 1/2	14 1/2	595.00	
480ZS	20-20	F 2	0.11	62	Yes	No	Yes	Yes	3	No		Yes	No	Yes	Yes	Yes	17 3/4 x 5 1/2 x 11 1/2	14 1/2	595.00		
480B	20-20	F 2	0.11	62	No	No	No	No	3	No		Yes	No	Yes	Yes	Yes	17 3/4 x 5 1/2 x 11 1/2	14 1/2	395.00		
480S	20-20	F 2	0.11	62	No	No	No	No	3	No		Yes	No	Yes	Yes	Yes	17 3/4 x 5 1/2 x 11 1/2	14 1/2	395.00		
NIKKO AUDIO	ND 500II	30-18 ±3	F 2	0.055	63	No	No	No	3	2	Yes	Yes		No	Yes	Yes	4.7 x 17.3 x 9.9	10.5	240.00		
	ND 700I	30-18 ±3	F 2	0.055	63	No	Yes	No	3	2	Yes	Yes		Yes	Yes	Yes	4.7 x 17.3 x 9.9	10.5	320.00		
	ND 800	30-20 ±3	F 2	0.05	72	No	No	No	3			Yes	Yes		Yes	Yes	4.7 x 17.3 x 9.9	13.2	430.00		
	ND 1000	30-20 ±3	F 3	0.05	72	No	No	Auto	3			Yes	Yes		Yes	Yes	4.7 x 17.3 x 9.9	13.7	650.00		
ONKYO	TA-1500	30-15 ±3	F 2	0.06	65	No	No	No	3	2	Yes	Yes	No	No	No	No	16 1/2 x 4 3/8 x 10 1/2	9 1/2	194.95	Double cassette.	
	TA-1900	30-14 ±3	F 2	0.07	66	No	No	No	3	2	Yes	Yes	No	No	No	No	16 1/2 x 4 3/8 x 11 1/2	10 1/2	194.95		
	TA-2020	30-15 ±3	F 2	0.06	70	No	No	Yes	3	2	Yes	Yes	No	No	No	No	16 1/2 x 4 3/8 x 10 1/2	10 1/2	229.95		
	TA-2040	20-19	F 2	0.055	70	No	No	Yes	3	2	Yes	Yes	No	No	Yes	Yes	16 1/2 x 4 3/8 x 10 1/2	14 1/2	369.95		
	TA-W80	30-15 ±3	F 2	0.06	65	No	No	No	3	2	Yes	Yes	No	No	Yes	Yes	16 1/2 x 4 3/8 x 10 1/2	12 1/2	369.95		
	TA-2050	30-18 ±3	F 2	0.045	70	No	No	Yes	3	2	Yes	Yes	No	Yes	Yes	Yes	16 1/2 x 4 3/8 x 10 1/2	14 1/2	319.95		
	TA-630DM	20-18	F 2	0.055	68	No	No	Yes	3	2	Yes	Yes	No	Yes	Yes	Yes	16 1/2 x 6 1/8 x 12 1/2	13 1/2	349.95		
	TA-2060	20-18 ±3	F 3	0.04	70	No	No	Yes	3	2	Yes	Yes	No	Yes	Yes	Yes	16 1/2 x 4 3/8 x 13 1/2	14 1/2	469.95		
TA-2090	20-19 ±3	F 3	0.021	70	Yes	Yes	Yes	Yes	3	2	Yes	Yes	No	Yes	Yes	Yes	17 3/4 x 3 3/8 x 15 1/2	18 1/2	749.95		
OPTONICA	RT-3300	30-16 ±3	F 2	0.06	67	No	No	No	4	No	Yes	Yes	No	No	Yes	Yes	17 x 9 3/8 x 4 1/2	8.4	200.00	Logic control.	
	RT-6207	30-17 ±3	F 2	0.055	67	No	No	No	4	No	Yes	Yes	No	No	Yes	Yes	17 x 12 3/8 x 3 3/8	12.8	330.00		
	RT-6405	30-18 ±3	F 2	0.038	67	No	No	No	4	No	Yes	Yes	No	No	Yes	Yes	17 x 12 3/8 x 3 3/8	13.2	380.00	As above.	
	RT-6605	30-20 ±3	F 3	0.045	70	No	No	Yes	4	No	Yes	Yes	No	No	Yes	Yes	17 x 12 3/8 x 4 1/2	16.5	550.00		
PHASE LINEAR	7000	25-19 ±3	F 3	0.03	70			Yes	9	2	Yes	Yes		Yes	Yes	Yes	19 x 8 1/2 x 15	44	999.00		
PIONEER	CT-9R	20-22	F 3	0.03	70	Yes	No	Auto	3	2	Yes	Yes	No	Yes	Yes	Yes	16 1/2 x 5 1/2 x 12 1/2	14 1/2	675.00	Auto reverse/play. As above. †Two erase heads; auto reverse/record/play. Auto reverse/play.	
	CT-8R	20-22	F 3	0.035	70	Yes	No	Auto	3	2	Yes	Yes	No	Yes	Yes	Yes	16 1/2 x 5 1/2 x 12 1/2	14 1/2	575.00		
	CT-7R	20-20	F 3†	0.04	70	Yes	Yes	No	No	3		Yes	Yes	No	Yes	Yes	16 1/2 x 4 x 10 1/2	11 1/2	450.00		
	CT-6R	20-20	F 2	0.04	70	Yes	No	No	No	3		Yes	Yes	No	Yes	Yes	16 1/2 x 4 x 10 1/2	11 1/2	350.00		
	CT-5	20-18	F 2	0.04	70	Yes	No	No	No	3		Yes	Yes	No	No	Yes	16 1/2 x 4 x 9 1/2	9 1/2	280.00		
CT-4	20-17	F 2	0.05	68	Yes	No	No	No	3		Yes	Yes	No	No	Yes	16 1/2 x 4 x 9 1/2	9 1/2	200.00			
RADIO SHACK	SCT-32	30-21 ±3	F 3	0.06	69	No	No	Yes	3	No	Yes	Yes	No	Yes	Yes	Yes	4 1/4 x 17 1/2 x 10 1/2		399.95		
	SCT-23	30-19 ±3	F 2	0.07	67	No	No	Yes	3		Yes	Yes	No	No	Yes	Yes	4 1/4 x 16 1/2 x 10		299.95		

# CASSETTE DECKS

MANUFACTURER	Model	Frequency Response, Hz-MHz, $\pm$ dB	Top Load=T, Front Load=F	Number of Heads	% Wow & Flutter	S/M, dB, with Dolby B/M	Dolby C, MP?	dbx NR?	Fine Bias Adjust?	No. Preset Bias/EQ Posns.	No. Mike Mixing Inputs	Locking Pause Control?	Metal Tape Capable?	Limiter?	Memory Rewind?	Peak Level Indicator(s)?	Dimensions, inches	Net Weight, lbs.	Price, \$	Notes
RADIO SHACK (Continued)	SCT-22	30-19 $\pm$ 3	F	2	0.08	65	No	No	No	3										
	SCT-24	30-14 $\pm$ 3	F	2	0.15	64	No	No	No	3										149.95
REVOX	B710	22-22 +2, -3	F	3	0.035	68	No	No	No	3	2	Yes	Yes	No	Yes	Yes	18x14x6	23	1899.00	
ROTEL	RD-1010	30-19 $\pm$ 3	F	3	0.045	65	No	No	Yes	4	No	Yes	Yes	No	Yes	Yes	17x11 $\frac{1}{2}$ x4 $\frac{1}{2}$	14	425.00	Remote controll-able.
	RD-700	30-17.5 $\pm$ 3	F	2	0.037	70	No	No	Yes	3	No	Yes	Yes	No	Yes	Yes	17x11 $\frac{1}{2}$ x4 $\frac{3}{4}$	12.5	300.00	
	RD-560	30-17.5 $\pm$ 3	F	2	0.06	64	No	No	Yes	3	No	No	Yes	No	No	Yes	17x9 $\frac{3}{4}$ x4 $\frac{1}{2}$	11	225.00	
	RD-400	30-17 $\pm$ 3	F	2	0.07	64	No	No	No	3	No	No	Yes	No	No	No	17x10 $\frac{1}{4}$ x4 $\frac{3}{4}$	10.2	180.00	Opt. remote.
	RMD-90	30-18 $\pm$ 3	F	2	0.05	65	No	No	No	3	No	Yes	Yes	No	Yes	Yes	11x4 $\frac{3}{4}$ x10 $\frac{1}{4}$	8.5	300.00	
	RMD-70	30-17.5 $\pm$ 3	F	2	0.07	64	No	No	No	3	No	No	Yes	No	No	Yes	11x4 $\frac{3}{4}$ x8 $\frac{1}{2}$	7	180.00	
SAE	Two C4	30-18 $\pm$ 2.5	F	2	0.06	57	No	No	Yes	3		Yes	Yes	No	Yes		5 $\frac{1}{4}$ x18 $\frac{1}{2}$ x13 $\frac{3}{8}$	20	599.00	
SANSUI	D-550MB/ D-550MS	25-21 $\pm$ 3	F	3	0.035	70	No	No	Yes	3	No	Yes	Yes	No	Yes	Yes	18 $\frac{1}{2}$ x5x11 $\frac{1}{8}$	13	520.00	
	D-350MB/ D-350MS	25-18 $\pm$ 3	F	2	0.035	69	No	No	Yes	3	No	Yes	Yes	No	Yes	Yes	18 $\frac{1}{2}$ x5x11 $\frac{1}{8}$	13	420.00	
	D-300MB/ D-300MS	30-17 $\pm$ 3	F	2	0.05	68	No	No	No	3	No	Yes	Yes	No	No	Yes	16 $\frac{1}{2}$ x5 $\frac{1}{4}$ x9 $\frac{3}{8}$	11.2	320.00	
	D-150MB/ D-150MS	30-15 $\pm$ 3	F	2	0.05	68	No	No	No	3	No	Yes	Yes	No	No	Yes	16 $\frac{1}{2}$ x5 $\frac{1}{4}$ x9 $\frac{3}{8}$	9.3	240.00	
	D-95MB/ D-95MS	30-15 $\pm$ 3	F	2	0.07	68	No	No	No	3	No	Yes	Yes	No	No	Yes	16 $\frac{1}{2}$ x5 $\frac{1}{4}$ x9 $\frac{3}{8}$	9.3	200.00	
SANYO	RDS20	30-16 $\pm$ 3	F	2	0.05	62	No	No	No	3		Yes	Yes	No	No	No	15x9 $\frac{1}{4}$ x5 $\frac{1}{8}$		129.95	
	RDS25	30-17 $\pm$ 3	F	2	0.05	67	No	No	No	3		Yes	Yes	No	†	Yes	16 $\frac{1}{2}$ x9 $\frac{1}{2}$ x4 $\frac{3}{4}$		179.95	
	RDS45	30-18 $\pm$ 3	F	2	0.05	67	No	No	Yes	3		Yes	Yes	No	†	Yes	17 $\frac{1}{2}$ x10 $\frac{1}{2}$ x4 $\frac{3}{4}$		199.95	
	Plus D56	30-19 $\pm$ 3	F	2	0.05	67	No	No	No	3		Yes	Yes	No	†	Yes	17 $\frac{1}{2}$ x10 $\frac{1}{2}$ x4		239.95	
	Plus D60	20-20 $\pm$ 3	F	2	0.04	70	No	No	No	4	2	Yes	Yes	No	Yes†	Yes	17 $\frac{1}{2}$ x11 $\frac{1}{2}$ x5 $\frac{1}{4}$		249.95	
	Plus D64	20-20 $\pm$ 3	F	2	0.04	70	No	No	No	4	2	Yes	Yes	No	†	Yes	17 $\frac{1}{2}$ x11 $\frac{1}{2}$ x5 $\frac{1}{4}$		299.95	
	Plus D65	20-18 $\pm$ 3	F	2	0.04	70	No	No	No	4		Yes	Yes	No		Yes	16 $\frac{1}{2}$ x10 $\frac{1}{2}$ x5 $\frac{1}{4}$		329.95	
H.H. SCOTT	628DM	30-18 $\pm$ 3	F	2	0.045	66	No	No	No	4		Yes	Yes		Yes	Yes	4 $\frac{3}{8}$ x17x8 $\frac{1}{8}$		214.95	
	638DM	30-18 $\pm$ 3	F	2	0.045	66	No	No	No	4		Yes	Yes		Yes	Yes	4 $\frac{3}{8}$ x17x8 $\frac{1}{8}$		249.95	
	658DM	25-18 $\pm$ 3	F	2	0.04	68	Yes	No	No	4		Yes	Yes		Yes	Yes	3 $\frac{3}{8}$ x17x8 $\frac{1}{8}$		299.95	
	688DM	25-18 $\pm$ 3	F	3	0.04	68	Yes	No	No	4		Yes	Yes		Yes	Yes	3 $\frac{3}{8}$ x17x8 $\frac{1}{8}$		449.95	
	665DM	30-18 $\pm$ 3	F	2	0.05	64	No	No	No	3		Yes	Yes		Yes	Yes	4x17x10		299.95	
	675DM	30-18 $\pm$ 3	F	2	0.045	66	No	No	No	3		Yes	Yes		Yes	Yes	4x17x10		349.95	
SHERWOOD	S-100CP	25-17 +1, -3	F	2	0.06	66	No	No	No	3	No	Yes	Yes	No	Yes	Yes	17 $\frac{1}{2}$ x11 $\frac{1}{2}$ x4 $\frac{3}{4}$	15	199.95	Music search.
	S-300CP	25-19 +1, -3	F	2	0.06	66	No	No	No	3	No	Yes	Yes	No	Yes	Yes	17 $\frac{1}{2}$ x12 $\frac{1}{2}$ x5	18	249.95	
	S-5000CP	25-19 +1, -3	F	2	0.05	66	No	Yes	Yes	4	No	Yes	Yes	No	Yes	Yes	17 $\frac{1}{2}$ x12 $\frac{1}{2}$ x5	18	349.95	
SONY  (Continued)	TC-K88B	30-17 $\pm$ 3	F	2	0.03	70	No	No	No	4	No	Yes	Yes	No	Yes	Yes	18 $\frac{1}{2}$ x3 $\frac{3}{8}$ x15 $\frac{1}{4}$	22 $\frac{1}{2}$	1200.00	Dual capstans. As above.
	TC-K777	20-20 $\pm$ 3	F	3	0.025	70	No	No	Yes	4	No	Yes	Yes	No	Yes	Yes	17x4 $\frac{1}{4}$ x15 $\frac{1}{8}$	21	950.00	
	TC-K81	30-18 $\pm$ 3	F	3	0.04	70	No	No	Yes	4	No	Yes	Yes	No	Yes	Yes	17x5 $\frac{1}{2}$ x11 $\frac{1}{8}$	12 $\frac{1}{2}$	580.00	
	TC-K71	30-18 $\pm$ 3	F	3	0.04	70	No	No	Yes	4	No	Yes	Yes	No	Yes	Yes	17x5 $\frac{1}{2}$ x11 $\frac{1}{8}$	13 $\frac{1}{2}$	450.00	
	TC-K77R	30-17 $\pm$ 3	F	2	0.05	69	No	No	Yes	4	No	Yes	Yes	No	Yes	Yes	17x6 $\frac{1}{2}$ x12 $\frac{1}{2}$	18 $\frac{1}{2}$	650.00	
	TC-D5M	30-17 $\pm$ 3	T	2	0.06	69	No	No	No	4	No	Yes	Yes	Yes	No	Yes	9 $\frac{1}{4}$ x1 $\frac{1}{2}$ x6 $\frac{1}{8}$	3 $\frac{1}{4}$	780.00	
	TC-PB5	30-18 $\pm$ 3	F	2	0.05	70	No	No	No	2	Yes	Yes	Yes	No	No	No	8 $\frac{1}{2}$ x4 $\frac{1}{4}$ x11 $\frac{1}{8}$	7 $\frac{1}{4}$	220.00	
	TC-FX7	30-17 $\pm$ 3	F	2	0.05	69	No	No	No	4		Yes	Yes	No	Yes	Yes	17x3 $\frac{3}{8}$ x13 $\frac{1}{8}$	14 $\frac{1}{2}$	550.00	
	TC-FX6C	30-17 $\pm$ 3	F	2	0.04	69	Yes	No	No	4		Yes	Yes	No	Yes	Yes	17x4 $\frac{1}{4}$ x10 $\frac{1}{4}$	14 $\frac{1}{2}$	420.00	
	TC-FX6	30-17 $\pm$ 3	F	2	0.04	69	No	No	No	4		Yes	Yes	No	Yes	Yes	17x4 $\frac{1}{4}$ x10 $\frac{1}{4}$	12 $\frac{1}{4}$	380.00	

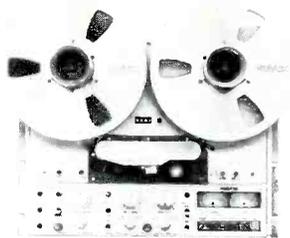
# CASSETTE DECKS

MANUFACTURER	Model	Frequency Response, Hz/Hz	3dB	Top Load: T, Front Load: F	Number of Heads	% Wow & Flutter	S/N, dB, with Dolby B/NP	Wtd. Pk.	Dolby C NR?	dbx NR?	Fine Bias Adjust?	No. Preset Bias / EQ Posns.	No. Mike Mixing Inputs	Locking Pause Control?	Metal Tape Capable?	Limiter?	Memory Rewind?	Peak Level Indicator(s)?	Dimensions, inches	Net Weight, lbs.	Price, \$	Notes
SONY (Continued)	TC-FX5C	30-17 ±3	F	2	0.04	69	Yes	No	No	No	4		Yes	Yes	No	Yes	Yes	17x4¼x10%	13¼	350.00	Opt. remote, auto play/memory. Opt. remote.	
	TC-FX4	30-15 ±3	F	2	0.05	68	No	No	No	No	4		Yes	Yes	No	No	Yes	17x4¼x9%	8%	250.00		
	TC-FX2	30-15 ±3	F	2	0.05	68	No	No	No	No	4		Yes	Yes	No	No	Yes	17x4¼x9%	9%	190.00		
TANDBERG	TCD3034	30-18 ±3	F	2	0.08	68	No	No	Yes	Yes	3	No	Yes	Yes	No	No	Yes	17x4¼x10%	17	549.00		
	TCD420A	30-18 ±3	F	2	0.13	68	No	No	Yes	Yes	3	No	Yes	Yes	No	No	Yes	18½x4¼x9	15	599.00		
	TCD440A	20-20 ±3	F	3	0.12	70	No	No	Yes	Yes	3	No	No	Yes	No	No	Yes	18½x4¼x9	15	995.00		
	TCD3004	19-21 ±2	F	3	0.06	70	No	No	Yes	Yes	3	No	Yes	Yes	No	Yes	Yes	17x9½x14	27	2800.00	Inc. oscillator.	
TEAC	V-30	30-17	F	2	0.06	67	No	No	No	Yes	3	2	Yes	Yes	No	No	Yes	17x4.3x10	12	210.00		
	V-40	30-17	F	2	0.06	67	No	No	No	Yes	3	2	Yes	Yes	No	No	Yes	17x4.3x10	12	240.00		
	V-50	30-17	F	2	0.06	67	No	No	No	Yes	3	2	Yes	Yes	No	No	Yes	17x4.3x10	12	270.00		
	CX-400	30-20	F	3	0.05	68	No	No	Yes	Yes	3	2	Yes	Yes	No	Yes	Yes	16x5½x11¼	13.4	340.00		
	V-9	30-20	F	2	0.04	69	No	No	Yes	Yes	3	2	Yes	Yes	No	No	Yes	16.2x4.4x10	12.1	399.00		
	V-SRX	20-19	F	2	0.035	69†	No	Yes	Yes	Yes	3	2	Yes	Yes	No	Yes	Yes	17.2x4.4x10.3	13.2	410.00	†91 with dbx.	
	V-7	30-20	F	3	0.04	70	No	No	Yes	Yes	3	2	Yes	Yes	No	Yes	Yes	17x4.9x11.9	15.4	430.00	Memory stop.	
	V-3RX	20-20	F	2	0.03	70†	No	Yes	Yes	Yes	3	2	Yes	Yes	No	Yes	Yes	17.2x4.4x10.3	19.8	470.00	Memory block repeat. Simul-Sync.	
	C-3RX	20-20	F	3	0.04	60†	No	Yes	Yes	Yes	3	2	Yes	Yes	No	Yes	Yes	18.9x5.8x15.7	20.9	690.00	As above.	
	V-95RX	30-18	F	3	0.04	68†	No	Yes	Yes	Yes	3	2	Yes	Yes	No	Yes	Yes	17x4.2x12	14.1	625.00		
M-124	M-122	30-16	F	2	0.07	65	No	No	Yes	Yes	2	2	Yes	Yes	No	Yes	Yes	16½x6¼x11½	15.6	450.00		
	M-122	35-20	F	3	0.085	60	No	No	Yes	Yes	3	2	Yes	Yes	No	Yes	Yes	19x5.8x13.6	19.8	725.00		
	M-124AV	30-16	F	2	0.07	59	No	No	Yes	Yes	2	2	Yes	Yes	No	Yes	Yes	16½x6¼x11½	14%	475.00		
TECHNICS	RS-M95	20-20 ±3	F	3	0.03	70	No	No	Yes	Yes	4	2	Yes	Yes	No	Yes	Yes	5½x17¼x13%	26½	1400.00		
	RS-M280	25-19 ±3	F	3	0.024	70	No	No	Yes	Yes	4	2	Yes	Yes	No	Yes	Yes	3½x16¾x13%	14	800.00		
	RS-M85II	30-17 ±3	F	2	0.035	69	No	No	Yes	Yes	4	2	Yes	Yes	No	No	Yes	3½x19x15%	26½	750.00		
	RS-M02	20-20	F	2	0.035	68	No	No	No	No	4	2	Yes	Yes	No	No	Yes	3½x11¼x9	12%	520.00	†92 with dbx; dbx disc position.	
	RS-M270X	20-20	F	2	0.035	68†	No	Yes	No	No	4	2	Yes	Yes	No	No	Yes	3½x16¾x13%	15½	500.00		
	RS-M51	30-17 ±3	F	2	0.045	67	No	No	No	No	4	2	Yes	Yes	No	No	Yes	4½x16¾x10%	13%	420.00		
	RS-M260	20-20	F	3	0.05	67	No	No	No	No	4	2	Yes	Yes	No	No	Yes	4½x16¾x11%	11%	380.00		
	RS-M45	20-20	F	2	0.035	68	No	No	No	No	4	2	Yes	Yes	No	No	Yes	3½x16¾x13%	15½	375.00		
	RS-M250	20-20	F	2	0.04	67	No	No	No	No	4	2	Yes	Yes	No	Yes	Yes	4½x16¾x11%	11%	350.00	Micro-processor 8-mode memory. †91 with dbx; dbx disc/tape. Auto tape selector. Music search.	
	RS-M240X	20-18	F	2	0.048	67†	No	Yes	No	No	4	2	Yes	Yes	No	No	Yes	4½x16¾x9%	10%	350.00		
	RS-M04	20-18	F	2	0.05	67	No	No	No	No	4	2	Yes	Yes	No	No	Yes	4½x11¼x9%	9%	330.00		
	RS-M225	20-18	F	2	0.048	67	No	No	No	No	3	2	Yes	Yes	No	No	Yes	4½x16¾x9%	9%	260.00		
RS-M07	20-18	F	2	0.048	67	No	No	No	No	3	2	Yes	Yes	No	No	No	4½x11¼x9%	7%	250.00			
RS-M218	20-17	F	2	0.05	66	No	No	No	No	3	2	Yes	Yes	No	No	Yes	4½x16¾x8%	8%	200.00			
RS-M205	20-17	F	2	0.05	66	No	No	No	No	3	2	Yes	Yes	No	No	No	4½x16¾x8%	8%	165.00			
TOSHIBA	PC-X10M	20-17	F	2	0.055	67	No	No	No	No	3	No	Yes	Yes	No	No	No	16½x5½x8%	8%	170.00		
	PC-X12	30-18	F	2	0.06	68	No	No	No	No	3	No	Yes	Yes	No	No	No	16½x5½x10%	9%	210.00		
	PC-X15	25-18	F	2	0.06	68	No	No	No	No	3	No	Yes	Yes	No	No	Yes	16½x4¾x11	8%	200.00		
	PC-G2	25-18	F	2	0.05	68	No	No	No	No	4	No	Yes	Yes	No	No	Yes	16½x4¾x11	11	220.00		
	PC-X22	25-18	F	2	0.05	68	No	No	No	No	4	No	Yes	Yes	No	No	Yes	16½x4¾x11	10%	250.00		
	PC-X33	20-18	F	2	0.04	68	No	No	No	No	4	No	Yes	Yes	No	No	Yes	16½x4¾x11	11	330.00		
	PC-X60	20-20	F	2	0.035	70	No	No	No	No	4	No	Yes	Yes	No	No	Yes	16½x4¾x11	13%	400.00		
VECTOR RESEARCH	VCX-800	20-21 ±3	F	3	0.04	65	Yes	No	Yes	Yes	3		Yes	Yes	No	Yes	Yes	17½x14¼x5%	25	1000.00	Dual capstan, sweep tone generator, Dolby HX. Opt. remote.	
	VCX-600	20-20 ±3	F	3	0.05	65	No	No	Yes	Yes	3		Yes	Yes	No	Yes	Yes	17½x14¼x5%	22	750.00		
	VCX-510	20-18 ±3	F	2	0.05	65	Yes	No	Yes	Yes	4		Yes	Yes	No	Yes	Yes	17½x14¼x5%	22	525.00	Auto rewind/play.	
	VCX-400	20-18 ±3	F	2	0.06	65	Yes	No	Yes	Yes	4		Yes	Yes	No	Yes	Yes	17½x14¼x5%	20	400.00		
	VCX-300	20-18 ±3	F	2	0.06	65	No	No	Yes	Yes	3		Yes	Yes	No	Yes	Yes	17½x14¼x5%	17	350.00		
YAMAHA	K-960	30-22 ±3	F	2	0.028	69	No	Yes	Yes	Yes	3		Yes	Yes	No	Yes	Yes	17½x12x5½	17%	495.00		
	K-850	30-19 ±3	F	2	0.04	69	No	No	No	No	3		Yes	Yes	No	Yes	No	17½x12¼x5½	14%	370.00		
	K-550	40-20 ±3	F	2	0.04	69	No	No	No	No	3		Yes	Yes	No	No	Yes	17½x11½x5	12½	300.00		
	K-350	40-18 ±3	F	2	0.06	66	No	No	No	No	3		Yes	Yes	No	No	No	17½x10½x5¼	9%	240.00		

# OPEN/REEL TAPE DECKS



Tandberg TD20ASE



Revox PR99



Technics RS-1500US



Akai GX-747

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—3¾, 1½

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±Hz, dB with Best Tape at Highest Machine Speed	Wow & Flutter, Wtd. Peak, % S/N, -3dB	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	
AKAI	GX-77	B	7	6	4	2	3	F.G.D.C. Servo	Direct	25-33 ±3	0.03	63	775	No	No	2 LED Mtrs.	17.2x9.6x8.9	37.5	775.00	EE tape capable. As above.	
	GX-747	B	10	6	4	2	3	A.C. Servo	Direct	25-33 ±3	0.03	65	775	No	Yes	5k	17.3x19.4x10.1	51.2	1250.00		
	GX-625	B	10	3	4	2	3	A.C. Servo	Direct	30-26 ±3	0.03	62	775	No	Yes	2.4k	17.3x17.6x9.5	38.9	850.00		
	GX-4000D	B	7	3	4	2	1	4-Pole Ind.	Belt	30-24 ±3	0.08	60	775	No	Yes	2 Mtrs.	17.3x12.4x9.1	29.1	399.95		
AMPEX	ATR-700 ALL	B/F	10½	3	†	2	3	D.C. Servo	Direct	100-18 ±2	0.08	60	1.228 V	No	Yes	600	2 VU Mtrs.	21½x17½x9¾	62	1995.00	†Low/hl versions in full, two, and ¼ track; opt. 4th playback head kit.
DENON	DH510	F	10½	3	2	2	3	6-Pole	A.C. Direct	20-30 ±3	0.025	66	755	No	Yes	50k	2 Mtrs.	18½x19x8½	48½	1350.00	Tape tension servo.
FOSTEX	A8	15	7	2	8	8	3	D.C.	Belt	45-18 ±3	0.06	73	300	†		VU	13½x14x6¾	29	2500.00	†Dolby C NR.	
	A4	F	7	3	4	4	3	D.C.	Belt	40-20 ±3	0.06	63	300	No		VU	13½x14x6¾	29	1450.00		
	A2	F	7	3	2	2	3	D.C.	Belt	40-20 ±3	0.06	65	300	No		VU	13½x14x6¾	29	850.00		
MARK LEVINSON AUDIO SYSTEMS	ML-5	†	12½	3	2	2	3	Servo A.C. Sync.	Pinch Roller	30-25 ±1.5	0.04		385	No	No		25x21.8x10.8	120	14,000.00	†15, 30 ips; based on Studer A80RC. As above; phase coherent.	
	ML-5A	†	12½	3	2	2	3	Servo A.C. Sync.	Pinch Roller	30-30 ±1	0.04		385	No	No		25x21.8x10.8	120	25,000.00		
OTARI	5050B	E	10½	4	2/4	2/4	3	D.C. Servo	Idler	30-22 ±2	0.05	72	775	No	Yes	150-10k	2 Mtrs., Peak	17½x20½x11¼	62	2295.00	
PIONEER	RT-909	B	10½	4	4	2	3	F.G. Servo	Belt	20-30	0.04	60	450	No	Yes		2 FI Mtrs.	18½x13½x12½	47¾	895.00	Dual capstan.
	RT-707	B	7	4	4	2	3	F.G. Servo	Direct	20-28	0.05	58	450	No	Yes		2 Mtrs.	18½x9½x14	44¼	695.00	
REVOX	B77	†	10½	3	2/4	2	3	A.C. Servo	Direct	30-22 +2, -3	0.06	67	775	Opt.	Yes	22k, 110k	2 Mtrs. & Peak	16½x17½x8¾	37½	1649.00	†Any two adjacent speeds from 15/16 to 15 ips. Bal. line in/out, self-sync, opt. bal. mike in.
	PR99	B/F	10½	3	2	2	3	A.C. Servo	Direct	30-22 +2, -3	0.06	67	775	No	Yes	22k, 110k	2 Mtrs. & Peak	17½x19x8	40¼	2095.00	

# OPEN/REEL TAPE DECKS

LETTER CODE FOR SPEEDS																						
A—7½, 3¼, 1½																						
B—7½, 3¼																						
C—7½, 3¼, 1½, 15/16																						
D—1½																						
E—15, 7½, 3¼																						
F—15, 7½																						
G—15, 7½, 3¼, 1½																						
H—3¼, 1½																						
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-Hz	Best Tape at Highest Machine Speed	Wow & Flutter - Wtd. Peak, %	S/N, -dB	Output Level at 10 VU, mV	Dolby NR Included?	Mike Mixing?	Mike Input Z, Ohms	Record Level Indicator(s)? Type and Quantity	Dimensions, Inches	Weight, Lbs.	Price, \$	Notes
SONY	TC-399	A	7	3	4	2	1	A.C. Servo	Belt	30-25 ±3	0.06	61	77.5	No	Yes	Low	2VU Mtrs.	16½x17¼x7½	27¼	520.00	Dual capstan, with remote control. As above plus ¼-track pb.	
	TC-765	B	10½	3	4	2	3	A.C. Servo	Belt	30-25 ±3	0.04	61	77.5	No	Yes	Low	2VU Mtrs.	17½x20x9¼	58½	1250.00		
	TC-766-2	F	10½	4	2/4	2	3	A.C. Servo	Belt	30-30 ±3	0.018	64	77.5	No	Yes	Low	2VU Mtrs.	17½x20x9¼	58½	1350.00		
TANBERG	TD20A	B, F, B, F	10½	3	2, 4	2	4	Phase Lock Phase Lock	Belt	20-26 ±2	0.04	69	150	No	Yes	50-700	2 Peak Mtrs.	17½x17¼x7¾	37½	1295.00	Remote control, compatible with EE tape.	
	TD20A-SE	B, F, B, F	10½	3	2, 4	2	4	Phase Lock Phase Lock	Belt	20-26 ±2	0.04	80	100	No	Yes	50-700	2 Peak Mtrs.	17½x17¼x7¾	37½	1559.00		
TEAC	X-3	B	7	3	4	2	3	Ind.	D.C. Servo	30-20	0.04	58	450	Yes	Yes	10k	2 VU Mtrs.	16½x12x9x9	30¾	580.00	† dbx NR. † 15 ips.	
	X-3R	B	7	3	4	2	3	Eddy	D.C. Servo	30-20	0.05	63	450	Yes	Yes	10k	2 VU Mtrs.	16½x12x9x9	30.8	650.00		
	X-7	B	7	3	4	2	3	Eddy	D.C. Servo	30-20	0.03	63	450	Yes	Yes	10k	2 VU Mtrs.	17x14.2x10.2	39.8	750.00		
	A-23405X	B	7½	3	¼	4	3	Eddy	F.G. D.C.	40-18	0.08	47	775	No	Yes	10k	4 VU Mtrs.	17½x18x8x8	46	1350.00		
	A-3440	F	10½	3	¼	4	3	Eddy	F.G. D.C.	40-23	0.07	61	320	No	Yes	10k	4 VU Mtrs.	17½x20x9x9	53	1890.00		
	A-3300SX27	F	10½	3	½	2	3	Eddy	F.G. D.C.	35-24	0.04	60	320	No	Yes	10k	2 VU Mtrs.	17½x15½x8¼	39	1200.00		
	35-2B	F	10½	3	½	2	3	Eddy	F.G. D.C.	40-22 ±3	0.05	65	320	†	No		2 VU Mtrs.	18½x16½x10½	85	1990.00		
	40-4	F	10½	3	4	4	3	Eddy	Hyst. Sync.	40-18 ±3	0.04	65	320	No	No		4 VU Mtrs.	17½x21x12	75	2100.00		
	80-8	†	10½	3	8	8	3	Eddy	Hyst. Sync.	40-18 ±3	0.04	65	320	No	No		8 VU Mtrs.	17½x21x12	86	3990.00		
	22-2	F	7	3	2	2	3		F.G. D.C.	40-22	0.07	66	320	No	Yes	10k	2 VU Mtrs.	16½x13x9	30.8	775.00		
	22-4	F	7	3	¼	4	3		F.G. D.C.	40-22	0.07	61	320	No	No		4 VU Mtrs.	16½x16x10¼	40	1425.00		
	32-2B	F	10½	3	½	2	3		F.G. D.C.	40-22	0.05	63	320	No	Yes	10k	2 VU Mtrs.	17½x17x10¼	44	1300.00		
	X-7R	B	7	6	4	2	3	Eddy	D.C. Servo	30-20	0.03	63	450	Yes	Yes	10k	2 VU Mtrs.	17x14.2x10.2	39.8	850.00		
X-10	B	10½	3	4	2	3	Eddy	D.C. Servo	30-20	0.04	63	450	Yes	Yes	10k	2 VU Mtrs.	17x17.8x10.2	44	1050.00			
X-10R	B	10½	6	4	2	3	Eddy	D.C. Servo	30-20	0.04	63	450	Yes	Yes	10k	2 VU Mtrs.	17x17.8x10.2	44	1200.00			
TECHNICS	RS-1500 US	E	10½	4	2/4	2	3	Quartz Servo	D.C. Direct	30-30 ±3	0.018	68	420	No	Yes	200-10k	2 VU Mtrs.	19½x17½x10½	57½	1600.00	2-track rec./play. 4-track playback. 4-track rec./play. 2-track playback. Auto reverse.	
	RS-1506	E	10½	4	4/2	2	3	Quartz Servo	D.C. Direct	30-30 ±3	0.018	66	420	No	Yes	200-10k	2 VU Mtrs.	19½x17½x10½	57½	1600.00		
	RS-1700	E	10½	6	4	2	3	Quartz Servo	D.C. Direct	30-30 ±3	0.018	66	550	No	Yes	200-10k	2 VU Mtrs.	19½x17½x10½	58½	2100.00		
	RS-1520	E	10½	4	2/4	2	3	Quartz Servo	D.C. Direct	30-30 ±3	0.018	68	420	No	Yes	20-10k	2 VU Mtrs.	18x19½x10½	61¼	2100.00		
TECHNICS R & B	RS-10A02	E	10½	3	2	2	3	Quartz Servo	D.C. Direct	30-30 ±3	0.035	68	775	No	Yes	4.7k	2 Mtrs.	18x19½x10½	61¼	2300.00		
TELEFUNKEN	M-12A	B, F	10½	3	1 or ½	1 or 2	3	Hyst. Sync.	Idler	30-16 ±1.5	0.05	65	1.2V	No	Yes	200	VU Mtrs.	19x17½x8	60	6600.00		
	M-15A	F	12½	3	1 to 32	1 to 32	3	Servo	Idler	30-16 ±1.5	0.03	65	1.2V	No	No		VU Mtrs.	25½x20½x12	110 to 600	12,000.00 to 86,000.00		
UHER	4400 IC	C	5	2	4	2	1	Servo	Idler	35-20 ±2	0.15	60	1V	No	No	Low	2 Peak Mtrs.	11x3½x9	8½	949.00		
	5000	†	5¼	2	2	1	1	Hyst. Sync.	Idler	40-16 ±3	0.2	60	900	No	No	Low	1 Peak Mtr.	13x6x13	19	979.00	†3¼, 1½, and 15/16 ips.	
	4000 IC	C	5	2	2	1	1	Servo	Idler	35-20 ±2	0.15	64	1V	No	No	Low	1 Peak Mtr.	11x3½x9	8	869.00		



# LOUDSPEAKERS

MANUFACTURER	Model	Enclosure or System Type	Woofer Dia. - Inches	Midrange Dia. - Inches	Midrange Type	Tweeter Dia. - Inches	Tweeter Type	Large Cone? = Tweeter: 51 = Super Tweeter	Anechoic Freq. Response dB SPL / 1 Watt / 1 Meter	Recommended Min. Amp. Pwr. - Watts	Crossover Frequencies, Hz	Impedance Ohms: Nominal / Minimum	Dimensions - Inches	Finish	Grille Color and Material	Weight, Lbs.	Price, \$	
ADC (Continued)	312	Bass Ref	12	5	Cone	1 1/4	Cone	M, T	40-18 ±3	92	10	700, 3.5k	8	29x10 1/4 x 18	Wal.	Black Cloth	36	398.00
	MS650	Ac. Sus.	6 1/2		Cone	1	Dome	T	75-17 ±1.5	88	10	1.2k	4	11x7 1/2 x 8 1/2	Oak	Black Foam	9	290.00
	B410	Ac. Sus.	8		Cone	1	Dome	T	65-17 ±1.5	88	10	1.2k	4	16x9 3/8 x 10	Oiled Wal. Pecan	Black Foam	24	390.00
	MS10W	Ac. Sus. Subwoof	10						30-.075	87	18		4	17 1/2 x 10 3/4 x 13 1/2		Black Cloth	34	199.00
ADS	400	Ac. Sus.	7			1	Dome		65-20 ±3	93	15	1.5k	6/4	11 1/4 x 7 3/8 x 6 3/8	Opt.	Opt.	9	379.90
	300	Ac. Sus.	5 1/4			1	Dome		68-20 ±3	91	5	2.5k	6/4	8 3/4 x 5 3/8 x 5 3/8	Opt.	Opt.	7	309.90
	200	Ac. Sus.	4			1	Dome		85-20 ±3	90	5	2.5k	6/4	6 3/8 x 4 3/8 x 4 3/8	Opt.	Opt.	4 1/2	249.90
	L620	Ac. Sus.	10			1	Dome		30-20 ±3	92	15	1.5k	6/4	25 1/2 x 14 3/8 x 11 1/4	Wal.	Bronze	40	249.95
	L520	Ac. Sus.	8			1	Dome		35-20 ±3	92	15	1.5k	6/4	21 1/2 x 12 1/4 x 10 1/2	Wal.	Bronze	30	199.95
	L420	Ac. Sus.	7			1	Dome		48-20 ±3	92	15	1.5k	6/4	17 1/2 x 11 1/4 x 7	Wal.	Bronze	16	159.95
	L810	Ac. Sus.	(2) 8	2	Dome	3/4	Dome		35-23 ±3	94	20	550,4k	6/4	25 1/2 x 14 3/8 x 11 1/4	Wal.	Bronze	46	449.95
	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 3/8 x 11 1/4	Opt.	Bronze	42	399.95
	L710	Ac. Sus.	(2) 7	2	Dome	3/4	Dome		40-23 ±3	93	15	550,4k	6/4	21 1/2 x 12 1/4 x 10 1/2	Wal.	Bronze	35	349.95
	L2030	Ac. Sus.	(2) 14	(4) 2	Domes	1	Dome	M, T	22-20 ±3	95	10	450,4k	6/4	55 3/8 x 27 1/4 x 13 1/8	Wal.	Black Cloth	190	1995.00
	L1530	Ac. Sus.	(2) 10	2	Dome	1	Dome	T	25-20 ±3	95	10	450,4k	6/4	50 3/8 x 23 1/4 x 12 1/8	Wal.	Black Cloth	115	1095.00
	L1230	Ac. Sus.	(2) 8	2	Dome	3/4	Dome	T	30-20 ±3	94	20	550,4k	6/4	40 3/8 x 19 1/4 x 9 3/8	Wal.	Black Cloth	87	675.00
PB-1500	Ac. Sus.	(2) 10							94	Inc.				Opt.	Black Cloth	90	1349.95 w. active x-over.	
ADVENT	5002	Ac. Sus.	10			1	Dome		42-23 ±2.5	87	10	1.8k	8/6	26x14 1/4 x 11 1/2	Wal. Vinyl	Cloth	39 1/2	439.90
	4002	Ac. Sus.	10			1	Dome		46-23 ±2.5	87	10	1.8k	8/6	21 1/2 x 13 1/4 x 9 3/8	Wal. Vinyl	Cloth	31 1/2	379.90
	3002	Ac. Sus.	8			1	Dome		48-23 ±3	88	7.5	2.8k	8/7	20x12x8 1/2	Wal. Vinyl	Cloth	21 1/2	279.90
	2002	Ac. Sus.	8			1 3/8	Cone		50-23 ±3	88	7.5	3.2k	8/6	18 1/2 x 11 x 8	Wal. Vinyl	Cloth	16 1/2	219.90
	5012	Ac. Sus.	10			1	Dome		40-23 ±2.5	87	10	1.8k	8/6	26 1/2 x 14 3/8 x 11 1/4	Wal. Vinyl	Cloth	40	249.95
AKAI	CW-T77	Inf. Baf.	12	4	Cone	1 1/4	Cone	M, T	30-20			1.5k, 9k	8	29.5x15.5x11.2	Wal. Vinyl	Gray Cloth	45	269.95
	CW-T55	Inf. Baf.	10	4	Cone	1 1/4	Cone	M	40-20			1.5, 9k	8	26.4x13.4x8.9	Wal. Vinyl	Gray Cloth	31	199.95
	CW-T33	Inf. Baf.	10			1 1/4	Cone		45-20			5k	8	22.8x11.8x8.5	Wal. Vinyl	Gray Cloth	55	269.95
ALLISON ACOUSTICS	One	Closed Box	(2) 10	(2) 3 1/2	Convex Cones	(2) 1	Convex Cones	M, T		87	30	350, 3.75k	8/7	19x10 1/4 x 40	Oiled Wal.	Black Plas.	67	590.00
	Two	Closed Box	(2) 8	(2) 3 1/2	Convex Cones	(2) 1	Convex Cones	M, T		87	30	350, 3.75k	8/7	16x9 3/8 x 36	Oiled Wal.	Black Plas.	57	510.00
	Three	Closed Box	10	3 1/2	Convex Cone	1	Convex Cone	M, T		87	30	350, 3.75k	4/3.5	15 1/4 x 10 x 40	Oiled Wal.	Black Plas.	45	395.00
	Four	Closed Box	8			(2) 1	Convex Cones	M, T		87	30	2k	8/6.5	19 3/8 x 10 x 11	Oiled Wal.	Black Plas.	23 1/2	280.00
	Five	Closed Box	8			1	Convex Cone	T		87	15	2k	4/3.5	18 1/4 x 10 x 11	Oiled Wal.	Black Plas.	21	195.00
	Six	Closed Box	8			1	Convex Cone	T		87	15	2k	4/3.5	11 1/4 x 11 1/4 x 11 1/4	Opt.	Black Plas.	17	172.00
ALTEC LANSING	1010	Vented	10					T	60-20 ±4	92	15	3k	8/4	23x14 3/8 x 12 1/4	Wal. Vinyl	Black Knit	30	199.95
	1012	Vented	12	5	Cone			M, T	55-20 ±4	93	15	1k, 8k	8/4	29 1/2 x 16 1/2 x 13 1/4	Wal. Vinyl	Black Knit	41	199.95
	4	Vented	10			3/8	Horn	T	48-20 ±5	89.5	20	2k	8/6	23x14 3/8 x 12 1/4	Lacq.	Black Knit	36	249.95
	6	Vented	10	5	Cone	3/8	Horn	M, T	42-20 ±5	91.5	20	700, 5k	8/6	25 1/2 x 15 3/8 x 13 1/4	Lacq.	Black Knit	44	349.95
	8	Vented	12	5	Cone	3/8	Horn	M, T	40-20 ±5	93.5	20	700, 5k	8/6	29 1/2 x 16 1/2 x 14	Lacq.	Black Knit	60	449.95
	Santana II	Vented	12			5	Cone	T	45-20 ±5	92.5	10	2.5k	8/6	25 3/8 x 19 x 16	Oiled Wal.	Black Knit	57	329.95
	14	Vented	12					M, T	40-20 ±5	96.5	10	1.5k	8/6	30x21x16 1/2	Oiled Wal.	Black Knit	77	579.95
	19	Vented	15					M, T	36-20 ±5	103.5	10	1.2k	8/6	39x30x21	Wal. Opt.	Black Knit	143	1000.00
	LF 1	Vented Subwoof.	12						20-.080 ±5	95.5	10	80	8/6	16x36x36	Lacq.		106	699.95
	LF 2	Vented Subwoof.	12						35-.080 ±3	95.5	Inc.		8/6	16x36x36	Lacq.		122	949.95

# LOUDSPEAKERS

MANUFACTURER	Model	Enclosure or System Type	Woofer Dia. Inches	Midrange Dia. Inches	Midrange Type	Tweeter Dia. Inches	Tweeter Type	Level Controls Tweeter	Level Controls Midrange	Level Controls Subwoofer	Anechoic Freq. Response Hz to kHz: ± dB	Recommended Min. Amp. Pwr. Watts	Crossover Frequencies, Hz	Impedance: Ohms: Nominal/Minimum	Dimensions, Inches	Finish	Grille Color and Material	Weight, Lbs.	Price, \$
AMERICAN ACOUSTICS LABS	IM-920	Bass Ref.	(2) 10	4½	1	Dome	T	35-22 ±3			10	500, 2k	8	35¼x14½x11½	Rswd. Vinyl	Black Cloth	52	299.00	
	IM-912	Bass Ref.	12	4½	1	Dome	T	35-22 ±3			5	500, 2k	8	26x16x11½	Rswd. Vinyl	Black Cloth	41	249.00	
	IM-910	Bass Ref.	10	4½	1	Dome	T	38-22 ±3			5	500, 2k	8	22½x14½x11½	Rswd. Vinyl	Black Cloth	36	219.00	
	IM-98	Bass Ref.	8		1	Dome	T	42-22 ±3			5	1.5k	8	20x12x9¼	Rswd. Vinyl	Black Cloth	22	129.00	
	IM-96	Pas. Rad.	6		1	Dome	T	40-22 ±3			5	2k	8	14½x9x9	Rswd. Vinyl	Black Cloth	16	239.00	
	EQ21-A	Ac. Sus.	(2) 10	5%	Cone	(2) 2	Phen. Rings		25-22 ±3			5	1k, 5k	4	34½x15½x11	Hick. Vinyl	Black Cloth	51	219.00
	EQ17-A	Bass Ref.	(2) 8	5%	Cone	2	Phen. Ring		25-22 ±3			5	1k, 5k	4	32½x14x11	Hick. Vinyl	Black Cloth	42	185.00
	EQ15-A	Bass Ref.	15	5%	Cone	(2) 2	Phen. Rings		20-22 ±3			5	1k, 5k	8	28x19x11	Hick. Vinyl	Black Cloth	47	199.00
	EQ13-A	Ac. Sus.	12	5%	Cone	(2) 2	Phen. Rings		25-22 ±3			5	1k, 5k	8	24x19x11	Hick. Vinyl	Black Cloth	41	175.00
	EQ11-A	Bass Ref.	10			2	Phen. Ring		27-22 ±3			5	2.5k	8	23x14½x11	Hick. Vinyl	Black Cloth	35	135.00
	EQ9-A	Bass Ref.	8			2	Phen. Ring		35-22 ±3			5	2.5k	8	21x12x8¼	Hick. Vinyl	Black Cloth	22	89.00
	EQ7-A	Bass Ref.	6			2	Phen. Ring		50-22 ±3			5	2.5k	8	12½x7½x7	Hick. Vinyl	Black Cloth	11	75.00
	EQ25-A	Bass Ref. Subwoof.	(2) 8				Ring		10-250 ±3			5	100	8	16½x16x16	Hick. Vinyl	Black Cloth	50	249.00
	APATURE	R-T Add-On D-6	Sealed			2x½	Ribbon	T	To 34k	92	15	Sel.	8	6x6x6	Black	Screen	5	99.95	
		Bass Ref.	6½		1	Dome	T	51-22 ±3	90	15	5.4k	8	8x8x12	Koa	Brown Knit	14	99.95		
R-6		Bass Ref.	6½		2x½	Ribbon	T	45-34 ±3	92	15	5.4k	8	12x8x17¼	Koa	Brown Knit	21	139.95		
R-66		Bass Ref.	(2)6½		2x½	Ribbon	T	42-34 ±3	92	15	5.4k	4	12x12x22	Koa	Brown Knit	33	199.95		
R-106		Pas. Rad.	10	(2) 6½	Cones	2x½	Ribbon	T	38-34 ±3	92	15	60, 5.4k	4	13x12x26	Koa	Brown Knit	43	249.95	
R-10		Trans. Line	10	3x1½	Ribbon	2x½	Ribbon	M,T	35-34 ±3	92	15	1.8k, 7k	8	13x12x26	Koa	Brown Knit	49	349.95	
LFM-1		Air Sus. Subwoof.	10					42-125	90	15	125	8	15½x15½x14½	Koa	Brown Knit	44	169.95		
LFM-2		Air Sus.	(2)10					34-125	92	15	125	8	21x30x15½	Koa	Brown Knit	70	279.95		
Dimension 3		Sat. & Subwoof.	(2)6½, 10		(2) 1	Dome	T	42-22 ±3	90	15	125, 5.4k	8	Three Pieces, (2) D-6 & LFM-1	Koa	Brown Knit	72	349.95		
ARC LOUDSPEAKERS	202	Ac. Sus.	8		¾	Dome	No	50-20 ±3	88	15	3.2k	8	26x12.9x14.3	Opt.	Black Foam	49	1400.00		
	101	Ac. Sus.	8		1	Dome	No	45-20 ±3	89	25	3.2k	8	22.5x12.3x11.1	Opt.	Black Foam	32	850.00		
	050	Ac. Sus.	8		1	Dome	No	50-20 ±3	86	25	3.2k	8	14x12x11	Opt.	Black Foam	19	450.00		
ATLANTIS	Atlantean I	Bass Ref.	10	5	Cone	1	Dome	T	55-20 ±5	90	5	800,4k	4	12½x13x23	Birch Vinyl	Brown Cloth	36½	219.95	
	Atlantean II	Bass Ref.	12	5	Cone	1	Dome	T	50-20 ±5	92	5	800,4k	4	14½x13¼x25	Birch Vinyl	Brown Cloth	46½	279.95	
	Atlantean III	Bass Ref.	15	5	Cone	(2) 1	Domes	T	45-20 ±5	95	5	800,4k	4	18x14¾x30	Birch Vinyl	Brown Cloth	63½	349.95	
	Award 802	Ac. Sus.	8		2	Cone		65-18 ±6	85	5	3k	8	18x11½x9½	Hick. Vinyl	Brown Foam	15	99.95		
	Award 1003	Ac. Sus.	10	4	Cone	2	Cone	T	60-18 ±6	88	5	800,3k	8	24x14x11	Hick. Vinyl	Brown Foam	23½	169.95	
Award 1203	Ac. Sus.	12	4	Cone	2	Cone	T	55-18 ±6	90	5	800,3k	8	26x15½x12	Hick. Vinyl	Brown Foam	26½	199.95		
AUDICON	Alpha One	Ported	(2) 15	2	Horn	1	Slot	M,T	20-20 ±2	108	250	1.2k, 7k	4/16	57x30x36	Gray	None	250	4950.00	
	Alpha Two	Ported	(2) 12	2	Horn			M,T	20-18 ±2	110	250	2k	4/16	210x26x25	Gray	None	150	3750.00	
AUDIO ILLUSIONS	Kenner S-1	Inf. Baf.	8		1	Dome		40-20 ±4	87	35	2.5k	4/3,9	22½x10¼x9	Oiled Wal.	Black Cloth	25	580.00		
	Kenner S-1F	Inf. Baf.	8		1	Dome		40-20	87	35	2.5	4/3,9	22½x10¼x9	Oiled Wal.	Black Cloth	25	495.00		
AUDIOMARKETING	Tiny Red	Bass Ref.	4					80-15 ±2	97	5		8/6	7x8¼x7	Vinyl	Black Foam	8	159.00		
	Little Red	Ac. Sus.	10		¾	Dome	M, T	40-18 ±2	92	20	2k	8/7	24x16x12	Opt.	Black Foam	49	250.00		
	Big Red	Bass Ref.	15			Horn	M, T	40-18 ±2	100	20	2.7k	16/13	30x23x17¾	Opt.	Black Cloth	125	1050.00		

# LOUDSPEAKERS

MANUFACTURER	Model	Enclosure or System Type	Woofer Dia., Inches	Midrange Dia., Inches	Midrange Type	Tweeter Dia., Inches	Tweeter Type	Labels		Anechoic Freq. Response	Recommended Min. Amp. Pwr., Watts	Crossover Frequencies, Hz	Impedance, Ohms	Nominal/Minimum	Dimensions, Inches	Finish	Grille Color and Material	Weight, Lbs.	Price, \$
								Label Range	Label Type										
AUDIOMASTER	MLS-1	Ac. Sus.	6		1	Dome	No	60-20 ±4	84	15	3k	8/6.5	14½x9x7½	Wal. Ven.	Brown Cloth	12	149.00		
	P-202	Ac. Sus.	8		1	Dome	No	50-20 ±3	87	20	3k	6/6	20x10x11	Wal. Ven.	Black Cloth	24	199.00		
	MLS-4	Bass Ref.	8		1	Dome	No	50-20 ±3	85	15	3k	8/6.5	24½x10½x12½	Wal. Ven.	Brown Cloth	30	249.00		
	LS3/5A	Ac. Sus.	4½		1	Dome	No	80-20 ±3	82.5	25	3k	15/8	11½x7¼x6½	Wal. Ven.	Black Cloth	12	249.00		
AUDIOPHILE PRODUCTS	MS-1	Sat.	6½		1½	Dome		70-18 ±3	92	10	2.4k	8/6	12½x13½x18	Opt.	Black Foam		660.00 Pair		
	MS-1PR	Pas. Rad.	6½		1½	Dome		55-18 ±3	92	10	2.4k	8/6	12½x13½x18	Opt.	Black Foam		680.00 Pair		
	MS-2PR	Sat.	8		1½	Dome		55-18 ±3	94	10	2.4k	8/6	12½x13½x18	Opt.	Black Foam		720.00 Pair		
	MS1-HP	Sat.	6½		1½	Dome		70-18 ±2	94	20	2.4k	8/6	12½x13½x18	Opt.	Black Foam		900.00 Pair		
	10TL	Trans. Line	10					22-1.2 ±2	92	40	120	8/5.5	28x31x13	Opt.	Black Foam		437.00		
	12TL	Trans. Line	12					20-1.2 ±2	92	40	120	8/6		Opt.	Black Foam		568.00		
AUDIO PRO	B4-200	Subwoof.	(4) 8					20-200 ±1.5	110	Inc.	Var.	47k	21x21x42	Oiled Wal. Opt.	Black Cloth	190	2750.00		
	B2-50	Subwoof.	(2) 6½					20-200 ±1.5	100	Inc.	Var.	10k	18½x17½x21½	Opt.	Black Cloth	64	995.00		
	B2-40	Subwoof.	(2) 7					30-200 ±1.5	100	Inc.	Var.	10k	15x15x20½	Opt.	Black Cloth	41	695.00		
	S2-7	Sat.		6	Cone	1	Dome	90-20 ±3	90	20	2k	4/3.4	15½x9x6	Oiled Wal. Opt.	Black Cloth	9½	395.00		
	2-25	Closed Box	8			1	Dome	52-20 ±3	90	20	2k	6	20½x11½x10¼	Opt.	Foam	20	450.00		
	A4-14	Bi-amp.	(2) 5½	4½	Cone	1	Dome	30-20 ±3	96	Inc.	300, 2.5k	20k	12½x10½x20¼	Opt.	Black Foam	35	1750.00 Pair		
AUDIO SOURCE	LS-One	Ac. Sus.	4		1	Dome	No	100-20	83	12	2.5k	8	7½x4½x4½	Alum.	Black Metal	5½	99.95		
	LS-Two	Ac. Sus.	5		1	Dome	No	80-20	85	10	2.5k	8	10½x6½x5½	Alum.	Black Metal	7¼	129.95		
	LS-Three	Ac. Sus.	5	1½	Dome	1	Dome	80-20	85	10	1.2k, 5k	8	10½x6½x5½	Alum.	Black Metal	9¼	159.95		
	SW-1A	Ac. Sus. Subwoof.	6½					47-200	82	12		6	12x7½x8	Alum.	Black Metal	16	179.95		
AUI	SF-8	Ac. Sus.	8		(2) 3	Cones		45-18 ±5	90	12	5k	8/4	24x14½x10½	Hick. Vinyl	Opt., Cloth	30	119.95		
	SF-10-3	Ac. Sus.	10	5	Cone	1½	Cone	35-18 ±3	88	30	2.5k, 6k	8/5	24x14½x10½	Hick. Vinyl	Opt., Cloth	40	229.95		
	SF-12-3	Ac. Sus.	12	5	Cone	1½	Cone	32-18 ±5	94	12	2.5k, 5k	8/4	24x14½x10½	Hick. Vinyl	Opt., Cloth	37	269.95		
	SS-12-3	Ac. Sus.	12	5	Cone	1	Dome	M, T 28-22 ±3	90	30	1.5k, 6.5k	8/4	25x15x12½	Wal. Vinyl	Black Cloth	45	299.00		
	SS-12-H	Ac. Sus.	12	4x10	Horn	3	Pz.	30-40 ±5	94	30	1.8k, 6.5k	8/4	25x15x12½	Hick. Vinyl	Black Cloth	42	299.00		
	SS-15-H	Ac. Sus.	15	4x10	Horn	3	Pz.	25-40 ±3	96	30	1.5k, 6.5k	8/5	28x18x14	Hick. Vinyl	Black Cloth	50	399.00		
	W-12-3P	Ac. Sus.	12	5	Cone	3	Pz.	30-40 ±5	92	30	1.5k, 6.5k	8/4	24x18x18	Black Lam.	Black Cloth	50	349.00		
	SF-12	Ac. Sus.	12		1½	Cone		32-18 ±5	94	15	4.5k	8/4	24x14½x10	Hick. Vinyl	Black Cloth	35	179.95		
	SS-12-3P	Ac. Sus.	12	6½	Cone	3	Pz.	30-40 ±3	94	30	1.5k, 4.5k	8/4	25x15x12½	Wal. Vinyl	Black Cloth	40	299.95		
	W-10-3	Ac. Sus.	10	5	Cone	1	Dome	28-22 ±3	88	30	2.5k, 6.5k	8/5	21½x16x16	Opt.	Opt., Cloth	40	259.95		
	W-12-3	Ac. Sus.	12	5	Cone	1	Dome	24-22 ±3	90	30	1.5k, 6.5k	8/4	24x18x18	Opt.	Opt., Cloth	50	349.95		
	TW-10-3	Ac. Sus.	10	5	Cone	1	Dome	30-22 ±3	90	30	2.5k, 6.5k	8/5	26x15x13	Opt.	Opt., Cloth	40	299.95		
	TW-12-3	Ac. Sus.	12	5	Cone	1	Dome	24-22 ±3	90	30	1.5k, 6.5k	8/4	29½x17x14	Opt.	Opt., Cloth	50	359.95		
	TW-8-3S	Trans. Line	8	1½	Dome	1	Dome	22-22 ±3	90	30	1.2k, 6.5k	8/3	29½x17x14	Opt.	Opt., Cloth	60	399.95		
TL-8-3S	Trans. Line	8	1½	Dome	1	Dome	24-22 ±3	88	30	1.2k, 6.5k	8/3	40x12x16	Opt.	Opt., Cloth	66	399.00			
TL-8-3	Trans. Line	8	1½	Dome	1	Dome	30-22 ±3	89	30	1.2k, 6.5k	8/4	40x12x16	Opt.	Opt., Cloth	65	369.95			
TL-69	Trans. Line	6x9		1½	Cone		40-18 ±5	92	30	4.5k	4/3	40x12x16	Opt.	Opt., Cloth	60	219.95			
AURATONE	Super Sound Cube	Ac. Sus.	5					50-15	89	3		8	6½x6½x5½	Wal. Vinyl	Black Foam	5	85.00 Pair		
	SS	Ac. Sus.	5					50-15	89	3		8	10½x6½x5½	Wal. Vinyl	Black Foam	5½	90.00 Pair		
	Super Sound Wedge	Ac. Sus.	5					50-15	89	3		8	7½x7½x2¾/4¾	Wal. Vinyl	Black Plas.	5¼	95.00 Pair		
	Super Road Cube	Ac. Sus.	5					50-15	89	3		8	6½x6½x5½	Black Vinyl	Black Plas.	5	120.00 Pair		

# LOUDSPEAKERS

MANUFACTURER	Model	Enclosure or System Type	Woofer Dia. - Inches		Midrange Dia. - Inches		Tweeter Dia. - Inches		Level Control		Anechoic Freq. Response		Recommended Min. Amp. Pwr. - Watts	Crossover Frequencies, Hz	Impedance, Ohms:		Dimensions, Inches	Finish	Grille Color and Material	Weight, Lbs.	Price, \$
															Nominal	Minimum					
AURATONE (Continued)	Master Sound Cube	Ducted Port	(2) 6½			1¼	Dome	No	56-18 ±2	91	25	2.3k	4	14x14x11½	Wal. Vinyl	Black Cloth	25	500.00	Pair		
AVID	80a	Ac. Sus.	8			1¼	Cone		66-17 ±3	89	8	3k	8/7	12x8½x19½	Wal. Vinyl	Brown Cloth	18	198.00	Pair		
	110	Ac. Sus.	8			1	Dome		48-20 ±3	89	10	2.5k	8/6	12½x9½x21½	Wal. Vinyl	Brown Cloth	29	298.00	Pair		
	102a	Ac. Sus.	10			1	Dome	M, T	44-18 ±3	85	15	2.2k	8/6	15x9½x25	Wal. Vinyl	Brown Cloth	38	378.00	Pair		
	232	Ac. Sus.	10	2	Dome	1	Dome	M, T	45-20 ±3	88	15	4k	6	25x15x10	Wal. Vinyl	Brown Cloth	44	550.00	Pair		
AXIOM ENGINEERING	TLT-2	Trans. Line	8	8	Cone	1	Dome	No	32-20 ±3	92	10	2.8k	8/6	12x12x38½	Opt.	Opt.	57	340.00			
	TLF-1	Trans. Line	8	8	Cone	1	Dome	No	35-20 ±3	92	10	2.8k	8/6	12x12x30¼	Oak Vinyl	Brown	48	255.00			
BANG & OLUFSEN	Beovox MS-150		8	3	Dome	1	Dome		30-22		150	150,900,3k	8	14½x33x13½	Rswd. Black Cloth	66	1995.00				
	M-150		8	3	Dome	1	Dome		40-22		150	900,3k	8	14½x22x13½	Rswd. Black Cloth	47	1500.00				
	S-120		8	3	Dome	1	Dome		42-22		120	900,3k	8	10½x22½x11	Rswd. Black Cloth	26.5	995.00				
	S-80		8	3	Dome	1	Dome		50-22		80	700,2.5k	8	10½x21x11	Rswd. Black Cloth	19.8	795.00				
	S-50		8		1	Dome			50-20		50	2k	8	10½x21x10½	Rswd. Black Cloth	17.6	550.00				
B.E.S.	SM250	Puls. Diaph.	850 Sq. In.				Puls. Diaph.	T	40-19 ±5	88	5	800	8/5.5	28½x19x4¼	Oiled Oak	Brown Cloth	30	250.00			
	SM255	Puls. Diaph.	850 Sq. In.				Puls. Diaph.	T	38-19 ±5	91	5	900	8/5.5	30¼x20x5¼	Oiled Oak	Brown Cloth	42	320.00			
	SM270	Puls. Diaph.	850 Sq. In.				Puls. Diaph.	Pz.	32-22 ±4	92	10	800	8/5.5	32½x22x6¼	Oiled Oak	Brown Cloth	66	450.00			
	SM300	Puls. Diaph.	1750 Sq. In.				Puls. Diaph.	Pz.	30-22 ±4	93	25	500, 5k, 10k	8/4	53½x22x6¼	Oiled Oak	Brown Cloth	75	640.00			
	C-60E	Puls. Diaph.	850 Sq. In.				Puls. Diaph.		40-19 ±4	88	5	800	8/5.5	25x19x4	Alum.	Brown Cloth	20	190.00			
BGW SYSTEMS	Stratford	Ported	8				Compr.		53-20 ±3	90	30	4k	8/6	18½x10½x10	Wal.	Brown Cloth	15½	229.00			
	Oxford	Ported	8				Compr.		60-20 ±3	91	40	4k	8/6.5	19½x11½x9½	Wal.	Brown Cloth	23	299.00			
	Cambridge	Ported	10				Compr.		50-20 ±3	93	50	5k	8/6.5	22x13x10½	Wal.	Brown Cloth	27½	339.00			
	12 X	Ported	12				T		52-20 ±4	95	50	12k	8/6	33x17½x11	Oiled Wal.	Brown Cloth	66	759.00			
	15 X	Ported	15				M, T		52-20 ±4	97	100	1k	8/5.5	40x25½x15	Oiled Wal.	Brown Cloth	112	1199.00			
	M3000 Classic	Ported	15				M, T		40-20 ±3	95	200	1k	8/5.5	40½x28½x17	Oiled Wal.	Black Cloth	132	1275.00			
	M1000	Ported	15				M, T		50-20 ±4	97	200	1k	8/5.5	40½x28½x17	Oiled Wal.	Black Cloth	132	1275.00			
	SRM12B	Ported	12				T		55-20 ±4	95	100	1.4k	8/6	23x16x11	Oiled Wal.	Black Cloth	46	650.00			
SRM10B	Ported	10				T		55-20 ±4	93	50	1.2k	8/6	20½x14½x10	Oiled Wal.	Black Cloth	40	550.00				
BLACK ACOUSTICS	Black Rainbow	Trans. Line	6½			1¼	Dome	No	70-15 ±2	83	40	1.9k	6/4.5	21x9x9	Opt.	Opt., Cloth	21	420.00	Pair		
	Black Shadow	Dual Trans. Line	8			1¼	Dome	No	50-15 ±1.5	80	70	1.95k	6/4.5	36x12x8	Oiled Oak	Opt., Cloth	44	590.00	Pair		
	Night	Dual Trans. Line	6½	6½	Cone	1	Dome	No	41-19.5 ±3	87	20	2.5k	6/4.5	40x10x8	Opt.	Opt., Cloth	35	720.00	Pair		
	TR-1	Line	(2) 10	4½	Cone	1	Dome	No	30-22 ±3	86	40	400, 3k	6/5.1	49x19x10	Opt.	Opt., Cloth	67½	950.00	Pair		
BLACKMAX SYSTEMS	RX	Slot Loaded	8			2½	Cone		45-20	94	10	2.5k	8	17½x12x10	Rswd. Vinyl	Black Cloth	19½	149.00			
	RX2	Slot Loaded	8			2½	Cone	T	40-20	94	10	2.5k	8	28x13½x8	Rswd. Vinyl	Black Cloth	30	199.00			
	RX3	Slot Loaded	8	5	Cone	2½	Cone	M, T	35-20	92	10	1k, 5k	8	36x15¼x8	Rswd. Vinyl	Black Cloth	39	299.00			
BOSE	901 Series IV	Direct Reflect.	(9) 4½								10		8	12½x21x13	Wal.	Brown Cloth	35	1325.00	Pair w/EO		
	601 Series II	Direct Reflect.	(2) 8			(4) 3	Cones				20	1.5k, 2.5k	8	29½x14x13	Wal. Vinyl	Brown Cloth	48	890.00	Pair		
	501	Direct Reflect.	10			(2) 3	Cones				20	1.5k, 3k	8	24x14½x14½	Wal. Vinyl	Brown Cloth	42	620.00	Pair		
	301	Direct Reflect.	8			3	Cone				10	1.2k, 3k	8	10½x17x9½	Wal. Vinyl	Opt., Foam	18	360.00	Pair		

# LOUDSPEAKERS

MANUFACTURER	Model	Enclosure of System Type	Woofer Dia., Inches		Midrange Dia., Inches		Tweeter Dia., Inches		Type	Crossover Freq. Hz	Impedance, Ohms	Recommended Min. Amp. Pwr. Watts	Crossover Frequencies, Hz		Finish	Grille Color and Material	Weight, Lbs.	Price, \$
													Nominal/Minimum					
BOSE (Continued)	Studiocraft 2	Ported	8			3	Cone			10	1.5k	8	17 1/4 x 10 1/2 x 7 1/2	Wal. Vinyl	Black Cloth	15 1/4		
	Studiocraft 3	Ported	10			(2) 3	Cones			15	1.5k	8	23 1/4 x 14 x 9 1/4	Wal. Vinyl	Black Cloth	31 1/2		
	Studiocraft 4	Pas. Rad.	10	6 1/2	Cone	(2) 3	Cones			15	60,400, 2.5k	8	46 1/2 x 14 1/2 x 10	Wal. Vinyl	Black Cloth	65		
BOSTON ACOUSTICS	A200	Ac. Sus.	10	4 1/2	Cone	1	Dome		36-25 ±3	91	15	450, 3k	8/5	41 x 21 x 6 3/8	Opt.	Opt., Cloth	58	375.00
	A150	Ac. Sus.	10	4 1/2	Cone	1	Dome		37-25 ±3	90	15	550, 3k	6/4	32 x 16 1/2 x 8	Opt.	Opt., Cloth	47	275.00
	A100	Ac. Sus.	10			1	Dome		37-25 ±3	89	15	1.6k	8/6	30 1/2 x 16 1/2 x 8	Opt.	Opt., Cloth	44	195.00
	A70	Ac. Sus.	8			1	Dome		40-25 ±3	90	15	2k	6/4	24 x 14 x 7 1/2	Vinyl	Black Cloth	26	135.00
	A60	Ac. Sus.	8			1 1/2	Cone		55-20 ±3	90	10	3k	8/6	18 x 11 1/2 x 7 1/2	Vinyl	Black Cloth	16	100.00
	A40	Ac. Sus.	6 1/2			1 1/2	Cone		75-20 ±3	88	10	3k	8/6	13 1/2 x 8 1/4 x 7 1/2	Vinyl	Black Cloth	10	75.00
BOZAK	LS200AL	Inf. Baf.	8			1	Dome		60-20 ±3	86	15	2.5k	8/6.5	20 x 11 x 10 1/2	Wal. Ven.	Brown Cloth	33	290.00
	LS220AL	Inf. Baf.	8			1	Dome		60-20 ±3	86	15	3k	8/6.5	36 x 11 x 9 1/2	Wal. Ven.	Brown Cloth	47	378.00
	LS250AL	Inf. Baf.	12	4 1/2	Cone	1	Dome	W.M.T	45-20 ±3	86	20	800, 2.5k	8/7	23 x 15 x 12	Wal. Ven.	Brown Cloth	45	478.00
	LS330AL	Inf. Baf.	12	6	Cone	1	Dome		40-20 ±3	87	25	500, 2.5k	8/6.5	34 x 15 x 12	Wal.	Brown Cloth	64	718.00
	MB-80	Inf. Baf.	6			1	Dome		80-20 ±3	83	35	1.6k	8/6.5	12 x 8 x 7	Oak	Brown Cloth	21	450.00
	CS501A	Inf. Baf.	12	6	Cone	(3) 2	Cones		40-20 ±3	87	35	400, 2.5k	8/6.5	20 x 16 x 32	Wal.	Brown Cloth	90	1190.00
	CS4000A	Inf. Baf.	(2) 12	6	Cone	(8) 2	Cones		35-20 ±3	87	50	400, 2.5k	8/6.5	26 x 16 x 44	Wal.	Brown Cloth	165	1790.00
	CS4000CL	Inf. Baf.	(2) 12	6	Cone	(8) 2	Cones		35-20 ±3	87	50	400, 2.5k	8/6.5	26 x 16 x 44	Wal.	Brown Cloth	165	1990.00
	CS4000M	Inf. Baf.	(2) 12	6	Cone	(8) 2	Cones		35-20 ±3	87	50	400, 2.5k	8/6.5	27 x 16 x 44	Wal.	Brown Cloth	165	2098.00
	CS4005	Inf. Baf.	(2) 12	6	Cone	(8) 2	Cones		35-20 ±3	87	50	400, 2.5k	8/6.5	26 x 16 x 44	Wal.	Brown Cloth	168	1790.00
	CS310B	Inf. Baf.	(4) 12	(2) 6	Cones	(8) 2	Cones		28-20 ±3	87	60	400, 2.5k	8/6.5	36 x 19 x 52	Wal.	Brown Cloth	300	2798.00
	CS410CL	Inf. Baf.	(4) 12	(2) 6	Cones	(8) 2	Cones		28-20 ±3	87	60	400, 2.5k	8/6.5	36 x 18 x 50	Wal.	White Cloth	300	2998.00
	CS-410M	Inf. Baf.	(4) 12	(2) 6	Cones	(8) 2	Cones		28-20 ±3	87	60	400, 2.5k	8/6.5	36 x 19 x 52	Wal.	White Cloth	300	3098.00
B1002	Inf. Baf.	8			2	Cone		30-20 ±3	87	15	2.5k	8/6.5	18 x 12 x 12	Alum.	White Cloth	21	189.00	
BRAUN	Output C	Ac. Sus.	4			1	Dome		50-25	86	10	1.5k	8	4 1/4 x 4 3/8 x 6 3/4	Black	Black Alum.	14 Pr.	329.95
	L-200	Ac. Sus.	5 1/8			1	Dome		40-25	86	10	1.5k	8	6 1/4 x 5 1/2 x 10	Black	Black Alum.	21 Pr.	359.95
	L-300	Ac. Sus.	5 1/8	2	Dome	3/4	Dome		35-25	86	10	500, 3k	8	6 1/4 x 6 1/2 x 10	Black	Black Alum.	31 Pr.	479.95
	IC-1002	Ac. Sus.	7	4	Cone	1	Dome		38-25	15		700, 5k	8	8.86 x 13.6 x 7.09	Black	Black Alum.	15.4	360.00
	IC-1003	Ac. Sus.	8	4	Cone	1	Dome		32-25	15		650, 5k	8	9.25 x 15.9 x 8.26	Black	Black Alum.	19.8	212.50
	IC-1004	Ac. Sus.	10	4	Cone	1	Dome		25-25	15		600, 5k	8	10.53 x 18.9 x 9	Wal.	Black Alum.	24.2	250.00
	IC-1005	Ac. Sus.	10	4	Cone	1	Dome		25-25	15		600, 5k	8	12.2 x 21.25 x 9.8	Wal.	Black Alum.	35.2	300.00
BSR	82	Tuned Port	8			3	Dome		40-18	91	10	4k	8/7.9	18 1/2 x 10 1/2 x 9	Wal. Vinyl	Brown, Opt.	14	59.95
	103B	Tuned Port	10	4	Cone	3	Dome	T	20-20	90	15	1k, 4k	8/7.6	22 1/2 x 12 1/2 x 9 1/4	Wal. Vinyl	Brown, Opt.	23	99.95
	123B	Tuned Port	12	4	Cone	3	Dome	T	20-20	90	15	1k, 4k	8/7.6	26 1/2 x 14 1/2 x 11 1/2	Wal. Vinyl	Brown, Opt.	35	129.95
	153	Air Sus.	15	4	Cone		Horn	M, T	20-20	90	15	1k, 4k	8/7	29 x 18 x 10 1/2	Wal. Vinyl	Brown, Opt.	50	199.95
	883	Air Sus.	8	8	Cone	3	Dome	T	20-20	92	15	1k, 4k	5/4.6	36 x 10 1/2 x 10	Wal. Vinyl	Brown, Opt.	29	129.95
	888C	Air Sus.	(2) 8	8	Cone	2 1/2	Dome	T	20-20	90	20	2k, 4k	5.5/4.5	36 1/2 x 10 1/2 x 10	Wal. Vinyl	Brown, Opt.	34	199.95
	LX100	Air Sus.	10	4	Cone	3	Dome	T	20-20	90	15	1k, 4k	8/7.6	22 1/2 x 12 1/2 x 9 1/4	Wal. Vinyl	Black Cloth	23	
	LX200	Air Sus.	12	4	Cone	3	Dome	T	20-20	90	15	1k, 4k	8/7.6	26 1/2 x 14 1/2 x 11 1/2	Wal. Vinyl	Black Cloth	35	
LX300	Air Sus.	15	4	Cone	3	Dome	M, T	20-20	90	15	1k, 4k	8/7	29 x 18 x 10 1/2	Wal. Vinyl	Black Cloth	50		
B&W  (Continued)	DM10	Vented Port	8			1 1/4	Dome		75-20 ±3	87	10		8/	19 x 10 x 9 1/4	Opt.	Opt., Cloth	14 1/2	169.00
	DM22	Ac. Sus.	8			1 1/4	Dome		70-20 ±3	87	10		8/	19 1/2 x 10 x 10	Wal.	Black Brown Cloth	21 1/2	225.00
	DM12	Ac. Sus.	7			1 1/4	Dome		85-20 ±2	85	15		8/	14 x 8 3/4 x 10 1/2	Opt.	Opt., Cloth	21	365.00
	DM14	Ac. Sus.	7	7		1 1/4	Dome		80-20 ±2	86	15		8/	22 1/2 x 10 x 11 1/2	Opt.	Opt., Cloth	35	570.00

# LOUDSPEAKERS

MANUFACTURER	Model	Enclosure or System Type	Woofer Dia., Inches		Midrange Dia., Inches		Tweeter Type		Level Control M. M. Range: = 2 = Linear, 3 = Suboctave		Anchoic Freq. Response Hz to kHz, ± dB		Recommended Min. Amp. Pwr., Watts	Crossover Frequencies, Hz	Impedance Ohms: Nominal/Minimum	Dimensions, Inches	Finish	Grille Color and Material	Weight, Lbs.	Price, \$
			1"	2"	1"	2"	Dome	M, T	80-20 ±2	86	40	8/								
B&W (Continued)	DM7/II	Pas. Rad.	7			1"	Dome						8/	35½x10½x15	Opt.	Opt., Cloth	64	730.00		
	DM16	Ac. Sus.	10	5	Cone	1"	Dome						8/	36½x13½x16½	Opt.	Opt., Cloth	77	985.00		
	802	Ac. Sus.	9	5	Cone	1"	Dome						8/	41x11½x14½	Opt.	Opt., Cloth	70	1375.00		
	801	Ac. Sus.	12	5	Cone	1"	Dome						8/	37½x17x22	Opt.	Opt., Cloth	97	1875.00		
CADAWAS ACOUSTICS	TC-1	Auto Damping	8, (2) 12	5½	Cone	(2) 1, 2	Domes, ST	M, T					10	24½x14½x11	Oiled Wal.	Brown Cloth	44	1195.00 Pair		
	Mobile Monitor One	Auto Damping	(3) 5½			1	Dome	T					8	14x7½x8	Oiled Wal.	Brown Cloth	15	595.00 Pair		
	TC-3	Subwoof.	8, (2) 12					W	20-125 ±5	87	25	125	8	24½x14½x11	Oiled Wal.	Brown Cloth	40	650.00 Pair		
CAMBRIDGE PHYSICS	206	Tuned Port	6			1	Dome		56-20 ±3	92	15	2k	8/6	9½x17x8	Oiled Wal.	Black Cloth	15	114.00		
	208	Tuned Port	8			1	Dome	T	47-20 ±3	94	15	2k	5.5/4.6	11x18½x10½	Oiled Wal.	Black Cloth	25	156.00		
	210	Ac. Sus.	10		1½	Dome	T		38-20 ±1.5	87	35	950	11/8.5	14x24x12	Oiled Wal.	Black Cloth	38	219.00		
	310	Ac. Sus.	10	4½	Cone	1	Dome	M, T	30-20 ±1.5	85	50	520.4k	8/6	15½x26½x13	Oiled Wal.	Black Cloth	50	387.00		
CANNON-TLS	822	Ported	8			2	Cone	T	35-20 ±5	90	10	2k	8/6	22x13½x10½	Wal. Vinyl	Brown Cloth	26	169.00		
	1022	Ported	10			2	Cone	T	30-20 ±5	90	10	2k	8/5	22x13½x12½	Wal. Vinyl	Brown Cloth	35	199.00		
	1032	Pas. Rad.	10	4	Cone	2x5	Pz.	M, T	25-25 ±5	92	12	400.3k	8/5	14x14½x25	Wal. Vinyl	Brown Cloth	45	299.00		
	1232	Pas. Rad.	12	4	Cone	2x5	Pz.	M, T	23-25 ±5	91	15	400.3k	8/5	14x14½x25	Wal. Vinyl	Brown Cloth	50	399.00		
	1232T	Pas. Rad.	12	4	Cone	2x5	Pz.	M, T	20-25 ±5	91	18	400.3k	8/5	14x14½x39	Wal. Vinyl	Brown Cloth	65	499.00		
CANTON	HC100	Ac. Sus.	4.3			0.79	Dome		48-3		5	1.7k	8/4	7.5x4.7x5.6	Opt.	Opt., Metal	5	249.00 Pair		
	GL310	Ac. Sus.	6.1			0.79	Dome		42-30		15	1.7k	8/4	10.5x7x7	Opt.	Opt., Metal	10	396.00 Pair		
	GLE40F	Ac. Sus.	6.54			0.79	Dome		48-30		10	1.7k	8/4		Opt.	Opt., Metal	9	338.00 Pair		
	GLE50	Ac. Sus.	8	1.18	Dome	0.79	Dome		36-30		20	800,2.2k	8/4	12.6x8.7x7	Opt.	Opt., Metal	17	498.00 Pair		
	GLE 60	Ac. Sus.	8.7	1.18	Dome	0.79	Dome		28-30		25	800,2.2k	8/4	14.6x9.7x8.3	Opt.	Opt., Metal	18	596.00 Pair		
	GLE70	Ac. Sus.	10.2	1.2	Dome	0.79	Dome		25-30		30	800,2.2k	8/4	17.3x11.2x9.4	Opt.	Opt., Metal	24	698.00 Pair		
	GLE100	Ac. Sus.	12.2	1.5	Dome	0.79	Dome		22-30		40	800,2.6k	8/4	21.7x13.4x11.2	Opt.	Opt., Metal	35	996.00 Pair		
	GLS 50	Ac. Sus. Subwoof.	12.2						22-120		20	120	8/4	13.4x13.4x13.4	Opt.	Opt., Metal	28	398.00		
	Plus Set	Sat. & Subwoof.	12.2	4.3	Cone	0.79	Dome		20-30		Inc.	120,2.2k		Three Pieces	Opt.	Opt., Metal	70	1298.00 Syst.		
	Ergo	Ac. Sus.	(2) 10	5	Cone	0.79	Dome		20-30		Inc.	130,2.2k		15x39x15	Opt.	Opt., Metal	80	3500.00 Pair		
	Plus L	Ac. Sus.	4.3			0.79	Dome		45-30		10	2.2k	8/4	7.9x4.7x4.1	Opt.	Opt., Metal	6	298.00 Pair		
	Plus B	Ac. Sus. Subwoof.	12.2						20-130		Inc.	130		13.4x15.2x15.2	Opt.	Opt., Metal	46	1098.00		
CELESTION	Ditton 662	Pas. Rad.	12	2	Dome	1	Dome		38-20 ±3	85.5	20	700,4.5k	8/6	41½x15½x11½	Elm	Beige Cloth	74.8	900.00		
	Ditton 551	Vented	10	2	Dome	1	Dome	M, T	38-20 ±3	85	20	600,4.5k	8/6	28½x15½x13	Elm	Beige Cloth	55	600.00		
	Ditton 442	Ac. Sus.	12	5	Cone	1	Dome		45-20 ±3	85.5	20	600,4.5k	8/6	30x15½x11½	Elm	Beige Cloth	52.8	550.00		
	Ditton 332	Ac. Sus.	10	5	Cone	1	Dome		50-20 ±3	85.5	20	600,4.5k	8/6	25½x14x11½	Opt.	Beige Cloth	37½	450.00		
	Ditton 300	Ac. Sus.	10	5	Cone	1	Dome		52-20 ±3	87.5	18	650,4.5k	8	24½x13½x10½	Oiled Wal.	Black Cloth	30	400.00		
	Ditton 200	Pas. Rad.	(2) 8			1	Dome		57-20 ±3	87	10	1.7k, 2.3k	8	23½x13x10½	Oiled Wal.	Black Cloth	25.3	325.00		
	Ditton 150	Pas. Rad.	6			1	Dome		60-20 ±3	86	10	2.7k	8	23½x13x10½	Wal. Vinyl	Black Cloth	20	270.00		
	Ditton 130	Ac. Sus.	8			1	Dome		75-20 ±3	87.5	10	2.3k	8	19x10x9½	Wal. Vinyl	Black Cloth	17	215.00		
	Ditton 110	Ac. Sus.	8			1	Dome		78-20 ±3	87	10	2.3k	8/5	16½x9½x8½	Wal. Vinyl	Black Cloth	11.5	175.00		
	Ditton 100	Ac. Sus.	6½			1	Dome		80-20 ±3	87	10	2.3k	8/5	13x8½x7½	Wal. Vinyl	Black Cloth	9.5	130.00		

# LOUDSPEAKERS

MANUFACTURER	Model	Enclosure or System Type	Woofer Dia., Inches			Midrange Dia., Inches			Tweeter Dia., Inches			Level Control? T=Midrange, F=Tweeter, S=Supertweeter			Analog Freq. Response		Recommended Min. Amp. Pwr., Watts	Crossover Frequencies, Hz		Impedance, Ohms: Nominal/Minimum	Dimensions, Inches	Finish	Grille Color and Material	Weight, Lbs.	Price, \$
CERWIN-VEGA	A-10	Ported	10					Dhorn	T	38-20 ±4	92	5	2k	8/4	13x11½x24	Oiled Wal.	Black Cloth	38	189.00						
	A-123	Ported	12	6	Cone			Dhorn	M, T	38-20 ±4	97	5	500, 5k	8/4	14½x11½x25	Oiled Wal.	Black Cloth	50	310.00						
	S-1	Ported	12	6½	Cone			Dhorn	M, T	28-20 ±4	98	5	300, 4k	8/4	14½x14x25	Oiled Wal.	Brown Cloth	55	435.00						
	313	Ported	12	6	Cone			Horn	M, T	30-17 ±4	100	5	700, 3.5k	8/4	15½x15½x30	Oiled Wal.	Brown Cloth	63	330.00						
	316R	Ported	15	6½	Cone	(2)		Horns	M, T	30-17 ±4	103	5	500, 3.5k	8/4	18½x17½x34	Oiled Wal.	Brown Cloth	82	499.00						
	12TR	Ported	12	6½	Cone	(2)		Horns	M, T	28-20 ±4	102	5	250, 4k	8/4	13½x13½x40	Oiled Wal.	Brown Cloth	76	470.00						
	Metron	Vented	8, 15	1½	SUFT-FET	1½	SUFT-FET	M, T	20-25 ±2	90	100	80, 200	8/4	72x32x20	Rswd.				4000.00						
	SUFT-FET2	Vented	18	12	Cone	1	Horn	M, T	28-18 ±2	125	Bi-amp. 10	150, 2.5k	8/4	52x25x20	Wal.				3400.00						
	SR-2																			407.00					
	15SW	Ported Subwoof.	15													Wal.									
	HEU-6	Ported	6						Dhorn	T	60-20 ±4	90	5	3k	8/4	10x8x14	Birch Vinyl	Black Cloth	12	85.00					
	HEU-10	Ported	10						Dhorn	T	42-20 ±4	94	5	2k	8/4	13½x11x24¾	Birch Vinyl	Black Cloth	36	170.00					
	HEU-12	Ported	12						Horn	T	45-17 ±4	96	5	2k	8/4	15½x11x25	Birch Vinyl	Black Cloth	37	195.00					
	HEU-123	Ported	12	5					Horn	M, T	45-17 ±4	96	5	700, 4k	8/4	12¾x14¾x25	Birch Vinyl	Black Cloth	52	215.00					
HEU-321	Ported	12	6	Cone				Horn	M, T	38-17 ±4	98	5	700, 4k	8/4	15½x15x26¾	Birch Vinyl	Black Cloth	56	265.00						
HEU-351	Ported	15	6	Cone				Horn	M, T	32-17 ±4	103	5	700, 4k	8/4	19x17¾x32	Birch Vinyl	Black Cloth	105	375.00						
HEU-12R	Ported	12	(2) 6	Cones				Horn	M, T	32-17 ±4	98	5	700, 4k	8/4	15½x15x39½	Birch Vinyl	Black Cloth	75	390.00						
SW-12	Ported/Sealed Subwoof.	12								39-150 ±4	90	5	150	8/2	25x15½x15	Birch Vinyl	Black Cloth	42	322.00						
CHAPMAN	SCJ1	Inf. Baf.	12	5	Cone	1	Dome	T	30-20 ±3	86	25	250, 3k	4	28x18x13	Oiled Wal.	Black Cloth	72	1000.00							
	T-7	Inf. Baf.	10	5	Cone	1	Dome	T	35-20 ±3	86	25	200, 3k	4	37½x13x10	Opt.	Black Cloth	60	845.00							
	310	Inf. Baf.	10	5	Cone	1	Dome	T	35-20 ±3	86	25	250, 3k	4	21x18x11	Oiled Wal.	Black Cloth	46	750.00							
	255	Inf. Baf.	(2) 5		Cone	(2) 1	Domes	T	60-20 ±3	85	25	3k	4	22½x8½x7	Oiled Wal.	Black Cloth	28	750.00							
	250	Inf. Baf.	5		Cone	1	Dome	T	70-20 ±3	84	15	3k	8	13x8x6¾	Oiled Wal.	Black Cloth	13	490.00							
CIZEK AUDIO SYSTEMS	KA-1 Classic	Ac. Sus.	6½			1	Dome		70-20 ±2	86	30	1.5k	4/4	13½x9x8¾	Oiled Koa	Brown Foam	17	305.00							
	KA-20	Subwoof. w/X-Over	(2) 10						20-080 ±1.5	86	50	100 Inc. 200	4/4	22½x22x18½	Oiled Koa	Brown Foam	89	1410.00							
	MG27	Subwoof.	(2) 10						27-200 ±1.5	86	30	200	4/4	29x17¾x12½	Oiled Wal.	Brown Foam	86	330.00							
	1	Ac. Sus.	10			1	Dome	T	35-17 ±2	88	15	1.5k	Sel.	25x15½x9¾	Oiled Wal.	Brown Cloth	48	259.00							
	2	Ac. Sus.	8			1	Dome	T	42-17 ±2	88	15	1.5k	Sel.	21x13x9	Opt.	Brown Cloth	38	209.00							
	3	Ac. Sus.	8			1	Dome	T	48-17 ±2	88	15	1.5k	Sel.	19x11¾x7½	Vinyl	Brown Cloth	25	149.00							
	SW-1	Ac. Sus.	6½			1¾	Cone		90-17 ±3	90	15	3k	4/4	12x12x3	Opt.	Brown Foam	8	102.50							
	SW-SW	Pas. Rad. Subwoof.	10						58-120 ±3	90	15	120	4/4	13¾x13¾x16¾	Opt.	Brown Foam	32	259.00							
727	Ac. Sus.	8			2	Cone		60-17 ±3	89	15	3k	4/4	15¾x10¾x5¾	Vinyl	Brown Cloth	16	105.00								
CLARKE SYSTEMS	Tempo II	Tuned Port	8			1	Ring		55-18 ±4	89	10	5k	8/5	10x9½x18	Rswd.	Black Cloth	25	200.00							
	Prestige	Tuned Port	8	1		¾	Dome		45-20 ±4	89	10	3.5k	8/5	10x9½x18	Rswd.	Black Cloth	26	250.00							
	Encore	Tuned Port	8			1	Dome		40-21 ±4	88	20	3k	8/5	12x11½x22	Rswd.	Black Cloth	32	350.00							
	Premiere	Tuned Port	10	5	Cone	1	Dome		35-20 ±4	89	30	500, 3.5k	8/5	13x11½x26	Rswd.	Black Cloth	44	500.00							
	Precedent	Inf. Baf.	12	5	Cone	1	Dome		30-20 ±4	89	30	400, 3.5k	8/4	15x13½x31	Rswd.	Black Cloth	70	600.00							
	Reference Monitor	Dual Trans. Line	(2) 10	6½	Cone	1, (3)	Dome, Ribbons		26-39 ±2	88	50	200, 2k, 8k	6/4	26x14x49	Rswd.	Black Cloth	125	1800.00							
	LM	Trans. Line	4			1x2	Ribbon		90-39 ±3	88	10	5k	4/4	6x7½x13	Rswd.	Black Cloth	13	349.00							
	Subwoofer	Inf. Baf.	(2) 10						35-150 ±3		20	150	5/4	15x13x31	Rswd.		70	250.00							
COSMOSTATIC	Omni-Directional Electrostatic	Omni. Trans. Line	(4) 6	1½, 682 Sq. In.	Dome, ES	682 Sq. In.	ES		31-20	92	50	1k	8/5	21½x21½x60	Oiled Wal.	Black	153	3600.00							
DAHLQUIST	DQ-10	Phased Array	10	5, 1¾	Cone, Dome	¾, ST	Dome, Pz.	T	37-27		60	400, 1k, 6k, 12.5k	8/5	30½x31½x9	Opt.	Opt.	60	500.00							
(Continued)	DQ-1W	Ac. Sus. Subwoof.	13						20-100		60		8	20x18½x14¾	Opt.	Opt.	70	350.00							

# LOUDSPEAKERS

MANUFACTURER	Model	Enclosure or System Type	Woofer Dia. Inches		Midrange Dia. Inches		Tweeter Dia. Inches		Tweeter Type		Tweeter Type		Frequency Range		Power		Crossover		Impedance		Dimensions		Finish		Grille Color and Material		Weight, Lbs.		Price, \$	
			Woofer Dia. Inches	Woofer Dia. Inches	Midrange Dia. Inches	Midrange Dia. Inches	Tweeter Dia. Inches	Tweeter Dia. Inches	Legs	Control	Midrange	Hz to kHz	dB	dB SPL/1 Meter	Recommended Min. Amp. Pwr. Watts	Crossover Freq. Hz	Impedance Ohms	Nominal	Minimum	Length	Width	Height	Material	Color	Weight, Lbs.	Weight, Lbs.	Price, \$	Price, \$		
DAHLQUIST (Continued)	DQM-9	Dual Tuned Port	11	5	Cone	1	Dome					28-22	95	25	450,3.5k	8/6	25x14½x13¼	Gray	Black	65	600.00									
	DQM-7	Dual Tuned Port	9	4	Cone	1	Dome					35-22	94.5	25	550,4k	8/6	25x13½x11½	Gray	Black	55	400.00									
	DQM-5	Dual Tuned Port	9	4	Cone		Dome					37-22	94	25	550,3.2k	8/6	21½x12½x11¼	Gray	Black	35	289.00									
DAYTON WRIGHT	X2	Ducted Port	8			1	Dome					45-15 ±3	89	25		4.2	22x12x10	Wal.	Brown Knit	60	450.00									
	X6	Gas. Sus.	10	5	Cone	½x6	ED					28-18 ±3	89	25	4.5	50x16x14	Wal.	Brown Knit	120	1600.00										
	X15	Gas. Sus.	12	4, 10	Cones	½x6	ED					24-26 ±2	91	25	7	47x23x23	Rswd.	Black Knit	210	2600.00										
	XG10MKII	ES										40-18 ±3	90	50	4	41x39x10	Opt.	Knit Opt.,	240	4100.00										
	XG10EC	ES										38-18 ±3	95	50	4	47x39x10	Opt.	Knit Opt.,	310	5500.00										
	10W2	Gas Sus. Subwoof.	(2) 10										15-110 ±3	92	50		15x23x23	Rswd.	Black	31	548.00									
	25W	Gas. Sus. Subwoof.	(8) 10										12-.080 ±3	93	100		18x52x36	Rswd.	Black	90	1640.00									
DCM CORP.	Time Window	Hybrid Trans. Line												10	8/6	14½x11½x36	Wal.	Black Foam	35	720.00										
	QED	Hybrid Trans. Line												10	12/8	11½x9½x36	Wal.	Black Foam	39	504.00										
	Macro-Phone Time Bass	Subwoof.												40-70	6/4	30x1.8x18	Wal.	Black Foam	45	792.00										
DECCA	Super Tweeter	Add-on					Ribbon	No				7k-23k		20	7k Inc. 1k Nec.	8	4x4x5½	Alum.	Black Plas.	5	249.50									
	London Ribbon	Add-on					Ribbon	No				1k-25k		20		8	12½x7½x8½	Black		5	199.50									
DELPHI SPEAKER SYSTEMS	Delphi		(2)				Dome	No				40-20	93	10	None	4.7	25x14½x11¼	Oiled Wal.	Brown Cloth	47	650.00									
	Tower		(4)			(2)	Domes	No				35-20	93	50	None	4.7	41x16½x18½	Oiled Wal.	Brown Cloth	98	1590.00									
DENNESEN	ESL110	Ac. Sus.	5			21 Sq. in.	ES					45-22 ±3	88	15	3k	6.2/5	18x7½x6	Oiled Wal.	Black Foam	14	550.00									
	ESL120	Ac. Sus.	5			21 Sq. in.	ES					45-22 ±3	88	15	3k	6.2/5	18x7½x6	Oiled Wal.	Black Foam	14	750.00									
	SW110	Ac. Sus. Subwoof.	10									20-.200 ±2	88	25	200	8/5	30x14x12	Oiled Wal.	Black Foam	40	780.00									
DESIGN ACOUSTICS	DA-30	Sat. & Subwoof	12	5		1	Dome	M,T				87	35	160,2.5k	8	Three Pieces	Oiled Wal.	Black Cloth	71½ Sys.	595.00										
	D-4A	Vented	(2) 8	5		(2) 2, 1	Cones, Dome	T				35-18 ±3	92	20	700,2k	4	38x16x11	Oiled Wal.	Black Cloth	75	425.00									
	D-6A	Vented	10	5		(5) 2	Cones	T				35-15 ±2	92	20	800,2k	8	27½x16½x13¼	Oiled Wal.	Black Cloth	57	395.00									
	D-8	Vented	(2) 10	5	Cone	(4) 2, 1.2	Cones, Dome, Pz.	M,T				30-17 ±2	94.5	15	600,1.5k	8	44x16½x12¼	Oiled Wal.	Black Cloth	71	695.00									
	D-12A	Vented	(2) 8	(2) 5	Cones	(2) 1, (3) 1½	Cones, Domes	M,T				30-18 ±2	89	25	650,2k	8	22 Dia. x26	Oiled Wal.	Black Cloth	57	995.00									
DYNAMIC ACOUSTICS	2200	Sealed Sat.		5¼	Cone	1	Dome	No				60-20	87.5	10	2.6k	8	8¼x13½x6¼	Lacq. Wal.	Black Knit	15	150.00									
	2600	Subwoof.	(2) 8									32-.110 ±2	90	20	100	8	16¼x18¼x16¼	Lacq. Wal.	None	52	320.00									
	3600	Sealed	(2) 6½			1	Dome	No				35-20 ±2	92	10	2k	4	15x32x8½	Lacq. Oak	Black Knit	55	236.00									
ELECTRO-VOICE	Interface:D Series II	Vented	12	6½	Cone		Horn	T				28-18 ±2.5	97	1.5	40,350,3k	8/5	21¼x15½x32	Wal. Ven.	Brown Cloth	114	999.95; EQ, 109.95									
	Interface:C Series II	Vented	10	6½	Cone	½	Dome	T				30-18 ±2.5	93	2.8	42,400, 2.5k	6/4	20x12½x31½	Wal. Ven.	Brown Cloth	60	519.95; EQ above									
	Interface:B Series III	Vented	12	8		½	Dome	T				30-18 ±2.5	92	3.6	42,1.5k	8/5	16x11x29¼	Wal. Ven.	Brown Cloth	42	359.95; EQ above									
	Interface:A Series III	Vented	12	8	Cone	½	Dome	T				35-18 ±2.5	92	3.6	49,1.5k	8/5	15¼x8¼x24¼	Wal. Ven.	Brown Cloth	30	299.95; EQ above									
	Interface:3 Series II	Vented	12	8	Cone	½	Dome	T				40-18 ±3	92	3.6	57,1.5k	8/5	14¼x13½x25¼	Wal. Ven.	Brown Cloth	33	249.95									
	Interface:2 Series II	Vented	10	8	Cone	½	Dome	T				47-18 ±3	92	3.6	66,1.5k	8/5	13¼x10¼x24¼	Wal. Ven.	Brown Cloth	25	209.95									
	Interface:1 Series II	Vented	8			½	Dome	T				56-18 ±3	92	3.6	76,1.5k	8/5	11¼x9¼x21¼	Wal. Ven.	Brown Cloth	23	149.95									
	Link:10	Vented	(2) 8			½	Dome	T				40-18 ±3	92	3.6	57,1.5k	8/5	11x11x59½	Wal. Ven. Opt.	Brown Cloth	42½	800.00									
	EMILAR	EM-15	Bass Ref.	15		Horn			M				30-16	101	75	800	8/5	32¼x26¼x19¼	Oiled Wal.	Black Cloth	125	745.00								

# LOUDSPEAKERS

MANUFACTURER	Model	Enclosure or System Type	Woofer Dia., Inches	Midrange Dia., Inches	Midrange Type	Tweeter Dia., Inches	Tweeter Type	Level Controls T: Tone; M: Midrange; B: Bass; S: Subwoofer	Impedance, Ohms Nominal/Minimum	Anchoic Freq. Response Hz to kHz, ± dB	8B SPL/1 Watt/1 Meter	Recommended Min. Amp. Pwr., Watts	Crossover Frequencies, Hz	Dimensions, Inches	Finish	Grille Color and Material	Weight, Lbs.	Price, \$	
EPI	81 Mini	Inf. Baf.	4½		1	Dome			95-20 ±3	86	15	2.6k	4	7½x5½x5%	Black Plas.	Black Cloth	5	115.00	
	A-70	Inf. Baf.	6		1	Dome			58-20 ±3	86	15	1.8k	8	16x10½x9	Wood Vinyl	Black Cloth	17½	89.00	
	100	Inf. Baf.	8		1	Dome			48-20 ±3	87	15	1.8k	8	21x11x9	Wood Vinyl	Black Cloth	25	125.00	
	A-120	Inf. Baf.	10		1	Dome	T		38-20 ±3	88	15	1.8k	8	25x15x11	Wood Vinyl	Black Cloth	34	180.00	
	A140	Pas. Rad.	6		1	Dome	T		38-20 ±3	84	20	1.8k	8	24x13½x9	Vinyl	Black Cloth	37	220.00	
	A300	Inf. Baf.	10	4	Cone	1	Dome		40-20 ±3	88	20	700, 3k	4	22½x13½x10½	Oiled Wal.	Black Cloth	37	300.00	
	A500	Pas. Rad.	10	4	Cone	1	Dome		45-20 ±3	89	20	700, 3k	4	36x12x14	Opt.	Black Cloth	62	450.00	
EPIPURE	1.0	Inf. Baf.	6		1	Dome			50-20 ±3	86	25	1.8k	6	14½x10½x8	Oiled Wal.	Black Cloth	18	185.00	
	2.0	Pas. Rad.	6		1	Dome	T		38-20 ±3	86	30	1.8k	6	34x10½x12½	Oiled Wal.	Black Cloth	41	330.00	
	3.0 II	Inf. Baf.	10	6	Cone	1	Dome	T	32-20 ±3	87	30	475.2k	4	41½x16½x16½	Oiled Wal.	Black Foam	62	550.00	
ESS	Transar II ATD	Sat. & Subwoof.	36 Sq. In.		21½ Sq. In.	Heil AMT	T		26-22 ±3	92	50, 100 SW	95,900	6/5	Three Pieces	Oiled Wal.	Brown Cloth	433 Syst.	3995.00 Syst.	
	AMT 1C	Pas. Rad.	12		21½ Sq. In.	Heil AMT	M, T		35-23 ±3	91	25	800	6/4	35¼x16¼x16¼	Oiled Wal.	Brown Cloth	85	635.00	
	AMT MON	Pas. Rad.	12		21½ Sq. In.	Heil AMT	T		30-23 ±3	91	25	800	6/4	39¼x15½x15½	Oiled Wal.	Brown Cloth	113	750.00	
	AMT B/S	Pas. Rad.	12		21½ Sq. In.	Heil AMT	M, T		40-23 ±3	91	25	800	6/4	24x14x14	Oiled Wal.	Brown Cloth	65	550.00	
	AMT II	Vented	10		21½ Sq. In.	Heil AMT	T		35-23 ±3	92	15	900	6/4	33¼x15½x15½	Oiled Wal.	Brown Cloth	68	495.00	
	HD-1500	Vented	15	2¼ x6¼	Horn	2x5	Pz.	M, T		24-23 ±3	97	10	1.5k, 1.8k	5/4	30x20x12	Wal. Vinyl	Brown Cloth	59	319.00
	HD-1200	Vented	12	2¼ x6¼	Horn	2x5	Pz.	M, T		28-23 ±3	96	10	1.5k, 8k	5/4	25x14¼x12	Wal. Vinyl	Brown Cloth	42	249.00
	HD-1000	Vented	10	2¼ x6¼	Horn	2x5	Pz.	T		30-23 ±3	93	10	1.5k, 8k	5/4	22x12¼x12	Vinyl	Brown Cloth	35½	199.00
	PS-5B	Pas. Rad.	10		10.4 Sq. In.	Heil AMT	T		40-22 ±3	93	15	2.4k	6/4	24¼x14x14	Oiled Wal.	Brown Cloth	36	299.95	
	PS-8B	Pas. Rad.	8		10.4 Sq. In.	Heil AMT	T		50-22 ±3	93	15	2.4k	6/4	22x12¼x10%	Oiled Wal.	Brown Cloth	30	249.95	
FISHER	MS115	Pas. Rad.	6½						80-12	90	2		8	13½x21½x9	Wal. Vinyl	Brown Cloth	14	79.95	
	MS117	Pas. Rad.	6½		2				70-12	90	3		8	13½x21½x9	Wal. Vinyl	Brown Cloth	15	84.95	
	MS127	Pas. Rad.	8		2				60-14	91	5	6k, 8k	8	13½x24½x9	Wal. Vinyl	Brown Cloth	16	89.95	
	MS137	Pas. Rad.	8	3	2				60-16	91	5	6k, 8k	8	14½x25¼xx1	Vinyl	Brown Cloth	21	99.95	
	MS147	Pas. Rad.	10	5	3				50-17	92	6.5	1k, 5k	8	14½x26¼x11	Vinyl	Black Cloth	22	129.95	
	MS157	Pas. Rad.	12	5	3				40-20	92	8	1k, 5k	8	14½x29¼x11½	Wal. Vinyl	Black Cloth	26	159.95	
	MS M100	Bass Ref.	6		2½				60-20	90	5	6k	8	8½x10¼x9%	Vinyl	Black Cloth	8	99.95	
	MS M101	Bass Ref.	6		2½								8	8½x10¼x9%	Hick.	Black Cloth	8	99.95	
	MS M40 SME261 XP95C	Ac. Sus.	6 4 15	5	2½ 1 3	Dome		M		50-22 40-20	92 25	1k, 5k	8	17½x28x12%	Wal. Vinyl	Brown Cloth	44	249.95	
	DS126	Bass Ref.	8	5	3					40-20	92	2	1k, 5k	8	22¼x12¼x10	Wal. Vinyl	Black Cloth	24	79.95
	DS151	Bas Ref.	10	5	3					30-20	92	3	1k, 5k	8	22¼x12¼x10	Wal. Vinyl	Black Cloth	24½	109.95
	DS176	Bass Ref.	12	5	(2) 3					20-20	92	5	1k, 5k	8	25¼x16x11%	Wal. Vinyl	Black Cloth	30½	149.95
	ST430		10	5	3			M		50-17	90	6.5	1k, 5k	8	16x25½x12%	Wal. Vinyl	Black Cloth	34	
	ST440		12	5	3	Dome				45-18	90	12	1k, 5k	8	16x25½x12%	Wal. Vinyl	Brown Cloth	36	259.95
	ST450		12	5	3	Dome				45-20	91	20	1k, 5k	8	17x27½x13%	Wal. Vinyl	Brown Cloth	44	329.95
	ST460		15	(2) 5						45-20	91	25	1k, 5k	8	18¼x29¼x14%	Wal. Vinyl	Brown Cloth	56	389.95
	ST915		10	5	3					50-20	92	10	1.5k, 6k	8	14½x26¼x11%	Hick.	Black Cloth	31	279.95
	ST920		12	5	4	Horn	M, T			45-20	94	20	1.5k, 6k	8	16x28x12%	Hick.	Black Cloth	41	389.95
	ST925		15	6	4	Horn	M, T			40-20	96	25	1.5k, 7k	8	18¼x31½x13%	Hick.	Black Cloth	51	449.95
	STEC3		6½		2					65-20	88	5	4k	6	8½x11½x8½	Silv. Vinyl	Black	11	180.00
STEC5		8		1¼	Dome				50-20	91	10	4k	6	9½x15x10¼		Black Cloth	18¾	195.00	
STEC7		8	4½	Cone	2				50-20	91	10	1k, 5k	6	10½x17½x9%	Silv. Ven.	Black	19	225.00	
STE1080		10		1¼	Dome	T			40-20	91	10	2.5k	8	12x21½x12	Wal. Vinyl	Black Cloth	27½	295.00	

(Continued)

# LOUDSPEAKERS

MANUFACTURER	Model	Enclosure or System Type	Woofer Dia., Inches	Midrange Dia., Inches	Midrange Type	Tweeter Dia., Inches	Tweeter Type	Level Control	Frequency Range, Hz	Impedance, Ohms	Recommended Min. Amp. Pwr., Watts	Crossover Frequencies, Hz	Dimensions, Inches	Finish	Grille Color and Material	Weight, Lbs.	Price, \$	
FISHER (Continued)	STE1110		12		1 1/4	Dome			40-20	91	10	2k	8	15x23 1/2 x 12 1/2	Wal. Vinyl	Black Cloth	41	395.00
	STE1150		12	1 1/2	Dome	1 1/4	Dome	M, T	40-20	92		500, 5k	8	16 1/2 x 30 1/4 x 14 1/4	Wal. Ven.	Black Cloth	66	695.00
	STE1200	Bass Ref.	12	2 1/4	Dome	1 1/2	Ring	M, T	30-30	92		Var.	8	17 1/4 x 35 1/2 x 16	Wal. Ven.	Black Cloth	112	895.00
	STE2000	Bass Ref.	8, 15	5	Cone	(2)	Planes	T, (2) M	30-40	92		600, 1.5k, 6k	8	42 1/2 x 31 1/2 x 19 1/4	Wal. Ven.	Black Cloth	176	4500.00
FRANKMANN RESEARCH	Reference Standard Monitor C <sub>0</sub> Module	Subwoof.	(4) 12	(2) 6	Cones		Horn Cone	T	24-22	96	10	200, 5k, 10k	8/4	Three Pieces	Opt.	Black Cloth	105 Sys.	895.00 Syst.
	FR-4	Inf. Baf.	8	6	Cone		Horn		16-200	96	10	Opt.	8	50x24x30	Opt.	Black Cloth		800.00
	C <sub>1</sub> Module	Subwoof.	(4) 12						30-20	89	20	300, 4k	8	14 1/2 x 10 1/2 x 24	Wal.	Black Cloth		495.00 Pair
									24-200	96	10	Opt.	6	30x20x29	Opt.	Black Cloth		400.00
FRAZIER	Concerto D	Tuned Slot	10	3x7	Horn	3	Dome	M, T	35-22	97	5	2k, 4k	8/	21 1/2 x 16 x 16 1/4	Oiled Wal.	Black Cloth	56	343.50
	Mark V D	Tuned Slot	12	4	Cone	3	Dome	M, T	35-22	97	5	500, 4k	8/	25 1/4 x 14 x 12 1/4	Oiled Wal.	Black Cloth	55	423.50
	Seven-D	Tuned Slot	12	4	Cone	3	Dome	M, T	35-22	98	5	500, 4k	8/	29x19x16 1/4	Oiled Wal.	Black Cloth	98	562.00
	CAD-1	Tuned Slot	8			3	Cone		50-14	93	5	3k	8/	19x10 1/2 x 10 1/2	Oiled Wal. Opt.	Black Cloth	21	110.00
	Monte Carlo D	Tuned Slot	8			3	Dome		50-22	94	5	4k	8/	19x10 1/2 x 12	Oiled Wal.	Black Cloth	31	160.00
	Mark IV D	Tuned Slot	10			3	Dome	T	40-22	96	5	4k	8/	24x14x12	Oiled Wal.	Black Cloth	44	254.50
	Thing	Tuned Slot	10, 12	3x14	Horn	(2) 3	Pz.	M, T	20-25	99	5	800, 4k	4/	50x24x18 1/2	Oiled Wal.	Black Cloth	146	1298.00
	Eleven	Tuned Slot	15, 12	(4) 4	Cones	(2) 3	Pz.	M, T	16-25	107	5	400, 4k	4/	55x30x18	Oiled Wal.	Black Cloth	250	1766.00
FRIED PRODUCTS	Q/2	Line Tun.	8			1	Dome		50-18 ±3	89	25	2k	8/6	10 1/2 x 9 1/2 x 20	Wal. Vinyl	Black Cloth	25	350.00 Pair
	A/2	Line Tun.	8			1	Dome		45-18 ±3	89	25	2k	8/6	13x10 1/2 x 23	Oiled Wal.	Black Cloth	35	500.00 Pair
	G	Line Tun.	10	2	Dome	1	Dome	M	32-18 ±3	92	20	375, 3k	8/6	14 1/2 x 10 1/2 x 26	Wal.	Black	50	800.00 Pair
	HPS	Line Tun.	12	3	Dome	1/4	Dome		30-35 ±3	90	25	300, 4.5k	8/6, 5	23x21x42	Opt.		100	3000.00 Pair
	Super Tweeter					1/4	Dome		14k-35k ±3	91		14k	8/8	6x6 1/2 x 5 1/4			5	350.00 Pair; Kit, 165.00
	C/2	Press. Release	6 1/2			1	Dome		60-22 ±3	89	35	3.2k	8/8	10 1/2 x 9 x 13		Black Foam	15	800.00 Pair; Kit, 450.00
	O	Trans. Line Subwoof.	10						25-200 ±3	89	25	125	8/6, 5	24 1/2 x 13 1/2 x 31			90	2500.00 Pair; Kit, 650.00
	E	Line Tun.	8			1	Dome		36-22 ±3	95	20	3.2k	8/6, 5	18 1/2 x 15 1/2 x 33			60	1300.00 Pair; Kit, 515.00
FULTON ELECTRONICS	Midget Monitor 80	Inf. Baf. Sat.	8	5	Cone	2 1/4	Cone		75-39 ±2	86	25	3.2k	8					
	Nuance		10	4	Cone	(2) 2 1/4	Cones	(2) W	50-42 ±1.5	88	25	1.43k, 17.6k, 680, 6.5k, 15k	8					
	Premiere	Inf. Baf.	(3) 10, 12	4, 5	Cones	3, (2) 2 1/4	Cones	(2) M, (2) T	34-42 ±1.5	85	35		8					
									13-80 ±1	84	50	39, 122, 425, 2.4k, 8k, 26k	8					
GC ELECTRONICS	94-1200	Ac. Sus.	8		1 1/4	Phen. Ring			45-20		2	5k	8/4	12x17 1/2 x 20 1/2	Sim. Wal.	Brown Knit	14	67.95
	94-1300	Ac. Sus.	10		1 1/4	Phen. Ring			40-20		5	5k	8/4	13 1/2 x 11 1/2 x 21 1/2	Sim. Wal.	Brown Knit	16	87.95
	94-1350	Ac. Sus.	10	4 1/2	Cone	1 1/4	Phen. Ring		40-20		6	2.5k, 5k	8/4	14x10 1/2 x 24	Sim. Wal.	Brown Knit	21	107.95
GENESIS PHYSICS	1	Ac. Sus.	8		1	Dome			58-20 ±4	89	12	1.8k	8/6	19x10 1/2 x 7 1/2	Wal. Grain	Black Cloth	19	119.00 Pair
	10	Ac. Sus.	8		1	Dome			46-20 ±4	89	12	1.8k	8/6	23 1/2 x 12 3/4 x 9 1/4	Wal. Grain	Black Cloth	28	299.00 Pair
	110	Ac. Sus.	10		1	Dome			36-20 ±4	89	20	1.8k	8/6	27x14 1/2 x 10 1/2	Wal. Grain	Black Cloth	34	399.00 Pair
	210	Pas. Rad.	8		1	Dome	T		30-20 ±4	89	20	1.8k	8/6	31x16 1/2 x 10 1/2	Wal. Grain	Black Cloth	45	499.00 Pair
	320	Ac. Sus.	(2) 8	4 1/2	Cone	1	Dome	M, T	36-20 ±4	90	25	800, 3k	4/3	34x18 1/2 x 10 1/2	Wal. Grain	Black Cloth	63	699.00 Pair
	410	Pas. Rad.	10	4 1/2	Cone	1	Dome	M, T	32-20 ±4	88	25	1k, 4k	8/6	30 1/2 x 15 1/4 x 15	Wal. Grain	Black Cloth	65	999.00 Pair

# LOUDSPEAKERS

MANUFACTURER	Model	Enclosure or System Type	Woofer Dia. - Inches	Midrange Dia. - Inches	Midrange Type	Tweeter Dia. - Inches	Tweeter Type	Level Control	Impedance, Ohms	Anechoic Freq. Response Hz to Hz, ± dB	dB SPL / 1 Watt / 1 Meter	Recommended Min. Amp. Pwr. - Watts	Crossover Frequencies, Hz	Dimensions, Inches	Finish	Grille Color and Material	Weight, Lbs.	Price, \$
GLI	FRA-2X	Pas. Rad.	(4) 5 1/4			(3) 2x5	Horns		32-20 ±4	97	30	5k	8/8	20x17x9	Black	Black Steel	37	350.00
	MR-2X	Pas. Rad.	(4) 5 1/4			(3) 2x5	Horns		32-20 ±4	97	30	5k	8/8	20x17x9	Oiled Wal.	Brown Cloth	37	350.00
	AV-1	Pas. Rad.	(2) 5 1/4			1	Dome		55-20 ±4	91	20	4k	4/4	17x10x9	Black	Black Metal	15	150.00
HARTKE RESEARCH	HR-110	Inf. Baf.	10			(2) 1	Domes	T	30-20 ±2.5	89	30	3.5k	8/4	18 1/2 x 14 1/2 x 12	Black	Black Foam	26	750.00 Pair
HARTLEY PRODUCTS	Concert-master Reference	Inf. Baf.	18	10	Cone	1.7	Dome, Cone	No	16-25 ±3	91	25	250,3k,7k	5-8	29x18x41 1/2	Oiled Wal.	Black Cloth	150	1500.00
		Inf. Baf.	24	10	Cone	1.7	Dome, Cone	No	16-25 ±3	91.5	25	250,3k,7k	5-8	36x24x50 1/4	Oiled Wal.	Black Cloth	300	2000.00
	H-100	Air Col.	8	1 1/2	Air Col.	2	Cone	No	50-20 ±4	93	5	2.3k	8	21 1/2 x 10 1/2 x 10 1/2	Oiled Wal.	Black Cloth	30	160.00
	H-200	Air Col.	10	2 1/2	Air Col.	1	Dome	No	35-25 ±3	95	5	2.6k	8	30x15x15	Oiled Wal.	Black Cloth	60	275.00
	H-300	Air Col.	(2) 10	(4) 1 1/2	Air Col.	(2) 1	Domes	No	30-25 ±3	96	5	3.4k	4	43x15x15	Oiled Wal.	Black Cloth	90	425.00
	SPL-1	Air Col.	10	3	Air Cols.	(4) 3/4	Phrsrs.	No	25-25 ±3	95	15	3.8k	8/6	Three Pieces	Oiled Wal.	Black Cloth	200	1550.00 Syst.
	SW-10	Air Col. Subwoof. Phasor	10			(4) 3/4	Phrsrs.		25-3.8 ±3	93	15		6	24x18x18	Oiled Wal.	Black Cloth	70	475.00
	ST-4				(4) 3/4	Phrsrs.		3.8k-25k ±2	96	15	3.8k	8	12x5x5	Oiled Wal.	Black Cloth	15	175.00	
HEATH	AS-1324	Ducted Port Sealed	15	6 1/2, 2	Cone, Dome	3/4x2	Leaf	M, T	22-20 ±3	90	30	100,600,4k	6/4	64 1/2 x 21 1/2 x 17	Black, Ash	Brown Cloth	180	500.00
	AS-1373	Sealed	10	4 1/2	Cone	1	Dome	T	40-20 ±3	88	10	500,3k	8	14 1/2 x 11 1/2 x 26	Wal.	Foam	47	199.95
	AS-1342	Ducted Port	8			2x6	Horn	T	60-14 ±5	91	5	2.5k	8/6	12x10 1/2 x 22 1/4	Vinyl Wal.	Brown Cloth	20	89.95
	AS-1320	Ducted Port	15						22-.500 ±3		30		8/7	64 1/2 x 21 1/2 x 17	Black, Ash	Brown Cloth	150	299.95
	AS-1321	Subwoof. Sealed	6 1/2	2	Dome	3/4x2	Leaf	M, T	90-20 ±3	90	30	600,4k	6/4	17 1/2 x 17 1/2 x 9 1/2	Black	None	29 1/2	300.00
HECO	Lab 3	Ac. Sus.	8,13	(4) 2	Domes	(6) 1, 1 1/2	Domes	M, T, ST	20-40 ±2	89	40		8/4	48x18x20	Oak Ven.	Black Cloth	140	2450.00
	Lab 2	Ac. Sus.	6 1/4, 12	(3) 2	Domes	(4) 1, 1 1/2	Domes	M, T, ST	20-40 ±2	89	40		8/4	40x16x16	Oak Ven.	Black Cloth	84	1850.00
	Precision 400	Ac. Sus.	12	2	Dome	3/4	Dome	M, T	20-25 ±3	91	15	600,3k	8	26x15x10 3/4	Opt.	Cloth	42	600.00
	Precision 300	Ac. Sus.	9 1/4	2	Dome	3/4	Dome	M, T	25-25 ±3	91	15	700,3k	8	20x12 1/2 x 10 1/4	Opt.	Cloth	36 1/2	450.00
	Precision 200	Ac. Sus.	9 1/4	2	Dome	3/4	Dome	M, T	30-25 ±3	91	15	700,4k	8	18 1/2 x 11 1/2 x 9 1/2	Opt.	Cloth	27 1/2	380.00
	Precision 100	Ac. Sus.	8	1 1/2	Dome	3/4	Dome	M, T	35-25 ±3	91	15	1k, 3k	8	16x10x8 1/2	Opt.	Cloth	21 1/2	340.00
IMAGE ACOUSTICS	800	Pas. Rad.	(2) 8	(2) 5	Cones	(2) 3/4	Domes		35-20 ±5	91	15	600,2.5k	4	14x14x36	Lam. Wal.	Black Cloth	50	349.00
	600	Pas. Rad.	(2) 6 1/2			(2) 3/4	Domes		40-20 ±5	90	15	2.5k	4	13x13x24	Lam. Wal.	Black Cloth	35	220.00
	500	Pas. Rad.	(2) 5			(2) 3/4	Domes		45-20 ±5	90	10	2.5k	4	12x12x20	Lam. Wal.	Black Cloth	25	164.00
IMF ELECTRONICS INC.	Special Application Control Monitor	Trans. Line	11 1/4 x 8 1/4	5	Cone	1 3/4, 3/4	Dome, ST	M, T	17-22	82		350, 3k, 13k	4/8	38 1/2 x 16 x 18	Nat. Wal.	Black Cloth	207 Pr.	4357.00 Pair w/ stands
	RSPM MK IV Improved Monitor	Trans. Line	11 1/4 x 8 1/4	5	Cone	1 3/4, 3/4	Dome, ST	M, T	17-22	82		350, 3k, 13k	4/8	39 1/2 x 16 3/4 x 19 1/4	Nat. Wal.	Black Cloth	202 Pr.	2995.00 Pair w/ stands
	TLS-80 MKIIa Studio	Trans. Line	11 1/4 x 8 1/4	5	Cone	1 3/4, 3/4	Dome, ST	M, T	20-22	83		350, 3k, 13k	4/8	38 1/2 x 16 x 18	Nat. Wal.	Black Cloth	163 Pr.	1995.00 Pair w/ stands
	TLS-50IIa	Trans. Line	8	4	Cone	1, 3/4	Dome, ST	M, T	28-20	83		375, 3k, 15k	4/8	35x14x15	Nat. Wal.	Black Cloth	119 Pr.	1385.00 Pair w/ stands
	Studio ALS-40IIa	Active Line	(2) 8	4	Cone	1	Dome	M, T	28-20	83		150, 375, 3k	4/8	26 1/2 x 13 1/2 x 13 1/2	Nat. Wal.	Black Cloth	81 Pr.	1070.00 Pair
	ALS-30	Active Line	(2) 6 1/2	4	Cone	1	Dome		29-20	84		250, 450, 3.5k	4/8	22 3/4 x 11 x 11 3/4	Nat. Wal.	Black Cloth	70 Pr.	695.00 Pair
	Super Compact II	Bass Ref.	8	4	Cone	1	Dome		30-20	85		375, 3.5k	4/8	18x11x11 1/4	Nat. Wal.	Black Cloth	46 Pr.	495.00 Pair
	MCR-2	Inf. Baf.	5			1 3/4	Dome		150-13.5	83		3k	4/8	15x8x8	Nat. Wal.	Black Foam	33 Pr.	475.00 Pair
	CM-3	Bass Ref.	8	4	Cone	1	Dome		29-20	83		375, 3.5k	4/8	22 3/4 x 11 x 11 1/4	Nat. Wal.	Brown Foam	74 Pr.	690.00 Pair
CM-2	Bass Ref.	8			1	Dome		30-20	87.5		3.3k	6/8	19x11x10 1/4	Nat. Wal.	Brown Foam	45 Pr.	477.00 Pair	
IMPULSE	One	Ported Subwoof.	10				Ribbon	T	30-20 ±2	84	100	200	4/2	Two Pieces	Wal. Lacq.	Black Plas.	200	2795.00 Pair

# LOUDSPEAKERS

MANUFACTURER	Model	Enclosure or System Type	Woofer Dia., Inches		Midrange Dia., Inches		Tweeter Dia., Inches		Level Control	Impedance, Ohms	Anechoic Freq. Response	dB SPL / 1 Watt / 1 Meter	Recommended Min. Amp. Pwr., Watts	Crossover Frequencies, Hz		Dimensions, Inches	Finish	Grille Color and Material	Weight, Lbs.	Price, \$
														Nominal	Minimum					
INFINITY SYSTEMS	RSe	Sealed Box	8								10	3k	4	20x13x10 1/4	Oak	Brown Cloth	28	165.00		
	RSa	Sealed Box	10								25	3k	4	25x14x10	Oak	Brown Cloth	40	225.00		
	RSb	Sealed Box	12	5	Cone						25	600,4k	4	25x14x10	Oak	Brown Cloth	43	290.00		
	Reference Studio Monitor	Sealed Box	12	5	Cone						35	500,5k	4	26x15x10	Oak	Brown Cloth	50	375.00		
	Reference Standard III	Sealed Box	(2)8	5	Cone						35	60,300,3k	4	18x48x7	Oak	Brown Cloth	80	450.00		
	Reference Standard II	Sealed Box	(2)10	(3)5	Cones	(2)					35	60,125,15k,3k	4	122x58x46	Oak	Brown Cloth	100	650.00		
	Reference Standard 4.5	Sealed Box	(2)12	(4)	EMIM Rbns.	(4)					100	150,5k	4	64 1/2 x 26 1/2 x 14 1/2	Oak	Brown Cloth	190	4200.00		
	IRS	Sealed Box	(6)12	(12)	EMIM Rbns.	(36)					100	80,5k	4	90x40x18	Rswd.	Brown Cloth	1200	20,000.00		
	Infinitesimal RS 0.12		5								15	3k	4	11x6x5	Oak Ends	Black Alum.	12	195.00		
	INNOTECH	D-24	Trans. Line	(2)5	1 1/2	Dome	1	Dome	No		35-20 +.5, -3	35	3.5k,11k	5	36 1/2 x 10 1/2 x 15 1/2	Oiled Wal.	Black Foam	60	825.00	
INNOVATIVE AUDIO OF OHIO	Pulse Monitor	Bass Ref.	(2)6 1/2			1	Dome			35-19 ±2	89	10	3.5k	4/3	35x15x13 1/2	Wal. Vinyl	Black Foam	59	645.00	
INTERAUDIO SYSTEMS	Alpha I	Ported	8			3				42-16.5 ±3	89	10	2k	8	18 1/4 x 11 1/4 x 9 1/2	Wal. Vinyl	Black Cloth	18 1/2	299.90	
	Alpha II	Ported	10			3				40-16.5 ±3	89	15	2k	8	22 1/4 x 13 1/4 x 11 1/2	Wal. Vinyl	Black Cloth	27 1/2	459.90	
	Alpha III	Ported	10	6 1/2	Cone	3				38-16.5 ±3	90	15	400, 2.5k	8	32x14 1/2 x 11 1/2	Wal. Vinyl	Black Cloth	47 1/2	639.90	
	Alpha IV	Pas. Rad.	10	6 1/2	Cone	(2)3				36-16.5 ±3	91	15	60, 400,2.5k	8	44x14 1/2 x 11 1/2	Wal. Vinyl	Black Cloth	63	899.90	
INTER-EGO	SE-8	Tuned Port	8	3 1/2	Horn Dome Cone	2 1/2	Dome	T		40-20 ±2	95	10	2k,4-8k	4	20 1/2 x 12 9 1/2	Vinyl	Black Cloth	22	195.00	
	SE-10	Tuned Port	10	4 1/2	Cone	1	Dome	T		32-23 ±2	96	10	700,5-8k	4	23 1/2 x 14 x 11 1/2	Vinyl	Black Cloth	36	295.00	
	SE-12.3	Tuned Port	12	5	Cone	1	Dome	M,T		30-23 ±2	97	10	700,5-8k	4	26 1/2 x 15 1/2 x 11 1/2	Vinyl	Black Cloth	48	395.00	
	Super Ego	Dual Pas. Rad.	12	5	Cone	1	Dome	M,T		26-23 ±2	97	10	600,5-8k	4	30 1/2 x 18 1/2 x 11 1/2	Vinyl	Black Cloth	54	495.00	
ISLAND SOUND	Image Master										10		8/7	23 1/2 x 13 x 15 1/2	Koa	Black Foam	39	396.00		
	Image Master II										10		8/6	13 1/2 x 9 1/2 x 12	Koa	Black Foam	24	279.00		
JANIS AUDIO	W1	Slot Loaded Subwoof.	15							30-100 ±1	87	60	100	8/8	22x22x17 1/2	Opt.	Black Wood	100	825.00	
	W2	Slot Loaded Subwoof.	15							33-100 ±1	87	60	100	8/8	22x22x17 1/2	Opt.	Black Wood	90	495.00	
JANSZEN ELECTROSTATIC	Z-210B	Ac. Sus.	10			(2)4x4	ES	T		28-30 ±3	82	20	800	6	24x13 1/4 x 11	Vinyl	Black Cloth	28	250.00	
	Z-210W	Ac. Sus.	10			(2)4x4	ES	T		28-30 ±3	82	20	800	6	24x14x12	Oiled Wal.	Brown Cloth	54	315.00	
	Z-1	Ac. Sus.	10	(2)4x4	ES	(2)4x4	ES	T		20-30 ±2	87	20	800	6	13x27 1/2 x 14 1/2	Oiled Wal.	Brown Cloth	73	475.00	
	Z-2	Ac. Sus.	10			(2)4x4	ES	T		35-30 ±2	86	15	800	6	39x15 1/2 x 15 1/2	Oiled Wal.	Black Cloth	85	560.00	
	Z-Zero	Ac. Sus.	10			1	Dome			25-25	91	10	2.5k	8	26x14x12	Oiled Wal.	Brown Cloth	60	280.00	
	Z-Plus	Ac. Sus.	10			(2)4x4	ES	T		800-30	89	10	800	6	12x12x16	Oiled Wal.	Brown Cloth	30	250.00	
	Z-5	Ac. Sus.	(4)10			(30)4x4	ES	T		25-30	92	20	800	6	12x38x62	Oiled Wal.	Brown Cloth	200	2250.00	
JBL	L19	Ported	8			1.4	Cone	T		87	10	2.5k	8/	21x13x10	Oiled Wal.	Brown	29	170.00		
	L40	Ported	10			1	Dome	T		88	10	1.8k	8/	23x15x11 1/2	Oiled Wal.	Opt.	44	250.00		
	L96	Ducted Port	10	5	Cone	1	Dome				10				Oiled Wal.	Brown Cloth		395.00		
	L112	Ported	12	5	Cone	1	Dome	M,T		89	10	1.1k,3.7k	8/	24 1/2 x 14 1/4 x 13	Oiled Wal.	Brown	55	495.00		
	L150	Pas. Rad.	12	5	Cone	1	Dome	M,T		88	10	1k,4k	8/	41 1/2 x 17 x 13	Oiled Wal.	Opt.	80	695.00		
	L220	Pas. Rad.	14	5	Cone	2 1/2 x 1 1/4	Ring	M,T		90	10	800,5k	8/	48 1/4 x 20 1/4 x 15 1/2	Oiled Wal.	Opt.	106	1000.00		
	L300	Ported	15		Horn	3 1/2 x 1 1/2	Ring			93	10	800,8.5k	8/	31 1/2 x 23 x 22 1/2	Oiled Wal.	Opt.	152	1500.00		
	Paragon		(2)15	(2)	Horns	(2)3 1/2	Rings	M,T		95	10	500,7k	8/	35 1/2 x 103 3/4 x 24	Oiled Wal.	Opt.	698	6000.00		
	R82	Ducted Port	8			1 1/2	Cone	T		89	10	2k	6	21 1/2 x 13 1/2 x 11 1/2	Wal. Vinyl	Brown Cloth	31	155.00		

# LOUDSPEAKERS

MANUFACTURER	Model	Enclosure or System Type	Woofer Dia. - Inches			Midrange Dia. - Inches		Tweeter Dia. - Inches		Level Contour M. Midrange: Hz to kHz, S. Subwoofer		Ancholic Freq. Response: dB SPL / 1 Watt / 1 Meter		Crossover Frequencies, Hz		Impedance Ohms: Nominal/Minimum		Dimensions, Inches	Finish	Grille Color and Material	Weight, Lbs.	Price, \$
			Woofer Type	Midrange Type	Tweeter Type	Level Contour M. Midrange: Hz to kHz, S. Subwoofer	Ancholic Freq. Response: dB SPL / 1 Watt / 1 Meter	Crossover Frequencies, Hz	Impedance Ohms: Nominal/Minimum													
JBL (Continued)	R103	Ducted Port	10	3	Cone	1 1/2	Cone	T		90	10	600,3k	6	25 1/2 x 15 1/2 x 11 1/4	Wal. Vinyl	Brown Cloth	40	195.00				
	R123	Ducted Port	12	3	Cone	1 1/2	Cone	T		90	10	600,3k	6	27 1/2 x 17 1/2 x 12 1/2	Wal. Vinyl	Brown Cloth	46	255.00				
	R133	Pas. Rad.	10	3	Cone	1 1/2	Cone	M,T		91	10	600,3k	6	37 1/2 x 16 1/2 x 12 1/2	Wal. Vinyl	Brown Cloth	57 1/2	295.00				
	4311														Wal. Vinyl	Brown Cloth		435.00				
JENSEN	System 200	Ac. Sus.	8			1	Dome		56-20 ±3	88	10	3.1k	8/5	18 1/2 x 11 x 9 3/4	Oak Vinyl	Brown Cloth	16	130.00				
	System 300	Ac. Sus.	10			1	Dome	T	48-20 ±3	88	10	3.1k	8/5	23 x 13 x 10 3/4	Oak Vinyl	Brown Cloth	23	170.00				
	System 400	Ac. Sus.	10	3 1/2	Cone	1	Dome	M,T	45-20 ±3	89	10	1.5k, 4.2k	8/5	26 1/2 x 13 x 10 3/4	Oak Vinyl	Brown Cloth	31	220.00				
	System 500	Ac. Sus.	12	5	Cone	1,2	Dome, Cone	M,T	38-20 ±3	90	10	760, 4.2k	8/5	29 x 15 1/2 x 11 1/4	Oak Vinyl	Brown Cloth	45	290.00				
	System C	Vented	10	2	Dome	1,2	Dome, Cone	M,T	47-21 ±2, +4	87	9	900, 5.5k	8/5	24 1/2 x 14 1/2 x 12 1/2	Oak Ven.	Brown Cloth	52	440.00				
	System B	Vented	12	6 1/4	Cone, Dome	1,2	Dome, Cone	M,T	37-21 ±2, +4	90	9	300, 1.8k, 8k	8/5	33 1/2 x 16 1/2 x 11 1/4	Brown & Oak Wal. Vinyl	Brown Cloth	78	660.00				
	20	Ac. Sus.	8			2	Cone		70-18 ±3	88	10	1.5k, 4k	8/6	18 1/2 x 11 x 8 3/4	Wal. Vinyl	Brown Cloth	18	110.00				
	30	Ac. Sus.	10	3 1/2	Cone	2	Cone		60-18 ±3	89	10	1.5k, 4k	8/6	24 1/2 x 15 x 10	Wal. Vinyl	Brown Cloth	28	190.00				
	40	Ac. Sus.	12	3 1/2	Cone	2	Cone	M,T	50-18 ±3	90	10	1.2k, 4k	8/6	27 x 17 x 10 3/4	Wal. Vinyl	Brown Cloth	30	240.00				
	50	Ac. Sus.	15	3 1/2	Cone	2	Cone	M,T	45-18 ±3	90	10	1.2k, 4k	8/4	30 1/2 x 18 1/2 x 13 1/2	Wal. Vinyl	Brown Cloth	43	320.00				
JR LOUDSPEAKERS	149		4 1/2			2	Dome		40-40	83	20	3k	4-16	9 Dia. x 14 1/4	Opt.	Opt., Foam Black	12	594.00 Pair				
	150		(2) 4 1/2			2	Dome		40-40	87	15	2.2k	4-16	1 Dia. x 21	Opt.	Opt., Foam Black	24 1/4	895.00 Pair				
	Metro	Ac. Sus.	4 1/2			1	Dome		50-20	85	20	2.7k	8	11 x 6 1/2 x 7 1/2	Nxtl.	Opt.	10	435.00 Pair				
	Magna	Ac. Sus.	6 1/2			1	Dome		40-20	86	15	2.7k	8	8 x 7 1/2 x 14	Nxtl.	Opt.	13	565.00 Pair				
JUMETITE LABORATORIES	CR610		(2) 10	3 x 3 1/4	Ribbon		No	31-18 ±3	89	40	600	8/5	15 x 15 x 65	Opt.	Brown Poly.	175	3500.00 Pair					
JVC	SK-11	Bass Ref.	10			2 3/4	Cone		40-20	91		4k	8	22 1/2 x 12 1/2 x 8 3/4	Vinyl Wal.	Cloth	7.4					
	SK-101	Bass Ref.	10	2 1/4	Cone	2	Cone		40-20				8	23 1/2 x 13 1/2 x 9 1/2	Vinyl Wal.	Cloth	26.8	220.00 Pair				
	SK-303	Bass Ref.	12	5	Cone	2 1/4	Cone		35-20				8	26 1/2 x 15 1/2 x 11 1/4	Vinyl Wal.	Cloth	37.8	140.00				
	SK-50	Bass Ref.	10	2 3/4	Cone	1	Dome		40-40	91		1.5k, 10k	8	21 1/2 x 12 1/2 x 11 1/4	Vinyl Wal.	Cloth	27.5					
	SK-90	Bass Ref.	12	5	Cone	1	Dome	M,T	30-40	93		1.2k, 9k	8	26 3/4 x 15 x 13	Vinyl Wal.	Cloth	46.3					
	Zero 2	Ac. Sus.	10	2 3/4	Cone, Dome		Ribbon	T	35-25	86		1.7k, 15k	6	20 1/2 x 11 1/2 x 12 1/2	Rswd.	Cloth	26.4	250.00				
	Zero 4	Ac. Sus.	10	2 3/4	Cone, Dome		Ribbon	M,T	35-100	87		700, 6k	6	22 1/2 x 12 3/4 x 12 1/2	Rswd.	Cloth	36.3	330.00				
	Zero 6	Ac. Sus.	12	4	Cone, Dome		Ribbon	M,T	35-100	89		550, 5.5k	6	25 1/2 x 14 3/4 x 13 1/2	Rswd.	Cloth	48.4	440.00				
Zero 9	Bass Ref.	(2) 12	4	Cone, Dome		Ribbon	M,T	25-50	92		450, 5.5k	6	41 1/4 x 16 1/2 x 16 1/2	Rswd.	Cloth	92.4	699.95					
KEF	101	Closed Box	5			3/4	Dome		90-30 ±2	81	20		8/	13.4 x 7 x 7 1/2	Opt.	Black	12 1/2	590.00 Pair				
	103.2	Inf. Baf.	8			1	Dome		60-20 ±2	86	20		8/	20 x 10.4 x 9.8	Opt.	Black	19	900.00 Pair				
	104aB	Bass Ref.	8			3/4	Dome	M	50-20 ±2	83.5	15		8	24.4 x 13 x 10.1	Opt.	Black Foam	36	475.00 Pair				
	105.4	Coherent Phase	(2) 8	5	Cone	1	Dome		55-20 ±2	86	20		8/	36.9 x 13.8 x 14.9	Opt.	Black	45	1050.00				
	105.2	Coherent Phase	12	5	Cone	1 1/2	Dome		38-22 ±2	85	20		8/	38 x 16.3 x 17.9	Opt.	Black	80	1400.00				
	303.2	Closed Box	8			1	Dome		70-20 ±3	86	10		8/	20.6 x 10.4 x 9	Opt.	Opt.	18	450.00 Pair				
	304.2	Closed Box	(2) 8			1	Dome		60-20 ±3	87	10		8/	27.2 x 11 x 12.4	Opt.	Opt.	28	350.00 Pair				
	203								68-20 ±2.5	86	15		8/	18 1/2 x 11 x 8 1/2	Opt.	Brown Cloth		600.00 Pair				
204	Pas. Rad.				1	Dome		45-20 ±2.5	86	15		8/	27 1/2 x 11 x 12 1/2	Opt.	Brown Cloth		1100.00 Pair					
KENWOOD	LS-1900	Vented	13	5 1/2	Cone		Horn	M,T	30-21	92	30	600, 5k	8	22 1/2 x 17 1/2 x 41 1/2	Wal.	Cloth	127.9	1165.00				
	LS-1600	Vented	13	5 1/2	Cone		Horn	M,T	32-20	92	30	900, 5k	8	15 1/2 x 12 1/2 x 27 1/2	Wal.	Cloth	64.9	550.00				
	LS-1200	Vented	10	4	Cone		Cone	M,T	35-20	90	20	1k, 6k	8	13 1/2 x 12 1/2 x 25 1/2	Wal. Vinyl	Cloth	47	365.00				
	LS-408C	Vented	12	4 3/4	Cone	1 1/4	Cone	M,T	30-20	91	25	1k, 5k	8	16 1/2 x 14 1/2 x 29	Wal. Vinyl	Cloth	47.5	330.00				
	LS-407C	Vented	10	4 3/4	Cone	1 1/4	Cone	M,T	40-20	90	20	2k, 5k	8	15 x 13 x 25 1/2	Wal. Vinyl	Cloth	41	275.00				
	LS-405C	Vented	10			1 1/4	Cone		40-20	90	20	3k	8	13 x 12 1/2 x 23 1/2	Wal. Vinyl	Cloth	26	189.00				

# LOUDSPEAKERS

MANUFACTURER	Model	Enclosure or System Type	Woofer Dia., Inches		Midrange Dia., Inches		Tweeter Dia., Inches		Level Control? Midrange/Tweeter, dB		Anechoic Freq. Response, Hz to kHz, ± dB		Recommended Min. Amp. Pwr., Watts		Impedance, Ohms; Nominal/Minimum		Dimensions, Inches		Finish	Grille Color and Material	Weight, Lbs.	Price, \$
			Woofer Dia.	Woofer Dia.	Midrange Dia.	Midrange Dia.	Tweeter Dia.	Tweeter Dia.	Level Control?	Midrange/Tweeter	Hz to kHz	± dB	Recommended Min.	Amp. Pwr.	Watts	Impedance	Nominal/Minimum	Dimensions				
KINDEL AUDIO	Phantom-B	Pas. Rad.	(2) 5½	1½	Dome	¾x2¼	Leaf	Opt.	40-25 ±3	88	20	1.3k, 6.5k	5	18x6¼x40	Opt.	Opt.	48	959.00		Pair		
	Sound Clone	Pas. Rad.	8			1	Dome		40-20 ±3	90	15	2.9k	8	11¼x13x25¼	Oak	Camel	31	229.00				
KINETIC AUDIO	Titan	TATL/Laby. (Tap. Ac. Trap. Line)	(2) 12	6½, 2	Cone, Dome	1½, ¾	Domes	M, T, ST	12-22 ±1.5	92	25	90, 1k, 3k, 7k	6	22x18x60	Oiled Wal.	Black Cloth	245	2989.00				
	Trapezium	TATL/Laby. (Tap. Ac. Trap. Line)	12	6½, 2	Cone, Dome	1½, ¾	Domes	M, T, ST	14-22 ±1.5	94	45	90, 1k, 3k, 7k	8	20x16x60	Oiled Wal.	Black Cloth	200	2489.00				
	Labyrinth	TATL/Laby. (Tap. Ac. Trap. Line)	12	6½, 2	Cone, Dome	1½, ¾	Domes	M, T, ST	14-22 ±1.5	91	20	90, 1k, 3.5k	8	18x16x48	Oiled Wal.	Black Cloth	175	1589.00				
	Trapezoid	TATL/Laby. (Tap. Ac. Trap. Line)	12	6½	Cone	1½, ¾	Domes	M, T, ST	20-22 ±1.5	91	15	175, 2k, 7.5k	8	14x16x40	Oiled Wal.	Black Cloth	115	889.00				
	Impulse/CRM	TATL/Laby. (Tap. Ac. Trap. Line)	12	6½	Cone	1½	Dome	M, T	20-22 ±2	90	25	180, 2k	8	14x14½x26	Oiled Wal.	Black Cloth	85	589.00				
	Stat Nouveau	TATL/Laby. (Tap. Ac. Trap. Line)	(2) 6½			1½	Dome	T	45-22 ±2	93	15	1.8k	4	9x12x20	Oiled Wal.	Black Cloth	48	549.00				
	Stat	Dual TATL	(2) 5			1½	Dome	T	36-22 ±2.5	94	10	1.8k	4	9x10½x17½	Oiled Wal.	Black Cloth	38	449.00				
	Micro-Pulse	TATL	6½			1½	Dome	T	38-22 ±2.5	91	15	1.8k	8	9x9x15½	Oiled Wal.	Black Cloth	30	349.00				
	300	TAL	12	5	Cone	1	Dome	M, T	29-22 ±3	93	10	350, 3.5k	8	14x14½x26	Oiled Wal.	Black Cloth	68	399.00				
	200	TAL	8			1	Dome	T	36-22 ±2.5	94	10	1.8k	8	9x14½x24	Oiled Wal.	Black Cloth	49	299.00				
	100	TAL	6½			1	Dome	T	45-22 ±3	93	25	3k	8	9x9x15½	Oiled Wal.	Black Cloth	24	199.00				
	Titan SW	TATL Subwoof.	(2) 12						12-2 ±1.5	20		65, 100, 200	6	22x18x60	Oiled Wal.	Black Cloth	220	1829.00				
	Trapezium SW	TATL Subwoof.	12						14-2 ±1.5	92	20	65, 100, 200	8	20x16x60	Oiled Wal.	Black Cloth	205	1429.00				
	Labyrinth SW	TATL Subwoof.	12						16-2 ±2	91	20	65, 100, 200	8	18x16x48	Oiled Wal.	Black Cloth	155	829.00				
	Trapezoid SW	TATL Subwoof.	12						18-2 ±2.5	91	25	65, 100, 200	8	14x16x40	Oiled Wal.	Black Cloth	85	429.00				
Pulse SW	TATL Subwoof.	12						20-2 ±2.5	90	25	65, 100, 200	8	14x14½x26	Oiled Wal.	Black Cloth	68	329.00					
300 SW	TAL Subwoof.	12						20-2 ±2.5	93	25	200	8	14x14½x26	Oiled Wal.	Black Cloth	60	229.00					
KLH	508	Vented	8			3	Cone		40-20		10	2.75k	8	21x12x9¾	Vinyl	Brown Cloth		99.95		Pair		
	510	Vented	10	5	Cone	3	Cone		30-20		10	1k, 4k	8	22½x12½x10¾	Vinyl	Brown Cloth		159.95		Pair		
	512	Vented	12	5	Cone	3	Cone		30-20		10	1k, 4k	8	25½x15x12¾	Vinyl	Brown Cloth		249.95		Pair		
	515	Vented	15	5	Cone	3	Cone		30-20		20	1k, 4k	8	28x18x15¾	Vinyl	Brown Cloth		349.95		Pair		
KMLABORATORIES	AC 510	Bass Ref.	5			1	Dome		50-23 ±3	85	15	2.7k	8	10x6½x5½	Opt.	Black Cloth	11	498.00		Pair		
	AC 530	Bass Ref.	6½			1, ¾	Dome		45-23 ±3	89	25	2.8k	4	14x9¼x8	Oiled Wal.	Black Cloth	14	448.00		Pair		
	AC 550	Bass Ref.	9	9	Cone	(3) 1	Domes		37-23 ±2	93	50	850, 2.8k	4	33½x11x13½	Opt.	Black Cloth	48	1498.00		Pair		
	KM 52	Pas. Rad.	(5) 6½			1¼	Dome	T	38-22 ±3		60	2.2k	4	10½x14x9½	Opt.	Black Cloth	18	1099.00		Pair		
	KM 32	Pas. Rad.	(5) 6½			1	Dome	T	45-22 ±3		40	2.7k	8	14x9¼x8	Opt.	Black Cloth	18	749.00		Pair		
KOSS	Dyna-Mite M/80	Ac. Sus.	(2) 4			1	Dome		15-20	92	10	25	6/4.5	12¼x5¼x5¼	Oiled Wal.	Brown Cloth		129.00				
	CM530	Pas. Rad.	8			1	Dome	T	30-20	88			7/4	13¼x11¼x24	Pecan	Brown Cloth	35	297.00		Pair		
	CM1010	Pas. Rad.	8			1	Dome	T	32-18.5	90	15	35	6/4	15½x11x28	Pecan	Brown Cloth	44	417.00		Pair		
	CM1020	Bass Ref.	10	4½	Cone	1	Dome	M, T	27.5-19	92	15	300, 3k	5/4	15½x13¼x33	Pecan	Brown Cloth	60	597.00		Pair		
	CM1030	Bass Ref.	10	(2) 4½	Cones	(2) 1	Domes	M, T	26-19.5	94	15	300, 2.5k, 7k	5/4	16½x14½x38½	Pecan	Brown Cloth	74	777.00		Pair		
	210	Bass Ref.	12	4½	Cone	(2) 2½	Cones	M, T	30-20	92	10		8	32½x15½x13½	Pecan	Brown Cloth		420.00		Pair		
KUSTOM ACOUSTICS	TAS	TAL (Tapered Ac. Line)	(2) 12	6½	Cone	1, 1¼	Domes	T, ST	25-22 ±2.5	97	15	300, 2.5k, 7.5k	4	40x24x18			185	1495.00				
	Amp Eater	TAL	(4) 12	(2) 6½	Cones	(2) 1, (2) 1¼	Domes	T, ST	12-22 ±2.5	99	50	300, 2.5k, 7.5k	2 or 8	48x31x18			315	2000.00				
	Colossus	TAL	(8) 12	(4) 5	Cones	(4) 1, (4) 1¼	Domes	T, ST	8-28 ±2.5	105	5	300, 2.5k, 7.5k	1 or 4	72x36x24			600	3900.00				

# LOUDSPEAKERS

MANUFACTURER	Model	Enclosure of System Type	Woofer Dia. - Inches	Midrange Dia. - Inches	Midrange Type	Tweeter Dia. - Inches	Tweeter Type	Low Crossover? Hz to kHz	High Crossover? Hz to kHz	Impedance, Ohms	Recommended Min. Amp. Pwr. - Watts	Crossover Frequencies Hz	Dimensions, inches	Finish	Grille Color and Material	Weight, Lbs.	Price, \$	
LANCER ELECTRONICS	LX-1	Ac. Sus.	6			2.5		50-25	5	5k	8	11x7x7	Oiled Wal.	Tan	12	49.50		
	LX-2	Ac. Sus.	8			2.5		40-25	8	5k	8	18½x10½x8¾	Oiled Wal.	Black	20	89.50		
	LX-3	Ac. Sus.	12	5	Cone	2.5		30-25	10	500, 5k	8	25½x14½x11	Oiled Wal.	Brown	35	129.50		
	LE-7	Ac. Sus.	10			1	Dome	T	20-21	10	1.5k	8	20½x12½x10	Oiled Wal.	Brown	35	149.50	
	LE-8	Ac. Sus.	12	5	Cone	2½		M, T	20-25	10	500, 5k	8	23½x15x12½	Oiled Oak	Brown	53	219.50	
	LE-9	Ac. Sus.	10	5	Cone	1	Dome	M, T	20-21	10	600, 4.5k	8	38½x12x12	Oiled Oak	Brown	63	249.50	
	LE-10	Ac. Sus.	12	5	Cone	1	Dome	M, T	20-21	10	600, 4.5k	8	25½x15x11¾	Oiled Oak	Black	60	289.50	
	LE-11	Ac. Sus.	12	5	Cone	½x2	Ribbon	M, T	20-30	10	600, 4.5k	8	27½x16½x11¾	Oiled Wal.	Brown	65	379.50	
	LE-12	Ac. Sus.	10, 12	5	Cone	½x2	Ribbon	M, T	20-30	10	200, 600, 4.5k	8	41½x17x13¾	Oiled Oak Opt.	Opt.	98	469.50	
LINN PRODUCTS	DMS Isobarik	Isobarik	(2)12x9	(2)5	Cones	(2)1	Domes	25-20 ±3	50	375, 3k	4/3	15x16½x30	Teak	Black Foam	100	3740.00 Pair		
	Sara Isobarik	Isobarik	(2)8			1	Dome	36-20 ±3	40	3k	4/3	9½x13¼x17	Teak	Black Foam	33	1590.00 Pair		
	KAN	Inf. Baf.	5			1	Dome	70-20 ±3	25	3k	8/7	7½x6¾x12	Teak	Black Foam Cloth	11	625.00 Pair		
MAGNEPAN	SMG	Planar		370 Sq. In.	Planar	58	Planar	No	90	20	2.4k	4	24½x48½x1¾	Oak	Brown Knit	35	405.00 Pair	
	MGI Improved	Planar		428 Sq. In.	Planar	68	Planar	No	87	30	1.6k	5	22x60x2	Oak	Ivory Cloth	35	625.00 Pair	
	MGIIB	Planar		500 Sq. In.	Planar	68	Planar	No	84	75	500	5	22x71x2	Oak	Ivory Cloth	50	950.00 Pair	
MARANTZ	M16		12	5		1½, 1	Dome, ST	M	20-28	5	700, 2.4k, 5.5k	8	19x45x12¾	Oiled Wal.			1500.00 Pair	
	600		10	5		1½, 1	Dome, ST	M	25-28	5	750, 2.4k, 5.5k	8	14½x36x14¾	Oiled Wal.	Cloth		1300.00 Pair	
	400		10	5		1½	Dome	M	30-21	5	800, 2.4k	8	14½x25x11½	Wal.			640.00 Pair	
	M2		6½			1	Dome		30-20	30	2.4k	4	8½x13½x7½	Oiled Wal.			380.00 Pair	
MARIAH ACOUSTICS	LS-1A	Bass Ref.	10	5	Cone		Ribbons	M, T	38-18 ±2	87	40	125, 3.5k	8		Opt.	Opt., Cloth	66	1495.00 Pair
	LS-2	Dual Port	(2)8			1	Dome	No	32-20 ±2	89.5	35	3k	4	14 Dia. x38	Oiled Oak	Black Cloth	36	650.00 Pair
MASTERCRAFT AUDIO	SP MK 1	Ac. Sus.	8			1	Dome	T	37-27 ±3	93	30	2k	8/4	11½x6x26	Oiled Wal.	Black Cloth	28	300.00
	Improved Black Box BB-1	Ac. Sus.	8			1	Dome	T	40-20 ±3	95	20	1.5k	8/4	10½x14½x6¼	Black	Black Cloth	17	135.00
MATRECS ELECTRONICS	MA 216	Bass Ref.	(2) 12	6	Cone	(2) 1	Domes	M, T	20-22 ±3	95	8	1k, 5k	4	50x15½x10½	Wal. Vinyl	Black Cloth	76	429.00
	MA 206	Air. Sus.	(2) 10	6	Cone	1	Dome	M, T	25-22 ±3	93	8	1k, 5k	4	32½x14¾x11	Wal. Vinyl	Black Cloth	49	319.00
	MA 156	Bass Ref.	15	4½	Cone	(2) 1½	Phen. Rings		30-22 ±3	8	2.5k, 5k	8	28x19½x10½	Wal. Vinyl	Black Cloth	38	169.00	
	MA 136	Air. Sus.	12	6	Cone	1	Dome	T	35-22 ±3	90	8	1k, 5k	8	24x15x10	Wal. Vinyl	Black Cloth	34	219.00
	MA 126	Air. Sus.	12	4½	Cone	1½	Phen. Ring		30-22 ±3	8	2.5k, 5k	8	24x15x10½	Wal. Vinyl	Black Cloth	26	149.00	
	MA 106	Air. Sus.	10			3	Phen. Ring		35-20 ±3	5	5k	8	20x12½x10½	Wal. Vinyl	Black Cloth	25	99.00	
	MA 86	Air. Sus.	8			3	Phen. Ring		35-20 ±3	2	5k	8	18½x11½x9	Wal. Vinyl	Black Cloth	15	79.00	
McINTOSH LABORATORY	XR14	Sealed	10	5, 1½	Cone, Dome	1	Dome		85	30	700, 1.4k, 7k	8	30½x14½x10	Oiled Wal.	Black Cloth	52		
	XR16	Sealed	12	8, 1½	Cone, Dome	1	Dome		86	30	250, 1.4k, 7k	8	35½x17½x11¾	Oiled Wal.	Black Cloth	75		
	XR19	Sealed	(2)12	8	Dome	(12)1	Domes		86	30	100, 250, 1.5k	8	45½x25½x12½	Oiled Wal.	Black Cloth	151		
	XRT20	Sealed Sat. & Subwoof.	(2)12	8	Cone	(24)1	Domes		87	30	250, 1.5k	8	Three Pieces	Oiled Wal.	Black Cloth	159 Sys.		
MERIDIAN	M2	Bass Ref.	(2) 4½			1	Dome		38-35 ±3		1.75k	8	20x7½x15	Opt.	Opt., Cloth	40	1995.00 Pair	
MESA ELECTRONICS	15	Ac. Sus.	3			2¼	Cone		60-20	89	5	3k	4/8	6x3¾x3	Resin Asb. Plas.	Black Alum.	5½ Pr.	129.95 Pair
	20ZX	Pas. Rad.	3½			2			60-20	89	10	6k	4	8½x4¼x6	Black Alum.	Black Alum.	6 Pr.	118.00 Pair
	25E		(2) 3			¾x1½	Horn		60k-20k	88	5	8k	4	3¾x8x3¾	Resin Asb. Plas.	Black Alum.	8½ Pr.	159.95 Pair
	30S	Ac. Sus.	4			1	Dome		60-25	91	10	3.5k	4 & 8	7¼x4¾x4¼	Resin Asb. Plas.	Black Alum.	5 Pr.	190.00 Pair
(Continued)	50	Ac. Sus.	5	3		1½	Horn		50-25	92	10	1.8k, 9k	4 & 8	9½x6½x4¾	Wal. Vinyl	Black Cloth	6½	150.00

# LOUDSPEAKERS

MANUFACTURER	Model	Enclosure or System Type	Woofer Dia., Inches		Midrange Dia., Inches		Tweeter Dia., Inches		Legal Crossover Hz = Woofer	Legal Crossover Hz = Midrange	Anechoic Freq. Response Hz to kHz, ± dB	Recommended Min. Amp. Pwr., Watts	Crossover Frequencies, Hz		Impedance Ohms Nominal/Minimum	Dimensions, Inches	Finish	Grille Color and Material	Weight, Lbs.	Price, \$
MESA ELECTRONICS (Continued)	75	Ac. Sus.	6½	3½		1	Dome		50-25	89	10	800.4k	4	12½x9¼x7½	Wal. Vinyl	Black Cloth	11	175.00		
	45	Bass Ref.	8			3	Dome	T	45-22 ±5	90	15	85.3k	8	21x11½x9½	Wal. Vinyl	Black Cloth	23	139.00		
	65	Bass Ref.	10			3	Dome	M, T	40-22 ±5	91	15	80.2.5k	8	23x12½x10½	Wal. Vinyl	Black Cloth	32	199.00		
	85	Bass Ref.	10	5		3	Dome	M, T	36-22 ±5	92	15	65,900.6k	8	25¼x14¼x11¼	Wal. Vinyl	Black Cloth	45	269.00		
	125	Bass Ref.	12	5		3	Dome	M, T	30-22 ±5	92	15	65,900.6k	8	27½x16x13	Wal. Vinyl	Black Cloth	55	325.00		
	T200	Bass Ref.	(2) 12	5		3	Dome	M, T	40-20 ±5	92	15	65,900.6k	8&5	43x14½x13¾	Wal. Vinyl	Black Cloth	90	440.00		
MICRO-ACOUSTICS	1 dx	Ac. Sus.	10			(4)1½	Cones	T, ST	30-22 ±4	89	18	1.5k, 2k	8/4.5	25¼x15½x12¼	Wal. Vinyl	Brown Cloth	32½	286.95		
	2 dx	Ac. Sus.	10			(2)1½	Cones	T	30-20 ±4	89	12	1.8k	8/6	25¼x15½x12¼	Wal. Vinyl	Brown Cloth	32½	219.95		
	3dx	Bass Ref.	8			2	Cone		33-20 ±4	91	7	2.5k	8/6.5	12½x22x9½	Wal. Vinyl	Brown Foam	25	164.95		
	MS-1	High Freq. Array				(4) 1¼	Cones	T	3.5k-30k ±2			3.5k/7k	16	4x9x5	Oiled Wal.		2	140.00 Pair		
MICRON III	GS-5	Ac. Sus.	5¼			1	Dome		70-21 ±5	87	25	2.4k	8/4	10x7x7	Black	Black Cloth	18	300.00 Pair		
	GS-10 Subwoof.	Tuned Port	10						32-200 ±5	87	25	90	8/6	19x20½x17½	Black	Black Cloth	61	300.00		
MILLER & KREISEL	Satellite-IA	Ac. Sus.	(2) 5			(2) 1	Domes	T	70-22 ±3	90	7.5	2k	4	21x7¼x7½	Opt.	Black Cloth	19	540.00 Pair		
	Satellite-II	Ac. Sus.	6½			1	Dome	T	65-20 ±3	88	10	2k	4	12¼x9¼x8	Opt.	Black Cloth	15	375.00 Pair		
	Volks-woofer-A	Subwoof.	12					W	18-100 ±3	60 Inc.	100	200	17¼x18¼x15¼	Opt.	Black Cloth	50	555.00			
	Volks-woofer-III	Subwoof.	12					W	25-100 ±3	40 Inc.	100	200	17½x17½x15¼	Opt.	Black Cloth	48	350.00			
	Goliath II-A	Ac. Sus.	12						26-150	30	Sel.	4	17¼x18¼x15¼	Opt.	Black Cloth	46	275.00			
	Bottom End II A	Ac. Sus. Subwoof.	12						26-150	30		4	17¼x18¼x15¼	Opt.	Black Cloth	41	215.00			
MIRAGE	SM-5	Ac. Sus.	8			1	Dome		59-18 ±3	92	10	3k	6/4	17.9x11.8x8.3	Wal. Vinyl	Brown Cloth	49 Pr.	239.00 Pair		
	SM-1	Ac. Sus.	8			1	Dome		56-18 ±2	90	15	3k	6/4	24x12.6x9	Wal. Vinyl	Brown Cloth	26.6	339.00 Pair		
	SM-3	Bass Ref.	10			1	Dome		37-19 ±1.5	92	15	2.5k	6/4	37x15.3x11.4	Wal. Vinyl	Brown Cloth	57.7	659.00 Pair		
MISSION ELECTRONICS	700	Bass Ref.	8			¾	Dome	No	60-20 ±3	87	15		8	18½x10¼x9½	Opt.	Black Foam	14½	397.00 Pair		
	717	Bass Ref.	8			1	Dome	No	50-20 ±3	91	15		8	19½x10½x10	Opt.	Black Foam	17½	597.00 Pair		
	727	Bass Ref.	8			1	Dome	No	45-20 ±3	91	20		8	21¼x11¼x10½	Opt.	Black Foam	22	797.00 Pair		
	770	Bass Ref.	8			1	Dome	No	40-20 ±2.5	87	30	2.7k	8/6	23x12x12	Opt.	Black Foam	27½	997.00 Pair		
	770SM	Bass Ref.	8			1½	Dome	No	35-20 ±2.5	90	30		8/6.5	25x12x12	Opt.	Black Foam	50	1600.00 Pair		
	780	Active Ref.	(2)8			1½	Dome	No	32-20 ±2	92			8	43x16x16	Opt.	Black Foam	75	5000.00 Pair		
MITOM INDUSTRIES	Laser L4	Ac. Sus.	4½			1	Dome		50-20	87	20	5k	8/4	11½x6½x6¼	Birch Vinyl	Black Cloth	8	100.00		
	Laser L8	Bass Ref.	8			1	Horn Dome		45-20	90	10	4.5k	8/4	18½x11x9¼	Birch Vinyl	Black Cloth	23	140.00		
	Laser L10	Bass Ref.	10			1	Horn Dome		38-20	92	10	4k	8/4	20x12x10½	Birch Vinyl	Black Cloth	26	190.00		
	Laser L103	Bass Ref.	10	4½	Cone	1	Horn Dome	T	30-20	94	15	1.25k, 4.5k	8/4	20x12x10½	Wal. Vinyl	Black Cloth	31	275.00		
	Laser L103T	Bass Ref.	10	4½	Cone	1	Horn Dome	M, T	28-20	94	15	1.25k, 4.5k	8/4	24x14¼x12¼	Wal. Vinyl	Black Cloth	45	325.00		
	Laser L123	Bass Ref.	12	4½	Cone	1	Horn Dome	M, T	26-20	96	15	1.25k, 4.5k	8/4	24x14¼x12¼	Wal. Vinyl	Black Cloth	45	375.00		
	Laser L123T	Bass Ref.	12	4½	Cone	1	Horn Dome	M, T	24-20	98	15	1.25k, 4.5k	8/4	29½x17x12½	Wal. Vinyl	Black Cloth	58	425.00		
	Laser L153	Bass Ref.	15	6	Cone	1	Horn Dome	M, T	22-20	96	15	1.25k, 4.5k	8/4	30x18x17	Wal. Vinyl	Black Cloth	63	550.00		
MITSUBISHI	MS-40	Ac. Sus.	12	4	Cone	1½	Dome	M, T	25-20 ±4	87	50	600.5k	6/5	15½x15¼x34	Oiled Wal.	Brown Cloth	77	550.00		
	MS-30	Ac. Sus.	12	4	Cone	1¼	Dome	M, T	30-20 ±4	88	30	800.5k	6/5	15½x13½x26	Oiled Wal.	Black Cloth	55	395.00		
	MS-10	Ac. Sus.	10			2%	Cone	T	35-20 ±4	87	30	1.5k	6/5	11½x12½x22½	Oiled Wal.	Black Cloth	32	165.00		
MORDAUNT-SHORT (Continued)	Carnival	Inf. Baf.	8			½	Cone		85-17		10	3.5k	8	15¼x9½x5¼	Opt.	Brown Cloth	27	305.00 Pair		
	Festival	Inf. Baf.	8			¾	Dome		75-20 ±3		12	3.5k	8	17x11x7¼	Opt.	Brown Cloth	33	425.00 Pair		

# LOUDSPEAKERS

MANUFACTURER	Model	Enclosure or System Type	Woofer Dia., Inches		Midrange Dia., Inches		Tweeter Dia., Inches		Level Controls		Anchored Freq. Response		Recommended Min. Amp. Pwr., Watts	Crossover Frequencies, Hz		Dimensions, Inches	Finish	Grille Color and Material	Weight, Lbs.	Price, \$
											Low	Midrange		High	Impedance, Ohms, Nominal/Minimum					
MORDAUNT-SHORT (Continued)	Pageant Signifier	Ported Bass Ref. Ported Bass Ref.	8			1	Dome	M.T	65-20 ±3		15	3.5k	8	21x13x9	Opt.	Brown Cloth	49	545.00		
			12	5	Cone	1	Dome	M.T	39-20 ±2		25	500.4k	8	31x15x13	Opt.	Brown Cloth	128	1740.00		
MOREL	Octave 3	Linear Phase Linear Phase Linear Phase Ac. Sus.	8.74	2	Dome	0.82	Dome		35-30 ±3	93	10	800.5k	6/4	42x13.77x15	Opt.	Black Knit	49	1100.00		
	MLP 409		12	2	Dome	0.82	Dome	M.T	29-30 ±3	95	10	800.5k	6/4	32x12½x15	Opt.	Black Knit	50	900.00		
	MLP 303		8.74	2	Dome	0.82	Dome	M.T	38-30 ±3	92	10	800.5k	6/4	19½x9½x12	Opt.	Black Knit	25	660.00		
	MLP-301		8.74			1.1	Dome	T	38-25 ±3	92	10	3k	6/4	19½x9½x12	Opt.	Black Knit	22	480.00		
	LA-205		8.74			1.1	Dome		38-25 ±3	92	10	3k	6/4	19½x9½x12	Opt.	Black Knit	18	320.00		
NEW ENGLAND TECHNOLOGY	Plus Crimson	Tuned Port Tuned Port Tuned Port Tuned Port Ac. Sus. Subwoof. Tuned Port Tuned Port Pas. Rad. Subwoof.	4			1	Dome		55-23	90	10	2.5k	8/6	12½x8½x7¼	Birch Vinyl	Black Cloth	12½	90.00		
	Plus Sienna		6			1½	Dome	T	50-18	92	5	1.8k	8/6	18x11x6½	Birch Vinyl	Black Cloth	18	105.00		
	Plus Green		8			1½	Dome	T	42-18	93	5	1.8k	8/6	24x14x6	Birch Vinyl	Black Cloth	25	140.00		
	Plus Emerald		10			(2) 1½	Domes	T	40-18	96	5	1.8k	6/4	30x16½x6	Birch Vinyl	Black Cloth	32½	210.00		
	Plus Bass		(2) 8						30-100	90	10	100	8/6	25x15x15	Birch Vinyl	Black Cloth	60	200.00		
	Burhoe White		8			1	Dome	T	35-23	90	10	1.8k	8/6	22x13½x10	Brown Foam	Black Cloth	34	180.00		
	Burhoe Blue		10	1½	Dome	1	Dome	M,T	30-23	93	10	1.8k, 2.5k	8/6	24½x14½x10½	Wal.	Brown Foam	42	275.00		
	Burhoe Infrared		10						20-100	90	20	100	6/4	14x18x30	Wal.	Black Cloth	105	425.00		
	OHM ACOUSTICS		Walsh 2	Vented						B,T		30			4/4	31 High, Tapers to 9% Sq.	Wood Ven.	Black		598.00
I		Vented	8,12	(2)1	Domes	1½	Dome	T,ST	32-21 ±3.5	10	100,2k,10k	4/4	33½x15½x15½	Opt.	Black Cloth	93	775.00			
H		Pas. Rad.	8	2	Phen. Ring	1	Dome	T	32-20 ±4	10	1.7k,5k	8/4	26½x15x10%	Oiled Wal.	Black Cloth	53½	400.00			
C2		Vented	10	2	Phen. Ring	1	Dome	(2)T	37-20 ±4	10	1.7k,5k	8/6	25x14x9%	Oiled Wal.	Black Cloth	43½	300.00			
L		Vented	8	2	Phen. Ring	2	Cone	(2)T	42-20 ±4	8	1.7k,10k	8/4	20x12x9%	Oiled Wal.	Black Cloth	35	220.00			
M		Vented	4	1	Phen. Ring		Dome		120-20 ±4	5	3.5k	4/4	7½x4½x4½	Alum.	Black Metal	6½	150.00			
N2		Vented	(2)8						32-140	10		8/6	15x16x15	Wal.	Black Cloth	55	385.00			
B2	Vented	6½,12			1	Dome	(4) T,M	37-20 ±4	10	200, 2.5k	4/4	19½x25x13¼/11	Oiled Wal.	Black Cloth	72	600.00				
ONKYO	HS-20	Ported	6½			2	Cone		60-20	15		6	7½x8½x11%	Silv.	Silv. Mesh	9%	99.95			
	E-100	Ac. Sus.	8			2x¾	DDM	T	40-70	89	15	2.5k	6	13½x21½x10%	Rswd. Vinyl	Black Cloth	25%	129.95		
	E-200	Ac. Sus.	11	4		2x¾	DDM	M,T	35-70	90	20	1k, 5k	6	16½x26¾x10%	Rswd. Vinyl	Black Cloth	40%	229.95		
	F-3000	Ac. Sus.	11	4	Planar	2x¾	DDM	M,T	35-70	89	40	1k, 7k	6	19½x31½x10%	Rswd. Vinyl	Black Cloth	44	349.95		
	F-5000	Ac. Sus.	12¼	4	Planar	2x¾	DDM	M,T	28-70	88	50	1.2k, 5k	6	19½x31½x10%	Rswd. Vinyl	Black Cloth	53%	499.95		
OPTONICA	CP-8101	Bass Ref.	8			2	Ring Cone		45-20 ±10	96	10	3.5k	8	19x16x34%	Vinyl	Black Cloth	27	180.00		
	CP-2121	Pas. Rad.	10			3	Cone		40-20 ±10	93	10	1.2k	8	14½x12½x28%	Vinyl	Black Cloth	39	360.00		
PERFECTIONIST AUDIO	One	Dual Trans. Line Subwoof.	(2)9x13					No	10-240 ±0.9	95	20	Bi-amp	8/4	72x27x24	Opt.	Brown Cloth	380	3600.00		
	Two	Trans. Line Subwoof.	8					No	18-240 ±0.9	93	25	Bi-amp	8/4	47x12x18	Opt.	Brown Cloth	95	2000.00		
PHASE LINEAR	P580	Bass Ref.	15	2½	Dome		Ribbon	M,T	28-120	91		950, 8k	8	18.3x28.3x17.3	Wal.	Brown Cloth	103	1200.00		
	P560	Bass Ref.	12	2½	Dome		Ribbon	M,T	28-120	91		950, 8k	8	15.3x27x15	Wal.	Brown Cloth	69	850.00		
	P530	Bass Ref.	12	5	Dome	1	Dome	M,T	30-30	95		1k, 5k	6.3	15x25x14.5	Wal.	Brown Cloth	55	500.00		
	P510	Bass Ref.	10	4	Cone	1	Dome	M,T	38-30	93		900, 4.8k	6.3	13.8x23x12.7	Wal.	Brown Cloth	36	300.00		
PHASE TECHNOLOGY	PC60	Air Sus.	6			1	Dome	T	40-20	85	25	1k	4	8x13½x8	Oiled Oak	Brown Cloth	30	300.00		
	PC70	Air Sus.	10	2	Dome	1	Dome	M,T	25-20	89	25	375, 3k	8	14¾x26x10½	Oiled Wal.	Brown Cloth	50	300.00		
	PC100	Air Sus.	(2) 10	3,1½	Domes	1	Dome	M,T	24-20	90	50	250,700,4k	8	14x42½x8	Oiled Wal.	Brown Cloth	80	550.00		

# LOUDSPEAKERS

MANUFACTURER	Model	Enclosure or System Type	Woofer Dia. - Inches		Midrange Dia. - Inches		Tweeter Dia. - Inches		Level Controls T=Midrange, F=Subwoofer	Anchored Freq. Response Hz to kHz, ±dB	dB SPL / 1 Watt / 1 Meter	Recommended Min. Amp. Pwr. - Watts	Crossover Frequencies, Hz		Impedance, Ohms; Nominal / Minimum	Dimensions, Inches	Finish	Grille Color and Material	Weight, Lbs.	Price - \$
PHASE TECHNOLOGY (Continued)	HT28	Bass Ref.	8		2	Cone		50-15	92	5	1.5k	8/	10% x 20 x 9%	Wal. Vinyl		37 Pr.				
	HT31	Bass Ref.	10	1½	Dome	2	Cone		40-17	92	10	700.3k	8/	13 x 23 x 10%	Wal. Vinyl			35		
	HT32	Bass Ref.	12	1½	Dome	2	Cone	T	35-17	94	10	700.3k	8/	14½ x 26 x 11%	Wal. Vinyl			44		
	HT42	Air Sus.	12	1½	Dome	1	Dome	M,T	30-20	94	25	600.2k	8/	15% x 27 x 11½	Wal. Vinyl			65		
	HT50T	Air Sus.	12	(2) 2	Domes	1	Dome	M	25-20	93	50	600.1.5k	8/	16 x 34½ x 11½	Wal. Vinyl			80		
PIONEER	HPM-1100	Bass Ref.	15¼	4¼	Cone	1¼	Cone	M,T	25-50	92.5	50	850, 2.5k, 16k	6.3	19% x 35% x 14¼	Wal. Ven. Vinyl	Black Cloth	70%	550.00		
	HPM-900	Bass Ref.	12	4	Cone	1¼	Cone	M,T	30-50	92.5	50	2.5k, 4k, 16k	8	15% x 26% x 15½	Vinyl	Black Cloth	51%	375.00		
	HPM-700	Bass Ref.	10	4	Cone	1¼	Cone	M,T	35-50	92.5	30	1.7k, 4k, 16k	8	13% x 24 x 12%	Vinyl	Black Cloth	32½	275.00		
	HPM-500	Bass Ref.	10			1¼	Cone	T	35-50	91	20	2.5k, 16k	8	12% x 22½ x 12½	Vinyl	Black Cloth	26%	195.00		
PLASMATRONICS	Hilli Type 1	Plasma, Inf. Baf.	14	6½	Cone		Plasma	T	18-100 ±3	107	100	130,700	8	57½ x 24½ x 20	Opt.	Black Cloth	580 Pr.	10,000.00	Pair	
POLK AUDIO	RTA 12B	Pas. Rad.	12	(2) 6½	Cones	1	Dome		26-20.5 ±2	94	10	50.2k	4	39 x 16 x 11½	Opt.	Black Cloth	75	500.00		
	10A	Pas. Rad.	10	(2) 6½	Cones	1	Dome		30-20.5 ±2	92.5	10	60.3k	6	28 x 16 x 11½	Opt.	Black Cloth	56	300.00		
	7B	Pas. Rad.	10	6½	Cone	1	Dome		33-20.5 ±2	91	10	60.3k	8	24 x 14 x 9¼	Opt.	Black Cloth	35	220.00		
	5A	Pas. Rad.	8	6½	Cone	1	Dome		40-20.5 ±3	90	10	60.3k	8	21½ x 10½ x 8½	Opt.	Black Cloth	29	160.00		
	LF14	Pas. Rad. Subwoof.	12	(2) 6½	Cones					92	10	Sel.	6	28 x 16 x 11½	Opt.	Black Cloth	65	300.00		
	Mini Minitor II	Pas. Rad.	4½	4½	Cone	1	Dome		60-20.5 ±2	92	10	100.3k	6	14 x 6 x 5	Opt.	Black Cloth	23 Pr.	250.00	Pair	
PSB SPEAKERS	Avette II	Ac. Sus.	8		¾	Dome		70-20 ±3	86	15	2.5k	8	18% x 10¼ x 10	Hick. Vinyl	Black Foam	22	265.00	Pair		
	Targa	Bass Ref.	8		¾	Dome		70-21 ±3	86	15	2.5k	8	20% x 10¼ x 10	Hick. Vinyl	Black Cloth	25	300.00	Pair		
	Avantini	Bass Ref.	7		1	Dome		90-20 ±2	85	20	1.7k	8	14½ x 8½ x 8¼	Hick. Vinyl	Black Cloth	15	320.00	Pair		
	Avantini/ Subwoofer	Sat. & Subwoof.	8	7	Cone	1	Dome		70-20 ±2	86	100	Adj.	8/4	Three Pieces	Hick. Vinyl	Black Cloth	100 Syst.	910.00	Syst.	
	Avante	Bass Ref.	8		1	Dome		70-20 ±2.5	87	15	1.5k	8	22¼ x 11½ x 10½	Hick. Vinyl	Black Cloth	24	390.00	Pair		
	Passif I	Pas. Rad.	8		1	Dome		70-20 ±2	87	15	1.5k	8	26 x 12½ x 10½	Hick. Vinyl	Black Cloth	30	500.00	Pair		
	Passif II	Pas. Rad.	8		1	Dome		60-20 ±2	87	15	1.5k	8	29% x 13% x 12%	Hick. Vinyl	Black Cloth	37	620.00	Pair		
	Project B2	Bass Ref.	8		1	Dome		70-20 ±1	87	15	2.2k	8	47 x 18½ x 13½	Opt.	Black Cloth	65	1300.00	Pair		
	Project B3	Bass Ref.	8		1	Dome		70-20 ±1.5	87	15	2.2k	8		Opt.	Black Cloth	50	1100.00	Pair		
PYRAMID	MET 7	Ac. Sus.	5		Cone	2	Cone		76-22 ±3	87	20	1k, 10k	4-8	7% x 5¼ x 10	Opt.	Black Metal	6.6	295.00	Pair	
	MET 8W	Sealed Box Subwoof.	12					27-200 ±3	88	40	100, 200	4-8	27 x 16¼ x 13	Opt.	Black Opt., Cloth	60	389.00			
	MET 10	Sealed Box	12	5	Cone	2	Cone, Ribbon		33-40 ±3	87	40	200, 1.2k, 8k, 9k	4	42 x 16¼ x 13	Wal. Ven. Cloth	Opt., Cloth	80	1375.00	Pair	
	T-9						Ribbon	T	8k-40k ±3	88	20	8k	6	5 x 7% x 5	Wal.	Opt., Cloth	10	395.00	Pair	
	T-1						Ribbon	T	3k-80k ±4	93	20	3.5k or 6.4k	10	4% x 7% x 4%	Black Alum. Black Vinyl	Black Foam	8½	1200.00	Pair	
	HF-1						Ribbon	T	3k-40k ±3	86	20	3.5k or 6.4k	8	5¼ x 7% x 7%	Black Vinyl	Black Foam	13½	596.00	Pair	
Q/LC AUDIO	Bass Module	Subwoof.	10					25-450 ±3	92	60		8/3	28 x 20 x 19	Wal. Grain Oiled Wal.	Black Cloth	80	425.00			
	Mini Monitor	Inf. Baf.	5		Cone	1	Dome		70-20 ±3	86	20	3k	8	8 x 12 x 7	Wal. Grain Oiled Wal.	Brown Cloth	10	425.00	Pair	
QUAD	ESL	ES Dipole						45-18	86			15					36	178.00		
	ESL-63	ES Dipole						35-20	86.5			8					36	3300.00		
DANIEL QUEEN LABORATORIES	CA2	Slot Loaded	10							50		8/6	14 Dia. x 52	Wal.	Bronze Metal	70	2500.00	Pair		
RADIAN RESEARCH	12-3	Ducted Port	12	5	Cone	1	Dome	M,T	35-20 ±3	93.5	15	900.6k	8/4	25¼ x 14¼ x 12	Wal. Vinyl	Black Knit	45	274.00		
	2-10-3	Pas. Rad.	(2) 10	5	Cone	1	Dome	M,T	35-20 ±3	93.5	15	900.6k	6/3.5	36¼ x 13 x 13¼	Wal. Vinyl	Black Knit	70	384.00		
	RR Sat.	Pas. Rad. Sat.	5			1	Dome		115-20 ±3	91.5	10	4k	8/6	9¼ x 6¼ x 5½	Wal. Vinyl	Black Knit	8	119.00		

# LOUDSPEAKERS

MANUFACTURER	Model	Enclosure or System Type	Woofer Dia. - Inches		Midrange Dia. - Inches		Tweeter Dia. - Inches		Level Control		Anchoic Freq. Response		Recommended Min. Amp. Pwr. - Watts	Impedance Ohms		Dimensions, Inches	Finish	Grille Color and Material	Weight, Lbs.	Price, \$
							Type			Hz to kHz, ± dB	dB SPL/1 Watt/1 Meter	Nominal/Minimum		Nominal/Minimum						
RADIAN RESEARCH (Continued)	12-3	Ducted Port	12	5	Cone	1	Dome	M,T	35-20 ±3	93.5	15	900, 6k	8/4	25½x14¼x12	Wal. Vinyl	Black Knit	45	274.00		
	2-10-3	Pas. Rad.	(2) 10	5	Cone	1	Dome	M,T	35-20 ±3	93.5	15	900, 6k	6/3.5	36¼x13x13¾	Wal. Vinyl	Black Knit	70	384.00		
	RR Sat.	Pas. Rad. Sat.	5			1	Dome		115-20 ±3	91.5	10	4k	8/6	9¼x6¼x5½	Wal. Vinyl	Black Knit	8	119.00		
	8-2	Ducted Port	8			4	Dome		50-20 ±4	91.5	15	3k	8/5	19x11x9	Wal. Vinyl	Black Knit	24	119.00		
	8-3	Ducted Port	8	5	Cone	4	Dome	T	54-20 ±3	92.5	15	3k, 8.5k	8/5	21x11½x9	Wal. Vinyl	Black Knit	26½	153.00		
	10-3	Ducted Port	10	5	Cone	1	Dome	M,T	40-20 ±3	93.5	15	700, 4.4k	8/5	23x12½x10	Wal. Vinyl	Black Knit	37	219.00		
	RR Sub	Pas. Rad. Subwoof.	10						35-115 ±2	90	100	115	8/6	16x18x16	Wal. Vinyl	Black Knit	48	319.00		
RADIO SHACK	Optimus T-200	Inf. Baf.	(2) 10	6½	Cone	1¼	Horn	M,T	50-20	90	25	800, 6k	8	34x12½x12½	Oiled Wal.	Brown Cloth	42	259.95		
	Mach One	Inf. Baf.	15	16	Horn	1¾x2½	Horn	M,T	25-20	88	30	900, 5k	8	28¾x17¾x12	Oiled Wal.	Brown Cloth	50	239.95		
	Optimus T110	Pas. Rad.	8				Dome	T	50-20	92	20		8	35½x12½x11½	Oiled Wal.	Brown Cloth		179.95		
	Optimus 10	Pas. Rad.	8			1½	Cone	T	42-20	90	10	2.5k	8	25x15½x10½	Oiled Wal.	Brown Cloth	45	139.95		
	Optimus T-70	Tuned Port	8			1	Dome	T	55-20	90	10	3k	8	29¼x10¼x10¾	Oiled Wal.	Brown Cloth		129.95		
	Nova-10	Pas. Rad.	8			2½	Cone	T		90			8	22x12¼x10¼	Oiled Wal.	Brown Cloth		129.95		
	MC 2001	Tuned Port	8			1¾	Cone		50-18	90	10	2.5k	8	22½x13x17½	Oiled Wal.	Brown Cloth	18	99.95		
	Minimus 11	Inf. Baf.	5			1	Dome		50-20	90	10		8	10½x7x6¼	Metal Wal.	Opt.	10	79.95		
	Nova 5	Bass Ref.	8			2½	Cone		50-18	90	10	2.8k	8	19x10¼x7½	Wal.	Lattice	14	79.95		
	MC-1401	Tuned Port	8			1¾	Cone		80-20	91	10	2.5k	8	18x11½x7½	Oiled Wal.	Brown Cloth	14	69.95		
MC-1200	Inf. Baf.	8			2½	Cone		85-17	86	10	4k	8	17¾x10¾x7½	Oiled Wal.	Brown Cloth	15	59.95			
Minimus 7	Inf. Baf.	5			1	Dome		50-20	83	10	2.5k	8	7½x4½x4¼	Wal. Opt.	Metal	4½	49.95			
REGA RESEARCH	Rega	Bass Ref.	6½			1	Dome	No	30-25 ±3	87	10	3k	8	24x9½x11	Wood Grain	Black Cloth	28	450.00 Pair		
REVOX	BR 530	Bass Ref.	12½	2	Dome	¾	Dome		48-25 ±3	84	20	750, 3k	4	15¼x24x13½	Oiled Wal.	Brown Cloth	35	439.00		
	Symbol B	Pas. Rad.	12½	2	Dome	1	Dome	M,T	27-22 ±3	89	20	700, 2.8k	4	18x43½x15%	Oiled Wal.	Brown Cloth	111	1299.00		
	Trifon	Inf. Baf. Sat. & Subwoof.	(2) 9½	6¾, 1½	Cone, Dome	¾	Dome		30-25 ±3	91	20	150, 1.3k, 3.2k	4	Three Pieces	Oiled Wal.	Brown Cloth	240 Sys.	1699.00 Syst.		
REYNOLDS ADVANCE	A2	Pas. Rad.	8			1	Dome		30-20 ±3	90	15	2k	8	10½x14½x26½	Opt.	Brown Cloth	44	209.00		
	V2	Ac. Sus.	8			1	Dome		45-20 ±3	92	15	1.8k	8	9½x11½x20	Opt.	Brown Cloth	24	139.00		
	D2	Vented	8			4¼	Phen.		45-17 ±4	93	10	2.5k	8	7x12x17½	Vinyl	Brown Cloth	20	99.00		
	C2	Pas. Rad.	10			1	Dome		27-20 ±3	90	20	2k	8	11½x15x35	Oiled Wal.	Brown Cloth	55	350.00		
	A22	Pas. Rad.	(2) 8			(2) 1	Domes		27-20 ±3	90	15	2k	7	10½x14½x52	Oiled Wal.	Brown Cloth	80	450.00		
ROGERS	LS 5/8	Bass Ref.	12		Cone	1¼	Dome	No	40-20 ±3	94	100	3k	8	17½x15½x30	Opt.	Black	70½	6600.00 Pair		
	Studio 1	Bass Ref.	8	1	Dome	1	Dome	No	50-20 ±1.5	86	50	3k, 14k	8	25x12x12	Opt.	Black	31	1050.00 Pair		
	LS 3/5a	Inf. Baf.	5		Cone	1	Dome	No	70-20 ±3	82	50	3k	15	12x7½x6¾	Opt.	Black	11½	625.00 Pair		
ROGERSOUND LABORATORIES	Formula 30	Pas. Rad.	8			2¼	Ring		50-19	83	8	1.5k	8	23x12x9	Wal. Vinyl	Brown Cloth	33	109.95		
	Formula 25	Pas. Rad.	8			2½	Cone		45-20	87	8	1.5k	8	25½x14¼x11	Wal. Vinyl	Brown Cloth	43	135.00		
	Formula 20	Bass Ref.	12	5	Cone	2¾	Ring		40-19	88	8	1k, 6k	8	25½x14¼x11	Wal. Vinyl	Brown Cloth	45	185.00		
	Formula 40	Bass Ref.	12	5	Cone	2½	Cone	M,T	40-20	88	10	1k, 4k	8	25½x14¼x11	Wal. Vinyl	Brown Cloth	45	249.95		
	Formula 60	Pas. Rad.	12	5	Cone	2½	Cone	M,T	32-20	88	10	1k, 4k	8	38x15x11	Wal. Vinyl	Brown Cloth	58	279.95		
	3300	Bass Ref.	12	5	Cone	¾	Dome	M,T	35-22	87	15	800, 5k	8	25x14½x11½	Wal. Vinyl	Black Cloth	49	339.95		
	3600	Bass Ref.	12	5	Cone	1	Dome	M,T	35-22	87	15	800, 5k	8	25x14½x11½	Opt.	Black Cloth	50	389.95		
	Sierra	Pas. Rad.	12	5	Cone	1	Dome	M,T	25-22	88	15	1k, 5k	8	40x14½x12½	Opt.	Opt., Cloth	71	489.95		
	Nevada	Ac. Sus.	8, 12	5	Cone	2x5¼	Horn	M,T	28-20	90	10	1k, 4k	4	26½x17x13½	Opt.	Opt., Cloth	63	615.00		
	6600H	Bass Ref.	(2) 12	(2) 5	Cones	2x5¼	Horn	M,T	25-20	96	8	800, 4k	4	46x18x11	Wal.	Black Cloth	90	679.95		
	Minicron 100	Ac. Sus.	4			1	Dome		70-20	94	10	2.5k	8	7x4½x4	Black	Black Mesh	10½ Pr.	249.95 Pair		
	Magnacron	Ac. Sus.	6½			1	Dome		60-20	89	10	2k	8	13½x8¼x8	Wal.	Brown Cloth	12	169.95		

# LOUDSPEAKERS

MANUFACTURER	Model	Enclosure or System 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 Color and Material	Weight, Lbs.	Price, \$
									Hz to Hz	dB SPL / 1 Meter	Nominal	Minimum								
RTR	G-35	Pas. Rad.	6½		1	Dome			40-22	89	10	3k	8	11x19¼x7¼	Wal. Vinyl	Black Knit	18	99.95		
	G-40A	Pas. Rad.	8		1	Dome	T	35-22	90	10	2.5k	6	12x23x9½	Wal. Vinyl	Black Knit	31	149.95			
	G-80	Pas. Rad.	8		1	Dome	T	32-25	90	10	2.5k	6	14¼x25x11	Wal. Vinyl	Black Knit	40	189.95			
	G100	Pas. Rad.	10		1	Dome	T	30-25	91	10	2.5k	6	14¼x30x11½	Wal. Vinyl	Black Knit	45	249.95			
	G200	Pas. Rad.	10		1	Dome	T	25-25	91	10	2.5k	6	14½x36x12½	Wal. Vinyl	Black Knit	62	299.95			
	G350	Pas. Rad.	10	1½	Dome	1	Dome	M,T	22-25	91	10	1.5k, 9k	6	18x38x11	Oiled Wal.	Black Knit	75	399.95		
	75D	Ac. Sus.	10	1½	Dome	1	Dome	M,T	40-20 ±3	90.5	20	1.25k, 10k	6	14¼x25¼x11½	Wal. Vinyl	Black Knit	48	249.95		
	300D	Ac. Sus.	(2) 10	1½	Dome	1	Dome	M,T	36-20 ±2	90.5	25	1.25k, 10k	4	14½x42x12½	Oiled Wal.	Black Knit	75	399.95		
	600D	Ac. Sus.	(2) 12	(2) 1½	Domes	(2) 1	Domes	M,T	32-20 ±2	91.5	25	950, 10k	4	16½x48x16½	Oiled Wal.	Black Knit	112	599.95		
	4.1	Ac. Sus.	4		1	Dome			55-25	84	10	3k	4	4¾x7¾x4½	Wal. Black	Black Metal	6¼	199.95 Pair		
	6.1	Ac. Sus.	6		1	Dome	T	40-40	80	50	1.5k	4	10¾x20½x7¾	Oak	Brown Knit	16½	330.00			
	DR-1	Pas. Rad.	12, (2) 10	14	ES	14	ES	T	30-30 ±2		75	325	8	16½x49x16½	Oiled Wal.	Black Knit	165	1800.00		
	DAC-1	Subwoof.	12						16-150	90	40	120	6	29½x21¼x28	Oiled Wal.	Black Knit	135	600.00		
DAC-2	Subwoof.	(2) 8						28-400	84	50	Set.	6	20x28x16	Wal. Opt.	Black Knit	75	350.00			
SANSUI	SP-L750	Pas. Rad.	12		3, 1½	Horns	T, ST	30-40	94		1.5k, 12k	8/	16¼x34¼x13¼	Wal. Ven.	Brown Cloth	42.3	650.00			
	SP-L550	Bass Ref.	12		3, 1½	Horns	T, ST	35-40	93		1.5k, 12k	8/	15¼x25¼x13¼	Wal. Ven.	Brown Cloth	38.4	500.00			
	SP-X9	Bass Ref.	17½	6½	Cone	(2) 6x2, (3)1½	Horns, Cones	22-23	100		1k, 7k, 10k, 15k	8/	18½x27½x10	Wal. Grain	Brown Wood	42.3	400.00			
	SP-X8	Bass Ref.	17½	6½	Cone	(2) 6x2, (3)1½	Horns, Cones	22-23	100		1k, 6k, 10k	8/	18½x27½x10	Wal. Grain	Brown Wood	40.6	350.00			
	SP-X7	Bass Ref.	16	4¾	Cone	(2) 6x2, (3)1½	Horn Cones	30-22	97		2k, 7k, 12k	8/	17¼x26¼x10	Wal. Grain	Brown Wood	34.6	300.00			
	SP-X6	Bass Ref.	13	4¾	Cone	(2) 6x2, 1½	Horn, Cone	30-22	95		2.5k, 8k, 16k	8/	14¼x24¼x10	Wal. Grain	Brown Wood	26.7	250.00			
	SP-M1		4		1	Dome		45-20	85		2.5k	8/	5x8x4¼	Wal. Ven.	Brown Wood	4.2	250.00 Pair			
	J-33	Ac. Sus.	8¼		1	Dome		45-20	90		2k	6/	9½x16½x7½	Wal. Black	Black Mesh	15.4	450.00 Pair			
	J-11	Pas. Rad.	4		1	Dome		45-20	85		2.5k	5/	4¼x11¼x5½	Black	Black Mesh	6.4	290.00 Pair			
SARAS	ST200	Ac. Sus.	(2) 10	5	Cone	1	Dome	No			500, 5k	8		Sat. Wal.	Brown Cloth		700.00			
	ST100	Vented	10	5	Cone	1	Dome	No			350, 2.5k	5		Sat. Wal.	Brown Cloth		550.00			
	22	Ac. Sus.	12		1	Dome	No			2k	8		Sat. Wal.	Brown Cloth		275.00				
	11	Ac. Sus.	10		1	Dome	No			1.8k	5		Sat. Wal.	Brown Cloth		225.00				
S.C.D.	J.C. Mini Monitor	Ac. Sus.	5		4	Ribbon		40-45	87	15	7k	8/5	10x8½x7½	Birch Vinyl	Black Plas.	12	125.00			
	J.C. Maxi Monitor	Vented	6½		4	Ribbon		30-45	90	15	5.2k	8/5	17x12x10	Birch Vinyl	Black Plas.	22	165.00			
	J.C. Tower	Dipole	(8) 6½	Cones	(8) 4	Ribbon		80-45 ±3	93	200	80, 4.8k	8/4	72x36x3	Birch Vinyl	Black Cloth	97	1450.00			
H. H. SCOTT	Pro100B	Air Sus.	15	(2) 4½	Cones	1	Dome	M,T	36-20 ±4	94	20	700, 3.5k	4	29¼x19x14½	Oiled Wal.	Brown Knit	67	730.00		
	197BH	Air Sus.	15	4½	Cone	1	Dome	M,T	38-20 ±4	92	15	750, 3.5k	8/6	32x17x10¼	Hick. Vinyl	Brown Knit	55	360.00		
	197B	Air Sus.	15	4½	Cone	1	Dome	M,T	38-20 ±4	95	15	750, 3.5k	8/6	27¼x16¼x13¼	Hick. Vinyl	Brown Knit	54	360.00		
	196B	Air Sus.	12	4½	Cone	1	Dome	M,T	38-20 ±4	96	15	800, 3.5k	8/6	25½x15x10½	Wal. Vinyl	Brown Knit	42	280.00		
	186B	Air Sus.	10	4½	Cone	1	Dome	M,T	38-20 ±4	95	10	900, 3.5k	8/6	24x13½x10½	Wal. Vinyl	Brown Knit	33	250.00		
	199T	Air Sus.	12	4½	Cone	1	Dome	M,T	38-20 ±4	92	15	800, 3.5k	8/6	36x15x11½	Hick. Vinyl	Brown Knit	50	360.00		
	188T	Air Sus.	10	4½	Cone	1	Dome	M,T	38-20 ±4	95.4	10	900, 3.5k	8/6	33¾x13¾x10½	Hick. Vinyl	Brown Knit	44	280.00		
	177BL	Air Sus.	8	5	Cone	1¼	Phen. Ring		50-18 ±4	92.5	7	1.2k, 3.5k	8/6	21½x11x9½	Hick. Vinyl	Brown Knit	22	150.00		
	176BL	Air Sus.	8		1¼	Phen. Ring		50-18 ±4	91	5	3.5k	8/6	21½x11x9½	Hick. Vinyl	Brown Knit	21¼	110.00			
	166	Air Sus.	6½		1	Dome		55-20 ±4	92.5	10	2.2k	8/6	13x7¾x6½	Hick. Vinyl	Brown Cloth	10½	145.00			
SERVOLINEAR	II	Periphonic	10	4½	Cone	1	Pz.	M,T	40-20 ±3	75	25		8/7	14x14x26½	Rswd.	Black Cloth	55	440.00 Pair		
	III	Periphonic	8, 10	4½	Cone	1	Pz.	M,T	35-20 ±3	75	50		8/7	16x16x31	Rswd.	Black Cloth	78	660.00 Pair		

# LOUDSPEAKERS

MANUFACTURER	Model	Enclosure or System Type	Woofer Dia. - Inches	Midrange Dia. - Inches	Midrange Type	Tweeter Dia. - Inches	Tweeter Type	Tweeter 1 Type	Legal Control: Midrange: Hz to kHz, ± dB	Legal Control: Tweeter: Hz to kHz, ± dB	Anechoic Freq. Response	Recommended Min. Amp. Pwr. - Watts	Crossover Frequencies, Hz	Impedance, Ohms: Nominal/Minimum	Dimensions, Inches	Finish	Grille Color and Material	Weight, Lbs.	Price, \$
SERVILINEAR (Continued)	IV	Periphonic	8,10	4½	Cone	(3) 1	Pz.	M, T	30-20 ±3	75	75	8/7	17x17x34	Rswd.	Black Cloth	88	880.00		
	V	Periphonic	8, (2) 10	4½, 8	Cones	(3) 1	Pz.	M, T	25-20 ±3	75	100	8/7	18x18x43	Rswd.	Black Cloth	108	1320.00		
	VI	Periphonic	(2) 10, 12	4½, 8	Cones	(3) 1	Pz.	M, T	20-20 ±3	75	150	8/7	19x19x46	Rswd.	Black Cloth	125	1760.00		
	VII	Periphonic	10,12,15	4½, 8	Cones	(5) 1	Pz.	M, T	20-20 ±3	75	200	8/7	24x24x52	Rswd.	Black Cloth	225	2200.00		
	Audiograph II	Sat. & Subwoof.	(2) 8, (2) 10, (4) 12	(2) 4½, (2) 5	Cones	(24) ¾	Pz.		20-20 ±3	80	100	4/3	Five Pieces	Rswd.	Black Cloth	280	2800.00		
	Audiograph I	Sat. & Subwoof.	(2) 8, (2) 12	(2) 8	Cones	(2) 1½, (2) 2	Cones, Pz.		30-20 ±3	80	50	4/3	Three Pieces	Rswd.	Black Cloth	150	1000.00		
SHAHINIAN ACOUSTICS	Obelisk	Trans. Line & Pas. Rad. Subwoof.	8	2	Dome	(2) ¾, (2) ¾	Domes		27-19 ±3	91	25	1.8k, 8.5k, 10k	6/3	12x24x27	Opt.	Opt.	50	700.00	
	Contra-Bombarde Arch	Pas. Rad.	(2) 8						17-200 +0, -3	90	50	Ext.	8/4	27x19x37	Opt.		188	1250.00	
		Pas. Rad.	8	2	Dome	¾, ¾	Domes		30-19 ±3	92	25	1.8k, 8.5k	6/3	27x22x17	Opt.	Opt.	35	385.00	
SHERWOOD	S-01	Pas. Rad.	6½			1	Dome	No	40-20 ±3	84	12	2.9k	8/8	23x12x9	Oiled Wal.	Black Cloth	32	179.95	
	S-02	Pas. Rad.	8			1	Dome	No	40-20 ±2.5	89	8	2k	8/8	31x15½x11½	Oiled Wal.	Black Cloth	52	249.95	
	S-03	Pas. Rad.	10	2	Dome	1	Dome	No	40-20 ±2	89	8	500.5k	8/8	39x16x14½	Oiled Wal.	Black Cloth	75	399.95	
SHURE BROTHERS	SR112W	Bass Ref.	(2) 8				Horn	T	45-16 ±5	87	10	2.6k	8/6	23½x15½x16½	Wood Vinyl	Brown Cloth	46	397.00	
	SR112B	Bass Ref.	(2) 8				Horn	T	45-16 ±5	87	10	2.6k	8/6	23x15x15¼	Vinyl	Black Cloth	39	385.00	
	SR116B	Bass Ref.	(2) 8				Horn	T	45-16 ±5	87	10	2.6k	8/6	23x15x15¼	Vinyl	Black Cloth	41	436.00	

## Future Sonics

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## PYRAMID

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For further information contact our Customer Service Department

# LOUDSPEAKERS

MANUFACTURER	Model	Enclosure or System Type	Woofer Dia., Inches	Midrange Dia., Inches	Midrange Type	Tweeter Dia., Inches	Tweeter Type	Level Controls	Frequency Range, Hz to kHz	Impedance, Ohms	Recommended Min. Amp. Pwr., Watts	Crossover Frequencies, Hz	Impedance, Ohms, Minimum	Dimensions, Inches	Finish	Grille Color and Material	Weight, Lb.	Price, \$
SIARE	Delta 400	Vented	9	4 1/4	Cone	1	Dome		45-23 ±2	89	45	500, 4k	8/6	30 1/2 x 13 1/2 x 16 1/4	Oiled Wal.	Brown Cloth	66	850.00
	Fugue 400	Vented	8	4 1/4	Cone	1	Dome		45-22 ±2.5	89	20	600, 4k	8/6	30 1/2 x 11 x 14 1/4	Oiled Wal.	Brown Cloth	44	500.00
	Sigma 400	Vented	8	3	Cone	1	Dome		50-20 ±5	89	20	700, 3k	8/6	26 1/2 x 11 x 14 1/4	Oiled Wal.	Brown Cloth	36	400.00
	Gamma 400	Vented	8	3	Cone	1	Dome		50-20 ±5	89	20	700, 3k	8/6	23 1/2 x 11 x 10 1/4	Wal. Birch Vinyl	Brown Cloth	24	298.00
SONIC INTERNATIONAL	DB 10.8	Pas. Rad.	12	5	Cone	2 1/4, 3	Cone, Pz.	M, T	18-40	92	25	2k, 4k, 8k	8/5	39 x 16 x 14 1/2	Birch Vinyl	Black Cloth	72	399.95
	DB 10.6	Vented	12	5	Cone	2 1/4, 3	Cone, Pz.	M, T	20-40	92	25	2k, 4k, 8k	8/5	26 1/2 x 15 1/2 x 14	Birch Vinyl	Black Cloth	45	349.95
	DB 10.4	Vented	10	5	Cone	2 1/4, 3	Cone, Pz.	M, T	24-40	90	25	2k, 4k, 8k	8/5	23 1/2 x 13 x 13	Birch Vinyl	Black Cloth	42	299.95
	DB10.3	Vented	6 1/2			4	Ribbon		30-45	90	10	5.2k	8/6	17 x 12 x 10	Birch Vinyl	Black Cloth	20	299.95
	DB 10.2	Ac. Sus.	5			4	Ribbon		40-45	88	10	7k	8/6	10 1/2 x 7 1/2 x 7 1/2	Birch Vinyl	Black Cloth	12	249.95
	MX 640	Vented	12	5	Cone	(2) 2 1/2	Phen. Rings	M, T	20-20	91	15	2k, 8k	8/5	26 x 15 x 10 1/2	Birch Vinyl	Black Cloth	35	299.95
	MX 460	Vented	10	5	Cone	2 1/2	Phen. Ring	M, T	25-20	90	15	2k, 8k	8/5	23 x 13 x 10 1/2	Birch Vinyl	Black Cloth	32	199.95
	MDX 4001	Vented	12	5	Cone	(2) 2 1/2	Phen. Rings	M, T	20-20	91	15	2k, 8k	8/5	26 x 15 x 10 1/2	Birch Vinyl	Black Cloth	35	199.95
	MDX 3001	Vented	10	5	Cone	2 1/2	Phen. Ring	M, T	25-20	90	15	2k, 8k	8/5	23 x 13 x 10	Birch Vinyl	Black Cloth	32	179.95
	S-4000	Vented	12	5	Cone	(2) 3	Cone		20-20	92	10	2k, 8k	8/4	26 x 15 x 10 1/2	Birch Vinyl	Black Cloth	33	189.95
	S-2000	Vented	10	5	Cone	3	Cone		25-20	90	10	2k, 8k	8/4	23 x 13 x 10 1/2	Birch Vinyl	Black Cloth	31	149.95
	S-1000	Pas. Rad.	8			3	Cone		50-20	90	5	8k	8/5	18 1/2 x 11 1/2 x 8 1/2	Birch Vinyl	Black Cloth	15	89.95
	MS-3	Ac. Sus.	4		2 1/2		Cone		50-20	86	5	8k	4/3	8 1/2 x 5 x 4 1/2	Birch Vinyl	Black Plas.	6	169.95
	MS-5	Ac. Sus.	4		2 1/2		Cone		50-20	86	5	8k	4/3	8 1/2 x 5 x 4 1/2	Birch Vinyl	Black Plas.	6	169.95
MS-7	Ac. Sus.	(2) 4		2 1/2		Cone		40-20	88	10	8k	8/5	10 1/2 x 8 x 7 1/2	Birch Vinyl	Black Plas.	12	229.95	
SONIC SYSTEMS	Soundsphere 110-HF	Sphere	6			2	Cone		75-15	91		1.5k	8	10 Sphere, 14 Reflect.	Fiber-glass		9	300.00
SONY	SSU-80	Ac. Sus.	12	4, 2 1/2	Cones	1/2 x 2	Ribbon	M, T	28-50 ±10	88	50	500, 3k, 8k	8/	39 1/2 x 16 1/2 x 14 1/2	Oiled Wal.	Black Cloth	78%	960.00
	SSU-70	Ac. Sus.	10	4	Cone	1/2 x 2	Ribbon	M, T	30-50 ±10	87	50	600, 6k	8/	32 1/2 x 15 x 14	Oiled Wal.	Black Cloth	63%	720.00
	SSU-60	Ac. Sus.	8	2 1/2	Cone	1/2 x 2	Ribbon	M, T	35-50 ±10	88	20	2.5k, 7k	8/	24 1/2 x 13 x 12 1/2	Oiled Wal.	Black Cloth	30	360.00
	SSU-50	Ac. Sus.	8			1/2 x 2	Ribbon		35-50 ±10	88	20	5k	8/	24 1/2 x 13 x 12 1/2	Wal. Vinyl	Black Cloth	28%	280.00
SONY ESPRIT	APM-8	Bass Ref.			Fiat		Fiat	(2) M, T	28-30 +4-8	92	20	320, 1.25k, 4.5k	8	43 1/2 x 25 1/2 x 17 1/2	Oiled Wal.	Brown Cloth	203	6000.00
SOUND DYNAMICS	6S	Bass Ref.	6			1	Dome		38-20 ±3	96	5	2.3k	8	14 1/2 x 9 x 8 1/2			20	165.00
	100S	Bass Ref.	10			1	Dome		34-20 ±3	98.5	8	2.25k	8	20 x 12 1/2 x 10 1/2			30	200.00
	10S	Bass Ref.	10			1	Dome		30-20 ±3	100	10	2.2k	8	25 1/2 x 14 1/2 x 12			40	250.00
	12S	Bass Ref.	12			1	Dome		28-20 ±3	101	12	2.1k	8	27 x 15 1/2 x 12			52	325.00
	15S	Bass Ref.	15			1	Dome		26-20 ±3	102	20	2k	8	36 x 19 x 18 1/2			100	500.00
	1200SMT	Pas. Rad.	12			1	Dome		34-20 ±3	101	15	2.05k	8	37 x 14 1/2 x 15			75	400.00
SOUND-LAB	P-1	ES							100-25 ±2	96	50	100	100/4	50 1/2 x 22 x 10 1/2	Opt.	Opt., Cloth	62	2200.00
	P-2	Inf. Baf.	12					M	32-150 ±4	94	50	100	8/6	23 1/2 x 24 1/2 x 14 1/2	Opt.	Opt., Cloth	70	795.00
	R-1	ES							100-25 ±2	92	50	100	100/4	50 1/2 x 22 x 10 1/2	Opt.	Opt., Cloth	58	3185.00
	R-2	Inf. Baf.	(2) 12					M	28-150 ±3	94	50	100	4/3, 8	25 1/2 x 24 1/2 x 14 1/2	Opt.	Opt., Cloth	88	1250.00
	A-1	ES						No	40-28 ±2	92	100	None	50/4	79 1/2 x 35 x 25	Opt.	Opt., Cloth	150	6500.00
SOUNDMATES	.125	Ac. Sus.	4			1	Dome		50-20 ±4	89	10	2.5k	8	8 x 4 1/2 x 5 1/2	Oiled Wal.	Brown Cloth	4%	109.95
	T1	Ac. Sus.	10	4 1/2	Cone	1	Dome	M, T	20-20	91	10	2.5k, 4k	8	14 1/2 x 15 1/2 x 34	Oiled Wal.	Brown Cloth	70	325.00
	Micro 10	Vented	6 1/4			1 x 3	Leaf		37-30	89	10	4k	8	9 1/2 x 9 1/2 x 14	Oiled Wal.	Brown Cloth	46	199.95
THE SOUND OF O	Lorelei	Ported	(2) 8	6	Cone	1/2 x 2	Ribbon		20-50 ±3	95	20	400, 3.5k	8/4	36 x 22 x 19	Opt.	Brown Cloth	85	1600.00

# LOUDSPEAKERS

MANUFACTURER	Model	Enclosure or System Type	Woofer Dia. - Inches		Midrange Type	Tweeter Dia. - Inches		Layer Control T = Tweeter, M = Midrange, L = Subwoofer	Anchoic Freq. Response Hz to kHz, ± dB	dB SPL/1 Watt/1 Meter	Recommended Min. Amp. Pwr. - Watts	Crossover Frequencies, Hz	Impedance Ohms:		Dimensions, Inches	Finish	Grille Color and Material	Weight, Lbs.	Price, \$
			Nominal	Minimum															
SOUND SOURCE	SS-8W	Ac. Sus.	8		2	Phen. Ring			50-18	5		8	11½x9½x23½	Vinyl	Black Cloth	20	220.00		
	SS-10W	Ducted Port	10	5	Cone	2			45-18	5		8	15x10¼x24¾	Vinyl	Black Cloth	36	320.00		
	SS-18W	Ducted Port	12	5	Cone	2		T	40-18	5		8	15x11¼x28	Vinyl	Black Cloth	40	200.00		
	SS-411	Ducted Port	12	4x11	Horn	1		M,T	35-20	5		8	15x13¾x32	Vinyl	Black Cloth	50	298.00		
	Monitor A	Ducted Port	10	5	Cone	1		M,T	40-20	5		8	15x11¼x28	Lacq. Wal.	Black Cloth	48	250.00		
	Monitor B	Ac. Sus.	12	5	Cone	1		M,T	35-20	5		8	15x12¾x32	Lacq. Wal.	Black Cloth	55	350.00		
	Signature A	Pas. Rad.	8			1			Dome	38-22 ±3	10	2.5k	8	13x13x24	Lacq. Wal.	Black Cloth	45	350.00	
	Signature 4A	Pas. Rad.	12	5	Cone	1		M,T	20-22 ±3	20	900 6k	8	16x13x42	Lacq. Wal.	Black Cloth	110	750.00		



**“From the first,  
we were impressed . . .”**

STEREO REVIEW'S Julian Hirsch reports on the Dahlquist DQM-9 Studio Monitor

*“ . . . by the effortless quality of its sound with any type of program material. This is one of those speakers which we could listen to indefinitely without the urge to switch to something else. ”\**

*The DQM-9 is the new and efficient reference loudspeaker from Dahlquist. Its exclusive dynamic tracking gives it the ultra-wide dynamic range and high SPL-ability which make the DQM-9 a powerful statement-of-the-art of studio monitors.*

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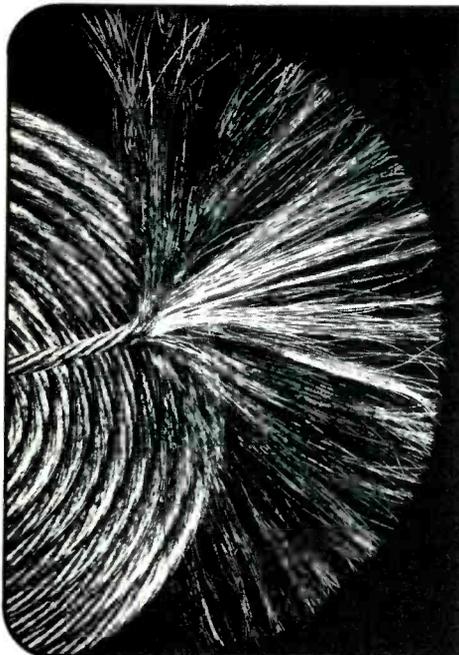
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# LOUDSPEAKERS

MANUFACTURER	Model	Enclosure or System Type	Woofer Dia. - Inches	Midrange Dia. - Inches	Midrange Type	Tweeter Dia. - Inches	Tweeter Type	Lexa Controls? T=Yes M=Midrange T=Yes W=woofer S1=Super Tweeter	Anechoic Freq. Response Hz to kHz - 3 dB	dB SPL / 1 Watt / 1 Meter	Recommended Min. Amp. Pwr. - Watts	Crossover Frequencies - Hz	Impedance Ohms - Nominal / Minimum	Dimensions - Inches	Finish	Grille Color and Material	Weight - Lbs.	Price - \$
SPEAKERLAB	S10	Pas. Rad.	10, 12						91	10	180	6/5	18x18x18"	Oak	Brown Cloth	59	199.99;	
	S40	Subwoof. Nestorovic	8, 10	4 1/2	Cone	2x3%	Leaf	M,T	91	35	900,8k	8/6	33x13x9 1/2 / 11	Wal.	Black Cloth	63	Kit, 119.00	
	S50	Nestorovic	10, 12	6 1/2, 1 1/2	Cone, Dome	2x3%	Leaf	M,T	93	35	350,1.5k, 8k	8/6	46x16x10 1/2 / 13	Wal.	Black Cloth	104	Pair 1960.00	
	SK	Folded Horn	15	19 1/2 x 8 1/2	Horn	4x8%	Horn	M,T		5	400,5k	8/6					Pair 798.00	
	S500	Pas. Rad.	10, 12	4 1/2	Cone	2x3%	Leaf		92	5	900,8k	8/6	38 1/2 x 14 1/2 x 11 1/2	Oak	Brown Cloth	62	738.00	
	Super 7	Ac. Sus.	10, 12	6 1/2	Cone	2x3%	Leaf		93	20	350,6k	4/3	38 1/2 x 16 x 14 1/2	Opt.	Opt., Cloth	90	878.00	
	S9	Ac. Sus.	6 1/2			2x3%	Leaf		91	10	3.8k	6/5	13 1/2 x 8 1/2 x 7	Oak	Brown Cloth	14	258.00	
	S17	Pas. Rad.	8, 10	6 1/2	Cone	2x3%	Leaf		91	15	350,3.8k	6/5	31x12 1/2 x 11 1/2	Opt.	Opt., Cloth	43	638.00	
	S100	Base Ref.	8		3	Cone			92	5	2.5k	8/6	30 1/2 x 10 3/4 x 10 3/4	Oak	Brown Cloth	39	338.00	
	S300	Pas. Rad.	8, 10		3	Cone			92	5	2.5k	8/6	34 1/2 x 12 1/2 x 11	Oak	Brown Cloth	50	438.00	
	SX	Bass Ref.	6 1/2			2x3%	Leaf		91	10	3.8k	6/5	20 1/2 x 11 1/2 x 9 1/2	Rswd. Vinyl	Black Cloth	31	258.00	
	S11	Bass Ref.	8			2x3%	Leaf		91	15	3.8k	6/5	28 1/2 x 11 1/2 x 10 1/2	Opt.	Opt., Cloth	35	378.00	
	S15	Pas. Rad.	8, 10			2x3%	Leaf		91	15	3.8k	6/5	31x12 1/2 x 11 1/2	Opt.	Opt., Cloth	40	478.00	
	S.1	Ac. Sus.	6		1	Dome	T		88	15	2.5k	8/6	10x7x5 1/2	Rswd. Vinyl	Black Cloth	10	158.00	

(Continued)

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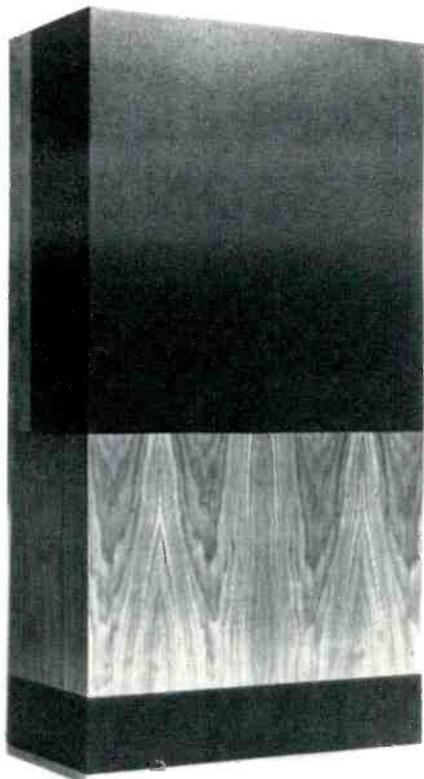
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# LOUDSPEAKERS

MANUFACTURER	Model	Enclosure or System Type	Woofer Dia. - Inches		Midrange Type		Tweeter Dia. - Inches		Level Control? (T=Tw, M=Mid, S=Sub)	Amph. Freq. Response Hz to kHz, ± dB	dB SPL / 1 Watt / 1 Meter	Recommended Min. Amp. Pwr. - Watts	Crossover Frequencies, Hz		Dimensions, Inches	Finish	Grille Color and Material	Weight, Lbs.	Price, \$
							Impedance, Ohms; Nominal/Minimum												
SPEAKERLAB (Continued)	SJ	Bass Ref.	5		2	Cone				90	10	5k	8/6	13 1/2 x 8 1/2 x 7	Rswd. Vinyl	Black Cloth	13	138.00 Pair	
	SL	Ac. Sus.	8		2	Cone				92	10	2.5k	8/6	20 3/4 x 11 3/4 x 9 1/4	Rswd. Vinyl	Black Cloth	31	218.00 Pair	
SPEAKERS & ASSOCIATED SOUND	Ultimus	Inf. Baf.	(3) 10	1 1/2	Dome	1	Dome			18-22 ±5	84	100	2.4k, 5k	5	43x22x24	Oiled Wal.	Beige	150	2890.00 Pair
THE SPEAKER WORKS	Timbrel	Ac. Sus.	6 1/2			1	Dome			40-20 ±3	84	15	3k	8	10x8x17				65.00 Kit
	Tabor	Bass Ref.	8			1	Dome			35-20 ±3	87	15	3k	8	12 1/2 x 12 x 25				75.00 Kit
SPENDOR AUDIO SYSTEMS	SA-1	Ac. Sus.	6			1	Dome			70-18 ±3	82	20	3k	8/6	12 x 9 x 9	Wal. Ven. Opt.	Black Cloth	16	275.00
	SA-2	Bass Ref.	8			1	Dome			50-20 ±2.5	90	15	3k	8/6	20 x 10 1/2 x 11		Black Foam	25	345.00
	BC-1	Bass Ref.	8			3/4, 1	Domes			50-18 ±3	84	25	3k, 13k	8/6	25 x 12 x 12	Opt.	Black Cloth	31	420.00
	SA-3	Bass Ref.	12			1 1/2	Dome			38-18 ±2	90	40	1.7k	8/6	34 x 15 x 18 1/2	Wal. Ven.	Black Foam	80	900.00
SPICA	SC-50	Inf. Baf.	6 1/2			1	Dome			56-22 ±3	85	20	2.5k	4/2.7	13 1/4 x 11 x 9 1/4	Ma-hog.	Black Foam	10 1/2	440.00 Pair
STAX	ELS-BX	ES	(4) 4x30	(2) 4x30	ES	(2) 2x 21	ES	No		35-20	76	100	300	8	30x75x10	Teak	Tan	120	7800.00 Pair



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Euclid, Ohio

*“Have had many speakers over 15 year period. I am sure that these will be my last set of speakers.”*

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# LOUDSPEAKERS

MANUFACTURER	Model	Enclosure or System Type	Woofer Dia., Inches		Midrange Dia., Inches		Tweeter Dia., Inches		Level Control		Amplifier		Recommended Min. Amp. Pwr., Watts	Crossover Frequencies, Hz	Impedance, Ohms, Nominal/Minimum	Dimensions, Inches	Finish	Grille Color and Material	Weight, Lbs.	Price, \$
			Woofer	Midrange	Midrange	Tweeter	Tweeter	Level Control	Amplifier	dB SPL / 1 Watt / 1 Meter										
TANGENT ACOUSTICS U.K.	TM-1	Bass Ref.	7.8			¾	Dome	No	40-30	88	40	300,3k	8/6	12x24¼x12½	Opt.	Brown		600.00	Pair	
	RS-4	Base Ref.	7.8			¾	Dome	No	39-30	87	60	300,3k	8/6	12x24¼x12½	Opt.	Brown		850.00	Pair	
	RS-2	Inf. Bas.	7.8			¾	Dome	No	52-30 ±3	86	40	300,3k	8/6	10x14½x11¼	Opt.	Brown		600.00	Pair	
	Excelstor	Sealed	8¼				Dome		68-20	88	15		8/6	20x10¼x9%	Black Acryl. Opt.	Black		375.00	Pair	
	SPL 1	Inf. Bas.	4.3		1		Dome		90-25	88	15		8/6	10¾x7x7¾	Opt.	Brown		250.00	Pair	
	TM3	Inf. Bas.	7.8			¾	Dome	No	55-30	86	50	300,3k	8/6	10x14½x11¼	Opt.	Brown		450.00	Pair	
	XLR2	Inf. Bas.	7.8		1		Dome		51-20	88	40		8/6	17x10x10½	Opt.			650.00	Pair	
	PS8	Inf. Bas.	10	5	Cone	1	Dome		27-25	86	50	300,3k	8/6	39½x16x15	Opt.			2200.00	Pair	
	PS6	Inf. Bas.	8	5	Cone	1	Dome		32-25	86	40	300,3k	8/6	34½x14¼x11½	Opt.			1550.00	Pair	
PS 4	Sealed	6½	5	Cone	1	Dome		35-25	86	30	300,3k	8/6	29½x14x10%	Opt.			1100.00	Pair		
TECHNICS	SB-F1		4				Horn			86	20	4k	8	8¼x4¼x5	Alum.	Metal		5.1	240.00	Pair
	SB-F2		5				Horn			88	20	3.5k	8	10x5½x6½	Alum.	Metal		7.3	310.00	Pair
	SB-F3		6¼				Horn			89	20	3k	8	12½x7x7½	Alum.	Metal		11	370.00	Pair
	SB-L30	Bass Ref.	9			2½	Cone			93	20	3.5k	8	11½x23½x8%	Wal. Vinyl	Black Cloth			140.00	Pair
	SB-L50	Bass Ref.	9	4	Cone	2½	Cone			94	20	4k,9k	8	13¼x23½x9¼	Wal. Vinyl	Black Cloth			200.00	Pair
	SB-L70	Bass Ref.				2½	Cone			94	20	4k,9k	8	14¼x27x11	Wal. Vinyl	Black Cloth			250.00	Pair
	SB-4	Bass Ref.	9	2	Comb	1½	Comb	T		91	20	1.8k, 3.5k	8	11¼x21¼x10%	Wal.	Brown Cloth		24	600.00	Pair
	SB-6	Bass Ref.	10	3½	Comb	1½	Comb	M,T		93	20	800, 4k	8	13¼x23¾x12%	Wal.	Brown Cloth		37.4	400.00	Pair
	SB-8	Bass Ref.	13	3¼	Comb	1½	Comb	M,T		94	20	1.2k, 3.5k	8	15½x28x14%	Wal.	Brown Cloth		59.5	650.00	Pair
TECHNICS R&B	SB-10	Ac. Sus.	13	3½	Disc		Leaf	M,T	28-125	87		400, 4k	8	15½x12½x28	Oiled Rswd. Wal.	Brown Cloth		70½	700.00	Pair
	SB-7	Ac. Sus.	10	3½	Disc		Leaf	M,T	34-125	87		900, 4.5k	8	14½x12½x24%	Wal.	Brown Cloth		42	400.00	Pair
	SB-5	Ac. Sus.	9	3½	Disc	1½	Disc	M,T	38-35	87		800, 4.5k	8	12½x12½x22%	Wal.	Brown Cloth		31	325.00	Pair
	SB-3	Ac. Sus.	9			1½	Disc	T	45-35	87		2k	8	10½x9½x17%	Wal.	Brown Cloth		19	450.00	Pair
	EAS-10TH1000 EAS-10TH800						Leaf Leaf	No No	4k-150k 4k-150k	95 95			8 6	4¼x4¼x5% 4x3¼x4%	Alum. Alum.		8 7½	425.00 225.00	Pair	
THIEL	O2	Port	6½		1	Dome			45-20 ±3	90	10	2k	8/7	11x19x9½	Opt.	Black Cloth		22	310.00	Pair
	O3a	Elec. EQ	10	5	Cone	1	Dome		30-20 ±2	90	20	400,4k	8/4	12x12x38	Opt.	Black Cloth		62	975.00	Pair
	O4a	Port	6½		1¼	Dome			50-15 ±2	87	20	2.5k	8/6	10x10x36	Opt.	Black Cloth		35	570.00	Pair
3D ACOUSTICS	Three Piece System 3DB	Sat. & Subwoof. Ac. Sus.	10 8	6	Cone	1 (2) 2	Dome Domes	No	32-20 40-20	87 88	30 20	100, 2k 2k	8/4 8	Three Pieces 22x10½x10½	Oiled Wal. Oiled Wal.	Black Cloth Black Cloth		74 32	Syst. Syst.	500.00 375.00
	3D Crescendo	Ac. Sus.	8	5½	Cone	1	Dome	T	39-20 ±1.5	87	30	450, 2.5k	8	42½x15x8½	Oiled Wal.	Black Cloth		67	815.00	Pair
TOSHIBA	SS-X3	Bass Ref.	8			2½	Cone	No	55-19	92	8	3.2k	8	21x11½x9¾	Wal. Vinyl	Brown		21	100.00	Pair
	SS-X5	Bass Ref.	10	5	Cone	2½	Cone	M,T	53-20	93	10	900,6k	8	23x12½x10¼	Wal. Vinyl	Brown		28	180.00	Pair
	SS-X7	Bass Ref.	12	5	Cone	2½	Cone	M,T	51-20	96	15	900,6k	8	25¼x14¼x11¼	Wal. Vinyl	Brown		38	230.00	Pair
TUSK	The Wedge		10	4½	Cone	1	Dome	No	30-22 ±3	80	100	Var.	6/4.5	12x12x30	Opt.	Opt.		41	1000.00	Pair
UNITRONEX	Impact 2	Ported	8			2½	Horn		60-20	98	5	3.5k	8	21.3x11.6x9.1	Oak Ven.	Brown Cloth		27	149.00	Pair
	Impact 4	Ported	10			2½	Horn	T	50-20	97	5	2.5k	8	22.7x14x9.8	Oak Ven.	Brown Cloth		39	199.00	Pair
	Impact 6	Ported	10	5	Cone	2½	Horn	M,T	45-20	104	10	800,8k	8	25.2x16.6x11.2	Oak Ven.	Brown Cloth		55	299.00	Pair
	Impact 8	Ported	12	7	Cone	2x5	Horn	M,T	30-20	105	10	300,7k	8	26.8x17.3x12.6	Oak Ven.	Brown Cloth		77	399.00	Pair
VANDERSTEEN AUDIO	Two	Pas. Rad.	10.8	4	Cone	1	Dome	M,T	30-19 ±2	88	30	500, 4.5k	7.8	16¼x10¼x36¼	Opt.	Black Cloth		56	495.00	Pair
	Four	Pas. Rad.	(2) 10, (2) 8	8.4	Cones	1x3	Leaf	M,T	24-30 ±2	90	30	100,500, 4.5k	7.8	20x12x48	Opt.	Black Cloth		120	995.00	Pair

# LOUDSPEAKERS

MANUFACTURER	Model	Enclosure or System Type	Woofer Dia. - Inches	Midrange Dia. - Inches	Midrange Type	Tweeter Dia. - Inches	Tweeter Type	Level Controls T = Taper; S = Super	Frequency Range Hz to kHz; ± dB	Recommended Min. Amp. Pwr. - Watts	Crossover Frequencies, Hz	Impedance, Ohms: Nominal/Minimum	Dimensions, inches	Finish	Grille Color and Material	Weight, Lbs.	Price, \$		
																		Layer Controls M = Midrange; S = Super	Impedance, Ohms: Nominal/Minimum
VISONIK/ ALPHASONIC	D3000	Inf. Baf.	4		1	Dome			50-20 +4, -8	90	10	4k	4	6 1/4 x 4 3/4 x 4 3/4	Black Satin	5	95.00		
	D4000	Inf. Baf.	4		1	Dome			50-22 +4, -8	93	10	2.8k	4	6 1/4 x 4 3/4 x 4 3/4	Black Alum.	4.4	116.00		
	D5000	Inf. Baf.	4		1	Dome			50-25 +4, -8	93	10	2.5k	4	6 1/4 x 4 3/4 x 4 3/4	Black Alum.	4	138.00		
	D6000	Inf. Baf.	4		1	Dome			45-25 +4, -8	93	10	2.5k	4	7 1/4 x 5 x 5 1/4	Opt.	6 1/4	165.00		
	D7000	Inf. Baf.	5		1	Dome			40-25 +4, -8	93	15	2.5k	4	9 1/8 x 6 1/8 x 6 1/8	Opt.	10	195.00		
	D8000	Inf. Baf.	5	1 1/2	Dome	3/4	Dome		40-25 +4, -8	93	15	900, 4.5k	4	6 1/8 x 6 1/8 x 6 1/8	Opt.	13 1/2	230.00		
	D9000	Inf. Baf.	7	1 1/2	Dome	3/4	Dome		35-25 +4, -8	95	20	900, 4.5k	4	14 1/4 x 9 1/4 x 9 1/4	Opt.	19 1/4	330.00		
	Mini-Euro	Inf. Baf.	5		1	Dome			40-22 +4, -8	93	15	2.3k	4	10 1/2 x 6 1/2 x 6 1/2	Oiled Wal.	Brown Cloth	9 1/2	135.00	
	Euro 5	Inf. Baf.	8		1	Dome			35-25 +4, -8	93	15	1.3k	4	19 x 11 x 9 1/2	Oiled Wal.	Brown Cloth	24	185.00	
	Euro 7	Inf. Baf.	(2) 7	2	Dome	1	Dome		30-25 +4, -8	93	15	900, 4.5k	4	24 x 13 1/2 x 9 1/2	Oiled Wal.	Brown Cloth	32	325.00	
	Sub 1 S	Subwoof.	10						25-160 +4, -8	93	30	160	4	23 1/2 x 17 x 13 1/2	Oiled Wal.	Brown Cloth	65	300.00	
Sub 2 S	Subwoof.	12						25-160 +4, -8	95	30	160	4	19 x 14 1/4 x 12 1/2	Oiled Wal.	Brown Cloth	37	430.00		
VMPS AUDIO	101b	Ported	8		1 1/4	Cone	T		50-18 ±3	92	10	3.5k	8/6	18 x 12 x 8 1/4	Wal. Vinyl	Black Cloth	20	78.00	
	404b	Ported	8		1	Dome			45-20 ±3	92	10	3k	8/6	18 x 12 x 8 1/4	Wal. Vinyl	Black Cloth	24	129.00	
	606c	Ported	10		1	Dome	T		40-20 ±3	92	10	3.5k	8/6	23 x 12 1/2 x 12	Oiled Wal.	Black Cloth	35	189.00	
	808c	Ported	12	5	Cone	1	Dome	M, T	34-20 ±3	94	10	500, 5k	8/6	25 1/2 x 15 x 11	Wal. Vinyl	Black Cloth	50	289.00	
	Mini Tower II	Multi-Band Bass	(2) 12	5	Cone	(2) 1, 1 1/4	Domes, Pz.	M, T, ST	28-30 +0, -3	98	15	30, 600, 4.5k, 12k	8/6	35 x 15 x 15 1/2	Oiled Wal.	Black Cloth	75	439.00	
	Tower II	Multi-Band Bass	(3) 12	5	Cone	(3) 1, 1 1/4	Domes, Pz.	M, T, ST	22-30 +0, -3	99	15	80, 200, 500, 4.5k, 12k	4/4	43 x 15 x 15 1/2	Oiled Wal.	Black Cloth	95	599.00	
	Super Tower/R	Multi-Band Bass	12, (2) 15	(2) 5	Cones	(4) 1, 1 1/4	Domes, Ribbon	M, T, ST	20-50 +0, -3	100	15	80, 200, 600, 4k, 10k	4/4	50 x 18 x 18 1/2	Rswd.	Black Cloth	140	969.00	
	Super Tower IIa/R	Multi-Band Bass	(3) 12, (3) 15	(4) 5	Cones	(5) 1	Dome, Ribbon		17-50 +0, -3	101	15	80, 200, 600, 4k, 10k	6/6	76 x 21 1/2 x 17	Oiled Wal.	Black Cloth	300	1699.00	
DICK WAGNER	DW-1	Inf. Baf.	(8) 12	(16) 4	Cones	(4) 2	Ribbon	M, T	27-21 ±3.5	94	100	550, 7k	8	67 x 48 x 20	Opt.	Brown Cloth	375	5800.00 Pair	
	DW-2	Inf. Baf.	(4) 12	(8) 4	Cones	(2) 2	Ribbon	M, T	27-21 ±3.5	91	100	550, 7k	8	67 x 24 x 20	Opt.	Brown Cloth	225	2900.00 Pair	
	DW-4	Inf. Baf.	(2) 12	(4) 4	Cones	2	Ribbon	M, T	27-21 ±3.5	88	50	550, 7k	8	67 x 12 x 20	Opt.	Brown Cloth	150	1600.00 Pair	
WHARFEDALE AMERICA	Laser 40	Ac. Sus.		6 1/4	Cone	2	Dome		65-18 ±3	88	15	3.5k	6	9 1/2 x 9 3/4 x 14	Wal.	Black Cloth	12	125.00	
	Laser 60	Ac. Sus.		7 1/4	Cone	3/4	Dome		60-20 ±3	88	15	3.5k	6	9 1/2 x 10 1/2 x 16 1/4	Wal.	Black Cloth	16	175.00	
	Laser 80	Ac. Sus.	7 1/4	4	Cone	3/4	Dome		60-20 ±3	88	15	650, 3.5k	6	9 1/2 x 10 1/2 x 18 1/4	Wal.	Black Cloth	20	225.00	
	Laser 100	Ac. Sus.	10	4	Cone	3/4	Dome		55-20 ±3	88	15	700, 3.5k	6	9 1/2 x 12 x 22 1/4	Wal.	Black Cloth	30	275.00	
	E-20	Bass Ref.	7 1/4		1	Horn	T		62-18 ±3	95	15	4k	8	24 1/2 x 12 x 9 1/2	Wal. Ven.	Black Mesh	25 1/4	325.00	
	E-30	Bass Ref.		(2) 6 1/4	Cones	1	Horn	T		63-18 ±3	95	15	4k	8	13 1/2 x 10 1/2 x 26 1/2	Wal. Ven.	Black Mesh	34	399.00
	E-50	Bass Ref.	10	4	Cone	1	Horn	M, T		55-18 ±3	95	15	800, 7k	8	13 1/2 x 13 1/2 x 26	Wal. Ven.	Black Mesh	42	499.00
	E-70	Bass Ref.	10	(2) 4	Cones	1	Horn	M, T		50-18 ±3	95	15	800, 7k	8	13 1/2 x 14 x 32	Wal. Ven.	Black Mesh	70	625.00
	E-90	Bass Ref.	(2) 10	(2) 4	Cones	1	Horn	M, T		43-18 ±3	95	15	1k, 5k	8	15 1/2 x 14 1/4 x 45 1/4	Wal. Ven.	Black Mesh	112	975.00
	TSR-108	Bass Ref.	8	Cone	1	Dome	T		35-25 ±3	90	15	3.5k	8	11 1/2 x 12 1/4 x 23	Wal. Ven.	Black Cloth	31	425.00	
	TSR-110	Ac. Sus.		(2) 8	Cones	1	Dome	T		35-25 ±3	90	15	300, 3.5k	8	13 1/2 x 13 1/4 x 27 1/2	Wal. Ven.	Black Cloth	39	525.00
	TSR-112	Ac. Sus.	(2) 10	8	Cone	1	Dome	M, T		30-25 ±3	90	15	100, 600, 3.5k	8	15 x 15 1/2 x 43	Wal. Ven.	Black Cloth	88	1150.00
YAMAHA	NS-6	Ac. Sus.	10		1	Dome			45-20 ±3.5	91	10	1k	8	13 x 10 1/2 x 23	Wal. Vinyl	Black Cloth	35	150.00	
	NS-4	Ac. Sus.	8		1	Dome			50-20 ±4	90	10	1k	8	11 1/4 x 8 1/2 x 19	Wal. Vinyl	Black Cloth	22 1/2	110.00	
	NS344	Ac. Sus.	10	4 1/4	Cone	1 1/4	Dome	M, T	50-38	90		700, 6k	8	13 x 12 x 22	Wal. Vinyl	Black Cloth	30 1/2	260.00	
	NS244	Ac. Sus.	10		1 1/4	Dome	T		50-38	90		2k	8	12 1/2 x 11 1/4 x 21	Wal. Vinyl	Black Cloth	25	200.00	
	NS10M	Ac. Sus.	7		1 1/4	Dome			60-20	90		2k	8	8 1/2 x 7 1/4 x 15	Wal. Vinyl	Black Cloth	13	155.00	
	NS1000	Ac. Sus.	12	3 1/2	Dome	1 1/4	Dome	M, T	40-20	90	50	500, 6k	8/4	15 1/2 x 14 1/2 x 28	Ebony Black	Black Cloth	85 1/2	950.00	
	NS1000M	Ac. Sus.	12	3 1/2	Dome	1 1/4	Dome	M, T	40-20	90	50	500, 6k	8/4	14 1/4 x 12 3/4 x 26 1/2	Wal.	Black Cloth	68 1/4	650.00	
	NS690II	Ac. Sus.	12	3	Dome	1 1/4	Dome	M, T	35-20	90	30	800, 6k	8	13 1/2 x 12 1/4 x 24 1/4	Wal.	Black Cloth	59 1/2	400.00	

# MICROPHONES



AKG D-330BT



Audio-Technica AT812



Beyer Dynamic M88



Shure SM-81

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 Pa	Mike Connector Type	Cable Length, Feet	Connector Type on Equipment End of Cable	Dimensions, Inches: Length x Diameter	Weight, Ounces	Mounting Method	Wind Screens: W: On / Off Switch = S; Switched Low or Proximity Filter = F	Price, \$	Notes
AKAI	ACM-100	Uni	Elect. Cond.		Vocal	600	30-17		10		6.9x0.7	5.4			57.95		
	ACM-80	Uni	Elect. Cond.		Vocal	600			10		7.1x0.7				34.95		
AKG ACOUSTICS	C-422	Var. x 2	Cond.	Brass	Studio	200	20-20	66	XLR	66	Multi	9 1/4 x 1 1/2	15 1/2	3/4 x 27	W	2265.00	Nine patterns, stereo.
	C-34	Var. x 2	Cond.	Brass	Studio	200	20-20	64	XLR	66	Multi	7 3/4 x 1 1/2	9 3/4	3/4 x 27	W	1650.00	As above.
	C-33	Card. x 2	Cond.	Brass	Studio	200	20-20	64	XLR	66	Multi	7 3/4 x 1 1/2	9 3/4	3/4 x 27	W	950.00	Stereo.
	C-414EB	Multi	Cond.	Brass	Studio	200	20-20	42	XLR		Not furn.	5 1/2 x 1 1/4	12	3/4 x 27	W	730.00	Four patterns, bass filter, preattenuator.
	C-450	Multi	Cond.	Brass	Studio	200	20-20	40	XLR		Not furn.	5 x 3/4	3 1/2	3/4 x 27	W	340.00	Modular.
	C-535	Card.	Elect. Cond.	Brass	Vocal	200	20-20	Var.	XLR		Not furn.	7 1/4 x 1 1/4	10	3/4 x 27		340.00	Adj. output and roll-off.
	C-567	Omni	Elect. Cond.	Zinc	Lav.	200	20-20		XLR		Not furn.	1/2 x 1/4	3 1/2	3/4 x 27	W	225.00	Phantom FET preamp.
	D-125	Card.	Cond.	Zinc	Gen.	200	90-18	54	XLR		Not furn.	7 x 1 1/4	8	3/4 x 27		110.00	
	D-130	Omni	Dyn.	Zinc	Gen.	200	50-15	54	XLR		Not furn.	7 x 1 1/4	9	3/4 x 27		100.00	
	D-160	Omni	Dyn.	Brass	Rec.	200	40-20	58	XLR		Not furn.	5 1/2 x 3/4	4 1/2	3/4 x 27	W	110.00	
	D-190	Card.	Dyn.	Brass	Rec.	200	30-16	52	XLR		Not furn.	6 1/4 x 1 1/2	6 1/2	3/4 x 27	S †	110.00	†Opt.
	D-200	Card.	Dyn.	Brass	Instr.	200	20-16	56	XLR		Not furn.	7 1/4 x 1 1/4	8 1/2	3/4 x 27	F	150.00	Two way.
	D-222	Card.	Dyn.	Zinc	Instr.	200	20-17	56	XLR		Not furn.	8 1/4 x 1 1/4	9	3/4 x 27	F	270.00	As above.
	D-224	Card.	Dyn.	Alum.	Studio	200	20-20	56	XLR		Not furn.	7 3/4 x 1	10	3/4 x 27	WF	460.00	As above.
D-310	Card.	Dyn.	Zinc	Vocal	200	80-18	58	XLR		Not furn.	7 1/2 x 2	8 1/2	3/4 x 27	W, S †	115.00	†Opt.	
D-320B	Hyper Card.	Dyn.	Zinc	Vocal	200	80-18	57	XLR		Not furn.	7 1/2 x 2	10 1/2	3/4 x 27	WF	150.00	3 pos. roll-off.	
D-330BT	Hyper Card.	Dyn.	Zinc	Vocal	200	50-20	60	XLR		Not furn.	7 1/2 x 2	12	3/4 x 27	WF	195.00	3 pos. bass + treble EQ.	
D-1000	Card.	Dyn.	Brass	Music/Vocal	200	40-17	52	XLR		Not furn.	6 1/2 x 1 1/2	8 1/2	3/4 x 27	F	130.00	B, M, S switch.	
ASTATIC	814HS	Card.	Dyn.	Zinc	Instr.	40k	40-15	74	A3F	18	Phone	8 3/4 x 1	9	3/4 x 27		150.00	
	814LS	Card.	Dyn.	Zinc	Instr.	250	40-15	74	A3F	18	A3M	8 3/4 x 1	9	3/4 x 27		145.00	
	815HS	Card.	Dyn.	Zinc	Vocal	40k	40-15	74	A3F	18	Phone	8 3/4 x 1	9	3/4 x 27		150.00	
	815LS	Card.	Dyn.	Zinc	Vocal	250	40-15	74	A3F	18	A3M	8 3/4 x 1	9	3/4 x 27		145.00	
	854HS	Card.	Dyn.	Zinc	Instr.	40k	40-15	74	A3F	18	Phone	8 3/4 x 2 1/2	9 1/2	3/4 x 27		170.00	
	854LS	Card.	Dyn.	Zinc	Instr.	250	40-15	74	A3F	18	A3M	8 3/4 x 2 1/2	9 1/2	3/4 x 27		165.00	
	855HS	Card.	Dyn.	Zinc	Vocal	40k	40-15	74	A3F	18	Phone	8 3/4 x 2 1/2	9 1/2	3/4 x 27		170.00	
	855LS	Card.	Dyn.	Zinc	Vocal	250	40-15	74	A3F	18	A3M	8 3/4 x 2 1/2	9 1/2	3/4 x 27		165.00	
	857HS	Card.	Dyn.	Zinc	Instr.	40k	50-15	57	A3F	18	Not Furn.	8 3/4 x 2 1/2	9 1/2	3/4 x 27		132.50	
	857LS	Card.	Dyn.	Zinc	Instr.	250	50-15	82	A3F	18	Not Furn.	8 3/4 x 2 1/2	9 1/2	3/4 x 27		132.50	
	950HS	Card.	Dyn.	Zinc	Vocal	40k	50-15	74	A3F	18	Phone	9 3/4 x 2 1/2	10 1/2	3/4 x 27		165.00	
	950LS	Card.	Dyn.	Zinc	Vocal	250	50-15	74	A3F	18	A3M	9 3/4 x 2 1/2	10 1/2	3/4 x 27		160.00	
	952HS	Card.	Dyn.	Zinc	Instr.	40k	50-15	74	A3F	18	Phone	9 3/4 x 2 1/2	10 1/2	3/4 x 27		170.00	
	952LS	Card.	Dyn.	Zinc	Instr.	250	50-15	74	A3F	18	A3M	9 3/4 x 2 1/2	10 1/2	3/4 x 27		160.00	
AUDIO-TECHNICA (Continued)	AT801	Omni	Elect. Cond.	Alum. Alloy	Instr.	600	40-18	142	Swcft. A3F	16 1/2	Opt.	7 1/2 x 1 1/4	5.6	3/4 x 27	S	85.00	

# 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., 1kHz, dB re 1 V / 1 pBar	Mikro Connector Type	Cable Length, Feet	Connector Type on Equipment End of Cable	Dimensions, Inches: Length x Diameter	Weight, Ounces	Mounting Method	Wind Screen W. On / Off Switches S; Switched Low or Proximity Filter = F	Price, \$	Notes
AUDIO-TECHNICA (Continued)	AT802	Omni	Dyn.	Alum. Alloy	Vocal	600	50-15	150	Swcft. A3F	16 1/2	Opt.	6 1/2 x 1 1/2	5			80.00	
	AT803S	Omni	Elect. Cond.	Alum. Alloy	Vocal	600	50-15	151	Swcft. A3F	16 1/2	Opt.	0.8 x 0.4	0.09	Tie Clip	S	95.00	
	AT803R	Omni	Elect. Cond.	Alum. Alloy	Vocal	200	50-15	139	Swcft. A3F	16 1/2		0.8 x 0.4	0.09	Tie Clip	F	200.00	
	AT805S	Omni	Elect. Cond.	Alum. Alloy	Vocal	600	50-15	151	Att.	16 1/2	Phone	2 x 0.6	0.86	Tie Clip	S	57.00	
	AT811	Card.	Elect. Cond.	Alum. Alloy	Instr.	600	50-20	150	Swcft. A3F	16 1/2	Opt.	8 1/2 x 1 1/2	6	1/2 x 27	S	95.00	
	AT812	Card.	Dyn.	Alum. Alloy	Instr.	600	50-15	154	Swcft. A3F	16 1/2	Opt.	7 1/4 x 1 1/2	7.6	1/2 x 27	S	100.00	
	AT813	Card.	Elect. Cond.	Alum. Alloy	Instr.	600	40-20	149	Swcft. A3F	16 1/2	Opt.	8 x 2	6 1/2	1/2 x 27	S	110.00	
	AT813R	Card.	Elect. Cond.	Alum. Alloy	Instr.	200	30-20	143	Swcft. A3F	16 1/2	A3M	8 x 2	6 1/2	1/2 x 27		160.00	
	AT814	Card.	Dyn.	Alum. Zinc	Vocal	250	50-16	150	Swcft. A3F	16 1/2	Opt.	7 1/4 x 2 1/2	10	1/2 x 27		130.00	
	AT815	Hyper Card.	Elect. Cond.	Alum.	Vocal	600	40-20	144	Swcft. A3F	16 1/2	Opt.	18.3 x 7 1/2	9.2	1/2 x 27	S	200.00	
	AT816/2	Card.	Dyn.	Plas.	Instr.	600			Att.	13 1/2	Phone				S	60.00 Pr.	
	AT817	Card.	Elect. Cond.	Plas./Alum.	Instr.	600	50-16	146	Att.	13 1/2	Phone	8 1/2 x 1 1/2	6	1/2 x 27	S	50.00	
AT831	Card.	Elect. Cond.	Alum.	Instr.	600	50-18	153	Swcft. A3F			0.9 x 0.4	0.1		S	110.00		
BEYER DYNAMIC	M69	Hyper Card.	Dyn.	Alum.	Instr.	200	50-16	145	XLR	15	Not furn.	7.1 x 1	8.2	MKV 25	W	159.95	
	M88	Hyper Card.	Dyn.	Alum.	Instr.	200	30-20	145	XLR	15	Not furn.	7.1 x 1	11.4	MKV 25	W	319.95	
	M201	Hyper Card.	Dyn.	Alum.	Instr.	200	40-18	150	XLR	15	Not furn.	6.3 x 1	7.8	MKV 22		189.95	
	M101	Omni	Dyn.	Alum.	Instr.	200	40-20	149	XLR	15	Not furn.	4.6 x 0.9	5.7	MKV 22		199.95	
	M400	Super Card.	Dyn.	Alum.	Vocal	200	40-16	146	XLR	15	Not furn.	7 x 1	9.2	MKV 27	WS	154.95	
	M500	Hyper Card.	Rib.	Alum.	Vocal	200	40-18	150	XLR	15	Not furn.	7.2 x 1	8.9	MKV 27	W	239.95	
	M600	Hyper Card.	Dyn.	Alum.	Vocal	200	40-16	149	XLR	15	Not furn.	7.5 x 0.9	8.7	MKV 27	WSF	279.95	
	M160	Hyper Card.	Rib.	Alum.	Instr.	200	40-18	152	XLR	15	Not furn.	6.1 x 0.9	6	MKV 22		359.95	
	M130	Hyper Card. Bi	Rib.	Alum.	Studio	200	40-18	152	XLR	15	Not furn.	5 x 0.9	5.3	MKV 22		419.95	
CERWIN-VEGA	UE-1	Card.	Elect. Cond.	Alum.	Instr.	10k/600	80-20	70	A3M	16	3 Cond. Phone	7.9 x 1.9		1/2 x 27		125.00	
	UD-1	Card.	Dyn.	Alum.	Vocal	200	70-15	73	A3M	16	3 Cond. Phone	7.3 x 1.6		1/2 x 27		100.00	
COHERENT COMMUNICATIONS	74C-8	Omni	Elect. Cond.	Plas.	Instr.	150	20-20	60	XLR	8	3-pin	0.4 x 0.3 x 0.4	3/4	Tie Clip	W	203.00	
	74B-8	Omni	Elect. Cond.	Plas.	Instr.	3k	20-20	60	Opt.	8	Not furn.	0.4 x 0.3 x 0.4	3/4	Tie Clip	W	151.00	
	74Q-4	Omni	Elect. Cond.	Plas.	Vocal/Music	3k	20-20	60	Opt.	4 1/2	Not furn.	0.4 x 0.3 x 0.4	3/4	Tie Clip	W	129.00	
	74P-12	Omni	Elect. Cond.	Plas.	Vocal/Music	150	20-20	60	XLR	8	3-pin	0.4 x 0.3 x 0.4	3/4	Tie Clip	W	208.00	Phantom powered.
CROWN	PZM-30GP	Hemi.	Elect. Cond.		Studio	150	50-20	76	Swcft. A3F	6	Yes	5 x 6			W	349.00	With power supply, case. As above.
	PZM-6LP	Hemi.	Elect. Cond.		Studio	150	50-20	76	Swcft. A3F	15	Yes	2 1/2 x 3			W	349.00	As above.
	PZM-31S	Hemi.	Elect. Cond.		Studio	150	50-20	76	Swcft. A3F	6	Yes	6 x 5			W	349.00	As above.
	PZM-2LV	Hemi.	Elect. Cond.		Lav.	150		76	Swcft. TA 4F	3 1/2	Yes	1 x 1		Clip		349.00	Built-in power supply.
ELECTRO-VOICE	RE55	Omni	Dyn.	Steel		150	40-20	150	Swcft. A3F	15	Not Furn.	10 1/2 x 1 1/4	8 1/2	1/2 x 27		242.00	
	DO54	Omni	Dyn.	Steel		150	50-18	149	Swcft. A3F	15	Not Furn.	5 1/2 x 1 1/4	6 1/2	1/2 x 27		135.60	
	635A	Omni	Dyn.	Steel	Voice	150	80-13	149	Swcft. A3F	15	Not Furn.	6 x 1 1/4	6	1/2 x 27		85.60	
	631B	Omni	Dyn.	Zinc	Voice	150/11 Z	80-13	150	Swcft. A3F	15	Not Furn.	6 x 1 1/4	6	1/2 x 27	S	83.25	
	CO15P	Omni	Cond.	Steel		150	20-20	141	Swcft. A3F	15	Not Furn.	6 1/2 x 1 1/4	7 1/2	1/2 x 27	W	264.75	
	RE85	Omni	Dyn.	Steel	Voice	150	90-10	155	Att.	30	Not Furn.	2 1/2 x 7/8	8	Neck Cord		127.20	Lavalier.
	RE20	Card.	Dyn.	Steel		50/150/250	45-18	150	Swcft. A3F	15	Not Furn.	8 1/2 x 2 1/2	26	1/2 x 27	F	416.65	Variable-D for no up-close bass boost.

# MICROPHONES

MANUFACTURER	Model	Directional Pattern	Operating Principle	Case Material	Moist Common Use	Actual Impedance, 1 kHz, Ohms	Operating Range, Hz to kHz	Open Circuit Sens., 1 kHz, dB re: 1 V/1 pbar	Mike Connector Type	Cable Length, Feet	Connector Type on Equipment End of Cable	Dimensions, Inches, Length x Diameter	Weight, Ounces	Mounting Method	Wire Screens: W, Switched; L, Off; Switch: S; Switched Low or Proximity Filter: F	Price, \$	Notes
ELECTRO-VOICE (Continued)	RE15	Super Card.	Dyn.	Steel		150	80-15	150	Swcft. A3F	15	Not Furn.	6½x1¼	6	½x27		240.00	Variable D.
	RE10	Super Card.	Dyn.	Steel		150	90-13	150	Swcft. A3F	15	Not Furn.	6½x1¼	6	½x27		151.50	As above.
	660	Super Card.	Dyn.	Zinc		150/Hi Z	90-13	150	Swcft. A3F	15	Not Furn.	6½x1¼	10½	½x27		99.95	As above.
	DS35	Super Card.	Dyn.	Steel	Voice	150	60-17	148	Swcft. A3F	15	Not Furn.	7¼x1¼	9.2	½x27		136.50	Single-D for up-close bass boost. As above.
	671B	Card.	Dyn.	Zinc	Voice	150/Hi Z	60-14	151	Swcft. A3F	15	Not Furn.	6½x2	8	½x27	S	95.00	As above.
	CS15P	Card.	Cond.	Steel		150	40-18	137	Swcft. A3F	15	Not Furn.	7x1¼	8	½x27	W	246.00	As above, phantom powered.
	1776A	Card.	Cond.	Zinc	Voice	150	60-18	144	Swcft. A3F	15	Not Furn.	7½x2	12	½x27	S	123.95	Single-D for up-close bass boost, battery powered, model 1777B for phantom.
	CO90	Omni	Cond.	Brass	Voice	150	40-15	148	Att.	Ø	Swcft. A3M		1	Tie Clip	W	135.45	Lavaller.
	RE18	Card.	Dyn.	Steel		150	80-15	150	Swcft. A3F	15	Not Furn.	7x1¼	8	½x27		261.00	Shock-mounted, Variable-D.
	DO56	Omni	Dyn.	Steel & Alum.	Voice	150	80-18	155	Swcft. A3F	15	Not Furn.	6½x1½	6½	½x27		115.00	Shock-mounted.
PL80	Card.	Dyn.	Zinc & Alum.	Vocal	150	60-17	150	Swcft. A3F		Not Furn.	7½x2	12.3	½x27		170.00		
CO94	Omni	Cond.	Brass	Voice	150	80-15	136	Not Furn.	15	Swcft. A3M		1	Tie Clip	S	225.00	Lavaller, battery or phantom pwr.	
GC ELECTRONICS	30-2372	Uni	Dyn.	Alum. Chrome	Vocal	200	60-15	75	3-Pin	20	Phone	6½x1¼	9½	½x27	WSF	69.95	
	30-2374	Uni	Dyn.	Alum. Chrome	Vocal	500 or 50k	80-15	72	4-Pin	20	Phone	6½x1¼	6¼	½x27	WSF	27.90	
	30-2376	Uni	Dyn.	Alum.	Vocal	500	100-13	85	2-Pin	15	Phone	6½x1¼	6¼	½x27	WSF	36.95	
	30-2378	Uni	Elect. Cond.	Alum.	Vocal	600	30-16	68	Att.	20	Phone	9½x1¼	3½	½x27	WSF	29.95	
	30-2382	Uni	Elect. Cond.	Alum.	Vocal	600	50-16	68	Att.	9.9	(2) Phones	8½x1¼	5	½x27	WSF	36.95	Stereo.
	30-2398	Omni	Elect. Cond.	Alum.	Vocal	600	50-16	65	Att.	20	Phone	6½x1¼	2½	½x27	WSF	23.95	
30-2384	Omni	Elect. Cond.	Plastic	Vocal	1k	50-16	63	Att.	13.2		½x1½	½	Tie Clip		19.95		
JVC	M-201	Uni	Elect.	Alum.		600	40-18	71	Phone	10	Phone	8½x3½	13	½x27		59.95	Stereo.
	M-510	Super	Elect.	Alum.		600	40-20	68, 71	Phone	15	Cannon	16x1	9	½x27		189.95	
	MU-S80	Omni	Elect.	Alum.		600	30-16 12	71	Phone	15			5			199.95	Calibrated for SEA-80 & SEA-60 EGs.
MILAB	LC-25	Card.	Cond.	Brass Chrome	Instr., Vocal	200	20-20		A3F	25	A3M	7½x2x1	11½	½x27		845.00	Transformerless, line level output.
NAKAMICHI	CM-300	Card./Omni	Elect.	Metal	Studio	200	30-18	76	XLR-3	15	Phone		6	½x27		170.00	With two capsules.
	CM-100	Card.	Elect.	Metal	Studio	200	30-18	76	XLR-3	15	Phone		5½	½x27		110.00	Opt. omni capsule.
	DM-1000	Card.	Dyn.	Metal	Studio	250	30-18	76	XLR-3	15	Phone		12	½x27		300.00	Triple pop/blast filter.
	DM-500	Card.	Dyn.	Metal	Studio	250	50-15	73	XLR-3	15	Phone		5½	½x27		100.00	Pop/blast filter.
NEUMANN	U-47 fet	Card.	Cond.	Alum.	Studio	150	40-16	†	Swcft. OG3M	25	Swcft. A3F	6½x8½ x2½	25	½x27	WF	969.00	† -39 dbm.
	U-87	Multi, Sel.	Cond.	Alum.	Studio	150	40-16	†	Swcft. OG3M	25	Swcft. A3F	7½x2¼	17.7	½x27	WF	998.00	Three patterns; †-40 dbm.
	U-89	Multi, Sel.	Cond.	Alum.	Studio	150	40-18	†	Swcft. OG3M	25	Swcft. A3F	7½x1½	14.1	½x27	WF	1196.00	Five patterns; †-40 dbm.
	SM-69	Multi	Cond.	Alum.	Hall	150	40-16	†	Swcft. OG3M Spez.	33	Spez.	10¼x1¼ x1¼	16.4	½x27	W	2660.00	Two capsules; †-32 dbm.
	USM-69	Multi	Cond.	Alum.	Hall	150	40-16	†	Spez.	33	Spez.	11½x 1¼x1¼	18	½x27	W	2495.00	Two capsules; †-38 dbm.
	QM-69	Card.	Cond.	Alum.	Hall	180	40-16	†	Spez.	33	Spez.	11½x 1¼x1¼	18	½x27	W	3106.00	Four capsules.
	KU80	Stereo Head	Cond.	Alum.	Testing	200	40-16	†	Spez.	25	Swcft. A3F	11½x 7½	97	½xw7		3187.00	
	KM-83	Omni	Cond.	Alum.	Gen.	150	40-20	†	Swcft. OG3M	0	Not Furn.	4½x¼	2.8	½x27	W	375.00	†-48 dbm.
	KM-84	Card.	Cond.	Alum.	Gen.	150	40-20	†	Swcft. OG3M	0	Not Furn.	4½x¼	2.8	½x27	W	375.00	†-38 dbm.
	KM-85	Card.	Cond.	Alum.	P.A.	150	40-20	†	Swcft. OG3M	0	Not Furn.	4½x¼	2.8	½x27	W	375.00	†-39 dbm.
(Continued)	KM-86	Multi, Sel.	Cond.	Alum.	Studio	150	40-20	†	Swcft. OG3M	25	Swcft. A3F	7½x ½x1¼	7.4	½x27	W	1050.00	Three patterns; †-38 dbm.
	KM-88	Multi, Sel.	Cond.	Alum.	Hall	150	40-16	†	Swcft. OG3M	25	Swcft. A3F	6½x¼	4.6	½x27	W	1114.00	Three patterns; †-42 dbm.

# 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 pbar	Mike Connector Type	Cable Length, Feet	Connector Type on Equipment	Dimensions (Inches): Length x Diameter	Weight, Ounces	Mounting Method	Wind Screen = W; On Off Switch = S; Switched Low or Proximity Filter = F	Price, \$	Notes
NEUMANN (Continued)	KMS-84	Card.	Cond.	Alum.	Solo	150	40-16	†	Swcft. OG3M	25	Swcft. A3F	7x 1/4x1 1/4	7.4	WF		977.00	†44 dBm.
	KMA	Omni	Cond.	Alum.	Vocal	800	40-16		OG3M Spez.	3	Not Furn.	1 1/4x 3/4x3/8	1.1	WF		295.00	
	KMR-82	Super Card.	Cond.	Alum.	Prof.	150	40-20	†	Swcft. OG3M	0		15 1/2 x 7/8	8.8	WF		816.00	†31 dBm.
NUMARK	UD-9100	Card.	Rib.	Alum.	Vocal	600	45-12		Phone	10	Yes	8	5			24.95	Matched stereo available.
	UC-935	Card.	Elect. Cond.	Alum.	Vocal, Studio	600	30-16		Phone	12	Yes	8 1/2	7			49.95	
	UC-945	Card.	Elect. Cond.	Alum.	Voice, Studio	600	30-18		Phone	12	Yes	8 1/2	7			79.95	
	UC-965	Card.	Elect. Cond.	Alum.	Voice, Studio	600	20-20		Phone	12	Yes	7 1/2	7 1/2			89.95	
	UD-985	Card.	Elect. Cond.	Alum.	Studio P.A.	600	50-16		Phone	12	Yes	7 1/2	7 1/2			99.95	
PHILMORE	DC-95	Card.	Dyn.	Alum.	Vocal	200, 50k	100-13	56, 72	Amph.	20	Phone	8x2	8 1/2	WSF		40.00	
	DMB-160	Card.	Dyn.	Alum.	Prof.	200	60-15	75	Cannon XL	20	Cannon XL	8x2	10	WSF		62.00	
RADIO SHACK	1085	Stereo	Elect. Cond.	Metal	Prof.	600	20-20 ±4	75		16	Phone	9 1/2x2	11	SF		59.95	Capsules rotate.
	1080	Card.	Elect. Cond.	Metal	Prof.	600	20-20 ±4	74	XLR Male	16	Phone	7 1/4x1	9	WF		49.95	Opt. bal. output.
	984	Uni	Dyn.	Metal	P.A.	600, 10k	80-15	83	XLR Male	16	Phone	6 1/4x1 1/8	10	WS		49.95	As above.
	919	Dual	Elect. Cond.	Metal	Group	600	30-15	72	XLR Male	10	Phone	8x2 3/4	5	WS		39.95	Variable patterns.
	1070	Omni	Dyn.	Metal	Vocal	500	40-17 ±3	74	XLR Male	16	Phone	6 1/2x1	9	W		39.95	
	992	Super Card.	Dyn.	Metal	P.A.	600, 50k	80-12	72	4-Pin	10	Phone	7.4x1.7	11	WS		29.95	
	1061	Omni	Elect. Cond.	Metal	P.A.	600	20-16	74		10	Phone	4 1/2x1 1/2	2			24.95	Hand-held, clip-on or desk top.
	985-B	Omni Stereo	Dyn.	Metal	Gen. Group	600	50-11	79		15	Phone	8.6x2.1	8	WS		21.95	
1065	Stereo	Elect. Cond.	Plas.	Gen. Group	600	50-15	72		6 1/2	Mini	5 3/8x3/4	4	W		19.95		
REVOX	M-3500	Super Card.	Dyn.	Alum.	Gen.	600	40-18	72	XLR	16	Phone	6x1	10 1/2			185.00	
SANSUI	DM-11	Card.	Dyn.	Alum.	Vocal	600	100-15	76		19 1/2	Phone			WS		110.00	
	EM-1	Card.	Elect. Cond.	Alum.	Instr. / Vocal	600	50-15	71.5		19 1/2	Phone			WSF		80.00	
SCHOEPS SCHALLTECHNIK	CMC-32	Omni	Cond.	Nickel	Orch.	20	20-20		XLR-3M			5x3/4	3	WF as acces.		640.00	12-48 V D.C. powering.
	CMC-34	Card.	Cond.	Nickel	Orch.	20	40-20		XLR-3M			5x3/4	3	WF as acces.		640.00	As above.
	CMC-38	Bi-Dir.	Cond.	Nickel	Orch.	20	40-16		XLR-3M			5 1/8x3/4	3	WF as acces.		780.00	As above.
	CMC-35	Card. / Omni	Cond.	Nickel	Orch.	20	40-20		XLR-3M			5 1/4x3/4	3	WF as acces.		835.00	As above.
	CMC-36	Card. / Three, Sel.	Cond.	Nickel	Orch.	20	40-16		XLR-3M			5 1/8x3/4	3	WF as acces.		985.00	As above.
	CMTS-301U	Card. / Three, Sel.	Cond.	Nickel	Orch.	20	40-16		XLR-5M			8 1/8x1 1/4	11 1/2	W as acces.		2125.00	As above; stereo.
	MSTC-34	Card.	Cond.	Nickel	Orch.	20	40-20		XLR-5M			7x3	9	W as acces.		1315.00	As above.
	CMH-34U	Card.	Cond.	Nickel	Vocal	20	60-20		XLR-3M			8 1/4x1 1/2	6 1/4	W as acces.		835.00	12-48 V D.C. powering.
CMC-441	Hyper Card.	Cond.	Nickel	Film	20	40-20		XLR-3M			5x3/4	3	WF as acces.		745.00	12 V AB "T" powering.	
SENNHEISER	MD 200	Omni	Press.	Plas.	Vocal	600	60-13.5		Phone							31.00	
	MD 400	Card.	Dyn.	Metal	Vocal	600	60-13.5		Phone							39.00	
	MD 441	Super Card.	Dyn.	Metal	Vocal	200	30-20	146	XLR	15		10.6x 1.4x 1.3	16	WF as acces.		352.00	Adj. frequency response.
	MD 421	Card.	Dyn.	Plas.		200	30-17	146	XLR	15		7x1.8 x1.7	14	WF as acces.		327.00	As above.
	MD 416	Card.	Dyn.	Metal		200	50-16	151	XLR	15		7x2	11	WF as acces.		300.00	
	MD 211	Omni	Dyn.	Metal		200	30-20	151	XLR	15		5x0.87	4.5	WF as acces.		356.00	
	MD402U	Super Card.	Dyn.	Metal		200	80-12.5	151	XLR	15		5.7x 0.83	6.5	Clamp		79.50	
MD 412	Super Card.	Dyn.	Plas.		800	50-12.5	151		5	Phone	5.5x 1.5x 1.5	2.1	Clamp		112.00		
(Continued)	MKH816	Beam	R.F. Cond.	Metal		10	50-20	115	XLR			22x 3/4	14	Clamp		918.00	Opt. 48V phantom pwr.

# 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:	Mike Connector Type	Cable Length, Feet	Connector Type on Equipment End of Cable	Dimensions Inches; Length x Diameter	Weight, Ounces	Mounting Method	Wind Screen=; W; On/Off Switch=S; Switched Low or Proximity Filter=LF	Price, \$	Notes	
SENNHEISER (Continued)	MKH416	Club	R.F. Cond.	Metal		10	40-20	121	XLR		10x $\frac{3}{4}$	6	Clamp			695.00	Opt. 48-V phantom pwr.	
	MKE203	Omni	Elect. Cond.	Metal		200	50-15	143	XLR		7.6x 0.9	5.6	$\frac{3}{8}$ x27			234.00		
	MKE403	Card.	Elect. Cond.	Metal		200	50-15	143	XLR		7.6x 0.9	5.6	$\frac{3}{8}$ x27			270.00		
	MKE803	Club	Elect. Cond.	Metal		200	50-15	139	XLR		12x 0.9	6.8	$\frac{3}{8}$ x27			319.00		
	MKE 10	Omni	Elect. Cond.	Metal		4.7k	40-20	144		3	0.35 x0.71	0.9	Tie Clip			159.00		
	MKE2002	Bin.	Elect. Cond.	Metal		1.5k	40-20	141		10			2			495.00		
SHURE BROTHERS	SM63	Omni	Dyn.	Alum.	Vocal	285	50-20	76	Swcft. A3M	25	Swcft. A3M	5 $\frac{1}{2}$ x1 $\frac{1}{4}$	2.8	$\frac{3}{8}$ x27		117.50	High output, hum-bucking coil.	
	SM77	Card.	Dyn.	Alum.	Vocal	180	50-15	79	Swcft. A3M	25	Swcft. A3M	5 $\frac{1}{2}$ x1 $\frac{1}{4}$	6	$\frac{3}{8}$ x27		120.00		
	SM78	Card.	Dyn.	Alum.	Vocal	180	50-15	79	Swcft. A3M	25	Swcft. A3M	5 $\frac{1}{2}$ x2	7.2	$\frac{3}{8}$ x27		153.00		
	SM17	Omni	Dyn.	Alum.	Instr.	200	50-15	85	Att.	10	Swcft. A3M	1 $\frac{3}{8}$ x $\frac{3}{8}$	0.28			90.00		
	516EQ	Card.	Dyn.	Zinc	Instr.	170	50-15	81	Swcft. A3M	15	Phone	6 $\frac{1}{2}$ x1 $\frac{1}{2}$	9.5	$\frac{3}{8}$ x27		117.50		
	545SD	Card.	Dyn.	Zinc	Vocal	240/39k	50-15	78	Swcft. A3M	15	Not Furn.	6 $\frac{1}{2}$ x1 $\frac{1}{4}$	9	$\frac{3}{8}$ x27	S	113.00		
	565SD	Card.	Dyn.	Zinc	Vocal	240/39k	50-15	77	Swcft. A3M	15	Not Furn.	6 $\frac{1}{2}$ x2	10.5	$\frac{3}{8}$ x27	S	125.50		
	SM57	Card.	Dyn.	Zinc	Instr./Vocal	65/270	40-15	82	Swcft. A3M	20	Not Furn.	6 $\frac{1}{2}$ x1 $\frac{1}{4}$	10	$\frac{3}{8}$ x27		135.00		
	SM58	Card.	Dyn.	Zinc/Alum.	Instr./Vocal	65/270	50-15	83	Swcft. A3M	20	Not Furn.	6 $\frac{1}{2}$ x2	10.5	$\frac{3}{8}$ x27		170.00		
	SM59	Card.	Dyn.	Alum.	Instr./Vocal	160	50-15	83	Swcft. A3M	20	Not Furn.	7 $\frac{1}{2}$ x1 $\frac{3}{4}$	7.6	$\frac{3}{8}$ x27		185.00		
	SM81	Card.	Elect. Cond.	Steel	Prof.	85	20-20	64	Swcft. A3M	25	Swcft. A3M	8 $\frac{1}{2}$ x1	8	$\frac{3}{8}$ x27		290.00		Two-pos. roll-off; 10-dB pad.
	515SB	Card.	Dyn.	Zinc	Speech	170	80-13	82	Att.	15	Not Furn.	6 $\frac{1}{2}$ x1 $\frac{1}{2}$	22	$\frac{3}{8}$ x27	S	50.00		
	SM61	Omni	Dyn.	Alum.	Vocal	175	50-14	82	Swcft. A3M	20	Not Furn.	7 $\frac{1}{2}$ x1 $\frac{1}{2}$	5.2	5x27		125.00		
	PE1	Card.	Dyn.	Zinc/Alum.	Instr./Vocal	270	50-15	77	Swcft. A3M	25	3-Pin or Phone	6 $\frac{1}{2}$ x1 $\frac{1}{2}$	10.5	$\frac{3}{8}$ x27	S	105.00		
	PE2	Card.	Dyn.	Zinc/Alum.	Instr./Vocal	270	50-15	77	Swcft. A3M	25	3-Pin or Phone	6 $\frac{1}{2}$ x1 $\frac{1}{2}$	10.5	$\frac{3}{8}$ x27	†	121.65		†Sel. response tailoring.
	SONY	F-V2A	Card.	Dyn.	Vinyl	Gen. Rec.	600			Att.	10	Phone						19.95
F-V3T		Card.	Dyn.	Vinyl	Vocal	600	100-12		Att.	10						29.95		
F-V4T		Card.	Dyn.	Vinyl	Vocal	600	90-13		Att.	10						39.95		
ECM-16T		Omni	Elect. Cond.	Vinyl	Lav.	250	50-13		Att.	10						39.95		
F-99T		Card.	Dyn.	Steel	Rec.	200	80-12		Att.	10						39.95		
ECM-220T		Card.	Elect. Cond.	Vinyl	Instr.	200	50-14		Att.	10						49.95		
ECM-939T		Stereo	Elect. Cond.	Alum.		600	40-14		Att.	10						119.95		
ECM-989		Stereo	Elect. Cond.	Alum.		200	20-20		5-Pin XLR	10	(2) XLR					435.00		
ECM-150		Omni	Elect. Cond.	Alum.	Vocal	250	40-13		Att.	6 $\frac{1}{2}$	Opt.			WS		65.00	Tie tac.	
ECM-260F		Card.	Elect. Cond.	Alum.	Instr.	200	50-14		Att.	16	Phone			W		65.00		
ECM-31M		Card.	Elect. Cond.	Alum.	Inter.	250	50-13		Att.	8	Mini			W		55.00		
F-400A		Card.	Dyn.	Vinyl	Vocal	250	100-12		Att.	8	Phone			W		50.00		
ECM-50PS		Omni	Elect. Cond.	Nick.	Vocal	250	40-14		Att.	10	XLR			W		225.00		
F-115		Omni	Dyn.	Alum.	Outdoor Rec.	600	40-12		XLR	20	XLR			W		160.00		
ECM-990F		Card.	Elect. Cond.	Alum.	Rec.	200	40-16		Sony	10	Phone			W		150.00		
ECM-30		Omni	Elect. Cond.	Alum.	Prof.	250	50-14		Att.	10	XLR			W		115.00		
ECM-23F		Card.	Elect. Cond.	Alum.	Instr.	250	20-20		XLR-3	20	XLR			W		115.00		
ECM-33F		Card.	Elect. Cond.	Alum.	Instr.	250	20-20		XLR-3	20	XLR			W		195.00		
ECM-41		Card.	Elect. Cond.	Nick.	Vocal	250	50-13		Att.	8	XLR			W		100.00		
F-520		Card.	Dyn.	Alum.	Vocal/instr.	250	80-12		XLR	16	XLR			W		100.00		
F-420		Card.	Dyn.	Alum.	P.A.	250	100-12		XLR	16	Phone			WS		75.00		
ECM-170A		Omni	Elect. Cond.	Nick.	Outdoor	200	20-16		Sony	16	Phone			W		75.00		
C-48		†	Cond.	Alum.	Studio	150	30-16		XLR-3 -12C		XLR			S		795.00	Dual diaphragm; † omni/uni.	
C-76	Card.	Cond.	Alum.	Stage	250	40-16		XLR-3		XLR			WS		795.00			
C-74	Card.	Cond.	Alum.	Media	250	40-16		XLR		XLR			WS		675.00			
C-38B	†	Cond.	Alum.	Studio	250	30-16			20	XLR			W		545.00			
C37P	†	Cond.	Alum.	Rec.	250	30-16		XLR-3	20	XLR-3			W		495.00			
ECM-53FP	Card.	Elect. Cond.	Alum.	Desk	250	40-15		XLR-3	10	XLR-3			W		295.00			

(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., 1kHz, dB re 1 V/1 μbar	Mike Connector Type	Cable Length, Feet	Connector Type on Equipment End of Cable	Dimensions, Inches: Length x Diameter	Weight, Ounces	Mounting Method	Wind Screen = W; On/Off Switch = S; Switched Low or Proximity Filter = F	Price, \$	Notes
SONY (Continued)	CM-56F	Card.	Elect. Cond.	Alum.	Rec.	250	20-20		XLR-3	20	XLR-3					265.00	
	ECM-660	Card.	Dyn.	Alum.	Gen. Vocal	250	100-10		XLR-3	20	XLR-3			W		250.00	
	ECM-65F	Card.	Elect. Cond.	Alum.	Studio	250	70-20		XLR-3	20	XLR-3					235.00	
	ECM-64P	†	Elect. Cond.	Alum.	Studio	250	40-20		XLR-3	20	XLR-3					235.00	†Omni/unl.
SWINTEK	SM58/dBS 50A/dBS	Card. Omni	Dyn. Elect. Cond.	Brass Alum.	Vocal Lav.		40-10 40-10									1250.00 780.00	Wireless FM. As above.
TEAC	MC-10	Card.	Dyn.	Plas.	Vocal/ Music	500	80-20	77	Att.	10	Phone	6½x1	9	¾x27	WS	20.00	
	ME-15	Omni	Elect. Cond.	Plas.	Vocal/ Music	500	50-20	65	Att.	10	Phone	6½x1	10	¾x27	WS	30.00	
	ME-20	Card.	Elect. Cond.	Plas.	Vocal/ Music	1k	50-20	67	Att.	10	Phone	6½x1	10	¾x27	WS	40.00	
	ME-50	Card.	Elect. Cond.	Alum.	Vocal/ Music	200	50-20	71	Att.	10	Phone	7½x¾	19	¾x27	WS	50.00	
	ME-80	Card.	Elect. Cond.	Alum.	Music	200	40-20	71	XLR	20	XLR	8x¾	34	¾x27	WSF	90.00	
	ME-120	Card.	Elect. Cond.	Alum.	Music	200	40-20	71	XLR	20	XLR	8x¾	35	¾x27	WSF	120.00	
	MM-100 PE-120	Card. Card.	Dyn. Elect. Cond.	Alum. Alum.	Music Music	250 200	40-20 40-20	60 71	XLR XLR	20 0	XLR Not Furn.	6½x1½ 8x¾	39 22	¾x27 ¾x27	WS WSF	100.00 99.95	
TECHNICS	RP-V340	Card.	Dyn.	Alum.	Vocal	700	100-10	76	Phone	6½				WS	26.00		
	RP-V370	Card.	Dyn.	Alum.	Vocal	400	40-12	78	Phone	10				WS	40.00		
	RP-3500E	Card.	Elect. Cond.	Alum.	Vocal/ Music	600	50-12	68	Phone	16			¾	WS	60.00		
	RP-3210E	Stereo	Elect. Cond.	Alum.	Vocal/ Music	600	50-12	70	Phones	10			¾	WS	60.00	Stereo.	
	RP-3540E	Card.	Elect. Cond.	Alum.	Vocal/ Music	600	40-14	70	Phone	16			¾	WS	70.00	LED battery indicator.	
TEI ELECTRONICS	30-045	Omni	Elect. Cond.	Alum.	Vocal	600	50-16	68	Att.	10	Mini	1½x1¼	1	Tie Clip	WF		
	30-016	Uni	Dyn.	Alum.	Vocal	600/ 50k	60-50	53/ 72	4-Pin Female	20	Phone	7½x1¾	7.14	¾	WSF		
	30-041	Uni	Dyn.	Alum.	Vocal	600/ 50k	100-15	53/ 72	4-Pin Female	20	Phone	8x1½	7.14	¾	SF		
	30-042	Uni	Elect. Cond.	Alum.	Vocal	600	20-20	65	4-Pin Female	20	Phone	10x½	4	¾	WS		
	30-035	Uni	Dyn.	Alum.	Vocal	500/ 50k	50-15	77/ 59	4-Pin Female	20	Phone	10½x1	14.1	¾	SF		
	30-032	Uni	Elect. Cond.	Alum.	Vocal	600/ 50k	50-16	68/ 52	4-Pin Female	20	Phone	8½x1	14.2	¾	SF		
	30-015	Uni	Dyn.	Alum.	Vocal	600	50-14	58	Att.	20	Phone	6½x2	8	¾	SF		
	30-014	Uni	Dyn.	Alum.	Vocal	50k	50-12	58	4-Pin Female	20	Phone	6½x2	8	¾	SF		
	TELEX	SE-11	Card.	Dyn.	Satin Chrome	P.A.		50-15	77	A3F	20	None	9½x2	20			175.00
SE-13		Card.	Dyn.	Satin Chrome	P.A.		50-15	77	A3F	20	None	9½x2	20			175.00	
SE-16		Card.	Dyn.	Satin Chrome	P.A.		50-15	77	Att.	3½	None	5x1¾	24			175.00	With 15 inch gooseneck.
TC-20		Card.	Dyn.	White Enamel	P.A.		50-15	77	A3F	20	None	9x1¼	16			290.00	
SE-14		Omni	Dyn.	Satin Chrome	P.A.		50-15	80	A3F	20	None	9½x1	20			165.00	
2760		Omni	Dyn.	Satin Chrome	P.A.		50-15	81	A3F	16	None	6x1½	16			125.00	
35 S-35A 35A		Omni Omni Omni	Dyn. Dyn. Dyn.	Alum. Alum. Alum.	P.A. P.A. P.A.		50-10 50-12 50-12	84 84 84	Att. Att. Att.	25 25 25	None None None	3x¾ 3x¾ 2½x¾	10½ 10½ 10½	Clip Clip Clip		145.00 130.00 120.00	Lavalier. As above. As above.
TOSHIBA	EM-220	Uni	Elect. Cond.	Alum.		1k	50-18	70	Att.	16	Phone	9½x1	9.2	Clip		39.95	
	EM-420	Uni	Elect. Cond.	Alum.		600	50-20	71	Swcft. A3F	16	Phone	8½x¾	9.5	Clip		69.95	
WRIGHT	SR-1	Card.	Elect. Cond.	Brass	Instr.	150	20-30		A3F		Not Furn.	2½x¾	8		W	400.00	With clamp.

# HEADPHONES



Audio-Technica ATH-7



Koss Pro4AAA



Pickering OA-4

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	Adjustable Headband?	Price, \$	Notes
ACUTEX	Voyager XV	Dyn.	18-22	60	100	100	8		F	1.9	S	Yes	89.50	
	Voyager VU	Dyn.	20-20	32	98	100	6½		F	1½	S	Yes	69.50	
	Voyager V	Dyn.	40-18	32	96	100	6		F	1½	S	Yes	49.50	
	HTS 3	Dyn.	20-26	75	115		8		F	7	C	Yes	99.00	
	HTS 1	Dyn.	35-22	8	115		10		F	7	C	Yes	49.50	
AKG ACOUSTICS	K-340	ES/Dyn.	15-25	400	95	10V	10	0.1	C	13	C	Yes	195.00	
	K-240	Dyn.	15-20	600	102	11V	10	0.3	F	10	C	Yes	95.00	
	K-141	Dyn.	20-20	600	98	11 V	10	0.5	F	9½	S	Yes	75.00	
	K-140S	Dyn.	20-20	600	97	11 V	10	0.5	F	9	S	Yes	65.00	
	K-130	Dyn.	20-20	600	96	11 V	10	0.5	F	8	S	Yes	49.00	
	K-41	Dyn.	20-19	200	95	9V	10	0.7	F	8	C	No	39.00	
	K-40	Dyn.	30-18	200	95	9V	10	0.9	F	6	S	No	29.00	
	AUDIO-TECHNICA	ATH-Point 1	Dyn.	35-20	4-16	100	1.7V	5	0.7†	F	1.8	S	Yes	30.00
ATH-Point 3		Dyn.	35-20	4-16	100	2V	8.2	0.5†	F	1.9	S	Yes	50.00	
ATH-Point 5		Dyn.	25-20	4-16	100	2V	5	0.4†	F	1.9	S	Yes	80.00	
ATH-1		Dyn.	30-20	4-16	93	5.2V	8.2	0.8†	F	4.8	S	Yes	30.00	
ATH-2		Dyn.	30-20	4-16	93	5.2V	8.2	0.7†	F	7	S	Yes	50.00	
ATH-3		Dyn.	25-20	4-16	94	2.8V	11.5	0.5†	F	7	S	Yes	65.00	
ATH-5		Dyn.	20-20	4-16	96	5V	11.5	0.4†	F	7.2	S	Yes	85.00	
ATH-6	ES	20-22	4-16	98††	10V	8.2	0.35†	F	7.4	S	Yes	100.00		
ATH-7	ES	10-20	4-16	98††	10V	8.2	0.25†	F	7.4	S	Yes	150.00		
BANG & OLUFSEN	U-70	Dyn.	16-20	140	94	8V				10.6		Yes	100.00	
BEYER DYNAMIC	DT302	Dyn.	20-20	600	97		9.9	1	F	2.3	S	Yes	32.95	
	DT330	Dyn.	15-18	40	90		9.9	1	C	6.8	C	Yes	42.95	
	DT550	Dyn.	15-20	600	95		9.9	1	C	7.1	C	Yes	82.95	
	DT880	Dyn.	15-20	600	94		9.9	1	C	7	C	Yes	125.00	
	DT440	Dyn.	20-20	600	97		9.9	1	C	9.3	C	Yes	64.95	
	DT220	Dyn.	20-20	400	102		9.9	1	C	9.3	C	Yes	62.95	
	ET1000	ES	10-25	4-8	100		9.9	1	F	44.7	S	Yes	249.00	
	DT48	Dyn.	16-20	200	105		9.9	1	Opt.	14.3	C	Yes	214.95	
	DT480	Dyn.	20-20	200	100		9.9	1	Opt.	17.7	C	Yes	124.95	
	DT100	Dyn.	30-20	200	94		9.9	1	Opt.	12.5	C	Yes	87.95	
DENON	AH7	Dyn.	20-22	63	100	100	12		F	3½		Yes	50.00	
	AH9	Dyn.	20-22	600	103	100	12		F	3½		Yes	80.00	
GC ELECTRONICS	90-108	Dyn. & Cond.	20-20	4-16	98		6		F	5.7	C	Yes	35.00	
	90-106	Dyn.	20-20	4-16	100		6		F	10.1	C	Yes	18.00	
	90-104	Dyn.	30-18	4-8			10		C	13.4	C	Yes	16.00	
	90-102	Dyn.	30-18	4-8			10		C	10.6	C	Yes	13.00	
	90-100	Dyn.	50-15	4-16			10		C	11.25	C	Yes	10.00	
GLI	HS-4	Dyn.					4				S	No	35.00	
JVC	HP-1100	Dyn.	20-20	100	102	200	9%		F	7.05		Yes	79.95	
	H-707	Dyn.	20-20	63	104	100	9%		F	5.64		Yes	60.00	
	H-505	Dyn.	20-20	8	106	100	9%		F	4.58		Yes	40.00	

# 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	Adjustable Headband?	Price, \$	Notes
JVC (Continued)	H-404	Dyn.	20-20	16	102	100	9 1/2		F	3.7		Yes	30.00	
	H-M11	Dyn.	20-20	32	103	100	9 1/2		F	1.6		Yes	55.00	
KENWOOD	KH-7	Dyn.	20-23	32	98	1.8V	9.8			1.8		Yes	80.00	
	KH-5	Dyn.	20-22	32	98	1.8V	9.8			1.8		Yes	55.00	
	KH-3	Dyn.	20-20	24	95	1.8V	6.5			2.1		Yes	30.00	
KOSS	KC-180	Dyn.	16-20	90					F	7.8		Yes	19.95	Volume/balance controls.  Volume control.  As above.
	K6A	Dyn.	10-16	100			10		C	14		Yes	29.95	
	K6ALC	Dyn.	10-16	100			10		C	14		Yes	39.95	
	HV1A	Dyn.	15-30	157			10		C	10.1		Yes	49.95	
	HV1LC	Dyn.	15-30	132.5			10		C	10.8		Yes	59.95	
	HVX	Dyn.	15-35	90			10		C	7.8		Yes	69.95	
	HVXLC	Dyn.	15-35	90			10		C	7.8		Yes	79.95	
	Tech II	Dyn.	10-22	245			10		C	7.8		Yes	59.95	
	Pro4AAA	Dyn.	10-22	220			10		C	15.5		Yes	85.00	
	Pro4X	Dyn. & Pz.	10-40	10			10		C	10		Yes	85.00	
	Tech VFR	Dyn.	10-22	245			10		C	16.8		Yes	80.00	
	ESP-10	ES	20-22	3-180			10		F	14		Yes	350.00	
KSP	Dyn.	20-17	43			11		F	3 1/2		Yes	34.95		
NUMARK ELECTRONICS	FLS50	Dyn.	40-18	32		†	10		F	1 1/2		Yes		†100 mW.
	FLS75	Dyn.	25-15	32		†	10		F	1 1/2		Yes		
	FLS100	Dyn.	20-16	32	98	†	10		F	1 1/2		Yes		
	FLS200	Dyn.	20-20	32	98	†	10		F	1 1/2		Yes		
ONKYO	HP-220	Dyn.	20-20	32	100	100	6 1/2		C	2.1	S	Yes	29.95	
PICKERING	OA-2	Dyn.	10-20	40	100	0.15W	7	0.5†	F	2	S	Yes	34.95	†At 110 dB; adaptors for mono and stereo.  With mini mono and stereo adaptor plugs.
	OA-202	Dyn.	10-20	50	100	0.2W	7	0.5†	F	6	S	Yes	29.95	
	OA-3A	Dyn.	20-20	100	110	0.2W	10	0.5†	F	7 1/2	S	Yes	45.00	
	OA-5A	Dyn.	20-22	100	110	0.1W	10	0.5†	F	7 1/2	S	Yes	60.00	
	OA-7	Dyn.	20-22	100	110	0.1W	10	0.5†	F	6	S	Yes	70.00	
	OA-4	Dyn.	10-20	40	105	0.15W	7	0.5†	C	2	S	Yes	49.95	
PIONEER	Master-1S	Dyn.	16-22	100	103	200	9 1/2		F	5.1		Yes	130.00	
	SE-7	Dyn.	20-20	150	100	200	9 1/2		F	8		Yes	70.00	
	SE-L5	Dyn.	18-22	40	101	100	9 1/2		F	1.9		Yes	50.00	
	SE-L3	Dyn.	18-22	40	101	100	9 1/2		F	1.8		Yes	35.00	
	SE-650	Dyn.	20-20	22	103	1V	9 1/2		F	8.6		Yes	75.00	
	SE-550	Dyn.	20-20	22	103	1V	9 1/2		F	8.1		Yes	55.00	
	SE-450	Dyn.	20-20	20	105	1V	8 1/4		F	9.9		Yes	45.00	
	SE-4	Dyn.	20-20	150	96	200	9 1/2		F	7.6		Yes	50.00	
	SE-2	Dyn.	20-20	150	99	200	8 1/4		F	7.3		Yes	30.00	
	SE-205	Dyn.	20-20	10	103	500	8 1/4		F	8.2		Yes	30.00	
RADIO SHACK	Pro-60	Dyn.	15-35	90	93	5V	10	0.5	C	8	C	Yes	54.95	Volume controls.  Slide volume/balance controls.
	Pro-IIA	Dyn.	10-22	245	104	5V	10	0.3	C	16	C	Yes	49.95	
	LV-10	Dyn.	20-20	168	98	5V	10	0.5	C	10	S	Yes	41.95	
	Pro-30	Dyn.	20-20	32	98	2V	10	0.5	C	10	C	Yes	39.95	
	Nova-Pro	Dyn.	20-20	8	108	2V	10	0.5	C	19	C	Yes	31.95	
	Nova-40	Dyn.	30-18	8	103	2V	10	0.5	C	18	C	Yes	24.95	
	Nova-50	Dyn.	50-20	32	100	1V	6 1/2	0.5	F	3	S	Yes	21.95	
	Nova-16	Dyn.	50-15	8	94	1V	6 1/2	0.5	F	14	C	Yes	19.95	
	Nova-25	Dyn.	50-20	25	97	1.6V	5	0.5	F	4	S	Yes	15.95	
	Nova-10	Dyn.	50-15	8	95	1V	6 1/2	0.5	F	11	C	Yes	14.95	
REVOX	RH-310	Dyn.	40-18	600	100	240	6 1/2	0.5	F	18	S	Yes	95.00	
	RH-31	Dyn.	40-18	600	95	220	6 1/2	1.5	F	12	S	Yes	75.00	
SAE	7000	Dyn.	45-18	600			10		F	11		Yes	65.00	
SANSUI	SS-L5	Dyn.	20-20	100	104	†	6.6		F	6.5	S	Yes	50.00	†500 mW.
	SS-L3	Dyn.	20-20	60	105	†	6.6		F	5.6	S	Yes	30.00	
SENNHEISER	HD 400	Dyn.	20-18	600	88	15V	10	1.3	F	3	S		46.00	Infrared wireless; SI-434 transmitter, \$185.00.
	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	
	HD 222	Dyn.	16-20	600	94	8V	10	0.6	F	8.8	C		120.00	
	HDI 434	Dyn.	20-20				0		F	13.5	S		222.00	
SIGNET	TK22	Dyn.	20-20	4-16	96	4.5	11.5	0.4†	F	9.2	S	Yes	85.00	†At 110 dB.
	TK33	ES	10-22.5	4-16		20	8.2	0.1†	F	9.7	S	Yes	275.00	
SONIC INTERNATIONAL	A	Dyn.	40-12	4-16	101		6		F		C	Yes	9.95	Dual volume controls. As above, stereo/mono switch.  Dual slide volume controls, stereo/mono switch.
	20	Dyn.	40-12	4-16	101		10		C		C	Yes	19.95	
	30	Dyn.	20-15	4-16	100		10		C		C	Yes	21.95	
	40	Dyn.	20-20	4-16	99		10		C		C	Yes	24.95	
	101	Dyn.	20-15	4-16	99		10		C		C	Yes	29.95	
	Pro 5	Dyn.	15-24	4-16	115		9		F	6 1/2	C	Yes	32.95	
(Continued)														

# 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	Circumference: C, Supra-aural=S	Adjustable Headband?	Price, \$	Notes
SONIC INTERNATIONAL (Continued)	Pro 10	Dyn.	15-22	4-16	110	10			C	C	Yes	39.95		
	Pro 18	Dyn.	10-24	4-16	99	10			C	C	Yes	27.95		
	Pro 52	Dyn.	19-25	4-16	99	10			C	C	Yes	34.95		
	Pro 70	Dyn.	15-25	4-16	115	10			F	C	Yes	49.95		
	Pro 80	Dyn.	15-25	4-16	115	10			F	C	Yes	59.95		
	Pro 90	Dyn.	20-22	4-16	105	10			F	C	Yes	69.95		
	Pro M-1	Dyn.	20-25	25	98	10			F	S	Yes	49.95		
	Pro M-3x	Dyn.	20-20	32	98	10			F	S	Yes	29.95		
SONY	MDR-1T	Dyn.	24-20	32	98	10			F	1	Yes	29.95		
	MDR-E33	Dyn.	40-18	32	95	3			F	1	Yes	34.95		
	MDR-4T	Dyn.	20-22	32	98	10			F	1	Yes	39.95		
	MDR-50T	Dyn.	18-22	52	100	10			F	1.8	Yes	49.95		
	MDR-70T	Dyn.	16-22	52	100	10			F	1.8	Yes	64.95		
	MDR-80T	Dyn.	16-24	52	101	10			F	2.2	Yes	84.95		
	MDR-3	Dyn.	20-20	32	96	10			F	1	Yes	50.00		
	ECR-500	ES	20-20			7½			F	12	Yes	120.00		
	DR-27	Dyn.	20-25	110	104	10			F		Yes	100.00		
	DR-26	Dyn.	20-25	110	104	10			F		Yes	85.00		
	DR-25	Dyn.	20-22	110	104	10			F		Yes	70.00		
	DR-M5	Dyn.	15-22	32	106	10			F		Yes	65.00		
	MDR-2	Dyn.	20-20	32	96				F		Yes	40.00		
	STANTON MAGNETICS	Micro-Water X11	Dyn.	10-20	40	105	0.15W	7	0.5†	F	2	S	Yes	49.95
Micro-Water X		Dyn.	10-20	40	100	0.05W	7	0.5†	F	2	S	Yes	34.95	With stereo & mono adaptor plugs.
Dyna 25		Dyn.	10-20	50	100	0.2W	7	0.5†	F	6	S	Yes	29.95	
Dyna 55		Dyn.	20-22	100	110	0.25W	10	0.25†	F	5½	S	Yes	60.00	
Dyna 35 Stereo Wafer XXI		Dyn.	20-22	15	100	0.2W	10	0.5†	F	7	S	Yes	45.00	
STAX	SR-44	ES	25-25	8	95	1.5V	7	0.02	F	8.9	S	Yes	140.00	With SRD-4 adaptor.
	SR-54	ES	25-25	8	95	1.5V	7	0.02	F	9	C	Yes	140.00	With SRD-4 adaptor.
	SR-5	ES	25-25	8	96	1.5V	7	0.05	F	13.9	S	Yes	175.00	With SRD-6 adaptor.
	SR-X/Mk.3	ES	25-25	8	97	1.5V	7	0.05	F	13.2	S	Yes	300.00	With SRD-7 sb adaptor.
	SR-Lambda	ES	8-35	8	102	1.5V	7	0.05	F	15.1	C	Yes	340.00	With SRD-7 sb adaptor.
	SR-Sigma	ES	25-35	8	94	1.5V	7	0.05	F	16.4	C	Yes	460.00	With SRD-7 adaptor.
SUPEREX	SM-700	Dyn.	10-20 ±3	4-35	110†		15	0.2	C	10		Yes	69.95	†For 10mV.
	CL-1	Dyn.	10-20 ±4	4-35	110†		15	0.3	C	10		Yes	59.95	As above.
	TRL-99	Dyn.	15-20 ±4	4-80	100†		15	0.3	C	10	S	Yes	54.95	†For 6 mV.
	TRL-88	Dyn.	20-22 ±5	4-150	100†		15	0.2	F	4½	S	Yes	49.95	As above.
	TRL-3	Dyn.	40-20 ±5	4-150	100†		15	0.5	C	10	S	Yes	44.95	As above.
	TRL-77 Pro-BVI	Dyn.	45-20 ±5	4-150	100†		7	1.0	F	11½	S	Yes	34.95	As above.
SWINTEK	MK200S	Dyn.	100-10										2850.00	Wireless.
TEAC	TH101	Dyn.	30-20	30	95	100	10		C	4	S	Yes	49.50	
	HP-50	Dyn.	50-20	30	98	100	8		C	3½	S	Yes	25.00	
TECHNICS	EAH-T805	Dyn.	20-20	125		200	12		F			Yes	35.00	
	EAH-810	Dyn.	20-25		121	1V	12	0.5	C	11		Yes	40.00	
	EAH-820	Dyn.	15-30		128	3V	12	0.3	C	12		Yes	60.00	
	EAH-830	Dyn.	15-35		131	3V	12	0.3	C	13		Yes	80.00	
TEI ELECTRONICS	45-207	Dyn.	20-25	8		0.3W	6		F			No		
	45-272	ES	20-20	8		5W	12		C	1.2		Yes		
	45-270	ES	20-20	8	107	0.1W	6		F	4		Yes		
	45-209	Dyn.	20-18	8		0.5W	10		F			No		
	45-262	Dyn.	20-18	8		0.5W	10		F			Yes		
	45-264	ES	20-20	8		0.5W	10		F			Yes		
	45-265	ES	20-20	8		5W	12		C			Yes		
	45-206	Dyn.	20-18	8		0.5W	6		F			Yes		
TOSHIBA	HR-811	Elect. Cond.	20-20	8/600	†		8	0.5	F	8½	S		74.95	†101 dB for 3V.
	HR-X1	Elect. Cond.	20-20	8/600	†		8	0.5	F	5.6	S		64.95	†As above.
	HR-F1	Elect. Cond.	20-20	8/600	†		8	0.5	F	6	S		49.95	†As above.
	HR-10M	Dyn.	20-20	32	97	†	8		F	1½	S		29.95	†100 mW.
YAMAHA	YH-1000	Ortho.	20-20	150	103	10W	8	0.3	F	18	S	Yes	220.00	
	YH-100	Ortho.	20-20	150	98	10W	8	0.3	F	12	S	Yes	95.00	
	YH-1	Ortho.	20-20	150	94	10W	8	0.3	F	9	S	Yes	70.00	
	YH-2	Ortho.	20-20	150	93	10W	8	0.3	F	7	S	Yes	50.00	
	YH-3	Ortho.	20-20	150	93	3W	8	0.3	F	6	S	Yes	40.00	

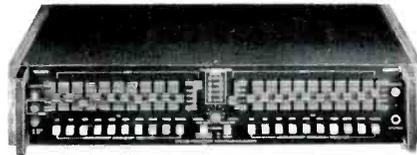
# EQUALIZERS



MXR Stereo Octave



Audio Control C-101



Numark EQ2700



Soundcraftsmen AE2420-R

MANUFACTURER	Model	No. of Channels	No. of Bands	Bandwidth, Octaves	Boost/Cut Range, ± dB	Rated Output, rms V	% THD at Rated Output	S/N, dB, at Rated Output	Variable Center Frequencies?	Variable Filter "Q"?	Dimensions, inches	Weight, Lbs.	Price, \$	Notes
AKAI	EA-G80	2	10		10	1	0.005	100			17.3x3.8x11.4	15	399.95	
	EA-G40	2	8		10	1	0.005	100			17.3x2.8x11.4	11.2	249.95	
AUDIO CONTROL	D-520	2	5	1 & 2	+16 & ±12	1	0.015	96	No	No	14½x5½x2½	5	129.00	1-octave bass EQ; 1 kHz and 15.5 kHz, subsonic filter.
	D10 D11	2	10	1	12	1	0.015	96	No	No	14½x5½x2½	5	169.00	Warble-tone analyzer with calibrated mike; subsonic filter. Bass EQ, phase correct electronic X-over and warble-tone frequency analyzer, subsonic filter. EQ tape, rumble reduction circuit, subsonic filter. Real-time analyzer, pink-noise, generator, calibrated mike, rumble reducer.
		2	10	1	12	1	0.015	96	No	No	14½x5½x2½	5	229.00	
	Richter Scale	2	5	½	12	1	0.015	96	No	No	14½x5½x2½	5	249.00	
	C22	2		1	15	4	0.015	96	No	No	19x6½x3¾	7¾	259.00	
C101	2	10	1	15	1	0.015	96	No	No	19x6½x3¾	7¾	599.00		
BSR	SSI IC	2	5	2	12				No	No	12½x7½x4	5.5	119.95	
	SS110 IC	2	10	1	12				No	No	15½x6¾x5½	11	229.95	
	SSII IC	2	12		12				No	No	16½x8¾x5½	13	329.95	
	SSIII IC	2	12		12				Yes	No	19½x12x6¼		499.95	
	EX 100	2	10	1	12				No	No	16½x7½x3¾	6.6		
	EQ 1	2	5	2	12				No	No	12½x7½x4	5.5		
CM LABS	CM540	2	10	1	12	10	0.05	100	No	No	19x3½x10	18	399.00	Balanced or unbalanced in/out; pink-noise generator.
CROWN	EQ-2	2	11	½	15	2.5	0.01	90	Yes	Yes	19x14½x7½	16	1195.00	Tone controls with variable hinge points.
DBX	20/20	2	10	1	+14, -15		0.01	80	No	No	19x5½x12½	29	1500.00	Microprocessor-controlled, RTA, pink-noise gen., SPL ind., calibrated mike.
FISHER	EQ2322	1	10		12	7	0.1	110	No		17½x3½x11¼	9.2	199.95	Tape monitor, line/source switch, record EQ.
	EQ350 EQ550	1	10		12	7	0.1	110	No		17½x3½x11¼	9.2	229.95	As above. Tape monitor, LED indicators.
		2	12		12	7	0.1	110	No		17½x4¼x11¼	10	349.95	
FOSTEX	3030	2	10	1	12	5.6	0.03	88	No	No	17x3½x8¼	7	250.00	
GLI	EQ-1500	2	10	1	12	10	0.05	105	No	No	19x3¼x7¾	10	250.00	
GROMMES	G4EQ	1	28	½	12	10	0.01	80	No	No	19x5¼x6		337.50	HP and LP filters.

# EQUALIZERS

MANUFACTURER	Model	No. of Channels	No. of Bands	Bandwidth, Octaves	Boost/Cut Range, ±dB	Rated Output, rms V	% THD at Rated Output	S/N, dB, at Rated Output	Variable Center Frequencies?	Variable Filter 'Q'?	Dimensions, inches	Weight, Lbs.	Price, \$	Notes
HARMAN/KARDON	E07	2	10	½	12	4	0.02	95	No	No	15.2x12.6x2.9	10¼	249.95	Overload indicators, tape EQ switch, input level controls.
HEATH	AD-1703	2	10	1	10	1.5	0.01	90	No	No	19x14x7¾	12	259.95†	†Kit; clipping indicators, tape monitor, record EQ, bypass.
	AD-1305	2	5	2	12	1.5	0.05	90†	No	No	17½x8x4¼	8½	144.95	† Unweighted.
JVC	SEA-20GL	2	7		12	5	0.03	95	No	No	4x15½x10½	7.5	189.95	6-dB input attenuator.
	SEA-60	2	10		12	2	0.005	115	No	No	4x16x12½			As above, real-time spectrum analyzer, reverse response switch.
	SEA-70	2	12		12/6	2	0.003	118	No	No	6x16x12½	13.2	400.00	Reverse response switch, 6-dB input attenuator, function indicators.
	SEA-80	2	10		12	2	0.003	118	No	No	6x17¼x12¼	17.6	599.95	Real-time spectrum analyzer, pink noise-generator.
KENWOOD	GE-80	2	5		10	5	0.06	110			17½x2½x6¼	5.9	175.00	
McINTOSH LABORATORY	MQ104	2	8	½ or 1	15	2.5	0.1	90	Yes	Yes	9¼x5½x3¾	4¼		
	MQ107	2	14	½ or 1	15	2.5	0.1	90	Yes	Yes	14x5.7x3.43	7		
MODULAR AUDIO PRODUCTS	3100	1	3	½	15	17	0.5	90	Yes	No	1½x4¼x5¼	2	415.00	
	3550	1	3	½	12	17	0.5	90	Yes	No	1½x4¼x5¼	2	415.00	
MXR INNOVATIONS	Stereo	2	10	1	12	1	0.05	95	No	No	9¼x2x7	4½	219.95	ISO centers.
	Graphic	2	15	¾	12	1	0.02	95	No	No	19x3½x6	4½	357.00	As above.
	Stereo	1	31	½	12	1	0.01	93	No	No	19x3½x6	4½	385.00	As above.
	Fifteen Band	2	10	1	12	1	0.02	95	No	No	19x3½x6	4½	250.00	As above, subsonic filter.
	One-Third Octave	2	5	Var.	12	1	0.05	95	No	No	9½x2½x6	4	149.95	LED display.
NEI	2711	1	27	½	12		0.008	82	No	No	19x3½x9½	9	475.00	Model 2712, less balanced outputs and gain control, \$399.00.
	1021	2	10	1	12		0.008	90	No	No	19x3½x9½	9	425.00	Model 1022, as above, \$349.00.
	341	1	4	0.1-3	15		0.01	80	Yes	Yes	19x1¼x6½	10	299.00	Model 342, dual channel, \$575.00.
NIKKO	EQ20	2	10	½	12	1	0.007	100	No	Yes	19x3¼x9¾	11	320.00	Pre-post tape switch.
	EQ500	2	6		12	1	0.01	100	No	No	17.3x3.6x13	10.8	210.00	As above.
NUMARK ELECTRONICS	EQ2100	2	6		15	8	0.01	96	No	No	12½x3¼x6½	7½	129.95	Dual outputs.
	EQ2400	2	10	1	15	8	0.01	96	No	No	18½x3½x6½	10½	199.95	As above, unity gain control.
	EQ2500A	2	10	1	15	8	0.01	102	No	No	18½x3½x6½	11	249.95	LED readout, unity gain control, subsonic filter, dual outputs.
	EQ2700A	2	10	1	15	8	0.01	102	No	No	18½x3½x6½	12	399.95	LED readout, unity gain control, spectrum analyzer, pink-noise generator.
ORBAN ASSOCIATES	622A	1	4		+16 -∞			84	Yes	Yes	19x3.5x5.2	10	509.00	"Constant-Q" design.
	622B	2	4		+16 -∞		0.025	84	Yes	Yes	19x3.5x5.2	10	799.00	As above.
	672A	1	8		16		0.08	78	Yes	Yes		11	589.00	Reciprocal; LP and HP filters.
	674A	2	8		16		0.08	78	Yes	Yes		11	1149.00	As above.
PHASE LINEAR	1100	2	5	0.18-1.8	12	2	0.02	100	Yes	Yes	19x5½x8	12	595.00	
	1400	2	10	1	14	8	0.009	98	No	No	19x8½x3½	8	549.95	
PHOENIX SYSTEMS	P-94S	2	2	0.16-2	20	8	0.02	90	Yes	Yes	11x5¼x2¾	3.3	150.00†	†Wired; kit, \$99.00.
PIONEER	SG-9	2	12	1	10	0.15	0.006		No	No	16x5x14	15½	395.00	

# EQUALIZERS

MANUFACTURER	Model	No. of Channels	No. of Bands	Bandwidth, Octaves	Boost/Cut Range, dB	Rated Output, rms V	% THD at Rated Output	S/N, dB, at Rated Output	Variable Center Frequencies?	Variable Filter "Q"?	Dimensions, Inches	Weight, Lbs.	Price, \$	Notes
RADIO SHACK	Realistic 31-2000	2	10		12	10	0.02	80	No	No	4¼x16¼x10¼		179.95	Zero gain control with LED level matching. EQ bypass.
	Realistic 31-1988	2	5		12	10	0.02	80	No	No	4¼x10¼x6		79.95	
ROTEL	RE-1010	2	10	1	12	3.5	0.005	105	No		17x11¼x3¾	9.5	200.00	
	RE-500	2	7	1½	12	3.5	0.008	100	No		17x10¼x3¾	8.6	150.00	
SAE	E101	2	2	0.3-3.5	16	2.5	0.02	95	Yes	Yes	3½x19x12½	20	650.00	Digital readout, 10 memories per band, tape EQ. Tape EQ. As above. As above.
	180	2	2	0.3-3.5	16	2.5	0.02	90	Yes	Yes	4¼x17½x3½	8	300.00	
	1800	2	2	0.3-3.5	16	2.5	0.02	95	Yes	Yes	5¼x19x3½	10	400.00	
	2800	2	4	0.3-3.5	16	2.5	0.02	95	Yes	Yes	8¼x19x3½	14	700.00	
SANSUI	SE-9	2	8	1	12	5	0.008	110	No	No	18½x5½x13	15	700.00	Microprocessor-controlled, four-curve memory, auto adjust, spectrum analyzer display, with calibrated mike. Spectrum analyzer display. Reverb amp incl.
	SE-8	2	10	1	12	4	0.008	110	No	No	18½x5½x11½	10.1	400.00	
	SE-7	2	10	1	12	5	0.008	110	No	No	19x6¼x11¼	10.4	300.00	
	SE-5	2	8	1	12	5	0.008	110	No	No	19x4¾x11¼	8.6	230.00	
	RG-7B/RG-75	2	10	1	12	5	0.05	70	No	No	18½x3¾x9	7.3	260.00	
H.H. SCOTT	825Z	2	10	1	12	8	0.01	87			17x10x3½	10	274.95	
SHURE	M610	1	8	1	12†	5	0.5	71			12x7x2½	4	210.00	†Cut only.
	SR107	1	10	1	15	6.2	1	99			19x8¼x1¼	7¾	315.00	
SONTEC	HF-230	2	3	Var.	12	1	0.001	84	Yes	Yes	19x6x1¾	9	990.00	
SONY ESPRIT	SE-P900	2	3	0.15-1	12	5	0.01	100	Yes	Yes	18½x15½x3½	17¾	1750.00	
SOUNDCRAFTSMEN	AE2420-R	2	10	1	16	10	0.01	105	No	No	19x5¼x11	30	499.00	Differential comparator analyzer with pink-noise generator, line and tape EQ, LEDs for balancing, test record & Computone charts inc. Tape & line EQ, LEDs for balancing zero-gain controls, test record & Computone charts inc. As above plus balanced or unbalanced out. Tape & Line EQ, zero-gain controls, test record, Computone charts. As above. Bal. or unbal. in and out, subsonic filter, HI and Lo shelving, EQ defeat, front panel in and out.
	RP2215-R	2	10	1	22	10	0.01	114	No	No	19x5¼x11	22	399.00	
	TG3044-R	2	21	½, ¾	22	10	0.01	114	No	No	19x5¼x11	23	599.00	
	RP2201-R	2	10	1	16	10	0.01	105	No	No	19x5¼x11	21	299.00	
	SE450	2	10		16	19	0.01	105	No	No	17x3¾x10	14	249.00	
TG2245-R	2	10	1	12	10	0.01	105	No	No	19x3¾x11	18	399.00		
SUPEREX	GEM-7	2	4	Var.	18	6	0.01	89	Yes	Yes	19x7.4x5.3	11	449.00	Three tape switches. As above.
	GEM-4	2	5	2	14	2	0.01	85	Yes	No	19x7.4x5.3	10	249.95	
	GEM-3	2	10	½	14	2	0.03	85	No	No	19x7.4x5.3	11	239.95	
	GEM-2	2	5	2	14	2	0.02	92	No	No	15x7.4x5.3	6	119.95	
	GEM-1	2	5	2	12	2	0.02	92	No	No	6¼x4¼x2¾	2	89.95	
SYMMETRIC SOUND SYSTEMS	EQ-2	2	12	5/6	10	2	0.02	92	No	No	3¼x4¼x10	3	165.00†	†Wired; kit, \$100.00.
TEAC	GE-20	2	10	1	12	5.6	0.03	82	Yes	Yes	17½x3¾x6¾	9.9	350.00	With HP and LP filters.
TECHNICS	SH-8015	2	10	2	12 or 3	6	0.02	95	No	No	17x3¾x10¼	7.6	200.00	Reverse EQ source record out. With Space Dimension control; mike mixer with echo.
	SH-8020	2	24	1	12 or 3	6	0.01	100	No	No	17x6x9¾	13.2	390.00	
	SH-8030	1	5	2	12		0.005	80	No	No	17x4¼x11	10.6	420.00	
TELELECTRONICS	36-155	2	20	½	12		0.05	80	Yes		19x3x8	6		
	36-170	2	20	½	12		0.05	80	Yes		19x3x8	6		
	49-170	2	5	¼	12	30	10	55	Yes		5½x5½x2	2.9		
	49-210	2	10	½	12	30	1	55	Yes		7½x5½x1½	2.5		
	49-212	2	9	½	12	60	1	65	Yes		7x6¼x7	4		

# THE COLUMN

MICHAEL TEARSON  
JON & SALLY TIVEN



**Pirates:** Rickie Lee Jones  
**Warner Bros. BSK 3432**, stereo,  
\$8.98.

Sound: A                      Performance: A

It's no surprise that it took two years for Rickie Lee Jones to deliver her second album. Fast fame and fortune, otherwise misnamed "overnight success," can be a difficult burden. Hell, it can even affect your lifestyle and inadvertently wreck your creative processes. Indeed, for Rickie the time was filled with false starts, shattered hearts and fame's ugliest underbelly.

*Pirates* is at once more somber and adventurous than *Rickie Lee Jones*. "We Belong Together," the opening song, has one of those moments of pure magic that signals the depth of the album. It is a painfully vivid recounting of the end of a deep love gone desperately awry. The first verse and refrain establish how the two came together and the second verse tells of the undoing. The percussion begins altering the smooth rhythmic underpinning in this verse, so that when drummer Steve Gadd really makes himself felt on the downbeats of the second refrain's "We belong together," he comes on like thunder; Gadd then rolls and flourishes until at the next repetition of "We belong together," he has single-handedly turned the song around 180 degrees into a swing motif.

And swing is the key to Rickie Lee Jones. As *Pirates* amply displays, the lady owes nothing to rock. The music she writes is atmospheric, cinematic, decidedly unusual. Her records sound as if the session players she employs, all of them top rankers, really enjoy recording with her because they really get to *play*, not just play charts. See, Rickie Lee writes in all these unexpected swoops and swirls that nobody has dared even attempt since before Laura Nyro vanished. But Rickie Lee integrates them into her songs even better, that's what accounts for the air of danger in her melodies.

Then there is her growth as lyricist. Her command of pure language, powerful on her debut, is dazzling here. She can be expansive and effectively florid, and terse as in the haunting "Skeletons": "Well, it could be a boy/But it's okay if he's a girl." "Skeletons" was most likely inspired by a newspaper

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clipping about a case where the cops shot an innocent man reaching for his wallet and ID; she sets this as a spare tragedy. "We Belong Together," by comparison, works on a far grander scale in detailing failed love. Then there's the sprawling "Traces of the Western Slope," an elliptical yarn of a ghost and the descent into madness. The album's single pure upbeat number is "Woosy and Dutch on the Slow Train to Peking" which plays as a sequel to "Danny's All-Star Joint" of the first album, a joyous, rambling account of life in the beat lane.

As for the recording, Russ Titelman

and Lenny Waronker are again at the helm, displaying, I am sure, almost infinite patience with a most special and potentially difficult artist. *Pirates*, the product of over a year and a half of sporadic effort, emerges as a beautifully wrought piece; the sound is as lovely as the playing is hot. The stereo placement is superb and Lee Herschberg's mixing and mastering are exemplary. The clarity allowed by the 3M multi-track digital system is an obvious plus.

Rickie Lee Jones is an artist of rare vision and scope. Her work operates on many levels at once so there is no easy label to stick on her which either aptly or

comfortably describes what she does, except perhaps "extraordinary."

Most important, *Pirates* is the proof that success hasn't spoiled Rickie Lee Jones; she may be a lot of things, but a one-shot artist isn't one of them.

Michael Tearson

**Guitar Music: Leo Kottke**  
**Chrysalis CHR 1328, stereo, \$8.98.**

Sound: C+ Performance: A

Leo Kottke's albums of purely instrumental guitar pieces come rarely, so infrequently as to be an event, and this is just what *Guitar Music* is. Leo has one of the most uniquely personal styles and sounds on guitar, especially when he takes out his twelve-string which has an almost out-of-tune nickelodeon sound. Though he can play furiously "Part Two," his choicest pieces are the slow, playful melodic ones, like the extended "Side One Suite," when he takes a note or chord and holds it, suspending time itself.



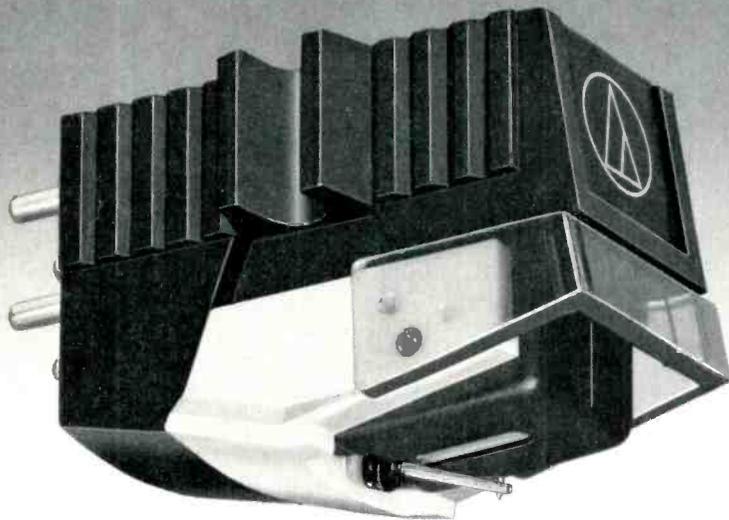
Curiously, the recorded sound here is distanced just short of remote, as if the album was not recorded so much as preserved. As a solo acoustic album, it should have more warmth, particularly so since his performance displays that warmth and involvement. M.T.

**The King Kong Compilation**  
**Mango MLPS 9632, mono, \$7.98.**

Sound: A Performance: A

If you need to hear the hits, mon, but don't dig what the radio gives you... check out the ultimate early reggae collection, culled from long-ago productions of Leslie Kong. There are fairly familiar chartbusters like The Melodians' "Rivers of Babylon" and Desmond Dekker's only U.S. hit "Israelites," but these tracks have grown better with age and sound like classics rather than

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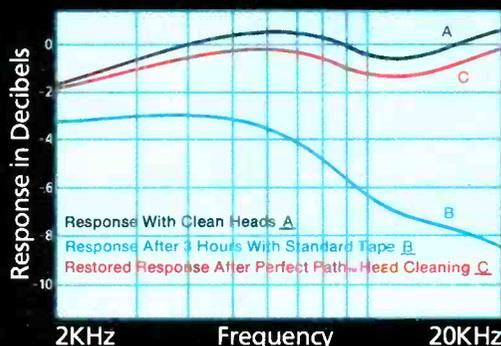
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cliches. However, Americans may not be as aware of reggae hits like The Melodians' "It's My Delight," Mr. Dekker's "It Mek," or Ken Boothe's "Freedom Street."

Some claim that reggae has undergone a steady progression, but listening to these early recordings (in mono yet), one is tempted to dismiss several modern attempts that pale in the shadow of these Kong works.

When you hear rock records that are 10 years old, they often sound terribly tinny and dated, but these songs capture performances with true high fidelity (although not in stereo), despite the fact

that Jamaican recording technology was far behind the rest of the world's. The simple sound of bass guitar, drums, rhythm guitar and keyboards on this LP sets the trend for reggae records to come. Very few albums have surpassed the sounds here for production values alone (a possible exception being Junior Murvin's "Police & Thieves," and the work of producer Lee Perry). The performances here are superb as well. The often neglected Pioneers are represented in two examples of their distinctive sound, "Samfie Man" and a song about a dead horse, "Long Shot Kick De Bucket."

The wide stereo groove isn't necessary for a record of this sort, so it allows the buyer to enjoy 16 excellent songs and still not lose reproduction quality or volume loss. It leads you to ponder the megadollars currently spent on various LP noise reduction systems and 48-track studios and to contemplate returning to 1968 state of the art if it could mean more albums of this high quality.

Jon & Sally Tiven

**From Branch to Branch:** Leon Redbone

**Emerald City/Atco EC 38-136**, stereo, \$7.98.

Sound: B- Performance: A-

Leon Redbone's finest work is on this record. And it yielded his first genuine hit, "Seduced."

He chooses his material so well and so thoughtfully from the world of song before rock and roll, a subtle blend of the obscure and the familiar. The album features loving performances of delicate subtlety, an adept balance of the deft and the daft.

For years people have asked if Leon Redbone is for real. Unlikely as it seems, he is. The sense of his album, as if muted by gauze or soft focus, reflects the man offstage.

*From Branch to Branch* is the perfect antidote for an overdose of the present. M.T.

**Another Ticket:** Eric Clapton  
**RSO RX-1-3095**, stereo, \$8.98.

Sound: B+ Performance: B

No real surprises on ol' Slowhand's latest except for how spunky his band sounds. The only changes since last year's listless live album are the addition of Procol Harum's voice and pianist Gary Brooker to the band and the return of Tom Dowd as producer, replacing Glyn Johns. There is virtually no difference in the production styles, but somewhere there came a welcome burst of that raw spunk that the last studio album *Spineless*—oops, I mean *Backless*—missed.

*Another Ticket* surely will be no breakthrough for Eric Clapton but it should keep his latter-day fans happy. M.T.

**This Is Elvis:** Elvis Presley  
**RCA Victor CPL2-4031**, stereo, \$12.98.

Sound: B Performance: C

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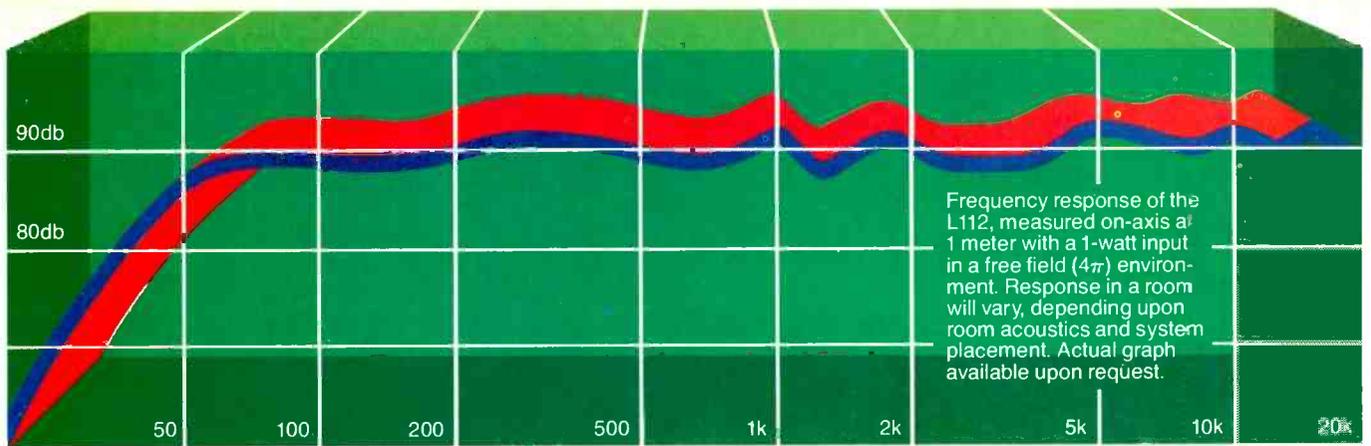


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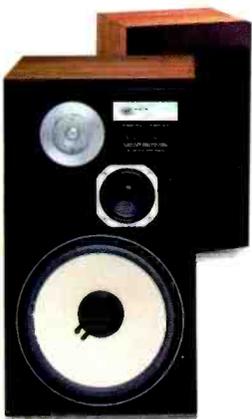
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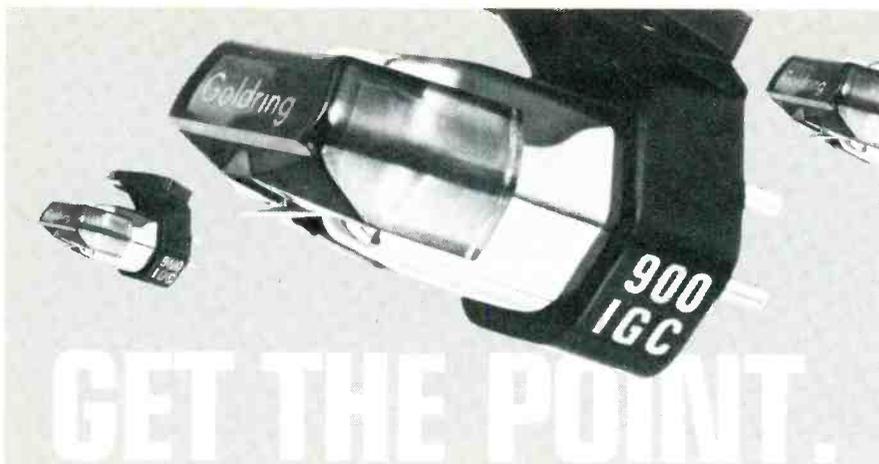


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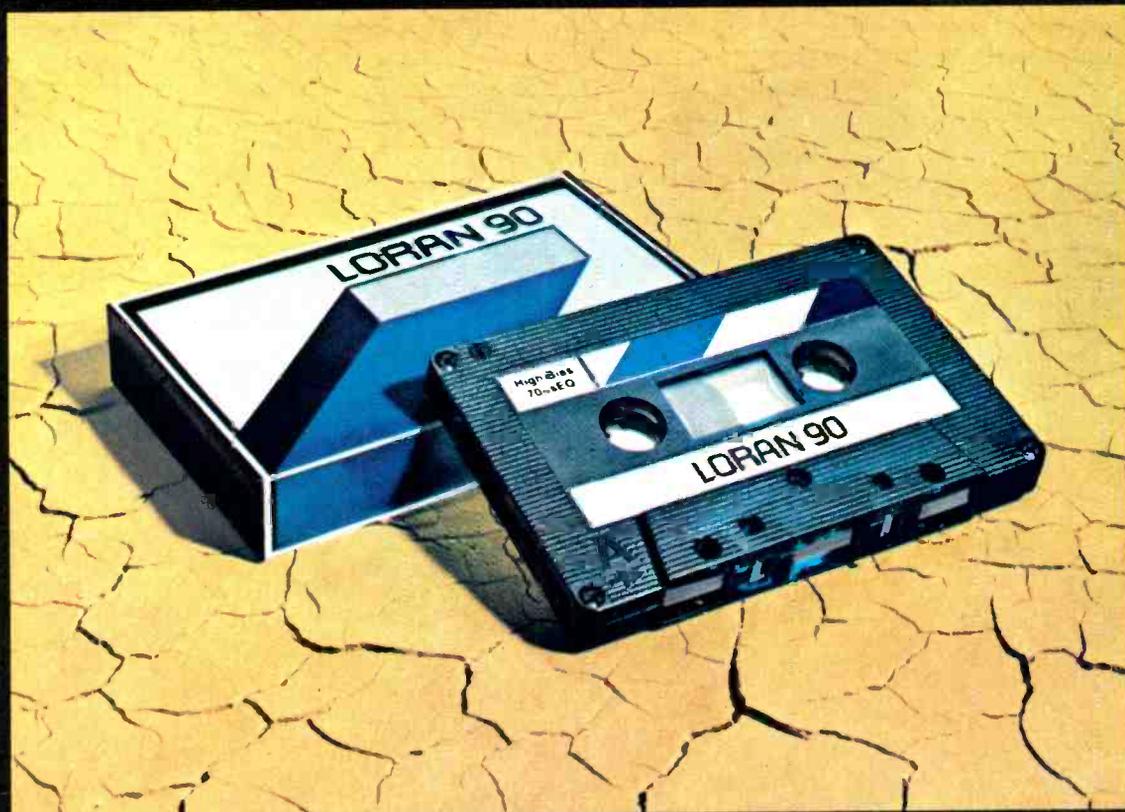
Elvis the Father of rock 'n' roll. The latest RCA package is coordinated with the film pseudo-documentary, and this bastardization of history, disguised as a venerable document, should be relegated to a mere footnote rather than the focus of much media attention. For this film virtually ignores Elvis the Singer/Musician and even Elvis the Human — the only view we get of Elvis is either from the back of the theater (where the focus is on the screaming goils) or over Joe Esposito's shoulder, Mr. Esposito being a disenfranchised member of Elvis' Memphis past.

The disjointedness of the film, the interjection of artificially dramatized scenes, and the voiceovers, which take so much for granted, almost ruin it. The first hour of footage from Elvis' television appearances, however, makes for a great deal of excitement (even though the Milton Berle sequence is inexplicably truncated before Berle hysterically mimics Presley — check the CBS Broadcast Library for the full performance), but much time is wasted in faked explanations of why Elvis did this, why Colonel Parker was such a great manager, and how Elvis crumbled when his mother died. The record's high points are side one and two, where the pre-military E.P. sings hisself silly and lets the audience into the personality which charmed a nation.

But where is the truth in this film/record? Elvis didn't just come out of nowhere; he performed in college and high school auditoriums before he ever made a record. He fell victim to the drug scene for a simple reason: Elvis was just an ignorant boy from the wilds of the South who really didn't have much of a handle on what he was doing, and he never developed the natural abilities to distinguish bad from good due to the warping of his adolescence. The second two sides of *This Is Elvis* are interesting only in that you are able to hear the chronological warping of Mr. Rock'n'Roll.

But even this is a deception — Elvis' last album *Moody Blue* had moments of power ("Way Down"), and killers such as "Burning Love" are overlooked in favor of embarrassing versions of "Are You Lonesome Tonight" and "My Way." After seeing Elvis deliver an exciting and stunning performance in Memphis during the summer of 1976, it can be said that Elvis, like any performer not directly in control of his artistic output, had a sporadic career which had its low points and high points — but not in such black and white terms as *This Is Elvis* seems to indicate. Rewriting history in such a subjective way is simply, in the words of Mr. Chuck Berry, "Too Much Monkey Business." Jon & Sally Tiven

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**The Outside Within:** Chico Freeman  
**India Navigation IN-1042**, stereo,  
\$8.98. (Mail orders, contact: India Navigation, 60 Hudson St., New York, N.Y. 10013.)

Sound: B Performance: B+

Chico Freeman is one of the leading saxophonists in the new generation of modern jazz musicians who are refining the breakthroughs of the '60s avant-garde and distilling them through '70s melodicism and a rediscovery of be-bop. The rebellion of iconoclasts such as Ornette Coleman, Cecil Taylor, John Coltrane, Miles Davis and the entire Association for the Advancement of Creative Musicians (of which Freeman is a member) can now be viewed from the perspective of temporal distance; their advances in music can be integrated into the historical flow of jazz.

*The Outside Within* travels the modal territory laid out by Coltrane. The side-long piece "Undercurrent," written by bassist Cecil McBee, opens with a ritual sounding of gongs and McBee slowly

walking in the sliding, two-note pulse which forms the undercurrent. Freeman enters on tenor saxophone with the gorgeous melody that seems to caress McBee's muscular bass line. The tune ebbs and flows in a gradual rise in intensity, and triggered by the shimmering drums of Jack DeJohnette, eventually Freeman takes off in a swirling solo of melodic invention and searing momentum. DeJohnette rides a carefully constructed solo out of a duet with Freeman, followed by a furious excursion by John Hicks on piano.

The three Freeman compositions on side two have a spiritual feel echoed in their titles: "The Search" is a slow, breathy ballad which progresses from a feeling of despair and desolation to one of strength and confirmation; "Luna" surges over a stuttering bass line and a single, block piano chord with Freeman's tenor sounding like an animal who is just waiting for the moment to strike; in "Ascent" rhythm and melody break into fragments within themselves.

*Undercurrent* is a good addition to

Chico Freeman's growing repertoire. The recording has captured the full sound of this group right down to the throbbing sound of Cecil McBee tapping the wood of his bass for his distinctive, richly textured sound. *John Diliberto*

**Boogie-Woogie & The Blues:** Albert Ammons

**Commodore XFL-15357**, mono,  
\$7.98.

Sound: B- Performance: A

With the exception of Fats Waller, no one has played jazz piano with more emphatic enjoyment than Albert Ammons. Even his blues had a sort of pensive gaiety. His ragtime sparkled, and in his hands boogie was an extroverted romp. This disc offers classic Ammons, recorded for Commodore in 1944 and reissued on the Commodore label by CBS. Here is superb boogie-woogie virtuosity, not a simplistic, commercialized version, mind you, but that of a gifted musician who offers sparkling ideas and a tidy train of thought.

Numbers such as "Boogie-Woogie Stomp" and "Boogie-Woogie Blues" are exhilarating. On side one, Ammons plays with an excellent sextet that includes Hot Lips Page on trumpet and Don Byas on tenor sax. Side two consists of unaccompanied piano tracks with the piece "The Boogie Rocks" demonstrating his power as a soloist. This marvelous, totally improvised tour de force comes through with a lifting tempo that defies belief.

If you like exhilarating, uncomplicated jazz, Albert Ammons' *Boogie Woogie & The Blues* is for you. This is an historically valuable, highly recommended release, and the Columbia engineers have done a good job in cleaning up Commodore's tubby, muffled 78-rpm sonics.

*John Lissner*

**Who's Been Talkin':** The Robert Cray Band

**Tomato 7041**, stereo, \$7.98.

Sound: B Performance: B+

Robert Cray touches all the right bases for a young contemporary blues singer/guitarist: Blues Kings Albert, B. B., and Freddie; Bobby Bland; Buddy Guy, and even a touch of Albert Collins. Not surprisingly, Cray's debut album

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falls far short of the work of his mentors. After all, several of them have been in the music business longer than the 26 years Cray has been in this world. While such comparisons are therefore somewhat unfair, it's to his credit that they're not uncomplimentary. Cray is already a formidable talent, no mean feat at an age when most up-and-comers are still apprentices to established bluesmen.

Although *Who's Been Talkin'* has been issued on Tomato, the disc is the latest effort from independent Joliet Productions and bears that firm's telltale identification marks. As with other Joliet albums by Phillip Walker and Lonesome Sundown, the production is first-rate throughout. All the songs, whether originals or well-chosen covers, feature varied arrangements from track to track, providing Cray and crew with ample opportunity to display the full scope of their talents. Cray's own highly praised West Coast band is augmented by a number of talented sidemen, among them such familiar names as pianist Nat Dove and the ever-soulful David li on sax.

Amidst all the studio talent on display, however, Cray's own harp player, Curtis Salgado (to whom the Blues Brothers dedicated their debut album), gets noticeably shortchanged. Too often a song relies on a strutting brass section to handle the role that Salgado presumably fills on stage. Consequently he's confined to only one solo, a solid Charlie Musselwhite-like run, that makes one wish Salgado hadn't been pushed quite so far out of the spotlight.

With *Who's Been Talkin'*, Robert Cray jumps into the forefront of under-30 bluesmen who promise to hit their stride in the coming decade. Roy Greenberg

### Jazz Giants, Vol. 1

**Giants of Jazz 1002**, mono, \$7.98

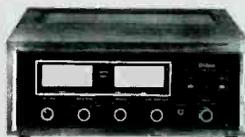
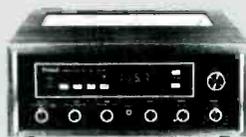
Sound: C- Performance: A

Giants of Jazz is a praiseworthy collector's label specializing in rare and unusual live performances — mostly from the Swing Era. *Jazz Giants, Vol. 1* is a fascinating potpourri of airshots and radio transcriptions devoted to Fats Waller, Benny Goodman, Duke Ellington, Louis Armstrong, and Count Basie.

The Waller broadcasts date from December of 1938 when Fats made a guest appearance on a weekly radio series called "This is New York." The program originated from WABC (then CBS Radio's flagship in the Big Apple) and attempted to catch in its dialog, music, and varied guests the color and excitement of New York. The patter tended to be a bit stilted, as one can hear when stuffed-shirt host Gilbert Seldes, a *New Yorker* writer, tries to banter with Fats

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Waller, asking Fats to take him on a tour of Harlem. After some silly patter in which Fats slyly puts Seldes on, the ebullient pianist swings out, accompanied by the CBS studio orchestra led by Leith Stevens (later to be noted for his modern-jazz score of the early Brando movie, "The Wild One"). Although the big band was not Waller's most comfortable milieu, he rockets along merrily on his classic "The Joint is Jumpin'," offering a humorous vocal and some driving piano. On "Summertime," an overrated and overdone Gershwin tune, the CBS band backs Fats with a saccharine string section and Fats' vocal is uncharacteristically mawkish. However, Waller quickly recovers with an up-beat, romping version of "Stompin' at the Savoy," a swing tune he never recorded commercially.

The Waller selections are followed by three Benny Goodman quintet tracks recorded on July 19, 1943, while the Goodman band was in summer residence at the Hotel Astor in New York. Benny made a guest appearance on a program called "Broadway Bandbox," hosted by Frank Sinatra. Frank introduces Benny with a heavy Hoboken accent, and the Goodman group, sparked by Jess Stacy's bracing piano, offers spirited, neatly turned performances of "Rose Room" and "Lady Be Good." In the middle of Stacy's "Rose Room" solo, one must put up with an idiotic bobbysoxer outburst — typical of the adolescent audience reaction to Sinatra in those days.

Duke, who also makes an appearance on the "Broadway Bandbox," chats with Sinatra in his urbane, ambassadorial manner and offers two fine piano solos on "Solitude" and "Don't Get Around Much Anymore," interpreting them in his angular, melodic, richly chorded style that reveals its roots in Harlem stride.

The five Louis Armstrong All Stars selections, recorded from 1951 school broadcasts cut on 16-in. transcriptions made for the Standard Oil Co. of California, are all potent performances, with Satchmo blowing fire and brimstone on "Struttin' With Some Barbecue," "Back O' Town Blues," and "Boogie Woogie on the St. Louis Blues." Earl "Fatha" Hines, then a member of the Armstrong group, offers a swaggering, zestful solo on "Struttin'."

The bristling Count Basie Sextet of 1951, appearing on a program called "Stars on Parade," is represented by four numbers. The Basie tracks begin with a rapid-fire "Move," offering excellent solos by Marshall Royal on clarinet, Clark Terry on trumpet, and Wardell Gray, tenor sax. The same threesome, plus Basie, is featured on "Golden Bul-

let," while a rolling "Basie Boogie" comes to life under the Count's fleet hands.

Don't expect anything like high-fidelity from *Jazz Giants*; the sound quality is uneven — many tracks reflect the noisy transmission of the AM broadcasts of the day.

John Lissner

**Live On Maxwell Street:** Robert Nighthawk

**Rounder 2022**, mono, \$7.98.

Sound: C+ Performance: B+

Performing on what amounts to little more than a street corner must represent the epitome of a musician spontaneously interacting with his community. *Live On Maxwell Street* captures blues guitarist Robert Nighthawk leading his small band in just such circumstances in 1964 at Chicago's best known open air market, long famed for its casual Sunday performances.

Although Nighthawk enjoyed playing before Maxwell Street's openly enthusiastic crowds, he surely deserved greater recognition just three years before his death. B.B. King, Muddy Waters, Elmore James and many others were influenced by Nighthawk's introspective slide guitar work, heard for many years on different radio stations throughout the Mississippi Delta as well as in juke joints that dotted the region.

Yet Nighthawk did little to court possible fame, as Peter Guralnick points out in liner notes that are a model of informative annotation. Nighthawk (who took his colorful surname from one of his first hits) recorded under a number of different names but never his own (Robert Lee McCollum). His rambling ways wouldn't let him remain in Chicago long enough to capitalize on that city's burgeoning post-war blues scene, which continues to this very day.

*Live On Maxwell Street*, one of only two full albums from the Arkansas-born bluesman, both coincidentally released posthumously, finally explains why his contemporaries spoke of the late guitarist with such awe. Nighthawk's solos combine the grittiness of Delta blues with an atypical degree of urban sophistication. The unique blend of Mississippi and Chicago is striking, particularly on "Sweet Black Angel," the source of B.B. King's chart-topping "Sweet Little Angel." The material on this set isn't performed with the precision evident in the *Kansas City Blues* album on Pearl, but it's the very rawness of these cuts that gives them their visceral power.

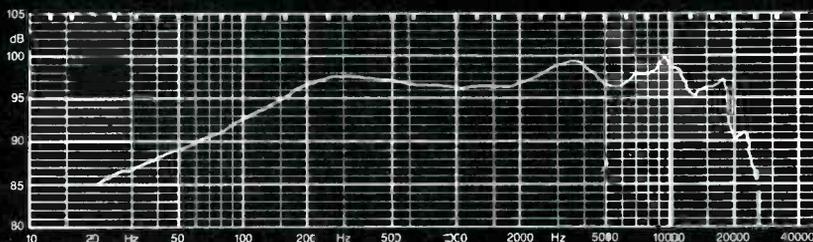
If you're a fan of amplified slide guitar, *Live On Maxwell Street* is required listening.

Roy Greenberg

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**DEADLINE-** 1st of month two months preceding the cover date. If the first of the month falls on a weekend or holiday, the closing date is then the last business day before the holiday or weekend. **ADS RECEIVED AFTER THE CLOSING DATE WILL BE HELD FOR NEXT ISSUE UNLESS OTHERWISE STATED.**

**BLIND ADS-** Box numbers may be used at \$5.00 extra for handling and postage.

**GENERAL INFORMATION** Ad copy must be type-written or printed legibly and received on or before the 1st of the month, two months preceding the cover date. Display advertisers must make a space reservation on or before the closing date, material (Camera Ready Only) may follow by the 10th. The Publisher, in his sole discretion, reserves the right to reject any ad copy he deems inappropriate. All advertisers must supply: Complete name, Company name, Street address (P.O. Box is insufficient), and telephone number before ads can be published. Classified ads are not acknowledged and do not carry Reader Service Card Numbers. Frequency contracts not fulfilled will be short-rated accordingly. Ads submitted for a 3 time frequency or less are unchangeable. Classified ads are payable in advance **BY CHECK OR MONEY ORDER ONLY.** (Sorry, we can not accept credit cards.) Additional information available upon request. Contact: Laura J. LoVecchio, Advertising Coordinator, 1515 Broadway, NYC 10036 ... Direct Dial (212) 975-7530.

### MAIL ORDER AND DISPLAY CLASSIFIED RATE

1 col x 1"	\$175
1 col x 2"	\$275
1 col x 3"	\$375
2 col x 1"	\$275
2 col x 2"	\$475

Advertiser must supply complete film negative ready for printing for display ads.

**AUDIO Magazine**  
1515 Broadway  
New York, N.Y. 10036

**HOW TO ANSWER BOX NUMBER ADS**  
When replying to an Audio Box Number Ad, please use this address Box No. — c/o Audio, 1515 Broadway, New York, N.Y. 10036

## FOR SALE

**AAA mint condition WIN TURNTABLE** \$1695. (315) 437-1209.

**AAA—QUALITY EQUIPMENT AT DISCOUNT PRICES!!!** Adcom, Ads, Carver, Concord, Dbx, Mitsubishi, Nad, Nakamichi, Yamaha, and many more. For quotes and additional information phone (914) 343-5150, 10AM-5PM, M-F. For product brochure Send \$1.00 to: Beck's Hi-Fi One South Street, Middletown, New York, 10940.

**AAA SELECTION OF HIGH-END AND QUALITY** Components, speakers, cartridges, tonearms, turntables, accessories, or whatever. Write or call, you'll be glad. Ask for specials list. Many surprises. Audio Unlimited, 1798 Technology Drive, San Jose, CA 95110 408/279-0122 1-6pm.

**A BARGAIN: TECHNICS EPA-100 \$299**, Lustre GST-801 \$250, Super SDX-100 \$250, Dynavector Ruby \$180, All Unused (212)784-2939.

**ABATE THE HIGH COST OF YOUR NEXT AUDIO PURCHASE!** DIRECT DISCOUNTS LTD. offers many of the finest lines of audio gear from budget equipment to typically non-discounted components, cartridges, speakers, etc. Whether you're a novice or seasoned audiophile, we believe that our incredibly wide selection, low prices and helpful advice could make us your one-stop audio bargain place. Some of the lines that we offer include ADVENT, AR, ADCOM, BOSE, dbx, DENON, ESS, HAFLER, HARMAN/KARDON, INFINITY, MITSUBISHI, NAD, NIKKO, ONKYO, PHASE LINEAR, SAE, TANDBERG, THORENS and many many more. As an added service to our customers, we also offer video equipment (incl many of the Large-screen Tvs, VCRs, etc.) and even a new "wireless" extension telephone for less than \$200.00 (sugg. retail \$560.00). Just call us at (212) 254-3125 for additional prices or information, or send \$2.00 for our current brochure to: DIRECT DISCOUNTS LTD., P.O. Box 841, Cooper Station, NY 10276. Shop with us by phone with your VISA or M/C. No sales tax charged to out-of-state customers!!



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**A.A.**  
P.O. Box 6231  
Laguna Niguel,  
CA 92677

Presents the **LUNA-TEC**. Custom made, rounded oak cabinets for NAD Components (3020, 4020A, 7020, 3140, 6040, 6140) \$55 each includes shipping in Continental U.S.A.

## FOR SALE

**A BARGAIN!** FR201 (not FR 2) unused \$212. Stephen Sun. 212-784-2939

**HARMAN-KARDON HIGH TECHNOLOGY SEPARATES, RECEIVERS, CASSETTE DECKS. BEST PRICES - IN STOCK - IMMEDIATE SHIPMENT.** EAST: 305-462-1976 WEST: 213-243-1168

**ABOLISH LIST PRICES ON MID & HIGH-END AUDIO COMPONENTS!** Get low prices, great selection and service, plus seasoned advice on a wide range of products. Warranties, of course! Join the thousands we've served in full satisfaction. Use your VISA or M/C or 50% deposit. Write for quotes: AUDIO, LTD., Box 28402, Philadelphia, PA 19149.

**ABSOLUTE AUDIO: MISSION, RGR, SNELL NAD, Leach, V.P.I., J.R., Audio Interface, Marcol, Platter Matter.** Audio File 1202 South Congress Avenue, Austin, Texas 78704, (512) 443-9295.

**ABSOLUTELY BEST VALUE S.O.T.A. BUY DIRECT TAX & DUTY FREE.** New model Mayware MC-2V moving coil cartridge, Ogura Nude 'Vital' super polished diamond stylus tip mass 0.19 mg. Same sound as \$250 or more cartridges, incredibly only \$69 I.M.O. Visa MC accepted. Mayware P.O. Box 58, Edgware, Middx. England

**ABSOLUTELY GREAT PRICES ON SPICA, MORDAUNT-SHORT, ROGERS AND SATTERBERG SPEAKERS,** also Berning electronics The Mountain Ear, Box 774, Aspen, CO 81612. (303) 963-3269.

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Advent	Platter Matter
Dynavector	Last
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Home of the  
**KLOSS NOVABEAM**  
projection TV

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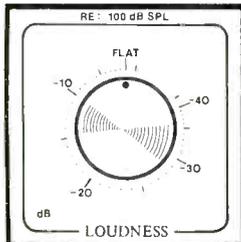
**(412) 441-4550**

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The Newcomb/Young circuit corrects response to the latest accepted criteria, for the first time, over a 40dB ATTENUATION range. It operates free of coloration and SO WELL that you won't believe it's there ... except for the full rich sound at all listening levels.

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The control is packaged in a four inch cube with a matte black legend on anodized aluminum. Pre-paid price is \$159.00 (plus 4% sales tax in Virginia). A designer "semi-kit" is available for \$79.00. Send check or money order with order. For FREE information write to:

**ARTSTARR ASSOCIATES**  
P.O. Box 1247  
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Audition these and other fine components in a relaxed, friendly and unhurried atmosphere  
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 (212) 762-3220 Exit 25 of the LIE  
 We encourage appointments, although they are not absolutely necessary. All shipping charges are free in the U.S.A., and is done with care.

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**ABSOLUTELY THE LOWEST PRICES AVAILABLE** on hard-to-find audio. SAE, Soundcraftman, Nikko, Phase Linear, and many others. Prompt delivery. Free Catalogue on request. DURON DISCOUNT AUDIO 7 South State Street, Concord NH 03301 (603) 225-3094 VISA/MC Accepted.

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 SNELL DELPHI  
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 ROYAL OAK — 4354 N. Woodward (313) 549-7550  
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**REMOVES VOCAL FROM MOST STEREO DISCS**  
 The Thompson Vocal Eliminator can actually remove most or virtually all of a solo vocalist from a standard stereo record and yet leave most of the background music untouched! Not an equalizer! We can prove it works over the phone. Write or call for a brochure and demo record below. COST: \$295.00

## Time Delay/Ambience Superior:

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Time delay is new to consumer audio. Recording Studios have been doing it for years. They have developed much more realistic systems than are presently offered for consumer use, with One notable exception.....Our TAD-4.

Call or write for a 24 page brochure on our line of 18 products. Included will be a product review of the TAD-4 and a demo record which will allow you to compare our TAD-4 with other units. At \$650 we aren't cheaper..... We're Better!

Write to: **LT Sound**, Dept. AU, P.O. Box 338, Stone Mountain, GA 30086. Phone (404) 493-1258

## FOR SALE

**ABSOLUTE SOUND BACK ISSUES:** Vol. 1, Nos. 1-4; Vol. 2, Nos. 5-8; Vol. 3, Nos. 9, 10; Vol. 4, Nos. 13-16; Vol. 5, Nos. 17-20. \$10.00 each or \$60.00 complete set. Stereophile and Stereopus back issues available also. TD Tyson, 707 Florham, High Point, NC 27260 (919) 885-9436

**A Business Opportunity** — small midwestern company has superior stereo products, but lacks modest capital. Seeks financial partner (individual or firm). Multi-million potential. Reply confidentially to Box 1081.

**ACCURATE AFFORDABLE AUDIOPHILE EQUIPMENT** at lowest prices available!! Specialists in Cartridges-Tonearms-Turntables-Headamps. Please call or write for price quotes & advice. HCM AUDIO, Box 2029-G, Chico, CA, 95927 (916) 343-0558

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**ADIRONDACK AUDIOPHILES** Northern New York State House of Hi-Fi is now open with Mariah, Polk Audio, DCM Time Windows, NAD, Harman Kardon, Sota, Audionics, Apt-Holman, Hatler, Hegeman, Eumig, McIntosh, Marcol, Fidelity Research, Toshiba, Sony, Signet, Alpine Car Stereo, Denon, Shahanian, Conrad Johnson, RG Dynamics. For info. call 518-793-6639 Mon. to Fri. 10-9 Sat. 10-6. HOUSE OF HI-FI, 50 Miller Rd., (Rt. 9) Glen Falls, N.Y. 12801.

**ADVENT 101 DOLBY.** Good condition. \$60., 212-865-9086 eves.

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### STELLAR SYNERGY

384 Elmira Rd., Ithaca, NY 14850 607-272-2644

**WHAT'S NEW IN AUDIO THIS MONTH** see STEREO SPOTLIGHT's ad.

**LUXMAN MB 3045** (pair), mint, w/extra tubes: \$550. Niki 617-459-7975.

## FOR SALE

### AGAIN — NAD Puts the Money Where it COUNTS!

Introducing the NAD 3140 Integrated Amplifier — a plain faceplate that's backed up by the best sound-for-the-dollar anywhere. Now you can afford NAD quality, especially by mail. For literature & quote on all NAD amps, tuners, receivers, etc.: DESIGNATRON'S STEREO STORES, INC. 260 Old Country Road, Hicksville, N.Y.: 11801 (516) 822-5782 Shipped prepaid & insured in Cont. USA

### AGFA & AMPEX 10 1/2" & 7" OPEN REEL TAPES

— **THE BEST! THE FINEST CASSETTES:** DIRECT TYPE II (C68 & C96) and ASF (C66 & C96). DIRECT-TO-TAPE RECORDINGS for the finest recorded sound available, called "Truly superb" by Charles Repka in AUDIO (Oct, 1980). Only available on real time duplicated reels & Cassettes, optional dolby or dbxl. Ampex video cassettes. WRITE for FREE newsletter subscription & current specials. Direct-To-Tape Recording Co., 14 Station Ave., Haddon Heights, NJ 08035.

**AKG 451E CONDENSERS:** two preamplifiers with cardioid and omni capsules, 10 db pads, \$485. (916) 753-1182.

**BUYING LAST YEAR'S MODEL CAUSE THAT'S ALL THEY REVIEWED** — see STEREO SPOTLIGHT's ad.

**AMBIENCE DECODER FOR REAR CHANNELS.** \$149.95. Literature 50c. Huntington Electronics, Box 2009-A, Huntington, Conn. 06484

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Q/LC Audio has Precision Fidelity, Amber, Marcol, Hafler, Vandersteen, DCM, Axiom, Lustre, Thorens, Nakamichi, Audire, Grace, PS Audio, Bass Mint, Adcom, Hitachi, and more. Write or call Q/LC Audio, 1006 Berkshire Road, Dayton, OH 45419 (513) 293-7287

### In Central Pennsylvania... All The Right Stuff...

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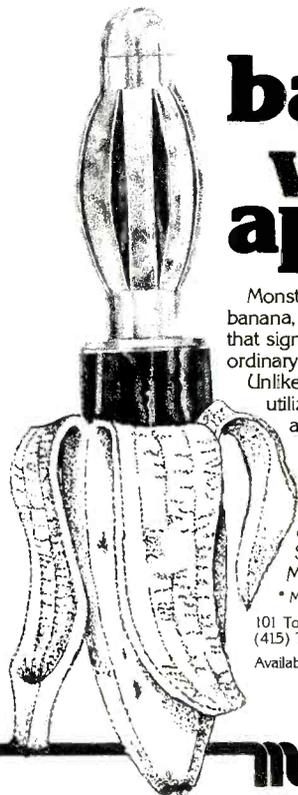
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I understand the unexpired portion of my subscription will be refunded after my first issue if the magazine is unsatisfactory for any reason. Make checks and money orders payable in US\$ only to Speaker Builder. Rates above are for USA only. Outside USA add \$2.00 per year for postage.

## FOR SALE

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## FOR SALE

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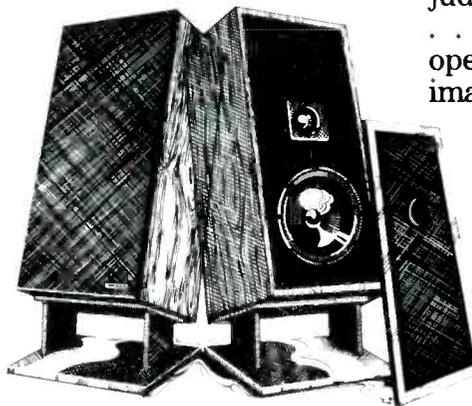
AUDIO UPDATE is published ON TIME. This bi-monthly includes modifications construction projects, improvement methods, data available nowhere else. It's provocative, informative, and a MUST if you enjoy audio. Annual: \$12.00 USA/Canada, \$14.00 elsewhere. Master Charge/Visa welcome. AUDIO DIMENSIONS, 8888 Clairmont Mesa Blvd., San Diego, CA 92123. (714) 278-3310. TF

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WHAT'S NEW IN AUDIO THIS MONTH see STEREO SPOTLIGHT's ad.

!!! ASTOUNDING !!!

THIEL Loudspeakers: models 03a, the new 04a, and the 02.  
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"... sonic character was judged very good indeed ... clean, smooth and open ... crystalline stereo imaging ..."

HIGH FIDELITY MAGAZINE,  
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mirage SM-1



**FOR SALE**

**APT/HOLMAN AMP & PREAMP NOW IN STOCK**  
Tom Holman's APT Model 1 Amp delivers 100 Watts RMS/ch. plus 3db Dynamic Headroom! It stays incredibly clear when you play it incredibly loud! The Model 1 ELIMINATES Speaker/Amplifier interaction so it's stable with any speakers you use. ONLY \$680. The Famous APT Preamp lets you control phono input impedance AND capacitance so your records sound great. You can attach a full equipment array and there's never input crosstalk! ONLY \$575. To order & info: DESIGNATRON'S STEREO STORES, Inc. 260 OLD COUNTRY RD. HICKSVILLE, N.Y. 11801 Shipped prepaid and insured in cont. USA

**APT/HOLMAN PREAMPLIFIER** Mint \$400. (714) 595-7839.

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**ATTENTION ALL DYNACO AND DYNA KIT OWNERS:**

Frank Van Alstine can rebuild and/or repair your Dyna amplifiers, preamplifiers, and tuners. We have all new PC cards and all new highest quality internal circuits for most Dyna units. New POWER MOS-FET circuits for Dyna ST-150, ST-300, and ST-120 amplifiers. New J-FET circuits for Dyna PAT-5 and Bi-Fet preamplifiers. All new circuits for FM-5 tuners with phase-locked loop Mplx, new 8 stage differential IF, new buffered outputs, no drift, super musical, super sensitive. We rebuild all ST-400, 410, 416 amplifiers and can repair any, no matter how badly blown. External 100,000 mfd power supplies for ST-400 and 415. All new internal circuits for Dyna PAS tube preamps. New Noble precision stepped controls for all Dyna preamps. New Mos-Fet circuits for Dyna PAT-4 preamps. Improved audio circuits for St-70 tube amps. Rebuilt Nagatron, Sonus, and Grado phono cartridges. Read AUDIOGRAM, MR. AUDIO'S BI-MONTHLY, AND SENSIBLE SOUND for reviews on our equipment. No charge for repair labor when we rebuild your Dyna unit. We ship worldwide and have brand new 120 volt and 240 volt modified Dyna units available. For details and our recommendations on how to make a hi fi system sound like music, write or call: JENSENS STEREO SHOP 2202 RIVER HILLS DRIVE BURNVILLE, MINNESOTA 55337 (612) 890-3517.

**MORE FOR YOUR MONEY!**  
CSA AUDIO  
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**AT LAST AFFORDABLE ESOTERIC**

Arms, Cartridges, Turntables, Amps, PreAmps, Tuners, Speakers, Accessories, Etc.; a huge selection at attractive prices. Call for prices or technical information, or write for catalog. AudioWorld Box 6202 G.R. Ml. 49506. 616-451-3868 M-F 11 to 7. Visa and Mastercard welcome.

**YOUR JUST PURCHASED UNIT IS ALREADY OBSOLETE?** — see STEREO SPOTLIGHT's ad.

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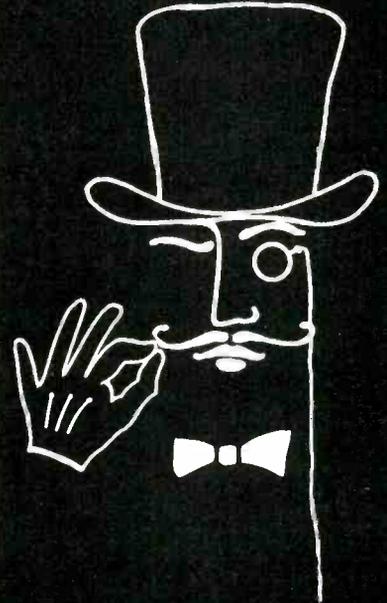


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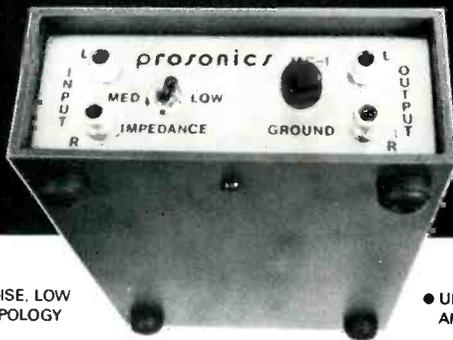
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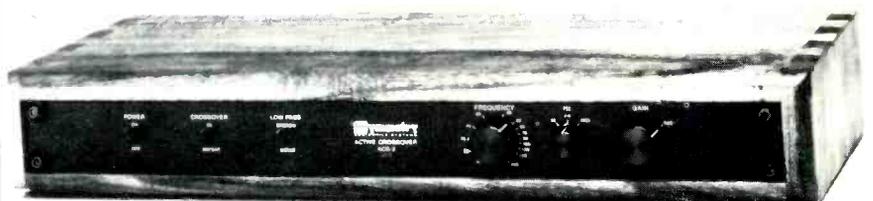
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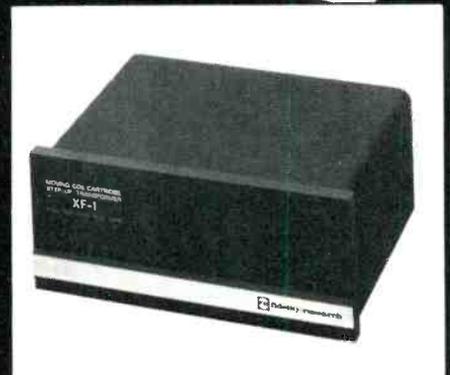
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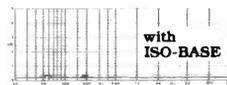
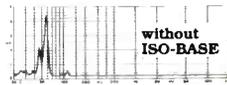
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Audio Amateur is for those who love good sound but who couple that pleasure to another, the savoring of fine craftsmanship as well. We're talking about craftsmanship of two sorts. The more obvious one of making a fine instrument, a well made, hand-crafted device—probably one of a kind. The skills are numerous. Beautiful metal work, exquisite finishes. Careful soldering with silver trace eutectic solder at just the right temperature. Coin silver switches, conductive plastic potentiometers or 23-position attenuators, metal film, close tolerance resistors, only the very best capacitors in polypropylene or teflon. Matched, low-noise transistors and carefully regulated, very low impedance power sources.

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Small is right. Twenty to one compared with Audio; seventy to one compared with Stereo Review. But Audio Amateur intends to be small. We are not interested in "delivering a mass audience" to advertisers as a way to make a living. We are interested in delivering splendid information about excellent sound: why it is and why it isn't. How to make it better.

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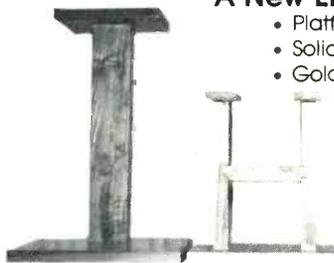
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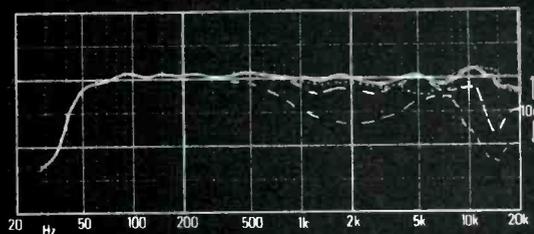
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— Robert Browning

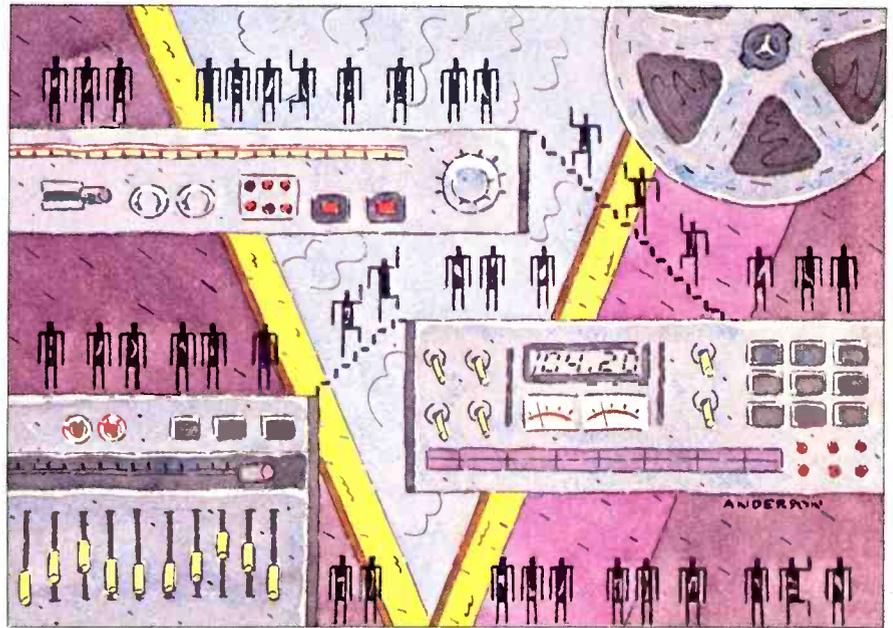
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The 1981 Summer Consumer Electronics Show, in common with its predecessors, displayed such a vast, all-encompassing array of audio components that complete coverage of them is simply impossible. Even if such a heroic undertaking could be accomplished, space limitations would preclude a truly comprehensive survey. Thus, as usual, it is necessary to be ruthlessly selective in choosing the components to be covered. Without further preamble, herewith Part Two of my 1981 SCES report.

The new Dolby C-type noise-reduction system was introduced at the WCES in Las Vegas. Evidently, the C-type, which affords 20 dB of noise reduction, has aroused great interest among cassette deck manufacturers, since in a scant six months time, more than 30 cassette decks featuring Dolby C-type noise reduction were shown at the SCES. Such models were introduced by Aiwa, Dual, Hitachi, JVC, Marantz, Mitsubishi, NAD, Nakamichi, Onkyo, Pioneer, H.H. Scott, Sony, and Vector Research. Several companies are developing dedicated integrated-circuit chips for Dolby C-type noise reduction, so that by the WCES in January, there should be many more cassette decks equipped with this new system. Most of the cassette decks incorporating Dolby C-type were in the mid- to upper-price ranges. Nakamichi, Rotel, and Sony also showed add-on outboard Dolby C-type noise-reduction units. Of considerable interest to prospective owners of Dolby C cassette decks is the fact that prerecorded Dolby C cassettes appear to be in the offing. In collaboration with Capitol Records, cassettes were duplicated on Gauss machines at ratios up to 64 to 1. Both pop and classical selections of wide dynamic range and containing high-level, high-frequency energy were used, with excellent results reported. With the C-type encoding, the noise level of the cassettes was said to be close to that of the original Dolby A masters. Another development that could further improve prerecorded Dolby C-type cassettes was the introduction by Bang and Olufsen of what they call the B&O/Dolby HX Professional Bias System. HX Professional offers a significant improvement in high-level, high-frequency headroom, as much as 7 dB at 10 kHz. Essentially this means that regular



ferric tapes recorded with the HX Professional system will afford the same performance as normally recorded metal tapes. HX Professional utilizes dynamic biasing but, unlike the Dolby HX, does not vary record equalization. Further, HX Professional operates independently of any noise reduction system, and another plus is that stereo channels are treated separately. This system would be invaluable to commercial cassette duplicators, where combined with Dolby C noise reduction should give us superlative cassettes of truly high fidelity. In a unique "switch," Dolby Labs has licensed the B&O HX Professional system for professional applications, while B&O has incorporated the system into its new Beocord 8002 cassette deck, but for the present will keep the system for its exclusive use in the consumer field. More about the HX Professional system and the new Beocord 8002 at a later time.

The dbx noise-reduction system found a formidable ally in Technics, who introduced their Model RS-M240X and Model RS-M270X cassette decks, both of which incorporate dbx encode/decode circuitry (including facilities to decode dbx discs) and are said to afford a dynamic range of 110 dB with CrO<sub>2</sub> tape. The first dbx prerecorded cassettes are on the market and have created quite a stir with their total lack of tape hiss and ultra-wide dynamic range. My

recordings of Virgil Fox's organ and Arthur Fiedler and the Boston Pops have been very well received in this format.

As a result of a co-operative research effort by Akai, Teac, Maxell, and TDK, we have that rarity . . . a new development in open-reel tape-deck technology. TDK and Maxell have in essence taken cobalt-modified ferric oxide, high-density cassette tape formulations and adapted it to open-reel use. Akai calls the new tape "EE" for "extra efficiency." This new EE tape has nearly double the coercivity of conventional tape as well as higher MOL. When compared to present high-performance tapes, magnetic flux density is 1½ times greater. Recording bias is 30 percent greater than conventional tapes. The nature of this EE tape is such that lower time constants can be used in the equalizer, and signal-to-noise ratio is considerably improved. I have not seen the Teac decks, but Akai developed two new decks to take advantage of this new tape, and each has an EE position on its tape selector switch for proper bias and EQ. The Akai GX-77 accepts up to 7-inch reels and features six magnetic heads, permitting reverse record and playback. The Akai GX-747 has the same features, can accept up to 10½-inch reels, and has other operational features and refinements. The rationale behind these new decks and the new EE tape is that performance at 3%

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ips is equal to what is usually available at the higher 7 1/2-ips speed, while the 7 1/2-ips speed enables performance that was heretofore possible only at 15 ips. For example, frequency response at 3 3/4 ips is 25 to 25,000 Hz ± 3 dB, while 7 1/2 ips affords 25 to 33,000 Hz ± 3 dB. Thus, while the new EE tape will cost a bit more than present premium open-reel tapes of equal length, the performance values will actually result in a saving, since slower speeds can be used.

Every SCES brings forth new designs in exotic preamps and amplifiers. This time around there were a number of units that would quicken the pulse of even the most jaded audiophile. For example, Bedini is a company that specializes in Class-A amplifiers. They have models ranging from 25 watts per channel to a 200-watt-per-channel behemoth. John Bedini demonstrated his newest amplifier, The Phase Three, nicknamed the "One Meg" since this wide-band design extends from 5 Hz to 1 megahertz. Power output was 25 watts per channel into 8 ohms. The amplifier can drive speaker loads down to 1 1/2 ohms and is claimed to be completely stable with inductive, reactive or resistive loads. The "One Meg" is also said to have very high current-output capability. John had it hooked up to a pair of the new Acoustat Monitor Four electrostatic speakers and he was playing Sheffield's Amanda McBroom "Growing Up in Hollywood Town" recording. The sound quality was quite outstanding and, in fact, was the best I have ever heard from these speakers — pristine, clean, open, transparent, with razor-sharp transient response, and solid, well defined bass. Although the room was on the small side, the sound level was surprisingly high and, with the projection of bass, appeared to verify the claim of high current output. Price is \$1995.

To Denon must go plaudits for one of the most strikingly beautiful power amplifiers I have ever seen. In fact the Denon POA-8000 did win an award from the CES Design Committee. A mono amplifier rated at 200 watts per channel, it employs a circuit with no negative feedback and is said to operate as a true Class-A amplifier. Price is \$2300.

Still another 200-watt-per-channel, Class-A amplifier was shown by the Krell Company. Each channel is actually a separate mono amplifier. Each has a 1.8-k VA power transformer, with 250,000 microfarads of capacitors. Each amplifier is fan cooled in addition to having massive heat sinks. Price is \$5500, the pair.

David Hafler's DH-500 power amplifier may not come under the "exotic" heading, but come to think of it, there are very few power MOS-FET amplifiers



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*Denon's professional products range from blank tape to 24-track recording consoles to fully automated radio stations; their accomplishments include the development of PCM (digital recording), one of the most significant advancements in the history of recorded sound.*

*In the U.S. Denon is known primarily by those in the know. In Japan, the land where electronics is king, Denon is king of the land.*



## **1981...THE DENON DR-330 AND DR-320 SERVO-TENSIONER THREE-HEAD CASSETTE DECKS.**

Many manufacturers would lead you to believe that three heads alone can transform a cassette deck. Denon's experience with professional studio tape-recorders proved that lack of uniform tape-to-head contact and proper transport stability, can create serious phase problems — especially in the high frequencies — whether the recorder has three heads or two.

To solve this problem, Denon developed a unique Tape Tension Servo Sensor, a system that maintains uniform tape-to-head contact during record and playback. In addition, Denon originated the Non-Slip Reel Drive mechanism (without clutches) which provides the extremely stable tape movement and prolongs the deck's life.

With the development of the Tape Tension Servo Sensor and Non-Slip Reel Drive, Denon has realized the full potential of the three-head configuration.

The Denon DR-320 and DR-330. Two important contributions to better sound reproduction, from the company where innovation is a tradition.

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around rated at 255 watts per channel into 8 ohms. In any case, the DH-500 is now in full production. Considering its very clean sound, gobs of reserve power and high current output, plus a 2.5-microsecond rise time and 45 volt per microsecond slew rate which translate into excellent transient response, it gets a "best buy" rating at its assembled price of \$799.

If you have lusted for Levinson amplifiers and preamps, but have not had the wherewithal to satisfy those urges, take heart, because Mark Levinson was showing his new ML-9 stereo power am-

plifier and ML-10 preamplifier. The ML-9 is essentially about half the size, power, and price of the Levinson 200 watt per channel ML-3. The ML-9 is rated at 100 watts per channel into 8 ohms from 20 Hz to 20 kHz with less than 0.2 percent THD. The power supply is in keeping with the design embodied in the ML-3. A toroidal transformer of 1.2kVA is used, along with a pair of 36,000 microfarad capacitors, which affords a huge energy storage in excess of 230 Joules. The audio circuitry of the ML-9 and ML-3 are similar, with push-pull operation maintained from input to output. The ML-3 is

noted for its high current output, and the ML-9 has this characteristic as well, being on the order of 20 amperes per channel. Each channel of the ML-9 has a three-position toggle switch to vary the damping factor in accordance with loudspeaker requirements. The ML-9 is available now, and the price is \$2350. The ML-10 preamplifier has many of the same characteristics as the Levinson ML-7 preamplifier, but is a simpler, somewhat less flexible design. For example, the power supply is integrated into the preamplifier chassis, rather than the separate power supply used in the ML-7. Where as the ML-7 is modular in construction, the ML-10 is a hard-wired unit. Instead of interchangeable phono modules for moving-magnet and moving-coil cartridges, the ML-10 uses switchable gain stages. Proper loading of virtually any phono cartridge is accomplished via internal switches. Balance switches are provided, along with full monitoring for one tape recorder, and there are inputs for tuner and auxiliary. The ML-10 will be on the market by early September and will also be priced at \$2350. The ML-9 and ML-10 might be considered "junior" versions of the current ML-3 and ML-7 units as there is less power and less flexibility, but this is not at the expense of quality. From what I could see, these new models were constructed of the same quality materials and with the same meticulous fabrication that have been the hallmark of this company's products.

By way of a specialized product is Janis Audio's new Interface Amplifier and Crossover Network IA Mark Two, for use with Janis and other sub-woofers. Output power has been increased to 90 watts per channel, and there are switchable 18- or 36-dB-per-octave crossover slopes. An invaluable refinement is a switch which interchanges speaker connections to determine whether playback is in relative or absolute phase. The system will be available in early fall; price is not yet finalized.

At a time when it appears that FM tuner design had reached a pretty high level of sophistication, along comes Bob Carver with his new TX-11 AM/FM tuner. With newly developed circuitry that affords a substantial improvement in signal-to-noise ratio and virtually eliminates multipath distortion, his tuner created quite a stir during demonstrations at the Americana Congress Hotel. Carver calls his new circuit "Asymmetrical Charge-Coupled FM Detector" and says that the improvements it effects in S/N ratio and multipath distortion are not at the expense of stereo separation or frequency bandwidth. In addition to this circuit, he has developed another circuit which is said to prevent FM front-end

## Impress your neighbors.



Graphic equalization, an integral part of the contemporary home music system, gives you the kind of *focussed* music power that will bring your neighbors over for a late night get together.

The new MXR Stereo Octave Equalizer lets you remix your music so that you can bring up that earth shattering bass line, screaming guitar solo or any part of the performance loud enough for everybody to hear without boosting *noise*.

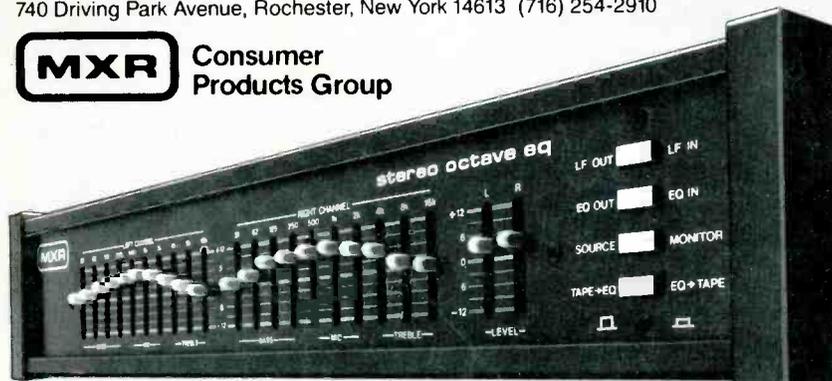
Annoying problems like hiss, turntable rumble and other kinds of distortion are easily overcome with the Stereo Octave Eq. It can accommodate the extended dynamic range of the new high performance discs and be an invaluable tool when recording car stereo cassettes.

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But now there's the JVC R-S77. With the sound purity of Super-A amplification. The precision and beauty of quartz tuning. And the flexible control of JVC's 5-band S.E.A. graphic equalizer.

By completely eliminating switching distortion, Super-A allows the subtle details of musical overtones to come through cleanly and naturally. Add a powerful 60 watts per channel into 8 ohms, from 20 Hz to 20 kHz, with no more than 0.005% total harmonic distortion and you have an amplifier that sounds convincingly live on all kinds of music, loud or soft, simple or complex.

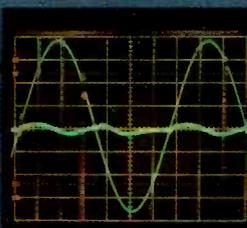
The quartz tuning system zeros in perfectly on every FM and AM station. So distortion and noise remain infinitesimally low. And with our pushbutton memory system, you can tune in any of six FM or six AM stations instantly.

With our built-in S.E.A. graphic equalizer, you can give your system a thousand sound personalities. From flat-accurate for classical. To

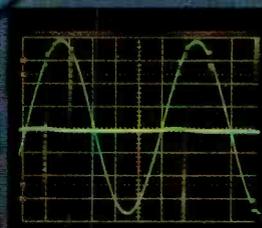
bright and punchy for popular. Or anything in between. You can also fix speaker quirks and room acoustics.

Beauty. Convenience. Control. And stunning sound quality. Now you don't have to choose which you want.

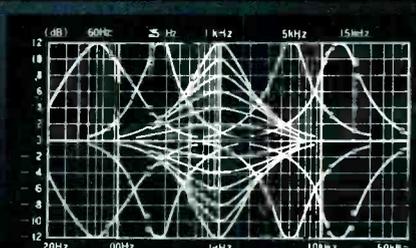
Because you get them all in the JVC R-S77 receiver.



**Class AB** Jagged center line indicates switching distortion.



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**S.E.A. graphic equalizer** Permits independent control of 5 tonal regions.

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overload. The TX-11 can accept 9 volts at the antenna terminals. Carver isn't at present divulging how his new circuitry works but it did indeed work. Using both closed-circuit transmission and an antenna system, Bob conclusively demonstrated that when he activated his circuit, stations which a moment before had been full of hiss and distortion were cleaned up to an amazing degree. Hiss, noise, and distortion were either greatly attenuated or completely eliminated. Some eyebrow-raising specs on this TX-11 tuner are a 50-dB quieting sensitivity in stereo of 3.5 microvolts, a signal-to-

noise ratio (at 65 dB) in stereo of 100 dB, and separation of 60 dB at 400 Hz and 52 dB from 50 Hz to 10 kHz. Now if we could only get some nice live broadcasts of a symphony orchestra, a tuner like this would be a joy to use! The Carver TX-11 tuner is scheduled for delivery in early fall with a price somewhere between \$500 to \$600.

For almost 25 years, the Quad electrostatic loudspeaker has been a favorite of many music lovers. They liked it for its smooth, transparent sound, and most especially for its unparalleled transient response. The design has remained vir-

tually unchanged over all these years, even though many people would have liked amelioration of some of the problems with this speaker. It could be easily overdriven with resultant arcing of the diaphragm. Because of this, dynamic range was fairly limited. Bass response was marginal, with fast roll-off below 50 Hz, and the speaker was subject to severe beaming with good stereo listening localized to one sweet spot. In spite of this, it had many quite seductive qualities, so many that the speaker developed into something of a cult object. Now, there is a new Quad electrostatic loudspeaker, the Quad ESL-63 which was introduced at the SCES. Ensclosed in a large suite in the Drake Hotel, it played to throngs of eager devotees. The old Quad was wider than it was high. The new ESL-63 is higher than it is wide, at 92.5 cm by 66 cm, with a depth of 27 cm at the base. Quad describes their speaker thusly, "it consists of a diaphragm suspended between two sets of concentric annular electrodes. Signal is fed to the electrodes via sequential delay lines and the diaphragm motion produces a sound pressure pattern which is an exact replica of that from an ideal source placed some 30 cm behind the plane of the diaphragm. The ESL-63 is a totally homogeneous sound source, phase true and very aperiodic." The speaker has one protection circuit to limit maximum input voltage and another which detects fault conditions and instantaneously shorts the signal being fed to the loudspeaker. Quad claims it is impossible to damage the loudspeaker elements. Unlike the older Quad, the ESL-63 presents a largely resistive 8-ohm load to the amplifier. Amplifiers up to 190 watts can be used with this speaker. What did the new Quad ESL-63 sound like? I'll have to reserve judgment on this point. Certainly the potential is there... response was very clean, smooth, and as expected superb transient response. However, I was only able to hear three short selections, which were not particularly demanding, and playback was at a low level, which didn't tell me much about its bass response or dynamic range capabilities. The Quad ESL-63 appears to have considerably more bass extension and higher output than its predecessor so that when I get a chance to audition the speakers in my own listening environment, I expect I'll hear some very good sound. In the meanwhile, I'm sure Quad can sell all they can make, even at \$3300 the pair. Deliveries are slated to begin in August.

As usual, many more items to report on than space permits, especially on speakers. Perhaps I can slip a few mentions in here and there in upcoming columns. A

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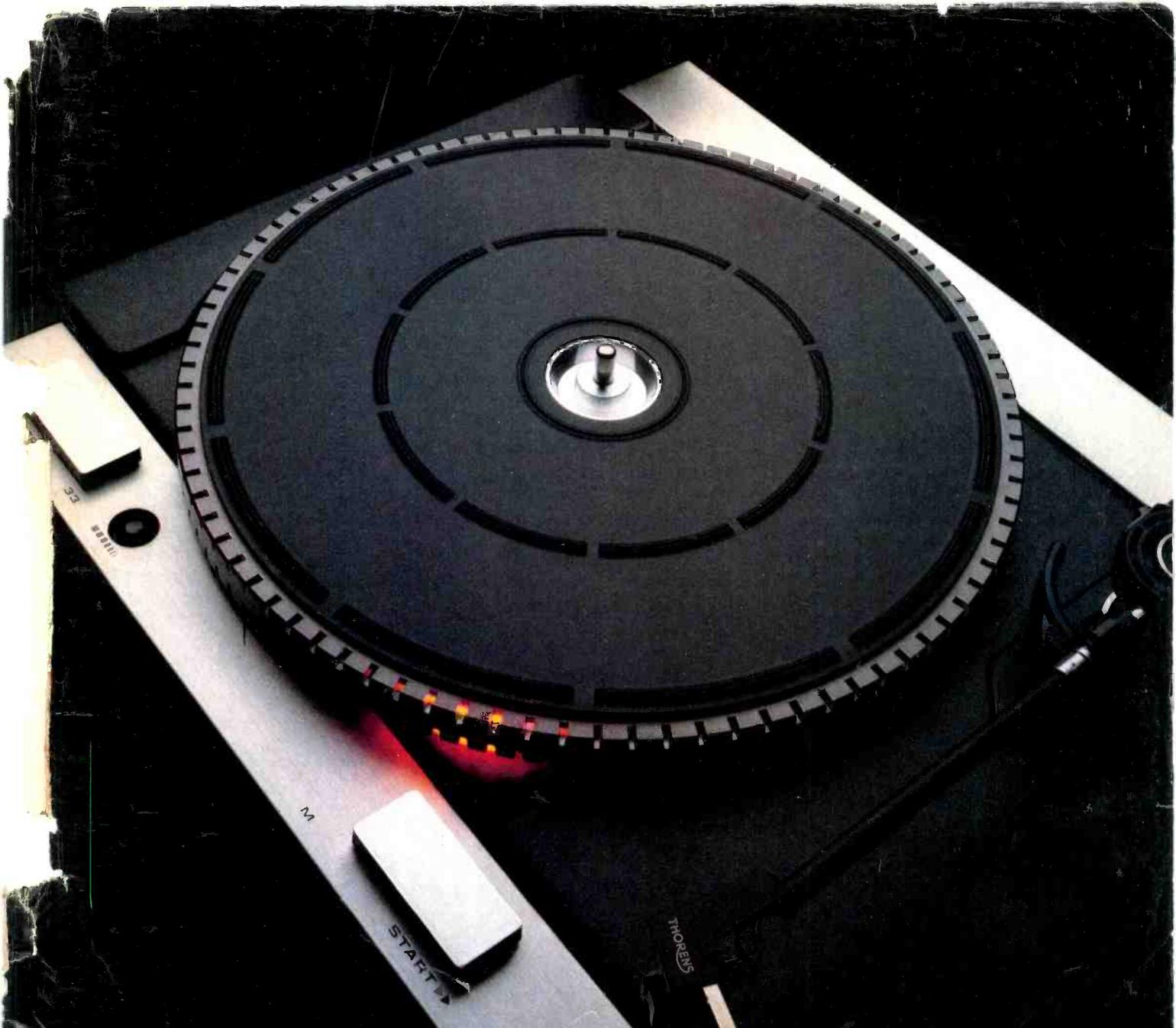
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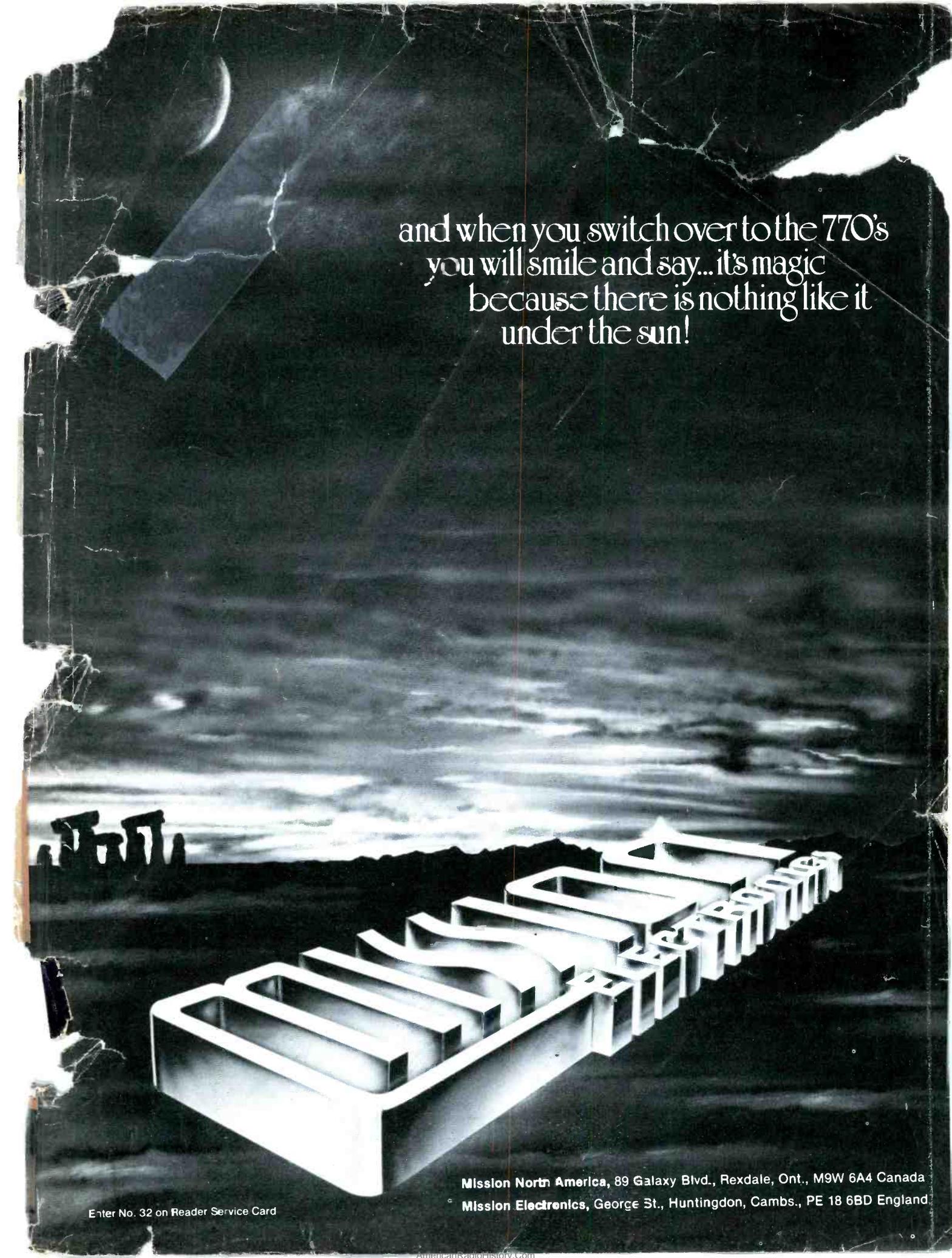
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# THAT'S THE WAY IT WAS

WALTER I. SEIGAL

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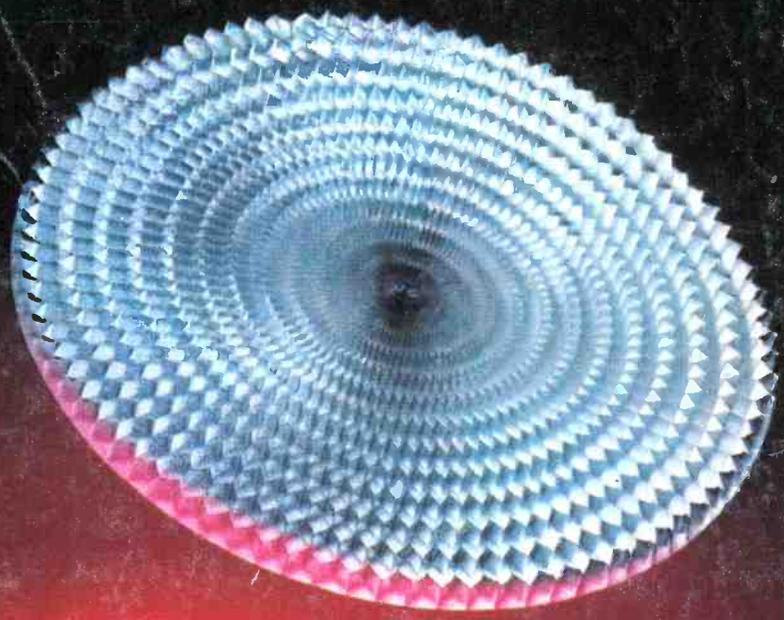


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