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The Cover Equipment: On Arcici Levitation stand, from top to bottom: Sony MZ-1 MiniDisc Walkman, Denon TU-680NAB tuner, Krell KRC preamp, SOTA Vanguard CD player, Technics RS-DC10 DCC recorder; right, Mavrick Non-Speaker.

The Cover Photographer: ©1993 Bill Ashe



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## FAST FORE-WORD



ent down to Hi-Fi Circus, the FUN Electronics Store. Wanted a new preamp they were selling for four figures. Since my stash is never above two figures, I had to do some clever figuring.

Maybe, I thought, the manager would take my preamp as a trade-in. But even with a *generous* allowance, the new beauty would still cost me four figures.

Hi-Fi Circus sells records, and I'd heard they dealt in used CDs, giving between \$3 and \$5 for them. Maybe I could trade in some of my collection of promo CDs?

When I got the two dozen shopping bags down to Hi-Fi Circus, the manager saw me coming. Before I got through the door, he yelled, "Don't bring those things in here. I can't take promo CDs with holes drilled in the jewel cases." All I could say was, "Well, let's negotiate."

It turned out that the record companies had pulled the plug on my friend's co-op advertising. They were unhappy with many record stores for taking discs as trade-ins and, in some cases, buying them outright. It seemed all of the Big Record Companies, save for BMG and PolyGram, were putting the pressure on. In return, a couple of the stores had filed lawsuits claiming anti-trust violations; the FTC is interested as well.

The way the owner of Hi-Fi Circus sees it, the Record Company Czars can't tell the difference between the ownership of the CD and the copyright to the song. That is, while a certain song would always be written by Irving Berlin, the CD might be owned by you or me or one of the Czars. Therefore, the title TO the CD (as opposed to the title OF the song) could pass from you to me or even to one of the Czars. To my friend, it was as if the Czars wanted to collect twice if two people listened to the disc.

Why is my friend from Hi-Fi Circus upset about the loss of some minor advertising money? Well, co-op ad money is cheaper than regular ad money, since some comes from the manufacturer, here the record company, so getting people into the store is cheaper. This is much needed since things in the mom & pop record stores are really tough.

For their part, the record companies claim selling used CDs costs them sales of new ones. This seems like admitting prices of new CDs are too high. Frankly, I can't see where the sales are being lost; they look to me like sales that otherwise would never be made.

From where I sit, this is just another difference between branded products and commodities. The Record Czars appear to think that there shouldn't be any value in a used product. Well, friends, jewel cases house jewels, things that last and have intrinsic value. It isn't like a bread wrapper where the product inside has a short shelf life during which it had best be used up.

I never did get my preamp, and I didn't get rid of my promo CD collection either. Maybe I'll have to trade them at a flea market to someone who happens to have that preamp. And who knows the difference between the title to a record and the title of a song.





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## SIGNALS & NOISE

## DCC Is Misunderstood

Dear Editor:

J. Patrick McGrail's letter regarding DAT versus DCC (March) illustrates the difference between the professional and the consumer markets. DAT is excellent for capturing samples or for achival storage however, as a consumer format it is a failure. Legal hassles certainly hampered DAT's introduction. Also, there was little competition among manufacturers, and low volumes kept prices high.

Another issue affecting DAT was its early development. Two formats were considered: Stationary-Head DAT (S-DAT) and Rotary-Head DAT (R-DAT). S-DAT was potentially compatible with existing cassette tapes, but limitations in bandwidth and head technology were major hurdles. R-DAT's rotating head, based on VCR technology, provided for sufficient bandwidth-and so R-DAT won because it could be brought to market more quickly. Yet it appears that work continued on S-DAT. Today, DCC-through data compression and advancements in head technology-seems to be what S-DAT was leading to.

DCC may be the ideal recording format for the consumer market. Initial reviews indicate that it sounds great. Rather than adding another component, consumers can replace their existing cassette decks, since tape libraries remain playable. Retail music displays do not need to be changed (wasteful CD longboxes were the result of complaints by retailers). Existing cassette carrying and storage cases can be used, cassette slots in cars do not need to be retooled, etc.

It seems ironic that digital audio supporters would reject DCC, outraged by the idea of large corporations making arbitrary decisions about what can and can't be heard. These same people have already accepted this situation with existing digital audio. Sound has infinite amplitude resolution and unlimited bandwidth. For the CD standard, large corporations (notably Philips, developer of DCC) arbitrarily decided that sound could be packaged into 65,536 amplitudes and a 20-kHz bandwidth. This was based on studies indicating that differences between the original sound and this standard were inaudible. Sound familiar?

> Bob Yannes Newtown Square, Pa.

## DCC and MD Are Misbegotten Dear Editor:

I agree completely with Mr. McGrail's letter. The MD and DCC formats are products of misdirected marketing.

MD is said not to replace CD, but rather to provide a complementary format. However, it is unclear to me how MD is so much more convenient that we are to accept its sonic compromises. The prerecorded MDs available in Seattle cost more than their CD counterparts, and the blank MDs are more expensive than any tape format save DCC.

DCC is an advance in audio art only insomuch as its engineers have proved they can produce a transport that plays both analog and data-compressed digital cassettes. The sonic quality of DCC will always be questioned because of the data-compression technique utilized. More important, I question the long-term reliability of DCC's tape transport, as it is asked to play both analog and digital software from a fixed head. Such transports will always be expensive to produce.

The digital recording field, at least at the semiprofessional and audiophile levels, is already occupied by DAT. My DAT deck records perfectly and economically on conveniently sized cassettes that hold up to 160 minutes of music. I frankly don't know why any of your readers, who presumably are interested in the best possible fidelity, need look further than DAT.

> Ray Warns Seattle, Wash.

### Errata

The table in "Lowdown on Subwoofers" by R. A. Greiner, which appeared on page 40 of the August issue, contained an error.

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## **Dynaco Equipment Needed** Dear Editor:

The output transformer in one of my Dynaco Mk III (!) amps has "died"—more specifically, there is a short in the primary windings—and because of its age, I've been unable to find a source for a replacement. If any *Audio* reader has a transformer or a complete amp for sale, may I ask that they get in touch with me.

I've been a subscriber since 1955! Keep up the great work.

Richard S. Loveland 11740 Bacon Race Rd. Woodbridge, Va. 22192 (703) 590-6205

## For Shure

Dear Editor:

Shure has recently taught me that the total quality concept—as embodied in product, service, and corporate commitment—is very much alive in Evanston, Illinois, even as it disappears to the fast buck in other large companies. Sparing you the details, let me just say that Shure demonstrated they cared very much about my satisfaction.

I started with Dynakits and Heathkits; I've been around awhile. I can understand now why Shure has too. Kudos to Shure and their service manager.

> John Vaeth Derwood, Md.

## **Lirpa? Muzzle!** Dear Editor:

As an Audio subscriber for many years, I both enjoy and truly look forward to each issue I receive. Your publication is well written, covers a variety of important issues, reviews a wide range of audio equipment, and in my opinion truly advances the overall music-listening experience. Why then do you feel compelled to devote precious space in your magazine to the inane ramblings of Prof. Lirpa and his equipment?

With the increasing amount of equipment produced each year and so few magazines to competently review it—as well as the endless wealth of new recordings—and

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NOISSING

considering the depth of your technical articles and the insightfulness of your interviews with musical innovators, why do you choose each April to waste four or five pages of valuable space on pure nonsense? (And that is not to mention the letters from subscribers debating the technical merits or failings of the latest Lirpa product.)

I enjoy humor as much as anyone, but when it takes the place of a product review or other piece of insightful journalism, I can only ask that a sense of rationality limit the good professor to a smaller portion of the magazine's pages.

> David A. Hinshelwood Homewood, Ill.

### Lirpa? Huzzah!

Dear Editor:

I was most interested in the letter in the April issue concerning the redoubtable Prof. Lirpa's development of a dynamic listening room, the boundaries of which moved as required to maintain a stable sound field at the ears of a listener even as he rocked in a chair. Major as this achievement was, the good professor indeed outdid it in his solid-state digital implementation of the process.

This brought to mind the pioneering work in a somewhat related field by a gentleman named Bradford, back in the late 1950s. The ultimate commercial realization of his efforts was the Bradford "Perfect" Baffle, which automatically provided "correct speaker damping" by a "pressure relief valve" in the rear of the enclosure. This enclosure, a compact 12 inches square by 9 inches deep, could accommodate a 12inch speaker (which must have required a shoehorn for installation) and had a hinged door in the back, which responded to a rearward movement of the speaker cone by swinging open to relieve the internal pressure. This presumably emulated a dynamically variable-volume enclosure that served as a truly infinite baffle. Selling for a mere \$34.50 (according to the 1959 Ziff-Davis Hi-Fi Buyers' Guide and Directory), it must have been the bargain of the century.

Mr. Bradford was born a few decades too soon. Today I can imagine a fast-acting servo, operating from the electrical signal, that would swing the door as required, just *before* the internal pressure would have increased. It boggles the mind to consider

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the possibilities of this technique. Perhaps the equivalent action ultimately could have been achieved by purely digital means.

Alas, Mr. Bradford apparently ran afoul of the authorities before the fruits of his invention could be reaped. During his incarceration, his company disappeared, leaving behind an unknown number of unfortunate owners of the Bradford "Perfect" Baffle. I suspect that the only practical application of any possibly surviving model would be as a housing for a small dog or cat, or perhaps a squirrel or a very large hamster, giving the fortunate occupant ready access to its home or to the great outdoors without human assistance.

Although Mr. Bradford failed, by a small margin, to make a seminal contribution to acoustics and loudspeaker design, it is encouraging to know that Prof. Lirpa is carrying on his tradition. I trust that we will continue to hear of his momentous technological breakthroughs for years to come.

> Julian D. Hirsch Hirsch-Houck Laboratories New Rochell<mark>e,</mark> N.Y.



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## TAPE GUIDE

## HERMAN BURSTEIN

### Fading from the Head

**Q.** Every once in a while, when I play a tape its sound fades in and out. This happens more with some tapes than with others. What is the problem, and how can I prevent it from happening to all my tapes?—Steve Tout, Anderson, Cal.

**A.** Your letter doesn't indicate whether your problem tapes always fade in and out or whether it happens only some of the time. If the latter, perhaps the tape is not making good contact with your deck's playback head. This could be due to dirt on the head, faulty shell mechanisms, or head wear. If the problem happens all the time, it could be due to the tape having lost part of its magnetic coating or to partial erasure caused by the tape's exposure to a magnetic field.

It may be time to have your deck checked for proper performance, including that of its heads.

## Choosing a Tape Type

**Q.** I still don't understand the relative merits and appropriate uses for the several types of cassettes, namely Types I, II, and IV. Where can I learn what I need to know about selecting tape types for recording music? Primarily I record FM broadcasts and transfer selected portions of these to dubbings.

I suspect that many Type I tapes are superior to their heavily marketed Type II counterparts. Yet the marketing/advertising strategy appears to be to convince the consumer to "step up" to the higher priced Type II tapes. I have even noticed that it is difficult to find the superior Type I tapes disclosed in Audio's March 1990 tests. Are manufacturers out to discontinue these excellent tapes in order to sell only the worst of the Type I variety, thereby reinforcing the myth that Type II is naturally better than Type I? Do you think we are being manipulated by the tape marketers?—Jon R. Koppenhoefer, Springfield, OH

**A.** I don't believe that certain tape types are better than other tape types for particular kinds of music. However, for *live* recording, metal tape may be superior because of its ability to accommodate a wide dynamic range in the treble spectrum at high recording levels.

Some years ago the ranking of tape types in order of quality, from lowest to highest, was Type I (ferric oxide), Type II (chromium dioxide, ferricobalt, or some few metal tapes that take approximately the same bias as chrome tapes), and Type IV (metal particle). When it comes to extended highfrequency response at high recording level, Type IV is still distinctly best. In recent years, some Type I tapes were improved to the point of surpassing some Type II tapes, so that a number of Type Is are best buys. As to which they are, you have to discover that by reading articles such as Ed Foster's more recent (June 1993) roundup, talking to knowledgeable persons, and experimenting for yourself.

So your suspicion is correct: Some Type I tapes are better than some Type IIs. And, yes, marketing strategy is a factor you have to contend with in buying tapes, just as you have to do with almost any other consumer product.

If you are having trouble finding sources of the tapes you wish to buy, try some of the mail-order houses. Also, call or write retailers in your locality.

## **Knobs and Rockers**

A reader who has requested anonymity, and that his letter not be published verbatim, dislikes mechanical controls, particularly potentiometers. Instead he favors solid-state attenuators and other controls for volume, recording level, tuning, etc., ones typically operated by rockers or buttons, rather than rotary devices. He finds them more reliable, that is, failure-proof. My reply is as follows: First, there are good mechanical controls and poor (usually cheap) ones. In my 40+ years of owning a variety of good (but not necessarily highend) audio components, I have experienced only one failure of a mechanical control for volume, tone, balance, etc. Actually it wasn't a failure, it was simply that the two sections of a stereo volume control

were not tracking adequately; it had two sections, one for each channel, and the two normally moved together via a defeatable clutch. I could have lived with it.

Second, a knob, as contrasted with a push-bar or such, offers a visible index of one's volume, tone, balance, etc., setting. It facilitates returning to a desired setting. If you read equipment reviews extensively, you will have noted that from time to time a reviewer will deplore the absence of a rotary control for a purpose he considers better served by such a control.

## Enhancer/Expander? What's That?

**Q.** I recently became the owner of a dynamic range enhancer. It was a gift, and I believe that the giver had as much knowledge of the device as I have—nothing. It sounds like an impressive device, but just what is it, and what does it enhance?—Joseph A. Fahrner, Orchard Park, N.Y.

**A.** The purpose of a dynamic range expander (or enhancer) is to increase the contrast (or difference in loudness) between the loudest and softest sounds in an effort to make the program material, particularly music, sound more realistic. On many phono records, radio broadcasts, and cassettes, the dynamic range between the loudest and softest sounds has been artificially reduced, or "compressed." This is done either to fit program material with a wide dynamic range onto a medium that would otherwise have trouble accommodating it or (particularly in radio) to make the sound seem more "punchy." An expander, particularly if it can be adjusted to match the degree of compression originally used, can restore the range to something like its original value. It won't be much use on CDs, however, because their dynamic range is usually wide enough for the program material. In fact, some listeners complain that the Compact Disc's dynamic range is too wide, making its softest sounds inaudible when volume is turned down to keep the loudest sounds at a tolerable level for the home.

If you have a problem or question on tape recording, write to Mr. Herman Burstein at AUDIO, 1633 Broadway, New York, N.Y. 10019. All letters are answered. In the event that your letter is chosen by Mr. Burstein to appear in Tape Guide, please indicate if your name and/or address should be withheld. Please enclose a stamped, self-addressed envelope.





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After you have tried your dynamic range expander for a while, you may find that you are happier without it, particularly if you like sound reproduction at moderate levels.

If you want more information about the best uses of your unit, write to the manufacturer.

## Setting the Record Level

**Q.** My cassette deck has a typical LED meter for setting record level. It has markings from -6 to +6 dB in 2-dB increments, with 0 at the center point. I have been setting the record level so that the loudest passages stay at or below 0—that is, out of the red. But the instruction manual suggests setting level so that the loudest passages occasionally light up the meter at +2 for Type II tapes and at +6for Type IV tapes. Which procedure do you think is best, mine or the manual's?—Bill Ehret, Austin, Tex.

**A.** It seems that you have been recording at somewhat too low a level from the view of optimizing performance. You want to maximize S/N without running into noticeable distortion or treble loss. On most meters, 0 dB corresponds to either DIN or Dolby level (the latter roughly 1 dB lower than DIN), whereas the level at which distortion and/or treble loss become noticeable is several dB higher. (How much higher varies with the type and brand of tape; it is usually highest for Type IV, or metal, tape.)

Accordingly, I recommend that you follow your manual. On the other hand, for the given tape type and brand you are using, it is advisable to check how high a level you can record at before distortion and/or treble loss become audible. Conceivably this could be above +2 in the case of a Type II tape and above +6 in the case of a Type IV tape. Then, back down a couple of dB or so to provide a safety margin.

Even though you have been recording at too low a level, the only harm done is to signal-to-noise ratio. Considering the high S/N achievable with Dolby C NR—better than 70 dB—losing something like 2 to 6 dB of S/N is not disastrous. It probably is not noticeable unless you play at very loud average levels, and then only in quiet passages. At the same time, by sacrificing several dB of S/N, you have insured lower distortion and better treble response.

## Ancient Acetates

**Q.** Several months ago, I hauled out some 35-year-old acetate tapes to dub onto DAT. These were half-track mono, on large reels, recorded at 71/2 and 15 ips. I dubbed 11/2 reels and then stopped, because I realized they had been recorded a bit slow and my Tandberg open-reel deck doesn't have variable speed. More recently, I borrowed a Revox that does have variable speed and resumed dubbing. The tapes I had not played for years were okay, but the 11/2 reels I had played several months earlier were now badly cupped, seemed to bounce as they went over the heads, and refused to wind tightly onto the take-up reel. In fact, instead of winding in a circle, they wound in a loose square.

What caused these problems, and why did they only affect the tapes I had recently played? What can I do to make these tapes playable again, even if only once?—Ivan Berger, Technical Editor, Audio

**A.** I can only make stabs at answers to your questions. It seems that in their years of storage, the ancient acetates accumulated physical stresses that did not display themselves so long as the tapes were tightly packed. If the tapes were rapidly rewound just prior to their long storage, the stresses might have been intensified. Once these tapes were played, the stresses were able to manifest themselves, with the tape refusing to pack tightly and circularly. If the tapes were rapidly rewound prior to restorage recently, matters might have been made worse.

Try putting the problem tapes through several fast winds and rewinds to see if this relieves the stresses enough to permit smooth, tight packing—or at least enough to permit successful play. If this doesn't work, try winding and rewinding the tape at operating speed; you will have to find other things to do in the meantime.

There are, or were, devices for manually winding motion picture film. I believe they can also accommodate tape reels. Perhaps you can locate one of these and manually wind the tape to achieve a good pack, immediately followed by playback.

Another expedient is not to use a takeup reel in playback, but to let the tape drop into a bin of some sort. This assumes that the tension exerted by the take-up reel is not an essential part of maintaining good tape-to-head contact in your deck.

> AUDIO/OCTOBER 1993 17



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## Digital Delay

**Q.** I have heard of digital recording, but what is digital delay?—Eric Wong, New York, N.Y.

**A.** Delay is used in audio playback to add ambience, either by simulating hall reflections in playback of true stereo recordings or to make surround systems (such as Dolby Surround) work properly. The signal is fed into one end of the delay and emerges some milliseconds later. Both analog and digital delay systems exist; for the latter, analog signals must be converted to digital form by an A/D converter, and the output must go through a D/A converter after the delay.

### **Mysterious FM Meter Movements**

**Q.** I have just purchased a new tuner. As I hoped, it works much, much better than the one it replaced. Under certain weather conditions, the "signal quality" meter drops from 60% to 30% over a period of 5 to 10 minutes. This seems to happen on all stations.

Here is an even stranger thing. If I switch to my second antenna and then immediately back to the first, or main antenna, the reading again goes back to 60% and then slowly drops back to 30%. The audio quality in no way deteriorates. All of this seems odd to me. Do you think this is normal?—Gerry Masters, Lacey, Wash.

**A.** To begin, I really don't know whether your "signal quality" meter registers signal strength, multipath distortion, or some combination of the two. Under some weather conditions, multipath can be increased by odd reflections from the ionosphere. If it increases enough, it could result in audible distortion. However, I don't think weather is involved here.

Weather conditions don't change during the brief time you switch from your main to your second antenna and back again. In all likelihood, something in the tuner recovers during the switch-over, and the meter reads higher for a short time before slipping back again, which means the meter circuitry is probably not operating as it should. However, if the "signal quality" shown on the meter is being computed rather than read directly, it may take the computer time to make up its mind after a sudden change in signal strength or a switch between antennas. And if there are days when the meter does not change, it's just possible that the weather is affecting your system and your meter is really telling you something. Before sending the tuner to a service shop, recheck the instruction book to see what it has to say about all this.

## **Display Problem**

AUDIO CLINIC

**Q.** My receiver has a blue digital display, featuring a clock that always shows the time even when the receiver is turned off. When the receiver is on, various displays are also lit. So far, so good. But when I turn the receiver off, these other displays are still lit, although very dimly. Is it something to be concerned about?—Mark D. Mina, Anaheim, Cal.

**A.** Although I don't think there is anything to be concerned about, I do not think it is normal for your display to show any function other than the time if the receiver is turned off. I suppose there is a single IC that supplies all functions of your display. It may be defective. On the other hand, this effect may simply be due to light leakage from the active parts of the display.

## **Directional Cables**

**Q.** Many of the audio interconnect cables are said to be directional. One end is marked specifically as "output" and the other is "input."

I unscrewed the phono plugs on such a cable and discovered a wire that ran along the shielding and was soldered to the ground on the output end of the cable. This same wire was not attached to the input side of the cable. I assume that this construction is what

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determines whether or not the cable is "directional." Can you explain in layman's terms the principle behind using such cables and what it accomplishes?—Bill Szymanski, Hartford, Conn.

**A.** Cables that are marked as to which end supplies output and which supplies input can be a valuable addition to many sound systems. As your examination has shown you, the shield is not connected to both ends as it is in conventional cables. The wire that you indicated as "running along the shield" is, in fact, the shield connection and is in intimate connection with the shield. Such "drain wires" are often used with foil shields, which cannot be soldered. Usually, "directional" cables use a second signal conductor (which is twisted along with the usual center one) to carry the signal.

The output end of the cable (the end that has the shield attached) is the end usually connected to the *input* of the device being served by the cable.

Because the shield is not connected at both ends, ground loops that can induce



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hum into conventional cables are eliminated. Of course, ground loops can form in the ground conductor.

There is no sonic difference between directional cables and conventional cables. Thus, if you have no hum problems with standard types, you don't need directional cables.

You can make up your own directional cables by obtaining cable that contains two conductors plus a shield, along with the phono connectors. Follow the wiring arrangements as you have described them. Use the color-coded wire to be sure that you don't mix up ground and hot leads. Be sure to mark the connectors as to which is which. If you accidentally reverse the cables end for end, they'll still work, but there may be a bit more hum present under some conditions.

## Power Line FM Antennas

**Q.** I live in a steel-studded building and am not permitted to use an outdoor FM antenna. Reception of stations 35 miles away is poor. Some time ago I saw advertisements for FM antennas that plug into electrical outlets and utilize the internal house wiring of the building as a "giant antenna." I would like to order one, but I cannot find any of these ads now. Can you help?—Morton Reitman, Frederick, Md.

**A.** I really do not believe that you will find these so-called "giant antennas" useful. At frequencies used for FM transmissions, the power line has so much shunt capacitance to ground and so much inductance that the desired signals will be prevented from entering your tuner's input.

Your letter tells me that at least some signal is present in your home, probably entering through windows. Try to find a location for your antenna that permits good reception of your most desired stations. I am sure that you still will have some problems, but there are some active antennas that have good booster amplifiers and are directional. I have never used one of these, but they seem to be the best solution to your problem.

(*Editor's Note*: I've tried power-line antennas without success. In New York City, where the air is full of signals and of multipath, powered antennas tend to add a few dB of noise, though that might not be audible on all tuners.—I.B.)

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## **BALANCING ACT**





FM Acoustics' Resolution Series 222 phono unit can be powered by the 266 preamp (top). An access plate (above) covers input capacitance and resistance switches. Interior layout (bottom right) is clean and uncluttered.

ital Decade," we should note that for millions of people, the preferred music-storage format is still the venerable 33<sup>1</sup>/<sub>3</sub>-rpm long-playing vinyl phonograph record. The audiophile segment of this group is very vocal, rarely missing an opportunity to condemn digital audio for its "sterile, clinical sound." Quite obviously, the digital/analog controversy will continue for the foreseeable future.

s we begin the second "Dig-

For now, as is well known, all major record labels and most of the smaller record companies no longer produce vinyl records, leaving the vinyl enthusiast to choose only from older recordings. These do constitute a vast library—near.y 40 years of recordings in every musical category. Many of these are available from dealers specializing in vinyl. It is unlikely that there will be any shortage of LPs; so many audiophiles have converted to digital CD and sold their vinyl collections to these specialty dealers, there is an oversupply of them.

I have given away or sold thousands of LPs but kept a core library of favorite recordings and all of the Everest and Crystal Clear recordings I engineered. While it is very pleasurable to play these LPs, I admit that the basic fragility of the medium means treating them with tender loving care. With an interface of diamond stylus and soft vinyl, groove wear is an implacable enemy.

For some time now, I have wanted to transfer my Everest and Crystal Clear vinyls to a digital format,

where they would never be worn beyond the condition they were in at the time of the transfer. R-DAT looked like it would serve this purpose, but the advent of the recordable CD-R, with all the advantages of the CD format, was an obvious choice. Equally obvious is the fact that there is no point in committing a recording to CD-R, unless the playback of the vinyl recording is as optimal as the state of the art permits. While many audio equipment companies have stopped manufacturing turntables, arms, and cartridges, for those enthusiasts who can afford them, there is a whole new breed of ultra high-tech turntables and related phono playback equipment.

Part of the inspiration for this LP transfer project was the introduction of the FM Acoustics Resolution Series 222 Phono Linearizer/Preamplifier. This unit, just under \$10,000, is unique and remarkable as it provides special phono-playback facilities, some of which have hitherto been unavailable. Most significantly, with the FM 222, phono cartridges can be connected in balanced configuration! Manuel Huber, the president of FM Acoustics in Switzerland, told me he was going to make a very specialized phono-playback unit to be used in conjunction with his FM 266 preamplifier. (I reported on the FM 266 in the January 1992 issue of Audio.) When I told Mr. Huber about my LP transfer project, he was kind enough to send me an FM 222.

Harry Weissfeld is the head of VPI Industries whose turntables are noted for their reliability and sonic neutrality. He is also a very accommodating friend, and he supplied me



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## PURE PERFECTION



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DESIGN &

AWARD

ering the very low signal levels of phono cartridges, especially MC cartridges, the more ambient interference is present, the more an unbalanced connection can contribute to degradation of the signal.

Therefore, in my VPI turntable, the left and right phono cartridge/arm leads are routed to separate left and right XLR connectors. The arm ground is separately connected to a screw terminal on the turntable plinth. Standard XLR cables transfer the phono signals to separate left and right XLR input connectors on the rear panel of the FM 222. Another pair of XLR inputs on the FM 222 can accommodate a second turntable.

## IF LP PLAYBACK IS NOT AS OPTIMAL AS IT CAN BE, THERE IS NO POINT IN TRANSFERRING LPs TO A DIGITAL FORMAT.

The FM 222 measures 18 inches wide  $\times$  $1\frac{3}{4}$  inches high  $\times$  11 inches deep. As is common with FM Acoustics Resolution Series components, the FM 222 is fabricated from laser-cut and polished 9000 aluminum, with lettering anodized so it can never wear off. In addition to the two pairs of balanced XLR phono inputs, the back panel of the FM 222 has two pairs of balanced XLR outputs for connection to the balanced XLR inputs on the FM 266 or other balanced preamplifiers. Through a separate XLR input, the FM 222 can be powered from the FM 266, but a separate power supply is available (\$680) for the FM 222 when it is used with other preamplifiers. Also on the back panel are ground-lift and pin-lift switches to aid in various grounding problems, and there is a chassis ground terminal. On the front panel of the FM 222, various operating functions are controlled through precision gold-plated, self-cleaning switches that activate special Swiss-made, quad-contact hermetically sealed relays.

From left to right, there are pushbutton switches for input channels A or B, then a removable access plate covering DIP switches for cartridge-loading capacitance and resistance. The standard loading mod-

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ule, for MC cartridges, provides capacitance settings of 0, 0.7, 1.5, and 2.2  $\mu$ F, and resistance values of 36, 45, 90, and 180 ohms. Modules for MM cartridges or for MC cartridges requiring custom values can be plugged in in place of the standard one.

The next switch on the front panel selects between records cut in the normal way or vertically cut mono records. (It is easy to determine the correct setting of this switch: The right setting will provide music. The incorrect setting will result in loud surface noise with little or no music.) The next pushbutton can provide an extra 10 dB of gain for very low-level MC cartridges. A low-frequency filter is available from the next pushbutton. Following this is a pushbutton that either provides standard RIAA phono equalization or activates a variable equalizer function. Thus the next two controls are special highprecision sealed potentiometers, one covering turnover frequencies, the other various attenuation values at 10 kHz. With this unique set of controls, it is possible to custom-tailor the equalization response of re-



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cordings that do not strictly adhere to the standard RIAA equalization settings. FM Acoustics supplies turnover and attenuation settings for some 83 different record labels, some of which include 78-rpm recordings! The last pushbutton provides selection between normal and inverted polar-

THERE IS A NEW BREED OF ULTRA HIGH-TECH TURNTABLES FOR THOSE AUDIOPHILES WHO CAN AFFORD THEM.

ity. A power-on indicator light completes the front panel layout.

The FM 222 employs totally discrete Class-A circuitry, using special super-speed semiconductors selected after analysis on a dynamic curve tracer. All circuitry is in encapsulated plug-in modules. No overall feedback or feedforward is used.

The FM 222's proprietary balanced input stages are usable with either MM or MC cartridges. The accuracy of a balanced circuit is determined by its Common-Mode Rejection Ratio (CMRR). The CMRR of the FM 222 is guaranteed to be better than 100 dB, a sharp contrast to the 40 to 60 dB CMRR of the typical balanced preamplifier. The very high CMRR of the FM 222 is achieved by the discrete circuitry, which uses no op-amps, hybrid circuitry, or ICs, tubes, etc. The FM 222 input circuitry automatically recognizes whether the source is balanced or unbalanced. Unbalanced signals are perfectly balanced right at the input. The FM 222's output can be connected to any balanced or unbalanced equipment. Here again, sensors automatically adjust to the respective connection standard. Every interface is therefore 100% correct; every load, be it balanced, pseudobalanced, or unbalanced, whether high or low impedance, will be properly driven by the FM 222's output buffers.

The FM 222 is unique in my experience, with a host of features beyond those I have described. Next month we will detail its fabulous performance and how it interfaced with the other elements of my LP transfer project.

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Sound&Vision Magazine (3se-mini)

"an abundance of detail and ambience, enhancing the recording's intimacy and realism... excellent definition... Bass power and coherence are particularly fine... excellent detail and clarity... Exceptional value... should be at the top of anyone's list of budget models to audition... STRONGLY RECOMMENDED." *HiFi Heretic Magazine (3se)* 

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5se offers excellent performance at a very competitive price..." John Atkinson/Stereophile Vol. 11 No. 1

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Sound & Vision (7se)

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"...Paradigm's already strong reputation is about to be further bolstered by the Compact Monitors. [They] have a breezy, open character... [with the] ability to plausibly recreate an acoustic [space]... AUDITION THESE."

#### Stereo Buyer's Guide

"natural-sounding... exceptionally smooth and extended... It's overall well-balanced, unified sound was what we would expect, but do not always hear, from any speaker in this price range." *Stereo Review (Export Monitor)* 



"Paradigm seems to have done what it takes to offer an exceptional speaker system... truly well controlled... the midrange is very open. We repeatedly had to ask ourselves how Paradigm is able to offer a system of this build quality that possesses such high class sound quality for such a low price." Son HiFi (Studio Monitor)









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# Stereo Review

#### JULIAN HIRSCH HIRSCH-HOUCK LABORATORIES

ESPITE its imposing name, the Canadian-made Paradigm Titan, just over a foot high and weighing a mere 10 pounds, is what is usually referred to as "mini-speaker". A two-way system, it has a 61/2-inch woofer operating in an 11-liter bass-reflex enclosure with a duct-loaded port. This bass/midrange driver, manufactured by Paradigm, has a multilayer voice coil on a Kapton former and a polypropylene cone. The crossover to the Titan's 4-inch dome tweeter is

through a second-order (12-dB-per-octave) frequencycorrected and phase-corrected network. The tweeter's polyamide dome, driven by a high-temperature voice coil on an aluminum former, is damped and cooled by ferrofluid.

The edges of the grille are chamfered to match the front edges of the cabinet, minimizing diffraction that could disturb the speaker's stereo imaging. Since the

grille is not removable, we were unable to examine the speaker's "specially designed front baffle," which is also said to help keep diffraction at a minimum. According to Paradigm, however, the woofer is mounted so its edge surround is flush with the baffle. The cabinet walls are high density particle-board and the enclosure is generously filled with acoustically absorbent material.

The Titan's specifications include an on-axis response of 75 to 20,000 Hz ±2 dB and a DINrated low-frequency extension to 55 Hz (the approximate -3 dB frequency in a typical room). Sensitivity in a room is rated at 88 dB sound-pressure level (SPL) at 1 meter with an input of 2.83 volts, or 85 dB in an anechoic environment. Nominal impedance is 8 ohms, with a minimum of 4 ohms. The Titan is recommended for use with amplifiers rated between 15 and 100 watts. It is intended for placement on a bookshelf or stands.

#### Lab Tests

With the speakers placed on 26-inch stands about 8 feet apart and 2 to 3 feet from any walls, the room response above 350 Hz was very smooth and flat, within ±3 dB

from 300 to 20,000 Hz and ±1.5 dB from 350 to 11,500 Hz. The 200- to 300-Hz range was elevated because of floor reflections, and the bass output was strong to below 60 Hz.

CRITICS CIR

The close-miked woofer response, combined with the port response, was unrealistically extended, as sometimes happens in this sort of measurement. Although the response seemed to extend to 20 Hz, the distortion in the port output at very low frequencies renders the measurement invalid in that range.

Several response measurements with pink noise at 1 meter (using either a sweeping band of noise or a constant noise spectrum with a sweeping one-third-octave filter) produced generally similar and more realistic results. The speaker's output was constant within 1 or 2 dB from about 80 or 90 Hz to perhaps 2,000 Hz, with a shallow depression of another decibel in the 4,000- to 10,000-Hz range and a return to midrange levels at 20,000 Hz. Low-frequency response dropped off rapidly below 80 Hz, to -5 dB at 60 Hz and -17 dB at 40 Hz.

A quasi-anechoic FFT response measurement, valid above 300 Hz, confirmed the general shape of the random-noise measurement. A ±1 dB variation from 700 to 2.000 Hz was followed by a dip of 3 to 4 dB between 6,000 and 9,000 Hz and a return to midrange levels, or perhaps 1 dB higher, from 10,000 to 20,000 Hz.

The change in output between the speaker's forward axis and 45 degrees off-axis was less than 3.5 dB below 1,000 Hz, increasing to 4 or 5 dB between 1,200 and 7,000 Hz and falling more rapidly above that. From -6 dB at 10,000 Hz, the off-axis response fell to -19 dB at 20,000 Hz. The tweeter's phase linearity was very good, with a group-delay variation of less than ±50 microseconds from 3,000 to 20,000 Hz. corresponding to a path-length difference of about 0.6 inch.

Impedance reached a minimum of 4.4 ohms at 170 Hz (and 5.2 ohms at 35 Hz) but remained well above 8 ohms over most of the audio range. Maximum impedance was 52 ohms at 2,000 Hz. Sensitivity was 87 dB with 2.83 volts applied. A 4-volt input was required to achieve our reference level of 90 dB SPL.

At

and

"Calling this speaker "Titan" is not as extravagant as one might think - it is truly a GIANT-SIZED VALUE."

"...very smooth and flat ... its frequency response ranks among the flattest that we have measured from a speaker."

"...sounded every bit as good as its measurements would imply."

"... it is less common for a small speaker to avoid sounding thin when the program calls for a healthy bass output. The Titan passed that test handily ... it does such a skillful job ... that the listener does not notice that all of the music is coming from the pint-sized Titans.'

"The small size, in fact, gives the Titan a distinct advantage in Imaging accuracy over many larger speakers... we have heard a few (very few!) speakers with a single 6-inch woofer that can produce a similar effect, but they usually cost considerably more."

istics 4 volts. woofer distortion was a low 0.5 to 0.6 percent from 120 to 1.600 Hz. It rose to 3 percent at 100 Hz remained

cent from 100 to 30 Hz. The Paradigm Titan handled rather large power inputs without audible distress or damage. At 1,000 and 10,000 Hz, our amplifier clipped at 330 watts and 600 watts, respectively, with a single-cycle sinewave burst, but the speaker gave no signs of audible distress. At 100 Hz the small woofer reached its excursion limits, with a resulting hard sound quality, with 200 watts input.

between 3 and 6 per-

#### Comments

The Paradigm Titan sounded every bit as good as its measurements would imply. Over much of the audio range its frequency response ranks among the flattest that we have measured from a speaker. Although frequency-response measurements do necessarily not



define the sound quality of a speaker, in this case there was a good correspondence between the two character-

It is not unusual for a well-designed small speaker to sound smooth and well balanced, but it is less common for a small speaker to avoid sounding thin when the program calls for a healthy bass output. The Titan passed that test handily. Even though it cannot reproduce the lowest frequencies, it does such a skillful job with the ones within its range that the listener does not notice that all of the music is coming from the pint-sized Titans. If you close your eyes, they sound just fine, giving no hint of their size. The small size, in fact, gives the Titan a distinct advantage in imaging accuracy over many larger speakers.

We have heard a few (very few!) speakers with a single 6-inch woofer that can produce a similar effect, but they usually cost considerably more. Calling this speaker "Titan" is not as extravagant as one might think - it is truly a giant-sized value.

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anadian manufacturer Paradigm might be, relatively speaking, a newcomer to the audio industry, but it has wasted no time in firmly establishing a comprehensive range of speakers with a model to suit any application.

The Performance Series of speakers, consisting of seven models, recently underwent a technical and aesthetic revamp and, as our May 1992 review of the new 9seMkII model showed (see Australian HI-FI Volume 23 Number 5), the updates in technology have markedly improved the range. Now, in order to bolster the range at the entry level of the market, Paradigm has added a new bookshelf model, called the Titan.

#### The Equipment

My dictionary defines a Titan as `... one of extraordinary size and strength', which certainly does not refer to the cabinets themselves, but could be inferred as describing the sound emanating from them. These



speakers are a true bookshelf size, measuring only 316 mm high by 196 mm wide and 238 mm deep, which gives them an internal volume of just 11 litres. These dimensions mean the speakers can be situated with few problems on shelves or wall mountings. However, the use of tall stands is undoubtedly the best means of locating them in their optimum positions.

The cabinet is a two-way, bass reflex design, and makes use of a rear-firing tuned port for low frequency extension. The cabinet is made from ordinary 12 mm particle board, and is unusually designed, in that the front grille is not removable. Entry to the box is only possible by unscrewing the rear panel and carefully extracting it from its very snug fit in the side panels. My review sample cabinet was finished with a black ash vinyl veneer, but the speaker apparently is also available in oak veneer and white.

Both drivers have been mounted inside the cabinet in recesses in the front baffle. Typically, the bass/midrange driver sits below the tweeter, and the crossover is attached to the front baffle between the two drivers, but just off to one side. The crossover network is a second-order type aligned for 3 kHz, and has been configured in a quasi-Butterworth arrangement. It has been corrected for both frequency and phase. In terms of components, I counted one standard bipolar electrolytic capacitator (2.2 µF), an ordinary wire-wound ceramic resistor and a small iron-cored choke wound on a plastic former, all of which were glued to the front baffle in addition to being secured to it by a plastic pull-tie. There is no printed circuit board - all crossover connections are crimped and soldered.

One of my review sample speakers (which had obviously been much used, judging by the number of spike-marks on the bottom of the cabinets), had been dropped, which had not only resulted in damage to the front grille but had also caused the bass driver to come adrift from the baffle. Because of the way the bass driver is mounted to the baffle (it is inserted into a circular recess chamfered from the 12 mm thick front baffle), the screws used to attach the driver don't have too much to grip on. Paradigm obviously recognizes this as a design weakness, because the bass drivers on our samples were also glued in position in three places. It appears that while this dual-fixing method may be secure enough for all normal circumstances, buyers would be advised not to drop their speakers from great heights.

The bass driver is designed and manufactured by Paradigm, and features a 115 mm long-throw polypropylene cone which is attached to the 165 mm pressed steel frame by a foam roll surround. This means the Effective Cone Area (ECA) is 105 cm<sup>2</sup> providing a total ECA of 210 cm<sup>2</sup> for the pair. Each driver uses a 350 gram barium ferrite magnet. The voice coil is a 25 mm multi-layered type which is wound on a low-mass kapton former. As we have noted many times previously, the use of foam as a roll-surround substance means the speakers may be unsuitable for use in the far north of Australia (the tropics) or in marine applications, since high-humidity/high temperature environments, and exposure to salt air, are known to adversely affect some types of foam.

The tweeter used in the Titan is the much-lauded Vifa D19TD 19 mm polyamide dome unit, which has been horn-loaded for a claimed sensitivity of 92 dB, which is reduced to 88 dB by the crossover network a technique Paradigm notes in a hand-out to distributors is intended to 'increase reliability'. The tweeter is ferro-fluid cooled and damped, and utilizes an aluminum former in the voice coil and a barium ferrite magnet.

Inside the speakers, we found that all interior connections are made by crimped sleeve connectors and that a single square of ordinary R4 fibreglass batt measuring  $20 \times 20$  cm is inserted in each cabinet, directly behind the bass driver, for damping.

The tuned port is made from cardboard tube (painted black on the inside) and is 36 mm in diameter and 130 mm long. It backs directly onto the rear of the tweeter, and is tacked into place by epoxy that is applied *after* the tube is inserted, rather than before. We found that this meant that in one cabinet, the cardboard tube was able to be removed rather easily from its mounting - we'd suggest that Paradigm could perhaps be just a little more liberal with its glue!

The rear panel hosts a single pair of rather insubstantial spring-loaded terminals, which was a little disappointing. Solid banana/screw terminals would offer a greater variety of termination options and much better electrical contact.

Paradigm claims a frequency response from 75 Hz to 20 kHz (on-axis,  $\pm 2.0$  dB), noting that the real response in a room according to DIN 45 500 will be around 55 Hz (-3 dB), depending on placement and room conditions. The company recommends an amplifier power range of 15 to 100 watts RMS, and a maximum power input of 60 watts. We note that this maximum figure is with a typical program source, using an amplifier that is driven into clipping for no more than ten percent of the time. The Titans have a nominal impedance of 8 ohms, but a minimum impedance of 4 ohms. As with all Paradigm speakers, the Titans are covered by a full, five-year manufacturer's warranty.

"...a match for some speakers that are twice the size (and price)... THE FRONTRUNNER IN THIS MARKET NICHE."

"They are as sophisticated as any small speakers we have heard for quite some time..."

"...remarkably big sound - big because of its full body and a wellextended soundstage..."

"It never reaches toward harshness...and displays a kind of soft sweetness that tends to give most music a warmth and hint of intimacy..."

"...the bass response is really quite marvellous...the stereo image is very well focused..."

"...the Titans...represent real value for money - an ideal first step on the hi-fi ladder."

#### Listening Tests

The Titans may be classified as bookshelf speakers, but to extract the most from them we suggest you procure a pair of solid stands which will place the tweeters at ear level for the main listening position. They are small and light enough to be positioned on a shelf or wall-mount device, but such a mounting position will almost certainly compromise their ability for reproduction accuracy. So, if you are considering such a proposition, think about it carefully before taking the plunge.

And, if you are using wall-mount brackets which must be physically fixed to the cabinet, note that the wood used in the Titans is neither particularly thick, nor is it of high-density composition, so you would have to be careful with the mounting hardware. Also bear in mind that, as we have stated previously, speakers which are wall- or ceiling-mounted should have an additional, separately-anchored, wired restraint system as a sensible safety precaution. (Such anchors are mandatory if the speakers are installed in commercial premises.)

The Titans, we discovered, are very fussy about where they are positioned. This applies to all speakers, of course, but these little powerhouses are especially sensitive to placement with regard to the rear wall because of their rear-firing port. The time and effort expended in finding the right position will be amply rewarded with a startling jump in performance ability.

We found that a distance of about 30 cm from the rear wall provided the most accurate bass response not the 'biggest' response, but certainly the most balanced.

It took very little listening to understand why Paradigm called these speakers 'Titans'. These little boxes deliver a remarkably big sound - big because of its full body and a well-extended soundstage that belies the actual size of the drivers that produce it.

During our listening tests, we varied the styles of music considerably, and included Dvorak's Symphonies Nos. 7 and 8, by the Concertgebouw Orchestra, conducted by Sir Colin Davis, (Award, AWCD28280), Mozart's Symphonies 19 to 23, by the Prague Chamber Orchestra with Sir Charles Mackerras (Telarc, CD-80217), Marc Cohn's selftitled album (Atlantic, 7567-ab-82178-2), On the Line, by Lee Ritenour (GRP Records, GRP-D-9525), and The Shouting Stage by Joan Armatrading (Festival, TVD93278).

As in many other speakers, the Vifa tweeter here imparts a delightfully rich but uncluttered treble. It never reaches towards harshness, regardless of the musical program, and displays a kind of soft sweetness that tends to give most music a warmth and hint of intimacy that would very much suit the bulk of rooms that will necessitate the use of such small speakers. The highs of some instruments - such as splash cymbals - could perhaps have done with a little more sheen and sizzle, but don't for a moment imagine that this means they sound dull or lifeless - on the contrary - some tastes might simply prefer an extra degree of brilliance.

The midrange receives a different sort of treatment. There is a suggestion of reticence here, as if the range is very slightly muted, giving the overall sound a subtle moody darkness. Male voices sometimes sounded lightly recessed in the whole image and several instruments, especially acoustic, sometimes tended to lose a little of their timbral nuances. This is more a suggestion of colouration than anything like a dip in the midrange response, however.

The bass response is the big surprise of the Titans. Strong, tight, punchy - and very convincing - it lacks a little in speed in thundering passages, with a subsequent loss of definition giving over to a hint of woolliness when the drivers are called upon to work overly hard. But remember the size of the drivers and cabinets, and the bass response is really quite marvellous, and certainly a match for some speakers that are twice the size (and price).

The overall sound is quite well-balanced and relatively neutral in character except for that hint of colouration in the midrange, and could perhaps best be described as 'warm'.

The stereo image is very well focused, with a reasonable size which extends to the 'boundary' established by the speakers themselves and with more than sufficient height. The depth sometimes loses out, especially with orchestral works, which often suffer from some image depth compression when replayed through small transducers, but small ensemble work is handled very well by the Titans, with each instrument clearly defined and properly positioned. This would have to be considered their forte.

#### Conclusion

The Paradigm Titans may be small and inexpensive, but their sound could never be described in the same way. They are as sophisticated and honest in character as any small speakers we have heard for quite some time and as such, can be considered among the frontrunners in this market niche.

Those who prefer to listen to acoustic and small band music will be more favourably disposed towards these speakers than hard rock and large orchestra listeners because of their 'warm and intimate' presentation, but 'big sound' listeners should not be discouraged from auditioning them. Space-conscious rockers will be very impressed with their bass response, and lovers of orchestral works will enjoy the Titans' ability to deliver dynamic power.

Don't forget to allow for some stands in your budget - the extra expense more than pays itself off in providing the Titans with every opportunity to show off their considerable charms and abilities. And even with this added expense, the Titans still represent real value for money - an ideal first step on the hi-fi ladder. Steve Crowe Reprinted with permission from:



espite the name, the Paradigm Titan is no space-squandering behemoth but a modest bookshelf speaker from Ontario. I first heard it shortly before Thanksgiving dinner in the home of a trumpeter in Providence, Rhode Island. Silvery notes of chamber music were pouring out of the speakers, and though they were harnessed to inexpensive electronics, the sound was ingratiatingly well balanced. The bass is surprisingly full for a speaker this size. It won't shake the floor, but it rocks, as long as you set it up properly. Good materials, including a fluid-damped dome tweeter and polypropylene woofer, probably help. The cheapest bookshelf speakers cost half as much but can't equal the Titan's pleasing blend of potency and Mark Fleischmann smoothness.



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Shown at the Summer '92 CES in Chicago, this budget Paradigm speaker is so new that to audio-

philes and dealers it is, in fact, a Phantom. but it will begin to appear as summer wanes. I received an early production pair just after the show, and was impressed enough to include it at the last moment in this issue

A ported bookshelf two-way with ferrofluid-cooled soft-dome tweeter and 8" polypropylene woofer (of the company's own design), the Phantom has a non-removable grille, and comes in oak or black ash vinvl finishes with tapered front corners. Rear connectors are spring loaded types that will, with some stretching, accept banana plugs. There's none of that hi-wiring frippery here. given the price point. What Paradigm

has done is engineer an amazing level of performance into this entry-level product. The frequency curves response speak for themselves, as far as spectral balance is concerned.

The top guasi-anechoic measurement indicates some extra energy just below and above 500 Hz right up to 1 kHz, but generally smooth mids and tre-



10 kHz. The next curve below, the room curve, also at 1 metre onaxis, shows bass that extends strongly to about 35 Hz, the woofer only 5 dB down at 30 Hz,

the 60 Hz dip being a room artifact. The roughness is seen in the upper bass and lower midrange, but things get much more linear above 1 kHz, with smooth response to just above 4 kHz, with only a minor dip, and a rising character above 10 kHz of about 3 dB. Response on axis can be seen to be +3/-2 dB (ignoring the room dip in the bass) from 35 to 20,000 Hz, quite astonishing response for a bargain basement speaker

Off axis by 30° and 60° it is actually even smoother, the upper midrange and top-end anomalies flattening out. With the speakers pointed straight ahead, extremely accurate timbral response will be heard at the listening position.

Impedance tests showed the Phantom to be an 8-ohm speaker over much of the range, 10 ohms from 20 to 10 kHz, rising to 49 ohms at 2 kHz (the crossover point), then sloping evenly to 4.5 ohms at 150 Hz, with a peak of 33 ohms at the woofer resonance of 60 Hz, going down to 5 ohms at 40 Hz and below. It should be a quite easy load for any amplifier or receiver, and is quite efficient.

Very impressive on paper, the Phantom did not disappoint in listening, though it did also show the limits dictated by its very low price. There was an excellent lateral image on orchestral and choral music, with surprisingly good depth, though definition became reduced as the soundstage deepened. The choral sound had good naturalness, but lacked a little in detail, and at high levels a shouty, hard quality started to emerge in the lower midrange. This can be seen in our quasi-anechoic curve, taken at about 84 dB, the congestion and roughness in the octave below 1 kHz, probably

some cone-edge breakup from the woofer. However, at levels below 90 dB this speaker

"...an amazing level of performance... effectively competes with speakers close to twice its price ...

"...any budding audiophile assembling a system with an under-\$1000 budget would be foolish not to audition the Phantom."

"Response on axis can be seen to be +3/-2 dB (ignoring the room dip in the bass) from 35 to 20,000 Hz, quite astonishing response from a bargain basement speaker."

"extremely accurate timbral response...excellent lateral image on orchestral and choral music, with surprisingly good depth"

"this speaker had a very musical quality, with excellent timbral accuracy... the low end response full and tuneful... on pop and jazz music the Phantom did almost disappear"

had a very musical quality, with excellent timbral accuracv. Female voice seemed a bit sharp. and male voice was quite forward, but orchestral music had good weight, while pedal organ definitely had pedal, ĺow the end response full and tuneful, if not as well defined as that of some more expensive speakers.

On pop and jazz music the Phantom did almost disappear if not driven too hard. You won't have to turn it up to get good bass response, anyway. the speaker having a firm foundation on all types of music, with a little extra upper bass emphasis.

Paradigm has engineered a bottom-end winner (in both senses) that effectively competes with speakers close to twice its price, so any budding audiophile assembling a system with an under-\$1000 budaet would be foolish not to audition the *Phantom*.

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# Stereo Review

#### JULIAN HIRSCH HIRSCH-HOUCK LABORATORIES

The Canadian-made Paradigm Phantom loudspeaker is similar in basic design to the company's Titan system (reviewed here in September 1992), but with somewhat larger drivers in a larger cabinet. Its 8-inch woofer, constructed on a die-cast aluminum frame. operates in a vented enclosure whose port is on the back of the cabinet. Except for its size and basket construction, the woofer appears to be generally similar to that of the Titan.

There is a second-order (12-dB-per-octave) crossover at 2.5 kHz to a ¼-inch dome tweeter with magnetic-fluid damping and cooling. Although this tweeter is the same nominal size as the Titan's, it is formed of a different material (treated textile instead of polyamide) and operates at a lower crossover frequency. Paradigm says the Phantom tweeter's design gives it better damping and power handling.

The Phantom's cabinet has more than twice the volume of the Titan's (0.93 versus 0.38 cubic foot). This difference probably accounts in large measure for the Phantom's somewhat higher sensitivity rating (90 dB sound-pressure level versus 88 dB) and appreciably deeper low-frequency extension. Its on-axis response is specified as 60 Hz to 20 kHz ±2 dB.

The Paradigm Phantom's input terminals are



spring-type clips that accept only stripped wire ends. They are recessed into the cabinet's rear panel. The enclosure's beveled front is covered by a nonremovable black cloth grille.

We supported the Paradigm Phantoms on 26-inch stands, several feet from any room walls. Their averaged room response was possibly the flattest we have yet measured from a loudspeaker, varying  $\pm 2.5$  dB from 47 Hz to 20 kHz and a remarkable  $\pm 1.2$  dB from 1.1 to 11.5 kHz. There was a modest 5-dB peak between 13 and 15 kHz, apparently from the tweeter's diaphragm resonance.

Quasi-anechoic MLS response measurements confirmed the exceptional smoothness of the Phantom's response. Although the specific features of the response curve differed slightly with microphone placement, its variations did not exceed 5 dB overall between 300 Hz and 11 kHz, and most of those were traceable to unavoidable reflections within the room.

The horizontal dispersion of the Phantom was also surprising, with less than a 2-dB level difference between the on-axis and 45-degree off-axis measurements up to 8 kHz; the difference increased to only 3 dB at 10 kHz and 8 dB at 20 kHz.

The minimum impedance of 5.6 ohms occurred at 30 and 130 Hz. There were impedance peaks to 20 ohms at 12 Hz, 30 ohms at 60 Hz, and 47 ohms at 2.2 kHz. Group delay, a measure of phase linearity, was virtually constant over the tweeter's range, varying less than  $\pm$ 50 microseconds from 4 to 20 kHz and about 1.2 milliseconds from 50 Hz to 4 kHz.

Sensitivity was almost exactly as rated – 91 dB sound-pressure level (SPL) at 1 meter with a 2.83-volt input of pink noise. We measured the woofer distortion at a constant drive level of 2.53 volts (corresponding to 90 dB SPL in our sensitivity measurement). The distortion was between 0.5 and 1 percent from 2 kHz to 100 Hz and less than 2 percent down to 40 Hz, but it reached 10 percent at 20 Hz. Listening tests confirmed that the Phantom's actual low-frequency limit was in the vicinity of 30 Hz, where the output was audibly clean although somewhat down in level.

"The smoothness of the Phantom's frequency response would do justice to speakers at <u>TEN TIMES ITS PRICE.</u> ...UNQUESTIONABLY AN OUTSTANDING VALUE."

"...response measurements confirmed the exceptional smoothness of the Phantom's response."

"...the Paradigm Pantom is a remarkably good speaker in its price range ..."

"...would be very competitive at a substantially higher price."

"In our opinion, it sounded as good as its measurements imply it should."

"...no one hearing them in a blind test ...would be likely to guess that he was listening to a pair of speakers at this price level." Pulse power tests showed that the Phantom was able to absorb a considerable amount of power without damage or (usually) unreasonably high distortion. With single-cycle 1- and 10- kHz bursts the driving amplifier clipped at 330 and 600 watts, respectively, without any obvious signs of distress from the speaker. At 100 Hz, where almost any speaker can be overdriven by most amplifiers, the Phantom's woofer reached its suspension limits noisily (but without damage) at a 225-watt input level.

These measurements would suggest that the Paradigm Phantom is a remarkably good speaker in its price range and would be very competitive at a substantially higher price. The considerable listening time we devoted to it confirmed that impression. It is exceedingly rare to find speakers selling for this price that can deliver any sort of useful output at 30 Hz, to say nothing of having a response smoothness that would do justice to speakers at ten times the price.

From a purely sonic standpoint, the Paradigm Phantom is unquestionably an outstanding value. In our opinion, it sounded as good as its measurements imply it should. At its price, you do not get real binding-post connectors or a wood-veneer cabinet, and our samples, which had a simulated black-ash finish, would never be mistaken for fine furniture. On the other hand, no one hearing them in a blind test (not knowing what he was hearing) would be likely to guess that he was listening to a pair of speakers at this price level.

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N RECENT YEARS, Paradigm Electronics has proved to be one of Canada's most consistent manufacturers of high-quality speakers. At present, their line ranges from the tiny Atom to the ambitious Studio Monitor. This time around, we decided to test a modest new model - the Phantom and we were not disappointed. At this price the Phantom has to represent about as good a value as you will find in today's market.

The Phantom is a fairly large "bookshelf" speaker containing a 210-mm polypropylene woofer and a 19-mm fabric dome tweeter: The rear-vented enclosure is finished in black (or oak) wood-grain vinyl. About the only shortcuts Paradigm has taken in producing this inexpensive speaker seem to have been the non-removable fabric grille and the rather lightweight spring-loaded speaker connections on the back - neither a serious shortcoming.

#### Measurements

The speaker's frequency response in an anechoic chamber is shown in Figure 1. The three curves are averages of some 200 measurements taken at various angles. The top curve is the on-axis response combined with measurements up to 15 degrees off-axis, to represent the direct sound reaching a seat in the "listening window" or "sweet spot." The lowest curve (60 - 75 degrees), shows the sonic balance of sound directed to nearby boundaries; such near-field reflections can mix with the direct sound, influencing the overall characteristics. The middle curve (45 - 60 degrees), approximates the balance further back in the listening room. The curves for the Phantom are very similar, an indication of good dispersion and consistency of tenal balance throughout the listening room. More important, the curves are smooth and regular, showing both good extension at high and low frequencies and virtually no anomalies in between. This is one very well-balanced speaker.

The point is even more clearly made in Figure 2, where the top curve shows the total radiated power of the speaker, regardless of direction. This gives an idea of the sound balance the speaker would achieve in a fairly live normal room; in the case of the Phantom, the curve is excellent. The

"...this speaker is the best by far!' AT THIS PRICE LEVEL, THAT'S REMARKABLE INDEED."

"...the listening panel praised the natural balance of the Paradigm Phantom, and awarded it one of the highest scores in the listening sessions."

"...the curves are smooth and regular, showing both good extension at high and low frequencies and virtually no anomalies in between."

> "This is one very well-balanced speaker."

"Again and again, our listening panel commented on the neutral balance of the Phantom, with comments like 'good presence,' 'clear, detailed strings,' ..."

"... as good a value as you will find in today's market."

lower curve shows the speaker's directivity index. The Phantom is typical of point-source speakers, with very good stereo imaging.

In Figure 3, the lower curves indicate total harmonic distortion across the audio spectrum for two input levels. The lower, solid curve shows THD when the speaker is driven to 90 dB sound pressure level at mid frequencies; the dashed curve is for an output level of 95 dB. The difference between the two curves indicates the speaker's ability to handle high power levels, and while the increased distortion at 95 dB is not really excessive, our listening panel did notice some strain on musical passages with heavy bass. That was rare, however; in other cases, the Phantom handled the bass with ease, having a -10 dB point of a very low 36 Hz. Overall sensitivity was 86.5 dB SPL at 1 metre, I watt.

Finally, Figure 4 shows the Phantom's impedance across the audio spectrum. The dip to about 5 ohms suggests that these speakers should probably not be connected in parallel.

#### **Listening Tests**

Again and again, our listening panel commented on the neutral balance of the Phantom, with comments like "good presence," "clear, detailed strings," "smooth and undramatic," and "this speaker is the best {in the listening test] by far!" Occasionally, notice was made of some prominence in the midrange, tending to bring vocals forward, but this was a reaction to the weak mids of some other speakers in the tests, as often as not. One consistent criticism was that, if anything, there was too much bass, which dominated the sound (and, possibly led to the distortion the listeners heard). This could probably be remedied simply by turning down the amplifier's bass control.

Criticisms of this sort were mild, however. Overall, the listening panel praised the natural balance of the Paradigm Phantom, and awarded it one of the highest scores in the listening sessions. At this price level that's remarkable indeed.



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As the interview in this issue shows, Paradigm has grown rapidly over the last few years, their emphasis on traditional box speaker designs that represent value for money. Their most expensive model is under \$2000, and that profiled here comes in at a very popular price point for first-time audio buyers.

The 3seMkll is a front-ported two-way reflex design finished in black or oak veneer, with plastic-nut, gold-conductor 5-way binding posts on its rear. Tweeter is a textile dome that is ferro-fluid cooled, while the 8" woofer uses a clear polypropylene cone in a diecast aluminum basket.

In our measurements the 3seMkII showed smooth response on axis, but some upper midrange variations off axis. The quasi-anechoic curve shows generally smooth response, with а minor midrange dip, and gentle tweeter rolloff above its 13 kHz resonant point. The on axis room curve is quite linear, +3/-2 dB from 100 to about 14 kHz, while those at 15° and 30° off axis show variations of +/-3 dB between 4 and 10 kHz. The response of these speakers will be a little smoother if they are angled in slightly toward the listening position. Off axis by 60° the 3seMkll shows quite linear dispersion, and should have an excellent uniformity of tonal balance at any point in a room, its reflected sound very similar to the direct radiation.

Bass performance is very smooth, rolling off more gently than most ported types below 60 Hz, with usable energy to about 40 Hz with judicious placement. The slight rise just below



100 Hz could be increased if these speakers are too close to corners, but the front port and generally linear bass response make it less room sensitive than many speakers.

Impedance was smooth, with a rise in the

"The 3seMkII is a superbly balanced design that combines just about as much accuracy, dynamics and bass extension as you can get at this price."

"this speaker showed very good neutrality ...good depth on choral music, and a quite open sound."

"Female voice was unusually uncoloured...acoustic guitar was clean and focused..."

"Both orchestral and choral music had a surprisingly full ambient field..."

"Percussion and rock music were very dynamic, and the 3se Mkli will play quite loud without stress."

"...the 3se Mkll shows quite linear dispersion, and should have an excellent uniformity of tonal balance at any point in a room..." , with a rise in the midrange to 20 ohms, with it 10 ohms above, and as low as 5.5 in the upper bass, with a peak at the woofer resonance of just over 20 ohms. Phase was quite linear, especially in the upper octaves.

In listening, this speaker showed very good neutrality, the soundstage slightly forward, but with good depth on choral music, and a quite open sound. Fem**al**e voice was unusually uncoloured for a speaker in this price range, while acoustic guitar was clean and focused. Both orchestral and choral music had a surprisingly full ambient field for a budget speaker, though strings seemed a little more homogenized than when heard from more expensive models. Percussion

nd rock subin were very dynamic, and the 3se Mkll will play quite loud without stress. Though it did not quite plumb the depths of organ pedal bass, its ability to cleanly handle electric bass is something that will make it very attractive to young audiophiles; in other words, this is a budget speaker that can boogie.

Perhaps more than any other model they make, this speaker embodies the Paradigm philosophy of most sound for the dollar. The 3seMkll is a superbly balanced design that combines just about as much accuracy, dynamics and bass extension as you can get at this price.





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The *7se* has been a bread-and-butter speaker in this Canadian manufacturer's line for some years, selling at what is pretty much an entry price for audiophile models. With an additional clear polypropylene woofer and a redesigned tweeter, the *Mk3* version extends bass response, and tries to refine imaging and midrange smoothness. I've never reviewed the original version, but have evaluated several other *Paradigm* models.





Clad in oak-grain vinyl, this speaker is frontported below the woofers, and uses a soft-dome tweeter. All drivers are of the company's own design and manufacture. Rear terminals are goldplated 5-way posts, an extra pair provided for biwiring, the configuration in which the speaker was auditioned.

The 7seMk3 was quite smooth in our 1-metre quasi-anechoic measurement, with a dip in the midrange and a little spikiness above, the mild tweeter resonance seen at about 18 kHz. Its lower midrange was notably smooth and resonancefree

The group of room curves shows good smoothness on and off axis, response generally ±3 dB across most of the frequency range. The 15° curve shows a dip in the upper midrange, but otherwise tracks that at 0° closely; at 30 and 60° we see a gradual rolloff with ascending frequency and increasing angle, but excellent dispersion overall. The fairly broad midrange dip that is characteristic of this speaker may tend to move images a little back in the soundstage.

In the bass region we see quite smooth response in the nearfield measurements, spliced onto the 1-metre curves in the 600 Hz region. There is some extra energy just below 100 Hz, but

"The 7seMk3 is obviously an EXCELLENT CHOICE... offering performance comparable to many in the \$1000 range."

"...lower midrange was notably smooth and resonance free...good smoothness on and off axis ... excellent dispersion ... " "...nicely quick and silky character from the tweeter...good clarity... excellent soundstaging and depth...natural tone ... " "...never screechy or steely ... very good weight and dynamics...this speaker

will play loud with no complaint, and has a lot of solid, deep bass.' "I also liked what other writers have

called 'the ability to boogie', a lively rhythmic presentation that gives rock and jazz music a real impetus.'

bass extends to about 30 Hz, with some energy even below. With careful room placement to minimize mid-bass boom, this speaker should provide a very solid and extended bottom; the front port will help in making it a little less sensitive to location, but clearly, it should be kept out of the corners

The impedance measurement showed a 22 ohm peak at the crossover frequency, settling to about 10 ohms above, and dipping to 4 ohms in the upper bass; woofer resonance can be seen at 60 Hz in the 20-ohm impedance peak, while the resonance of the large port appears to be below 20 Hz. The electrical phase measurment below

shows some anomalies at the bottom which can be ignored, and unusual coherence above the crossover for a speaker in this price class, the little blip at the top indicating the tweeter resonance.

I had to readjust my ears when listening to this speaker after a group of exotic reproducers. Though box speakers do have their virtues (and Paradigm certainly makes some of the best at reasonable prices), they have a very different sound from a dipole panel. What became evident after a few minutes listening was the nicely quick and silky character of the tweeter. Female voice sounded very natural, though a bit forward, and choral voices were well portrayed a little farther back in the soundstage, with good clarity, though there was less sense of the individual voices than with some more expensive speakers Orchestral music showed the 7se's excellent soundstaging and depth, though cellos tended to be a little more present. Strings in general had a natural tone, and were never screechy or steely, and orchestral music had very good weight and dynamics; this speaker will play loud with no complaint, and has a lot of solid, deep bass. I also liked what other writers have called "the ability to boogie", a lively rhythmic presentation that gives rock and jazz music a real impetus. The tweeter is quite fast, and the woofers keep pace very well.

I'm not sure I prefer the sound of this speaker over that of the Titan/SB-100 subwoofer combination, the latter a little smoother in the midrange, but the 7se/3 having better bass extension, and a slightly more revealing tweeter. With a pair of subs the Titan is actually more expensive, but with one comes in at a reasonable price. Those listening to any of these at their Paradigm dealer will probably decide on the basis of box sizes as much as anything else. The 7se Mk3 is obviously an excellent choice in a largish floorstanding speaker at its price, offering performance comparable to many in the \$1000 range



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The flagship of the Paradigm line, the Studio Monitor is an imposing speaker, a 3-way system with 4 drivers, the bass port below the lower woofer on the front panel. Available in oak, walnut or black ash veneers, the front baffle is finished in a very attractive speckled grey, with a trim plate at bottom below the port and grille cover, which is black cloth over a fibreboard frame. The rear of the speaker is also veneered, with a space for recessed connection terminals about halfway up; these are 3 sets of gold-plated 5-way binding posts with removable connecting straps to allow bi-wiring, or even tri-wiring.

The driver complement is a pair of 8" mineral-filled polypropylene woofers, a similar 5" midrange, and a ferrofluid-cooled aluminum dome tweeter. Paradigm designs and builds their own drivers, though at pre-

"THIS IS A TRUE MONITOR LOUDSPEAKER." "...a quite notable value among higher priced speakers.

"...bass was very clean, tuneful and well defined. The 1812 cannons had tremendous authority..."

"...acoustic guitar ... was reproduced with great clarity, speed and dynamics, the metal dome tweeter fast and fluid, the cone midrange articulate and neutral. Female voice was also heard with great neutrality and naturalness ... "

"Imaging was excellent, with a wide soundstage, and very good depth and detail."

"Percussion was very cleanly reproduced... the deepest bass came through with impressive solidity and power. This speaker reproduces pedal organ like few can, with astonishing authority even at very high levels."

sent the tweeter for this speaker is made elsewhere; plans are in motion to have even tweeter manufacture brought into their own facility during 1992. The drivers are crossed over at 275 Hz and 2.5 kHz.



As you can see from the cut away drawing, the enclosure is braced at 4 points internally, as well as containing considerable CO-SPUN (a proprietary fibre) damping material to also minimize internal reflection and vibration. The front baffle and internal braces are made of Medite fibreboard, while the enclosure outer walls are of high density hard-board, the use of dissimilar wood products

said to further reduce resonances. One expects a large speaker to

provide deep bass response, and our quasi-anechoic curve (measured at 1 metre on axis with one speaker driven at 80 dB) shows extension to below 40 Hz, with a gradual rolloff that extends right to 20 Hz. The dip above 200 Hz is largely a measurement artifact that occurs with large, floorstanding models in our measuring space, but the rise just below 100 Hz does reflect the strong bass output in this region, a result, I think, of the port's proximity to the floor. Response through the midrange and right up to 10 kHz is very linear, almost as smooth 60° off axis as on, with a mild rise around 2 kHz. On axis, the metal dome shows a slight bit of extra energy between 11 and 14 kHz

The room curve (taken with both speakers driven at 80 dB, one on axis at 1 metre, the other in normal stereo position relative to it) shows the bass power this system is capable of, with some prominence around 80 Hz, but powerful extension right down to 20 Hz. The 200 Hz dip is less evident, with very smooth response above that extends right to 10,000 Hz, the same mild rise noted in the extreme treble, Overall response is ±4 dB from about 28 Hz to 20 kHz, with an even more linear ±2 dB from 250 to 10 kHz. The dip around 200 Hz may be partly a crossover glitch, but the transition between midrange and tweeter is virtually seamless on axis, just slightly shown in the off-axis quasi-anechoic curve. These measurements show the Studio Monitor to be a very well engineered speaker, and that designer Scott Bagby is a speaker engineer to be reckoned with

In listening tests the full bottom end was very evident, though bass was very clean, tuneful and well defined. The 1812 cannons had tremendous authority, while the Bosendorfer piano sound was almost intimidating in its weight. Clearly, placement well away from boundaries is recommended for these speakers. The acoustic guitar segment of our 15 IPS listening program was reproduced with great clarity, speed and dynamics, the metal dome tweeter fast and fluid, the cone midrange articulate and neutral. Female voice was also heard with great neutrality and naturalness, while choral voices had a nice balance, good detail and an unusual fullness of sound. Imaging was excellent, with a wide soundstage, and very good depth and detail. This is a true monitor loudspeaker.

Percussion was very cleanly reproduced, while electric bass seemed just a bit sluggish, this effect able

to be minimized by careful speaker placement to moderate the 80Hz prominence. However, the deepest bass came through with impressive solidity and power. This speaker reproduces pedal organ like few can, with astonishing authority even at very high levels. The Studio Monitor is guite efficient, and capable of very high levels, and reproduces the weight of a full orchestra with no strain, the main virtue of a big speaker

With the capability of being bi- or tri-wired or bi- or tri-amped, this speaker is amenable to fine tuning: in the latter configuration an amplifier with level controls can be used to bring the bass down 2 or 3 dB for very flat response. Many listeners will enjoy the very full bottom end, though I would recommend, at the very least, bi-wiring for this reason: in any speaker with extended bass capability, back EMF (electro-mechanical feedback) occurs, the woofers' energy reflected back into the crossover to muddy the midrange. Biwiring makes this coupling impossible, the result cleaner overall sound.

Regardless of how you drive it, or hook it up, you won't need a big amplifier to get very high levels from the Studio Monitor because of its efficiency, 100 honest watts plenty of power

Paradigm has created a model that competes with others costing quite a bit more, for example, the Energy 22.3, the PSB Stratus Gold or the Angstrom 606. In this context, I would call the Studio Monitor a quite notable value among higher priced speakers.

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he recently updated Paradigm Studio Monitor is their top-of-the-line and most-expensive system. It is part of the five-system, high-performance "Monitor Series." which has existed for about 2½ years. After my excellent experience with the firm's 7se (Sept., 1989). I was interested to see if the Studio Monitor continued the fine tradition: the system did not let me down



ter voice-coils, and are mounted in die-cast aluminum frames. The motor drive

netic geometry and hightemperature precisionwound voice-coils mounted on a vented, aluminum and Kapton former. In order to minimize distortion. Paradigm uses a special cone and surround material that they call a "mineral-filled copolymer polypropylene joined to a high-hysteresis synthetic butyl suspension" (sounds impressive). The similarly designed Ferrofluidcooled midrange utilizes a curvilinear cone of the same materials that exhibits "exceptional stiffness versus mass and excellent internal damping

The Ferrofluid-cooled tweeter uses a low-profile. convex aluminum dome. (which is said to push the dome's first breakup-resonance frequency far above the audible range) and a treated textile suspension. The tweeter utilizes a close-mounted diffraction lens over the center of the dome to smooth and widen its response. Coupled with other design features, the tweeter is said to exhibit exceptional power handling and freedom from dynamic compression.

The Studio Monitor's crossover contains four resistors, one rheostat four inductors, and six capacitors, not counting

The Monitor Series is intended to compete sonically with such high-end systems as B&W. KEF, and Thiel, but at about half the price. Paradigm has applied all the knowledge and technology they learned through their close association with Canada's National Research Council to produce what they believe is a highly accurate, low-distortion system at a very affordable price (see 'Testing At Canada's National Research Council." Sept., 1989). Paradigm now depends much less on the NRC because they have established their own in-house R & D and manufacturing facility, which includes a large anechoic chamber (40 feet x 33 feet x 28 feet), along with two world-class listening rooms

The Studio Monitor is a large and fairly heavy, threeway system that uses a pair of parallel-connected 8-inch woofers, operating in a vented (bass-reflex) box. Paradigm manufactures the woofers. cross-overs, and cabinets for the Monitor line but obtains the midranges and tweeters from Vifa, which makes them to Paradigm's specifications. The system, which is deeper than it s wide, is nearly 4 feet tall. It contains a vertical array of drivers with the two woofers on the bottom, and the midrange and tweeter mounted above all

on the center line of the front panel. The high-excursion, 8inch woofers use large, 40-oz, magnets and 1%-inch diame-

uses "focused-field" mag-"Does the Studio Monitor meet its goal of keeping up with the big-guy, highend systems at only half the price?You bet! Check them out for yourself!"

"...the systems exhibited a vivid realism and extended, smooth response with a detailed and expressive high end. The acoustic bass lines were reproduced particularly well with fine control and extension.' "...an excellent soundstage, with good width and depth, coupled with firstrate recovery of recorded ambience ... " "Cathedral pipe organ was also reproduced on a satisfyingly big scale with room-shaking bass from the pedal notes." "The maximum output of the Studio Monitor at low frequencies rates it with the best speakers I have tested ... "

paralleled units. All parts are high quality and very close tolerance (±2%). The rheostat, a factory-only adjustment. allows the level of the tweeter to be set for close unit-tounit matching. The woofer and midrange inductors use iron and ferrite cores, respectively, while the tweeter coil is an air-core type. The crossover is said to be of quasi-Butterworth, electro-acoustic design. The crossover is wired point-to-point on two hard boards; one is the rear terminal board, and the other is a smaller board for the low frequency components.

The rear of the cabinet contains the large connection panel, with three pairs of heavy-duty, double-banana jacks for the woofers, inidrange, and tweeter. This allows biwiring or tri-wiring the system. (The cable manufacturers love Paradigm! Actually having the three parts of the system separately available is a boon to us reviewer types who like to investigate crossover relationships, roll-off slopes. etc.). The holes of the jacks will accept large cable, up to 0.2 inch (#4 AWG) in diameter. In standard, single-wiring configuration, four gold-plated straps are provided to connect the three sets of terminals.

The main structures of the Studio Monitor's cabinet are constructed from high-density composite hard board. which is said to have high internal damping to minimize resonances. Platform braces, made from Medite fiber board, located around the full perimeter, also reduce resonances. The "Co-Spun" damping material used to reduce internal standing waves is said to be acoustically transparent at lower frequencies where the vented-box cabinet operates. The midrange operates in its own tubular subenclosure that connects the front and rear of the cabinet. Real wood veneer is used on the top, sides, and rear of the cabinet, while the front panel is finished in Paradigni's traditional metallic.

#### Measurements

Figure 1 shows the on-axis anechoic frequency response of the Studio Monitor, taken with and without the grille. Measurements were taken at a distance of 2 meters from the cabinet's front, on the tweeter's axis, with a voltage of 5.66 V rms, and referenced back to 1 meter. The response below 600 Hz was derived from 2-meter groundplane measurements with input reduced to 2.83 V rms to compensate for the ground plane's 6-dB boost.

The only significant trend in the response is a gradual

slope in the response of about 0.8 dB/octave from about 70 Hz to 9 kHz (drops about 5.5 dB in this sevenoctave range). Along this slope, the response is quite smooth and exhibits no significant peaks or dips. From 9 to 20 kHz, the response rises about 3 dB. Even including the gradual roll-off and the rise in response above 9 kHz, the overall response from 37 Hz to 20 kHz stays within a fairly tight window of ±3 dB referenced to 1 kHz

Below 10 kHz, the main effect of the grille is a 4-dB notch in the response at about 7 kHz. Otherwise the grille's effect on the response is minimal. Averaged over the range from 250 Hz to 4 kHz, the sensitivity of the system is 86.9 dB. essentially equalling Paradigm's 87-dB rating. Right-left matching was a very tight ±0.5 dB from 100 Hz to 20 kHz.

Figure 2 shows the phase and the groupdelay responses of the Studio, referenced to the tweeter's arrival time. Both these curves are quite smooth and well behaved. Between 1





and 20 kHz, the phase curve rotates a significant 216° This rotation is due to a combination of crossover design and midrange/tweeter acoustic-center offset. Between 1 and 3 kHz, the midrange output lags the tweeter by about 0.17 mS

The system's energy-time response is shown in Fig. 3 The test parameters were chosen to accentuate the 1 to 10 kHz response, which includes the upper crossover region. The main spike, at 3 mS. is quite compact and narrow. which indicates coherent summing of the midrange and tweeter outputs. A delayed spike, about 22 dB down from the peak, 660µS after the main arrival, seemed to be related to diffraction from the edges of the cabinet, because the height and timing of the return depended on the horizontal angle at which the energy/time response was taken (curves not shown)

The horizontal "3-D' off-axis responses of the Studio Monitor are shown in Fig. 4. The curve at the rear of the graph is the onaxis response. The horizontal coverage of the system is very even because the details of on-axis response are essentially the same as those of the off-axis curve. The narrow ridge on the right side of the curve set indicates a high-frequency broadening of coverage. Display of an individual curve from the set, at any angle beyond 25° off axis. shows a narrow, thirdoctave-wide peak at 18 kHz, which is about 10 dB in level above the nearby

response. This dramatic directional widening of response may be due to the previously mentioned diffraction lens placed over the center of the tweeter dome

Figure 5 shows the vertical off-axis curves of the Studio. The bold curve in the center of the graph (front to rear) was made on axis. The response curves in the range of ±15° are quite symmetrical up and down and do not exhibit any major dips in the high-frequency. crossover range within ±10° of on axis. Beyond about 30° off axis, the response is actually a bit flatter for down angles than up angles. The same sharp off-axis high-frequency peak noted in the

horizontal responses is evident in the vertical responses beyond about  $\pm 30^{\circ}$ . Overall, the vertical coverage in the main listening window is quite uniform.

I investigated the crossover's phase relationships by inverting the polarity of the midrange, using the tri-wire input connectors. With the midrange reversed, deep nulls in the on-axis response appeared at both crossover points. This indicates near-ideal driver-to-driver phase relationships through both crossover regions. For broadest vertical coverage and a forward-facing directional beam at crossover (minimum lobing error), the high- and low-frequency drivers need to be in phase with each other throughout the crossover range. The strong anti-phase behavior of the Studio Monitor's crossovers, with the midrange reversed, indicates that its crossovers are nearly ideal in the standard connection.

Figure 6 shows impedance versus frequency over the extended range from 10 Hz to 20 kHz. A minimum impedance of 3.2 ohms occurs at 85 Hz and a maximum of 14.2 ohms at 5 kHz. This max/min variation of about 4.4 to 1 (which equals 14.2/3.2) means that the system will be somewhat sensitive to cable resistance. Thus, cable resistance should be limited to a maximum of about 0.050 ohm (50 milliohms) to keep cable-drop effects from causing response peaks and dips greater than 0.1 dB. For a typical run of about 10 feet. 14-gauge or larger low-inductance cable should be used. Smaller-diameter wire can be used but will result in higher peak-to-dip variations in frequency

response. The 4.3-ohm minimum at 24 Hz occurs at the vented-box tuning, where the enclosure's resonant loading is greatest. Interestingly, the impedance is fairly flat and stays above 10 ohms, over a wide range extending from about 400 Hz to 10 kHz

Figure 7 shows the fairly well behaved complex impedance, plotted over the range from 5 Hz to 30 kHz. The impedance phase (not shown) reached a maximum of +46° (inductive) at 262 Hz and a minimum angle of -30° (capacitive) at 13.5 kHz. A cute little curlicue, of little significance (I believe), is exhibited at 2.9 kHz. Although the phase angles are not excessive, and the impedance is quite high over a significant part of the audible range, the low impedance in the bass range will make the system fairly demanding on a power amplifier.

On a high-level, low-frequency, sine-wave sweep, no

"The [Studios] exhibited

an open, spacious, clean

sound, with excellent

soundstaging and

powerful bass capacity."

"Phase relationships in the

Studio Monitor's crossover

region are nearly ideal."

"I can only show distortion for one of

my usual three tones: it was

unmeasurable for the other two."

"The Studio Monitor's port turbulence

and vent noise were the lowest I have

ever measured."

"On most program material, the

Paradigm systems were so similar

to my reference systems that if I

directed my attention elsewhere ...

I virtually could not tell the

difference when switching from

one system to the other!"

significant cabinet resonances were exhibited. A mild front-panel resonance at about 300 Hz was evident, with maximum activity at a point halfway hetween the midrange and tweeter.

As compared to the port-covered condition. the port reduced the woofers' excursion over a wide range from 19 to 45 Hz, with a minimum excursion at 25 Hz, the system's vented-box tuning. At this frequency, the vent reduced the excursion of the top woofer by a healthy 75% and the bottom woofer by only about 50% (again as compared to the vent-covered state), even though both woofers are in parallel and thus should theoretically have the same excursion! This loading difference could be due to nonuniform soundpressure distribution in the enclosure.

At power levels of 100 watts or less (about 25 V rms), at frequencies near box resonance (between 20 and 30 Hz where port air velocity is maximum), vent noise and turbulence were the lowest I have measured. The system always sounded quite clean and effortless at

all bass frequencies above 18 Hz. Although Paradigm describes the low-frequency part of the system as a quasithird-order resistive-port system, the system performed as a well-tuned pure vented-box system. Visual inspection of the port reveals no added resistive material; the port is completely clear on the inside.

The maximum excursion of the 8-inch woofers was a generous /2 inch peak to peak, with a linear excursion of about 0.4 inch peak to peak. The woofers overloaded quite gracefully and exhibited no dynamic offset problems.

The Studio Monitor's 3-meter room curve is shown in Fig. 8 with both raw and sixth-octave smoothed responses. The system was in the right-hand stereo position, aimed at the listening position, and the test microphone was placed at ear height (37 inches) at the listener's position on the sofa. The system was driven with a swept sine-wave signal of 2.83 V rms (corresponding to 1.33 watts into the rated 6-ohm load). The direct sound plus 13 mS of the room's reverberation are included. Above 1 kHz, the curve is fairly smooth but tilts up above 13 kHz. Peaks at 170 and 800 Hz occurred but, excluding the room-effect dip at 400 Hz. the averaged curve fits into a 10-dB (±5 dB) window from 100 Hz to 20 kHz.

Single-frequency harmonic distortion versus power for the musical note E<sub>1</sub> (41.2 Hz) is shown in Fig. 9. Distortion plots for the usual 110-Hz and 440-Hz tones are not shown because the distortion was so low that it was below the floor of my measuring gear! The power levels were computed using the rated system impedance of 6 ohms. A maximum power of 100 watts (24.5 V rms) was set as the upper limit. At maximum power, the distortion reached 4.9% second and a fairly high 18.6% third. The fifth was the only significant higher harmonic, at 5.6%. At 100 watts, the system generates a loud 105 dB SPL at one meter at 41.2 Hz.

Figure 10 displays the IM created by tones of 440 Hz (A4) and 41.2 Hz (E1) of equal input power. The IM distortion rises only to the low value of 5.3% at full power, because the system's lower crossover, at 275 Hz, separates the two IM test tones and thus minimizes the distortion.

Shown in Fig. 11 are the short-term, peak-power input and output capabilities of the Studio Monitor, as a function of frequency, measured using a third-octave bandwidth 6.5-cycle tone

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burst. The input peak power was calculated by P assuming that the measured peak voltage was applied across the

impedance. The peak input power starts out high, at about 160 watts at 20 Hz. rises to a maximum of 400 watts at the 25-Hz box tuning, falls somewhat to 150 watts between 40 and 50 Hz, and then rises thereafter reaching 8 kW (220 V peak). Above 500 Hz, the Studio's power handling essentially kept up with the highest power systems

I have tested! Between 100 and 200 Hz. the limit of the speaker system was reached at about the point same that my test amplifier's limit was reached! This was due to the low impedance of the system

through this range The upper curve in Fig. 11 shows the maximum peak sound pressure levels the system can generate, at a distance of 1 meter on axis. for the input levels shown in the lower Also curve. shown is the room gain of a typical listening room at low frequencies, which



2 6

TIME - mS Fig.3-Energy/time response

60

5 0<sup>1</sup>



8 10

Fig.4-Horizontal off-axis frequency responses



Fig.5-Vertical off-axis frequency responses

FREQUENCY - H





adds about 3 Fig.7-Complex impedance.

1B to the esponse at 80 Hz and 9 dB it 20 Hz.

With room gain, the peak output starts il a very 106 strong 106 JB at 20 Hz, rises rapidly to 112 dB at 25 Hz, and after a slight hesitation rises into the verv loud mid - 120s region, where this level of output matches the peak SPLs of live music (with an appropriately highpowered amplifier however) With room gain, the system's maximum output exceeds 110 dB above 24 Hz and 120 dB above 90 Hz. verv respectable low-frequen cy limits! The



120 PEAK POWER -1 K a 100 100 NUM 80 10 MAX TEF 70-20 1Bk

FREQUENCY - Hz Fig.11-Maximum peak input power and sound output high maximum output

of the Studio Monitor at low frequencies ranks it with the best speakers I have tested, which include such strong competitors as the B&W 801. PSB Stratus Gold. JBL L7. Legacy Convergence, and Velodyne and Hsu subwoofers! A stereo pair of speakers can be expected to reach even higher low-frequency levels with bass material common to both channels

#### Use and Listening Tests

My review systems were supplied in a good-looking natural oak finish. The systems' cabinetry, workmanship, and fit were tops. However, I can't say I like the metallic front panel in combination with the rest of the system. The systems are supplied with removable, adjustable spiked feet, which I used part of the time. Moving the systems without the spiked feet attached was straightforward. because their weight is less than 100 lbs.

The supplied 81/ x 11-inch owners manual is well written and four pages long. The actual manual is twice this size due to Canada's mandatory French language translation. A warning note on the front of the manual was quite useful to me; it warned that if the systems are transported or stored below 50° F, they must be allowed to warm up to room temperature before using (due to stiffening surrounds on the midrange and woofer drivers and thickening of the Ferrofluid used in the tweeter). This caused me to think twice before testing the systems outdoors in 39° weather (the warmest recent winter day here in Indiana)!

One complete page of the manual is devoted to bi- and tri-wiring and to passive bi- and tri-amping, with a wellwritten description of the horizontal and vertical bi- and tri-amping configurations. Paradigm suggests aiming the systems toward the listening position in order to optimize high-frequency response and coverage, with a location well away from any reflecting surfaces.

For listening, I placed the systems in my regular listening positions 8 feet apart and 10 feet from my listening sofa, with a spacing of about 5 feet from the rear wall. My equipment line-up includes the new Krell KRC preamplifier and KSA-250 power amplifier along with the Rotel and Onkyo CD players. Other equipment includes the B&W 801 Series II speakers (I am arranging to replace these loudspeakers with the new Series III versions), and Straight Wire cabling.

On first listening, 1 was surprised how very close the Studios sounded to my reference B&W systems. This similarity extended through the whole frequency range and even included essentially the same sensitivity; no level matching was required! The systems exhibited an open, spacious, clean sound, with excellent soundstaging and

#### powerful bass capability.

On an excellent new acoustic jazz CD I picked up at the recent winter Consumer Electronics Show, The Immigrant's Dilemma by Todd Garfinkle (M·A Recordings MO17A, an audiophile direct-to-DAT recording done with two B&K 4006 microphones), the systems exhibited a vivid realism and extended, smooth response with a detailed and expressive high end. The acoustic bass lines were reproduced particularly well with fine control and extension

On wide-range symphonic material with chorus and soloists, heavy with percussion, such as the new Dorian Discovery release of Venezuelan Antonio Estevez's La Cantata Criolla (DIS-80101), the systems demonstrated an excellent soundstage, with good width and depth, coupled with first-rate recovery of recorded ambience.

On most program material, the Paradigm systems were so similar to my reference systems that if I directed my attention elsewhere (thus removing directional cues to source identification) by facing to the side, or standing up behind my listening couch and facing to the rear. I virtually could not tell the difference when switching from one system to the other! One source where I could tell the difference, however, was on Clair Marlo's solo singing on Let h Go (Sheffield Lab CD-29), where she sounded slightly more open and crisp on the reference systems.

On pink noise, when sitting down, there were minimal tonal differences when compared to my references. Evenness of vertical coverage on pink noise was good on the stand-up, sit-down test, but not as uniform as my references. The Studios exhibited some upper-midrange suckout when I was standing.

On band-limited, third-octave pink noise, the Studios did extremely well on all the low-frequency bands. As compared to the B&W systems, the 20- and 25-Hz bands were the only ones with slight differences, mainly in the higher frequency sound the port generates when the air velocity is high. The B&W port produced a swishing sound, while the Studios had a slight tonality to the air rush sounds, which may be due to organ-pipe resonances in the port. The B&W sounded slightly cleaner on these two bands when generating the same fundamental sound level.

The systems can get down and boogie when required! This was demonstrated with the bass guitar and kick drum on the "We Will Rock You," and "Fat Bottomed Girls' tracks on Queen's Greatest Hits CD (Hollywood HR-61265-2). Fairly clean levels of 95 to 98 dB SPL, Aweighted and 103 to 105 dB with C weighting could be generated. Cathedral pipe organ was also reproduced on a satisfyingly big scale with room-shaking bass from the pedal notes

Does the Studio Monitor meet its goal of keeping up with the big-guy, high-end systems at only half the price? You bet! Check them out for yourself.

heatre

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Paradigm has taken a mix-and-match approach to home theatre. Though suggesting Titans up front, with Atoms at

rear, either compact speaker can be used in fours with the

subwoofer and centre channel speaker. In fact there are two

centre channel models, the smaller CC-100 sized for place-

D.B. Keele, Jr.



All were finished in black woodgrain vinyl as supplied. but Paradigm was showing all in a glossy woodgrain finish that is very attractive at the Chicago CES in June. This will be available at slightly higher cost.

The Titan measurements show an amazingly linear speaker for its price even in the quasi-anechoic curve at top, with the tweeter resonance seen at about 19 kHz. This trace is notably free of the spikiness seen in many loudspeakers.

The room curves below show very smooth response at 0° and 15° through the midrange, with a slight rise above 10 kHz, and a little roughness below the 2 kHz crossover point from the woofer surround. Even at 30° off axis, the tweeter is very linear, and at 60° exceptional dispersion is seen up to 16 kHz.

Bass nearfield measurements of woofer and port are soliced to the 1-metre curves at 650 Hz, and show a rise between 100 and 200 Hz, but with excellent shelved response right down to 30 Hz. Room boundaries can be used to extend deep bass, and mounting in a wall unit should be an ideal situation for this rear-ported speaker, if there is space for the rear wave to emerge

The impedance measurements show that the woofer and port are tuned quite far apart, the port peak reaching about 27 ohms at 25 Hz, and the woofer one at 90 Hz being about 40 ohms. Otherwise, low frequency impedance is about 5 ohms, rising to a high 60 ohms at the 2 kHz crossover point, declining to about 10 ohms at high frequencies. The spike at the upper end of both impedance and phase traces indicates the tweeter resonance.

The electrical phase measurement shows a 90° swing through midrange and upper frequencies, suggesting that the woofer is connected in opposite polarity to compensate for crossover phase variations. However, the very flat frequency responses indicate that acoustic phase is quite accurate, the drivers' combined response having no discernible cancellations.

The Atom also measured quite well for a speaker at a rock-bottom price, its midrange dip resembling that seen on some other Paradigm models. The response traces at 0° and 15° are virtually identical, that at 30° just a bit smoother at the very top of the range. This is excellent dispersion, and used in a home theatre system the Atom will provide even





frequency distribution over a wide listening radius. However, it is also a little peaky around 1 kHz, and though this might improve dialog articulation, it will also be heard with music as a slightly forward character.

Where the *Atom* shows its diminutive size sonically is in the bottom octaves, where response rolls off quite quickly below 60 Hz. As can be seen, the subwoofer extends response to 40 Hz, but more on this below.

Impedance measurements of the *Atom* show a nominal value of about 5 ohms in the bass region, with port and woofer peaks at 25 and 35 Hz, respectively. Just over 40 ohms at the 2.5 kHz crossover point, it settles to 10 ohms at high frequencies.

Phase is similar to that of the *Titan*, ranging over  $90^{\circ}$  in the treble region, and showing some complex effects in the bass region which are of little acoustic significance.

The CC-200 centre channel speaker has quite similar response characteristics to the Atom, but its bass from the front-ported quite large box is more extended, like that of the Titan. A little rough in the lower midrange, its response above is very linear and well dispersed on all axes. With a pair of woofers flanking the central tweeter, it will have excellent extension on mono sources, and when used with 4 Titans is quite impressive even without the subwoofer.

The matching subwoofer uses an internally mounted 10" woofer in a ported box with 4 sets of spring-load connectors for input and output to the

satellites. Quite large, it is less invisible than some, but could be used as a coffee table to rattle your cups. If size is not a concern, you can use these subs in pairs, and full connection diagrams are provided in the instruction sheet, as well as those for bi-amp operation.

The SB-100 subwoofer operates over a quite narrow range, as its measurement on the Arom chart shows. Its response kicks in just below 100 Hz, and rolls off below 40 Hz; extension into the 30 Hz range can be achieved with judicious placement. Its response has been carefully tailored to work well with both satellite models, and it is a good addition in both pure audio and home theatre systems based around either speaker. As with the *Monitor Audio* sub (also tested in this issue), the contribution of solid, clean, highlevel bass is only hinted at in the measurements; the *Titan* in particular, can go quite deep, but not at the kind of volume the sub can achieve.

I found the sound of both *Titun-* and *Atom-*based systems very clean and dynamic, the smoothness and extension of the former obviously preferred as a more expensive option. The excellent dispersion of all models makes listening well off axis, especially with a centre channel, little problem, with good stereo and surround imaging always apparent.

The Paradigm systems were capable of playing louder than the Monitor Audio 200 system, but the sound was a little less refined, though, at only one third of the cost, the Titan system came pretty close; while flatter in frequency response, it did not provide quite the detail and depth of image heard from the gold dome tweeters.

These systems are very good approaches to home theare in a small or moderately sized room. The *Atom* system comes in at a quite astonishing price, while the *Titan* (also with sub and centre) retails for a bit more; a set of 4 matching stands can be added for a minimal amount.

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There is hardly an audio manufacturer that hasn't come up with a speaker package for home theatre use. Sometimes these are multi-dollar THX extravaganzas, sometimes they consist of minimal units that rely



center back: CC-200, center front: SB-100, background: Atoms, foreground: Titans

mostly on directionality for their effect.

Paradigm, however, has taken a different approach: its surround sound system consists mostly of existing speakers, which can be combined in a wide variety of configurations. Two new models have been introduced that are, however, designed for Dolby Pro-Logic use. Both are shielded centre-channel speakers, one intended to be placed above, and the other below, a TV monitor. Both are two-way designs with a pair of 51/2 inch mid/bass drivers flanking a '4 inch tweeter, and both retail for under \$200 each. The difference is that the CC-100 is wide but quite shallow. and can perch atop the monitor itself. The CC-200 is narrower and deeper, which Paradigm says is preferable, and which can be placed beneath a typ ical TV monitor.

The other new goodie - the SB-100 passive subwoofer - can be used with virtually any speaker, but its ideally suited for surround sound as it allows the other speakers to be quite small. The SB-100 has a number of heavy-duty binding posts hidden out of sight on the bottom panel. In one configuration, which uses a single subwoofer, cables from both amplifiers can be attached, and a second set run to each of the satellites. Alternatively, two subwoofers can be employed, with each one feeding a single satellite, or all the speakers can be attached separately.

The SB-100 sub is roughly cubic, about 17 inches high, and so is less stashable than some, but it is attractive enough that it can stay in sight and makes a fine end table. It is available in several finishes.

For main speakers, Paradigm recommends the Titan, a mini-bookshelf two-way that shares the tonal neutrality we have come to expect from Paradigm. As a small speaker, it is somewhat shy in the low end, which is why the subwoofer is advisable. As a step-up system, however, the company suggests putting the Titans in the rear and using a larger speaker up front, such as the Phantom (see Sound & Vision, Vol.9 No.2, March/April 1993, page 20). In that case, the subwoofer may be unnecessary; the Phantoms put out lots of bass.

The basic surround speaker, according to Paradigm, is the Atom, a tiny two-way suitable for mounting on stands or tucking away on a

Paradigm Electronics Inc.

Woodbridge, ON L4L 3P5

101 Hanlan Rd.

416 850 2889

Canada

CRIDES CHORA Award shelf. Both Atoms and the Titans are available in shielded versions for a slight premium. For our listening tests, we

decided to go with the shielded Titans up front, connected to a single subwoofer, the Atoms for surround, and the CC-200 for the centre. The total cost - about as inexpensive a surround system as you are likely to find. Not surprisingly, considering the source, the sound was excellent, throbbing along with the low lows (the explosion and effects near the opening of *Star Trek VI: The Undiscovered Country* were especially impressive), encircling the listeners with ambience, and playing very loud without distress when that was indicated. More so than other systems, it did all of this with a fine, neutral character.

Given the options available, we decided to play with other setups, and found that we were able to inch the sound quality up a touch. A second subwoofer was, we thought, preferable in our large and fairly dead listening room, but the increment was quite modest. The balance of the CC-100 centre speaker was a bit smoother than its sibling, but in the end we preferred simply to use a shielded Titan for the centre; identical speakers across the front are theoretically ideal, and in fact, that sounded best.

But, in fact, the various combinations of Paradigms sounded very good whichever way we set them up. For the price - or even double - it's hard to beat that.



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USA

Niagra Falls, NY 14302





Welcome to M&K—and to high-performance music and home theatre sound reproduction.

#### Home Theatre Surround Sound Speaker Systems





With experience in home theatre dating back to Hollywood screening-room installations in the 1970s, M&K engineers have spent years studying the varied aspects of surround sound, including: encoding and decoding; soundtrack recording; and the differences in reproducing sound in theatres and homes.

This knowledge enables us to design speakers that *excel* in the reproduction of both music and film soundtracks—meeting the tremendous dynamic requirements of home theatre, while satisfying the audiophile's demands for subtle musical reproduction qualities.

Like our reference THX<sup>®</sup> system, full M&K systems are *timbre-matched*---with seamless sound front to back and left to right—as M&K Satellites have virtually identical drivers, crossovers, and frequency response.

#### TOP LEFT

E>cept for M&K's reference Home THX system\* (and using virtually identical drivers), this is our finest Home Theatre system —with seamless 360-degree scund; superb dynamic and musical capabilities; and the ability to interface with any surround sound processor.

Front Channels: 3 each S–100B; Surround Channels: 1 pair S–80; Subwoofer: 1 MX–100 or MX–90

#### **BOTTOM LEFT**

Thrilling home theatre performance in a compact, economical package. Timbre-matched for seamless integration of all channels, it outperforms the unmatched speaker combinations of most manufacturers. Works w∋ll with separate components and surround receivers.

Front Channels: 3 each S–80; Surround Channels: 1 pair SX–7; Subwoofer: 1 V–90 or MX–70

See separate THX data sheet

Dedication to innovation and quality has made M&K the industry's leading manufacturer of Satellite-Subwoofer systems since 1974.

#### Satellite-Subwoofer Speaker Systems



Only M&K allows you to create a state-of-the-art speaker system by combining any M&K Satellite with any M&K Subwoofer—enabling you to tailor a system to your individual requirements for cost, performance and size.

Plus, M&K's unique timbre controls will optimize the integration of any M&K subwoofer, front/center, or surround speaker into your existing system.

Their flat response and adjustable controls allow all M&K subwoofers to achieve a smooth blend with any brand of main speaker.

The Adjustable Tonal Balances of our Satellites let you achieve the precise timbre match that is critical for home theatre—even if you combine our Satellites with non-M&K speakers.

#### TOP LEFT

M&K's outstanding S-1C/ MX-100 Satellite-Subwoofer system carries on a legacy of state-of-the-art speaker performance since 1977. Now incorporating our latest technology, it provides extremely accurate, monitor-type sound, with pinpoint three-dimensional imaging, and highly articulate deep bass.

Satellite: S-1C Subwoofer: MX-100

#### BOTTOM LEFT

Our most popular speaker combination, the SX–7/VX–7 sets the industry's performance standard for compact Satellite-Subwoofer systems.

This system provides an extremely wide dynamic range. And, the VX–7's 50-watt RMS internal amplifier brings you very tight bass at high output levels, regardless of the size of your main amp or receiver.

Satellite: SX-7; Subwoofer: VX-7

#### Satellites & Powered Subwoofers

M&K is the only manufacturer with 20 years of speaker design and audiophile-label recording experience—giving us the unique ability to verify the accuracy of our speaker designs.

#### SATELLITE SPEAKERS

Outperforming conventional speaker designs, M&K Satellites render sound with brilliant clarity and pinpoint detail in a vast three-dimensional soundstage. Their ultra-smooth response makes for unsurpassed realism in your home—not just in a laboratory or on specifications.

With superior speaker drivers and transient-optimized crossovers in low-diffraction enclosures, M&K Satellites lift any veils between you and the performers. Close your eyes—the speakers seem to disappear!

#### **Adjustable Tonal Balances**

Two unique multiple-position switches (or inputs) let you finetune M&K Satellites to match your personal taste, environment, or musical material. These different spectral contours can help you achieve a virtually flat response in your room without an equalizer—a near impossibility with most speakers.

#### **Crossovers & Cabinets**

M&K's computer-optimized crossovers insure accurate reproduction of transients, for the detail in all music, voice; and sound effects---a key element in <u>M&K's lifelike</u> quality.

Audiophile-grade component parts, including costly distortionless air-core inductors, deliver crystalline sonic transparency.

The compact size of M&K Satellites virtually eliminates the boxy sound of baffle coloration, which also blurs sonic detail. Many M&K cabinets are trapezoidal, providing the smoothest possible response through the critical mid-bass.

All M&K Satellite speakers have a 4 ohm impedance, for maximum output and dynamics.

#### Woofer & Tweeter Drivers

M&K's brand-new Satellite speaker drivers, designed for

M&K's reference S-5000THK, are also used in the S-100B, S-1C, S-90, and S-80. These drivers are among the first designed using a new technique: "two-tone distort on testing."

This severe test measures distortion by feeding a speaker with a swept signal of two closely-spaced bones (which is more like actual music than the usual single tone). This test has proven to be a breakthrough to help us create drivers with such low coloration and distortion.

M&K's new tweeter uses an asymmetric parabolic front plate to control high frequency directivity, for better stereo imaging, less cabinet diffraction and ideal tweeter/midrange blending.

Magnetically shielded tweeters combine dual magnets with M&K's unique Terminated Transmission Line, which couples a vented pole piece to a custom transmission line, lowering coloration and resonant frequency.

The delicate sonic transparency and tremendous dynamic range of these drivers work to deliver a rare combination: low sonic coloration and the ability to effortlessly reproduce percussive musical instruments and sounds with lifelike impact.

#### **Home Theatre**

While M&K Sat∋lites are designed first for reproducing music, their abi ity to reproduce music with exci:ing dynamics and "quick" transients sets them apart from other speakers making them ideal for Home Theatres, wher∋ conventional speakers make the sound effects on film soundtracks seem dull or compressed.

M&K Satellites are *timbre*matched, with virtually identical drivers, crossovers, and response—so that voices and effects do not change character when their sound moves left to right or front to back.

For use next to TV sets, the S–5000, S–100B, S–1C, S–90, and S–80 are available magnetically shielded.

#### **Center Channel Speakers**

Beware of inexpensive "center channel" speakers. Contrary to common belief, the center channel speaker in Pro-Logic systems has the most demanding task and in fact must often reproduce as much music and effects as the left and right speakers *combined*.

M&K Satellites, capable of exceptional dynamic range and high output, perform superbly as center channels. Plus, their adjustable tonal balance gives them the ability to achieve a timbre-match with virtually any good front stereo speakers.

#### **POWERED SUBWOOFERS**

No conventional speaker reproduces bass with the power and authority of an M&K subwoofer. Since 1974, M&K Subwoofers have delivered the deepest, tightest, and most powerful low frequency reproduction available.

An M&K Powered Subwoofer improves virtually any system. Each model matches easily to any existing speaker without needing a separate crossover.

#### Amplifier & Power Supply

Each M&K Subwoofer has a built-in power amplifier, individually matched to its cabinet and speaker(s). High-current power supplies deliver dynamic headroom well above the basic power rating—without drawing power from your main amp or receiver.

#### Subwoofer Drivers

M&K's proprietary subwoofer drivers deliver excellent transient performance, with very low distortion and powerful musical detail and clarity. Even M&K's lowest-priced units have the distortion reduction of a polyamide dual voice coil and an undercut core. Our better models incorporate larger magnets and voice coils, and our best use the unique combination of an aluminum shorting ring and an "asymmetrical" voice coil winding—significantly lowering distortion, especially at high output levels.

#### Low-Pass Filters

In contrast to the shallow filter slopes of other subwoofers, ours contain a 36 db/octave low pass cutoff above 125 Hz.

This sharp filter makes M&K subwoofers truly non-directional, for much greater flexibility in room location. A low-pass "Filter" control lets you set the woofer's roll-off anywhere between 50 and 125 Hz.

#### Ease of Connection & Use

Each subwoofer's bass-level control sets its output to match your other speakers. Connection can be made with RCA interconnect cables (from a preamp, crossover, or surround sound processor), or with speaker wires (from an amplifier or receiver). The speaker terminal input impedance is 200 Ohms. The low-level input impedance is 15 K ohms.

#### Push-Pull Dual Driver Subwoofers

M&K's innovative Push-Pull Dual Driver configuration delivers a major improvement in bass detail and articulation---virtually eliminating even-order harmonic distortion, and doubling the sound power per watt of amplifier power.

In these subwoofers, one driver is mounted conventionally on the cabinet's front baffle. The second driver, however, is *inverted*—the front of its cone faces the *(continued on back)* 

#### **Satellite Speakers**

Compare the dynamics and imaging of M&K Satellites to any other speakers—you'll hear the lifelike difference.







#### S-5000тнх

Unprecedented accuracy. Extremely flat. Proprietary Transmission Line Open-Back Dome Tweeters, audiophile crossover, and trapezoidal cabinet. Shielded. Lucasfilm Home THX front speaker.\*

#### Drivers: (2) 1" dome, (2) 6 1/2" poly

Recommended Power: 25 watts min., 400 max.\*\*

Frequency Response: 72 Hz-20 KHz ± 2 dB

Dimensions: 24" H x 11 5/8" W x 12" D Finish:

Oak or Black Oak Weight: 55 lbs. each

#### S-1C

M&K's classic monitor, using our latest driver and crossover technology. Superb imaging and accuracy for critical listeners. Wide dynamics, high output and low distortion.

Drivers: (2) 1" dome, (2) 5 1/4" poly

Recommended Power: 25 watts min., 400 max.\*\*

Frequency Response: 77 Hz–20 KHz ± 2 dB

Dimensions: 21" H x 7 3/4" W x 10 1/2" D

Finish: Oak or Black Oak Weight:

18 lbs. each

#### S-80

Compact trapezoidal cabinet. High performance sound, especially where space is at a premium. Drivers match S–1C, S–90, and S–100B for optimum home theatre timbrematching.

Drivers: (1) 1" dome, (1) 5 1/4" poly

Recommended Power: 25 watts min., 200 max.\*\*

Frequency Response: 87 Hz–20 KHz ± 2 dB

Dimensions: 10 1/2" H x 8" W x 6 1/2" D Finish:

Oak or Black Oak Weight:

9 lbs. each







#### S-100B

For high-end home theatre of music. With special threetweeter array, extraordinary performance in a very practical size. For high-end systems. the *ideal* high-performance add-on center channel.

**Drivers:** 

(3) 1" dome, (2) 5 1/4" poly Recommended Power: 25 watts min., 400 max."

Frequency Response:

77 Hz–20 KHz ± 2 dB Dimensions:

12" H x 10 1/2" W x 8 1/2" Ď Finish:

Glass Bead Black Weight:

22 lbs. each

#### **S-90**

Half the S-5000THX's trapezoidal cabinet and driver array with virtually identical response and accuracy. Optimized for music and home theatre front/center channels.

Drivers: (1) 1" dome. (1) 6 1/2" poly

Recommended Power: 25 watts min., 200 max."

Frequency Response: 72 Hz-20 KHz ± 2 dB

Dimensions: 12" H x 11 5/8" W x 9 3/4" D

Finish: Oak or Black Oak

Weight: 16 lbs. each

#### **SX-7**

Superb imaging and clarity. Ideal size for surround channels. With VX-7 Subwoofer, it easily outperforms other socalled "three-piece" systems.

Drivers: (1) 3/4" dome, (1) 4" paper

Recommended Power: 10 watts min., 200 max.\*\*

Frequency Response: 100 Hz-20 KHz ± 2 dB

**Dimensions:** 7 1/4" H x 4 1/2" W x 4 1/2" D

Finish: Black or White Metal Weight: 6 lbs. each

\*See separate THX data sheet \*\*Unclipped musical peaks

#### **Powered Subwoofers**

For high-performance music and home theatre reproduction, M&K has set the industry's standards for subwoofers since 1974.







#### MX-5000THX

M&K's finest, with prodigious, articulate and "fast" bass. Push-Pull Eual Driver with 700+ watts headroom. Worldclass shieled drivers. Lucasfilm Home "HX subwoofe".\*

Drivers:

(2) 12" long-throw MX-5000 World-class low-distortion

Internal Amp Power: 400 watts FMS

Frequency Response: 18–125 Hz (adjustable)

Finish: Oak or Black Oak

Dimensions: 23 1/4" H x 15 1/2" W x 26" D Weight: 115 lbs,

#### MX-1000/MX-1000cc

Magnetically shielded. The MX-1000cc adcs an S-100 Center channel to this high-performance dua -driver subwoofer. Drivers:

(2) 12" long-throw MKM2

Internal Amp Power: 150 watts RMS

Frequency Response: 18-125 Hz ± 2 dB (MX-1000) 18 Hz-20 ⊭Hz ± 2 dB (MX-1000cc)

Finish: Glass Beac Black

Dimensions: 26" H x 28" W x 24" D (MX-1000) (25" D) (MX-1000cc)

Weight: 115 lbs. (M≻1000) 134 lbs. (M≻1000cc)

#### MX-90

M&K's "bet er" Push-Pull Dual Driver subwoofer improves on the MX-80 with superior "2" driver, larger amplifier and tighter, more dynamic lowbass outpu.

**Drivers:** 

(2) 12" long-throw MKMX30 Approaches M2C performance

Internal Amp Power: 125 watts RMS

Frequency Response: 20-125 Hz ± 2 dB

Finish: Walnut, Oak or Black Oak. Dimensions: 23° H x 15 1/4° W x 19 5/3° D

Weight: 70 lbs.







#### MX-2000

The audiophile standard. Balanced dynamics of drivers maximizes Push-Pull Dual Driver benefits. Deepest subsonic bass. Great dynamic headroom.

#### **Drivers:**

(2) 12" long-throw MKM2C Outperformed only by MX-5000

Internal Amp Power: 300 watts RMS

Frequency Response: 15-125 Hz ± 2 dB

Finish: Oak or Black Oak

Dimensions: 23" H x 18 5/8" W x 25 1/2" ID Weight: 105 lbs.

#### MX-100

Superior musical articulation, "Best" mid-sized Push-Pull Dual Driver subwoofer. Twice the power supply of the V-100. Same driver as the MX-20C0.

Drivers:

(2) 12" long-throw MKM2C Shorting ring, asymmetrical coil

Internal Amp Power 200 watts RMS

Frequency Response: 20-125 Hz ± 2 dB

Finish: Walnut, Oak or Black Oak

**Dimensions:** 23" H x 15 1/4" W x 19 5/8" D

Weight: 78 lbs.

#### MX-80

Most economical 12" Push-Pull Dual Driver. Lower distortion and more output than singledriver subwoofers. Very popular home theatre performer.

Drivers: (2) 12" long-throw MKMX80 Outperforms MK3B

Internal Amp Power: 75 watts RMS

Frequency Response: 22–125 Hz ± 2 dB

Finish: Walnut, Oak or Black Oak

Dimensions: 23" H x 15 1/4 W x 17 5/8" D

Weight:

64 lbs.

'See separate THX data sheet

Compare the transient response and dynamics of M&K's sealedbox Subwoofer designs to any other subwoofer—your ears will show you the audible superiority.







#### MX-70

Astonishing bass from a very compact cabinet. Push-Pull Dual Driver design outperforms 12" subwoofers, with "quick" response and extraordinarily high output.

Drivers: (2) 8" long-throw MKMX7 World-class 8" design

Internal Amp Power: 125 watts RMS

Frequency Response: 27-125 Hz ± 2 dB

Finish: Glass Bead Black

Dimensions: 10" H x 18" W x 13 5/8" D Weight:

48 lbs.

#### V-90

Same cabinet as V-100, 90 watts and 12" driver make it a best-buy-especially considering its wood finish and practical cabinet size.

Driver: (1) 12" long-throw MKV90 Outperforms MK3B

Internal Amp Power: 90 watts RMS

Frequency Response: 24-125 Hz ± 2 dB

Finish: Walnut, Oak or Black Oak Dimensions: 18" H x 15 1/4" W x 16 5/16" D

Weight: 50 lbs.

#### VX-4

Tremendous bass impact for its size and cost, with a 12" driver and a 50 watt amp. Excellent home-theatre performer. Works well with a wide range of speakers.

Driver: (1) 12" long-throw MKG3

Internal Amp Power: 50 watts RMS

Frequency Response: 35--125 Hz ± 2 dB

Finish: Black

Dimensions: 18" H x 18" W x 14 3/4" D Weight: 33 lbs.







#### V-100

M&K's best single-driver subwoofer. Uses same 12" driver as MX-2000 and a 200 watt amp in a very small cabinet. High output and low distortion.

Driver:

(1) 12" long-throw MKM2C Shorting ring, asymmetrical coil

Internal Amp Power: 200 watts RMS

Frequency Response: 20–125 Hz ± 2 dB

Finish: Walnut, Oak or Black Oak

Dimensions: 18" H x 15 1/4" W x 17 7/16" D

Weight: 65 lbs.

#### V-3B

Flat response to 24 Hz for critical listeners, with more output than the VX–4, VX–7, and comparable subwoofers. Best performance for the dollar.

#### Driver:

(1) 12" long-throw MK3B Step-up from MKG3

Internal Amp Power: 75 watts RMS

Frequency Response: 24-125 Hz ± 2 dB

#### Finish:

Black Dimensions: 18" H x 17 3/8" 'W x 15 1/4" D

Weight: 38 lbs.

#### VX-7

This extremely compact cabinet delivers the tightest and deepest bass of any compact subwooler. Internal 50 watt amplifier. Our most popular model.

#### **Driver:**

(1) 8" long-throw MKVX7 Very high output design

Internal Amp Power: 50 watts RMS

Frequency Response: 40-125 Hz ± 2 dB

Finish:

Black

Dimensions: 10" H x 13 3/4" W x 10 1/2" D

Weight: 21 lbs.

With M&K speakers—close your eyes and the speakers seem to disappear—the sound is live.

inside of the cabinet, while the back side of the cone, magnet, and frame face the outside (concealed from view).

Although both drivers fire into the room in pressure phase, (one with the front side of its cone and the other with the back side), they operate mechanically out of phase. Relative to their own magnets, both cones are always in the exact opposite position in their travel.

The even-order harmonic distortion products of each driver cancel because they are not only virtually equal but almost exactly opposite in time phase to each other

Significantly, the Push-Pull design also doubles efficiency (equivalent to doubling the amplifier power) when compared to a single driver subwoofer. And it allows twice the amp power (because cf the use of two drivers) for a total output improvement of 400% (6 db)!

#### BIAMPLIFICATION

The ultimate speaker performance comes through biamplification—on∋ amp for the Satellite speakers (with the deep bass signal filter∋d out) and a second amp for the Subwoofer. M&K Subwoofers contain their own amp, so all you add is the filter.

M&K's High-Pass filters eliminate deep bass from your Satellites and their amplifier, giving you a wider dynamic range, lower distortion, and greater maximum output.

If you have a separate amp, preamp or surround sound processor, or the ability to split the amp and preamp sections of a receiver or integrated amp, you can us∋ an M&K High-Pass Filter—which sits separate from the subwocfer, so you don't have to rum long, expensive cables acrcss the room to and from your subwoofer.

For the purest possible sound







Satellite-speaker inputs and controls



Powered-subwoofer inputs and controls



Satellite-speaker stands

quality at the most reasonable price, these filters are *passive* with no active electronics to add noise and distortion; and no power plug to go into the wall.

#### VF-100

The most economical way to biamplify, the VF–100 goes directly between your amp and preamp. It gives a 6 dB per octave roll-off of the Satellite speakers and their amplifier below 100 Hz.

#### LP-1S

The ultimate in biamplification, the LP–1S gives the lowest distortion and widest dynamic range, because of its extremely sharp (18 dB per octave) filter. It has separate level controls for the Subwoofer and the Satellite amp or receiver.

Its extremely transparent sound comes from its passive design and ultra high-grade components. Its slope is carefully shaped to preserve the integrity of transients.

#### THE M&K COMPONENT-SPEAKER CONCEPT

Unlike conventional speakers, M&K's unique component speaker concept lets you build your M&K speaker system one element at a time—or as a complete system.

If your budget is tight, start with the Satellites, adding the Subwoofer later. If you want to keep your existing speakers, or replace them later, add an M&K Subwoofer or center channel now—a very popular option.

From high-performance music systems to advanced home theatres, no other loudspeakers give you the exciting performance, sound quality and flexibility of M&K Satellites and Powered Subwoofers.

\*See separate THX data sheet THX is a registered trademark of LucasArts Entertainment Co.



LP-1S



SX-7 mounting brackets



#### SS-500THX

M&K's THX Dipole Surround channel speaker matches the S–500C in dynamics and transient response, in a very compact cabinet size.\*

Recommended Power: 25 watts min., 400 max. (unclipped musical peaks); Frequency Response: 100 Hz–20 KHz ± 3 dB; Dimensions: 14 3/4" H x 6 5/8" W x 7 3/8" D: in Cak, or Black Oak. In white: 15 7/8" H x 6 3/4" W x 6 7/8" D; Weight: 22 lbs.



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Specifications may change without notice.



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# FISHER INTRODUCES STUDIO 24

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**FISHER** 

R-COOPER

1-3IT D/A CONVERTER

It plays 24 CDs. Stores them. Arranges them. Organizes them. Your

re SCHOOL'S OUT with IN THE MOOD. Which brings us to Studio 24.



way. Her way. Any way. All at the touch of a button. Peace. At last.

Studio FISHER INVENTS THE CD MANAGEMENT SYSTEM. Your nearest and dearest actually hums Heavy Metal. You think anything worth humming died with Cole Porter. Share your music? Are you kidding? But now

there's Studio 24.

Of course, it offers superb digital sound. But there's more.

First things first: Studio 24 lets you program and play 24 CDs just about any way you want.

Choose from 7 preprogrammed categories: like rock or jazz or classical. Or make up your own. You can even name a category after yourself on the alphanumeric keypad.

Create up to 24 subcategories: organize your collection by title or artist or even mood.

And don't worry. Turn Studio 24 off, unplug it, suffer a power failure...and it remembers. Everything.

Finally. How do you get 24 CDs in there? Easily. Studio 24 stores them vertically instead of horizontally. In a virtually dust free interior.

Fisher's Studio 24. We not only reinvented the CD changer, we stood the concept on its end.



Fisher Studio 24 CD Management System 24-Disc System • 7 Pre-Set Categories and 24 Programmable Categories and Subcategories • Alpha-Numeric 16-Digit (8 + 8) Scrolling Display • Vertical Auto Loading System • Bi-Directional Radial Transport • 1-Bit Dual Digitalto-Analog Converter • 8x Oversampling Digital Filter • Repeat Function, Intro Scan and Random Play • Remote Control • Non-Volatile Memory



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t is almost impossible to find a preamp in today's market whose sound does not rank as good to very good. This is particularly true of line-stage performance, since dropping the phono stage from most modern preamps has greatly simplified the design prob-

#### AURICLE

# **KRELL KRC** PREAMPLIFIER



lem. Now it takes a peculiar kind of talent to produce a preamp that is noisy or colored enough not to produce good sound.

Finding a great preamp is another story. The designer has to pay far more attention to features and sonic nuances, and having a great ear is as critical as having outstanding circuit design skills. I have listened to all too many expensive preamps that have superb technical characteristics but lack the special ability to reveal the music that is a sine qua non of a successful high-end product.

At the same time there are still a number of successes. If I list only the preamp manufacturers whose products I have heard in the last year or so they include Audio Research, Cello, Classé, conrad johnson,

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Counterpoint, FM Acoustics, Jadis, Klyne, Mark Levinson, McCormack, Jeff Rowland Design, VTL, and YBA.

It is a tribute to the Krell KRC that it stands out even in the crowd listed above. It is a preamp that both represents the state of the art in sound and has a mix of features that makes it extremely pleasant to use. Its sound helps make a system alive, and the unit allows you to hook up virtually any mix of components conveniently, with all the features necessary to allow you to sit back and adjust the music to taste.

As is the case with all referencequality, high-end products, this performance comes at a price. The Krell KRC sells for \$6,300, plus \$500 for the plug-in phono preamp. At these prices, a product has to deliver superb construction and component quality, and the Krell KRC provides what the consumer has a right to expect. Chassis, circuit boards, and parts are all superb, with exceptionally clean circuit layout.

The Krell KRC uses a new fourlayer, glass-epoxy circuit board with separate layers for the audio signal, d.c. power, and two separate grounds. This allows the use of exceptionally large audio traces that are free from ground noise and power-supply interference. Active components can have more direct access to the power supply without power-



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supply modulation of the audio signal, and the two ground layers provide access to the ground at any point, reducing any chance of noise contamination.

Krell states that the active circuits in the KRC are a new refinement of circuits Krell has been evolving for some years. The external power-supply unit uses two 50-VA toroidal transformers that provide a very robust d.c. supply for a preamp. The KRC has several independent power supplies and extensive regulation in both the power supply unit and main chassis.

The gain stages are all Class-A, complementary circuits. All of the analog circuits are direct coupled to eliminate coloration and signal alterations from coupling capacitors, while servo-feedback loops control d.c. offset. The selected input goes through a phase-combiner circuit, the balance and volume controls, a phase-splitter circuit, and then through a low-impedance output.

The phase combiner mixes both the positive and negative phases of the input and cancels common-mode noise present in the balanced input signal. After the channel balance and volume controls, the phase splitter then re-establishes balanced operation using no feedback and producing very low distortion. Krell feels this method results in less noise and distortion than other approaches, and has the plus of allowing single-ended signal sources to be used with balanced amplifiers, as well as balanced preamp inputs to be used with amplifiers that have only single-ended inputs. The intent of this circuit topology is to provide the greatest versatility and sonic integrity possible.

#### I HAVE NOT DETECTED ANY OF THE COLORATION I HAVE FOUND ON MANY OTHER REMOTE CONTROL PREAMPS IN THE KRC.

A new type of buffer amplifier is used for the main outputs, which consists of several groups of discrete transistors, rather than large single devices. There are six pairs of TO-92 output devices for each phase. These ensure that the output impedance is

> AUDIO/OCTOBER 1993 42

very low, to allow long runs of interconnect. Krell feels that this helps provide a new level of transparency and accuracy.

There are two sets of balanced inputs using XLR sockets, and four sets of singleended RCA jack inputs—one of which can be converted for phono input using the plug-in moving-magnet/moving-coil phono unit. One tape loop has a monitor feature, and there is a buffered tape output, a single-ended RCA output, and a balanced XLR output.

The front panel controls include balance, volume, input selector, high and low gain, tape monitor, and absolute phase, but the KRC is the first preamplifer I know of to also offer access to these features on its remote control. Some critics may find these items to be relatively unimportant on a remote, but I do not, as virtually all CDs and records require minor adjustments to the balance control to precisely center the soundstage, and lock in left-to-right imaging and depth. If you don't use it, you sacrifice a critical part of your system's capability. Phase and gain controls are less important, but they too can provide a significant final touch to improving sound quality. While I think absolute phase is largely a myth, given the complex phase changes in most recordings, cartridges, and speakers, there are quite a number of times that inverting phase makes music seem more natural.

I have not detected any of the coloration I find in many other remote controls. This may or may not be because the Krell method uses separate digital control circuits to operate a network of gold-contact relays near the input jacks, the balance circuitry, and a motor-driven custom volume potentiometer. What counts is that the sound does not lose definition, dynamics, and transparency, and sound quality does not drop as you cut the volume.

Krell has always been a leader in transistor preamp designs, but the sound of the KRC is a notable advance over previous Krell preamps. Like the MDA-300 and Krell's latest power amplifiers, the KRC has a sound that is more open, with clearer highs and more exciting musical dynamics.

The Krell KRC also has exceptional resolving power. It has the capacity to reveal more musically realistic information in soft passages. It helps you hear the details of "Relaxed..." "Natural..." "Musical..." "Liquid..." "Analog-like..." "Oprestrained..." "Realistic..."

# The Critics Have Spoken.

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# TEAC.

TEAC America, Inc., 7733 Telegraph Road, Montebello, CA 90640 / TEAC Canada Ltd., 340 Brunel Road, Mississauga Ontario, Canada, L4Z-2C2 Enter No. 105 on Reader Service Card choral music and massed strings, and reveals the fine harmonic textures of solo instruments. It makes a voice richer and more complex without altering its character or etching tenor and soprano voices.

The Krell does all this with exceptional silence. All modern preamps have very good signal-to-noise ratios, but few avoid a faint electronic haze that makes you aware you are not at a live performance. The Krell has an exceptional capability to differentiate between music and silence. This, in turn, means it can provide exceptional detail, air, and harmonic sweetness with exceptional recordings.

If you have heard Krell preamps and amplifiers in the past, you will not be surprised to learn that the KRC has very powerful bass, a rich midrange with no trace of suck-out, and highs that sound slightly soft compared to those of most other high-end preamps. This softness in the highs, however, is much less pronounced than in previous Krell preamps and even the latest Krell amplifiers. It is not noticeable with most recordings—in fact, it



uring the past four decades, Fried has been perfecting transmission line technology and its variations such as the line tunnel. Line technology is what transforms ordinary-looking speakers into extraordinary sounding musical instruments. To put it simply, ordinary box speakers can not solve the problem of the rear wave --- the energy that comes from the back of a loudspeaker cone. Fried speakers are free from the restrictions of bass reflex designs or sealed enclosures; they solve these problems and eliminate such undesirable characteristics as bass thump, time smear and coloration in both the bass and midrange. The

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improves the sound of 99% of my CDs. It is, however, a bit more audible using the plug-in phono stage than the high-level gain stages.

Krell has always provided some of the best deep bass around, and the KRC is no exception. I have run through a wide range of bass spectaculars using the Krell KRC

### THE KRELL KRC IS THE KIND OF PREAMP THAT MAKES REVIEWING FUN—IT'S OUTSTANDING.

and full-range speakers like the B & W 801 Series 3 and Thiel CS5. You get power, control, detail, and smoothness throughout the bass. There is no touch of the warmth and looseness of some tube preamps and no touch of the slight loss of bass power and dynamics present in some otherwise very good transistor designs.

The mid-bass and lower bass sound rich, but there is no trace of artificial warmth. If you like acoustic rock or jazz, you're going to love this preamp. The same will be true if you like the bass viol, cello, or if you welcome the ability to clearly differentiate a Bösendorfer from a Steinway.

The midrange of the KRC is also a real pleasure. It combines air, dynamics, and transparency and does so without any feeling that you are shifting timbre in going from the bass to treble and slightly exaggerating one at the cost of the other. This is the kind of midrange that leads to long listening sessions as you revisit favorite records and gets the best out of CDs with recording techniques as diverse as those from Chesky, Dorian, Reference Recordings, Telarc, and Wilson Audio.

The Krell is a rare preamp with a midrange sufficiently neutral that it does not seem to favor one set of production values over another. It also provides the kind of exceptional midrange transparency that is critical with fast and very detailed speakers like the Apogee Divas.

As I have already mentioned, there is a slight downward tilt in frequency response in the upper midrange and treble. At the same time, few preamps do better with bell, cymbal, woodwinds, and the upper register



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of strings and voice. Detail and dynamics are excellent, and treble notes rise, linger, and die with exceptional clarity. This is a preamp whose upper octaves do the harpsichord real justice, while all too many competitors muddle or etch the instrument.

The KRC provides the best dynamics of any Krell to date, and if you have questioned this aspect of Krell performance in the past, you will find it to be considerably more tube-like than, say, the Classé DR-6. The quality of complex percussion music is very good to excellent, with far more

"snap" to rim-shots on a drum. Rapid shifts in solo woodwind dynamics and those of classical guitar are also noticeably more realistic.

I rarely tie my remarks on transparency to any given recording because I base my judgments on a very wide range of material and focus on how natural transparency is with classical music recorded in halls and with simple miking techniques. The KRC is, however, very revealing with well-recorded pop music, and its exceptional transparency comes through clearly on re-



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viewer standbys like "Bird on a Wire" from Jennifer Warnes's Famous Blue Raincoat (Cvpress 66111-2).

The soundstage of the Krell KRC is an almost exact match to that of the Krell MDA-300 power amplifier. Depth is excellent, the apparent listening position is slightly to the rear of that of most competing preamps, and soundstage width is almost exactly what I expect from the recording-with no expansion or contraction of width. The KRC does an excellent job of placing instruments from front to back, as well as left to right. Instruments are stable and natural in size with good recordings without being artificially spotlighted or dramatized.

The KRC worked well with any sources, amplifiers, and interconnects I tried. It is at its best with flat and open-sounding interconnects. I would avoid any trick audio-

#### THE KRC HAS A SOUND THAT IS MORE OPEN, WITH CLEARER HIGHS AND MORE EXCITING **MUSICAL DYNAMICS.**

phile interconnects designed to "soften" the sound of CD and transistors. It is an ideal preamp for anyone who needs long interconnects or who favor long connections between the preamp and amplifier and short speaker cables.

My only cautions about compatibility are that the sound characteristics I describe for the high-gain stages of the preamp are more pronounced if you use the plug-in phono unit. The phono signal-to-noise ratio is improved over that of recent Krell preamps, but the KRC's combination of gain and noise are not compatible with very low-output moving coils like the Audionotes or Benz Ruby.

The Krell KRC is the kind of preamp that makes reviewing fun. It is intensely musical, and it provides the kind of control over soundstage balance that should be a feature of every top preamp. It has become one of the two preamps I use for reference listening. This class has tough competition, but the KRC is a truly outstanding product. Anthony H. Cordesman

> AUDIO/OCTOBER 1993 46

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# CLASSICAL RECORDINGS

# BERNARD HERRMANN FILM SCORES

here, and the first is The Man Who Knew Too Much. The nine-minute work incorporates a cantata by Arthur Benjamin from the original 1934 score and features mezzo Claire Henry. It was heard during the film's climactic concert hall finale. A three-movement Psycho Suite follows, including the shower scene music that contributed its aural horror without a single human scream on the soundtrack-just shrieking violins. Herrmann's skillful use of atonality was also a cinema first. The Wrong Man, Vertigo, and North by Northwest are the other Hitchcock excerpts.

A pair of Truffaut films—the Jeanne Moreau vehicle *The Bride Wore Black* and the sci-fi *Fahrenheit* 

#### BERNARD HERRMANN IS PRACTICALLY THE BEETHOVAN OF FILM MUSIC.

451—15 contrasted by a "musical scenario" arranged by Christopher Palmer for the former and a lyrical finale for the latter. The closing music track is also a Palmer arrangement of Herrmann's final score— Martin Scorsese's *Taxi Driver*. (Herrmann died the day recording was completed.) Each part of this orchestration creates a precise psychological picture of the film's deadly title character.

The final track is a welcome extra found on a few recent jazz CDs—a talk by the composer or performer.

Bernard Herrmann Film Scores Royal Philharmonic Orchestra; The Ambrosia Singers; Elmer Bernstein MILAN 35643-2, CD; DDD; 69:44



Citizen Kane score (1940) and set new standards for this genre with his unique orchestrations, use of indigenous American music (including jazz), and short musical

bridging devices.

Herrmann started as staff conductor at CBS Radio, where he provided the music for Orson Welles' famed War of the Worlds. Welles gave him a lengthy 12 weeks to come up with the Citizen Kane score. Film Scores opens with a suite from this classic; its cue from the Finale is complete with chorus and is recorded here for the first time. Also a first is a snippet from The Devil and Daniel Webster, which won Herrmann an Academy Award in 1942.

There are five Hitchcock films using Herrmann's music included



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Herrmann expounds on film music, including a fascinating comparison of the dramatic needs of Welles versus Hitchcock.

These new recordings were made in London just last December and surpass in clarity and impact the justly acclaimed Charles Gerhardt classic film score series with the National Philharmonic on RCA. Elmer Bernstein—known for his scores from Man with the Golden Arm to My Left Foot—began composing for films after hearing a Herrmann score. A perfect choice for this stellar compilation. John Sunier



Ginastera: Sonata Op. 47; Gnattali: Sonatina No. 1; Albert Harris: Concerto De California; works of Barrios, Lauro, de Mello, and Almeida Carlos Barbosa-Lima, guitar; Patricia Griggs, piano;

The San Francisco String Quartet CONCORD CONCERTO CCD-42015

Master Brazilian guitarist Carlos Barbosa-Lima has made a number of recordings for Concord, and this one sets new standards. Some of these works have been recorded in the past by Laurindo Almeida, also represented here by his "Crepusculo Em Copacabana."

The 12-minute solo sonata by Alberto Ginastera is described by Barbosa-Lima as "an explosion of possibilities, not only technically, but emotionally." It appears greater seriousness qualifies its serving as the disc's title, though the Gershwin-esque Albert Harris Concertino for Guitar and String Quartet, as well as Radames Gnattali's Sonata for Guitar and Piano, run to greater lengths. The latter piece's strong Brazilian rhythms are emphasized by strong slaps to the guitar body-great transients! The eclectic composer de Mello studied with Gil Evans, and his piece "Endless Love" brings a tender closing to this recital that should appeal to both classical guitar fans and to lovers of the Brazilian musical milieu. John Sunier

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Aulis Sallinen: Variations for Orchestra; Violin Concerto; Some Aspects of Peltoniemi Hintrik's Funeral March; The Nocturnal Dances of Don Juanquixote Eeva Koskinen, violin; Torleif Thedéen, cello; Tapiola Sinfonietta, Osmo Vänskä BIS CD-560

This important Finnish composer, now 58, had already by age 30 chosen to bypass the dogma of Arnold Schoenberg's 12-tone system and the German avant-garde. He



uses modern techniques however, often combining tonality and tonally ambiguous sections in the same work. Nicolas Slonimsky refers to his "euphonious dissonance,"



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which is heard especially in the first two works of this disc. The Violin Concerto of 1968 was Sallinen's first major work. A three-note musical "cell" figures prominently, and dynamic changes are central to this piece—well-preserved in BIS's sparkling sonics. The Swedish label has recorded many of his works.

"Some Aspects of Peltoniemi Hintrik's Funeral March" is a lovely work for string orchestra in spite of its off-putting title. A folk-song flavor is strong here (one section even labelled in the score "à la Bartók"). "Nocturnal Dances of Don Juanquixote" is subtitled Chamber Music III and is part of a series Sallinen describes as "lighthearted dances...but do not forget that they are nocturnal." A Gypsy dance, a tango, and even a whimsical boogie-woogie are featured in this appealing mini-cello concerto that may remind some listeners of Richard Strauss's cello-orchestral gem "Don Quixote." Iohn Sunier



The London Cello Sound The 40 Cellos of: The London Philharmonic; Royal Philharmonic Orchestra; BBC Symphony Orchestra, and the Philharmonia Orchestra, Geoffrey Simon CALA CACD 0104

Cello is the favorite instrument of many music lovers, and if one or a whole section of cellos sound wonderful, how much more wonderful yet would be 40 cellos! There are many recordings of massed cellos, but this entry beats by eight my previous largest group.

This session was a logistical nightmare for Geoffrey Simon, who is not only the conductor but also artistic director and founder of the Cala label. Included in the CD booklet is a helpful diagram of the players' positions that illustrate Simon's solution to treating each cello section equally. The pieces feature contrasting registers of this wide-range string instrument, with "The Swan" displaying a high tenor-like range and the "Greensleeves" arrangement exploring the baritone register. Variety is also realized as in "Vocalise" and "Greensleeves," where the solo cellist is pitted against the rest of the ensemble in a miniconcerto fashion. The spread and depth of rich, massed cello sound are truly thrilling; this should make good system demo/evaluation material, plus give plenty of musical pleasure. (This CD is only 23 minutes of music, but it's priced accordingly.)

John Sunier



Alan Hovhaness: Piano Music Wayne Johnson, piano CRYSTAL CD 813, CD; 66:32

Curious composer, Alan Hovhaness. A semi-loner in terms of musical style, though always accommodating to the standard Western instruments and performers, his huge volume of works includes many memorable pieces in what is essentially a pseudo-Armenian style, remarkable for a unique and wholly "Eastern" sound, using Western instruments. The man is indeed of Armenian ancestry, and in his earlier years, when I often saw him in and around New York, he was as strikingly, enigmatically "middle East" as the Indian on the old U.S. nickel is Native American-a craggy, heroic figure from another world. But no! Hovhaness was born in Massachusetts and musically educated in the most proper and conservative manner in the Boston area, a total Westerner. Out of this background, he composed much music that is of a conventional American-sacred sort, more or less, and then discovered that this was not his strength and proceeded to invent Armenian music that suited his ancestral background-or so I gather.

It is often said that the piano, basically colorless like a black and white photo, shows up the real quality of a composer. It is unfriendly to Hovhaness, whose piano works are an ill-digested mixture of pseudo-Oriental and banal-American plus other even more grotesque oddities. For my ear and perhaps for yours, the genuine best in Hovhaness is in his wonderfully colored semi-"drone" music for orchestra, with qualities that remind of the Indian (East) traditional ragas. It is a unique sound, and no other composer that I know of has matched it.

Wayne Johnson is a dedicated disciple of Hovhaness and does a thoroughly competent job in an arduous and challenging program. Edward Tatnall Canby



Telemann: Suite in A Minor; Concerto in C; Concerto in A Minor for Recorder, Gamba, and Strings New London Consort, Philip Pickett, recorder and conductor L'OISEAU-LYRE 455 043-2

This is a somewhat misleading CD, both in the look of it and in the performance. You wouldn't know, but it is actually an "old music" solo vehicle for the recorder player Philip Pickett, who is young and brash and talented. All the works feature recorder, just as virtuosically as Vivaldi and better. In his own playing Pickett is excellent, fleet, full-bodied in sound, good in the phrasing. But he drags his little orchestra of period instruments along by its heels at a furious pace in all the fast movements, playing the notes but, it seems, barely. Why so furious? The fine melodies Telemann composed to go with the recorder are surely worth a full-bodied and musical production too, scholarship or no. Not at the pace of a Stokowski (maybe five times slower!) but just with a bit of "give." This is, alas, a stylish habit today among many young conductors. It cannot be right, to push or drag the musicians faster than they can, so to speak, get a breath.

Edward Tatnall Canby

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#### ROCK~ R Ε С S D G

# THE FIRST DAY **DAVID SYLVIAN & ROBERT FRIPP**

Two highbrow fellas doing their thing; Fripp and Sylvian.



The First Day David Sylvian & Robert Fripp VIRGIN 7 88208 2 CD: 54:57 Sound: B+, Performance: B

obert Fripp is a guitar virtuoso and conceptualist who looks to rock music as the crucible of the visceral rage and emotion he keeps under a tight Gurdjieff-inspired reign. David Sylvian is a rock refugee who escaped the image-conscious pop world of the British group Japan, to work in a dark, hybrid form that would embody the spiritual journey he'd undertaken. They originally collaborated in 1986 on Sylvian's Gone to Earth album, but join together here as equals in music that reflects their past perhaps more than their future.

Much of The First Day recalls King Crimson, the group with which Fripp will always be linked. "Firepower," with razor-edged guitars, invokes the psychotic grooves of King Crimson's "Easy Money." This time, Sylvian's filtered voice intones his own menacing tale. The same goes for "20th Century Dreaming," a Sylvian parable of paranoia which nods to Crimson's "21st Century Schizoid Man." Even the "Foxy Lady" chords of "Brightness Falls" are a tribute to one of the initial inspirations of King Crimson, Jimi

Hendrix. Fripp unleashes Fripptronic atmospheres and his signa-

Sylvian does well just finding a voice at all amongst this muscular music, his baritone croon taking on an intimate edge for his songs of desolation, even on the overlong 17-minute workout, "Darshan." Al-though it sounds like the bash track for a Public Enemy rant, it's a cyberpunk nursery rhyme incantation signed by Fripp's skewed solo punctuations.

While it's not a milepost work for either artist, The First Day is clever, making the right contemporary references and a few oblique ones as well. John Diliberto



Good Vibrations: 20 Years of the Beach Boys' Best The Beach Boys CAPITOL C2BB 81294 5 CDs; 6:35:38 Sound: B-, Presentation: B+

Pet Sounds The Beach Boys DCC COMPACT CLASSICS GZS-1035 gold CD; 39:57 Sound: B+, Performance: A+

The Beach Boys are hallowed ground for record collectors. As has been the case with previous "best of" projects, *Good Vibrations* won't be exempt from close scrutiny and nit picking. Regardless of any reservations, this compilation should be prefaced with the note that the music is simply classic; there is so much material here that it's difficult to absorb everything. Still, it's nice to hear alternate versions and heretofore unreleased compositions. Some material, particularly Disc 5, is perhaps marginal (Brian's various demos and outtakes in-

> THE MUSIC ON THIS COMPILATION IS SIMPLY CLASSIC.

cluding material from the infamous and never completed *Smile* project, which precipitated his "breakdown"). Most purists a big audience for this kind of set—will also argue that albums like *Today* and *Pet Sounds* shouldn't be excerpted (as they are on *Best*) but presented in their entirety.

My biggest complaint is that the sonics are a little thin, sounding like they came from re-equalized masters rather than original mixes, but there is no better place to get such quantity and quality of Beach Boys' material in one place. Let's get to the *Pet Sounds* gold disc. One would expect that the differences between various CD releases of this material would not vary greatly, but the DCC version is certainly far beefier than any other, managing to capture full frequency response of the bottom in a way that makes it sound less dated. *Jon and Sally Tiven* 



**14 Songs** Paul Westerberg SIRE/REPRISE 9 45335-2

Good news for Replacements fans; most of Paul Westerberg's 14 Songs-his longawaited solo debut-rocks with the same reckless abandon that typified the 'Mats in their heyday. It delivers songs of substance and lingering Westerberg melancholia, particularly on "Things," "Even Here We Are," and "First Glimmer of Light," the last fronting a vulnerability as it addresses punk-rock style puppy love. Despite a few throwaways, it's the Westerberg rockers that stand tallest; "Something is Me," the Sex Pistols spirit of "Down Love," the wallof-guitars on "World Class Fad," and the positively killer opener "Knockin' on Mine." 14 Songs, recalling the now classic Pleased to Meet Me, has Westerberg feeling Tom Ferguson like a punk again.



**The Old New Me** Slim Dunlap MEDIUM COOL/ TWIN TONE MCR 89231-2

If Paul Westerberg is a punk at heart, Bob "Slim" Dunlap is the weather-beaten



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•OFFER VALID ONLY IN THE U.S., FROM 9/1/93 THROUGH 12/31/93. SEE DEALER FOR DETAILS. ©1993 PIONEER ELECTRONICS (USA) INC., LONG BEACH, CA Enter No. 81 on Reader Service Card raunch and roller. With *The Old New Me*, former Replacement Dunlap emerges from Paul's hegemonic shadow and delivers an album of maturity and wit, even when he's at his most raucous. Some songs have all the charm of beer, Marlboros, and a torn and frayed bar band while others, particularly "The Ballad of the Opening Band," are exquisite, written with the same commitment that lugged guitar amps to onenighters. Although there's a rumor that he hates playing out, Dunlap still presents himself as genuine, someone who should be making records. *Mike Bieber* 



Altered Beast Matthew Sweet ZOO 72445-11050-2

Not image conscious like Bowie or Madonna, Matthew Sweet is musically just as different each time out. With *Altered Beast*, he's reconstructed key elements of his stellar *Girlfriend* cast, particularly guitarists Robert Quine and Richard Lloyd, for a tastier and better produced exercise in trippy

#### ALTERED BEAST BENEFITS FROM GREAT CHEMISTRY, LUSH VOCALS, AND GROOVY GUITAR HOOKS.

guitar pop psychedelia. *Beast* alternates between the pointed, with songs like "Dinosaur Act" (a cynical crack at relics like The Moody Blues) and the fiddle-driven "The Ugly Truth" and forlorn songs like "Do It Again" and "Reaching Out." Despite Sweet's marked differences from album to album, *Altered Beast* benefits from great chemistry, lush, layered vocals, and groovy guitar hooks. Only in this setting can Sweet pull off surreal lines like "My love is like a time capsule/Dig it up." *Tom Ferguson* 



Debut Bjork ELEKTRA 9 61468-2

The best thing about The Sugarcubes (Iceland's most famous export, musical or otherwise) was Bjork, their singer-waifish and cute on the outside but a chanteuse with a demon seed, nails-on-blackboard voice. Her personality may have driven the band to their flippant and overt kitschiness, but her voice rescued them from becoming repugnant (and they came darn close). Debut (really Bjork's third solo effort) doesn't avoid kitsch, but there's enough creativity and imagination herewith to allow her personality-augmented by her Icelandic accent-to take on another dimension. The producer, Nellee Hooper (Soul II Soul), assembles the most spartan accompaniment, putting Bjork's voice and songs with everything from an Oliver Lake-fronted sax trio to Disney-like harp and string section to the predominating dance grooves that avoid typical vagaries. Bjork lightens the load further with words that celebrate life rather than criticize and demean it. If vocal tracks recorded in nightclub toilets are any indication. Debut is both ambitious and adventuresome. Mike Bieber

#### I've Got Thunder Baby Jane Dexter ELBA 5006-2

It's hardly uncommon for singers and entertainers to drop out after years of near misses, close calls, and broken dreams. Baby Jane Dexter, a bluesy, sultry, overwhelmingly charismatic singer, took a 10year hiatus for all of the above reasons. The last straw was when a record company tried to turn her into a disco diva. But as she discovered recently, the muse is unavoidable, and so much the better for us. *I've Got Thunder* nearly flawlessly captures Baby Jane's talents and larger-than-life exuber-



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NSM Consumer Electronics 694 Ft. Salcnga Road Northport, NY 11768 516-261-7700 (FAX 7751) ance. It also flaunts the fact that she has very contemporary and excellent (hip?) sensibilities, as demonstrated in her choice of covering Bob Dylan, Phil Ochs, Tom Waits, Abbey Lincoln, and Screaming Jay Hawkins. Excellent production and arrangements are by Baby Jane's regular accompanist, Ross Patterson. While the buzz around her native New York has her relegated to being a cabaret chanteuse, she's in fact a bona fide pop diva. *I've Got Thunder* is truly a gem. (Elba Records, 20 Maple St., Garden City, N.Y. 11530.) *Mike Bieber* 



You Gotta Sin to Get Saved Maria McKee GEFFEN GEFD 24508-2

Erratic but worthy. The highs soar: Van Morrison's "The Way Young Lovers Do," the Goffin-King chestnut "I Can't Make It Alone," and her own ballad "Only You." The lows miss through ambition; the soulful "I'm Gonna Soothe You" is unconvincing and the title cut is just hokey. Still, Maria can sing the paint off a wall. For producer, she's enlisted George Drakoulas (The Jayhawks and The Black Crowes). For players, she has wisely reconvened Lone Justice alumni Marvin Etzioni, Bruce Brody, Don Heffington, and Heartbreaker Benmont Tench. Michael Tearson

> Mrs. Crowe's Blue Waltz Adrian Legg RELATIVITY 88561-1162-2

On his third album of fingerstyle guitar compositions, Adrian Legg continues his masterful string-bending and his unique approach in putting his acoustic/electric Ovation through stereo reverb. But where Legg's earlier records had a strong, Gothic, otherworldy focus, this set tends to get off track early on, often losing melodies amid rambling, John Fahey-like studies in fast arpeggios and repetition. Eventually, Legg's sharp sense of humor reappears to draw some well-earned smiles, as on the vibratodrenched "Sour Grapes" or when he turns country (Albert Lee meets Chet Atkins) with the chicken pickin' of "Lunch-Time at Rosie's." While not as thoroughly witty as on his debut, Legg is still entertaining.

Michael Wright



**Plus From Us:** Various Artists (Realworld/ Caroline 2327-2). A compilation of tracks from artists who either contributed to or inspired Peter Gabriel's recent Us album. In traditional Gabriel variety, included are Eno, Daniel Lanois, The Meters, William Orbit, Kudsi Erguner, and others. **M.B.** 

Letters from Mississippi: Eddie Hinton (Mobile Fidelity MFCD 749). What Rod Stewart always wanted to sound like, plus Hinton's guitar pretty well cuts Ron Wood. One can only wonder why this guy never made it, but the liner notes give a good clue with "various personal demons." **E.P.** 

Black on White: Great R&B Covers of Rock Classics: Various Artists (Rhino R2 71227). A terrific idea that had to happen. From Aretha's "Satisfaction" and Otis' "Day Tripper" to The Staple Singers' "Slippery People" and Run-D.M.C.'s "Walk This Way." This is a great party album. M.T.

Neroli: Brian Eno (Gyroscope/Caroline Carol 6600-2). Quoth Mr. Eno, "I wanted to make a kind of music that existed on the cusp of melody and texture." Folks, what we have here is a synthesizer going "bong bong bong" for no less than 57 minutes. Eno's "functional music" is usually compelling and strident in the best sense, but "this one's a stiff," to quote my cantankerous old grandfather. M.B.

Tell Me Why: Wynonna Judd (Curb/MCA MCAD-10822). Solid work but not as exciting as her first solo album. Mary-Chapin Carpenter's "Girls with Guitars" and a few other covers rescue this album. M.T.

Take a Look: Natalie Cole (Elektra 61496-2). Natalie's follow-up to Unforgettable is a witty and diverse collection of 18 standards, some famous and some less well known. Her singing is confident and comfortable, and occasionally it swings nicely. M.T.



#### $JAZZ \sim BLUES$ С F R Ν G D



# JAZZ MEETS **HIP-HOP** VARIOUS ARTISTS

New Refutation of Time and Space) in which they reference jazz iconography spun out in an infectious cosmic spiel across mid-tempo, laconic grooves.

Digable Planets are the flower children to Freestyle Fellowship's urban marauders, who use a slashand-burn sonic design of samples 🗐 colliding in a blender of brutal drum machine patterns. Unlike the Digables, who pay obeisance to jazz, Freestyle rips jazz-funk for its sexual power to underscore their boyz 'n' the hood-club sexual slander. Like a lot of aggressive rap, its stridency

#### **HIP-HOP'S BURIED** ROOTS RESURFACE IN THE NEW HIP-HOP JAZZ.

wears out its welcome. Freestyle uses a live band with acoustic bass on one track, "Park Bench People," a welcome relief of humanity and a more poignant counterpoint to their rap on street people.

Reachin' (A New Refutation of Time and Space) Digable Planets PENDULUM/ELEKTRA, 9 61414 CD; 56:41 Sound: B-, Performance: A-

> **Innercity Griots** Freestyle Fellowship 4th & B'WAY 162-444 050-2 CD; 62:25 Sound: C+, Performance: C+

**3-D Lifestyles** Greg Osby BLUE NOTE CDP 0 777 7 98635 2 5 CD: 53:20 Sound: B, Performance: A

Jazzmatazz Guru CHRYSALIS/ERG 0946 3 21998 2 9 CD; 44:17 Sound: C+, Performance: B-

jazz, so deep they were buried. But you can hear it from the hip-jive scat of Lambert, Hendricks, and Ross to the poetic polemic of The Last Poets. It's only in the last few years that the connection has been hyped from acid-jazz to the new hip-hop jazz. But is it enough to illustrate some cultural acumen by dialing up the ambience of jazz with the Blue Note style cover of Guru's Jazzmatazz and Digable Planets head-nodding, black and white club setting for their Rebirth of Slick (Cool Like Dat) video?

ip-hop's roots are deep in

Digable Planets have scored the hit that makes this a trend. They borrow the funk-jazz of Eddie Harris, the bop of Art Blakey, and the space rap of Sun Ra. They proclaim "I'm interplanetary," and quote Ra's classic pronouncement that "space is the place." It's all part of the cutand-paste imagery of Reachin' (A



Kam

ia.

AUDIO/OCTOBER 1993 64

Saxophonist Greg Osby has the attitude of Freestyle Fellowship, but as a true jazz improvisor and a charter member of New York's M-Base Collective, he brings a verve that digital samples and second string players will never attain. The surprise is that he gets the rap side down cold with vicious grooves, slashing collages, and pointed raps by 100X and Ali Shaheed from A Tribe Called Quest. On the interlocking improvisations of tracks like "Thelonious," this music fulfills all its promise without compromise.

Jazzmatazz takes a similar approach, using live musicians, but from the rap direction with Guru (Keith Elam) from the rap group Gangstarr. He works in the laid-back grooves of the Digables, with solos from middle-of-the-road jazz artists such as Roy Ayers, Donald Byrd, Lonnie Liston Smith, the ever-eclectic Branford Marsalis, and some wailing reeds by Courtney Pine. But the synthesis is less developed here than with Osby, and he doesn't take the pop route of Digable Planets with jazz as a subtext.

Hip-hop Jazz or New Jazz Swing has the same resonance as fusion in the early '70s, an inevitable collision, but one not so easily diluted. John Diliberto



**Art & Aviation** Jane Ira Bloom ARABESQUE JAZZ AJ0107

During the past decade, soprano saxophonist Jane Ira Bloom has created one intelligent and investigative recording after another but without any fanfare or hype. After several labels and three self-produced efforts, Bloom's latest work surfaces on a relatively new recording enterprise by the Arabesque label.

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What We Do John Scofield Quartet BLUE NOTE CDP 0777 7 99586 2 7

Despite his reputation for genre-busting innovation, John Scofield appears to view his craft very casually. On the aptly-titled What We Do, what the Scofield quartet does can only be achieved by a band that is comfortable enough as a unit to develop a repertoire of group improvisation. By now, Scofield's guitar and Joe Lovano's tenor seem chemically bonded; together they skirt the edges of the leader's characteristically clever melodies, darting in and out of harmonies that are alternately beautiful and harsh. Ably grounded by bassist Dennis Irwin and drummer Bill Stewart, the quartet carries ideas to their logical extremes, covering a wide range of emotional territory. Without doubt, Scofield and Lovano possess strong and original voices, yet more than anything else, What We Do is a group statement on the simple pleasures of Larry Blumenfeld a working band.

#### To the Eyes of Creation Courtney Pine

4th & B'way 162 444 054-2

British saxophonist Courtney Pine creates a good reason to learn how to program your CD player. Funk, African chants, ragas, and straight-ahead jazz all shoot it out with varied results. Moments of unbridled brilliance, as on "Country Dance" and the raga of "The Meditation of Contemplation" are mixed with tepid R&B and lightjazz forays. Being the wunderkind of British jazz leaves Pine with too much baggage. John Diliberto

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#### **PSYCHOGRASS**

Blending new acoustic, classical, jazz and a healthy dose of bluegrass, *PsycLograss* features Darol Anger and Mike Marshall in a recording of outrageous compositions; a new set of future acoustic standards.









In writing up these Annual Directory preambles, I feel rather like W. C. Fields acting the part of a carnival sideshow magician. I know there is no great feat of legerdemain involved, you know there's no miraculous magic; instead, just some minor sleight of hand, which has been practiced many times. Still, however, you keep coming

back, and I stay here, doing the same things. I think it's because the effect at the end is enjoyable.

In any case, the Directory (Big D, as we affectionately call it, distinguishing it from May's Little D, the Car Stereo Directory) is up again this year-in spite of the economic doldrums. Our total model count is

up by nearly 280 to 5,416, and we project 134 pages of

The principal area of increase is speakers, with a gain of 269 models to 2,554. The company count is up 13 to 342. A large proportion of the models are intended for home theater applications, with many having THX certification. We have tried to accommodate this change in the market by listing the intended use in the column where we would normally list the design principle, e.g., reflex.

I'd love to give you average price, median price, standard deviations, and all the neat math stuff that computers do so well; however, both Big and Little D are not in database format, but rather in ATEX, a very particular kind of





Illustrations: Mark Matcho





tables this year.















All photographs courtesy of Archive Photos



Amplifiers Preamplifiers



Tuners Receivers



Turntables Tonearms Phono Cartridges



HEADPHONES



Digital Recorders Analog Cassette Decks Blank Tapes & Discs



Equalizers Ambience & Surround Sound Processors Signal Processors Crossovers



LOUDSPEAKERS





software common to publishing. We have been thinking hard about the various electronic forms of publishing, which should come as no surprise, but I would appreciate any suggestions about specific formats that

would make the effort of greater value to you.

So which categories won and which lost this year? After speakers, the biggest gainer was are you ready for this?—headphones! Up by 32 models to 284 from three fewer makers, i.e., 31. The big loser was cassette decks, down 40 models to 129 units. There were seven fewer deck makers at 30. There was nearly a tie

for second between phono cartridges, -21 models, and receivers, -20. One fewer cartridge makers, 32, offer 192 models this year, while 30 receiver makers (down four) have 129 models.

Amplifiers are up 21 models to 688 from 193 makers, up 15.

Preamps are up 22 to 413 models by 163 manufacturers; there were 147 last year. The smaller categories—tuners, turntables, tonearms, digital recorders, blank tape, equalizers, ambience and surround units, signal processors, and crossovers—were fairly stable.



Department of Humorous Thank Yous: First of all, for being the first person to identify all the quotations on Directory Editor Ken Richardson's letter to manufacturers with the Big D forms, we are sending a large set of glassless eyeglasses, with false nose and mustache attached, to Mike Waguespack of Camber, the Canadian speaker maker.

Department of Heartfelt Thank Yous: For eyestrain beyond human endurance with infinitely small type, and most particularly because I don't have to do the work, I am arranging for radial keratotomy operations, with a full year of follow-ups by the eye surgeon, for Directory Editor Ken Richardson, Managing Editor

> Kay Blumenthal, Assistant Editor Gerald McCarthy, Associate Art Director Linda Zerella, and Directory Slave Noel Farmer.—**E.P.**







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MANUFACTURER	Hoten Hoten	,. 	DISC Canab Decom	nter of	allow Filling	nt Duquis. Out on the st	autore Digiti Frequenc	-	N Rallo.	,D.° <sup> 0</sup>	stron h		unuer of Repair	S PHISSS	John Brice	.s Holes
ACCUPHASE	DC-91(RO) DP-90(RI)	1	20-8X	B	V/B	HL/D/F	4-20 ±0.3	120	0.002	в	В		D/T/P/E	60 56	13,495. 7595.00	D/A converter. CD transport.
ADCOM	GCD-600(RI) GDA-600	5	16-4X 20-8X	A A	F/V F	D D	20-20 ± 0.5 0-20 + 0,-0.5	105 110	0.002 0.01	B	B	20	D/T/P/E	18 9½	600.00 750.00	D/A converter; four inputs.
AIWA	DX-NR370M(RI)	3	1-8X	A		F	10-20 ±2	90	0.01			20	D/T/P/E	71/2	350.00	
ALTIS AUDIO	DSP-3S		†	C	F/B	D	20-20 ± 0.5	98	0.01	άť.				18	1995.00	†D/A converter with
	DSP-5S		t	C	F/B	D	10-24.1	100	0.01					22	3950.00	sigma-delta decoding
	Ultima		<del> </del>	c	F/B	D	±0.01 10-24.1	102	0.01					32	10,000.	
	CDT-1(RI)	1				D	±0.01			в	в	0	D	20	2995.00	CD transport.
	CDT-2(RI)	1				D/F				B	B	Ō	D/T/P/E	16	1995.00	As above.
ABIC:	CD 6(RI) MD2DAC03	1	1	A	F	D/F	20-20 + 0,-0.5 20-20 + 0,-0.5	103 103	0.005 0.005				D		599.95 99.95	D/A converter module for CVT3030 integrated amp.
ANALOG RESEARCH	Segue		20-8X	A	F/V		2-20 +0,-0.2	103	0.01					20	2500.00	D/A converter.
ANDDYNE GROUP	Triode		20-8X	A	F/8		4-20 ±0.25	103	0.06					65	6995.00	D/A converter; three chassis; tube analog stage; balanced
	T.4.2		20-8X	c	F		4-20 ± 0.3	101	0.04					42	3995.00	digital inputs. D/A converter; two chassis; tube analog stage.
	ATAS		20-8X	A	F		4-20 ± 0.25	99	0.04					26	2995.00	D/A converter; tube analog stage.
	Adapt		20-8X	A	F		4-20 ± 0.25	102	0.02					26	2495.00	D/A converter; tube/ solid-state analog stage.
	FET-Adapt FET-Adapt 188 TyneDyne		20-8X 18-8X 18-8X	A A C	F F		4-20 ±0.10 4-20 ±0.10 4-20 ±0.4	108 103 102	0.009 0.02 0.01					18 16 18	1895.00 1395.00 1495.00	D/A converter. As above. As above; tube/solid- state analog stage.
ARAGON	D2A MKII		18-8X	A	F	D	2-20 ± 0.3	110	0.005					19	1595.00	D/A converter; external power supply.
ARICAM	Alpha 5CD(RI) Delta 270(RI)	1	16-4X †	A	F F/V	D D/F	20-20 ± 0.2 20-20 ± 0.2	105 103	0.007 0.005	B B	B	20 20	0	11 11	899.00 1600.00	Optional AT&T output
	Delta 250(RI) Delta Black Box 50	1	t	A	F	D/F D/F	1-20 ±0.2	103 103	0.005 0.005					14 11	1500.00 899.00	†Hybrid, 18-bit/1-bit. CD transport. D/A converter.
AUDIO ALCHEMY	DDS V1.1(RI)	1				D/F				D	D	16	D/T/P	18	999.00	CD transport; externa
	DDS II(RI)	1				D				D	D	16	D/T/P	10	699.00	power supply. CD transport.
	ACD-1(RI) DDE +	1	16-256X 16-256X	Å	F	D	20-20 ± 0.2 20-20 ± 0.2	93 93	0.01 0.01	D	D	16	D/T/P	8	699.00 299.00	D/A converter; external power supply.
	DDE V1.1 DDE V2.0		18-256X 20-256X	A	V F	D D	20-20 ± 0.1 20-20 ± 0.1	100 97	0.008 0.01					4 6	399.00 699.00	As above. D/A converter; four
	DDE V3.0		20-512X	A	v	D	20-20 ±0.1	100	0.005					6	599.00	inputs. D/A converter; external power supply.
	DDE PRO		20-512X	A	۷	0	20-20 ± 0.1	100	0.005					6	999.00	As above; DSP filter.
AUDIO BY VAN ALSTINE	Ωmega II(Ri) FET Valve(RI)		16-4X 16-4X	A	F	H   H	3-20 ±0.5 2-20 ±0.4	89 90	0.06 0.06	T	D	20 20	D/T/E D/T/E	10 16	395.00 1195.00	
AUDIOLAB	8000D		1-8X	C	F	D	2-20 ± 0.5	100	0.003			<u> </u>		15	1395.00	D/A converter.
AUDIO NOTE	DAC1		20-8X		F						Ι				1195.00	D/A converter; tube
	DAC2 DAC3 DAC4		20-8X 20-8X 20-2X		F F F										1895.00 2995.00 4995.00	output; zero feedbac As above. As above. As above; HDCD capable.
AUDIO RESEARCH	DAC 2	1	20-8X		F/8	D/F	0.01-20	100	0.006				-	12	3495.00	
AUDIOSOURCE	CD Ceiver(RI)	6	16-4X	A	F	HL	20-20 ±0.5					16	D/T/P/E	181⁄2	599.95	CD changer/receiver (see also ''Receivers'').
AUDIO SYNTHESIS	DSM-UltraAnalog		20-8X	A	F	D/F	1-20 ± 0.25	108	.0002						3950.00	D/A converter; AT&T input; with balanced
	DSM-Burr Brown		20-8X	A	F	0/F	1-20 ±0.25	108	.0002						2295.00	analog out, \$4550. D/A converter, upgrad able to model above optional AT&T input, \$250; optional balanc analog out, \$350.
BANG & OLUFSEN	CD4500 CD7000	1	16-4X 16-4X	A	F	D D	3-20 ±0.3 3-20 ±0.3	110 110	0.003	в	D	20		9.9 14.1	900.00 1250.00	
BEL CANTO	Alda	† .	1-64X	A	F/B	_	20-20 ± 0.5	96	0.005	<u> </u>	<u> </u>			11.6	1900.00	D/A converter; coaxial
DESIGN																and AT&T inputs.

AUDIO/OCTOBER 1993



The belt-drive CD transport is so unique, it's patented.

Jitter. More than a buzzword, it causes your CDs to sound, well...digital. And it took C.E.C. to seriously address its fundamental causes. The result is the TL 1. The first, and only, belt drive CD transport in the world.

You might have expected that an original equipment manufacturer of the finest analog turntables to be the first to engineer belt drive for

digital. What you might not have expected are the extraordinary results. Sound so sweet, so amazing, it's as though you've hooked up not just a superb audio component, but the full emotion and vitality of live music.

# WHY YOU SHOULD SPEND THOUSANDS ON A CD TRANSPORT BUILT AROUND A RUBBER BAND.

You see, all other CD transports use a high-torque motor with the disc perched directly on the spindle. Its miniscule bearings can only support the scant weight of the CD- which, in itself, is prone to warping and resonances. The resulting microvibrations contaminate the data stream with, you guessed it, jitter.

So, how does the TL 1 minimize jitter? C.E.C. uses a smooth-as-silk, low-torque motor isolated by a drive belt. This allows an independently suspended bearing to support an enormous CD stabilizing clamp – with over 26 times the rotational inertia of the typical transport. Inspired by the great analog turntables, the TL 1 combines massive amounts of steel, aluminum and brass to weigh a rock-solid 38 pounds.

Bob Harley of *Stereophile* sums it up nicely. "The C.E.C. is unquestionably a remarkable transport. Its smoothness, ease and liquidity set a new standard in digital playback.

"I can enthusiastically recommend the C.E.C. TL 1. It is not only an eminently musical transport, but also a gorgeous – and innovative – piece of audio equipment."

Visit your C.E.C. dealer and hear the finest CD transport in the world – built around a rubber band.



Winner of a Design Engineering Honor at the Summer '93 Consumer Electronics Show.



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# CD PLAYERS & D/A CONVERTERS Analog 8



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BITWISE AUDID TECHNOLDGIES	Musik System Zero Musik System Zero Plus		20-8X 20-8X	A A	F F		0-22 0-22	98 98	0.01 0.01					14 16	1500.00 2150.00	D/A converter; two chassis. D/A converter; includes AT&T digital
	Musik System Dne MKII Musik System		18-8X 20-8X	A	F F/B		0-22 0-22	98 100	0.01 0.001		2		- 3	24 45	2500.00 5850.00	input. D/A converter; two chassis. As above; includes
	Two tc Digital Turntable Dne(RI)	1				D/F				8	B	24	D/T/P/E	28	2500.00	AT&T and AES/EBU digital inputs. CD transport; includes AT&T and AES/EBU
CALIFORNIA	DX-1(RI)	1	1-32X	A	F	D	10 20 . 0.0.0	104	0.000	B	B	20 20	D/1/E	15	495.00 895.00	digital outputs.
AUDID LABS	icon mkli(Ri) Temet mklV(Ri)	1	18-8X 20-8X	A	F	D	10-20 +0,-0.2 10-20	104 103	0.002	8 8	B 8	20	D/1/E D/1/E	17 22	895.00	Dptional fiber-optic output.
	Tercet mkIV(RI) Gen <mark>es</mark> is(RI)	1	ZU-8X MASH-	A	F/B	F	+0,-0.05	93	0.003	B	8	20	D/I/E	18	1995.00	
	Sigma MKII Tube Analog		32X 1-64X	A	F	0	5-22 + 0,-0.05	93 100	0.03 0.00 <mark>5</mark>					9	750.00	D/A converter with tube analog stages; coaxial and fiber-optic
	Processor Alpha Tube Analog		1-64X	A	F		5-22 + 0,-0.05	100	0.005					10	1495.00	digital inputs. As above plus AT&T and AES/EBU inputs.
	Processor System Dne DAC		Dpt.	A	F/B		10-20 ±0.5	<mark>10</mark> 2	0.00 <mark>8</mark>					151⁄2	1995.00	D/A converter; coaxial and fiber-optic digital inputs; four (one- and multi-bit) converter
	Delta Transport(RI)	1				D/F	10- <mark>20</mark>			B	B	20	D/T/E	11	895.00	modules available. CD transport; includes AES/EBU output; AT&T output optional.
	CD3(RI)	1	16-16X	A	F	D/F	10-20 ± 0.1	100	. <mark>002</mark> 5	T		20	D/T	14.1	1699.95	
CAMELDT TECHNOLDGY	The Round Table (Ri) Arthur	1	1-256X	A	F	HL/D/F D	20-20 ±0.15	99	0.003	B	B	20	D/T/P/E	67 6	2495.00 1195.00	CD transport: AT&T output. Battery-operated D/A converter; digital cable; optional AT&T input.
CARVER	SD/A-390t(RI) SD/A-490t(RI) SD/A-370(RI) SD/A-360(Rt)	5 1 10 5	1 1 1 1	A A C A	F/V F/V F	HL/D HL/D/F HL D/F	10-20 ± 0.5 10-20 ± 0.2 5-20 ± 0.5 5-20 ± 0.5	100 100 100 100	0.5 0.5 0.005 0.004	8 8 8	B B B B	20 24 32 32	D/T/P/E D/T/P/E D/T/P/E D/T/P/E	15 9 16 15	699.95 699.95 699.95 399.95	Tube output; Soft EQ. As above. Soft EQ.
CEC	TL 1(RI)	1				D/F		1	9	8	B				4695.00	Belt-driven CD transport.
CELLD MUSIC AND FILM SYSTEMS	Series 8 DAC		20-8X	A	V/8		20-20 ±0.025	t	Ħ				ť	27/8	5000.00	D/A converter, external power supply required; optional P.S. supply, \$1,000, can also feed model below simultaneously. †108.5 dB. ††-94 dB.
	Series 8 ADC	0	18-64X			D/F	20-20 ± 0.025	95.5	t					27/8	5000.00	A/D converter; external power supply required (see above). †-94 dB.
CONRAD- Johnson	D/A1 Premier Nine		1-256X 1-256X	A	F	D D	20-20 ± 0.5 20-20 ± 0.5		0.1 0.1					14 30	1695.00 3495.00	D/A converter. As above; tube.
CDUNTERPOINT	DA10		Var.	A	F	D/F	Var.	Var.	Var.					14	1495.00	D/A converter; interchangeable converter boards. As above: AT&T dinital
	DA10ST		Var.	A	F E/B	D/F	Var.	Var.	Var.				р/т	14	1695.00 1295.00	As above; AT&T digital input. CD transport.
CREEK	DA11(RI) CD60(RI)	1	16-4X	A	F/8 F	D/F D	20-20 ± 0.1	110	0.007	T	8		D/T/P/E	14	1295.00	Display on/off; twin
	DAC60		20-8X	A	F				.0005					14	999.00	power supplies. D/A converter.
CURCID AUDID ENGINEERING	M-CD12V		16-4X	C	F		20-20 ± 0.03	98	0.003					7	2500.00	Tube D/A converter; kit, ASM-CD12V, \$1200.00.
DENDN	DP-S1(RI)	1		- 14 - 14		D/F				T				37	8000.00	CD transport; AT&T digital input; five digital outputs, including AT&T and AES/EBU.
	DA-S1	10	20-8X	A	F/8		2-20 ± 0.2	120	.0018					44	7000.00	D/A converter; eight DACs; five digital inputs.
	DCD-3500RG(RI)	1	20-8X	A	F/V/ B	HL/D/F	2-20 ±0.2	120	.0015	8	В	20	D/T/P/E		2000.00	Four D/A converters.
(Continued)	DCD-2700 DCD-1290(RI) DCD-695(RI) DCD-695(RI) DCD-595(RI)	1 1 1 1	20-8X 20-8X 18-8X 18-8X	A A A A	F/V F/V V V	HL:D/F HL:D/F HL/D H	2-20 ±0.2 2-20 ±0.2 2-20 ±0.2 2-20 ±0.2	117 110 107 106	.0018 .0025 0.003 0.003	B B B	B B B	20 20 20 20	D/T/E D/T/E D/T/P/E D/T/P/E		1200.00 550.00 300.00 250.00	As above. Dual D/A converters. As above. As above.

AUDIO/OCTOBER 1993

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DENDN (Continued)	DN-1200F/C	t	20-8X	A	F	D	2-20 ±0.2	110	.0025	D	ŕ	$\left( \right)$	D/E		4000.00	†200-disc changer/ controller. As above;
	DCM-550(RI) DCM-520(RI)	6 5	18-8X 20-8X	A	F/V F/V	HL/D	2-20 ±0.2	106	0.003	B	B	20	D/T/E		500.00	AES/EBU output. Magazine changer; dual D/A converters.
	DCM-440(RI)	5	18-8X	A	v	HL/D HL/D	$2-20 \pm 0.2$ $4-20 \pm 0.5$	110 107	0.003 0.003	D	B	20 20	D/T/E D/T/E	l.	530.00 430.00	Carousel changer; dual D/A converters. As above.
	DCM-340(RI) DCG-330(RI)	55	18-8X 18-8X	Â	F	H	4-20 ±0.5 2-20 ±0.5	106 102	0.003 0.006	D		20 20	D/T/E D/T/E		300.00 500.00	As above. As above; video output for karaoke CD + Graphics.
	LA-3100(RI) LA-2100(RI)	1	20-8X 20-8X	A	F	HL/D HL	4-20 ±0.5 4-20 ±0.5	115 113	.0018 .0025	8 T	8	20 24	D/T/E D/T/E		1200.00 800.00	CD/videodisc player. As above.
DODSDN AUDIO	DAC-263		20-8X	A	F/B		20-20 ± 0.2	110	0.002					14	1795.00	D/A converter; three coaxial digital inputs included, two digital
	DAC-263/PRE.		20-8X	A	F/V/ B		20-20 ±0.2	110	0.002					16	2695.00	inputs optional (AT&T or AES/EBU). D/A converter with preamp (see also "Preamps"); one optical and two coaxial digital inputs included, one digital input optional (AT&T or AES/EBU); optional crossover.
DPA DIGITAL	T1(RI) Little Bit Two Bigger Bit PDM Dne Sertes 3 PDM Two	1	1-192X 1-192X 1-192X 1-384X	A A A A	F F F	D/F D/F D/F D/F D/F D/F	$\begin{array}{r} 1-20 \ \pm 0.5 \\ 1-20 \ \pm 0.5 \end{array}$	100 100 106 109	0.009 0.009 0.009 0.009 0.008	B	B	30	D/T/P/E	16 4 4 11 11	1995.00 995.00 1550.00 2995.00 5395.00	CD transport. D/A converter. As above. As above; two chassis. As above,
DUAL	CD5150RC(RI) CD1070RC(RI)	1	16 <mark>-4X</mark> 18			H H	20-20 ± 0.1 20-20 ± 0.5	100 103	0.01 0.01	B		20 16	D/T/E	12 10	555.00 345.00	
EAD	DSP-9000 Pro(RI) DSP-7000 Series II		20-4X or 8X 20-4X	A	V F	D	0-20 ± 0.1	100	0.001 0.001					32	5500.00	D/A converter; two chassis; hybrid analog/digital volume control; optional balanced out, \$1000. D/A converter;
e e	DSP-1000 Series II		or 8X 20-4X	C	F		0-20 ±0.1	100	0.001					12	999.00	AT&T input; optional balanced out, \$399. D/A converter; AT&T
	T-8000(RI) T-7000(RI) T-1000(RI)	1 1 1				D/F D D/F				B B T	8 D T	24 20 20	D/T/P/E D/T/P/E D/T/E	42 42 15	3500.00 1999.00 1099.00	input. CD/videodisc player. As above. CD transport; AT&T
	CD-1000(RI)	1	20-4X		F	D	0-20 ±0.1	100	0.001	Т	т	20	D/T/E	15	1795.00	output.
ELITE	PD-895(RI) PD-65(RI)	1	1-8X	A	F	D/F D/F	20-20	111	.0020	8 B	8 8	20 20	D/T/E D/T/E	38 <sup>7</sup> /8 21	3000.00 800.00	CD transport. Legato Link D/A
	PD-54(RI) PD-M77(RI)	1 6	1	A	F	hl/d/f hl/d/f	20-20 20-20	110 112	.0021 .0017	B	B	24 32	D/T/P/E D/T/P/E	12 17	500.00 770.00	conversion. As above. As above; five-mode
	PD-M53(RI)	6	1	A	F	HL/D/F	20-20	110	0.002	B	B	32	D/T/P/E	13	460.00	DSP. Legato Link D/A conversion.
	CLD-97(RI) CLD-52(RI)	1 1	1			D/F D/F		3						615/8 615/8	2500.00 950.00	CD/videodisc player. As above.
ENTEC	Number Cruncher		1-256X	A	F		0-20 ±1							20	1995.00	D/A converter, optional balanced out.
ESDTERIC	0-2 D-10 D-700 P-2s(RI)	1	18-8X 18-4X 20-8X	A A A	V/B F	0 D 0/F 0/F	0-20 ± 0.3 0-20 ± 0.5 0-22 ± 0.1	110 100 110	.0014 0.002 .0016	8	в	40	0/T/P/E	241/4 22 131/4 31	3500.00 2000.00 1350.00 7000.00	D/A converter. As above. As above. CD transport; five
	P-2(RI) P-10(RI) P-700(RI)	1				0/F D/F D/F			8 1	T T B	BBB	40 20 20	D/T/P/E D/T/P/E D/T/P/E	28 <sup>1</sup> /4 22 15 <sup>1</sup> /2	4000.00 2000.00 1500.00	digital outputs. CD transport. As above. As above.
FISHER	X-1(RI) DAC503(RI)	1	25-8X 1-8X	A	F/8 F	D/F D	0-20 ± 0.3 20-20 ± 0.5	110 100	.0013 0.04	Ť	8	20	D/T/P/E D/T/E	40	5000.00 299.95	AS 80048.
	DAC2403(RI)	24	1-8X	Â	F	Ď	20-20 ± 0.5	100	0.03	B	B	32 48	0/T/E	19.2	399.95	Stores and plays discs in seven preset music categories; no computer assistance.
FORTÉ	F50A	Ç.	1-92X	A	F/B	D/F	0-20 ±0.1	110	t					14	1250.00	D/A converter. t0.00015%.
GEMINI SOUND PRDDUCTS	CDJ-16(RI)	1	16-8X	C	F	HL				8	в	20	D/T	71/2	420.00	Pitch control; cueing.
GOLDMUND	Mimesis 10C(RD)		†	t	F	D/F	20-20 ± 0.1							15½	9000.00	D/A converter. †Pro-
	Mimesis 10P(RD)		t	t	F/V	D/F	20-20 ± 0.1							16	11,250.	prietary. D/A converter with preamp (see also
_	Mimesis 12		t	t	F/V/ B	D/F	20-20 ± 0.1		1					11	3900.00	"Preamps"). D/A converter.



		/		/	/ ,	Rate	AB . A	1	white and	00	/	/	antio 12	10 / a	clions 0	Trans
	/	ret	onal	/		Inging pusces	A Bass Hird Calls	/	HI IO WHY	18	*	an	0150 0150	maple Sel	estions - 0.	////
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MANUFACTURER	Woolen BO	0	15° Decodin	in On	Ololia Lin	e O' Other Pad	opt Heat	ST	A Part TH	1 (B)	stron be	10 H	P. Bebr	· He		A.S. Holes
ARMAN ARDDN	HD7225(RI) HD7525(RI)	1	1 18-8X	A	F	D	4-20 + 0,-1 4-20 + 0,-1	104 103	0.008 0.008	BB	B B	30 30	D/1/P/E D/1-P/E	10 11.5	299.00 549.00	Real-time linear
	HD7725(RI)	11	18-8X	A	V/F	HL/D/F	4-20 + 0,-0.5	105	.0025	в	в	30	D/1/P/E	18.9	849.00	smoothing circuit. As above; dual D/A converters.
	TL8500(RI) FL8400(RI)	5 5	1	Â	F	HL	4-20 + 0,-0.2 4-20 + 0,-1	104 103	0.003 0.008	B B	B B	30 32	D/11/P/E D/11/P/E	14.9 12	479.00 369.00	Reloadable during
IRM	DA-20	┝─┤	20-8X	C	F		0-20 ± 0.1		0.001					┞┤	800.00	play. D/A converter for sampling rates from
										F						sampling rates from 25 to 50 kHz; quad D/A; 24-bit input.
IVC	XLZ1050TN(RI) XLZ451TN(RI)	1	1-8X 1-8X	A	F/V F	HL/D/F HL/F	2-20 2-20	114	.0014 .0015	B B	8 8	32 32	0/17P/E D/T7P/E	17 8 8	800.00 240.00	
	XLV261TN(RI) XLV161TN(RI)		1-8X 1-8X	C C	F F	HL HL HL/F	2-20 2-20 2-20	106 106 107	.0025 .0025 0.002	BTT	B	32 32 32 32 32	D/T*P/E D/T*E D/T*E	8 7.3 11.1	199.95 179.95 379.95	
	XLM509TN(RI) XLM409TN(RI) XLF207TN(RI)	7 7 5	1-8X 1-8X 1-4X	A C C	F	HL HL	2-20 2-20	107 107 106	0.002	ţ	Ť	32 32	D/T/E D/T/E	11.1	299.95 299.95	00.0
	XLF2071N(RI) XLMG800TN(RI)	7	1-4X 1-4X	C	F	HL	2-20		0.05			32	D/T7P/E	12.4	850.00	capability.
KENWODD	DPC-731(Ri) DPC-631(Ri) DPC-531(Ri)	1	1-8X 1-8X	A	F	HL HL HI	20-20 20-20 20-20 20-20	100 100 100	0.015 0.015 0.015	B B B	B B B	24 24 24	D/T/E D/T/E D/T/E	31 24 31	299.00 249.00 219.00	DSP circuit.
	DPC-531(RI) DPC-331(RO) DP-M7750(RI)	1   1   †	1-8X 1-8X 1-8X	A A A	F F F/V	HL HL HL	20-20 20-20 4-20 ± 1	100 100 96	0.015 0.005	BB	BB	24 24 32	D/T/E D/T/E D/T/E	24 15	179.00 399.00	†6 plus 1 changer. Manazine memory
	DP-M6650(RI)		1-8X	A	F/V	HL	8-20 ±1	96 96	0.005	BB	B	20 20	D/T.E D/T.E	15 15	329.00 299.00	Magazine memory.
-	DP-M5550(RI) DP-M993(RI) DP-R4450(RI)	†   †   5	1-8X 1-8X 1-8X	A A A	F F/V F	H HL	8-20 ±1 8-20 ±1 4-20 ±1	96 96	0.005	B	B	20 20	D/TÆ D/TÆ	15	249.00 279.00	
	DP-R4450(RI) DP-R893(RI) DP-2050(RI)	5	1-8X 1-8X 1-8X	A A A	F F/V	H	4-20 ±1	96	0.008	B	B	20 20	D/T.E D/T.E	15 9	249.00 249.00	
KINERGETICS RESEARCH	KCD-55P KCD-55U		18-8X 20-8X	AA	F/V F/V		20-20 ± 1 20-20 ± 1	110 110	0.02 0.02	,	P	20	DE	20 20 22	1895.00 3995.00 1295.00	As above.
	KCD-55T(RI) KCD-40(RI) KCD-20B(RI)	1	18-8X 16-4X	A	V	D	20-20 ± 1 20-20 ± 1	110 110	0.02	T T T	BB	30 30 30	D/T/E D/T/E D/T/E	22 21 21	1295.00 2295.00 1495.00	
KRELL	KCD-20B(RI) Reference 64	+ 1	16-4X 24-64X	A	F/B		4-20 + 0,-0.1	98	0.02		T-		1.11		14,000.	D/A converter based on upgradable,
																proprietary reconstructive software; coaxial,
												1 4				AT&T, and AES/EBU digital inputs.
	Studio Studio 2		24-16X 24-16X	A	F/B F/B		20-20 + 0,-0.2 20-20	110 94	0.002 0.002						3900.00 2850.00	As above.
	DT-10(RI)	1					+ 8,-0.25			в	B	20	D/T/P/E		7900.00	proprietary control
	MD-10(RI)	1								Ţ		20	D/E		6900.00	software. Top-load CD transp
	MD-10(RI) MD-20(RI) ST-1(RI)	1						1		Ť	в	20 20	D/E D/T/P/E		4000.00 2800.00	As above. CD transport; proprietary control
	CD-Studio(RI)	1	24-16X	A	F/B	D	20-20 +0,-0.2		0.002	8	8	20	D/T/P/E		5000.00	software. Top loading; softwa
	CD-DSP(RI)	1	24-16X	A	F/B	D	20-20 + 0,-0.5		0.01	T		20	D/E	-	3650.00	based. As above.
MARK LEVINSON	No. 30		20-8X	A	F/8	D D/E	10-20 + 0,-0.2	105	0.003	B	в	30	D/T/P/E	89 64	14,950. 8495.00	power supply. Top-loading CD
	No. 31(RI)	1				D/F				6	6	30	U/ T/P/E			transport; four digr output formats.
	No. 35 Karik(BI)	+.	20-8X	A	F/B F	D D/F	10-20 + 0,-0.2	105	0.003	8	8	0	D/T/#	53 12 <sup>1</sup> /2	7950.00	D/A converter.
LINN MACH 1	Karik(RI) Numerik	1	1-256X 20-8X 20-8X	AAA	F		20-20 ± 0.05		.0015	Ľ	ľ	1		9 <sup>1</sup> /2 15	2895.00 1795.00	D/A converter.
MACH 1 ACOUSTICS	DM-S Standard DM-S Reference	1.	20-8X 20-8X	A	F/B F/B		$20-20 \pm 0.05 \\ 20-20 \pm 0.05 \\ 2-20 \pm 0.1$	95	0.015	B	B	30	D/T/E	15 14	2295.00 299.00	As above.
MAGNAVOX	CDC 794/17(RI) CDC 796/17(RI)	55	1-192X 1-192X	C	F F	D/C	$\begin{array}{r} 2-20 \pm 0.1 \\ 2-20 \pm 0.1 \\ \hline 20-20 \pm 0.1 \end{array}$	95 95 108	0.015 0.015 .0015	B	8 D	30 30 30	D/T/E D/T/E	14 14 37	299.00 2500.00	Dual D/A converter
MARANTZ	CD-11 MK2(RI) CD-72(RI)	1	1-128X 1-128X	A	F/B F/V	D/F HL/D/F	20-20 ±0.1	105	.0015	B	D	30	D/T/P/E	17	699.00	Favorite Track Selection.
	CC-52(RI) CD-63(RI)	5	1-128X 1-128X	A	FV		$20-20 \pm 0.1$ $20-20 \pm 0.1$ $20-20 \pm 0.1$	100 104 102	0.003	BBB	DDDD	32 30 30	D/T/E D/T/E D/T/E	14 13 13	349.00 349.00 299.00	) Tape edit mode.     Digital peak searct
	CD-53(RI) LV-500(RI)	1	1-128X 1-128X	A	V	HL/D HL/F	$\begin{array}{r} 20-20 \pm 0.1 \\ 20-20 \pm 0.1 \\ 0.1-20 \pm 0.5 \end{array}$	102 108	0.0025	-	D		D/T/E D/T/P/E D/T/P/E	20	299.00 799.00 2995.00	CD/videodisc playe
McCDRMACK AUDIC	Signature(RI)	1	16-4X	A	F/V	D/F	0.1-20 ± 0.5	100	0.005	В	В	20				verter; Favorite Tra Selection.
1.44	Prism II(RI) CD Drive(RI)	1	16-4X	AB	F/V	D/F D/F	0.1-20 ±0.5	100	0.005	:	B	20 20	D/T/P/E D/T/P/E	13	1895.00 1995.00	As above. CD transport; FTS.
	DAC-1		18-256X		F		0.5-20 + 0,-0.5	92	0.01					16	9 <b>95</b> .00	D/A converter; optional AT&T inpl
MCINTDSH	MCD 7007(RI) MCD 7008(RI)	1	16-4X 20-8X	A	F/V F/V		20-20 ± 0.3 20-20 ± 0.3	107 107	.0012 0.002		DD	20 50	D/T/P/E D/E	18 24½	2000.00 2000.00	

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MANUFACTURER	Note in the second	"In /	Dist Capacity	unberol	Onton Line	and the set of the set	Martin Contraction of the second seco	CH G	N Rate A	HD. 610	paped In	set of the set	Part of the series of the seri	A B PHYSE	Neight Ins. Ph	Tradit -
MELOS AUDIO	CD-T <sup>`</sup> BIT(RI)	1	1-256X	Å	F	F	20-20 ±0.3	85	0.09	в	T	20	D/T	30	1795.00	Two chassis; tube analog stage.
	MAX-1 MAX-2		1-256X 1-256X	A	F/N B F/V		20-20 ± 0.3 20-20 ± 0.3	85 85	0.09 0.09					35 17	2795.00 1995.00	D/A converter; as above.
MERIDIAN	206(RI) 208(RI) 506(RO) 508(RO)	1 1 1 1	1-64X 1-256X 1-64X 1-64X	A A A A	F F/V F F/B	D/F	$\begin{array}{c} 20\text{-}20 \ \pm \ 0.01 \\ 20\text{-}20 \ \pm \ 0.01 \end{array}$	103 104 103 106	0.004 0.004 0.004 0.002	8 8 8 8	B B B	32 32 32 32 32	D/T/E D/T/E D/T/E D/T/E	19 21 19 21	1990.00 2950.00 1495.00 2350.00	Delta-sigma decodi CD player/preamp. Delta-sigma decodi Dual differential D/ converters with del
	200(RI) 500(RO) 602(RI)			BBB		D/F D/F D/F				8 B B	8 8 8	32 35 32	D/T/E D/T/E D/T/E	19 19 19	1495.00 1650.00 2750.00	As above, As above; data
	263 563		1-64X 1-64X	C	F/B		20-20 ±0.1 20-20 ±0.1	102 104	0.004 0.002					10 14	895.00 1350.00	converter: one AES
	606		1-256X	c	F		20-20 ±0.1	104	0.003					15	2250.00	EBU, one optical, a three coaxial inputs Two coaxial and tw optical digital input
META RESEARCH	Laser I(RI) Convert I(RO)	1			F	FD				Т			D/T/E	16 13	4500.00 3200.00	CD transport. D/A converter; varia line outputs optiona expandable.
METAXAS AUDIO SYSTEMS	PHOS Basic(RI)	1				D	5-150 5-150							20 100	2700.00	CD transport; transformer or direc digital output. As above.
	Reference(RI) MAS DAC MAS DAC Reference		20-8X 20-8X	CC	F		5-150 5-150	118 120	0.005 0.005					20 40	3800.00 8000.00	D/A converter. As above.
NCROMEGA	Logic(RI) Leader(RI) Solo Pro(RI) Microdac Variodac(RI)	1	1-256X 1-256X 1-256X 1-256X 1-256X		FFFV	HL/D HL/D D	20-20 ± 0.5 20-20 ± 0.5 20-20 ± 0.5 20-20 ± 0.2 20-20 ± 0.2 20-20 ± 0.2	100 100 100 96 96	.0025 .0025 .0025	8 8 8	B B B		D/T/P/E D/T/P/E D/T/E	10 12 24 3 4	850.00 1200.00 2800.00 500.00 1000.00	Top-loading. D/A converter. D/A converter and li
17	Duo BSII		1-256X		F		2 <mark>0-20</mark> ± 0.2	96					-	4	975.00	level preamp (see a "Preamps"). D/A converter; coaxi digital input and
	Duo Pro		1- <mark>256</mark> X		F/B	D/F	20-20 ±0.2	96						15	2000.00	choice of fiber-optic AES/EBU. D/A converter, four digital inputs.
	Trio BSII/PSU		1-256X		F/B		20-20 ± 0.2	96						30	5000.00	D/A converter, exter power supply; unbalanced, \$4500.
	Trio CD2(RI)	1				D/F				B	8		D/T/E	18	3000.00	CD transport; requir power supply from model above or optional AL 2,
	Duo CD2(RI)	1				D/F				8	8		D/T/E	18	3200.00	\$975.00; optional A EBU output. Top-loading CD transport; optional
	Microdrive(RI) Duo CD3(RI)	1				D/F D/F				8 8	8 8		D/T/E D/T/P/E	8	1200.00 2000.00	AES/EBU output. Top-loading CD transport. As above; AES/EBU
ISSION	DAD 5(RI)	1	1-256X	A	F	D	20-20 ± 0.05	98	0.005	т		20	D/I/F/E	13	699.00	AS above; AES/EBU output. Second-order noise shaping.
	DAC 5		1-256X				20-20 ± 0.03	112	0.001						699.00	D/A converter, third- order noise shaping polarity inversion.
ONARCHY UDIO	22A DT-30(RI) DT-40A(RI)	5	20-8X 1-64X 16-4X	A A A	F/B F F	HL/D/F HL/D	20-20 ± 0.1 20-20 ± 0.1 20-20 ± 0.1	105 105 100	0.002 0.003 0.003	B	B B	24 24	D/T/P/E D/T/P/E	15 50 50	998.00 1199.00 1499.00	Dual D/A converter. CD/videodisc player As above.
SB ECHNOLOGY	MSB Silver Transport(RI) MSB Silver	1	16-4X		F/B F	t	E 20	4.05			B	144	D/T/P/E	52	2795.00	CD transport; data reclocking. †AT&T a AES/EBU outputs.
18111	CD Player(RI) MSB Gold	1	16-4X 16-4X		F		5-20 5-20	105 116	0.015	B	8 8	144 144	D/T/P/E D/T/P/E	52 52	2795.00 3995.00	
	CD Player(RI) MSB Gold Processor		t	8	F/B		5-20	116	0.012					46	3 <mark>395</mark> .00	D/A converter; 6-V output. †Proprietary ladder DAC.
TX SOUND- RAFTSMEN	CD100(RI)	1	1-256X	A	F	D	20-20 ± 0.005	100	.0025	D		16	D/E	13	599.95	Compander circuit.
USE	Two		20-8X	A	F/B	None	20-20 ±0.2	100	0.01					21	1700.00	D/A converter; option AES/EBU input.

# CD PLAYERS & D/A CONV

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Track T.

play. As above

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## CD PLAYERS & D/A CONVERTERS



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SONY	CDP-211(R0) CDP-311(Ri)	1	1-8X	Â	F	HL	2-20 ±0.5 2-20 ±0.5	100	.0045	8	B	20 20	D/T/E D/T/E	7	180.00 200.00	f
	CDP-411(RI) CDP-C235(RO)	15	1-8X 1-8X	Â	F	HL/F None	2-20 ±0.5 2-20 ±0.5	102 102	.0035 .0045	B	B	24 32	D/T/E D/T/E	8 121⁄4	250.00 250.00	Carousel changer; reloadable during play.
	CDP-C335(RI) CDP-C435(RI) CDP-C535(RI) CDP-C735(RI)	5 5 5 5	1-8X 1-8X 1-8X 1-8X	A A A	F V V F/V	HL HL HL HL/F	$\begin{array}{r} 2-20 \pm 0.5 \\ 2-20 \pm 0.5 \\ 2-20 \pm 0.5 \\ 2-20 \pm 0.5 \\ 2-20 \pm 0.5 \end{array}$	102 107 107 115	.0045 .0035 .0035 .0025	B B B	B B B	32 32 32 32 32	D/T/E D/T/E D/T/E	121/4 121/2 121/2	280.00 330.00 350.00	As above. As above. As above.
10 m	CDP-C910(RI) CDP-CX100(RI) CDP-K1A(RI)	10 †	1-8X 1-8X 16-8X	A	F/V F/V	HL/F HL/F	$2-20 \pm 0.5$ $2-20 \pm 0.3$	110	.0030 0.002	BBB	B	32 32	D/T/E D/T/E D/T/E	141⁄4 14 19	430.00 480.00 1200.00	Custom File memory. Cartridge changer. †100-disc changer.
SONY ES	CDP-C601ES(RI) CDP-C701ES(RI)	1 5 5	1-8X 1-8X	AAAA	F F/V F/V	HL HL/F HL/F	$\begin{array}{r} 2-20 \pm 0.5 \\ 2-20 \pm 0.5 \\ 2-20 \pm 0.5 \\ 2-20 \pm 0.5 \end{array}$	98 116 116	0.008	B	B B B	24 32 32	D/T/E D/T/E D/T/E	8 <sup>3</sup> /4 16 <sup>1</sup> /4 19 <sup>1</sup> /4	420.00 570.00	CD/karaoke player. Carousel changer. As above.
	CDP-C801ES(RI) CDP-C90ES(RI) CDP-X202ES(RI) CDP-X303ES(RI) CDP-X707ES(RI)	5 10 1 1 1	1-8X 1-8X 1-8X 1-8X 1-8X	A A A A	F/V F/V F/V F/V F/V	HL/F HL/F HL/F HL/F HL/D/F	$\begin{array}{c} 2-20 \pm 0.5 \\ 2-20 \pm 0.5 \\ 2-20 \pm 0.3 \\ 2-20 \pm 0.3 \\ 2-20 \pm 0.3 \\ 2-20 \pm 0.3 \end{array}$	116 110 117 117 117 119	.0025 0.003 .0023 .0018 .0015	B B B B B	B B B B B	32 32 24 24 24 24	0/T/E 0/T/E 0/T/P/E 0/T/P/E 0/T/P/E	20 16 <sup>3</sup> /4 12 <sup>1</sup> /2 24 <sup>1</sup> /4 36	770.00 520.00 420.00 730.00 2000.00	As above. Cartridge changer.
SOTA	Vanguard(RI)	1	+		F/V	HL/D/F	20-20 ±0.2	100	0.002	В	8		D/T/E	22	2495.00	†Dual bitstream D/A converters.
SOUND	PFM-1M PFM-1R(RI)	1	16-4X 16-4X	A	F	D D	0-20 +0,-2 0-20 +0,-2	112 110	0.003 0.004	Ť		20 20	D/T/E D/T/E	16 16	1200.00 1350.00	
SOUNDSTREAM	DAC-1		18-8X	A	F		5-20 + 0,-0.15	100	0.03					5	<mark>69</mark> 5.00	D/A converter; one optical and two coaxial digital inputs.
SDUND VALUES SPECTRAL AUDIO	DX-190(R0) SDR-2000	1	16-4X 20-8X	A	F/8		20-20 ± 0.1	100	.0025			20	D/T/P/E	9	249.00	Shuffle play.
	Reference		20-04		F/0		5-20 ± 0.1	115	0.002					36	6495.00	D/A converter; external power supply; six inputs.
STAX	DAC-Talent BD		20-8X	C	F		0-20	118	.0015					14	4500.00	D/A converter; balanced, BNC, AT&T,
	DAC-Talent DAC-X1T		20-8X 20-8X	C C	F F/B		0-20 4-20	118 118	.0015 .0016					3.3 42	2700.00 12,000.	and coaxial inputs. D/A converter. As above; tube output stage.
SUMO	DAC-X2T Theorem		20-8X 18-8X	C A	F/B F	D/F	4-20 20-20 ± 0.2	118 108	.0016 0.004	_	-			42	799.00	As above. D/A converter; synchro
	Axiom(RI)	1				t				B	в	20	D/T	15	899.00	clock in. CD transport. †Coaxial, AES/EBU, and synchro clock digital outputs.
TEAC	PD-D880(RI) PD-D850(RI)	5 5	18-8X 18-8X			HL	5-20 ± 0.1 5-20 ± 0.1	100 100	0.03 0.03	Ť		32 32	D/T D/T	11½ 11½	289.00 279.00	Universal voltage
	CD-P4500(RI) CD-P3500(RI)	1	1 20-8X	A	v	HL/F H	0-20 ± 0.3 1-20 ± 0.5	105 104	0.002	В	B	20 20	D/T/P/E D/T/P/E	11 9	460.00 340.00	version available. Pitch control.
a a a a a a a a a a a a a a a a a a a	VRDS-20(RI) VRDS-10(RI) VRDS-7(RI) PD-555(RI)	1 1 1 1	20-8X 20-8X 20-8X 16	B A A	F F F	D/F D/F	1-20 ±0.3 1-20 ±0.3 1-20 ±0.3 5-20 ±1	110 110 110 110 100	.0013 .0013 0.005	B B B	B B D	20 20 20 20	D/T/P/E D/T/P/E D/T/E D/E	30½ 22 7¾	2300.00 1250.00 1000.00 189.00	Dual voltage. As above. As above. Dual D/A converters.
TECHNICS	SL-PD947(RI) SL-PD847(RI) SL-PD647 SL-PS840(RI)	5 5 5 1	MASH MASH MASH MASH-				2-20 ±1 2-20 ±1 2-20 ±1 2-20 ±3	100 100 100 118	0.007 0.007 0.007 .0018	8 8 8 8	B B B B	32 32 32 32 32	D/T/E D/T/E D/T/E D/T	11 11 11 14	269.95 249.95 219.95 429.95	
	SL-PG440(RI) SL-PG340	1	64X MASH MASH				2-20 ± 1 2-20 ± 1	100 100	0.007	BB	8	20 20	D/T D/T	71/2 71/2	189.95	
THETA DIGITAL	DS Pro Precedent Cobalt 307		20-16X 18-8X	A	F/B F	D	0-21.72 + 0,-0.1	t	0.002		0	20	0/1	36	169.95 6500.00	D/A converter. †120 dB, unweighted.
	DS Pre		20-8X	A	۲ V/F	D	0-20 +0,-0.1 0-21.7	1 120	0.002 0.002					5 37	595.00 5000.00	As above. †104 dB, unweighted. Programmable D/A
	Generation III DS Pro Generation III		20-8X	A	F	D	+0,-0.2 0-21.7 +0,-0.2	120	0.002					36	4000.00	with preamp. Programmable D/A converter; balanced
	DS Pre basic II		18-8X	A	V/F	D	0-21 +0,-0.2	108	0.002					17	2400.00	version, \$5000.00. Programmable D/A with preamp.
	DS Pro basic II DS Pro Prime		18-8X 1-256X	A	F	0	0-21 +0,-0.2 0-20.5	108 108	0.002 0.002					16	1995.00	Programmable D/A converter.
	Data universal	1	. 2004	^		D	+0,-0.2	100	0.002	B	D	20	D/T/P/E	12 37	1250.00 2500.00	As above. CD and videodisc
	transport(RI) Data Basic(RI)	1				D				T	в	20	D/T/E	25	1500.00	transport; with AT&T output, \$2900.00. CD transport; optional fiber-optic output.
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## The DA-10 D to A

In Japan, the DA-10 was named Component of the Year. Then, the DA-10 was chosen for Design and Engineering Honors by the Consumer Electronics Shows. And the latest award for this piece is "BEST BUY" from International Audio Review.

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At long last, a Counterpoint CD transport! Introducing many special features, including the fact that it is of audio purist quality, yet has a user-friendly front-loading mechanism.

And what a front loader! The tray is made entirely of machined aluminum for maxi-

mum mechanical integrity. Of course, the front panel and all switches are also of machined aluminum, enhancing its spectacular slimline appearance. Special suspension techniques are used for optimizing acoustical isolation.

#### Using the Latest Technology ...

High-speed asynchronous FIFO memory assures that the necessarily varying input and output data signals do not modulate each other—which otherwise would interfere with the "beat" and rhythm of the music—and each digital

DAC cards. This means that vou choose the sound best for your system and budget, much the same way as phono cartridges are interchangeable. Currently available cards utilize Analog Devices, Burr Brown, Crystal Semi, Philips and Ultra-Analog DAC's. And as newer and better DAC's are developed, Counterpoint will make them available.



integrated circuit has its own regulated power supply—an absolute requirement for high-purity digital data. But we've not forgotten the Real World: each DA-11 offers SC ("TosLink") plastic optical, two BNC electrical outputs-one floated and one directand an AES/EBU balanced output and an optional ST glass optical.

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## CD PLAYERS & D/A CONVERTERS

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THRESHOLD	OAC-1/e(RI)	ſ	1-786X	C	F/B	D/F	0-22 ±0.15	110	0.002					15	3200.00	D/A converter; coaxia fiber-optic, and AT& inputs; polarity inversion switch.
TIMBRE Technology	π-1		18-64X	A	F		10-22 ± 0.5	98	0.005	-				23	3150.00	D/A converter; four digitai inputs (one fiber-optic, two coaxial, one AT&T); optional balanced a log out and AES/EBI digitai input (replac one coax), \$695; 120/240 V a.c.
VAC	DAC	-	1	C	F/B		6-20 + 0,-0.5	96	0.04					50	4490.00	D/A converter; external power
	DAC II		1	A	F/B		6-20 +0,-0.5	96	0.1					37	3290.00	supply; tube; zero feedback; AT&T ing D/A converter; trioc tube; zero feedback optional AT&T inpu
VIMAK	DS-1800		18-64X	A	F/B		5-20 +0.1,-0.5	102	0.004					39	3300.00	Delta Sigma D/A converter; accepts input data up to 24 bits; applies dither four digital inputs (optional AT&T); optional buffered coaxial digital outp
	DS-1800 MKII(RI)		18-64X	A	F/B	D	5-20 + 0.1,-0.5	102	0.003					39	4350.00	RS232/485 port. Delta Sigma D/A converter; data acceptance and dit as above; four digi inputs (including o AT&T and one AES
	DT-1000(RI)	1				D/F				B	B	24	D/T/P/E	42	5900.00	EBU). CD-ROM transport; RS232/485 port; custom indexes for 1000 dlscs; five digital outputs (including AT&T an AES/EBU); programmable.
WADIA DIGITAL	Wadia 7(Ri)	1				0/F				В			D/T/P/E	60	9500.00	CD transport; coax fiber-optic, AT&T,
	Wadia 8(Rl) Wadia 6(Rl)	1	20-32X	в	V/B	D/F D	0-20	126	.0035	B			0/T/P/E D/T/P/E	35 35	3000.00 4000.00	AES/EBU digital outputs. As above Digital volume control; coaxial,
	Wadia 9(RI)		22-64X	В	V/B		0-20	132	.0035					40	13,500.	AT&T, and AES/EB outputs. Software-based D/ converter; digital volume control; separate power supply; optional Wadia 10, AT&T output with six inp
	Wadia 15(RI)		20-32X	В	V/B		0-20	126	.0035					17	4000.00	switches, \$2500.00 Software-based D// converter; digital volume control.
WOODSIDE/ RADFORD	Wadia 12 WS2(RI)	1	19-16X 16-4X	AA	F/B F/V	D	0-20 10-20 ± 0.1	114 105	0.0035	В	B	20	D/T/P/E	11 14	1500.00 1995.00	D/A converter. Display off function
	DAC 1 DAC 2		16-4X 16-4X	A	F	D/F D	10-20 ±0.1 10-20 ±0.1	110 110	0.001					8	1595.00 895.00	D/A converter; pola inversion. D/A converter.
YAMAHA	CDV-1200K(RI)	1	18-8X	A			20-20 + 0.5,-1	100	0.001	В	В	15	D/T/P/E	0 197/8	899.00	CD/videodisc/karac
	CDV-870(RI)	1	t	A	v	HL/F	20-20 + 0.5,-1.0	120	0.003	В	В	20	D/T/P/E	22	749.00	player. CD/videodisc playe †S-Bit Plus.
	CDX-1060(RI) CDX-860(RI) CDX-470(RI)	1   1   1	#	A A C	F/V F/V V	HL/D/F HL/D/F H	2-20 ±0.3 5-20 ±0.5 10-20 ±0.5	120 118 108	.0016 0.002 0.003	B B B	B B B	25 25 25	D/T/P/E D/T/E D/T/E	22 <sup>1</sup> /8 105/8 8 <sup>3</sup> /8	799.00 499.00 279.00	ttS-Bit Plus—8X. Scans for peak dis
	CDC-835(RI)	5	tt	A	v	HL/D	2-20 ± 0.3	115	.0018	В	в	40	D/T/E	143/8	549.00	level. Reloadable during
	CDC-735(RI) CDC-635(RI)	55	ţ†	A C	v	HL/D HL	2-20 ±0.3 2-20 ±0.5	115 110	.0025	B	B	40 20	0/T/E D/T/E	143⁄8 13	429.00 299.00	play. As above. As above.
MICHAEL YEE AUDIO	DA-1		16-4X	A	F		2-20	96	0.02			20	D/1/E	81/2	950.00	D/A converter; pola inversion; optional AT&T input, \$175.0

# Hyper-Balanced Re-Defines State-of-the-Art

Hyper-(hi'p r) [[ <Gr hyper ]] prefix over, above, beyond, surpassing

### Balance(dy (bal'ans) [[ <LL bilanx]]

general harmony between the parts of anything, springing from the observance of just proportion and relationship; esp. in the Arts of Design
stability of steadiness due to the equil brium prevailing between all the forces of any system

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	Yes	60	1.5V	No	330	540	20-20	AB	1.5	15					33	1179.00	Bridgeable; with LED power meters and soft clip. Model 1590, \$1339.00.
	Yes Yes	160 120	110		50 170	100 250	20-20 20-20	A		t	90	4.65		Yes	117 73	14,995.	†Unbalanced, 20 kilohms; balanced, 40 kilohms. Bridgeable.



Woder Ref

MANUFACTURER	Modenil	101/110	E une	saled In P	alanceu	Rated St.	ingh-Lev	Joes Uni	ont avo	Int AVC Rat	41 10 HH. C19	5010	Jynamic,	apul Inni	AN PROPO N	M Phone	M Phone	Aoving W	sight Pri	Notes
AB INTERNATIONAL ELECTRONICS	1550	В	0.1	Yes	60	1.5V	No	330	540	20-20	AB	1.5	15					33	1179.00	Bridgeable; with LED power meters and soft clip, Model 1590, \$1339.00.
ACCUPHASE	A-50	В	0.02	Yes	160	110		50	100	20-20	A		t					117	14,995.	†Unbalanced, 20 kilohms; balanced, 40 kilohms. Bridgeable.
ACURUS	E-406 A250	l B	0.02	Yes	120	147	-	170	250	20.20	-	-		90	4.65		Yes	73	6495.00	anonina. Drugeubic.
ACUNUS	A150 DIA-100	B t	0.06 0.06 0.09	NO NO NO		1.2 1.2 200	No No No	250 150 100	350 200 150	20-20 20-20 20-20	AB AB AB		22 22 10					35 30 35	995.00 695.00 995.00	fintegrated amp with passive control section
	200X3 100X3	B	0.06	No No		1.2 1.2	No No	† †	††   ††	20-20 20-20	AB		22 22						1295.00 795.00	1200 watts x 3. 11250 watts x 3. 1100 watts x 3.
ADCOM	GFA-5800 GFA-55511	B B	0.04	Yes No		130	No	250 200	500 325	20-20 20-20	A/AB AB	2.5	100		-		-	35	1500.00 850.00	tt125 watts x 3. Bridges to 600 watts
	GFA-54511 GFA-53511	BB	0.04	No		130 130	No	100 60	150 100	20-20 20-20	AB	2.1 3.0	100					24 19 <sup>1</sup> /2	550.00 350.00	into 8 ohms.
	GFA-535L GFA-2535	B	0.09	No No		130 130	No No	60 †	100 tt	20-20	AB	3.0	22					22	370.00	Front-panel level controls. †60 watts x 4. ††90
																			000.00	watts x 4. Three- channel operation, 60 watts x 2 and 200 watts x 1 into 8 ohms.
A/D/\$/	PH6 PH4	B	0.02	No No	40	915	No	70	125 50	10-80	AB	3	10						2199.00 1290.00	Six-channel operation; bridges to three, four, or five channels. As above.
AIR TIGHT	ATM-1 ATM-2 ATM-3	B/T B/T B/T/M	0.1 0.07	NO NO				36 80 120		20-20 20-20			100 100					48½ 70½	3995.00 6995.00 10,500. Pair	Bridgeable. As above. Switchable to 40-watt triode operation.
AMC	CVT3030	I/H	1	No		180	No	30	30	45-20	A		29	79	2.9	150	No		899.95	Optional D/A converter module (see also "D/A Converters").
: :	CVT2100 CVT2030	В/Н В/Н	3	Opt. Opt.		1V 1.2V	Na Na	80 30	80 30	35-20 45-20	A A		1M 1M						999.95	Optional bridging module. As above.
	2445	В	0.04	No		Var.	No	30	45	20-20	AB	2	20						399.95	Two-, three-, or four- channel operation.
AMERICAN HYBRID TECHNOLOGY	AHT/300	B/H/ M		No			No	300	300	10-100	AB1		50						30,000. Pair	Optional Class-A operation.
AMHERST AUDIO	A-2000	В	0.5	No	12		Var.	150	180	20-20	AB	2	22	1				35	995.00	Toroidal transformer.
AR	Limited Amplifier 200	В	0.2	Yes	30	1.4V	No	200	350	20-20	AB	5	Sel.					50	3200.00	Bridgeable.
ARAGON	Palladium	B/M	0.06	Yes			No	100	600	20-20	A		Sel.					65	2000.00 Each	Dual differential signal path.
	2004 Mk II 4004 Mk II	B B	0.06	No No			No No	100 200	200 400	20-20 20-20	A/AB A/AB	2.5 2.5	22 22					45 65	1395.00 1850.00	
ARCAM	Alpha 5 Alpha 6 Delta 290		0.5 0.5 0.5	No No No		135 150 175	No No No	40 50 75	80 100 140	20-20 20-20 20-20	AB AB AB		20 47 10		2.6		No No Opt.	10 10 14	449.00 649.00 899.00	
YAKOV ARONOV AUDIO	YM-100 IC-70	B/T L/T	0.3 0.3			1.5V 250		110 70		12-22 20-20	AB1 AB1		470 47			-		96 70	4200.00	
LABORATORY	IC-30 SA-60 SA-30 MA-100	1/T B/T B/T 8/T/M	0.3 0.3 0.3 0.3 0.3			250 250 250 250 1.5V		30 60 30 110		20-20 20-20 20-20 12-22	AB1 AB1 AB1 AB1 AB1		47 47 47 47					50 70 50 65	2250.00 2000.00 1500.00 5250.00 Pair	
ART AUDIO	Maestro Quin-tet	B/T/M B/T	0.25 0.25	No No			Yes Yes	150 25	150	13-27	A		100					55 Each	5500.00 Pair	Switchable to triode output.
	Tempo	B/T/M	0.25	No			Yes	30	25 30	15-22 13-30	A		100 100	0				42 35	1995.00 3 <mark>500</mark> .00	As above; feedback control. Triode output.
ATLAS/ SDUNDOLIER	ThundraPro CXA	8/M		No			Var.	100	145								-	Each 20	Pair 599.00 Each	Includes subwoofer crossover (see also
ATMA-SPHERE MUSIC SYSTEMS	M-50	8/T/M	0.3	Yes	600	†	No	50	40	2-80	A	0	100					30	3400.00 Pair	"Crossovers"). †Balanced, 775 mV; unbalanced, 1.5 V. Triode tubes; balanced
	MA-1.5	B/T/M	0.3	Yes	600	t	No	150	145	2-80	AB	1	100					54	5400.00	differential design; output transformerless. As above; Class-A
	MA-1	B/T/M	0.3	Yes	600	t	No	140	130	2-80	A	0	Sel.					48	Pair 6800.00 Pair	operation to 100 watts. Triode tubes; balanced differential design;
	MA-2	8/T/M	0.3	Yes	600	t	No	200	200	2-80	A	-0	Sel.					103	14,200. Pair	output transformeriess; switchable feedback. As above; includes stands.

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MANUFACTURER	H0 (B1 (B	140	UBL A	31" e	1						H1 C12	1	35	4	and w	H. H.	4		2495.00	e. Holes
AUDIBLE	S120A M150	B B∕™	0.01 0.01	No Yes	100 100	1.6V 1.5V	Na No	120 150	240 300	0.5-100 0.5-100	A AB1 A AB1		35					44 55	3995.00 Pair	
AUDIO ADVANCEMENTS	TriMax	B/T/M	0.1	No			No	25	25	5-110	A		50					20	2950.00 Pair	45-watt Ultra Linear version available.
AUDID BY VAN ALSTINE	Ω    200 Ω    260	BB	0,05 0.05	No No	150 150	113 113	NO NO	90 130	150 180	7-300 7-300	AB AB	1.9	20 20					29 33	695.00 895.00	
	Ω    440 Ω    260hc	BB	0.05	No No	150 150	113 113	NO NO	220	300 200	7-300	AB AB AB	1.9	20 20 20					38 33 38	1195.00 995.00 1295.00	
	Ω 11 440hc FV 300hc FV 500hc	8 8/H 8/H	0.05 0.04 0.04	No No No	150 115 115	113 113 113	No No No	220 150 250	350 225 350	7-300 5-100 5-100	AB AB AB	2.0 2.2 2.2	1M 1M					30 33 38	1395.00	
AUDIO CENTRON	RMA-2000 RMA-1600	BB	0.05	Yes	30 30	1V 1V	No No	250 250	400 400	20-20 20-20	AB AB	2	20 20					75 45	1750.00	Bridgeable; d.c. and
	RMA-1000	в	0.02	Yes	25	1V	No	75	150	20-20	AB		20							short-circuit protection As above.
	RMA-800 RMA-250	B	0.02 0.05	Yes	30 15	1V 1V	No No	125 80	200 125	20-20 20-20	AB AB	2	20 20				0	21	495.00	As above.
AUDIO DESIGN ASSOCIATES	PT-100 PF-200	B	0.02	No No	13 12	500 1.2V	Yes No	50 60	75 110	20-20 20-20	A/AB AB		50					32	1085.00 1395.00	Operates into 0.5-ohm
	PF-250	B	0.02	No	25	500	No	100	180	20-20	AAB		50						1619.00	load. Bridges to 300 watts into 8 ohms and 425
	PBA-50	B	0.02	No	10	500	Var.	50	80	20-200	AB						[	12	1085.00	watts into 4 ohms. Amp/crossover for
	PBA-150	B	0.06	No	10	500	Var.	200	325	Hz 20-200	AB							32	1642.00	subwoofers. As above
	BPA-500	В	0.02	No	25	500	No	250	500	Hz 20-200 Hz	A/AB		50				1		2095.00	THX bass amp.
	MPA-6	В	0.09	No	9	500	Yes	t	tt .	20-20	AB	1.5	10						1680.00	Five channels plus bass channel with
											a (		-					-		parametric EQ. †40 watts x 5 and 90 watts x 1. ††85 watts x 5
	MPA-5	в	0.09	No	9	500	Yes	+	tt	20-20	AB		10					ĩ	1622.00	and 180 watts x 1. +40 watts x 5. ++90
	MPA-500	B	0.02	No	25	500	No	200	400	20-20	A/AB		50						6195.00	watts x 5. Five-channel oper-
	MRA-808(RD)		0.03	No	10		No	40	60	20-20	AB							52	10,580.	ation; separate power supply. For multi-room System
										100										8000; eight stereo amp modules.
	CR-8A(RD)	1	0.02	No			No	25	40	20-20	AB		13					13	1835.00	For multi-room System Omega; without front- panel controls, Model CR-A, \$1550.00.
AUDIOLAB	8000A Mkil 8000P Mkil	l B	0.05 0.05	No No	1	100 100	ND No	60 100	100 175	1-65 3-75	AB AB		50 50	81	2.0	175	Yes	19 21	799.00 1199.00	GR-A, \$1330.00.
	8000 M	B/M	0.05	No	_	100	No	125	200	4-75	AB		50					21	897.50 Each	Mitch Day Lough second
AUDIO NOTE	First SE-Amp	B/T		NO			No	8	8		A							25	850.00	With line-level preamp First Integrated, \$1250.00.
	Soro-P2	B/T		No			No	17	17		A		Į					30	2495.00	With line-level preamp Soro-Line, \$2795.00;
	Meishu-P3	вл		No			No	8	8				İ.						2995.00	with MM phono stage, Soro-Phono, \$3495.00. Triode tubes: with line
	meisilu-r 5							Ů		at.P	î									level preamp, Meishu- Line, \$3995.00; with
													5.0							MM phono stage, Meishu-Phono, \$4995.00.
	Tomei-P4 Neiro	8/T 8/T		No			No No	17 7.5	17 7.5	34	A		100					55	4995.00 13,500.	Triode tubes. As above.
	Kageki Kassai	B/T B/T		Na No Na			NO NO NO	7.5	7.5 17 17		A		100 100 100					55 65 90 100	49,500. 39,500. 89,500.	As above. As above. As above.
	Kegon Ongaku Gaku-On	B/T I/T B/T/M		No			No No	17 27 45	27 45	111	Â		250					75 85	62,500. 179,500.	As above. As above.
AUDIDPRISM	Debut	В/Т	0.5	No		750	No	35	35	15-20	AB	-	150	-		$\vdash$		Each 42	Pair 1350.00	Transformer cover, \$150.00.
AUDIO	V35 V70	B/H B/H	1	Yes Yes	15 20	800 1.1V	No No	30 60	30 60	12-40 15-50	AB AB		400		-	1	1	46 63	2995.00 3995.00	Triode operation. As above.
RESEARCH	V140	B/H/ M	1	Yes	25	1.3V	No	120	120	10-80	AB		400					61	3995.00 Each	As above.
	D200	B		Yes	50	1.9V	No	110	200	0-150			†					321/2	2495.00	†Unbalanced, 150 kilohms; balanced 300 kilohms.
	0300 0400 MKII	8 8	0.5	Yes Yes	50 50	1.9V 1.9V	No Var.	160 200	300 400	0-150 0.01-	AB	3	† 57					48 73	3995.00 5495.00	our kirolinia.
	CL150	B/H/	0.8	Opt.	25	600	No	140	140	160 7-100	AB		60					110	4995.00	Triode operation;
AUDIOSOURCE	Amp One	M B	0.04	No		130	No	80	120		AB	2	Sel.					14	Each 299.00	balanced output. Bridges to 200 watts.
AUDIRE	Parlando Otez	8 B	0.02 0.03	Yes Yes	50 50	1.4V 1.5V	No No	100 250	200 500	2-50 2-50	AAB		51 51		1			85 85	3440.00 3280.00	



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		1		/a.	*	/ /	/	/	/		into 8mi	o onit	Jin.	/	/	15	10.00	Sert	//	//
	/	Inch	deo ional	Basishono	/	2	1.0.	W.S.	WINY P	olarin Chann	Channer	Bandte	100	Tallon.	1 88 t	nonm's	A MIL	M. M. ad	ma /	/
	/	enotemote	oraled Hy	ind wo	°/	puts	H Rai	Sensi	Inver	Watts Wat	S IPOW	1	atout	Headro	nedance	+ 80	Sensit	Overlo	Input ns.	/ /
MANUFACTURER	NOB TO TE	OT IN	Ine 1	Based THO .	alanced	Rated Ste	HIND EN	Doesun	ont And	Wate Channel	Change and Construction	Bandwith Bandwith	Dynamit	Inpatin	WH PROPO	Non Phone	AM Phon	Moving Col	seight LBS Pr	es.5 Hote
(Continued)	Forte Crescendo	B B	0.05 0.05	Yes Yes	50 45	1.4V 1.3V	No No	125 75	250 130	2-50 2-50	AB AB		51 51				T	45 28	1250.00	Bipolar; MOS version, S13 Bipolar; MOS
AYRE ACOUSTICS	V-3	8	1	Yes	1-	1	No	100	-	20-20	AB	-	10		-	-	-	55	3450.00	version, \$76
BEL	1001 Mkli	B				1V	No	50	100	5-200	A		27					31	2995.00	Balanced out
	1001P	B/M				17	No	t.		5-200	A		27					31	3195.00 Each	bridges to 20 †400 watts x 1 ohm.
BEL CANTO DESIGN	Orfeo	B/T/M	0.1	Yes	1	1V	No	30	30	20-20	A	1.0	100			-		70	8600.00	Triode tubes.
	Fidelio EA-2101	B B/T	0.1	Yes	-	-	No	100	200	10-100	A/AB1	2.0	-					Each 40	Pair 2500.00	
BERNING CO.			2	Yes		1V	No	100	100	20-40	AB	2	100					40	4290.00	
	Performance Series 1	B	0.05	Yes	80	775	1 <sup>†</sup>	100	150	20-20	AB		20					26	799.00	†One channe polarity. Brid
	Performance Series 2	B	0.05	Yes	80	775	1	200	300	20-20	AB		20					32	929.00	As above.
_	Grand Touring Amplifier Grand Touring	B	0.1	Yes	20	1.8V	No	360	625	20-20	AB		15					78	2199.00	Bridgeable.
	Compact Amplifier 750F	в	0.03	Yes	20	1.9V	No	400	700 450	20-20	AB .	1	15	ŝ				45 55	2099.00	As above. As above.
	200 SW100	B I/M	0.08	Yes	-	942	No	100		20-20	AB	+-	15	-		-	-	14	999.00	As above.
	ST-120	B	0.09	Opt.	14	900	No	60	-	5-45	AD		120		-	-		-	Each	
COMPONENTS	ST-1400 ST-1400M	B B/M	0.09 0.09	Opt. Opt.	14 14	1.2V 1.4V	No	105 150	200	5-45 5-45 5-45	AB AB AB	1.4 1.4 1.4	24 24 24					15 25 25	398.00 548.00 548.00 Each	
	ST-2020 ST-3030	B	0.09	Opt. Opt.	14	1.4V 1.7V	No No	150 200	200 300	5-45 5-45	AB AB	1.5	24					32 38	698.00 798.00	
	EX-4420 Sonata EX-4420M	B B/M	0.09	Opt.	14	1.7	No	200	350	1-45	AB	1.2	24					40	998.00	
	EX-4420M Sonata Video-5 A/V	B/M	0.09	Opt. No	14 20	1.7V 850	No	200	400	1-45	AB AB	1.4	24	Î.				40	998.00 Each	Fine
	AV6.5.4	B	0.09	Opt.	14	900	NO.	60	100	5-45	AB	0.9	33 24					40 32	1298.00 898.00	Five-channel level controls Six-channel level controls
	102AE 250AE	B	0.005	Yes Yes	25	1.3V	No No	100 75	125	10-100	AB	1.5	10	t	-			20	2625.00	
	500AE	в	0.005	Yes	35	1.8V	No	150	250	10-100	AB		10					30 51	2850.00	Peak current, 30 amps. Peak current,
	250AE Mono	8/M	0.005	Yes	50	1.3V	No	250	250	10-100	AB		10	1				30	5700.00	50 amps. Peak current,
	DOAE Mara	But	0.005		-														Pair	30 amps; bai output.
and the second	500AE Mono 500	B/M B	0.005 0.005	Yes	70 35	1.8V	No	500	500 250	10-100	AB		10				1	51	8700.00 Pair	Peak current, 50 amps; bal output.
	BB-NRB	B	0.01	Yes	60	11	No	†	tt	0.5-100	AB	1	50					51 42		As above. †120 watts x
													-							watts x 4. Bri 400 watts x 2 8 ohms; three operation, 12 x 2 and 400 w
	7B-NRB	B/M	0.01	Yes	60	1V	No	500	800	1-100	AB2		50					42	4390.00	into 8 ohms. Operates into
	IB-NRB	в	0.01	Yes	60	1.3V	No	250	400	1-100	AB2		50					42	Pair 2195.00	regulated pov Bridgeable; re
3	BB-NRB	в	0.01	Yes	60	1V	No	125	200	1-100	AB2		50					28	1395.00	power supply. Regulated por
		В	0.01	Opt.	60	750	No	50	100	1-100	AB2		50					18	750.00	supply. As above; brin LED protectio indicators.
8	3B-THX	6	0.01	Yes	60	1V	No	†	<b>††</b>	0.5-100	AB		50					42	2950.00	THX certified; to 400 watts : 8 ohms; three operation, 12
	B-THX	B/M	0.01	Yes	60	11	No	500	800	0.5-100	AB		50						0045 00	x 2 and 400 w into 8 ohms.
			0.01	Yes	60	1.5V	No	250	400	1-100	AB2		50 50	1				42 42	2345.00 Each 2245.00	THX certified.
		10	0.01	Yes	60	1.3V	No	125	200	1-100	AB2	4	50					- 8		As above; brid regulated pow
	15-931	I/M		Yes	1			70	70	30-50	102	-	50	68	3	-		28 15.5	1445.00 289.00	As above. Microphone in
9	5-874	٧M		Yes				30	30	70-18		15	50	1				8.8	Each 145.00	As above; als
9	5-875	I/M		Yes				60	60	100-18			50					8.8	Each 165.00 Each	operates on d As above.
CAMBRIDGE P AUOIO P	25 250 270		0.02 0.01 0.01	No No No		300 300 160	No No No	30 50 60		11-36 3-82 3-82	B B B			78 80 80	2.1 4.3 4.3		Yes Yes Yes	13 13 13.8	Each 349.95 499.95 599.95	

		POWER	AMP
15	7	/	7

PREAMP
1 HEADIN

			/	/	/	/ /	/	/	/			/		POW	ER A	MP		1	PREA	MP
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	Hoden S	e Incl	option	Baled THO.		115?	* Rate	14º ASIL	and of P	wats Change	S Channe	Bandwill	Dynamic .	atto	n. 08 4	10. 98	Sensitive Sensitive	Horno o	in and	///
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MANUFACTURER	Moo(HI)	111	e une	Rater	6313.	Rale	High	00000	oni	onl A?	ht is a	1853	ONUS	sean !!	WHA ST. N	M.	MM /	HOW	Neight Pri	Notes Holes
CARVER	MK 11					1.5V	Var.	0.0	1.0	10 40			100						25,000. Pair	Separate power supply.
	Silver-9t	B/M	0.5	No		1.7V	No	550	900	20-20	AB		115						1199.95 Each	Magnetic Field power supply; analog power meters.
	TFM-75	B	0.1	Yes		1.5V	Yes	750	t	20-20	AB		47					1	1995.95	†1000 watts. As above; level controls.
	TFM-55	В	0:5	No		1.5V	NO	380	600	20-20	AB		100						999.95	Magnetic Field power supply; analog power meters; level controls.
	TFM-35 TFM-15cb	B B	0.5 0.5	NO NO		1.5V 1.5V	NO No	250 100	380 140	20-20 20-20	AB		100 100						749.95 449.95	As above. As above; bridgeable;
	TFM-6cb	в	0.1	No		1.5V	No	65	110	20-20	AB		100					1	299.95	preamp outputs for daisy-chaining. As above.
	CM-1090(RI)	1	0.1	No		150	No	100	140	20-20	AB		100	80	1.5	150	No	29	599.95	Sonic Holography; analog meters; CD direct; matrix surround.
	AV-634	в	0.5	No		1V	No	60	100	20-20	AB		100						599.95	Two-, three-, or four- channel operation;
											1									multi-room, surround sound amp; adjustable crossover frequency.
	AVX-606	В	0.07	No	1	1.1V	No	t	tt	20-20	AB		30						1499:95	†125 watts x 6. ††220 watts x 6. THX
CARVER	LightStar	BB	0.1	Yes	1	-		300	600 300	1-25	A		47	┢	+	$\vdash$		65		certified.
RESEARCH CARY AUDIO DESIGN	LightStar II CAD-75-I SLI-30	Р  /Т  /Т	U.I	Yes No No	1	200 400	Yes Yes	150 75 30	72 30	1-25 9-26 20-23	ABA	-	47 100 100	┢	-	-		45 63 34	2495.00 1495.00	
JESIUN	SLA-30 SLA-70B	В/Т В/Т		No Opt.		500	No No	40 50	30 49	20-23	A A/AB		150 150					27 34	999.00	- · ·
	SLA-70B Sig. CAD-300B Sig.	B/T B/T B/T/M		Opt. Opt.		900 2V 750	No No Yes	60 25 113	56 25 100	18-26 18-26 15-23	A/AB A A/AB		150 100 150					42 54 40	1595.00 2995.00 3295.00	
	SLM-100 CAD-300M Sig.	B/T/M		Opt. Opt.		750	No	60	60	15-23	A		150				1	-54	Pair 5995.00	
	CAD-300SE	B/T/M		Opt.		900	No	12	12	26-23	A	-	150					32	Pair 3495.00 Pair	
	CAO-2A3 Sig. CAD-40M	B/T B/T/M		Opt. No		2V 900	No No	15 40	14 40	20-20 20-20	A		100	1				38 32	2195.00 1995.00	
	CAD-40M	B/T/M		No	•	900	No	75	75	18-26	A/AB							32	Pair 2495.00 Pair	
	Special CAD-805	B/T/M		No		750	No	50	50	19-23	A		150					114	7495.00 Pair	
	CAO-211M CAD-300SSE	B/T/M B/T		Yes Opt.		700	ND ND	200	200 25	9-30 25-26	AB		150					126	12,500. Pair 4995.00	
CELLO LTD.	Performance II	B/M	0.1	Yes	1	1.5V	No	200	400	20-20	AB1	2.7	1M		1		+	180	22,000. Pair	Bridgeable; separate power supplies.
	Duet 350 Encore	B B/M	0.25 0.3	Yes Yes	-	1.5V †	No No	350 50	600 100	20-20 2 <b>0</b> -20	AB AB2	1.8	1 M 330					95 28	7500.00 6000.00 Pair	Bridgeable. †Balanced 376 mV; unbalanced, 752 mV. As above; stereo Version available.
CHORD	SPM 800 SPM 1000 SPM 1200	BB	0.04 0.03	Yes Yes	60 60	113 113	Yes	160 200	300	1-46	A/AB A/AB		20 20				1	20 31	3995.00 4995.00	
	SPM 1200 SPM 3000	B B	0.03	Yes Yes	70 70	113 113	Yes Yes	250 †	380 11	1-46 1-46	A/AB A/AB		20 20 20					33 50	4995.00 5995.00 14.995.	Four-channel operation, 180 watts x 2 and 250
																				watts x 2. t†200 watts x 2 and 500 watts x 2.
CLASSÉ AUDIO	70 10	B/H B/H	0.01 0.01 0.01	Yes	70 70 70	900 1V		75 125 175	150 250 350	20-20 20-20 20-20	A/AB A/AB	3 3 3	70 70					35 45 60	1195.00 1995.00	Bridges to 400 watts.
	15 25 M700	B/H B/H B/H/	0.01	Yes Yes Yes	70 70 70	1V 1.2V 1.2V	4	250 700	500 †	20-20 20-20	A/AB A/AB A/AB	35	70 70 70	Ľ .				69 78	2995.00 3995.00 3495.00	Bridges to 700 watts. Bridges to 1000 watts. †1400 watts.
	M1000	M B/H/ M	0.01	Yes	70	1.6V		t	tt	20-20	A/AB	5	70					92	Each 4495.00	†1000 watts. ††2000 watts.
DON J. COCHRAN	Delta Mode II	B/H/ M	0.07	Yes	65	1.6V	No	200	200	0.5-50	-	0.4	50			$\vdash$	1	58 Pair	Each 6800.00 Pair	Oifferential signal path; balanced bridge
CODA	2.5	8	0.1	Yes	50	650	No	25	50	0-100	A	1.0	50	⊢	-	-	+	35	2350.00	output. Bridgeable.
TECHNOLOGIES	10 11 20	8	0.1 0.1 0.1	Yes Yes Yes	50 50 50	1.3V 1.3V 1.8V	NO NO NO	100 100 200	200 200 400	0-100 0-100 0-100	A/AB A A/AB	1.5 0.5 1.0	50 50 50					35 85 85	2350.00 4700.00 4700.00	As above. As above. As above.
	System 100 System 200	8 8 8 8 8 8 8 8 8	0.1	Yes	50 50	1.3V 1.8V	Var. Var.	100 200	200	0-100	A	0.5	100					100 185	6500.00 12,000.	As above. Separate power supply.
CONRAO-	MF2100	B B	1	No	1	1	No	100 200	-	20-20	AB	-	100			-	-	34	Pair 1495.00	
JOHNSON	MF2200 MF2300 Evolution 2000	B B/H		NO NO NO			No Yes	250 200		20-20 20-20 20-20	AB AB AB AB AB AB		100 100 100					46 55 114	1995.00 2795.00 5795.00	Zero feedback circuit.
	MV52 Premier	В/Т В/Т	1	No No			NO No	45 70	45 70	30-15 30-15	AB		100 100					40 54	1995.00 3295.00	
	Eleven Premiere Twelve	8/T/M	1	No			No	140	140	30-15	AB		100					51	3295.00 Each	
	Premiere Eight	B/T/M	1	No			No	275	275	30-15	AB		100	1				90	6995.00 Each	





#### C.E.C. TL 1 CD TRANSPORT

The world's only belt-drive CD transport. *Stereophile* says,"It is not only an eminently musical transport, but also a gorgeous–and innovative–piece of audio electronics."

#### HCA-1206 6/5/4 CHANNEL AMPLIFIER

Easily the most powerful THX\* home cinema amplifier in the world. John Curl's design finally brings the realism of high-end to home theater.



# WHO SAYS TH ESSENTIAL COMPO IS DNA

#### GMAS-18 POWERED SUBWOOFER

The Great Mother Of All Subwoofers. Technically and audibly, the most powerful and most accurate subwoofer ever made. Period.





#### P/LD-1500 LINE DRIVE PREAMPLIFIER Classic John Curl topology. You'd have to spend at least 4 times as much to find a preamp with a design this elegant.



D/AC-1000 DIGITAL TO ANALOG CONVERTER An ST optical connector and 3 independent power supplies help to make digital sound so sweet that it's even converting vinyl die-hards. "Outstanding!", says HiFi Vision (Germany).



HCA-1200II HIGH CURRENT AMPLIFIER John Curl's latest. THX\*-certified and one of a family of five critically-acclaimed amplifiers.

e're Parasound and we believe that the basis of life s something more than a double-helix string of chemicals. Sound extreme? Not if you see your audio system as the neans to recreate an actual musical event. To recreate that iving, breathing moment the band takes the stage and the magic begins.

You see, our products are built by people with a passion



for music. People like John Curl, whose legendary designs virtually defined high-end audio.

What are the results of this passion? Without boasting (too much), the summer '93



Of course, we wouldn't expect you to buy our products just because they're well-engineered. Or because they're critically-acclaimed. Experience them for yourself. You'll agree we're offering more than a line of high-end audio components. We're offering basic building blocks of life.



Parasound Products, Inc. 950 Battery Street, San Francisco, CA 94111 415-397-7100; Fax: 415-397-0144 THX\* is a registered trademark of Lucasfilm, Ltd.



HCA-220011 ULTRA HIGH CURRENT AMPLIFIER Our premier amplifier produces virtually limitless, flawless power. "Revolutionary Design", is how *Audio* describes this amplifier artfully designed by John Curl.

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	100 <sup>8</sup> 101 100	Inclu	options	Basi Hone	/	115?	2318.	Sensitives Unit	IT P	Wate Wate	Channe wei P	ano	an oper	alland	om of the	Non Phone P	Silivit	overload.	nou?	
	at AP	Remot	Integrated Hypr	and THO.	alanced In	hated Stew	Reve	Seruni	Invo	Water Water	FullPo	olout	au nic	H830.	WHM PROFO	H' nono	semono	overlead .	and Las.	5
MANUFACTURER	M00(RI) (RO	THE	UDE R	aley B	alat.	Asles H	non c	1085 CS	In ANG	Wo WS Par	HI ID CIR	2/0	JAU ST	moul	WHA DAY	MAY W	M	NOWING W	ainant. print	e. Holes
CONVERGENT AUDIO TECHNOLOGY	JL1	B/T/M	0.1	No			No	125	150	7-35	A	0	50					330 Pair		Triode output; dampened chassis.
COUNTERPOINT	Solid 1 Solid 2	8 8	0.2 0.2	No No		93 87	No No	100 200	170 400	1-150 1-100	AB AB		100				C 11		1195.00 2395.00	
	SA100 SA220 SA4	B/H B/H B/T/M	0.8 0.5 0.2	No No No	6	92 92 77	No No No	100 220 140	170 420 96	5-100 1.2-200 1-100	AB AB AB Var.		100 100 100						1495.00 2995.00 6595.00 Pair	
	Natural Progression Monaural	B/H/ M		Yes		94	Var.	150	300	10-50	AB		100						7595.00 Pair	
CREEK	4240	1	0.05	No	150	500	No	40	75	20-20	AB	1						10	600.00	Four line-level input optional phono plug- board.
CREST AUDIO	7301	В	0.02	Yes	35	t	No	tt	ttt	20-20	*	1.5	20					511/2	2190.00	Biamplifier, †Low- frequency output channel, 1.5 V; high frequency output channel, 790 mV. ††Low, 670 watts; high, 125 watts. †††Low, 940 watts; high, 220 watts.
	10001	В	0 <mark>.02</mark>	Yes	35	2V	No	†	<b>†</b> †	20-20	н	1.5	20	Ł				127	4990.00	Class AB. †1150 watts. †2000 watts.
	10004 8001	B	0.02	Yes	35	1.8V	No	†	tt .	20-20	Н	1.5	20					135	5890.00	†720 watts x 4. ††1200 watts x 4.
	7001 6001 4801 4601 3301 FA2401	8 8 8 8 8 8 8 8 8	0.025 0.025 0.25 0.25 0.12 0.25 0.25 0.25 0.025	Yes Yes Yes Yes Yes Yes Yes	35 35 35 35 35 35 35 35	1.8V 1.4V 1.1V 1.1V 1.1V 908 775	NO NO NO NO NO NO	720 550 300 300 300 220 330	715 480 480 425 330 580	20-20 20-20 20-20 20-20 20-20 20-20 20-20 20-20 20-20	H H H H H AB	1.5 1.5 1.5 1.5 1.5 1.5 1.5	20 20 20 20 20 20 20 20 20					84 53 <sup>1</sup> /2 50 50 52 52 52 55	3390.00 2590.00 2390.00 1750.00 1750.00 1390.00 1674.00	†1100 watts.
CRDSBY	FA1201 FA901 FA601 CC151 CC301 CV301 CV301 LA601 LA1201 MA5200 PFA600 UL601 UL901 UL901 UL901 UL901 UL201 UL201 DMA 50Z	8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	0.025 0.025 0.025 0.25 0.25 0.025 0.025 0.025 0.025 0.025 0.025 0.025 0.025 0.025 0.025 0.025 0.025 0.025 0.025	Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes	35 14 14 35 35 35 35 14 14 14 35 35 14 14 35 35 500	775 775 870 1.2V 870 1.8V 775 775 775 775 775 775 775 775 775 77	N0 N0 N0 N0 N0 N0 N0 N0 N0 N0 N0 N0 N0 N	280 225 120 180 350 625 120 225 280 200 120 225 280 330	450 300 225 300 500 300 225 300 450 300 600 335 300 450 580	20-20 20-20 20-20 20-20 20-20 20-20 20-20 20-20 20-20 20-20 20-20 20-20 20-20 20-20 20-20 20-20 20-20 20-20 20-20	AB AB AB AB AB AB AB AB AB H H H AB AB AB AB	1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5	20 20 20 20 20 20 20 20 20 20 20 20 20 2					39 36 26 43 56 60 56 30 40 43 31 55 33 40 42 61	1398.00 966.00 768.00 1390.00 1590.00 1590.00 650.00 828.00 1178.00 910.00 3990.00 650.00 828.00 1398.00 1674.00 2495.00	Modification of
AUDIO WORKS	DMA 50ZM	B/M	0.01	Yes	t	1.4V	No	200		0-1M	A61		10						2595.00	customer-supplied Spectral Audio DMA or DMA-80.
CROWN	Esoteric	B	.0012	Yes	'	Var.	No	760	t	3-35	AB/B	-	10		-			561/2	2395.00 Each 3995.00	†1000 V/μS. As abo †1160 watts. Dampi
	Macro Reference PS-200	в	0.001	Opt.	12	1.3V	No	100	170	1-20	AB/B		30					25	995.00	above 20,000; S/N, 120 dB. Bridgeable; damping above 400; S/N,
CURCIO	PS-400 MP-ST-70	B B/T	0.001	Opt. No	16	1.8V 150	No	190 30	330 30	1-20	AB/B	1.2	30	┡	_	_		55	1195.00	112 dB. As above.
AUDIO ENGINEERING	MP-MK3	B/T/M	0.33	No		150 150	No No	55	55	20-20 20-20	AB1 AB1	1.2 1.3	470 470						1100.00 1600.00 Pair	Kit, ASM-ST-70, \$375.00. Kit, ASM-MK3, \$550.00 per pair.
DB SYSTEMS	DB-6A	В	0.003	No	15	1V	No	40	70	20-20	AB	3	48					18	795.00	Three-times power- supply capacitance optional.
	DB-6A-M	B/M	0.008	No	30	1V	No	140	225	20-20	AB	3	48	L			5	18	795.00 Each	Per pair, \$1550.00.
DENON	AVC-3030(RI)		0.03 (F) 0.05 (R) 0.03 (C)	No		150		t		20-20	11		47	76	2.5	160	No		1350.00	tFront, 110 watts x : rear, 35 watts x 2; center, 110 watts x x ttoptical Class A. T remotes; Dolby Pro Logic; digital signal processing for sur- round and ambience medee (See Olse ):
	PMA-1080R(RI)	1	0.005	No		150		105		20-20	t		47	94	2.5	160	Yes		675.00	modes (see also "Si round Processors"). †Optical Class A. Remote includes
(Continued)	PMA-880R(RI) PMA-680R(RI)	E.	0.02	No No		150 150		75 65		20-20 20-20	t		47 47	94 94	2.5	160	Yes	1	500.00 400.00	speaker switching. As above.



Spend a couple grand on an amplifier with an internal layout reminiscent of a bowl of spaghetti. Burn it in for at least six weeks (don't *even dream* of turning it off). Send it out to be tweaked (to improve definition and eliminate glare from all recordings). Install a line filter hoping to reduce that buzz in the right channel. Place an ad in the classifieds: "\$800 or best offer." Start looking for the next rage in amplification.

There are lots of pretenders promising high-end performance at an affordable price. This amplifier delivers. Our audition policy guarantees it.\*

220 watts per channel into 8 ohms • Class A/AB design • 100,000 microfarad of storage • zero negative feedback D.C. coupled circuitry • 1400 watt toroidal transformer • balanced and single-ended inputs • biwire capability

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DENON Continued)	POA-S1	B/M	0.05	Yes		1V	No	250	500	20-20		T	47	ſ	Í	Í	ſ	198	20,000.	ſ
oominacay	POA-3000RG	в	0.05	Yes				250		20-20	t		20						Each 4000.00	†Super Optical Clas Bridgeable; analog
	POA-5000	в	0.02	No				t		20-20	tt		47						1500.00	output meters. †Front, 100 watts x
		1											1					l I		rear, 50 watts x 2; center, 50 watts x 2
							1			1.11				L		1		ľ		ttOptical Class A. Three-, four-, five-,
	P0A-2800	в	0.01	No	1			200	3 00	20-20	t		25		9				800.00	six-channel operation
	POA-800	в	0.05	No				50		10-50			25						350.00	Switching for two pa of speakers. Bridgeable.
DGX AUDIO	DDA-1	1	0.025	No		300	No	100	140	20-20	AB	2	47		1	1	No	29	1995.00	Digital inputs; inclue
DoReTech	Triode-70-2	B/T	1	No		1.3V	No	20	20	20-20	AB	3	51		-	1		29	589.00	two DDL-1 speakers Modification of
		1																		customer-supplied Dynaco ST-70; triod
DPA DIGITAL	DPA 2005	В	0.005	No			No	55	90	10-28	A	-	22					12	1695.00	output; bridgeable. Bridges to 200 watts
DUAL	CV-5670 Stereo 80	I B/T	0.01	Yes	15	-		100 40	170 40	10-95 5-50	A	1.25	47	80	2.5	-	Yes	30 30	525.00 1195.00	Selectable triode/
					1						l"								1130.00	pentode operation; adjustable bias.
	Stereo 400 Series II	В	0.05	No				200	300	10-100	AB	1.2	50					30	795.00	Bridges to 600 watts operates into 1 ohm
	Stereo 200 Stereo 140	8 8	0.05 0.05	No No				100 70	150 105	10-100 20-20	AB AB	1.2	100 100					22 18	595.00 395.00	Level controls.
EDGE ELECTRONICS	M-1 M-2	B	0.005 0.005	No No	150 150	200	N O NO	150 200	250 380	5-50 5-50	AB AB	1.9	30 30					29 33	599.00 699.00	
	M-1+	8	0.005	No	150	200	No	250	450	5-50	AB	2.3	30	1			1 9	38	799.00	Separate power sup for each channel.
	M-2 + M-6 M-1A(RI)	B	0.005 0.005 0.005	NO NO ND	150	200 200 200	NO NO NO	300 500 150	500 900 250	5-50 5-50	AB	2.3	30 30 30					43 51	899.00 1499.00	As above.
	M-2A(RI) M.5	B	0.005	No	150 150 150	200	No	200	250 380 150	5-50 5-50 5-50	AB AB B	1.9 1.9 1.5	30 30 30					30 34	750.00 850.00 499.00	
	MAV	B/M	0.005	No	150	200	No	100	150	5-50	B	1.5	30				0	23 20	399.00 Each	Center-channel amp
	M-4.5AV	8	0.005	No	150	2 00	No	† .	tt.	5-50	В	1.4	30				8	32	899.00	Surround amp. †80 watts x 4.
ELECTRO-	AW-250	В	0.001	Yes	+	1V	No	250	380	20-20	A		220	-	+			65	3999.00	††130 watts x 4. Bridgeable; peak
COMPANIET	AW-100	в	0.001	Yes		1V	No	100	180	20-20	A		220					35	1999.00	current, 100 amps. Bridgeable: peak
	ECI-1	4	0.001	No		500	No	100	180	20-20	A		47					39	2599.00	current, 80 amps. Peak current, 80 am
ELECTRONIC VISIONARY SYSTEMS	S-180 M-180	8 8/M	0.05	No	30	10	No	90	130	20-20	AB	1.2	40					30	1100.00	With 24-position attenuators, \$1250.0
51312113	M-180B	B/M	0.05	No Yes	30 30	1.4V	No	180 180	280 280	20-20	AB AB	1.2	40 40					30 Each	2000.00 Pair	As above but \$2150. per pair.
ELECTRO-	7100	B	0.05			1.44								_				30 Each	2200.00 Pair	As above but \$2400. per pair.
OICE	72 00		0.05	Yes Yes	19 20		No No	100 140	140 230	20-20 20-20	AB AB		15 15		İ.			18 37	682.00	Bridgeable; headpho jack.
	73 00A 7600	B B B	0.05	Yes	30 30		No	250	400 730	20-20 20-20	AB AB	1 0.25	15					34 52	742.00 990.00 1886.00	Bridgeable. As above. As above.
	PCA 2250 PCA 2450	B B B	0.03 0.03	Yes Yes	70 100	510 650	No No	180 300	300 480	20-20 20-20	AB AB	1.47	20				1	35.2 36.3	1900.00	Protection circuitry. As above.
LITE	M-91 M-72	BB	0.003	No No	~ I		ND No	200 †		20-20 20-20	AB		50					60 475/8	1400.00 1000.00	†50 watts x 4. Bridg
	A-71	!	0.003	No			No	120		20-20 20-20	AB		50	95	2.5	200	Yes	60	1100.00	to two channels.
NSEMBLE	A-51 B50 Tiger	1 1/H	0.007	No No		300	No No	100 50	70	20-20 5-39	AB	$\vdash$	22	-			Opt.	41 <sup>7</sup> /8 16.5	850.00 2100.00	With Phonomaster
										1994	100				1		<b>UP</b> 1.	10.0		external phono stage \$2750.00.
	Corifeo	B/H		No		600	No	100	140	4-60	AB		22					28.6	4500.00	Electronic protection circuits.
SSENCE	Standard Sapphire	B B	0.01 0.01	Opt. Opt.			No No	200 200	300 300	5-100 5-100	A/AB A/AB		20 20					100 110	4850.00 6650.00	Mono version;
	Emerald Jasper	B	0.01 0.005	Opt. Opt.			No No	200	300 300	5-100 5-100	A/AB A/AB		20 20					120	10,000.	\$8750.00 per pair.
XPOSURE	XX	ľ –	0.000	υμι.		150			500	1.00	AVAD			_				140	12,500.	Mono version, \$16,850.00 per pair.
APUSUNE	XX	Ľ				150 150	No No	40 40	1	20-20			10		2.0			20	1095.00	Regulated power supply.
	XVIII XVIII Mono	B B/M				130	No No No	40 60 50		20-20 20-20 20-20			10 100 100		3.0		Yes	20 20 40	1295.00 1495.00 1995.00	As above. As above.
	Regulated IV Dual	B					No	80		20-20			100					40 Pair 42	Pair 3195.00	As above. As above.
ENTON AUDIO	Regulated Stereobate II	B/M	0.022	Opt.	500	500	No	300	600	20-150	A/AB		50		_	-	-	120	2300.00	Water-cooled.
		1						500		10 100								120	Pair	Water-COUICQ.



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FM ACOUSTICS	Series 811	-	1		50	1.69	No	1.1.1			A	1	1	ŕ	ſ	ſ	Í	110	38,800.	1
	Resolution Series 611X Resolution	B	0.008	Yes Yes	50 50	1.6V	No No	250 250	425	1-60	A		40					151/2	24,880.	
	Series 611 FM 800A	8	0.007	No	25	1.6V	No	400	600	1-60 5-60	A		40					60 66	22,800. 12,700.	
	FM 600A FM 300A	8	0.008	Na No	25 30	1.6V 1.6V	No No	250 100	350 150	5-60 5-60	A	13	55					44 30	9500 00 6980 00	
FORTÉ	F4 F5 F6 FT-1	8 8 8 8	0.1 0.1 0.1 0.1	Yes Yes Yes No	50 50 50 50	-	No No No	50 100 200 †	100 200 350	0-100 0-100 0-100 20-20	A A/AB A/AB AB							33 26 33 35	1690.00 990.00 1690.00 1590.00	†Five-channel operation, 125 watt x 3 and 55 watts x 3
FOSGATE- AUDIONICS	4125	8	0.10	No	40	1V	No	t	tt	20-20	AB	1.0	22			-		45	1099.00	175 watts x 4. ++12 watts x 4. Bridgeab
	4200	B	0.03	No	60	1V	No	+	tt	20-20	AB	1.0	22					65	1899.00	†125 watts x 4. ††2 watts x 4. Bridgeabl
	M-60	B/M	0.10	No	30	Var.	No	35	60	20-20	AB	1.0	20					5	219.00 Each	THX certified.
GEMINI SOUND PRODUCTS	Pvx-85 Pvx-125 Pvx-160	8 8 8	0.1 0.1 0.1	No No No				85 125		20-20 20-20 20-20								22 24	425.00 530.00	
GENESIS TECHNOLOGIES	Steaith B-200 (RI)	8	0.1	Yes	1.00		No	160 200	400	20-20 2-30	A	1	38	┢		+	1	26 150	695.00 7000.00	Direct inputs.
GOLDMUND	Mimesis 6.8 Mimesis 8.2	B B/M	0.01	No	100 100	1.6V 1.1V	No No	80 175	150 300	0-600 0-1M	† · ·	1	50 100	1				27½ 88	3800.00 11,390.	
	Mimesis 8.5	8	0.01		100	1.6V	No	200	350	0-800			50					110	Pair 5990.00	
	Mimesis 9 Mimesis 9.2	8 8/M	0.01 0.01	Yes Yes	100 100	1.6V 1.1V	No No	225 275	350 400	0-1M 0-1M			50 50					143 143	12,500. 25,000.	A.C. polarity switch As above.
	Goldcube(RO)	B/M		No		1.1V	No	120		194									Pair 28,000. Pair	Fits directly into Goldmund Apologue
GRYPHON AUDIO DESIGNS	M100	B/M	0.005	Yes		100	No	100	200	1-250	AB		50		1	+		40	4500.00 Each	speaker.
14	S100 DM100	8	0.05	Yes			No	100	200	2-350	AB		50	9				115	7500.00	2000 watts, peak, in 1 ohm.
	Reference One	B B/M	0.005 0.05	Yes Yes		100	No No	100 150	200 300	1-250 1-250	A		50 50					160 185	12,900. 13,000. Each	Selectable bias. As above.
HAFLER	Trans-nova 9505	B	0.1	Yes	150	1.8V	No	250	375	0.3-300	AB	1.5	47					50	1900.00	Bridgeable.
	Trans-nova 9500 Trans-nova	B	0.1	No	150 150	1.8V	No	250	375	0.7-300	AB	1.5	47					50	1800.00	As above.
	9300X 9290	8	0.07	No No	50	1.4V	No No	150 145	225 210	0.3-300	AB	1.5	47					36	1250.00 900.00	As above; THX certified. Bridgeable.
221	9180 9130	8 8	0.05 0.008	No No	0.05	1.4V 1.1V	No No	105 65	150 75	0.3-116 4-40	AB AB	1.5	47 22					33 20	700.00 450.00	As above. As above.
HARMAN KARDON	HK6150 HK6250 HK6350R(RI)		0.09 0.09 0.09	NO NO NO	90 90 140	135	No No	30 45	30 45	20-20 20-20	AB AB		22	78 80	2.2	120 120	No No	14.1 14.7	279.00 349.00	
	HK6650R(RI) HK6950R(RI)	i .	0.08	No No	180	135 135 135	NO No No	60 100 170	60 100 170	20-20 20-20 20-20	AB AB AB		22 22 22	80 80 80	2.2 2.2 2.2	120 180 180	Yes Yes Yes	18.1 24.6 39.6	499.00 799.00 1299.00	
	PA2100 PA2200	8 8	0.09	No No	120	800 800	No No	65 100	65	20-20	AB		22					17.6	449.00	Bridgeable; auto standby.
HEADROOM	PA2400 Standard	8	0.08	No	280	800	No	170	100 170	20-20 20-20 20-20	AB AB AB	-	22 33 50			<u> </u>		24.2 35.3	599.00 1199.00	As above. As above.
							NU			20-20	AD		90						199.00	Headphone amp with defeatable image processor; RCA inpu ¼-inch stereo outpu d.cto-d.c. converte includes a.c. adapto 3½-hour AA battery
	Prémium	8		No			No			20-20	AB		50						299.00	life; LM833 op-amps As above but 2-hour AA battery life and OPA2604AV op-amp near-ear emphasis
	Supreme	8		No			No			20-20	A8		50						399.00	filter. As above but
	Home	8		No		41	No			20-20	AB		50						699.00	defeatable near-ear emphasis filter. As above but built-ir power supply; RCA outputs.
HOVLAND	Aurora	B/T	1.5	No		1V	No	100	100	20-20	AB1		1 <b>M</b>					110	6995.00	Bridges to 200 watts operates into 1 ohm stereo, 0.5-ohm load mono.
JRM Continued)	Power Tower	8/M	0.02		100	t	Yes	#	† <b>††</b>	0.6-75	AB	3	10					65	3300.00 Each	t(2)2.0 and (2)1.1 V tt(2)180 and (2)70 watts. ttt(2)500 and (2)250 watts into 2 ohms. All-cascode design.

AUDIO/OCTOBER 1993

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ridiculous prices. The great achievement of the Solids is that Counterpoint has left the tubes out in order to offer affordable product... Congratulations to Counterpoint for having succeeded on the first try with solid state what others have historically failed at."—Vittorio Bevilacqua, **Suono Magazine**, Italy. Thank you, Vittorio. We couldn't have said it better ourselves. "If there is one affordable amp capable of being all things to all purists, it is the Solid One. One of the Ten Best Buys in Audio today." — Martin G. De Wulf, Bound for Sound. Thank you, Martin. And from Taiwan's Audio Art Magazine, "The Counterpoint Solids win our Highest Recommendation to

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JRM (Continued)	Power Tower/ 8 Pro	B/M	0.02		100	t	Sel.	1	ttt	1.1.1	AB	1.5					75	4100.00 Each	†(2)2.0 and (2) ††(2)600 and (2 watts. ††(2)80 (2)350 watts int 4 ohms. All-cas design; bridged puts.
JAC	AXZ911BK(RI)	10	0.003	Yes			No	100		20-20	Dyn. Sup. A	1	1	90	2.5	Yes	44.1	1100.00	puts.
	AXZ1010TN(RI)	1	0.004	Yes		1	No	100	230	20-20	Dyn. Sup. A			89	4.0	Yes	37.1	1200.00	
	AXV1050TN(RI)		0.009	Yes			No	100		20-20	Dyn. Sup. A			73	2.3	No	35.1	1500.00	
GEORGE KAYE Audid labs	Nepenthe 24	8/T/M		Opt.		Var.	No	700	500	20-20	A/AB		100				140	45,000. Pair	Four chassis; re power supplies; transformerless capacitorless; o into 2 ohms; 22 option; servo an bias; auto shutd fault circuitry.
KENWOOD	KA-V7700(RI)	P	0.03	Yes		200		60		20-20	A		47	78	2.5	Yes	35	899.00	Digital signal pu ing; Dolby Pro L
KINERGETICS	KM-X1(RI) KBA-75 THX	B	0.03	Yes No	60	200	No	100 75	150	20-20	A	3	33	78	2.5	Yes	44	899.00	THX certified.
RESEARCH	KBA-280	B	0.01	Yes	70		No	140	280	20-270	A	3	100				60 75	1995.00 2495.00	THX certified.
KLIMO	Beltaine	B/T/M		No				5	5	15-25	A		100				37	5900.00 Pair	Triode tubes; se power supplies;
	Linnet	B/T/M	0.3	No	1	1		100	100		A		100				43	8400.00	defeatable feed Operates into 1
KRELL	Audio	B/M	-	Yes		-	No	350	700	-	A	-	47				195	Pair 32,500.	Sustained Platea
	Standard(RI) Audio	B/M		Yes			No	175	350		A		47				1.50	Pair	As above.
	Standard 2(RI) MDA-400S(RI)	B/M		Yes			No	400	800		A		47				130		no above.
	KSA-300S(RI) KSA-200S(RI) KSA-100S(RI)	8	0.1	Yes Yes	100 100		No No	300 200	600 400	4-20	Å	1	47 47 47				185 125	8900.00 6900.00	As above. As above.
	KSA-50S	8 8 8	0.1	Yes Yes	100	1	No No	100 50	200	4-20 4-20	A		47				95 60	4900.00 3300.00	As above. As above.
KSS	KSA-5V KSS 100/100	8 8/T	0.003	Opt.	500	1.7	No No	5	10 95	0-160	A	0	47				45	2995.00	Headphone amp Triode tubes; dir
AUDIO ENGINEERING	KSS 230	B/T/M	0.08	Opt.	320	1.9	No	230	170	0-140	AB	0	100				90	5995.00	coupled; output transformerless capacitorless. As above.
LAZARUS	Direct	I/H		No		100	Var.	100	150	10-80	AB	-	50			No		Pair	
	Amplifier						Val.		100	10-00	10		50			No	35	999.00	Six inputs; volur control; optional
		B/H		Yes		100	Var,	100	150	10-80	AB	1	50				35	999.00	Class-A operatio 35 watts. Optional Class-A
	Amplifier LSA-200	B/H		Yes			Yes	200	350	10-80	AB		50				38	3250.00	operation at 35 v
	LMA-200	B/H/ M		Yes			Yes	200	400	10-80	A		50				38	6200.00 Pair	
LEGACY	Power Amp	8	0.02	Yes	50	120	No	220	360	10-25	A/AB	1.8	-				55	1995.00	
MARK LEVINSON	No. 20.6	B/M	0.3	Yes		141	Sel.	100	200	20-20	A		50				90	7975.00 Each	
	No. 23.5 No. 27.5 No. 29	6 8 8	0.3	Yes Yes		141	Sel. Sel.	200	400 200	20-20 20-20	AB		50 50				105 85	7495.00	
LFD AUDIO	PAO	8	0.3 0.01	Yes No	20	141 500	Sel. No	50 50	100 65	20-20 5-35	AB A/AB	1.5	50 48				60	3495.00 995.00	
		8	0.01	Opt.	20	500	No	75	95	5-35 5-35	A/AB	1.5 1.5	48					2795.00	With balanced in \$2995.00.
		B/M	0.01	Opt.	20	500	No	90	120	5-35	A/AB	1.5	48					3595.00 Pair	With balanced in \$3895.00 per pa
LINN	INTO "Acorn" Klout	l B	0.01	No No	20	500	No No	50 80	65 160	5-35 20-20	A/AB AB		48 5		_	_	20	995.00	23000.00 por pa
	LK100	B	ļ	No No			No No	50 50	90 80	20-20 20-20	AB		5				28 11 16	3695.00 1095.00 795.00	
MADISON	Intek	i B/H/	0.3	No Yes	40	707	No Yes	50 100	80	20-20	AB	15			2.1	Yes	16	1095.00	
FIELDING	0	M B/H/	0.3	Yes	40	11	Yes	200	100 200	1-170	A A/AR		41				70	9000.00 Pair	No overall feedb 200 watts into 2
		M B	0.3	Yes	60	11	No	150		1-170	A/AB	1.8	41				70	8200.00 Pair	No overall feedb 400 watts into 2
MARANTZ		B/M	0.008	No	1	500	No	30	300 45	10-35	A/AB A	1.8	41 56			3	75 22	4995.00 1500.00	Bridgeable.
	MA-22	B/M	0.01	No		1V	No	50	75	10-20	AB	1.7	47				13	Each 1000.00	
	SM-80	6	0.02	No		17	No	120	175	10-20	AB	1.2	25				37	Each 699.00	THX certified; bri
	MA-500	8/M	0.05	No		1V	No	125	180	10-20	AB	1.3	30				13	299.00	to 350 watts. THX certified.
MARCHAND	PM 14	8/M	0.001	Yes	100	100	No	150	250	0-50	AB	2	100	-		-	15	Each	
			1							0.00	~~		100				15	595.00 Each	



"The Hafler 9300 THX has earned a Class B rating in the April 1993 issue of Stereophile's Recommended components. It is one of the least expensive components in Class B power amplifiers!"

- John Atkinson, Stereophile

High End Show San Francisco, CA, March 12, 1993



Referring to the 9300 THX "...image focus is exceptionally good. You get a wide deep soundstage, but it is not c vague presentation. Instrumentalists are precisely located. All very, very fine."

— Sam Tellig

Stereophile, May 1993 Vol. 16, No. 5

\*THX is a registered trademark of Lucasfilm Ltd.



"The Hafler \$500 joins that select group **d** moderately priced amplifiers wh**c**h make life difficult for manufacturers of higher ticket electronics."

— Thomas L Norton

Stereoph le, April 1993 Vol. 16, No. 4



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## AMPLIFIERS /////

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MCCORMACK AUDIO	Power Drive	B	0.01	Yes	50	11	No	150	300	0.5-200	A/AB	.95	110	ŕ	ſ	ſ	ſ	45	1995.00	Bridgeable; low-
	Power Drive DNA-20	B/M	0.01	Yes	70	1V	No	250	500	0.5-200	A/AB	1.75	100					55	5995.00 Pair	feedback design; mechanical ground. Dual terminals; low- feedback design; mechanical ground.
MCINTOSH	MC7100	B	0.005	No No		1.4V	No No	100 150	150 150	20-20 20-20	AB A8	† 1.8	20 20					24 58	1100.00 2400.00	Bridgeable, †1.7 dB into 8 ohms, 2.1 dB into 4 ohms, Power meters.
	MC7300 MC2600 MC1000 MC7106	B B/M B	0.005 0.005 0.005 0.005	Yes Yes Yes No		1.4V 1.4V 2.5V	No No No	300 600 †	300 600 †	20-20 20-20 20-20 20-20	AB AB AB AB	1.9 1.7 1.5	20 20 10 20		i i			79 130 105	3400.00 6000.00 5500.00 Each	As above. As above. †1000 watts. Power meter.
			0.005					-	++	20-20	AD	1.8	20		1			52	3000.00	†100 watts x 6. ††160 watts x 6. TH certified; bridgeable.
MELOS AUDIO	Triode 200ST Triode 200ST Gold Triode 400	B/T B/T B/T/M	0.3 0.3 0.3	No Yes Yes			No No No	200 200 400	200 200 400	30-18 30-18 30-20	AB AB AB	1.5 1.9 2.5	100 100 100					69 88	2995.00 3895.00 6995.00	Triode operation; auto bias. As above; dampened chassis.
MERIDIAN	Gold 205	B/M	0.1	No	-	775	Yes	100	160	20-20	A/AB	2.5	11	-	- ~			88 38	Pair 1790.00	As above. D.C. servo; protectio
	605 555	B/M B	0.1	Yes		550 775	No Yes	150 60	200	20-20	AB		11					Pair 74 Pair 30	Pair 3500.00 Pair 995.00	circuitry. As above.
META RESEARCH	Meta-Power Analogue	B/M	0.01	No	100		No	100		0-800			100					15	1950.00	Mounts inside
METAXAS	ikarus Mkli	1	0.05	No	+	500	No	45	90	0-2M	AB	2	10	80	1.0	250	Yes	20	Each 1800.00	Meta-Speaker. †1000 V/µS. Optiona phono or D/A conver
SYSTEMS	lraklis Mkli Solitaire Mkli Soliloquy Mkli	B B B/M	0.05 0.05 0.05	No No No	†   †   †	1V 1V 1V	No No No	50 130 100	100 260 200	0-500 0-500 0-500	AB AB AB	3 3 0	100 100 100					60 80 80 Each	2000.00 3800.00 10,000. Pair	input.
J. A. MICHELL	Alecto Mono	B/M	0.005	No			No	125	250	4-95	AB							29	2400.00 Each	
MICROMEGA	Alecto Stereo Microamp	B 8	0.005	No No	300		No No	60 25	100 40	0.1-800	AB AB		20						2895.00	
MILBERT	BaM-235	B/T	2	No	300	300	No	30	30	20-60	AB	0	20 100				-	15	1000.00 1995.00	
AMPLIFIERS MISSION	Cyrus I	!	0.003	No	10	-	No	30		20-20	AB	1.4	47	84	0.4		Yes		649.00	
MDNRIO	Cyrus II Cento	B	0.003	No No	10		No	60 135	270	20-20 5-60 + 01	AB	1.4	47 49	84	0.3		Yes		999.00 2495.00	
BRUCE MOORE AUDID DESIGN	Dual Sixty Dual 100	B/T B/T	0.2 0.2	No No	<b>40</b> 40	900 900		60 100	60 100	10-100 10-100	A/AB A/AB	1.2 1.2	420 420					58 68	2295.00 3895.00	Switchable to 50-wai Class-A triode
	M125 M225	B/T/M B/T/M	0.2 0.3	No No	40 40	900 900		125 225	125 225	10-100 10-100	A/AB	1.2	420					50	6600.00 Pair	operation. As above but 65 wat
MOTIF	MS1001		_		40	900	No	-	223		A/AB	1.2	420	_	_			65	8900.00 Pair	As above but 125 watts.
MTX SOUND-	MS2001 S800	B B B	1 1 0.05	No No No	40	125	No No No	100 200	200	20-20 20-20 20-20	AB AB	1.7	100			_		45 63	3295.00 4395.00	Date to Date
CRAFTSMEN	5860	В	0.05	No	40	125	NO	205 205	300 300	20-20 20-20	AB AB	1.7 1.7	32 32					18 20	499.00 599.00	Bridges to 600 watts into 8 ohms. As above; bridges to 900 watts into 4 ohm
	H5002	B	0.05	No	50	125	No	250	375	20-20	н	2.1	-					<mark>50</mark>	94 <mark>9.0</mark> 0	operates into 2 ohm LED power meters; RCA & ¼-inch input
	A100PRO A200PRO	B B	0.05 0.05	No Yes	40 40	125 125	No No	60 125	120 190	20-20 20-20	AB AB	2.7 2.7	47 47					17 27	419.00 599.20	Operates into 2 ohm Bridges to 380 watts into 8 ohms; clippin indicators.
	A400PRO	В	0.05	Yes	50	125	No	205	300	20-20	AB	1.2						30	829.00	Bridges to 600 watts into 8 ohms; operate into 2 ohms; clippin indicators.
	A900PRD	В	0.05	Yes	50	125	No	375	600	20-20	AB	2.1						59	1550.00	THX certified; bridge to 1200 watts into 8 ohms; operates in 2 ohms.
	A100 A200	B	0.05	No No	40 40	125 125	No No	60 125	120 190	20-20 20-20	AB	2.7 2.7	25					17	399.95 499.95	Noncurrent limiting; operates into 2 ohm: As above.
MUSE	A400	B	0.05 0.5	No Opt.	50 66	125 890	No No	205	300 200	20-20 13-200	AB	1.2	25 51					28	799.95 1200.00	As above.
	150 160	8/M B	0.5 0.5	Dpt. Yes	89 56	960 1.1V	No No	125 160	250 250	13-250 13-200	AB AB		51 51					28	2280.00 Pair 1900.00	
	175	B/M B/M	0.5 0.5	Yes	105 80	1.1V 1.5V	No No	175 250	325 500	13-250 13-250	AB		51 51					106	3000.00 Pair	
N	300	B/M	0.5	Yes	00 115	1.6V	No	300	500	13-250	AB		51					34	6200.00 Pair 3500.00	

Affordable we Excellence

Most music lovers agree that tube amplification has always offered superior musicality, but previously tended to be very expensive...until now.

Vacuum Tube Logic, a world leader in tube amplifier designs, introduces a new 80 watt/channel stereo tube amplifier and an all tube Line Stage. Lush, three dimensional sound is the reward... The price? Surprisingly affordable.



#### **ST-80**

We proudly offer a new VTL Amplifier for less than \$1500. Still offering a full measure of "VTL sound," but at a real world price. No other pure tube amplifier of this power rating exists at anywhere near its modest price. An audiophile "best buy."

#### **TL-2**

This pure tube line stage offers a highly musical control preamp for CD-based systems. Warm, rich, three dimensional sound that belies its less than \$1000 price. An optional separate phono stage is available for under \$800. (TP-2)



# State of the whe Art

For the less budget conscious, we are proud to offer our top of the range amplifiers and preamplifiers that are without sonic compromise. Vacuum Tube Logic is the leader in offering the highest power tube amplifiers with the best reliability, at prices a lot less than you would think.



#### **MB-100**

Eight years of refinement has produced an amplifier of unparalleled clarity and musicality. One listen, and you'll understand why this is one of the most favorably reviewed tube amplifiers ever produced. Rated at 100 watts (typically 130) per channel in tetrode mode, and front panel switchable to triode mode at 45 watts, the MB-100 sells for less than \$3000.



#### **TL-5**

The ultimate line-level preamplifier. Fully dual mono, from the separate custom silver-plated input toggle switches to the tube regulated dual mono power supply (housed in a separate matching chassis), for under \$2500.



#### **MB-30**0

Powerful, dimensional, and delicate. These are just a few words critics have chosen to describe the sound of our bestselling high powered amplifier. Producing over 300 watts per channel in tetrode mode (typically over 400), this amplifier produces ample power and headroom to drive almost any loudspeaker to "virtual reality" levels. Front panel triode switchable to 150 watts, and front panel bias meter included, all for less than \$6000. complete line:



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# Adcom's multi-c offers you the p

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A dcom's award winning GFA-2535 multi-channel power amplifier is a multi-purpose component. An ideal foundation for an authentic surroundsound, home theater system, it can also serve as a centralized power source for a multi-room, multi-speaker audio system. This unique versatility together with Adcom's legendary sound quality made it the choice of the audio industry at its introduction at the 1992

Consumer Electronics Show.

A single rear panel switch lets you select either 3 or 4 channel operation. For video applications, the 3 channel mode brings your home theater to life, delivering 200 watts of clean, distortion-free sound to the center channel and 60 watts to each of the rear channels. Add it to your existing 2 channel amp and you'll be at the center of a superbly balanced, awesomely

# hannel amplifier ower of choice.



powered sound stage so real you can practically touch it.

Flexibility for audio-only use is unparalleled. Use the GFA-2535 as four 60 watt amplifiers to drive two pairs of speakers. Or bridge two of the channels and send 60 watts x 2 to a pair of satellite speakers and 200 watts to a single subwoofer for an incredible display of musical strength so real, you can feel it. Three channels or four...home theater, home audio...the award-winning Adcom GFA-2535 gives you twice the versatility of ordinary amplifiers...and twice the value that has made Adcom famous.



1993 ADCOM

 Elkins Road, East Brunswick, NJ 08816 U.S.A. (908) 390-1130.
 Distributed in Canada by PRO ACOUSTICS INC. Montréal, Québec (514) 344-1226

## AMPLIFIERS / //////

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MUSEATEX AUDIO	AS-10 AM-15	B B∕₩	0.25 0.25	No No			No No	100 150	150 250	1-20 1-20	AB AB	ſ	100	ſ				24 24	1999.00	Floating charge power supply. As above.
MUSICAL DESIGN	D-140 D-140i	B	0.007	No	30 30	1.7	No No	140 140	200	0.1-180	AB	+	22	⊢	-	-	$\vdash$	28	Each 1295.00	
MUSIC REFERENCE	RM-9 MKII	B/T	0.2	No		Var.	No	250	225 250	0.1-180 20-40	AB A/AB	1.5	22 100				$\square$	28 55	1495.00 2950.00	Variable feedback; 4- and 8-ohm taps;
MUSIC & SOUND	SPA-100	В	0.1	Yes	30	-	No	100	200	10-100	AB	3	20		1	t-	-		849.00	strappable. Optional plug-in
	SPA-65	В	0.1	No	30		No	65	130	10-100	AB	3	20						595.00	electronic crossover
NAD	208THX	B	0.03	Yes		100	No	250	250	20-20	AB	4	40						1499.00	Bridgeable; THX certified.
	2100X 2400THX	B	0.03	No No	35 30	Var. Var.	No No	60 100		20-20 20-20	AB AB	5.3 5.7	20 20					21 22	429.00 649.00	Bridgeable. As above; THX certified.
	2700THX 902 906	B B B	0.03 0.05 0.05	No No		100 180 180	No No No	150 30 30		20-20 20-20 20-20	AB AB	4.3 2 2	20 10 10						829.00 279.00 699.00	As above. Bridgeable. As above; six-channe
	302 304		0.03 0.03		20 20	165 165	No No	25 35		20-20 20-20	AB AB	3	20 20	77	2.7	220	No No	13¼ 14	269.00 379.00	operation.
NAIM AUDIO	NAIT 3	1	0.1	No		75	No	30	45	20-20	B	1			2.5†	1	t	10	1055.00	†Optional MM or MC phono stage, \$115.0
	NAP 90/3	8	0.1	No		700	No	30	45	20-20	В		22					12	845.00	includes 24-V power supply for NAIM preamps.
	NAP 140 NAP 180 NAP 250 NAP 135	B B B/M	0.1 0.1 0.1 0.1	No No No		700 900 900	NO NO NO	45 60 70 75	70 90 125 135	20-20 20-20 20-20 20-20 20-20	B B B		22 22 22 22 22					14 26 30 33	1345.00 1895.00 2995.00 2995.00	As above. As above.
NAKAMICHI	PA-7AII	B	0.05	No	+	140	No	225	-	5-50	Stasis	1.7	50 50	$\vdash$		-		623/4	Each 2300.00	
NEI	PA-5AII A100	B	0.05	No Yes	40	140 1.3V	No	150 80	120	5-50 20-20	Stasis	1.7	50		+	-	-	47 <sup>3</sup> /8	1650.00 629.00	Bridgeable.
NESTOROVIC LABORATORIES	NA-1	B/T/M	0.5	Yes		1V	Var.	150	150	18-25	AB	1	200					65	3600.00 Each	2. rugou bio:
NHT	MA-1	B/M	0.1	No	12	Var.	No	80	120	20-20	AB	2	50					11	300.00 Each	Line- and speaker- level inputs; satellit throughput from speaker-level inputs adjustable crossover frequency; volume
NILES AUDIO	TVA-20	B	0.05	No		80	No	20	25	20-20	AB	1.5	50	-	-	-		6		control. Auto on; auto local/ main source switchi
NOBIS	Cantabile	B/H	0.5	No	-		No	35	35	30-21	A	1.2	100	-	-	-	-	39	1695.00	level controls. Strappable; adjustab
TECHNOLOGIES	Convigore	B/H	0.5	No			No	50	50	30-21	A	1.2	100	-				43	2395.00	bias. As above.
NRG CONTROL	A150S	В	0.1†	Yes	250	90	No	150	300	0.4-500	A	2	51					60	3990.00	†At 800 watts per channel.
	A201S A250M	B B/M	0.05 0.1†	Yes Yes	600 320	91 90	No No	200 250	400 500	0.7-1M 0.4-500	A	2	100 51					130 60	7600.00 3990.00	†At 1600 watts per
	A401M	B/M	0.05	Yes	800	91	No	400	800	0.7-1M	A	1	100					130	Each 6800.00	channel.
	250S	В	0.1†	Yes	320	90	No	250	500	0.4-500	A/AB	2	51		5			60	Each 3990.00	†At 800 watts per
37.68	401S 500M	B B/M	0.05 0.1†	Yes Yes	800 500	91 45	No No	400 500	800 tt	0.7-1M 0.4-500	A/AB A/AB	1 2	100 51					130 60	7600.00 3990.00 Each	channel. †At 1600 watts per channel. ††1000 wa
OCM TECHNOLOGY	500 200	B B	0.25	Yes Yes	200	1.1V 790	No No	200 100	400 200	0.2-100	AB	3	50 50							Optional dual output As above.
DCTAVE RESEARCH	OR-1	B	0.9			1.50	No	80	160	20-20	A/AB	-	100					70	3650.00	No negative
OEM SYSTEMS	KHS200(RI)	1	0.05	Yes	14	300	No	25	40	20-20	AB	2	10				No	20	1349.95	feedback. Four-zone amp with individual room cont for power, volume, three sources; with
ONIX	0A22		0.01	No		250	No	40	60	20.20	AP		-	_						mono subwoofer am 200 watts into 8 ohn KHS400(RI), \$1599.9
	0A21S	i	0.01	No		250 250	NO	40 50	60 70	20-20 20-20	AB AB							9 15	650.00 950.00	Optional MM or MC phono stage, \$125.0 optional external po supply, S.O.A.P. 2, \$650.00.
	0A31L	U	0.01	No		250	No	60	90	20-20	AB							14	1100.00	Optional MM or MC phono stage, \$125.0 headphone jack; with tone controls,
	0A401	в	0.01	No	6	775	No	50	70	20-20	AB	3	22					9	950.00	OA31LT, \$1225.00. Internal power suppl
Continued)	0A601	в	0.01	No		775	No	70	140	20-20	AB		22					15½	1800.00	for OA24 preamp. Separate power supp for each channel.

1400 1700 MX700 MX1000a

(Continued)

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BBBB

Yes Yes Yes Yes

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	PREAMP
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Prices

638.00 838.00 1328.00 688.00 1028.00

34 54 25

Holes

Multi-room remote capability when used with P-301 preamp.

XLR and RCA termi-nals; opto-isolated

multi-room remote capability; motorized volume control. Low-impedance drive; anti-electromagnetic-interference trans-

former; motorized input selector. As above; opto-drive power supply. Low-impedance drive;

Low-Impedance drive; video dubbing; seven audio, two video inputs; motorized volume control. Digital sound

processing; Dolby Pro Logic (see also "Surround Processors" As above; multi-room remote capability.

Level controls.

Level controls. Bridgeable; switching for two pairs of speakers. THX certified; bridgeable; level controls. THX certified; four-, five-, or six-channel operation. Bridgeable; d.c. coupled.

†Single-ended Class A.

Bridgeable; kit. \$249.00.

Digital inputs and outputs.

Dolby Pro Logic. **Class-A operation to 60** 

200.

watts; a.c. line filter. As above; damping,

Three-, four-, five-, or six-channel operation.

Low-feedback design. With balanced inputs, \$2095.00.

Low-feedback design.

Bridgeable. As above. As above. As above; headphone jacks; optional crossover, filter,

compressor/limiter, and attenuator/balanced transformer. As above but no headphone jacks.

As above. Bridgeable. As above; sub-audio speaker protection; optional XLR inputs.

As above. As above.

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ONIX	0A801	BM	0.01	No	1	775	No	100	190	20-20	AB	ſ	22	ſ	1	1	1	151/2	2100.00
(Continued) ONKYO	M-501	B	0.09	No	+	-	No	150	-	20-20	AB		50	-		-		23	Each 360.00
	Integra M-504	B B	0.003	N0 Yes	60		No No	165 200	360	20-20 20-20	AB		20					46 64	830.00 2000.00
	Integra M-588F	D			00				300				50	80	2.5	135	Yes	16	350.00
	A-803(RI)	1	0.06	No				60		20-20	AB		50	00	2.5	133	103		330.00
	Integra A-807 (RI)		0.008	No				80		20-20	AB		50	93	2.5	180	Yes	34	550.00
	Integra A-809	1	0.008	No				105		20-20	AB		50	94	2.5	200	Yes	37	660.00
	(RI) A-RV401(RI)	<u>1</u>	0.08	No			NO	100		20-20	AB	÷.	50	80	2.5	150	No	22	400.00
	Integra A-SV810PRO (RI)	1	0.06	No			No	75		20-20	AB		50	80	5	110	No	39	1100.00
	A-SV610PRD	1	0.08	No		150	No	125	-	20-20	AB		50	80	2.5	120	No	29.8	630.00
PAC	LS-2 plus	B	0.01			1.2V		125	Í		AB		75					44	1500.00
PARASOUND	HCA500 HCA800	B B	0.15 0.02	NO NO	40 60		No No	50 100	75 150	10-60 8-90	AB AB	2 1.5	30 30					16 24	319.00 425.00
	HCA1200II	в	0.02	No	100		No	200	300	8-90	AB	1	30					38	895.00
	HCA 1206	в	0.02	No	100		No	120	180	8-90	AB	1	30					65	1535.00
	HCA220011	в	0.005	Yes	130		No	220	385	3-90	AB	1.5	47					58	1695.00
PASS LABORATORIES	Aleph O	B/M	1	Yes	50		No	75	150	20-20	t	0	9					70	3500.00 Each
	Aleph Os	В	1	Yes	50		NO	50	100	20-20	t	0	9			-	-	70	3500.00 895.00
PETERSON- KLAUS	M60 Mostet 120	B/T/M B	0.1 0.009	No No	30	1.4V 1.1V	NO NO	60 60	60	20-20	AB1	0.8	300 22						Each 349.00
PHILIPS	FA-950(RI)	1	0.006		12	150	No	100	125	20-20	G	4		79	2.5	100	Yes	271/2	479.95
PIONEER	VSA-7500 A-301	-	0.008 0.01			150 150		75 40		5-100 5-100			30 40	72 89	2.5 2.5			30½ 15¼	1125.00 325.00
PLATINUM	One Two	B B/M	0.05	NO	60 60		No No	275	425	10-40 10-40	A/AB A/AB	1.5	1B 18					57 67	4990.00 9990.00
POINTSOURCE	A203	B	0.1	No	50	-	No	200	400	10-20	A/AB	1.4	100	╂─	-	+	-	55	Pair 1750.00
AUDIO	AA-1660	B	0.05		50	1V	-	60	100	10-50	AB	2.5	-		-	-	-	28	700.00
	AA-2080 AA-2120	B B	0.01 0.01		50 50			80 120	120 180	10-100 10-100	AB	2.5		1				28 31	600.00 700.00
PS AUDIO	PS 100 Delta PS 200 Delta	B	0.1 0.1	No Opt.	150 150		ND No	120 200	200 400	20-20 20-20	AB AB	1.5 1.5	30 30					45 65	1295.00 1895.00
	PS 250 Delta	B/M	0.1	ND	150		No	250	400	20-20	AB	1.5	30			_	-	53	1147.50 Each
PSE	Studio IV Studio V	B B/M	0.01	No Yes	100 200	1.2V 1.2V	No No	100 120	190 230	0-100 0-500	A/AB A/AB	1	50 50					25 23	995.00 1990.00 Pair
QSC	USA370 USA850 USA1300 1100	B B B	0.025 0.025 0.01 0.01	Yes Yes Yes Yes	12 18 21 14	1.1V 1.2V 1.1V 1V	Var. Var. Var. Var.	365	165 360 550 70	20-20 20-20 20-20 20-20 20-20	Sup. AB Sup. AB Sup. AB Sup. AB	22222	20 20 20 20					24 34 54 12	620.00 740.00 1100.00 608.00
	1200	в	0.025	Yes	12	1V	Var.	100	150	20-20	Sup. AB	2	20					24	638.00



AUDIO/OCTOBER 1993

Sup. AB Sup. AB Sup. AB

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	Nuger for	e Inclut	Inegaester	Basic Hono	1	and stew	aste V	12 molin	IN PO	North Parts	Channe P	Banu	an Operation	Moot	1. 000 All	Shring Phone	nstivity	overload, p	Soul?	/ /
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MANUFACTURER	Moolan an	THE	une Ra	BY BY	alan o	Hale" H	ist. C	1085 CS	In Ing	He He Rale	HA 10 CIS	/	DALIS. 1	54/	M PT W	M. H	M	Non M	Joht Pris	e Holes
QSC (Continued)	MX1500a MX2000a EX800 EX1250 EX1600 EX2500 EX2500 EX4000	B B B B B B B	0.05 0.05 0.05 0.05 0.05 0.05 0.05 0.05	Yes Yes Yes Yes Yes Yes Yes		1.1V 1.1V 1V 1V 1V 1V 1V 1V	Var. Var. Var. Var. Var. Var. Var.	350 450 175 275 400 500 720	500 650 275 400 600 750 †	20-20 20-20 20-20 20-20 20-20 20-20 20-20 20-20	H H Sup. AB H H H	33333333333	20 20 20 20 20 20 20 20				1000	42 54 40 42 42 55 64	1258.00 1718.00 998.00 1248.00 1558.00 1998.00 2398.00	As above. As above. LED display. As above; bridgeab As above. As above. †1100 watts. Bridg
QUAD	306	В	0.01	No		375	No	80	110	20-20	A	1.5	20		-			10	695.00	able; peak limiters. Feed-torward error- correction circuitry; current-dumping
	606 240(RO) 520	B B B	0.01 0.01 0.01	No Yes Yes		500 Var. Var.	No No No	180 80 110	240 110 175	20-20 20-20 20-20	A A A	1.5 1.5 1.5	20 10 10					25 12 29	1395.00 1199.00 1599.00	design. As above. As above. As above.
QUICKSILVER AUDIO	GLA KT88 Mono	B/T B/T/M		No No			No No	40 60	40 60	13-55 13-55	AB AB		100	1				42 30	1195.00 897.50	
	Silver Mono	B/T/M		No			No	90	90	16-80	AB		100					36	Each 1225.00	
	M-135	B/T/M		No			No	135	135	10-150	AB	1	100					70	Each 2300.00 Each	
RANE	MA 6	В	0.07	Yes		775	No	100	150	5-50	AB	2	15		İ			44	1499.00	Six-channel operati bridgeable.
RCA REGA RESEARCH	PA4500M Brio	B	0.5	Yes	20	900	Var.	50 35	80	20-20	AB	1.2	3				No	-	249.00 599.00	
	Elex II Elicit	li						50 80			100						NO No Yes		599.00 999.00 1999.00	
ROKSAN	Rok S1 Rok M1	B B/M	0.05 0.05	No No	60 60	850 850	No No	120 120	240	5-50 5-50	AB AB	3 3	68 68					35	3800.00 9000.00 Pair	
ROTEL	RB960BX RB980BX RB990BX RHB-10 RA960BX RA980BX	8 8 8 8 8 8 1	0.03 0.03 0.03 0.03 0.03 0.03 0.03	No No No No No	40	150 150		60 120 200 200 60 100	100 220 330 330 100 190	20-20 20-20 20-20 20-20 20-20 20-20 20-20	AB AB AB AB AB AB		27 33 33 30	80	2.5	160 170	Yes	20 22 33 63 14 <sup>1</sup> /2	370.00 600.00 1100.00 2700.00 500.00	Bridgeable. As above.
JEFF ROWLAND DESIGN GROUP	9	B/M	0.02	Yes	50	136	Sel.	350	700	0.1-160	A/AB		Sel.	00	2.5	170	res	24 225	700.00 24,500.	Four chassis; avail
	8	B	0.02	Yes Yes	80 70	136 136	Sel. Sel.	250 60	500 120	0.1-160	A/AB A/AB		Sel. Sel.					150 48	Pair 9800.00 3100.00	with a.c. or battery power supplies. Optional battery po supply, \$3000.00. Bridgeable.
SANSUI	AV9000DSP (RI)	1	0.03	No	100	150	No	t	120	20-20	AB	1.4	47	72	2.5	200	No	32.2	1000.00	A/V amp with Oolby Pro Logic and digit signal processing. †Front, 80 watts x center, 20 watts;
SESCOM	AUX619R PO-3	l B	0.03	No No	100	150 100	No No	80 2	120	20-20	AB	1.4	47	83	2.5	210	Yes	24.9	600.00 75.65	rear, 80 watts x 2.
01000	PO-4	B/M	0.01	No		100	No	4				ri,	10					1	175.75	Requires PO-1 pow supply. As above.
	PO-5 PO-58	I B	0.01 0.01	No No		100	No No	2 2					10 10					1	Each 207.35	As above.
SIMA	PW-3000 W-3050 Celeste 4070	l B B	0.05 0.05 0.05	NO No Yes	50 50	200 500 750	No No Sel.	2 50 50 70	100 100 140	1-100 1-150 1-79	AB A/AB AB		22 22 50	79	2.8	160	Yes	2 15 32	191.00 695.00 995.00 1495.00	Bridgeable. Bridges to 300 wat
	Celeste 4150 Celeste 4250	B B	0.05 0.05	Yes Yes		1V 1.5V	Sel. Sel.	150 250	300 500	1-79 1-79	AB AB		50 50						1995.00 2995.00	no negative feedba As above but bridg to 600 watts. As above but bridg
SM AUDIO	Studio Series Signature Series	B B/M	0.02 0.02	No Yes	100 100	800 1V	No No	80 100	160 200	20-20 15-50	AB AB		50 50					30 42	979.00 899.00 Each	to 900 watts.
SOLO	323	1	0.1	No		100	No	t	t	15-24	t		100	72	5		No	52	1980.00	†Switchable to 8 w into 4 or 8 ohms, 1 A, or 50 watts into 8 ohms, Class AB.
SONANCE	101 Sonamp 2120	B/H B	0.1 0.05	No No	20	100 600	No No	100 120	200 160	0-30	AB	1.2	100 47	-		-		38 30	900.00	Auto on: discrete le
	Sonamp 260	B	0.05	No	20	625	No	60	100	20-20	AB	1.2	50					23	325.00	Auto on; with three speaker switching, Sonamp 260 × 3, \$375.00.
SONETIC	SA185 SA425 SA650	8 8 8	0.025 0.025 0.01	Yes Yes Yes	12 18 21	1.1V 1.2V 1.1V	Var. Var. Var.	110 240 365	165 360 550	20-20 20-20 20-20	Sup. AB Sup. AB Sup. AB	2 2 2 2	20 20 20					24 34 54	578.00 698.00 998.00	Bridgeable. As above. As above.
SONIC FRONTIERS	SFS-40	B/T	le le	No		800	No	40	40	20-20	AB1	3	100					36	1695.00	Adjustable bias; 3.5-, 8-, and 14.5 taps.
	SFS-80 SFM-160 SFC-1	B/T B/T/M		No No No		1.2V 1.4V 400	No No No	80 160 40	80 160 40	20-20 20-20 20-20	AB1 AB1 AB1	333	100 100 50					66 58 60	2895.00 5495.00 Pair 1795.00	As above. Adjustable bias; 2- 4.5-, and 8-ohm ta Adjustable bias; 6- taps.

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	todell a	em Ren.	e ne ne h	hated THO	alanced	aled ste	di lev	el un	ont avo	Wo Wo Rat	ed Full HIL	550101	namie	Herin	Nedance .	Phone	phon	o Gung Col	eight LDS Pr	Notes Holes
MANUFACTURER SONOGRAPHE	SA150	B	1.0	1	8º/	1.20	NO	135	Str C	20-20	AB		1100	101	WHY +	MIN.	MIN	4 VIII	e. 94	Holes
SONY ES	TA-F606ES	1	0.008	No	+	150	No	80	100	20-20	AB	+	100	93	2.5		Yes	40 301/4	995.00 600.00	
	TA-F707ES(RI) TA-F808ES(RI) TA-N220	B	0.004	NO NO NO		150 150 370	NO NO NO	90 100	120 130	20-20	AB			93 93	2.5 2.5		Yes Yes	46 <sup>1</sup> /4 54	1200.00	Separate preamp out. As above.
	TA-N55ES	B	0.004	No	120	370	No	110	150	12-40	AB							201/4	360.00	to 100 watts x 2:
COUND	TA-N80ES	B	0.004	Yes	150	1 011	No	200	270	10-100	AB	2.B 2.B			_			26½ 52½	520.00 1250.00	Bridges to 300 watts. Bridges to 580 watts.
SOUND	PFM-3B	B	0.1	Yes	100	1.8V	No	150	300	1-100	A/AB	0.5	20					55	2150.00	
SOUNDSTREAM	DA2 THX	B	0.03	Yes		1.4V	No	200	350	20-20	G		20					11	1195.00	THX certified; bridgeable.
	RA100MKII (RO)	ľ	0.1	Yes		120	No	35	50	20-20	AB	1.8	20					5	649.00	Bridgeable; operates into 1 ohm; separate power and preamp
SOUNDTECH	Poweramp One	8 T	0.5	Opt.	25	1.2V	No	50	50	20-40	AAB	+	220	-	-	+	+	60	2599.00	connections. Bridgeable.
SOUND VALUES	MOSFET: 32	B	0.10	Opt.	75		No	250	400	20-20		1	40			1		35	595.00	
SOUND VALVES	M40 VTA-70	B/T/M B/T	0.25	No		1.3V	No	40 30	40	30-20	AB1	1.0	100						459.00 Each	Kit, \$349.00 each.
SPECTRAL AUDIO	OMA-180 Reference	8	0.25	Yes	600	200	No No	200	400	30-20 0-2M	AB1 AB	1.2	100		-	+	-	60	795.00 6995.00	Optional cage.
	OMA-80 DMA-80M	B B/M	0.01 0.01	No Yes	500 †	200 200	No No	100 200	200 345	0-2M 0-2M	AB AB	6 2	10 10					19 19	3095.00 2995.00 Each	Bridgeable. †1000 V/µS.
SPECTRASCAN	BPA-101B	B	0.07	No	40	1V	No	120	200	2-120	AB	1.5	10		1		1	40	1895.00	Bridges to 350 watts into 8 ohms; regulated power supply.
SPECTRUM ENERGETICS	OMA2001 SA1001	B	0.03	No Yes	120 120	1	No No	200 100	200 100	2-140 2-140	AB	1	30 30					17	3700.00	power suppry.
SSI SURROUND SOUND	Powerflex V	B	0.05	No	10	450	No	†		20-20	AD	3	20		1			14 18	399.00	†40 watts x 5.
STAX	OMA-X2	B/M	0.1	Yes	70	1	No	600	t	0.8-220	A		tt					103.4	30,000. Pair	†1100 watts. ††Bal- anced, 64 kilohms; un balanced, 32 kilohms. Nonswitching power
SUMIKD/ COPLAND	CTA-401 CTA-504	I/T B/T	0.2 0.08	No No	70 80	320 150	No No	45 60	75 110	10-25 5-65	Ultra Linear Ultra		100 250	90	3		No	59 63	2500.00 2750.00	supply.
SUMO	The Ten	B	0.05	Yes	110	130	No	100	200	20-20	Linear A	2.5	10	-			-	75	2599.00	Bridgeable.
	The Five Andromeda III	B B	0.05 0.05	Yes Yes	110	130	No No	60 240	120 400	20-20 20-20	A A/AB	1.5	10 47					55 55	1699.00 1699.00	Bridges to 200 watts; no overall teedback. Balanced differential design; no overall
	Polaris III	В	0.05	Yes	80	130	No	120	200	20-20	AAB	1.5	10					30	849.00	feedback.
SUPERIOR AUDIO	Ulysses II JX-13	B	0.05	No No	80	130 1.4V	NO No	60 8	100	20-20	A AB B	1.5	47 50	-	-	-	-	25	599.00 220.00	Bridges to 180 watts. 25 watts, peak, into
	JX-14	1	0.05	No	14	1.4V	No	16	20	20-20	в	2	50					5	250.00	4 ohms; seven-voltage portable power supply 50 watts, peak, into 8 ohms; power supply as above; five inputs; with bass, treble, balance.
	JX-16	1	0.05	No	14	1.4V	No	16	20	20-20	AB	2	47	85	2.5			5	350.00	and volume controls; JX-15, \$300.00. Peak wattage, power supply, and inputs as
	JX-17	I	0.05	No	14	1.4V	No	32	40	20-20	AB	2	47	85	2.5			8	500.00	above. 100 watts, peak, into 8 ohms; power supply as above; six inputs.
	JX-18	1	0.1	No	14	1.4V	No	16	20	20-20	н	2	50					5	300.00	40 watts, peak, into 8 ohms; power supply as above; five inputs.
SUPERPHON	SA-120	В	0.05	No			No	60	100	0.5-300	AB	3.0	20					24	399.95	Current-dumping circuit.
SUTHERLAND	A-1000	B/M	0.1	Opt.		12V	No	200	400	5-50	AB		75	1				90	18,000. Pair	
	A-1001	B/M	0.1	No		8V	No	100	200	5-50	AB		75					60	12,000. Pair	
	A220	B D/M	0.05	Yes	100	500	No	20	20	20-20	AB	2.5	10					9	349.00	
SYMPHONIC LINE	Kraft 250 Reference RG1 MKIII	B/M P	0.02	Yes	120	200	No	250	500	1.5-1M	A		47					550	25,000. Pair	
	RG4 MKIII	B B/M	0.05	No Yes	70 100	150 180	NO NO	100 150	200 300	10-400 1.5-600	A/AB A/AB	0.8 0.8	50 50					60 120	3950.00 9950.00	
	RG9	B I B	0.05 0.05 0.05	NO No No	90 70 70	150 150 150	NO No No	130 90 70	250 160 130	10-500 10-300 10-300	A/AB A/AB A/AB	0.8 1.2 1.2	50 50 50	75	2.5	150	Yes	60 45 35	Pair 5600.00 3500.00 2200.00	Separate preamp out. Bridgeable.
TANOBERG	TPA-3016A	B	0.05	No	-		No	220	400					2	1	1	1			

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• Adjustable gain for each channel

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- Beautiful cosmetics hand built by American craftsmen



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	Nose (1)	Remote met	uted ineal	Basic Hone	N balanced	Rated St	en Pate	ones of the	A Invent	Wate Change	strane in schere in schere in strane	a same	Dynamic.	Hestron	A BO THE	ans as	Sensitivity Sensitivity	overose .	man 122	
MANUFACTURER	MODERI	(RO) 14	e une P	aleu	balan	Rateu	HIGH	Does	ont	ont he Ra	8 <sup>10</sup> HI 10	1855	Dynam	moul	MA PRO NY	PH.	AM PHU W	hoving w	and LES. Pr	ES. Holes
TEAC	A-X5000 A-X3000 A-X1000		0.007 0.008 .0085	No		150 150 150	No	60	75	20-20			47	80 78 78	2.5		Yes No	23 19¾	450.00	
TECHNICS	SU-V660	i	0.005		-	100	No	40	50	20-20	AA	0.1	47 5 47	78	2.5 0.25	_	No Yes	17 25.4	290.00 399.95	
THRESHOLD	SU-V460	1	0.007		-	130	_	50	60	20-20	AA	0.	5 18	77	0.35	6	No	17.6	299.95	amp section.
Inneanulu	T100	B	0.1	Yes	60		No	50	100	0-100	A		50						2650.00	Bridges to 180 wat 30 amps continuou
	T200	B	0.1	Yes	100		No	100	200	0.100								. 1		per channel, 100 a peak per channel.
				100					200	0-100	A		50						3850.00	Bridges to 330 wat 35 amps continuou
																				per channel, 135 a peak per channel;
	75 00	в	0.1	Yes	200		No	+	+	0-100	l+		50				1		5850.00	separate power sup for each channel †Class A, 125 watts
																			0000.00	into 8 ohms or 250 watts into 4 ohms:
																				Class AB, 250 watt into 8 ohms or 500
				e e																watts into 4 ohms. amps continuous p
	T10/b	B/M	0.1	Yes	350		No	+		0-300	A		50							channel, 200 amps peak per channel.
						1											1 1	350	20,000. Pair	†7000 watts into 0.5-ohm load. Four
			1								110						1 3			chassis; 400 amps continuous per cha 2000 amps peak pe
TIMES ONE	RFM 800	B/M	0.5	Yes	130	1V	No	200	400	200	AB1	3	51				-	43	2450.00	channel. Low-feedback desig
	RFS 400 PS 400	B	0.5	Yes	130 60	890 800	No	125	250	125	AB1	3	51					33	Each 1980.00	As above.
	PS 300	8	0.1	Yes	60	800	No No	100 100		100	AB1	1.1			~		1	30	950.00	Regulated power supply.
	THS-6	B	0.1	No	60	900	No	60	200	60	AB1 AB1	1.4						25 35	750.00 1450.00	As above. Six-channel, multi-
	THS-5	8	0.1	No	60	800	No	100	110	100	AB1	1.0	33	2				40	990.00	sound.
TUBE RESEARCH	GTPR800	B/T/M			+	1V	1	800	800	_	Var.	-	150	-		-		405		As above but five channels.
LABS												10						400	60,000. Pair	Triode operation; switchable to
	GTR800	B/T/M				11		800	800	1111	Var.		150					400	45,000.	1600-watt pentode operation.
	GTP400	B/T/M				11		400	400		Var.		150					225	Pair 35,000.	Triode operation;
	GT400	B/T/M				11		400	400		Var.		150						Pair	switchable to 800-w pentode operation.
	TR300	B/T/M				1.4V		300	300	100	Var.		270					220	27,000. Pair	
VAC	Vintage	1/1	0.4	No	-	-	No	37	37	10-70	AB1	+			_	_	_	130	15,000. Pair	
	Williamson Integrated							"	37	10-70	ADI						No	55	2490.00	Three line inputs; or tape loop; passive
	Vintage Williamson	B/T	0.4	No			No	37	37	10-70	AB1		100					<mark>50</mark>	1950.00	controls; optional ca Dptional cage.
V	Vintage High Power Vintage	B/T/M	0.4	No			No	100	100	10-70	AB1		100						3990.00 Pair	As above; optional triode switch.
	Mono 70 Renaissance	B/T/M B/T/M	0.4 0.7	No No			No	77	77	10-80	AB1		100					90	3390.00 Pair	As above.
	One-Forty Renaissance	B/T	0.7	No			No	137 68	137 68	10-50 10-50	A		100					220	22,000. Pair	Triode tubes; zero feedback.
	Seventy/ Seventy								~	10-30	A		100					110	11,000.	As above; 16 power supplies.
	PA150 PA90C	B/T/M	0.35	Opt.			No	150	150		A		100					160	9500.00 Pair	Tri <mark>ode</mark> switchable.
	1 4306	B/T/M	0.35	Opt.		700	No	105	105	7-72	A		100					140	5190.00 Pair	As above; operates into 2 ohms; optiona
	PA60C	B/T/M	0.35	Opt.		700	No	80	80	7-97			100							balanced inputs, \$500.00.
	PA45C	B/T	0.35	Opt.		700	No	55	ou 55	8-85	A		100 100					140	4690.00 Pair	As above.
	Le 210 Mk II	B/T	0.4	No				10	10	20-60	A		100		-	-	-	85 27	3490.00 2200.00	As above. With line stage,
	Le 220 L'Audiobloc	8/T 1/T	0.4 0.4	No No				20 20	20 20	20-60 20-60	A							27 31	2400.00	\$2550.00.
VIRTUAL IMAGE	Mk If StereoBloc	B/T	1	No	-	1.3V	No	18	18	15-25	AB	3	51		-				3450.00	
	Twenty Forty							,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		10-25	40	3	51					38	3500.00	Bridges to 36 watts; triode output;
VTL																				adjustable negative feedback; 4-, 8-, and 16-ohm taps.
M 71	ST-80	8/T	1.0	No	20	850	No No	80 125	80 125	20-30	AB1	1.1	135			-		32	1490.00	is-onni laps.
	ST-125	B/T	1.0	No	30	750	1 0 0	1231	120	20-40	AB1	1.1	135			- 1		47	2490.00	Switchable to 50-wat

			/	/	/	/ /	/	/	1	/	1		POWER AMP				,	PREAMP		
MANUFACTURER	No 100	tempernet	ased one	Base House	w alanced In	have ster	Rate	Sensitive Unit	Iner Page	Water Water Water	A IND & DIRES	Bannes of Out	An Open	and my	and Phone with	N Phone W	we ce	overload , the second	N NINS PH	a." Holes
VTL	MB-100	B/T/M	1.0	No	20	1.4	No	100	100	20-35	AB1	1.5	135	$\leftarrow$		<u></u>	(	34	2990.00	Switchable to 50-watt
(Continued)	MB-150	B/T/M	1.0	No	30	1.4V	No	140	140	15-40	AB1	1.5	135					46	Pair 399 0. 00	triode operation. As above but 60 watts.
	MB-225t	B/T M	1.0	No	30	1.4V	No	225	225	15-40	AB1	1.3	135					60	Pair 4990.00	Triode operation.
	MB-300	B/T/M	1.0	No	30	1.4V	No	300	300	15-40	AB1	2.5	135					75	Pair 5990.00	Switchable to 150-watt
	MB-600 (Ichiban)	B/T/M	1.0	No	30	1.4V	No	600	600	15-40	AB1	2.2	135					135	Pair 11,990. Pair	triode operation. As above but 300 watts.
WAAS Audio ~ Digital	1400	B/H	0.4	Yes	1	1	No	700		3-35	A	1.5	43					56	6000.00	Laser and fiber-optic volume controls.
	440 WP 120	B/H B/H	0.4	Yes			No	220 60		3-35	A	1.5	43 43				2	45 35	2400.00	As above. For marine use.
WAVELENGTH	Sole	B/T/M	0.4	No	10	1.3V	No	15	15	10-45	A		221					55 Each	7500.00 Pair	Triode tubes.
AUDIO	Cardinal V3	B/T/M		No	12	1.1V	No	8	8	10-50	A		332					38 Each	3750.00 Pair	As above.
WOLCOTT AUDIO	PA220M	B/T/M	0.01	No		1.4V	Yes	175	220	20-20	AB	1.0	50					57	3300.00 Each	Microprocessor- controlled bias.
WODDSIDE/ Radford	STA35 MA50	B/T B/T/M	0.2 0.2	No No	15 15	750 750	No No	40 50	50 75	12-48 8-56	AB1 A	1.6 1.6	100 100					38 38	2395.00 4495.00 Pair	Peak current, 12 amps. Peak current, 15 amps: self-biasing output tubes.
	SA240 ISA230P	B/T I†	0.2 0.2	No No	15 15	750	No	30 25	40 30	12-45 12-45	AB1 A	1.6 1.6	100	80	3	250	No	25 26	1995.00 1995.00	†Line stage, tube; phono stage, hybrid. Self-blasing output tubes; line-level version, ISA230L, \$1795.00.
YAMAHA	MX-1 MX-2 MX-630 MX-460 AX-570 AX-470	B B B I I	0.09 0.09 0.003 0.012 0.015 0.015	No No No No No No		1.5V 1.3V 1.1V 940 150 150	NO NO NO NO NO	200 150 135 80 100 65	260 190	20-20 20-20 20-20 20-20 20-20 20-20 20-20	A A AB AB AB	1.5 1.0 2.1 2.3	20 20 60 25 47 47	92 88	2.5	150 115	Yes	53 43 28 <sup>3</sup> /4 21 <sup>1</sup> /2 24 <sup>3</sup> /8 21	1199.00 899.00 499.00 349.00 499.00 399.00	320 watts into 2 ohms. 230 watts into 2 ohms. 160 watts into 6 ohms. 95 watts into 6 ohms. 120 watts into 6 ohms. 75 watts into 6 ohms.
MICHAEL YEE AUDIO	PA-1	В	0. 02	No			No	100	150	2-80 ±1	AB	3	50					30	1300.00	

## **ABSOLUTE PURITY IN DESIGN AND PERFORMANCE**

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Introducing the new Carver TFM-75. Merely the world's most powerful solid state high fidelity amplifier.

Classic Carver: the use of Magnetic Field Technology to produce ultra high power at an affordable price.

Its 750 watts per channel\* can effortlessly power the most esoteric speakers (at sustained 1 ohm loads), the huskiest subwoofers, and the most lavish home theater systems.

You might think such a potent amp would be a bit touchy.

Hardly.

The TFM-75 is virtually bulletproof. Flawless. It delivers pure, clean, transparent power (test it yourself with your most revealing classical cut).

And its *true* dual mono design features two separate power supplies – even separate AC power cords.

You're not ready for the "world's most powerful amp?"

We have brand new models for any separates applications. Most are bridgeable. Some have "daisy chaining" ability through an additional set of line level outputs. And all have input level controls for level match-



ing in multi-amp and multi-channel systems, as well as for direct sourcing to CD players, tape decks, and tuners.

> Well, all this power is dandy, but you've got to control it.

We recommend Carver's newest preamptuners, the CT-3 and CT-6. Both with built-in Sonic Holography<sup>®</sup>, distortionfree FM reception via



New Carver CT-3 preamp/tuner.

\*Continuous both channels driven into 8 ohms 20-20 kHz at less than 0.5% THD



ACCD, full-function remote control, and for maximum flexibility – a bundle of video inputs and outputs. Or the Carver ultra-thin C-5 preamp, with Sonic Holography<sup>®</sup> and multi-room capability.

And no matter which Carver preamplification component you select, you'll get the prime benefit of separates: an individual component handling the signal path, for sound that's pristine, pure and accurate.

There's more, more, more. Get our FREE full-line audio catalog. Or visit your Carver dealer for a personal indulgence. The world's most powerful high fidelity amplifier: Carver's TFM-75 Simultaneous High Current/High Voltage, Dual Mono, Reference Magnetic Field Amplifier. With 750 watts per channel into 8 ohms, 1000 watts into 4 ohms, and — hold on tight — 1300 watts into 2 ohms. There's a lot more in Carver's new line of separates. Powerful and flexible components for any imaginable audio or home theater system.



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## PREAMPLIFIERS

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ACCUPHASE	C-280V	S	MM/MC/L	No	20-20	2	0.005	I/D	252	9	0	Sel		90	80	13,495.	EQ gain selector; four-gang volum control; cartridge EQ.
ACURUS	RL 11(RI)	S S		No No	20-20 + 0,-0.1 20-20	8 8	0.05		60 60	2	0	No				795.00	Discrete Class A; laser-trimmed volume and balance controls.
	P10	s	MM/MC		+0,-0.15 20-20 ±0.3	8	0.06		<b>1</b>	ľ	0	No	2.4	80		595.00 395.00	As above. Discrete Class A; selectable gain
ADCOM	GFP-565 GFP-55511	SS	MM/L MM/L	No No	10-50 ± 0.2 10-50 ± 0.3	10	0.003		52 52	33	22	ND	0.55	90 85	-	800.00 500.00	and loading.
	GTP-600(RI) GTP-50011(RI)	S S	L MM/L	No	$10-50 \pm 0.5$ $10-40 \pm 0.4$	10 8	0.009		80	4	2	No	0.95	82		1000.00	Tuner/preamp (see also "Tuners") surround sound; video switching.
	GTP-450(RI) GTP-400 GTP-350	S S S	L MM/L	NO NO	10-50 ±0.5 10-40 ±0.5	8	0.009		80	32	222	ND ND	0.95	80		600.00 450.00 400.00	Tuner/preamp (see also "Tuners") As above. As above.
A/D/S/	GFB-800(RI) SC6(RO)	S		No	$\begin{array}{r} 10-40 \pm 0.5 \\ 10-50 \pm 0.5 \\ 20-20 \pm 0.5 \end{array}$	8 7.5 5	0.009		76	2	202	ND ND	0.88	81		330.00 800.00	As above. Five-room, multi-source switcher.
					20-20 10.3		0.01		250		Ĺ	No				2800.00	Six-room, eight-source system controller; for use with CP6 contro panel.
AIR TIGHT	ATC-1 ATC-2	Ŧ	MM/L L	NO No		15 15	0.02 0.02	No No	150 150	24	0	No No	1.80	85		3400.00 5400.00	No p.c. boards. Supplies power for ATE-1 MM
AMC	CVT1100(RI) AV81(RI)	HS	MM/L L	No No	20-20 + 0,-0.5 20-20 + 0,-0.5	30 8.5	1 0.02		150 150	24	22	No No	1.3	79	-	499.95	phono stage. A/V switching.
	AV81HT(RI) AV81THX(RI)	S	L	No No	20-20 +0,-0.5 20-20 +0,-0.5	8.5 8.5	0.02		150 150	4	22	No No				749.95 999.95	As above; Dolby Pro Logic. As above; THX certified; electronic crossover.
AMERICAN Hybrid Technology	AHT/H	S	L	No	1-2 <mark>M</mark>	30	.0002	t	<b>†</b> †	1	0	Na				3495.00	External power supply. †With balanced in and out, \$4995.00.
	AHT/X		L	No	1-200					1	t	No				5200.00	<pre>the set with replaceable resistor. Includes crossover (see also "Crossovers"); external power</pre>
AMHERST	P-2000	s	MM/L	No	3-100 + 0,-3	16	0.01		150	2	0	Var.	3	75	-	795.00	supply. †Dptional level controls. Drives 600-ohm load; bypass
ANODYNE GROUP	Line X	H	L		20-50	12	0.07		-			Yes				1495.00	switch.
AR	Limited Preamp 2	S	L	No	1-200 ± 0.5	20	0.002	I/D	140	0	0	Sel.				2200.00	
ARAGON	Aurum 18K	S e	L .	No	20-20 +0,-0.1	16	0.03	0	75	2	0	No	15			1750.00	Discrete Class A; includes external power supply; direct coupled.
	47K	S S	мм/мс	No	20-20 +0,-0.1 20-20 ±0.3	8 8	0.04		65	2	0	No	2.4	86		995.00 595.00	As above. Discrete Class A; selectable gain and loading; includes external
ARCAM	D110	s	MM/MC/L	Yes	20-20 ± 0.5	8	0.01	No	100	2	0	-					power supply; optional high-storag supply, \$250.00.
YAKOV ARONDV	PY-100	T	MM/MC/L		10-100	4.2	0.25	nu	250	2		No	-		75	1500.00 2850.00	Without D/A conversion, D110S, \$1100.00.
AUDID LABORATORY ATMA-SPHERE	PY-200 MP-1	T T	L		10-100	4.2	0.25		250	2						2000.00	
MUSIC SYSTEMS	MF-1	'	MC/L	No	1-400 + 0,-0.5	15		I/D	200	2	0	Sel.			72	6800.00	Balanced differential design; outpu voltage specified into 600 ohms; stepped volume control; external
	P-2	т	MC/L	No	5-80 +0,-0.5	15		I/0	100	2	0	Sel.			69	2990.00	power supply; without phono stage \$5990.00. Balanced differential design; outpu
AUDIBLE	Modulus 3	т	MM/L	Opt.	5-100 ±1	80	0.02	_	50	1		Yes	1.00	75	121	1495.00	voltage specified into 600 ohms; stepped volume control. External power supply; optional MC
ILLUSIONS	Modulus 4P	н	мс		5-2 <mark>00</mark> ± 1	40	0.01					Ne			85	1995.00	input. External power supply; variable MC
AUDIO400500	Modulus 5L(RO)	н	L	Dpt.	5-150 ± 1	80	0.02	D	50	1		Sel.				2495.00	loading External power supply; stepped volume control
AUDIOACCESS	PX-6(RD)		L	No	10-25 ± 0.1	6	0.002			2	2	Na				t	Multi-zone, multi-source, multi- room switching system; optional keypad or handheld remote.
AUDIO	PX-6S(RO) PreMax	T	L L	NO	10-25 ± 0.1 2-100 + 0,-3	6 15	0.002	-	Var.	2	2	No No				t 2050.00	†\$950.00 per zone. As above. †\$900.00 per zone.
ADVANCEMENTS AUDIO BY	Ωmega II	s	MM/L	No	12-40 ± 0.2	12	0.004	_	50	_	0	Na	0.7	78	1	445.00	With balanced outputs, \$520.00.
VAN ALSTINE	Super Pas 3i Super Pas 4i FET Valve	T H H	MM/L MM/L MM/L	No No No	10-40 ± 0.2 10-40 ± 0.2 10-40 ± 0.1	10 11 15	0.004 0.003 0.001		50 50 50	2 2 2 2 2 2	0 0 0	No No No	0.6 0.6 0.7	78 74 74 82		695.00 795.00 995.00	Kit, \$495.00. Kit, \$595.00. Kit, \$595.00. Without phono, \$845.00.
AUDID DESIGN ASSDCIATES	DSP-8(RO) ADP-8		Ł	NO NO	20-20 ± 0.25 20-20 ± 0.25	5 5	0.007			4	33	No No	0.1	01		1250.00 1133.00	Multi-room preamp.
1. 1.	CPC-8(RD) CR-8P(RO)		L	NO No	20-20 ± 0.25 20-20 ± 0.25	5	0.007				2	No No	1			14,420. 1200.00	8 x 8 multi-room, multi-source switcher. For multi-room System Dmega;
AUDIOLAB	8000C Mkll	S	MM/MC/L	No	20-20 ± 0.5	7.8	0.01	-	100	2	2	No	2	81	77	600.00	without front-panel controls, CR-P, \$950.00.
						_	010/0				-	μŋ	-	01	"	699.00	
# Adcom's GFP-565 Preamp: Pure and Simple.



#### In Search of Sonic Perfection, Adcom **Took the Path of Least Resistance**

The fewer circuits a musical signal encounters on its way to your loudspeaker system, the greater its muscial purity will be. Now, through obsessive attention to detail and design ingenuity, Adcom has created the GFP-565 the world's first affordable preamplifier with direct, linear gain path circuitry. By combining the GFP-565 with any of Adcom's power amplifiers, you can experience the exceptionally lifelike sound which has astonished even the most demanding critics.



By gold plating all input and output jacks, and then directly mounting all jacks, switches, potentiometers and other laboratory grade components on a double copper-plated, glass epoxy printed circuit board, signal losses and noise are dramatically reduced.

#### Three Sets of Outputs for the Perfect **Balance of Performance and Flexibility**

You can use one or more sets of outputs: 1) BYPASS direct-coupled before tone controls, filters, etc. for the most direct path to your power amplifier while retaining control of volume and balance. 2) LAB - direct-coupled with no output-coupling capacitors yet with tone, filter and loudness controls. 3) NORMAL - same as LAB but with highest quality output capacitors for use with amplifiers needing the extra protection of ultra-low-frequency roll-off.

Bi-amped and tri-amped systems are easily accommodated by this flexible arrangement.

#### **Pure Convenience**

The minimalist aesthetics of the GFP-565 are deceptive in their simplicity. Without being overly complicated to use, this preamplifier is able to integrate and control all of the components in the most sophisticated of music systems. There are five high-level inputs as well as a phono input. A separate front-panel switch allows the use of an external processor, only when needed, leaving both tape circuits free. And, of course, you may listen to one input while recording from another.

#### **More Sound, Less Money**

Adcom stereo components have a reputation for sounding superior to others costing two and three times more. Keeping faith with this tradition, Adcom took the path of least resistance. Why not do the same? Ask your authorized Adcom dealer for a demonstration of this remarkable stereo preamplifier. Please write or call for a fully detailed brochure. You'll discover the best value in

high performance preamplifiers. Pure and simple.



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### You'll want to keep the lights on.

6.

Experience your favorite music as though illuminated from within, by a light shining only for you. That's the kind of sound you'll hear through the vacuum-tube technology of the LS5 line preamplifier from Audio Research. Intimate. Profound. Lasting. The way music was meant to be heard, and savoured.

But this is no mere homage to the past. Because the LS5 uses state-of-the-art technology to pass along more meaningful information from every level of your input sources, analog or digital. This technology includes a highly regulated power supply incorporating patented Audio Research DEC circuits: a fully differential, cross-coupled topology input-to-output; electronic switching that does not invade the signal path; and switchable gain settings that allow a wider range of useful volume control detents with different input sources. All this, and harmonic rightness of dual-triode vacuum tubes.

If ever there has been a preamplifier that will markedly-astoundingly-improve the performance of any deserving audio system, this is it. Proving that even after two decades of relentless pursuit by the dedicated engineers of Audio Research, the lights are still on.





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AUDIO NOTE	M1-Phono	T	MM/L	No				0		1	0	No				1395.00	Zero feedback; tube power supply; without phono stage; M1-Line,
	M2-Phono	Ţ	MM/L	No				o		1	0	No				2995.00	\$995.00. Zero feedback; tube power supply; without phono stage, M2-Line,
	M3-Phono	т	MM/L	NO				0		1	0	No				4995.00	\$1795.00. Zero feedback; tube power supplies without phono stage, M3-Line,
	M7-Tube	Т	MM/L	No				0	-	1	0	No				13,500.	\$3495.00. With silver-foil signal capacitors, M7-Tube/Silver, \$19,500; without phono stage, M7-Line, \$7500.00, of M7 Line's fith 500
	M7-Phono	Т	мм					0				No				18,500.	M7-Line/S, \$11,500. For Audio Note Ongaku amp.
AUDIO RESEARCH	PH-1 PH-2 LS-2	S S H	MM/MC MM/MC L	No	$\begin{array}{l} 0.5 - 150 \pm 3 \\ 0.5 - 150 \pm 3 \\ 1 - 200 + 0, -3 \end{array}$	50 90 45	0.005 0.005 0.001	1/0 1/0		1	0	NO NO NO	22	92 92	72 72	1495.00 2495.00 2495.00	Auto and manual muting; direct gain path; tape out defeat.
	LS-28 LS-3	H S S T		No No	1-100 ±0.5 1-200 ±3	† 35	0.01	0	63 63	1	0	NO NO				2995.00 1495.00 1995.00	†Unbalanced, 10 V; balanced, 20 V †Unbalanced; 35 V; balanced, 75 V.
	LS-3B LS-5 SP9 MKII	T H	L L MM/MC/L	No	1-200 ± 1 0.1-250 ± 3 1-200 + 03	100 50	0.01 0.01 0.005	0 1/0	50	1 1 2	000000000000000000000000000000000000000	No No	0.25	92	72	4495.00	Auto and manual muting.
	SP14 SP15	H	MM/MC/L MM/MC/L	NO NO	1-200 + 0,-3 1-200 + 0,-3	50 80	0.005	0	50 18	2	0 0	No Sel.	0.25 0.088	92 92 90	72 70	2995.00 5995.00	As above; bypass switch. As above; external power supply.
AUDIOSOURCE	Pre One	S	MM/MC/L	NO	10-100 ± 0.5	11.5	0.008		120	2	3	No	2.5	85	70	249.95	Passive: with balanced in and out.
AUDIO SYNTHESIS	Passion	S	L	No	1-200		.0002			1	0	No				1250.00	Pro Passion, \$1650.00.
AUDIRE	Andante Diffet 3	S S	MM/MC/L MM/L	NO NO	5-100 + 0,-0.2 5-100	12 15	0.005		100 100	2	4	† No	1.00 1.00	90 86	80	1750.00 920.00	†Inverts polarity only in MC stage.
	Legato	s	MM/L	No	+ 0,-0.25 5-100 + 0,-0.25	10	0.01		100	2	0	No	1.00	75		540.00	
BEL CANTO DESIGN	Tosca	S	L	No	1-100 +0,-0.5	15	0.05	1/0	150	1	0	No				2500.00	Includes external and phono power supplies.
-	Fidelio	S S	MM/MC MC	-	1-100 ± 0.15	15	0.05	1/0	-	-	-	NO NO	5	75	65 82	750.00	Optional power supply, \$250.00. Includes external power supply;
BENZ-MICRO	PP-1			<u> </u>					70		-	-	4.2	00	02		10-Hz rumble filter.
B & K COMPONENTS	CS-115 CS-117	S S	MM/L MM/L MM/MC/L	NO NO	5-100 +0,-0.5 5-100 +0,-0.5 1-150 +0,-0.5	9 9 14	0.02 0.02 0.02	Opt. Opt. O	70 70 45		020	NO NO NO	1.3 1.3 0.8	82 82 82	70	348.00 398.00 698.00	External power supply; d.c.
	PRO-10MC Sonata MC-101	S	MM/MC/L	No No	1-150 + 0,-0.5	14	0.02	0	45	2	2	No	0.8	82	70	798.00	coupled. As above.
	Sonata AVP 2000(RI)	s	L	No	1-150 + 0,-0.5	9	0.02	0	62	2	0	No				798.00	Multi-zone A/V preamp; optional surround board, \$200.00 (see also "Surround Processors"); four video and three S-video inputs; d.c.
	AVP 1000(RI)	S	<u>i</u>	No	1-150 + 0,-0.5	9	0.02	0	62	2	O	No				698.00	coupled; 16-character alphanumeric display. AV tuner/preamp (see also "Tuners"); optional surround board \$200.00 (see also "Surround Processors"); four composite video inputs; d.c. coupled.
BOULDER	L3AE	S	L		20-20	24	0.003	0	60	1	0	NO			1	1950.00	inputs, u.e. boupiou.
AMPLIFIERS	L3PP L3MC L5AE	S S S	MM MC L		+ 0,-0.05 20-20 + 0,-0.05	24	.0015	1/0	60	2	0	Sel.	2.5			800.00 550.00 3275.00	For model above. For L3PP; sensitivity, 0.25 mV.
	Ultimate	s	MM/MC/L		20-20	24	.0015	0	60	2	0	Sel.	2.5			5725.00	External power supply; three- position phono low-cut.
BRYSTON	.48 BP-5 BP-20	S S S S		NO NO NO		15 15 15	0.005 0.005 .0025	1/0	500 500 500	1 1 1	0 0 0	No Yes No No		80 80		750.00 895.00 1395.00 750.00	Optional balanced out. As above.
CAMBRIDGE	BP-1 C70(R0)	H H	MM/MC/L	No	10-140	0.9	1	Ť	300	2	2	No	4.5	80	75 75	499.95	
AUDIO	C100(RO) C-19	H	MM/MC/L MM/MC/L	No No	5-130 10-20 +0,-0.3	1	0.25		300 Var.	2	0	No Sel.	4.5	80 86	82	699.95 1199.95	Tone controls have variable
	C-20V(RI)	s	L	No	20-20 ± 0.5	7	0.01		75	4		No				949.95	turnover. Dolby Pro Logic; DSP; adjustable
	C-15V(RI)	s	MM/L	No	10-20 + 0,-2	7	0.01		55	5	3	No	3.5	78		699.95	delay. As above; multi-room input with independent volume control.
	C-5(RI)	s	MM/L	No	20-20 ± 1	6	.0008	Ι.	150	2	2	No	1.25	78		499.95	Sonic Holography; multi-room input selector.
	CT-29V(RI)	S	MM/L	No	10-50 +0,-2	7	0.01		55	5	3	No	3.5	78	-0	999.95	Tuner/preamp (see also "Tuners"); Oolby Surround; DSP; adjustable delay; multi-room input with independent volume control.
	CT-27V(RI)	s	MM/L	No	10-50 + 0,-2	7	0.01		55		3	No	3.5	78		799.95	Tuner/preamp (see also "Tuners"); Oolby Pro Logic; DSP; adjustable
	CT-6(RI) CT-3(RI)	S S	MM/L MM/L	No No	$20-20 \pm 1$ $20-20 \pm 0.3$	7 7	0.04		75 75	2	2	N O NO	1.5 1.2	78 78		599.95 449.95	delay. Tuner/preamp (see also "Tuners"); Sonic Holography. Tuner/preamp (see also "Tuners").

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MANUFACTURER	Marine Anne Anne	Che Che	Part Solution	ouou	requency for the content of the cont	/	Turn Output	° .	Calance Inque	angh. Leve	Number of r of r	Mumber	May a Controls	tir Como Sentiment	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Frice Same	Moles
CARY AUDIO DESIGN	SLP-30	T	L	No	9-260	20	ſ	<u> </u>	100	1	0	Yes	ſ	1	f	799.00	Optional balanced out; optional
	SLP-70 SLP-90	Т	MM/L	No	9-130	6			100	1	0	No	1.5			1295.00	LPP-1 stand-alone phono stage, \$399.00. Optional balanced oul; wilhout phono stage, \$995.00. As above but \$1895.00.
CASCADE AUDIO SYSTEMS	SNP-2.1	s	MM/MC/L MC	No	9-300 5-100 + 0,-0.6	25	0.007		100	1	0	Yes	1.2	+	82	2295.00 449.00	As above but \$1895.00. Three gain settings.
CELLO LTD.	SNP-2.18 Audio Suite	S S	T T	No	5-100 + 0,-0.6 20-20 ± 0.2	12	0.007	t	+	+	0	Yes	-	70	82 65	519.00	Eight gain settings. †Modular design; choice of line,
	Encore	s	L	No	20-20 ±0.2	12	0.005	1/0		2	0	No	. 3		F	8000.00	MM, and MC modules; from \$6650.00 to \$18,000. Includes external power supply; optional external MM or MC phon
<u> </u>	Palette	s	L	No	20-20 ± 0.2	9	0.005	0		2	6	No				6500.00	stage, 80-dB S/N, \$2000.00. As above (see also "Equalizers").
CLASSE AUDIO	30(RI) 4(RO) 5(RO) 6(RO)	S S S S	MM/MC/L MM/MC/L MM/MC/L MM/MC/L	No No No No	20-20 20-20 20-20 20-20	15 20 24 24	0.01 0.01 0.01 0.01	1/D 1/0 1/0 1/0	120 120 120 120	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0 0 0 0		3 3 3 3	80 80 85 85	80 80 80 80	1195.00 1595.00 2295.00 3295.00	Without phono stage, 4L, \$1495.0 Without phono stage, 5L, \$2100.0 External power supply; without
CODA TECHNOLOGIES	FET 02B	S	L	No	0-200 + 0, -3	26	0.01	1/0	200	1	0	Sel.		-		1950.00	phono stage, 6L, \$2995.00.
	FET 03P FET 01	S	MM/MC MM/MC/L	No	0-200 + 0, -3 0-200 + 0, -3	26 26	0.01	0	200	2	0	Sel.	10 10	87 85	82 80	1950.00 2750.00	Balanced MC input. Without phono stage, \$2450.00.
CONRAD- JOHNSON	PF2 PV10A	S	MM/MC/L	No No	2-75 + 0,-1	10				2	0	Yes				1795.00	Without phono stage, PF2L, \$1395.00.
	PV12	Т	MM/MC/L	No		20				ź	Ő	Yes Yes	and the second sec			995.00 2395.00	Without phono stage, PV12L, \$1795.00.
	Premier Ten Evolution	T	MM/MC/L	No No		10 10				2	0	Yes			1	3495.00 5995.00	<b>91735.00.</b>
	20SE Premier Seven B	T	MM/MC/L	No		10				2	0					9995.00	
CONVERGENT AUDIO TECHNOLOGY	SL1	T	MM/MC/L	No	0.1-600	50	.0005		25	1	0	No	0.1	96	76		External power supply; without phono stage, SL1L Signature.
COUNTERPOINT	SA2000 Solid 8	HS	L	No No	2-300 ± 0.01 1-500 ± 0.1	80 20	0.01		24	22	0	No No				1595.00 995.00	
1.0.0	SA1000 SA3000	H	MM/MC/L MM/MC/L	NO NO	2-30 ± 0.1 2-300 ± 0.1	70 80	0.17		24 24 24 24 24 24	1	0	No No	0.5 0.5 0.5	68	81	1095.00	Auto mute. External transformer.
1.1	SA5000 SA9 SA11(RI)	H	MM/MC/L MM/MC	NO NO NO	1-500 ±0.1 1-180 ±0.1 0.8-230 ±0.1	100 100 42	0.01			1	0	No	0.5	77	77	3595.00 3995.00	External power supply. As above.
CROSBY	HC818(RI) CAW-10ZVP-	S	L MM/MC/L	No	1-500 ± 0.01	20	0.007	-	90 24	2	0	Adj. No				7595.00 1595.00	Motor-driven potentiometers. As above; for home theater.
AUDIO WORKS	DMC-10	-			2-100 ± 0.5	10			1 00	ľ	0	No	1.5		90	3495.00	Modification to customer-supplied Spectral Audio DMC-10 preamp.
CROWN CURCIO	PSL-2 MP-PAS	S	MM/L MM/L	No No	20-20 ± 0.1 5-160 ± 0.05	10 120	.0009	No	1 00	2	2	No No	1.6	87† 73	-	795.00	†Re: 10 mV. Kit, ASM-PAS, \$420.00.
AUDIO ENGINEERING	MP-D2LN MP-D2PH	H	MC/L	No No	$5-120 \pm 0.05$ 5-120 $\pm 0.05$	150 150	0.006 0.006		100	1	0	No No			72	2500.00 2950.00	Kit, ASM-D2LN, \$1,000.00. MC phono sensitivity, 0.4 mV; kit, ASM-D2PH, \$1200.00.
DB SYSTEMS	DB-1B/2A DBR-15B/2A	S S	MM/L MM/L	No No	20-20 ±0.04 20-20 ±0.04	9 9	.0008 .0008		120 120	1	0 6	Var. Var.	0.9 0.9	77 77		740.00 1265.00	Includes external power supply. As above; without oak cabinet,
	DB-1B-HL/2A D8-4B	SS	L MC	No	10-50 ± 0.1 10-100 ± 0.1	9	.0008		120	1	0	Var. No	1		80	620.00 205.00	\$1115.00. Includes external power supply. Requires DB-2A power supply.
DENNESEN	JC80MKII	S	MM/MC/L	No		18	0.005	0	100	2	0	Yes	2	100		6500.00	Mono; external power supply.
OENON	JS90 AVP-5000(RI)	S S	L	No Yes	+	18	0.005	0	100	2	0	Yes	1			Pair 3200.00	External power supply.
	Aut - 5666(m)	3		105			0.005			4	3					2500.00	Includes two DSP processors for parametric EQ and A/V surround modes (see also "Surround Sound Processors"); two A/D and six D/A converters; coaxial and optical digital inputs. †Analog, 10 Hz to 100 kHz, + 0, -3 dB; digital, 20 Hz
	PRA-2000RG	s	MM/MC/L	No	t	30	0.005	1/0	150	2	2		2.5	90	80	3000.00	to 20 kHz, ± 0.5 dB.   †Balanced, 20 Hz to 50 kHz.
	PRA-1500(RI)	s	MM/MC/L	No	1-300 + 0.2,-3	10	0.003	0	150	2	2		2.5	96	79	500.00	+ 0,-3 dB; unbalanced, 1 Hz to 100 kHz, + 0,-3 dB. Two video inputs, one video outpu
	HMA-5 00	s	L		20-20 + 0,-3				500	0	0					500.00	mono full-range and mono subwoofer outputs. A/V karaoke preamp; three mike, four audio, and four video inputs;
DODSON AUDIO	DAC-263/PRE.	s	L	Yes	20-20 ± 0.2	4.5	0.002	Opt.		1		Sel.				2695.00	DSP circuit; mike/line mixing. Optional crossover; three digital inputs included, one optional (see
DPA DIGITAL	DSP 200 S	S	L	No	10-28 ±1	2	0.005	ù.	250	1	0	No				1100.00	also "D/A Converters").
DYNACO	PAS-4 PAT-5 Series II(RI)	T S	MM/L L	No No	2-150 + 0,-3 2-200 + 0,-3	40 13	0.025 0.002	No No	250 50			t	1.5			750.00 750.00	Separate power supply. †Inverting and noninverting main outputs.
	PAT-6(RI)	S	L	No	8-170 + 0,-3	5	0.02		50		1	1				495.00	Tuner/preamp.

### **Your Music**

### a Sound Foundation®

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#### **Performance with Style**

Are you getting the most out of your speakers? Did you know that proper mounting and room placement dramatically improves sound quality? Most major speaker manufacturers recommend loudspeaker supports for optimum performance; many of the best known brands specifically recommend or use Sanus Foundations®. Demand the most from your audio dollar. Give your music a Sound Foundation!

#### Brass Isolation Studs

#### Adjustable Floor Spikes

Give





#### Natural Foundations®

Natural Foundations are constructed of MDF and finished with three coats of hand sanded black lacquer. MDF is quieter and stronger than other wood products, and is the cabinet material used in the best loudspeakers. All models feature brass speaker isolation studs, adjustable floor spikes, neoprene isolation pads, and a concealed speaker wire path. Two models are available with solid oak or walnut pillars.

#### **Designer Foundations**®

Designer Foundations are a contemporary alternative to the utilitarian look of most steel loudspeaker supports. Performance is on par with the finest European and domestic designs, yet the price is affordable. Designer Foundations feature fillable steel pillars, adjustable floor spikes, HDF top plates, neoprene isolation pads, and brass speaker isolation studs.



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MANUFACTURER	Model (R), Ren	Circ. He	Sages Man	anon	from the comparison of the former	a' / .	Tuc Uninum Output	2º /2	H: Hind	"Whitevel Son Balanced	Annaler of L.	Number of	ww	tor Thong Ser	N. Mine S.N. M.	Price . 6	holes
EDGE ELECTRONICS	P-1 P-1R(RI)	SS	ł	No	5-50 5-50	15	0.005	1/0	ſ	1 2	0	No	ſ	ſ	1	299.00 425.00	Passive.
EIOOLON RESEARCH	Salesia Julia	T T	MM/L MM/MC/L		0.5-150 +0,-1.5 0.1-200 +0,-1.5	70 85	0.01 0.01		Sel. Sel.	2 2	0	Yes Var.	1.45 1.45	78 79	65	1200.00 4300.00	Passive and active RIAA.
ELECTRO- COMPANIET	EC-3MC EC-3MM ECP-1	S S S	MC/L MM/L MM/MC	No No	20-20 20-20 20-20		0.001 0.001 0.001	1/0 1/0 1/0	500 500	6 6	0	No No No		80 80	80 80	1999.00 1799.00 599.00	Line-level version, EC-4, \$1499.0 As above.
ELECTRONIC VISIONARY SYSTEMS	UA24 Ecstasy 1000		L	No	0-1M			Opt.		D Opt.	0	No				305.00 Pair	Passive; 24-position stepped attenuators; mount on amp; with balanced in and out, UA248, \$450.00 per pair.
ELITE	Ecstasy 2000 C-91	S	L MM/MC/	No	0-10M	12	0.001	Opt.	200	Opt.	0	No				700.00 1200.00	Passive; stepped attenuator. Active buffer or gain stage.
	C-72	S S	MM/MC/L MM/MC/L	No No	20-20	8	0.001			6	32	No No	2.5 2.0	96 74	86	1300.00 850.00	Video switching. As above.
ENCORE	OL2010.2	н	MM/MC/L	No	0.1-200 +0,-3	22	0.025		125	2	0	No	4.0	65	65	3350.00	No potentiometers or switches in signal path; stepped volume contro without phono stage, OL2010.2-L, \$2895.00.
ENSEMBLE	Phonomaster Virtuoso	S H	MM/MC L	No	4-60 4-60			No			0	No No				650.00 3900.00	Optional external power supply, S220.00. Optional external MM/MC phono stage.
ESOTERIC SOUND	Vintage	S	MM		20-40 ±0.5	4.5	0.01				2	No	4.5	70		335.00 Each	Mono; compensation for mono
ESSENCE	Sapphire Emerald	Ţ	Ļ	No No	3-100 3-100	24 24	0.01	Opt. Opt.	1	1	0	No		1	1	3450.00	records; vertical/lateral switch.
EXPOSURE		S S S	L MM/MC/L MM/MC/L	110	20-20 ± 0.5 20-20 ± 0.5 20-20 ± 0.5	15 15 10	0.01	Ομι.	150 150 150	2 2 2 2	U	Nto Nto Nto	3.0 3.0			5850.00 1295.00 1495.00 5795.00	
EXPRESSIVE TECHNOLOGIES	SU-1		MC		0.7-150 +0,-0.1	25		1/0	100	-		Nto	0.0		100	3500.00	Transformer; 28-dB fixed gain.
FIRST SOUND	Reference I Reference II Reference Signature		L L L	No No No	0.1-250 0.1-250 0.1-250					1 1 1	0 0 0	Nto Nto No				1200.00 2200.00 4300.00	Passive; stepped attenuators. As above. As above.
FM ACOUSTICS	Resolution Series 266 Resolution Series 244A Resolution Series 244C FM 240 Resolution Series 222	\$ \$ \$ \$ \$ \$	L MC/L MM/L L MM/L MM/MC	No No No No	$\begin{array}{c} 20 \cdot 20 \ \pm 0.03 \\ 20 \cdot 20 \ \pm 0.03 \\ 20 \cdot 20 \ \pm 0.03 \\ 20 \cdot 20 \ \pm 0.03 \\ 20 \cdot 20 \ \pm 0.03 \\ 20 \cdot 20 \ \pm 0.05 \\ 20 \cdot 20 \ \pm 0.08 \end{array}$	28 14 12 14 14 12 12	0.003 0.03 0.025 0.025 0.025 0.018	I/O Opt. Opt. Opt. Opt. I/O	100 100 100 100 75	1 1 1 1	0 0 0 0	No No Yes Nd Yes Sel.	3.1 2.6 10	t 104	† 89	19,800. 11,300. 9600.00 7500.00 7500.00 9980.00	No overall or local feedback, †90 104 dB. As above, Balanced MM/MC inputs
FORTÉ	F44(RI) F45	S	L	No No	0-200 ± 1 0-200 ± 1	11 11	.0005	1/0 1/0		2	0	No				1250.00	Discrete Class A.
GEMINI Sound Products	Pvx-20	S	MM/L	No	10-100 +0,-3	10	0.005	1/0		1	2	nuo	2.4	75		990.00 245.00	As above.
GOLOMUND	Mimesis 10P (RO) Mimesis 7NP Mimesis 2NP (RO)	s s s	L L L	Yes No No	20-20 ± 0.1 0-650 ± 3 0-850 ± 3	13 35 40	0.01 0.01 0.01	No	100 100	2 2 2	0 0 0	NIO Sel. Sel.				11,250. 5000.00 8900.00	Six line inputs, eight digital out- puts (see also "O/A Converters"). With MM or MC phono stage, \$6150.00. Star ground configuration; a.c. polarity switch; with MM or MC phono stage, \$11,400.
GOROON INSTRUMENTS	Gordon(RI)	S		No													Custom-built.
GRYPHON AUDIO DESIGNS	Linestage XT	SS	L Mm/MC/L	No No				0		1 1	0	No No				4500.00 9100.00	External power supplies. As above; separate phono power supplies; without phono stage, \$7400.00.
HAFLER	XTC 945(RI)	S S	L	No	<u>8-170</u>	5	0.02	1/0		1 2	0	No No			-	10,000. From	Tuner/preamp (see also ''Tuners'')
	915 P90	S S	L M <mark>m/mc</mark>		8-170	6	0.02			2		No	6	65	80	700.00 From 750.00 200.00	Class A; video switching. Class A.
HARMAN KAROON	PT2300(RI) AP2500	S S	MM/L MM/MC/L	No No	0.5-200 + 03 0.3-250 + 03	6 8	0.005 0.007		135 135	2 2	2 0	No No	2.2	82 82	82	599.00 599.00	Tuner/preamp (see also ''Tuners'') video switching.
JOULE ELECTRA	LA50 LA100 LA200(RI)	T T T	L L L		5-144 + 0,-1 5-144 + 0,-1 5-144 + 0,-1	7 9 15	0.1 0.1 0.1	1/0	250 250 250	1 1 1	0 0 0	Yes Yes Sel.				1595.00 2495.00 3995.00	50-joule power supply. 100-joule tube power supply. Wired remote; two mono units and 200-joule tube power supply.

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	/	Pacinger Conserver	5 H	MIN	terel	18 e	m n	-/	/	Balanced	in in	& Proce	Controls	Allar Alm	111/10	and see	
		Remo	Hybrid Si	AC.	ersion	*	Out	/	sing	100	1 Tan	01 10	Inve	Sensin	150	100	
MANUFACTURER	Money Ann Real	S' Sur	Tuent Sun Stand	040.0	Figures A Comercians	1	THO MUMITER	B. 18	History India	an-leve	Mumber of Fact in Would	De De	Ma Controls	tor " on Semining.	A MARCH AND AND AND AND AND AND AND AND AND AND	Price S.	Notes
JRM	Preamp	s	MM/MC/L	No	0-100 + 0,-1	12	0.001		Sel.	2	Opt.	Set.	1.25	88	78	675.00	Includes 10-watt/channel head- phone amp; video inputs; infra- sonic filter.
	PEM	s	MM/L	No	0-100 + 0,-1	12	0.001		Sel.	2	t	Sel.	1.25	88		2200.00	t Two three-band pre-EQs, eight- band master EQ. Two MM inputs; cross-fade input select; master and cue busses.
KAB ELECTRO- ACOUSTICS	Souvenir	S	MM		30-15	3.5	0.07	No			8	Yes	8	79		295.00 Each	Mono with stereo bypass: for replay of 78s; eight selectable 78-rpm record EQs; two-speed Dynamic NR; scratch filter; auto right or left groove select; optional impulse noise limiter.
KENWOOD	KC-X1	s	MM/MC/L	No	15-100 + 0,-3	1.2	0.002	t/0		6	2	No	2.5			999.00	THX certified.
KINERGETICS Research	KPA-3(RI) KSP-3(RI)	S	L L	No Yes	$\begin{array}{r} 20-100 \pm 0.5 \\ 20-100 \pm 0.5 \end{array}$	72	0.01 0.01	0		2	0	No No				1495.00 3000.00	A/V switching (10 audio, four video Inputs); for use with KSP-2 surround processor.
KLIMO	Argo Merlin(RO)	T T	MC MM/L		10-450 + 0,-3 3-450 + 0,-3	10 25	0.2 0.07			1	o	Yes Yes	1.0	76	75	1800.00 4500.00	External power supply; adjustable MC input impedance. Optional remote, \$650.00; without phono stage, Merlin LS, \$3550.00.
KLYNE	6L2	S	L		1-200 + 0,-0.2	10	0.005		100	2	0	No			1	2150.00	With external power supply,
AUDIO ARTS	6LE/P	S	MM/MC/L		1- <mark>200</mark> + 0,-0.2	10	0.005		100	2	0	No	122	1 - 7		2250.00	6LX2, \$2750.00. Without phono stage, 6LE, \$1750.00.
	6Pi	S	MM/MC			10	0.01						7.1	85	70	650.00	Plug-in for 6L2 or 6LX2; deluxe version 6PXi \$1250.00
	7PX2.5	S	MM/MC			10	0.01					No		85	72	3450.00	External power supply; adjustable gain; with balanced outputs, 7PX2.5/B, \$3750.00.
	7LX/P	S	MM/MC/L		1-200 + 0,- <mark>0.2</mark>	20	0.005	0	100	1	0	No	7.1	72	72	4950.00	External power supply; without phono stage, 7LX, \$3450.00; without phono and with balanced input, 7LX/B, \$3950.00.
KRELL	KRC(RI)	S	L		0.2-400 + 0,-0.3		0.007	1/0		1	0		8.9	79	68	6300.00	Optional phono stage, \$500.00.
	KRC-2(RI)	S	L		0.2-400		0.008	1/0		1	0		8.9	79	68	3700.00	Optional phono stage, \$800.00.
	KSL-2 KPE	S	L MM/MC		20-20 ± 0.02 20-20 ± 0.1		0.015	1/0		1	0		8.9 8.9	79 79	68 68	2700.00	Optional phono stage, \$500.00.
KSS AUOIO ENGINEERING	KSS 10	T	L	No	0-600 + 0,-0.3	65	0.001	1/0		2	0	Sel.				3995.00	Harmonic Structure Reproduction Circuit; direct coupling throughout; external power supply.
LindingErinid	KSS 20	Т	L	No	2-600 + 0,-0.3	80	0.001	1/0		2	0	Sel.	10			1995.00	Harmonic Structure Reproduction Circuit; external power supply
1.4740.00	KSS 30	T	MM/MC/L	No No	8-25	80 50	0.03	1/0	100	1	0	No Yes	0.80	90 85	85	1995.00	As above.
LAZARUS	Cascade Classic Well	T	MM/L	No		50		0	100		0	Var.	1	00		1000.00	
569C 1.42	Balanced LLS-2	T		No		50		0	100		0	Yes	1			2000.00	
	LLS-3 LLS-4	ļţ	Ļ	NO		50 50		1/0 1/0	100	i	0 0	Var. Var.	1.1			3000.00	
	Cascade	Ť	MM/MC			50						No	1.5	85	75	1000.00	
	LPH-2	T	MM/MC		1 100 1	50	0.001	1/0	450	2	0	No	1.5	85	75	2500.00	Balanced circuitry.
LEGACY MARK LEVINSON	Line Stage No. 25	S S	MM or	No	1-100 ± 1	10	0.001	I/O No	430	ŕ		No	Sel.	1	1	2495.00	Requires PLS-226 power supply.
	No. 255	s	MC MM or		_			No				No	Sel.			2995.00	As above.
	No. 26	S	MC	No	20-20 + 0,-0.2	6	0.01	Opt.		2	0	Sel.				5495.00	Includes external power supply; with phono stage (MM or MC) or
	No. 265	S	ŀ	No	20-20 + 0,-0.2	6	0.01	Opt.		22	0	Sel.			-	7495.00 3495.00	with balanced in and out, \$6495.00. As above but \$8495.00. With phono stage (MM or MC),
	No. 28 No. 38(RI)	S		No	20-20 + 0,-0.5	6	0.02	1/0 1/0		2	0	Sel.				3995.00	S3995.00. Remote operates Mark Levinson 30 Series components.
LEXICON	CP-3(RI)	S	L	No	10-100 ± 1	6	0.025		250	1	0	No			1	2995.00	Video switching; includes crossover; DSP and THX (see also "Surround Processors").
LFD AUOIO	LSO	S S	L MM/MC	No	8-60 ± 1 3-40 ± 1	4	0.01		200	1	0	No No	6	38	59	995.00 895.00	
	LS2	S	L	No	4-60 ± 1	4	0.01	t	200	1	0	No				2895.00	†Optional balanced in and out, \$500.00.
LINN	MC2	S	MC	He	3-45 ±1	4	0.01		188	2	0	No Yes	2	-	72	1995.00 2795.00	includes external power supply.
LINN	Kairn(RI) Kairn-Pro(RI) Pretek	S S S	MM/MC/L L MM/MC/L	No No No					188	2222	0	Yes	2.9			2195.00 2195.00 795.00	
MADISON	L1	H	L	No	1-100 + 0,-3	75	0.05	0	100	2	0	Sel.		1	1	2495.00	Remote on/off switch for amps.
FIELDING MARANTZ	SC-22 PH-22 SC-80(RI)	S S S	L Mm/MC Mm/MC/L	No No	20-20 ± 0.1 20-20 ± 0.1 10-20 ± 0.1	5 1 5	0.03 0.001 0.015		280 150	1 3	0	No No No	3 2.5	84 91	76 75	999.00 1099.00 649.00	MC transformers; four EQ settings. Can bridge stereo amps.
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MANUFACTURER	Hoder (HII)	0.	ubes a	hou	A Com	* /	muire	04	lanced h	th. Leve	mber	umber-	es uni	Chong 1	Phone .	A Miles	Holes
MANUFACTURER MARES DESIGNS	Connoisseur	1	1 44	1					8° -	E/	W			0	1		
MANES DESIGNS	2.0 hp Connoisseur	S	MM/MC MM/MC		$0.1-5M \pm 0.1$ $0.1-5M \pm 0.1$	30 30	0.003					No No	1.5			8295.00	external power supply.
	2.0 st Connoisseur	s	MM/MC		0.1-5M ±0.1	30	0.003					No	1.5 1.5			6695.00 6295.00	controls; external power supply.
MCCORMACK	2.0 ps Active	S	MM/MC/L	No	5-100 + 0,-1	10	0.01	0	225	2	0	No	1.10	75	70	1745.00	
AUDIO	Line Drive ALD-1 Line Drive	s	L	No	0-200												power supply; one passive and seven active inputs.
MCINTOSH	TLC-1	S	1	-		-	0.001	1		2	0	No				995.00	Passive; buffered; optional extern power supply.
incluiro an	C712(RI) C38(RI)	S	MM/L MM/L MM/L	NO NO NO	20-20 + 0,-0.5 20-20 + 0,-0.5 20-20 + 0,-0.5	8 8 8	0.002	0	250 250 250	2 1 2	22	NO	2.5	84 84		1700.00 1300.00	
						ľ	0.002	ľ	250	2	2	No	2.5	84		2000.00	Two-zone switching system; six- zone control with optional CR 10 Remote Control system.
	C39(RI)	S	MM/L	No	20-20 + 0,-0.5	8	0.002	0	250	1	2	No	2.5	84		3000.00	Six-channel A/V preamp; switchin and control as above; Dolby Pro
																	Logic surround decoding; optiona THX-1 THX decoding card, \$425.
	MX130(RI)	s	MM/L	No	20-20 +0,-0.5	8	0.002	0	250	1	2	No	2.5	84		3600.00	optional RCT-1 universal remote, \$275.00. As above but with tuner (see also
	C40	S	MM/L	No	20-20 + 0,-0.5	8	0.002	1/0	250	2	5	No	2.5	84		3000.00	"Tuners"). Compander circuit; 20-watt/chann
MELOS AUDID	MA-333 Gold	T	MM/MC/L		20-300 + 0,-0.5	10	0.09	0	80	2	0	Sel.	0.8	75	68	4895.00	monitor amp. Control center, phono stage, and
																	power supply in separate chassis with optional balanced inputs, \$5795.00; line stage, \$2895.00;
	MA-220	т	MM/MC/L		20-300	20											line stage and balanced in, \$3695.00; phono stage, \$2495.00
	Gold MA-1118	т	MM/MC/L		20-300	30	0.09	0	80	2	0	Yes	1.5 1.5	70	68 68	3295.00	Line level only, \$1995.00; phono only, \$1395.00.
	MA-110B Sha-1	Ť	L		20-300 20-300	20 6	0.09		80 80	i		No	1.5	10	00	1395.00 1195.00 1095.00	External power supply. Includes headphone amp.
MERIDIAN	201(RO) 603	S	MM/MC/L MM/MC/L	No Yes	5-20 ± 0.2 5-20 ± 0.2	5 5	0.01 0.01	0	150 50	2	0	ND No				1190.00 2750.00	Multi-room capability. Multi-room options.
	601(RI) 501	s	MM/MC/L MM/MC/L	†   Yes	5-20 ± 0.01 5-20 ± 0.02	10	0.01	0	50	1	8	No				4950.00	Digital signal processing. †D/A and A/D conversion.
METAXAS	562 Charisma	S	MM/MC/L MM/MC/L	† No	5-20 ± 0.02 5-2M	2.5 5	0.01		50 50	23	0	No No		-		995.00 1395.00	Video switching.
AUDIO SYSTEMS	Mkll Marquis	s	MM/MC/L	No	5-2M	15	0.005	No No	150 150	1	0	No No	0.5 0.5	96 98	96 98	1800.00	External power supply.
	MkII Opulence	s	MM/MC/L	No	5-2M	18	0.005	No	150	1	0	No	0.5	100	100	7500.00	As above. As above.
MFA	Mkii MC	T	MM/MC/L	No	0.5-300 +0,-3	60	0.01	No	Sel.	5	0	Sel.	0.45	90	70	12,850.	Separate buffered power supply;
PURE TUBE J. A. MICHELL	Reference Argo	S	L	No			-	-	-	-	-					1550.00	stepped ladder attenuators. With standard power supply,
	ISO Mkli	s	MC/L	No													\$1610.00; with Hera power supply \$2000.00.
MICROMEGA	Variodac (RI)	S	L	Yes		10	-			0	0	Sel.		-		895.00 1000.00	Preamp with D/A conversion (see
MONARCHY	10A											1					also "D/A Converters"); one analo input.
AUDID	33	S S	L	No t	20-200 + 0,-0.1 20-100	12 10	.0015	No 1/O	200	1	0	No				980.00	Stepped volume control.
BRUCE MOORE	Companion	T T	-		+0,-0.1	20	0.002	10	200		0	No				1199.00	†Dual 20-bit D/A converter.
AUDIO DESIGN	Deluxe LS Phono	İŦ	L MM/MC		1-400 + 0,-0.5 1-300	50 50 40	0.05					Yes No No			Ê.	1395.00 3995.00 1195.00	Triode tubes.
MOTIF	Master MC10	s	L	No		10	0.02		-	2	0	Yes	-			-	
MSB	MP11 Passive	S S	MM/MC	No	-	10				0	-	No			-	2395.00 2395.00	
ECHNOLOGY	Control Center		_							U						1495.00	Passive; two outputs.
	Gold Digital Interface(RO)	S	L	No				1/0								2995.00	Active and passive outputs; headphone amp.
MTX SOUND- CRAFTSMEN	P100	s	MM/L	No	20-20 ±0.5	8	0.008		150	1	2	No	2.5	100	-	399.95	With rack mount, P100PRO,
MUSE	One	S	MM/MC/L	No	7-1.5M	28	0.1	0	50	1	0	Sel.	Adj.	88	64	2500.00	\$440.00. External power supply.
AUSICAL DESIGN	SP-1 RM-4C	T T	L MC	No	0.1-180 ± 3 2-200 + 01	60 20	0.01	Ne	100	2		Yes				1295.00	Direct input bypasses switching.
REFERENCE	RM-4 +	т	MM		2-200 + 0,-1	20	0.01	No No				No Yes	0.25	87	92	750.00 950.00	Auto muting; adjustable gain and impedance.
MUSIC & SOUND	RM-5MKIII DLS-1(RI)	T S	MM/L		2-100 + 0,-1 1-200	30 10	0.01	No	25	2	0	Yes	0.25	81		1250.00	Adjustable gain and impedance. Auto muting.
	. ,			İ				-		•		NG					†18-bit, eight-times oversampling D/A converter. Seven high-level and three digital inputs; video switching
	ACC-1(RI)	S	L	Yes	1-200	10	.0008	0		2	0	No					external power supply.
				-						_		-			-		

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NAD	106 1000	S S	MM/MC/L MM/MC/L	No No	20-20 ± 0.2 20-20 ± 0.2	12 12	0.02	0 No	80 80	2 2 2	2 2 2	No No	1.5 1.5	76 76	76- 76⊨	599.00 349.00	includes headphone amp.
NAIM AUOIO	1600(RI) NAC 92	S S	MM/MC/L	No No	20-20 ± 0.2 20-20 ± 0.5	10 7.5	0.04	No	80 75	2	2	No No	1.3	75	75 	449.00 965.00	Tuner/preamp (see also "Tuners Requires external power supply;
																	optional Hi-Cap supply, \$1235.00 optional MM or MC phono board
	NAC 72	s	۱	No	20-20 ± 0.5	7 6			75						-	1005.00	\$155.00 per pair (2.5-mV MM phono sensitivity).
	NAC 82(RI)	ŝ	L L	No	$20-20 \pm 0.5$ 20-20 ± 0.5	7.5 7.5			75 75	2 3		No Nc				1325.00 3995.00	As above. Optional phono boards as above;
																	includes power supply for contro circuits, requires supply for audi circuits; accepts two Hi-Cap
	NAC 52(RI)	s	MM/MC/L	No	20-20 ±0.5	7.5			75	3		No	2.5			9995.00	supplies. Includes separate power supply a
NAKAMICHI	CA7A(RI)	s	MM/MC/L	No	1-100 + 03	7	0.002	No	150	2	3		0.625		=		phono boards.
NARAIIIIGIII	CASAII	s	MM/MC/L	No	1-100 + 0,-3	7	0.002	No	150	2	2	No No	0.625	88 88	87 81	2750.00 1150.00	Full system remote for Nakamicl units.
NILES AUDIO	Component	s	L	No	5-50 + 0,-3	7	0.002		50	2	2	No	0.00		101	1130.00	Multi-zone, multi-source switchi
	Commander (RO)																system; modular mainframe with external power supply; optional keypad or handheid remote.
NOBIS TECHNOLOGIES	Proteus	T	MM/L	No	10-35 ±1	12	0.01		65	1	0	Sel.		72		2045.00	Without phono card, \$1695.00.
NRG CONTROL	PA1(RO)	S	MM/MC/L	No	0.4-1M	10	0.01	0	100	2	0	Sel.	Sel.	93	86	7500.00	S/N specified with inputs shorter
																	optional remote, \$400.00; witho phono stage, \$6600.00.
NUMARK	DM1075	S	MM/L	No	20-20 ±2	7.5	0.085			1	2				μ	240.00	For DJs; one mike, three MM, a three line inputs.
	DM1175	S	MM/L	No	20-20 ± 2	7.5	0.085			1	12					350.00	For DJs; two mike, three MM, a five line inputs.
	DM1475 DM1760	S S	MM/L MM/L	No No	20-20 ±2 20-25 ±2	7.5 7.5	0.05			1 0	12 8					750.00 630.00	As above; 8-S digital sampling. For OJs and video music dubbin
	DM1775A	s	MM/L	No	20-25 ±2	8	0.01		1	1	8					1229.50	two mike, two MM, and four lin inputs.
	OM1900	S	MM/L	No	20-30 ± 2	8	0.05	1/0		3	6					854.00	As above; 4-S digital sampling; digital echo, delay, and reverb. For DJs and video music dubbin
			_														one mike, three MM, and five li inputs.
	DM1912	S	MM/L		20-25 ±2	7.8	0.01	1/0		2	6					1090.00	For DJs, video music dubbing, a karaoke; four mike, three MM, a
	DM1975	S	MM/L		20-25 ±2	7.8	0.01	1/ <b>0</b>		2	6					1780.00	six line inputs. For use as above; 4-S digital
																	sampling; digital echo, delay, a reverb; two mike, three MM, an four line inputs.
OCM TECHNOLOGY	88(RI) 55	S S	L		20-20 ± 0.1 20-20 ± 0.1	9 9	0.05	0 1/0		2	0	No		_		1395.00	Class A.
ONIX	0A 24	S	MM/MC/L	No	$11-35 \pm 1$	1	0.004	1/0	140	1	0	No No	2.5	73	66	2195.00 995.00	As above. Requires S.O.A.P. 2 power supp
ONKYD	P-301	S	MM/L	No	15-3 ± 1	5	0.009			3	3	No	2.5	83	-	280.00	\$650.00, or Onix OA 401 amp. Multi-room capability if used wit
	Integra	s	MM/MC/L	No	0.8-170 ±3	6	.0005			2	2	No	2.5	92	81	550.00	M-501 amp. Dual record-output selectors.
	P-304 Integra P-388F	s	MM/MC/L	No	0.8-150 +0,-3	10	.0005	1/0	150	2	0	No	1.25	92	81	1200.00	Motorized input selector and
OWL	1	S	MM/L	No	20-20	5	0.05								-	389.00	volume control. Mono; for replay of LPs, 78s, and
																Each	transcriptions; normal and hill-an dale modes; monitors right or lef
																	groove wall; selectable turnover roll-off with or without RIAA EQ; external power supply; optional
DAC	Dra Batarana	Ŧ			10.100												Multifilter.
PAC	Pro-Reference III Pro-Reference	T T	L MC		10-100 10-100 +0,-1	28 14	0.01		30	1	0	No				3995.00	
	IIIp Pro-Reference	т т	L		10-100 + 0,-1	28	0.01		30	1	0	No				2995.00 2495.00	MC sensitivity, 0.3 mV.
	2000 CPRIb/TIPS	s	L		0-100 +0,-0.1	10	0.01		30	1		No				3100.00	Battery power supply.
PARASOUND	CPRIID/TIPS P/LD-1500	S S	MM/L L	No	0-100 + 0,-1 5-200 + 0,-2	10 10	0.01	0	30 150	1	0	No Sel.	2.6		-	3500.00 795.00	As above. Oirect balanced output; Class-A
	P/FET-900II	s	MM/L	No	10-80 ± 0.5	10	0.005	No	200 150	22	2	No	2.0			455.00	MOS-FET drive stage. Class A; variable loudness contr
PLACETE	P/HP-750li BPIV(RO)	S S	_MM/L	No No	$10-80 \pm 1$ 1-100 ± 0.5	8.5 6	0.008	No	150	2	2	No No	2.6			299.00 3995.00	Variable loudness control. Stepped attenuator; 6-V maximu
ENGINEERING	PPA	s	- MM/L		10-100	-	0.007		150	-	<b>1</b>	No	0.20	70		995.00	input; no gain.
PLATINUM	One	s		No	+0.5,-1 8-200 ±0.1	20	0.03				0	No		. –		3500.00	External power supply; Class A;
	PR103	5 S		No													discrete circuitry.
POINTSOURCE	11100		L		1-150 1-150	12 30	0.02 0.05				0	No				750.00 850.00	
POINTSOURCE AUDIO PRESENCE AUDIO	PRT103 Linestage I	T T	<u> </u>	No No	1-130	50	0.00			1	0	No Yes				1750.00	External power supply; stepped



THE IDEAL

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Bryston's new 3B NRB amplifier is a companion piece to the 4B NRB and 7B NRB, with a similarly optimized interface between power supply and signal circuitry, and the same ultra-linear amplification as its larger counterparts. Its 120 watts per channel is a popular size for a wide range of music systems requiring the highest quality source of power. he 3B NRB uses Bryston's proprietary Quad-Complementary output section, which improves linearity to a new standard of accuracy, while virtually eliminating aggressive higher harmonic distortion products. From input to output, all the circuitry in the NRB series of amps has been optimized for the most musical amplification possible, with dual power supplies to provide precise and focused imaging. New, three-colour LEDs glow green for power-on, yellow for transient clipping, and red to indicate longer-term overload or any other departure from linearity, including shorted outputs, or strong out-of-band information, like RF or DC. Gold plated RCA and XLR input

connectors allow unbalanced or balanced operation at the flick of a rear mounted switch. A ground lift switch separates system ground from audio ground to reduce annoying ground loops and system hum. Finally, switchable monaural operation is available if higher power requirements become necessary. Although the description of circuit innovations can indicate the research and commitment we bring to the design of the finest audio products, only in the listening does the result of that dedication

become clear. Bryston's 3B NRB is capable of doing justice to the most refined



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MANUFACTURER	M M M	Circu	Sign MC	0	H. Lean	N.	UHI UHI	Car .	Hich	1	min	Con land	Se Mu	Tor O	*	Price	Moles
PROCEED	PAV(RI)	s	L	No				1/0		4	0	Na		1		4000.00	Video switching; surround sound decoding (see also "Surround Processors").
PS AUDIO	PS 6.2	S	L	No	20-20 ± 0.1	12	0.01		90	1	0	No				695.00	Direct coupled; active or passive operation.
	PS 5.7 PS PhonoLink	S S	MM/MC/L MM/MC	No	20-20 ± 0.1 20-20 ± 0.25	12	0.01 0.01		90	1	0	No Na	4.8 4.8	85 85	74 74	895.00 695.00	As above. Passive EQ.
PSE	Studio SL Phono A/V1000(RI)	S S	MM/MC/L	No No	5-100 + 0,-0.1 20-20	12 7	0.005	0	250 50	1	0	Sel. Na	10	80	78	950.00 599.00	Without phono stage, Studio SL Line, S850.00. Tuner/preamp (see also ''Tuners'')
PUREST	500	S	L	No	0-150	1	0.003	No	30	1	0	No			1	295.00	Passive.
SOUND SYSTEMS	Dual Mono 1000 Dual Mono	S	L	No	0-150		0.001	No		2	0	No			1.1	465.00	As above.
	1000 Dual Mono Deluxe	S	L	No	0-1 <mark>50</mark>		0. <mark>001</mark>	No		2	D	No				495.00	Active stage can be bypassed.
QUAD	66(RI) 34	S S	MM/MC/L MM/MC/L	No No	15-20 ±0.2 20-20 ±0.5	2	0.025		300 300	2	6	No No	3 3	90 75	90 80	1709.00 870.00	Buffered video input; without plug-in MC board, \$1599.00. Without plug-in MC board, \$795.00
QUICKLINE PRODUCTS	PA-4 CC-1 CC-2	S	MM/MC L L		10-20 ± 0.2	12	0.01		000	2	0	No. No: No:	3.1	90	75	1595.00 1395.00 995.00	External power supply. Passive. As above.
	CC-3 Preamp Moving Coil Transformer	T	MM/L MC	No	1-650 + 0,-3	65 2.8	.0005		20	0	0	No: No: No:	5			495.00 1995.00 335.00	As above. 12.5-ohm output impedance. Transformer; 23-dB fixed gain; for cartridges with output impedance from 0.5 to 40 ohms.
ROKSAN	Rok L1	S	L	No	0.5-120 ± 3	9	0. <mark>001</mark>	No	350	1	0	No				5300.00	External power supply, Rok DS-1, \$1500.00.
	Rok L2 ArtaXerxes	S S	L MC	No	5-25 20-20 ± 0.2	7 8	0.005	No				No			83	2500.00 1400.00	As above.
ROTEL	RC960BX RC980BX RHA-10 RHC-10	S S S	MM/MC/L MM/MC/L L L	No No No	4-100 +0.5,-3 4-100 +0.5,-3 4-100 +0,-1	10 10 10	0.004 0.004 0.004	No No No	150 150 150	2 2 2 1	2 0 0		2.5 2.5	80 85	70 70	300.00 550.00 1800.00 1000.00	Optional phono stage. Passive; with optional phono stage \$2899.00.
JEFF ROWLAND DESIGN GROUP	Consummate (RI)	S	L	No	0.05-160 + 0,-3	8	0.008	1/0	Sel.	1	0	Sel.				<u>5950.00</u>	Microprocessor-controlled switch- ing and volume; external power supply.
	Consummate Phono Stage Consummate	S S	MM/MC MM/MC		5-220 +0,-3 0.15-220	10 10	0.02	1/0					3 5	75 72	72 70	2800.00 950.00	
1000	Phono Stage II Consonance (RI)	s	MM/MC/L	No	+0,-3 0.08-160 +0,-3	7.5	0.012	0	Sel.	1	0	Sel.	5	72	70	3700.00	Microprocessor-controlled switch- ing and volume; phono stage
SIMA	P-2001 Mkll P-3001	SS	MM/MC/L MM/MC/L	No No	20-80 + 0,-3 20-80 + 0,-3	11 7	0.05 0.05	0	200 200	2 2	0	Sef.	1	80 81	67 70	695.00 1850.00	can be deleted. External power supply; no nega-
1.	Celeste P-4001(RO)	S	MM/MC/L	No	1- <mark>100</mark>	9.5	0.05	t	200	2	0	Sel.	1	81	70	1150.00	tive feedback; d.c. coupled; phono input can be ordered as MM, MC, or high level. No negative feedback; d.c. coupled; phono stage optional
SONIC FRONTIERS	SFL-1 SFP-1	H H H	L Mm/mc	No No	$5-100 \pm 0.5$ 20-20 $\pm 0.3$	20 1 20	0.08		200	1	0	No	7	70	65	1395.00 1095.00	†Optional balanced out.
	SFL-1 Signature SFP-1	H H	MM/MC	NO	$5-100 \pm 0.5$ 20-20 ± 0.3	1	0.08		200	1	0	No	7	70	65	1795.00 1495.00	
	Signature SFL-2	T	L	No	5-100 ±3	45	0.075	1/0	235	1	0	Sel.				3 <mark>495.0</mark> 0	External power supply; stepped attenuator; direct inputs.
SDNOGRAPHE SDNY ES	SC22 TA-E80ES(RI) TA-E2000- ESD(RI)	S S S	MM/L MM/MC/L MM/L	No No Yes	3-300 + 0,-3 10-20 ± 0.1	7.5 2.5	0.001 0. <mark>003</mark>	I/O No	150 250	2 4 7	0 2 †	Yes No No	2.5 5	95 84	83	884.00 930.00 1250.00	Without phono board, \$695.00. One coaxial and two optical inputs digital Dolby Pro Logic; digital dynamic range compression/ expansion. +Parametric EQ with 91 control theoretics
SOUND ENGINEERING	PFM-2B	s	MM/L	No	0.2-100 + 0,-0.5	18	0.001	0	300	2	0	Sel.	2.1	92		1750.00	center frequencies.
SOUNDSTREAM	C.2THX(RI) SN.1MkII(RD)	s s	L L	No No	1-50 ±3	7	0.05	0	Var.	1 1	1	No No			5	2795.00 1195.00	THX certified (see also "Surround Processors"); two S-video inputs; two-zone A/V control optional. Four-zone A/V control; includes
SOUNDTECH	Preamp One	T	MM/L	- 17-1	20-100 + 0,-3	2	0.1		200	1	0	No	2	66		1299.00	infrared repeater. Turn-on delay; buffered, unity-gain
SOUND VALUES	0X-180(R0) SV-200	S S	MM/MC/L MM/L	No No	20-20 + 0,-0.1 20-20 + 0,-0.6		0.005 0.005				02			87 83	80	399.00 199.00	tape inputs. Class A; with remote, S549.00. Toroidal transformer; multiple pre outs; tone defeat; active crossover: rack-mount version, \$219.00.

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MANUFACTURER	Model (A), Remon	Circuit Remote During	100 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	Den Pono Man	Tellong	A. A. C. C. C. C. C. C. C. C. C. C. C. C. C.	The Output	8	History Indus	Whilevel Ser Balanced On	wimber of Tan, my	Oc of Ton Processon	May Par Invert Por	chines and a sum	W. P	Price 6 and	tones
SOUND VALVES	VTP-100	Т	MM/L	No	20-20 + 0,-0.2	12	0.009		50		0		10	90		595.00	
SPECTRAL AUDIO	DMC-20 Reference	S	MM/MC/L	No	0-1M ±0.1	80	0.01	1/0	100			Sel.	1.5		90	7295.00	External power supply; without 202
	DMC-12	S	MM/MC/L	No	0-1M ±0.1	40	0.01		100			No	1.5		85	3695.00	phono módule, \$6695.00. External power supply; without 120 phono module, \$3195.00.
SPECTRASCAN	LCA-10	S	MM/MC/L	No	3-250 + 0,-3	15	0.05	No	100	2	0	No	1.0	85	78	1969.00	Without MC input, \$1569.00.
SPECTRUM ENERGETICS	PPA-102		L		0-300		.0001			0	0	No	2				Passive.
SSI SURROUND SOUND	System 5000	S	L	Yes	20-22	10	0.05	1/0		1	0					449.00	Dolby Pro Logic decoding (see also "Surround Processors").
STANTON	310B		MM		20-20	15	0.05						0.5	74		280.00	
SUMIKO/ Copland	CTA-301	T	MM/L	No	5-100 + 0,-1	50	0.01		170	1	0	Yes	2.0	86		1995.00	
SUMO	Diana Athena II	S	MM/MC/L MM/MC/L	Opt. Opt.	20-20 ± 0.1 20-20 ± 0.1	40 20	0.008	0 †	300 300	3	0	No No	0.5	85	80 80	t t	Balanced differential, d.ccoupled line stage; external power supply, †Line, S1399.00; accepts one plug- in module (phono, S150.00, or D/A, S500.00), D.Ccoupled line stage. †Line, S599.00; plug-in phono module, S150.00; plug-in D/A module, S500.00; optional bal- anced out, \$200.00 (not available with D/A).
SUPERPHON	SP-100	S	L	No	0-2M	1.5	.0018	No		1	0	No	1			299.95	Active buffer; no gain stage.
SUTHERLAND	C-1000(RI) C-1001	S S	L	No No	0-200 ± 0.1 0-200 ± 0.1	20 20	0.01 0.01	I/O No	200 200	2	0	Sel. No				15,000. 9500.00	External power supply; protected connector bay. External power supply; stepped attentuator.



MANUFACTURER	Model (R) (P) (P)	Citum Remole Dansed	une of Source and and	Man No. Link	Toloren and the form	3000 × 1	THO DUPULI .	8° 8	Hickory Inuis	W. Level Sen. Balanced Our	whole of Fac my my	Oc of Ton Port	May Par Part Part	And S & Comming the series	F	DICE C AND AND AND AND AND AND AND AND AND AND	7 /
SYMETRIX	SX-202	S	t		20-20		0.007	1/0				Sel.				299.00	†Mike preamp. Mono and stereo outputs; 48-V phantom power; 1.23-mV sensitivity.
SYMPHONIC Line	RG2 MKII RG3 MKIII	s s	MM/MC/L MM/MC/L	No No	5-300 ± 3 5-300 ± 3	12 12	0.05 0.05	No 1/0	120 120	4	0 0	NO NO	2.5 2.5	70 70	63 63	2900.00 5800.00	Modular; external power supply; without phono; \$5000.00.
TANDBERG	TCA 3018A TCA 3038A (RI)	S S	MM/MC/L MM/MC/L		20-20 + 0,-0.1 20-20 + 0,-0.5	20 6	0.009 0.04		80 70	2	0 3	No No	1 0.5	78 75	74 70	1794.00 534.00	
THRESHOLO	T2(RI) T3	s s	L	No	0-200 +0,-1 0-200 +0,-1	19 19	.0001	1/0		2	0	No				5250.00 2250.00	True balanced operation; 10-bit A/ converter controls volume; externa power supply; separate analog and digital regulation; fluorescent display.
TIMES ONE	RFP-4 RFP-3	S S	MM/MC/L MM/MC/L	No No	1-150 ± 1 1-150 ± 1	14 14	0.02	0	45 45	2	2	No No	0.8	89 89	99 99	890.00 790.00	
TUBE RESEARCH LABS	GTRP GTRP.P	T T	L MC													8500.00 12,500.	Stepped attenuators. As above; MC phono sensitivity, 0.125 mV.
VAC	CPA1a	T	MM/MC/L	No	3-150 + 0,-0.25	19	0.022		Var.	1	0	Yes	Var.	85	70	3890.00	Class A; triode tubes; external power supply; adjustable phono gain, impedance, and capacitance; optional balanced out; line-only version without feedback, CLA-1a, capao pa
	CPP1 Vintage	T T	MM/MC MM/MC/L	No	20-20 ± 0.1 3-150 + 0,-0.25	10 19	0.025			1	0	No Yes	Var. 0.5	85 83	70 68	2990.00 1990.00	\$2790.00. Class A; triode tubes; external power supply; adjustable galn, impedance, and capacitance. Class A; triode tubes; optional cag and balanced oul; line-only versior without feedback, Vintage Line Amplifier, \$1490.00.

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MANUFACTURER	Model (A), Remo.	Circum Remole Included	Une - Source - Source - Source - House - A - Source - A -	Due Tone Mer	Fellong	14. 2 08 me	The Output	2° %	His.	W. Cevel Sen Balancey Our	Winder of Tape in W	On the of Tone & Processon	min Pro Controls 100 Part	W. C. S. V. Seminary and	-	HIGE ST	7 /
VIMAK	DS-2000(RI) DS-2000 MKII(RI)	S S	L	Yes Yes	5-20 +0.1,-0.5 5-20 +0.1,-0.5	12	0.004	1/0 1/0		1		Yes Yes				5000.00 5900.00	Delta Sigma D/A conversion; accepts up to 24-bit data; dither applied; seven digital inputs; digi- tal volume and balance controls; RS232/485 port; optional AT&T optical digital input; optional buffered digital output. As above but seven digital inputs include one AT&T and one AT&S EBU; includes buffered digital output; Class-A output stage; software upgradable.
VTL	TL-2 TL-5 PR-1 TDAC-1	T T T	L L Mm/mc/L L	No No No †	10-200 ±1 10-200 ±1 10-200 ±1 10-200 ±1	25 30 32 25	0.007 0.005 0.005 0.006		100 100 100 300	1 1 2 1	0 0 0 0	No No No Sel.	0.15	74	70	990.00 2490.00 2990.00 2990.00	Separate tube power supply. †20-bit D/A converter. Three powe supplies.
WAVELENGTH AUDIO	Analog Control Panel V4	н	L	No	5-200 + 0,-1	5	0.05		500	1	0	Na				1250.00	Optional buffered output; optional stepped attenuator, \$250.00.
WOODSIDE/ RADFORD	SC26P SC27P	T T	MM/MC/L MM/L	No No	5-50 +0,-1 5-50 +0,-1	25 20	0.1 0.1		100 200	3 1	0	No No	2.0 3	85 80	85	3495.00 1395.00	Buffered tape outputs; without phono stage, SC26L, S2495.00. fLine section, tube; phono section hybrid. Without phono stage, SC27L, \$1195.00.
YAMAHA	CX-1(RI) CX-2(RI) CX-630(RI)	\$	MM/MC/L MM/MC/L MM/MC/L	No No No	20-20 ±0.2 20-20 ±0.2 20-20 +0,-0.2	8 8 8.5	0.002 0.002 0.002		150 150 50	3 4 2	2 2 2	No No No	0.83 0.83 0.83	95 94 94	90 82 84	1199.00 799.00 449.00	Seven-position record out selector S-video inputs.
MICHAEL YEE	LA-1 PFE-1	S S	L Mm/mc	No	2-150 ± 3 20-20 ± 0.2	8 4	0.02 0.02		200	2		No No	5			1000.00 900.00	includes external power supply.



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MANUFACTURER	Mo Ar Ar	4	1	P. 14. 4.		Car	×	70/80	1.	1 50	0.10/0.18	_ ···	80/ HA3.	15	Price.
MAGNUM DYNALAB	Etude(RO) FT101A(RO) FT11	F F F		10.3/11.2 10.3/11.2 12.1/13.0	13.2/34 13.2/34 /35.3	1.5/ 1.5/ 1.5	70 70 70	60/80 70	3	60 60 50	0.10/0.18 0.13/0.30		75/ 75/	12 10	815.00 495.00
MARANTZ	ST-53(RO)	D		11.2/	14.8/	1		75	59	45	0.1/0.2		80/73	9	299.00
MCINTOSH	MR7083 MX130(RI) Tuner/Preamp	D D	No No	11.25/ 11.25/	15/37	1.5		70	8	50	0.08/0.8 0.08/		80/75 60/	15½ 30	1750.00 3600.00
MERIDIAN	204 604 504	F/D F/D F/D		10/17 10/17 10/17	10/35 10/35 10/35		50 50 50	60/65 60/65 60/65		40 40 40			78/74 78/74 78/74	10 18 16	1190.00 2250.00 995.00
MTX SOUNDCRAFTSMEN	T100 T100PR0	D		12.5/ 12.5/	11/34.5 11/34.5	1.5 1.5	60 60	63 63	20 20	40 40	0.08/0.3 0.08/0.3	1.010	75/70 75/70	9 10½	399.95 440.00
MUSEATEX AUDIO	FM-1(RI)	F/D		/11.3	17.2/37.2	1.5			99		0.1/0.18		72/68	22	999.00
NAD	402 1600(Ri) Tuner/Preamp	D D	No No	11.3/ 11/	15/37 11/36	1.6/1.6 1.6	60 60	58/ 68	24 14	45 50	0.08/0.1 0.1/0.1	0.2/0.3 0.2/0.3	80/74 82/76	8 13¾	<mark>249.00</mark> 449.00
NAIM AUDIO	NAT 01 NAT 02 NAT 03	F F F							0 0					24 12 6	3095.00 1935.00 1055.00
DNIX	BWD1 BWD1 (w/larger pwr. supply)	F		7.5/	9.1/32		65	30/100		70	0.08/0.20	1 3	90/91	41/2	1200.00 1700.00
ONKYO	T-404 Integra	D	No No	11.2/17.2 10.8/17.2	16.1/36.1 16.1/36.1	1.5 1.3	50 50	50 50	40 40	40 45	0.1 0.2	0.1.61	73/66	7.5 10.6	200.00 350.00
	T-407(RO) T-450 RDS Integra T-9090MKII (RI)	D/R F	No	10.3/17.2	15.8/37.2	1.0	60	95	20	55	0.009/0.02		95/85	18.7	350.00 780.00
PARASOUND	T/DQ-1000	D	No	10.8/16.8	16.1/36.1	1.2	65	80	20	56	0.22/0.12			121/2	345.00
PHILIPS	FT-920(RO)	D		11/		2.0	60	60	30	42	0.2/0.25		77/71	8.8	239.95
PIONEER	F-449	D	No	12.1/	16.2/36.2			70	30	50	/0.3	1.00	83/78	73⁄4	285.00
PTS	A/V1000(RI) Tuner/Preamp	D	No	6.5/12	11/ <mark>34.</mark> 5	1.5	60	63	48	40	0.08/0.3		75/70	11	599.00
QED	T-260	F	-	12/22	18/38				6	45	0.08/	177761	-	12	<mark>595</mark> .95
QUAD	66FM(RO) FM4	F		8/28 10/29	19/40 20/41	0.9 1.5	70 60	57 53	19 8	50 45	0.1/0.15 0.1/0.15	115	76/70 76/70	6.1 6.6	1050.00
REALISTIC	TM-155		No			2.5		40	0	35	/1.0		/60	2.4	60.00
ROTEL	RT950BX RHT-10	0 D	NO NO	10.8/	14.8/37.2 14.8/37.2	1.0/ 1.0/	55 60	60/80 60/80	20 16	46 50	0.07/0.25 0.05/0.1		80/75 87/82	8 12	300.00 1499.00
SANSUI	TUX519	D	No	10.8/	14.0/36.0	1.0	60	60	30	45	0.15/0.2		80/74	6.2	2000.00
SONY ES	ST-S550ES ST-S730ES	D	No No	10.3/ 10.3/	16. <mark>8/3</mark> 8.5 16.8/37.9	1.0/ 1.0/	65 65	65/80 65/70	30 30	65 70	0.04/0.05 0.004/.0075		82/78 100/92	8½ 14	300.00 570.00
SOUNDSTREAM	T-1(RO)	D	No	11.2/17.2	14.7/31.2	1.5	60	65	16	50	0.1/0.1	0.12/0.1	82/79	17	595.00
SOUND VALUES	DX-170(RO)	F/D			17.2/37.2	1.5			5	60		0.1/0.18	72/68	9	299.00
TANDBERG	TPT-3001A TPT-3031A	F F/D		9.3 <mark>/32</mark> .1	14. <mark>7/37.3</mark> 17.3/37.3	0.4/3 0.9	70	/90 100	8 16	60 45	0.03/0.04 0.09/0.2	0.03/0.1	95/92 75/75	15.3 10.7	2394.00 594.00
TEAC	T-X3000	D	No	10.8/	17/39.2	1.7	65	68	20	40	0.2/0.4		80/72	61/2	220.00
TECHNICS	ST-G460		No	10.8/	18.1/38.1	1.0	55	65	39	50			80/73	51/2	239.95
YAMAHA	TX-950(RO) TX-470(RO) TX-350(RO)	D D D	No No No	9.3/ 9.3/ 9.3/	15.1/37.7 15.3/37.7 15.3/37.7	1.2 1.5 1.5	70 55 55	85 85 85	40 40 40	60 52 40	0.02/0.03 0.1/0.2 0.1/0.2		96/90 82/76 82/76	7.5 7 4.9	429.00 269.00 199.00

### RECEIVERS

SURROUND/AN A—Ambisonics		/	F	·	,	7	,	ER S	SECTIO	N		1		,	TUNER	SEC	CTION		_	
D—Dolby Surri DP—Dolby Pro O—Other	Logic	opilonal	mier 8 Ohnes	Frontines	Center	Bar IC	and width		80 iu	the line	1	402 4	on Freeds	01. 081		/		80 Hinto	#onostereo	80 1
MANUFACTURER	bund Logic	Ang Was	THIN THE COME.	8	Pact min Jack Con	MIN DI ANT DUNCE B	Vina 5 m 10	Via heading	Sumunos	4 Clog malence In	Amar Conteste	Mon Mander of Sac A	Speed Street, Comments, Co.	Serie Contraction of the series of the serie	Pillo al tur	ODO, MOCUL	Marine Clanner Ser	15 M. 24	2 / 2	Price of
AUDIOACCESS	MRX(RO)	30	0.015	No	40-18	70	1.5	No	No	No	6	11.2	15.3/37.2	1.3	0.06/0.1	70	88/82	50	35	$\int_{-\infty}^{\infty}$
AUDIOSOURCE	CD Ceiver(RI) Receiver/ CO Changer	35	0.4	LC	10 <mark>-25</mark>	70	2	No	No	No	24	17		1.75		T	76/	45	18½	599.9
BANG & OLUFSEN	Beomaster 4500(RI) Beomaster 7000(RI)	20 50	0.1 0.09	Yes Yes	20-20 20-20	75 78	1.6 1.5	No No	No No	No R	20 20	14 14	19/40 19/40	1.7 1.7	0.3/0.3 0.16/0.2	70 70	75/70 75/70	40 45	15.4 19.2	1200.00 3000.01
CARVER	HR-895(RI)	110/35/ 75	0.09/ 0.09/ 0.09	Yes	20-20	80		Yes	D/DP	No	30	13.5		2.0	0.25/0.2	70	/78	45	38	1249.95
	HR-875(RI) HR-742(RI)	75/35 80	0.09/ 0.09/ 0.09 0.09	Yes Yes	20-20 20-20	80 80		Yes Yes	D/DP D	No No	30 30	13.5 11.3		2.0 1.5	0.25/0.2	70 72	/78 /70	45 46	38 26	949.9
DENON	AVR-3000(RI)	110/35/ 110	0.03/ 0.05/ 0.03	Yes	20-20	76		Yes	DP/O	No	16	10.3	15.3/38.5	1.5	0.1/0.2	F	80/75	40		1400.00
	AVR-2000(RI) AVR-1000(RI)	80/25/ 80 70/20/	0.03/ 0.05/ 0.03 0.08/	Yes Yes	20-20 20-20	76 74		Yes Yes	DP/O	No No	16	10.3	15.3/38.5	1.5	0.1/0.2		80/75	40		900.00
	AVR-800(RI)	70 60/15/ 60	0.1/ 0.08	Yes	20-20	74		Yes	DP/O	No	16	10.3	15.3/38.5	1.5	0.15/0.3		80/75	40		500.00
	DRA-1035R (RI) DRA-835R(RI) DRA-635R(RI) DRA-545R(RI)	130 100 80 60	0.015	Yes Yes Yes	20-20 20-20 20-20	92 86 86		Yes Yes Yes	No No No	No No No	30 30 30	10.3 10.3 10.3	14.8/37.3 14.8/37.3 15.3/38.5		0.06/0.09 0.06 0.09 0.08 0.15	75 75 55	86/82 86/82 82/78	55 55 40		1000.00 800.00 550.00
DUAL	DRA-345R(RI) CR5950RC(RI)	45 60	0.05 0.05 0.03	Yes Yes Yes	20-20 20-20 20-20	78 78 75		Yes Yes Yes	No No	No No No	16 16 16	10.3 10.3	15.3/38.5 15.3/38.5		0.1/0.15 0.1/0.15	55 55 75	82/78 82/78 75/	40 40	28	370.00 370.00 620.00
ELITE	DR9065RC(RI) VSX-95(RI)	60 125/45/	0.03	Yes Yes	20-20	70		Yes	DR/O	No	40	10.0	45.0.07			75	70/		25	480.00
	VSX-52(RI) SX-31(RI)	55 100/50/ 20 100	0.05	Yes	20-20 20-20 20-20			Yes Yes No	DP/O DP/O No	No No	30 30 30	10.8	15.3/37 15.3/37	1.0 1.0	0.08/0.15	65 55	80/85 76/80	50 50	35½ 221/8	1350.00 750.00
FISHER	RS-737(RI)	80/20/	0.05/	Yes	20-20	70		Yes	DP	No No	40	11.3	16.4/38.1	1.5	/0.3	55 50	78/73	40	17 27.2	450.00
	RS-727(RI) RS-717(RI)	80 100/10/ 20 80	0.9 0.08/ 0.9 0.9	Yes Yes	20-20 20-20	70 70		Yes	DP	No No	40	14.7		1.5	0.3/0.4	50 50	73/66 73/66	40	27.2 25.7 20	499.98 399.98 299.98
HARMAN KARDON	HK3300 HK3350 HK3400 HK3500 HK3600 AVR-15(RI)	25 30 35 50 75 30/10/ 30	0.09 0.09 0.09 0.09 0.09 0.09 0.09/ 0.09/ 0.09/ 0.09/	Yes Yes Yes Yes Yes Yes	20-20 20-20 20-20 20-20 20-20 20-20 20-20	78 78 78 78		Yes Yes	DP	NO NO NO NO NO	16 30 16 16 16 30	10.8 10.8 10.8 10.8 10.8 10.8 10.8	/37.2 /37.2 /37.2 /37.2 /37.2 /37.2 /37.2	1.5 1.5 1.5 1.5 1.0 1.5	0.08/0.08 0.08/0.08 0.08/0.08 0.08/0.08 0.08/0.08 0.06/0.08 0.08/0.08	75 75 75 75 75 70 75	80/70 82/74 82/74 82/74 82/74 82/74	50 50 50 50	13.5 13.7 14.9 16.4 18.8 17.2	349.00 399.00 479.00 599.00 849.00 699.00
	AVR-30(RI)	50/20/ 50	0.09/ 0.09/ 0.09	Yes	20-20	78		Yes	DP/O	No	16	13.2	/38.2	1.5		65	80/70	45	19.8	1 <mark>099.00</mark>
IVC	RX1050VTN (RI) RX905VTN (RI) RX809VTN	120/30/ 70 120/30/ 70 120/20/	0.007 0.007 0.007	Yes Yes Yes	20-20 20-20 20-20	80 71 71		Yes Yes Yes	DP DP DP		40 40 40	10.8 10.8 10.8	16.3/38.3 16.3/38.3 16.3/38.3	1.5 1.5 1.5	0.15/0.2 0.15/0.2 0.15/0.2	65 65 60	81/73 81/73 80/73	40 40 40	27.6 27.6 25	1500.00 999.95 629.95
	(RI) RX709VTN (RI) RX509VTN (RI)	70 100/20/ 65 80/20	0.007 0.06	Yes Yes	20-20 20-20	71		Yes Yes	DP DP		40 40	10.8 10.8	16.3/38.3 16.3/38.3	1.5 1.5 1.5	0.15/0.2	60 60	80/73 80/73 80/73	40 40 40	23 23 20.3	499.95 379.95
ENWOOD	RX309TN(RI)	100	0.08	Yes	40-20	70		No	0		40	10.8	16.3/38.3	1.5	0.15/0.2	60	80/73	40	17.7	259.95
	KR-V8050(RI) KR-V7050(RI) KR-V6050(RI) KR-V5550(RI) KR-A5050(RI) KR-A5040(RI) KR-A4040(RO)	120/75 100/65 100/65 100 100 80 50	0.06 0.06 0.06 0.06 0.06 0.09 0.09	Yes Yes No No No No	20-20 20-20 20-20 20-20 20-20 20-20 30-20	78 78 73 73 73 77 76		Yes Yes Yes Yes No No No	D/DP/0 D/0P/0 D/0P D	NO NO NO NO NO NO	20 20 20 30 30 30 30 30	10.8 10.8 10.8 10.8 10.8 10.8 10.8 10.8	16.2/38.2 17.2/41.2 17.2/41.2 17.2/39.2 17.2/39.2 16.2/38.2 16.2/38.2		0.3/0.5 0.4/0.5 0.3/0.5 0.4/0.5 0.4/0.5 0.3/0.5 0.3/0.5		79/73 78/73 78/73 78/73 78/73 78/73 79/73 79/73	45 45 45 45 45 45 45	29 28 27 18 17 17 15	599.00 499.00 449.00 349.00 279.00 279.00 279.00 229.00
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### RECEIVERS

SURRDUND/AM A—Ambisonics		1	1						SECTION	١		/			TUNER	SEC	TION			
D—Dolby Surro DP—Dolby Pro O—Other	ound /	ed,	8 Ohnie	. /	inter /	10	A ma SA main and well		88	The		4	the set	/	/	/	/	100	Slereo	18
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MANUFACTURER	Man Man	- and	IHI	Head	Paten Single	N. M.	* 0	en la	Surro	1	*/2	IE.C.	ends and	0 3	Hunder 1	10/14	Merroy	100	Weigh	Price,
MARANTZ	SR-92(RI)	110/35/ 75 75/30/	0.09	Yes	20-20 20-20	78 78	1.0 1.25	Yes	DP DP	No No	30 30	10.8	11.2/ <b>3</b> 5.2 11.2/ <b>3</b> 5.2	1	0.2/0.5	70 70	76/68 76/68	45	34 30	1099.00 849.00
	SR-82(RI) SR-73(RI)	75 75/35/	0.09	Yes Yes	20-20	77	1.25	Yes	DP	No	30	10.8	11.2/35.2	1	0.2/0.5	65	76/68	45	21	649.00
	SR-63(RI) SR-53(RI)	75 70 45	0.05	Yes	40-20 40-20	77	1.55 1.9	Yes No		No	30 30	10.8 10.8	11.2/35.2 11.2/35.2	1.2	0.2/0.5 0. <b>2</b> /0.5	65 65	76/68 76/68	45 45	18 16	429.00 329.00
MITSUBISHI	HTS-300	100/50/ 100	0.002	Yes	20-20	80		6	DP/0		16	12.8	15/37.2	1.0	0.08/0.1	80	75/70	40	39	1699.00
NAD	701(RI) 705(RI) 7100X(RI)	25 40 60	0.03 0.03 0.03	Yes Yes Yes	20-20 20-20 20-20	75 76 75	4 3.5 5.5	No No No		No No No	60 39 14	11.3 10 11.3	15/37 14/35 26/	1.6 1.6 1.6	0.1/0.1 0.08/0.1 0.1/0.09	58 60 70	80/74 82/76 82/78	45 50 50	13 <sup>1</sup> /4 14 <sup>3</sup> /8 24 <sup>1</sup> /2	349.00 499.00 749.00
NAKAMICHI	RE-1(RI) RE-2(RI) RE-3(RI) AV-1(RI)	80 55 37 100/30/	0.1 0.1 0.1 0.1	Yes Yes Yes Yes	5-40 5-40 10-40	78 78 78 78 73		Yes No No Yes	No No No DP/D	NO NO NO NO	10 10 10 30	11.0 12.0 12.0 12.0	14.7/37.5 15.7/38.5 15.7/38.5 17.0/38.5	2.0 2.0 2.0	0.07/0.07 0 1/0.1 0.2 0.25 0 2 0.3	55 55 55	79/74 79/74 72/67 76/70	50 50 38	24 <sup>1</sup> ⁄ <sub>4</sub> 19 13 <sup>1</sup> ⁄ <sub>4</sub> 30 <sup>3</sup> ⁄ <sub>4</sub>	799.00 599.00 399.00 1200.00
	AV-2(RI)	50 70/20/ 35	0.1/ 0.1 0.1/ 0.1/ 0.1/ 0.1/	Yes		73	ł	Yes	DP/O	No	30	12.0	17.0/38.5		0.2/0.3		76/70		283/4	850.00
DNKYD	TX-910 TX-930 TX-SV313PRD	45 60 60/15/	0.3 0.2 0.08/	Yes Yes Yes	40-20 40-20 20-20	80 80 80		No No Yes	DP	NO NO NO	40 40 40	12.4 12.4 11.2	18.2/38.2 18.2/38.2 18.0/37.2	1.5 1.5 1.5	0.15/0.3 0.15/0.3 0.15/0.2	55 55 55	70/65 70/65 73/67	40 40 45	16 17.6 22.3	240.00 290.00 410.00
	TX-SV515PRD	15 55/20/ 55	0.8/ 0.08 0.08/ 0.8/	Yes	20-20	80		Yes	DP/D	No	40	11.2	18.0/37.2	1.5	0.15/0.2	55	73/67	45	29.8	530.00
	TX-SV717PRD	85/30/ 85	0.08 0.02/ 0.03/	Yes	20-20	80		Yes	DP/D	No	40	11.2	17.237.2	1.5	0.1/0.2	55	76/70	45	30.6	950.00
	Integra TX-SV909PRO (RI)	110/30/ 110	0.02 0.04/ 0.08/ 0.04	Yes	20-20	80		6	A/DP/D	No	40	11.2	17.2/37.2	1.5	0.1/0.2	55	76/70	45	48.5	1 <mark>850</mark> .00
OPTIMUS	STA-7500(RI) STA-5500(RI) STA-795 STA-300 STA-20	50 50 50 15 5	0.5 0.5 0.5 0.5 0.5 0.05	Yes Yes Yes Yes Yes	20-20 20-20 40-20 40-20 40-20	66 66 70		Yes Yes No No No		No No No No	30 30 18 18 0	16.4 16.4 10.1 10.1		1.3 2.0 2.0	/0.1 0.D1/ /0.3 /0.4	43	/68 /64	40 33 35		230.00 200.00 180.00 140.00 100.00
OPTIMUS PRDFESSIONAL	STAV-3400 (RI)	110/40/ 70	0.05/ 0.8/	Yes	20-20	77		Yes	D/DP	No	30	10.8	15.3/37	1.0	0.2/0.3	65	77/80	45	221/2	<mark>600.00</mark>
	STAV-3300 (RI)	100/20/ 70	0.8 0.05/ 0.8/	Yes	20-20	77		Yes	D/DP	No	30	10.8	15.3/37.0	1.0	0.2/0.3	60	77/80	40	213⁄8	500.00
	STAV-3270 (RI)	80/20	0.8 0.09/ 0.8	Yes	20-20	75		Yes	D/DP	No	30	12.3	16.8/38.6		0.3/	50	73/70	35	18 <sup>3</sup> ⁄8	380.00
	STAV-3170 (RI) STA-2180(RI)	100/20 70	0.09/ 0.8 0.8	Yes Yes	20-20 20-20	75 72		Yes Yes	D/DP	No No	30 30	12.3 12.3	16.8/38.6 16.8/38.6	1.0	0.2/0.3	50 50	73/70 73/70	35 35	18 <sup>3</sup> /8	330.00 250.00
PHILIPS	FR-910(RI) FR-920(RI) FR-930II(RI)	40 50/10 70/20/	0.3 0.3 0.07/	Yes Yes Yes	40-20 40-20 40-20	74 74 74		Yes Yes	D D/O DP/O		30 30 30	13.5 13.5 13.5	13.5/39.8 13.5/39.8 13.5/39.8		0.3/0.5 0.3/0.5 0.3/0.5	55 55 55	70/65 70/65 76/68	40 40 45	12.7 12.7 17.6	219.00 269.00 429.00
	FR-940II(RI)	20 100/20/ 40	0.3/ 0.3 0.09/ 0.3/	Yes	20-20	74		Yes	DP/D		30	13.5	13.5/39.8	Ľ	0.3/0.5	55	76/68	45	17.6	479.00
PIDNEER	SX-201 SX-251R(RI)	50 50	0.3	Yes	20-20		-			-	30 30	12.3	16.2/38.6		/0.03	50	73/75	35	11 <sup>3</sup> /4 11 <sup>3</sup> /4	225.00 260.00
	SX-2312R(RI) VSX-402(RI) VSX-452(RI)	70 100/20 60/20/	0.08 0.09	Yes Yes	20-20 20-20 20-20			Yes			30 30 30	12.3 12.3 12.3	16.2/38.6 16.2/38.6 16.2/38.6		/0.03 /0.03 /0.03	50 50 50	73/75 73/75 73/75	35 35 35	12 <sup>7</sup> /8 18 <sup>3</sup> /8 18 <sup>3</sup> /8	285.00 335.00 385.00
	VSX-502(RI)/ VSX-512S(RI)	60 70/20/	0.8	Yes	20-20			Yes	D/DP/D		30	10.8	15.3/37	1.0	0.2/0.3	65	80/76	33	213/8	From
	VSX-D602S (RI)	70 70/40/ 70	0.05	Yes	20-20			Yes	D/DP/O		30	10.8	15.3/37	1.0	0.2/0.3	65	80/76		221/2	520.00 735.00
	VSX-D702S (RI) VSX-D902S	70/40/ 70 125/45/	0.05	Yes Yes	20-20 20-20			Yes Yes	D/DP/0 D/DP/0		30 30	10.8	15.3/37 15.3/37	1.0	0.2/0.3	65 65	80/76 80/76		22 <sup>1</sup> /2 32 <sup>1</sup> /8	850.00 1175.00
	(RI) VSX-D1SII(RI)	55 Mode A: 130/50/ 55 Mode B: 70/55/ 70	0.005	Yes	20-20			Yes	D/DP/O		30	10.8	15.3/37	1.0	0.2/0.3	65	80/76		331/2	1385.00
RCA (Continued)	RV3761F(RI)	60/25/ 60	0.05/ 0.09/ 0.05	Yes	20-20	75	1.2	Yes	DP	No	30	12.5	20/42	2	/0.5	55	75/65	45		899.00

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### RECEIVERS

SURROUND/A	30	/	A	<u> </u>	,	-	-	IER	SECTIO	N		1		,	TUNER	SEC	TION	,	-	
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	ter fer	W. He	IL Rear	10° - 00	Pack will Level	111 0	Wig S	amic He	Surrounder	Code An	The Configure	Number	Spine (unante) Sa	ono Sie	Ino at 1 the	10% Mo	ale Chan	*S 4.	Wein	597 10
MANUFACTURE	R	1 and	Ino					-	-					10	a OH				Wei	
RCA (Continued)	RV3651F(RI)	60/15/ 60	0.09/ 0.7/ 0.09	Yes	40-20	70	1.0	Yes	DP	No	30	14.2	23.2/40.2	2	0.4	55	70/65	40		399.00
ROTEL	RX940AX RX950AX	40 60	0.03	Yes Yes		75 75		No Yes	No No	No No	16 16	10.8 10.8	14.8/37.2 14.8/37.2	1.0 1.0	-071/0.25 071/0.25	60 63	80/75 80/75		15½ 20	400.00 600.00
SANSUI	RZ9500AV(RI)	100/30/ 40	0.02/ 0.03/	Yes	20-20	73	1.5	Yes	DP	No	30	11.2	17.2/38.2	1.5	0.2/0.3	50	76/70	40	30.6	750.0
	RZ790 0AV(RI)	50/10/ 50	0.03 0.08/ 0.9/	Yes	<mark>20-20</mark>	72	1.5	Yes	DP	No	30	11.2	17.2/38.2	1.5	D.2/0.3	50	78/72	40	22.1	50 <mark>0.0</mark> 0
	RZ790(RI) RZ590(RI)	35 25	0.08 0.5 0.5	Yes Yes	20-20 20-20	73 73	1.5 1.4	Yes No	0	No No	24	13.2 13.2	18.0/40.0 18.0/40.0	1.5	D.3/0.5 D.3/0.5	50 50	76/70 76/70	40	13.4 13	250.00 225.00
SHERWOOD	RV-6030R(RI)	105/25 75	0.05/ 0.5/	Yes	20-20	77	1	Yes	DP		30	10.8	15.2/36.2	1.25	0.15/0.3	55	80/73	45	25	475.00
	RV-5030R(RI)	85/20/ 65	0.5 0.05/ 0.5/	Yes	20-20	77		Yes	DP		30	10.8	15.2/36.2	1.25	0.2/0.3	55	78/72	45	22	37 <mark>0.0</mark> 0
	RX-4030R(RI) RX-2030R(RI)	65 40	0.5 0.05 0.08	Yes Yes	20-20 20-20	77 75			0		30 30	10.8 10.8	15.2/36.2 16.2/38.1	1.25	0.2/0.3	55 52	78/72	45 45	15½ 13	225.00 195.00
SONY	STR-D311(RI) STR-D511(RI)	70 50/10/	0.8 0.8/	Yes Yes	40 <mark>-20</mark> 40-20	74 74	*-	Nø Yes	No DP	No No	30 30	11.2 11.2	18.3/38.3 18.3/38.3	1.2	0.3/0.5 0.3/0.5	60 60	76/70 76/70	45 45	13¼ 13	220.00 300.00
	STR-D611(RI)	10 70/20/	0.8/ 0.8 0.8/	Yes	40-20	74		Yes	DP	No	30	11.2	18.3/38.3	1.2	0.3/0.5	60	76/70	45	14	350.00
	STR-D711(RI)	20	0.8/ 0.8 0.1/	Yes	20-20	87		Yes	OP	No	30	11.2	18.3/38.3	1.2	0.3/0.5	60	76/70	45	22	430.0
	STR-D911(RI)	65 100/25/ 70	0.7/ 0.1 0.1/ 0.7/	Yes	20-20	87		Yes	DP	No	30	11.2	18.3/38.3	1.2	0.3/0.5	60	76/70	45	22	500.0
	STR-D1011 (RI)	125/60/ 75	0.1 0.04/ 0.1/	Yes	20-20	87	n.	Yes	DP	No	30	11.2	18.3/38.3	1.2	0.3/0.5	60	76/70	45	29	620.0
	STR-D2090 (RI)	120/60/ 75	0.04 0.04/ 0.8/ 0.8	Yes	20-20	87		Yes	DP	No	30	11.2	18.3/38.3	1.2	0.3/0.5	60	76/70	45	30	1000.00
SDNY ES	STR-GX69ES (RI)	100/50/ 50	0.08/ 0.8/	Yes	20-20	85	-	Yes	DP	No	30	11.2	18.3/38.3	1.2	0.2/0.4	60	80/74	45	29 <sup>3</sup> ⁄4	650.00
	STR-GX808ES	70/40/ 70	0.8 0.04/ 0.04/	Yes	20-20	87		Yes	DP	No	30	11.2	18.3/38.3	1.2	0.3/0.5	60	80/74	45	271/2	820.00
	STR-GX909ES	80/40/ 80	0.04 0.04/ 0.04/	Yes	20-20	87		Yes	DP	No	30	11.2	18.3/38.3	1.2	0.3/0.5	60	80/74	45	321⁄4	1050.00
	STR-GX1ES (RI)	80/40/ 80	0.04 0.04/ 0.04/ 0.04	Yes	20-20	87		Yes	DP	No	30	11.2	18.3/38.3	1.2	0.3/0.5	60	80 74	45	33	1700.00
TANDBERG	TPR-3080A	80/100	0.09	LC		72		Yes	No	1	16	12.8	17.3/37.3	0.9	0.09/0.2	100	75/75	45	261/2	1494.0
TEAC	AG-V3020(RI)	100/17/ 28	0.01	Yes	20-20			Yes	DP	No	30	10.8		1.5	0.200		75.70	40	28½	569.00
	AG-V1020(RI) AG-620(RI)	100 50	0.08 0.08	Yes Yes	20-20 40-20			Yes No	0	No	30 30	12 12	Pre-1	1.5 1.5	0.2/0.4		75/70 75/70	40	23 15½	379.00 279.00
TECHNICS	SA-GX650 SA-GX550	100/45/ 100 75/30/	0.05/ 0.03 0.05/	Yes Yes	7-70	70 70		Yes Yes	DP DP	No No	30	11.2 11.2	18.3/38.3		0.2/0.3	65 65		40	24 23½	529.9 429.9
	SA-GX350	75 50/20/ 50	0.03 0.05/ 0.03	Yes	7-70	70		Yes	DP	No	30	11.2	18.3/38.3		0.2/0.3	65		40	19½	329.9
100	SA-GX130	70	0.03	Yes	10 <mark>-70</mark>	68		No		No	30	11.2	18.3/38.3		0.2/0.3	65		40	15¼	229.9
AMAHA	RX-V1070(RI)	110/30/ 110	0.015/ 0.08/ 0.015	Yes		86	1.6	Yes	DP/O	No	40	9.3	15.1/37.7	1.5	0.1/0.2	85	81/76	50	41	1349.0
	RX-V870(RI)	80/25/ 80	0.015/ 0.08/ 0.015	Yes		86	1.4	Yes	DP/O	No	40	9.3	15.1/37.7	1.5	0.1/0.2	85	81/76	50	32 <sup>5</sup> /8	949.0
	RX-V670(RI)	70/25/ 70	0.03/ 0.3/ 0.08	Yes		86	1.09	Yes	DP/O	No	40	9.3	15.1/37.7	1.5	0.1/0.2	85	81/76	50	23½	749.0
	RX-V470(RI)	50/15/ 50	0.1/ 0.5/ 0.1	Yes	10-50	82		Yes	DP/O	No	40	9.3	15.1/37.7	1.5	0.1/0.2	85	81/76	50	157/8	499.0
	RX-950(RI) RX-770(RI) RX-570(RI) RX-460(RI) RX-460(RI)	120 85 70 55 45	0.005 0.019 0.019 0.04 0.04	Yes Yes Yes Yes Yes	10-50 10-50 10-50 10-40 10-40	92 88 88 82 82	1.25	Yes Yes No No		No No No No	40 40 40 40 40	9.3 9.3 9.3 9.3 9.3 9.3	15.1/37.7 15.1/37.7 15.1/37.7 15.1/37.7 15.1/37.7 15.1/37.7	1.5 1.5 1.5	0.1/0.2 0.1/0.2 0.1/0.2 0.1/0.2 0.1/0.2 0.1/0.2	85 85 85 85 85	81/76 81/76 81/76 81/76 81/76 81/76	50 50 50 50 50	33 <sup>1</sup> /4 22 19 <sup>3</sup> /4 13 <sup>1</sup> /2 12 <sup>1</sup> /4	899.00 549.00 399.00 299.00 249.00
	RX-360(RI) RX-350	45 40	0.04 0.04	Yes Yes	10-40 10-40	82 87		No Yes		No No	40	9.3 9.3	15.1/37.7 15.1/37.7		0.1/0.2 0.1/0.2	85 85	81/76 81/76	50 50	12¼ 11¾	22

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### TURNTABLES

SPEED CODE A-331/3			/		/	/ /	/	/ ,	/	/		/ /	14	-	-	T	DNEA		-/
B-331/2, 45 C-331/2, 45, 78 D-Continuousiy V	ariable Hoten (199	tender the series	sectional provide Sectional peets Section	out and and and and and and and and and and	10-33/5 UP	014 45 539 014 45 539 50°	a had made	unert 2	stren R.	AND PROFESSION	Hunnes of	Unstra The Sult	Statistic Parts	Asture des	insteine ber	anstrent to	an Ponte Con	State State	Duscover Duscover
AURA	Aura Mkli	8	[ ]		Belt		10	Yes	No	ſ	Í	Í	Í		Í .	ſ		24 x 8 <sup>1</sup> /2 x 16	3950.0
BANG & DLUFSEN	Beogram 4500	В	0.06	80	Belt	0.2		No	No	L/S	43/4	C/R	1.0-1.5	No	1.6	240	F	16 <sup>1</sup> /2 x 3 x 12 <sup>3</sup> /4	650.0
JEURGEN	Beogram 7000 Beogram 9500	B B	0.06 0.06	80 80	Beit Beit	0.2 0.2		Yes No	No No	L/S L/S	43/4 43/4	C/R C/R	1.0-1.5 1.0-1.5	No No	1.6 1.6	240 240	F	16½ x 3 x 12¾ 16½ x 3 x 12¾	650.0 650.0
BASIS AUDID	Debut Gold	В	0.02	90	Belt	0.02		1								1		23 x 161/2 x 71/4	6900.0
	Standard Ovation Debut Gold Vacuum	B B	0.02 0.02	90 90	Belt Belt	0.02 0.02												23 x 16½ x 5½ 23 x 16½ x 7¼	4395.0 8900.0
DENON	DP-59L DP-47F DP-23F DP-7F	B B B B	0.006 0.01 0.02 0.018	82 78 75 75	Direct Direct Direct Direct	0.002 0.002 0.002 0.01	9.9	No Yes Yes Yes	NO No No No	P/\$ P/\$ P/\$ P/\$	9.6 8.7 8.7 8.7	C/R C/R C/R	0-3 0-3 0-3 1.25	Yes Yes Yes Yes	3-14 3-12 4-9 6		W R R P	19¼ x 8½ x 16½ 17 x 7 x 16½ 17 x 4½ x 14½ 14⅔ x 3¾ x 14½	750.0 500.0 325.0 250.0
DUAL	Golden-1 CS-750	C C	0.023	80 80	Belt Belt			No No	No No	P		C	0.3-10	Yes Yes	3-12 3-13	150 130	R	17 <sup>1</sup> / <sub>4</sub> x 5 <sup>1</sup> / <sub>2</sub> x 15 17 <sup>1</sup> / <sub>4</sub> x 5 <sup>1</sup> / <sub>2</sub> x 15	1195.0 750.0
	CS-750 CS-505-4 CS-450 CS-431	B B B	0.023 0.06 0.07 0.08	80 75 70 70	Belt Belt Belt			NO NO NO	NO NO NO	P P P		с с	1-4 1-4 1-4	Yes Yes Yes	3-10 3-10 3-10 3-10	150 150 150	R R R	1714 x 512 x 141/2 1714 x 51/2 x 141/2 1714 x 51/2 x 141/2 1714 x 51/2 x 141/2	520.0 375.0 270.0
ELITE	PL-90		0.018 wrms	85	Oirect					Р	111/8							231/2 x 81/2 x 171/8	950.0
ESDTERIC SOUND	RA-6 (w/Cartridge)	C	0.045	70	Direct	0.02	7	No	No	Р	81/4	R	2-5	Yes	2-10	250	R	161/2 x 133/4 x 41/2	225.(
	Vintage V-2 Isis Ramses	C C D C	0.045 0.025 0.025 0.025	70 75 75 75 75	Belt Direct Direct Belt	0.02 0.01 0.01 0.02	6 8 45 8	NO NO NO NO	No No No No	P P P	91/8 81/4 81/4 91/4	R C C C	1.25-3.5 2-5 2-5 1.25-5	No Yes Yes Yes	6 2-10 2-10 2-10	250 200 200 200	P R R R	17 x 14½ x 3½ 16½ x 13¾ x 4½ 16½ x 13¾ x 4½ 16½ x 13¾ x 4½ 17¾ x 13½ x 6	265.0 375.0 420.0 425.0
	(w/Cartridge) V-3 BES Dsiris	C C C	0.025 0.1 0.04	72 65 80	Direct Belt Belt	0.01 0.02 0.01	8 0 7	No No No	No No No	P P P	9¼ 9 9	C C C	1.25-5 1.25-5 1.25-5	Yes Yes Yes	2-10 2-10 2-10	200 180 180	R R R	17¾ x 13½ x 6 18¼ x 14¼ x 6¼ 20¼ x 16½ x 7½	495.0 665.0 1225.0
GEMINI Sound Products	XL-BD10 XL-DD20 XL-BD40 XL-DD50II XL-1800QII	B B B B	0.25 0.2 0.15 0.15	50 50	Belt Direct Belt Direct Direct		6 8 8 8	No No No No	NO NO NO NO NO	P P		R R R	1.5 1.5	Yes Yes Yes Yes Yes			R R R R	16 <sup>1</sup> / <sub>2</sub> x 14 <sup>1</sup> / <sub>2</sub> x 4 <sup>1</sup> / <sub>2</sub> 16 <sup>1</sup> / <sub>2</sub> x 14 <sup>1</sup> / <sub>2</sub> x 4 <sup>1</sup> / <sub>2</sub> 17 <sup>1</sup> / <sub>2</sub> x 14 <sup>1</sup> / <sub>2</sub> x 6 17 <sup>1</sup> / <sub>2</sub> x 14 <sup>1</sup> / <sub>2</sub> x 6 17 <sup>1</sup> / <sub>2</sub> x 14 <sup>1</sup> / <sub>2</sub> x 6	180.0 275.0 300.0 380.0 480.0
JAC	ALA155TN ALA151BK	B B	0.04		Belt Belt		ţ.	Yes Yes	No No	P/S P/S		C/R	1.25				P	41/8 x 171/2 x 141/2 41/8 x 171/2 x 141/2	100.0
KENWOOD	KD-491FC KD-291FC P-100	BB	0.05	68 68	Beit Beit			Yes Yes	1		8 <sup>3</sup> /4 8 <sup>3</sup> /4	C/R R		No No			F	17 <sup>3</sup> / <sub>8</sub> x 4 <sup>1</sup> / <sub>4</sub> x 15 <sup>3</sup> / <sub>8</sub> 7 <sup>3</sup> / <sub>8</sub> x 4 <sup>1</sup> / <sub>4</sub> x 15 <sup>3</sup> / <sub>8</sub>	129.0 79.0 119.0
LINN	LP12/Lingo LP12/	BA			Belt Belt	0.01		No No	No No									17½ x 14 x 5½ 17½ x 14 x 5½	2645.0 1745.0
	Valhalla LP12/Basik Axis Basik	A B A			Belt Belt Belt	0.1 0.1 0.1		No No Yes	No No No	P P	83/a 83/a		0-3 0-3	Yes Yes	2-10 2-10	100	F	17½ x 14 x 5½ 17½ x 13¾ x 5½ 17¾ x 13¾ x 5½	1395.0 1195.0 595.0
MERRILL AUOIO	Heirloom	A	0.02	100	Belt	0.01		Yes										19 x 15 x 8	3800.0
J. A. MICHELL	Syncro Mkili Mycro Gyrodec Mkili Gyrodec Mkili LE	B B B	0.05 0.05 0.05 0.05	77 77 80 80	Belt Belt Belt Belt	0.22 0.22 0.01 0.01		NO NO NO	NO NO NO	P P				Yes Yes			F	18 x 5 x 13 18 x 5 x 13 20 x 6 x 16 20 x 6 x 16	1350.0 1450.0 1795.0 1995.0
NUMARK	TT1500	В	0.055	90	Direct		8	Yes	No	Р	83/4		0-3	Yes	5-8		R	16 <sup>3</sup> /8 x 14 <sup>1</sup> /4 x 5 <sup>1</sup> /4	349.0
OPTIMUS	LAB-2250 LAB-340	B B	0.10 0.15	55 45	Belt Belt			Yes No	No No	L/S P/S		R	2-3 2.5	Yes Yes			R F	3 <sup>3</sup> / <sub>4</sub> x 14 <sup>1</sup> / <sub>4</sub> x 13 <sup>3</sup> / <sub>4</sub> 4 x 13 <sup>7</sup> / <sub>8</sub> x 13 <sup>7</sup> / <sub>8</sub>	100.0 150.0
ORACLE AUDIO	Paris MKIV Alexandria	BB		-	Belt Belt		55	No					1					19 x 15 x 5½ 19 x 15 x 6½	995.0 1595.0
	MKIV Delphi MKIV Premiere	BB			Belt Belt		5	No Yes										19 x 14½ 20 x 15	Fro 2650. Fro
PINK TRIANGLE	MKIV Anniversary Export LPT	B B B	0.05 0.05 0.05	80 72 72	Belt Belt Belt	0.05 0.05 0.3	5 5	Yes Yes Yes	No No No	1								1734 x 15½ x 6½ 1734 x 15½ x 6½ 1734 x 15½ x 6½ 1734 x 14½ x 6¼	3995.1 3995. 1895. 1195. 1195. 1Mol
PIONEER	PL-600/KUC PL-203AZ				Belt Belt			_		P P		C/R R	-					165% x 33/4 x 14 191/4 x 51/2 x 161/2	Re 145.1 100.1
REGA RESEARCH (Continued)	Planar 3 w/RB300 Arm Planar 2 w/RB250 Arm	B B			Beit Beit					P P							F		775. 575.

37 C . (1.93)



### Take Note: for a perfect musical connection – kimber completes the score

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## High Technology. Low Prices.

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The VMPS **Dipole Surround**: bipolar radiation, great imaging

Our two newest models maintain this 17-year tradition. The VMPS **Dipole Surround** (\$349ea) is designed for side channel operation in high quality home theater installations. Features include front-and-rear firing  $6^{1/2}$ " butyl surround polycone woofers (with phase plugs) and 1' softdome tweeters in a sealed enclosure only  $16 \times 10 \times 9$ ". Bass response is flat to 48Hz (-3dB), sensitivity high (92dB/1W/1m), imaging spectacular and front-to-back depth amazing for such a small speaker. Audiophiles fond of their expensive imported mini-monitors should discover the Dipole Surround, one of the best-sounding compact speakers available regardless of price.

At the other end of the scale, there are few larger  $(68 \times 14 \times 18'')$  or heavier (350 lbs.)floor-standing full-range systems than the VMPS FF-1 Focused Field Array, currently the only fully symmetrical vertically focused widerange monitor in commercial production. No system known to us generates so much firstoctave output (-3dB/14Hz) at vanishingly low THD (no more than 0.4%/1W drive), and even the most exotic ribbon/planar designs can't match the FF-1's silky trebles and 45kHz cutoff (-3dB). A 3" thick MDF front baffle, radiused hardwood corners, and 2" MDF side/back baffles, plus Soundcoat and extensive bracing, virtually eliminate the cabinet as a secondary sound source. The system's unique slot-loading mask defeats treble diffraction effects. The wave-



The VMPS **FF-1**: our candidate for World's Greatest Loudspeaker

form launch from our handbuilt carbon filled polypropylene woofers (with 3" phase plugs) and woven carbon fiber 5" mids (1½" phase plugs) is *much* more coherent than that from conventional dust-capped drivers. Crossovers boast such luxury parts as MIT Multicaps, IAR Wondercaps, and Perfect Lay coils mounted in discrete outboard enclosures. At \$6800/pr for light and dark oak, or \$7200/pr for piano black, dark cherry, or walnut, the FF-1's set a new price/ performance standard.



The Larger VMPS Subwoofer: one of four starting at \$289

Adding thunder to your high-end music or A/V home theater system? The **Larger VMPS Sub**woofer (\$529ea kit, \$649ea assem) is simply /the lowest-distortion (0.5%/1W), widest bandwidth (-3dB/17Hz), highest output (120dB SPL+/1m) home bass module in existence. Our **Passive Crossover** (\$35 kit, \$45 assem) permits operation from your existing main amplifier. Completely lacking from this 150 lb., dual 15" ānd 12" true Subwoofer are the cardboard enclosures, flailing small drivers, chuffing vent noise, midfi power amps, equalization boost and output limiters found even in some very expensive competitors.

Hear VMPS at the dealers listed below, or write for brochures and test reports on all 13 models. Listed prices including free shipping in 48 states; kits are supplied with fully assembled cabinets.

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### TURNTABLES

SPEED CDDE A-331/3			/	/	/	/ /	/	/ ,	/			/ /		_			DNEA		$\neg$
3—331/3, 45 3—331/3, 45, 78 3—Continuously V	ariable Notein from	the Inclusion	solutional solutional	ode ster	3315 har	DIN 45-539	•	ursed Adi	o Allen R?	Auth Part	Humber 2 History P	Unes in the	Solution Person	Helung Play Play	In States Local	strent	In Panse Call	Sand & sand sand sand the	inesciret
MANUFACTURER	Hoten Roll	Reinss	entions	PIN AS	male Driv	system spe	ad mac	used Adit	ontrols	Auth Play	Serie P	NOT RULE	Cue anni Recon	ange o	all'Statin Cart	ton Ton	al Cable	Hour Construint	Price
REGA RESEARCH Continued)	Planar 78 w/RB250 Arm	t			Belt					P						=	F		575.00 †78 rpm
REVOLVER	Revolver w/Revolver	В	0.08	6 <mark>5</mark>	Belt	0.02		No	No	Ρ	9		0.75-3.0	Yes	3.0-10.0	45	F	161/2 x 141/2 x 41/4	From 595.00
	Arm Revolver w/Revolver	в	0.08	65	Belt	0.02		No	No	P	9		0.75-3.0	Yes	2.0-12	45	F	16½ x 14½ x 4¼	From 875.00
	Super Arm Revolver Rebel w/Arm & Goldring Elan Cart.	В	0.08	65	Belt	0.02		No	No	P	9		0.75-3.0	Yes	2.0-10.0	45	F	16½ x 14½ x 4¼	449.00
RDCKPDRT TECHNDLOGIES	Capella System II Sirius- Limited Edition	A B	0.02 0.01	90 96	Belt Belt	0.01 0.01		Yes Yes		Â	63/4 63/4		0.5-3.0 0.5-3.0		3-15 3-15		F	24 x 18 x 10 24 x 19 x 32	20,000 30,000
ROKSAN	Xerxes Radius	B B	0.02 0.04	83 79	Belt Belt		0.5 0	Yes Yes	No No	Р	9.45		1.2-2.5	Yes	5-10	150	F	18 <sup>7</sup> /8 x 15 x 6 <sup>1</sup> /8 17 x 14 x 5	2 <mark>260</mark> .00 1300.00
RPM	RPM-1 RPM-2	B B			Belt Belt		10 10	Yes Yes		P P	10		1-5	No	6-15		w	18½ x <mark>15</mark> x 6	2995.00 w/o Arm. 1795.00 4500.00
SDTA	Comet Satellite Jewel Sapphire Star Nova Cosmos	B C C B B B B	0.1 0.1 0.03 0.03 0.03 0.03 0.03 0.03 0.	65 65 87 87 87 87 87 87 87	Belt Belt Belt Belt Belt Belt Belt	0.1 0.02 0.02 0.02 0.02 0.02 0.02 0.02	5 5 5 5 5 5	No No No No No No	No No No No No No No	P Dpt. Dpt. Dpt.	9			Yes	2.5 <mark>-10</mark>	150	F	6 x 18¼ x 14¼ 7½ x 20¼ x 16½ 7½ x 20¼ x 16½	499.00 650.00 1095.00 1495.00 2095.00 2695.00 4400.00
SUMIKD	Project Dne (w Cartridge)	B	0.09	75	Belt	0.1		Yes		Р	93/4	С	0.75-3.0	Yes	4-12	270	F		350.00
SUMIKD/SME	20 30	C C	0.05	85	Beit Beit		3	Yes Yes	No	Dpt. P	91/8	No		Yes	4-18		F	16¾ x 13 x 6¼	6000.00 15,000
	RG 6 System	B	0.01		Belt	0.01	12	Yes	ł									250 lbs.	19,500
TECHNICS	SL-1200MK2 SL-QD33K	B B	0.025	78 78	Direct		8.0	No Yes	No	P	91/a 91/a	C/R	0-2.5	Yes	3-9.5 6	90	R	17 <sup>7</sup> /8 x 6 <sup>1</sup> /4 x 14 <sup>1</sup> /4 17 x 3 <sup>5</sup> /8 x 14 <sup>3</sup> /4	499.9 219.9
	(RO) SL-DD33 SL-DD22 SL-BD22K SL-BD20 SL-BD20A	B B B B	0.025 0.025 0.045 0.045 0.045 0.045	78 78 70 70 70 70	Direct Direct Belt Belt Belt		6	Yes Yes Yes Yes Yes	No No No No	P P P P P	91/8 91/8 91/8 91/8 91/8 91/8	C R R R R	1.25 1.25 1.25 1.25 1.25 1.25	No No No No	6 6 6 6 6	90 90 90 90 90	P P P P	17 x 4 x 14 <sup>3</sup> / <sub>4</sub> 17 x 4 x 14 <sup>3</sup> / <sub>4</sub> 17 x 3 <sup>5</sup> / <sub>8</sub> x 14 <sup>3</sup> / <sub>4</sub> 17 x 3 <sup>5</sup> / <sub>8</sub> x 14 <sup>3</sup> / <sub>4</sub> 17 x 3 <sup>5</sup> / <sub>8</sub> x 14 <sup>3</sup> / <sub>4</sub>	189.9 179.9 139.9 119.9 129.9
THORENS	TD-180 TD-280 Mkill TD-280C Mkill w/Drtofon	C B B	0.045 0.045 0.045	70 70 70	Belt Belt Belt			No No No	No No No	P P P	9 <sup>1</sup> /8 9 <sup>1</sup> /8 9 <sup>1</sup> /8	C/R C/R C/R	1-3 1-3 1-3	Yes Yes Yes	4-10 4-10 4-10	150 150 150	F F F	16¾ x 5½ x 13	430.0 429.0 450.0
	Cartridge TD-290 TD-318 MkIII TD-320 MkIII TD-520 MkIII Prestige	B B C C	0.045 0.04 0.035 0.035 0.02	72 70 72 72 80	Beit Beit Beit Beit Beit		6	No No No No	No No No No	P P P	91/8 91/8 91/8 91/8 93/4 15	C/R C/R C/R C/R	1-3 1-3 1-3 1-3	Yes Yes Yes Yes	4-10 4-10 4-10 4-10	150 150 120 120	F F R R	16¾ x 5½ x 13	490.0 650.0 820.0 1580.0 16,000
VERDIER	Heavy M <mark>et</mark> al	B/ D			Belt	0.02	8	Yes	No	-								16½ x 14½ x 9	7 <mark>500</mark> .0
	Light Metal	B/ D			Belt	0.03	8	Yes	No									15 <sup>1</sup> /2 x 13 <sup>1</sup> /2 x 8	4500.0
VDYD	Voyd Plus Voyd Reference		0.004 0.004	80 80	Belt Belt	0. <b>00</b> 1 0.001		Yes Yes										20 x 17 x 7 20 x 17 x 7	4500.0 12,000
VPI	Voyd HW-19 Jr.	В	0.004	80 79	Belt Belt	0.001	-	Yes No	No			-			-	-	-	20 x 17 x 7 21 <sup>1</sup> / <sub>4</sub> x 16 <sup>1</sup> / <sub>2</sub> x 6	3300.0
	HW-19 MKIII HW-19 MKIV	B B D	0.03	79 81 86	Belt Belt	0.05		NO NO	No No No									21¼ x 16½ x 7 21¼ x 16½ x 7 21¼ x 16½ x 7 21 x 19 x 8	1200.0 1800.0 3500.0
	T.N.T. Series 2 T.N.T. Series 3 HW-19 Jr.	DB	0.02 0.01 0.03	80 90 81	Belt Dual Belt Belt	0.01 0.01 0.03		NO NO	No	Р	9		1-3	Yes	3-12	71	F	21 x 19 x 8 21 ¼ x 16½ x 7	5000.0 1800.0
WELL TEMPERED	Plus Well	В	0.01	84	Belt	0.001	-	No	1	P	9	-		Yes		-	E	19 x 15 x 8	Fro
LAB	Tempered Classic Well Tempered Record Player	В	0.01	84	Belt	0.001		No	1	P	9			No			F	19 x 15 x 7	1995.0 1195.0
YAMAHA	TT400U TT300U	BB	0.045	70 70	Beit Beit		1	Yes Yes	No No	P	91/8 91/8	C/R C/R	0-3 0-3	Yes	4-9 4-9		R	17 x 4 x 15 17 x 4 x 15	249.0 199.0

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### TONEARMS

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			Bearing	NO MOUNTSRE	Wand	alle.9	Adiustieve	Nical Style	Distent	In. Insting	nended Trans	Weigh	able	apac, Hole Dia	
MANUFACTURER	Model	THE	hines can	A Pivest	using. P	MI-SHO P	Adustane ve	Notes Troth	erall M	ating the state of	ing the series of the series o	191	Range. Gr	and price	Horses
AIRTANGENT	Reference(RI)	A/L	w	Yes		Yes			0	0.5-5.0	4-20		1/2	12,900.	Remote cueing and VTA.
AUDIO NOTE	AN-0/s AN-1/s	P P	F	Yes Yes	Yes Yes	Yes Yes	10 10			0.5-5.0 0.5-5.0	5-20 5-20			1495.00 2295.00	Bimetallic self-damping armtube.
AUDIOQUEST	AQ PT-6 AQ PT-7 AQ PT-8	P P P	F F F	Yes Yes Yes	Yes Yes Yes	Yes Yes Yes	9 9 9	12 12 12		0-3 0-3 0-3	3-12 3-12 3-12	71 71 71	11/4 11/4 11/4	395.00 495.00 595.00	Optional viscous damping. As above. As above.
AUOIO "78"	SME 3012-R SME 3009-R	P P	R	Yes Yes	Yes Yes	Yes Yes	12.16 9.18			1.25-5 1.25-5	1.5-26			689.00 649.00	For LPs, 78s, 16-inch transcriptions, and hill-and-dale recordings; optional fluid damper. As above.
AUDIO-TECHNICA	SME III ATP-12T	P	W	Yes	Yes No	Yes No	9.18	14	-	2.5 Max. 0-5	0-12 3-23		_	439.00 275.00	As above.
OENNESEN	ABLT-1	A	W	Yes		Yes	Adj.	12	0	Adj.	Any	100		2000.00	
EMINENT	Two	A	w	Yes		Yes	73/8	10 <sup>3</sup> ⁄4	0	0-5	0-16	22		1250.00	Includes air pump; optional fluid damping, \$95.00.
GRAHAM ENGINEERING	1.5t	Р	W	Yes	Yes	Yes	91⁄4	111/2	1.0	0.90-3.0	4-20	140		2495.00	SME-compatible mounting.
KUZMA	Stogi Stogi Reference	P P	F	Yes Yes	Yes Yes	Yes Yes	9 9	11¼ 11¼					1¼ 1¼ 1¼	900.00 1500.00	ABEC-5 bearings. ABEC-9 bearings; azimuth adjustable
LINN	Ekos Akito	P P	F	Yes Yes	Yes Yes	Yes Yes	8 <sup>3</sup> /8 8 <sup>3</sup> /8	9		0-3 0-3	4-9 2-10	220 100	1¼ 1¼	2495.00 395.00	
MØRCH	UP-4	P	w	Yes	Yes	Yes	91/8	113⁄4		0.75-3	3-15	128	7/8	t	†With copper wire, \$595.00; with silver wire, \$795.00. Choice of six
	0 <mark>P-6</mark>	Ρ	w	Yes	Yes	Yes	91/8	113⁄4		0.7 <mark>5-</mark> 3	3-15	128	7/8	From 1095.00	armtubes; unipivot; viscous damping Armtube choice and damping as above; dual bearings.
	DP-6L D <mark>P-</mark> 6X	P P	w	Yes Yes	Yes Yes	Yes Yes	12 <sup>1</sup> /8 9 <sup>1</sup> /8	14¾ 11¾		1.0 <mark>-3.5</mark> 0.75-3	2-15 3-15	128	7/8 7/8	From 1595.00 From 2095.00	Continuous VTA adjustment; externa tonearm wiring.
NAIM AUOIO	ARO	Р	F	Opt.	Yes	Yes	9	111/2			5.5-12		3/4	1695.00	Unipivot design; with Aro-matic cueing lever, \$1910.00.
ORACLE AUOIO	Beta Plus Oracle/SME 345	P P	FR	Yes Yes	Yes Yes	Yes Yes	8.77 9.14	11.5 12		3-12 5-10	140			450.00 From 1795.00	VTA adjustable during play.
REGA RESEARCH	RB300 RB250	P P	F	Yes Yes	Yes Yes	No No							7/8	425.00	Continuous cable to preamp; hand- selected bearings. Continuous cable to preamp.
REVOLVER	Revolver Revolver Super	P P	F	Yes Yes	Yes Yes	Yes Yes	9 9	11.2 11.2		0.75-3.00 0.75-3.5	2.0-10.0 1.0-12.0	45 45	1.2 1.2	220.00 500.00	
ROKSAN	Artemiz TabrizZi Tabriz	P P P	F F F	Yes Yes Yes	Yes Yes Yes	Yes Yes Yes	9.45 9.45 9.45	11.5 11.5 11.5	0.2 0.2 0.2	1.2-3.5 1.2-3.5 1.2-2.5	5-15 5-15 5-10	200 200 150	7/8 7/8 7/8	1500.00 650.00 425.00	
RPM	RPM-Arm	Р	w	Yes	No	Yes	10	131⁄4		1-5	6-15		1/4	1350.00	
SUMIKO/SME	Series 309 Series IV.Vi	P P	R	Yes Yes	Yes Yes	Yes Yes	91/8 91/8	115⁄8 115⁄8		0-3 0-3	4-18 4-18	140 140	11/ax 23/4	1195.00 1995.00	casting. ABEC-7 bearings: damped magnesi-
	Series V	Р	F	Yes	Yes	Yes	91/8	115/8		0-3	4-18	140		2550.00	tracking.
WELL TEMPERED	Well Tempered Classic	Р	F	No	Yes	Yes	9	113/8					1/4	900.00	Variable viscous damping.
WHEATON MUSIC	Triplanar III	Ρ	F	Yes	Yes	Yes	93/4	113⁄4	0.3	1-3	4-22			2200.00	Azimuth adjustable; silicon fluid damping; with balanced output, \$2240.00; optional cables.
5															
-															

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#### Luxman DZ-92 Orig \$280 Remote controlled single CD player with 4X

oversampling • 20 track programming • 3-beam laser • Dual DAC • 5 Year parts & labor warranty. **\$9** SALF



#### Luxman R361 *Orig \$1100*

100W/ch receiver with remote. Features • Three S-VHS jacks • 11 inputs • Video amplification and low impedance drive capability.





#### ADS R4 Orig \$1200

Sonic quality is the bedrock of R4 performance This 70W/ch receiver uses a micro computer to set all tone and level controls digitally No Remote SALE \$39

Pinnacle PN2+ Orig \$149

Patanted diaduct port tuning enables PN2+ to achieve a remarkable low frequency reproduction. Perfect for bookshelf or surround sound applications.





Multi-room tuner/pre-amplifier features • 20 AM/FM station presets • Fixed level preampout jacks for multiple amplifiers. Remote control included. SALE <sup>S</sup>189

#### Canton Ergo 70 Orig \$1500

Beautiful three way floorstanding model is designed to take up an abso-lute minimum of loor space while providing high pre-cision definition and full tonal balance. SALE <sup>\$</sup>

• <u>c</u>] • <u>c</u>

Hughes AK-500 Orig \$179

The AK-500 Sound Retrieval System is basi-

cally a stereo enhancement system that simu-lates 3D/Full surround sound from two ordinary



Luxman G-007 Orig \$500 The GOO7 digital surround processor delivers 25W/ch for rear speakers. Built-in 7 band equalizer with 4 computer memory EQ patterns and remote control. SALE \$159

#### Advent A2004 **Orig \$449**

The Advent Model 250 speaker system is a bookshelf two way design that heads Advents' New Vision Series. Uniform frequency response and good quality sound.





JVC ALA95BK Orig \$129 Belt driven turntable. Cartridge included and mounted. No dust cover.



#### **Rockford Fosgate Punch 75**

Orig \$399 75 watt power amplifier for the car. Features MOSFET output, 37.5W x 2 into 4 ohms@<.05THD Gold plated RCA jacks, bass and treble controls. protection circuitry.



#### Luxman F116 Orig \$950 Digital Dolby® Pro Logic surround processor.

The computer continually adjusts all parameters to give you an experience previously only available in movie theaters. Remote included.





SALE **NHT Zero** Orig \$199





Since 1986



**Orig \$289** The Celestion 3 two way design makes use of the award winning metal dome technology. Specially de-signed 5" mid/bass driver.

Celestion 3

speakers.





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### PHONO CARTRIDGES

STYLUS TYPE         CConical         SSpherical         SSpherical																	
AUDIO BY VAN ALSTINE	Longhorn Z	10-55 ±1.5	IM	No	30	25	5.6	1.5-2.0		E	0.3 x 0.6		U/F	s	8	99.00	45.00
AUDIO NOTE	lo-2 lo-Ltd	10-50 ±3 10-50 ±2	MC MC	No No	25 30		0.05 0.04	1.3-3.5 1.5-4.0		v v		15/10 15/10	F	S S	18 19	2995.00 4995.00	1495.00 1995.00
AUDIOQUEST	AQ M-1 AQ MC-3 AQ MC-5 AQ 404i-MH AQ 404i-L AQ 8-200MH AQ 8-200L AQ 7000NSX	15-30 15-35 10-40 10-50 10-50 10-50 10-50 10-50 10-50	IM MC MC MC MC MC MC	No No Yes Yes Yes No	25 25 30 30 30 30 30 30	20 20 25 25 25 25 25 25	3.0 2.5 1.4 1.4 0.5 1.4 0.5 0.3	1.5 2.0 1.8 1.9 1.9 1.9 1.9 1.9			0.3 x 0.7 0.3 x 0.7 0.3 x 1.6 0.3 x 1.6		U U F F F F F F	S S S S S S S S S S S S	4.5 8.1 9.2 9.2 9.5	99.00 195.00 395.00 695.00 695.00 995.00 995.00 1595.00	50.00 135.00 335.00 595.00 595.00 750.00 750.00 1195.00
AUDIO "78"	Styli for vintage sources																69.00
AUDIO-TECHNICA	AT300P AT301EP AT311EP AT316EP AT331LP	20-22 ± 1 15-25 ± 1 15-27 ± 1 10-27 ± 1 10-30 ± 1	MM MM MM MM	No No No No	26 26 29 29 31	16 17 18 20 21	5 5 5 5 5 5	1.0-1.5 1.0-1.5 1.0-1.5 1.0-1.5 1.0-1.5 1.0-1.5	100-200 100-200 100-200 100-200 100-200	C E E E E X	0.6 0.4 x 0.7 0.3 x 0.7 0.3 x 0.7 Linear		ນ ນ ນ ນ	P/S P/S P/S P/S P/S	6 6 6 6 6	55.00 65.00 75.00 100.00 145.00	25.00 30.00 35.00 50.00 65.00
	AT132EP AT70 AT71E AT120 E/T AT440ML ATML170 ATP-2 ATP-2XN (w/2 Styli)	$\begin{array}{c} 10\text{-}30 \pm 1\\ 20\text{-}20 \pm 1.5\\ 20\text{-}22 \pm 1.5\\ 15\text{-}25 \pm 1\\ 5\text{-}32 \pm 1\\ 5\text{-}40 \pm 1\\ 15\text{-}22 \pm 1.5\\ 15\text{-}22 \pm 1.5\\ 15\text{-}22 \pm 1.5 \end{array}$	MM MM MM MM MM MM MM	No No No Yes No No	30 20 29 30 31 23 23	20 15 17 20 20 21 17 17	5.0 3.5 3.5 5.0 5.0 5.3 5.3	1.0-1.5 1.5-2.5 1-2 1.0-1.8 0.8-1.6 0.3-1.25 3-5 3-5	100-200 100-200 100-200 100-200 100-200 100-200 200 200	ECEEMEE	Contact 0.2 x 0.7 0.6 0.4 x 0.7 0.3 x 0.7 0.4 x 0.7 0.4 x 0.7			P S S S S S S S S S S	6.4 6.5 7.0 7.2 7.2	150.00 45.00 55.00 95.00 195.00 345.00 60.00 90.00	65.00 25.00 35.00 50.00 85.00 165.00 35.00
BANG & OLUFSEN	MMC 1 MMC 2 MMC 3 MMC 4 MMC 5	$\begin{array}{c} 20\text{-}20 \ \pm 1 \\ 20\text{-}20 \ \pm 1.5 \\ 20\text{-}20 \ \pm 2 \\ 20\text{-}20 \ \pm 2.5 \\ 20\text{-}20 \ \pm 3 \end{array}$	MI MI MI MI MI	Yes Yes Yes Yes Yes	30 25 25 22 20	22 20 20 17 15	2.12 2.12 2.12 2.12 2.12 2.12 2.12	1 1 1.2 1.2 1.5	200-400 200-400 200-400 200-400 200-400 200-400	X X E E	0.1 x 0.1 0.12 x 0.12 0.15 x 0.15 0.2 x 0.2 0.25 x 0.25	_	No No No No		1.6 1.6 1.6 1.6 1.6	500.00 270.00 170.00 100.00 70.00	
BENZ-MICRO	MC Ruby MC Reference MC H20 MC M0.9 MC L0.4 MC Gold MC Silver MC 20E II	$\begin{array}{c} 10\text{-}50 \ \pm 0.5 \\ 10\text{-}50 \ \pm 0.5 \\ 10\text{-}50 \ \pm 0.5 \\ 10\text{-}50 \ \pm 0.5 \\ 10\text{-}50 \ \pm 0.5 \\ 20\text{-}40 \ \pm 0.5 \\ 20\text{-}40 \ \pm 0.5 \\ 15\text{-}40 \ \pm 0.5 \end{array}$	MC MC MC MC MC MC MC MC	Yes Yes Yes Yes No No No	40 40 40 40 30 30 25	30 30 30 30 30	0.3 0.4 2.0 0.9 0.4 0.4 2.0 2.5	2-2.5 2-2.5 2-2.5 2-2.5 2-2.5 1.8-2.2 1.8-2.2 1.7-2.3		M M M M E E	0.3 x 0.7 0.3 x 0.7 0.3 x 0.7	15/15 15/15 15/15 15/15 15/15 15/15 15/15	FFFFU	S S S S S S S S S S S S S S S S S S S	8.6 8.6 8.6 8.6 8.6 5.7 5.7 4	3000.00 2500.00 1800.00 1500.00 1200.00 325.00 325.00 125.00	500.00 500.00 500.00 500.00 500.00 175.00 175.00 75.00
DENON	DL-160 DL-110	20-50 20-46	MC MC		28 25	_	1.6 1.6	1.5-2.1 1.5-2.1					F	S S	4.8 4.8	125.00 95.00	75.00 57.00
DYNAVECTOR	XX-1L XX-1 17D2 Mk II 23RS Mk II 10x4 Mk II 50x4 Mk II	20-50 ±2 20-50 ±2 20-100 ±2 20-80 ±2 20-20 ±2 20-20 ±2	MC MC MC MC MC MC MC	Yes Yes Yes Yes No No	30 30 25 25 25 25 25		0.25 2.0 0.15 0.15 2.0 2.0	1.9-2.3 1.8-2.2 1.8-2.0 1.7-1.9 1.5-1.9 1.5-1.7		M X M E E			FFFF	S S S S S	12 12 5.3 5.3 4.6 4.5	1100.00 1100.00 620.00 470.00 260.00 210.00	880.00 880.00 496.00 376.00 208.00 168.00
ESOTERIC SOUND	Replacement styli for Stanton 500 & Pickering XV series: ES30T ES35T ES40T ES80S	20-17 20-17 20-16 20-15	MI MI MI	No No No				2-5 2-5 2-5 2-5		C C C S	3.0, truncated 3.5, truncated 4.0, truncated 8.0	10/10 10/10 10/10 10/10	ບ ບ ບ ບ				75.00 75.00 75.00 75.00
GOLDRING	Excel Eilte Eroica Low Out G1042 G10226X G10126X G101278rpm G1006 Elektra Elan	$\begin{array}{c} 20\text{-}30 \pm 2\\ 20\text{-}30 \pm 2\\ 20\text{-}30 \pm 2\\ 20\text{-}30 \pm 2\\ \end{array}  \bullet \\ \begin{array}{c} 20\text{-}22 \pm 3\\ 20\text{-}20 \pm 2\\ 20\text{-}20 \pm 2\\ 20\text{-}20 \pm 2\\ 20\text{-}20 \pm 2\\ 20\text{-}20 \pm 2\\ 20\text{-}20 \pm 3\\ 20\text{-}20 \pm 3\\ 20\text{-}20 \pm 3\\ \end{array}$	MC MC MC MM MM MM MM MM MM MM	Yes Yes No No No No No No	25 25 25 25 25 25 25 25 25 20 20		0.5 0.5 0.5 6.5 6.5 6.5 6.5 6.5 5.0 5.0	$\begin{array}{c} 1.5\text{-}2.0\\ 1.5\text{-}2.0\\ 1.5\text{-}2.0\\ 1.5\text{-}2.5\\ 1.5\text{-}2.5\\ 1.5\text{-}2.5\\ 1.5\text{-}2.5\\ 1.5\text{-}2.5\\ 1.5\text{-}2.5\\ 1.75\\ 1.5\text{-}3.0\\ \end{array}$	100-500 100-500 200- 1000 150-200 150-200 150-200 150-200 150-400 150-400	V V V E E	VDH I GYGER I GYGER II GYGER II GYGER II GYGER II GYGER I GYGER I 0.7 x 0.3 0.6	16/16 18/18 18/18 24/16 24/16 24/16 24/16 24/16 20/ 16/	F F F U U U U U U U U U U	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	8.5 5.7 5.5 6.3 6.3 6.3 6.3 6.3 6.3 4.2 4.2	1295.00 575.00 350.00 200.00 200.00 150.00 150.00 125.00 99.00 60.00	900.00 400.00 250.00 200.00 175.00 130.00 90.00 90.00 40.00 60.00
GRADO LABORATORIES (Continued)	Z2 + Z1 + Z+ ZF1 + ZF2 + ZF3E +	10-60 10-60 10-55 10-55 10-55 10-55 10-55	MI MI MI MI MI MI	NO NO NO NO NO		25 25 25 25 25 25 25	1.4 1.4 4.0 4.0 4.0 4.0	1.5 1.5 1-2 1-2 1-2 1-2		E E E	0.15 x 0.9 0.2 x 0.2		ນ ນ ບ ນ ນ	P/S P/S P/S P/S P/S	5 5 5.5 5.5 5.5 5.5	265.00 180.00 130.00 110.00 86.00 69.00	110.00 75.00 55.00 45.00 36.00 33.00
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STYLUS TYPE C—Conical S—Spherical E—Efliptical M—MicroLine, MicroRidge, or simil V—Van den Hul X—Hyper-Etliptical, Stereohedron, Fine Line Contact, Long L Line Trace, or simila	Line,	Fellon H. R. R. R. R. R. R. R. R. R. R. R. R. R.	Principle Contraction of the con	Indiversity of the second second	Chamer Report	Chan Separation of Curre Sur	Output, mile Separation, 1 ktr, dB	Recommended this this all	Recome Vans Packing Force	Shin and Load Ca	String Radia	Dramic C. Radin, Mils	Synce of an and and and	Multimer - Comment	Wount Hogal F	Price, S	Renewant Street
GRADO LABORATORIES (Continued)	ZCE + 1 ZTE + 1 ZCE + ZTE + DJ 100 (w/2 Styli) Signature Jr.	10-50 10-50 10-50 10-50 10-50 10-60	MI MI MI MI Flux Bridge	NO NO NO NO NO	35	20 20 25 25 25	4.0 4.0 4.0 4.0 4.0 5	1-2 1-2 2-3 2-3 2-5 1.5			0.2 x 0.2		U U U U U U	P/S P/S S S S	5.5 5.5 5.5 5.5 5.5 5.5	55.00 33.00 45.00 38.00 85.00 125.00	30.00 20.00 28.00 21.00 55.00 Pair 62.50
JOSEPH GRADO Signature Products	XTZV TLZV MCZV 8MZV	10-50 10-50 10-50 10-50	Flux Bridge Flux Bridge Flux Bridge Flux Bridge Flux Bridge	No No No No	35 35 35 35	25 25 25 25	3.5 3.5 3.5 5.5	1.5 1.5 1.5 1.5			0.15 x 0.9 0.15 x 0.9 0.15 x 0.9 0.15 x 0.9 0.2 x 0.2	20/ 20/ 20/ 20/	U U U U	S S S S	5 5 5 5	750.00 500.00 300.00 200.00	375.00 250.00 150.00 100.00
IKEDA	9C III 9R Kiwame	10-45 ±1.5 10-45 ±1.5 10-45 ±1.5	MC MC MC	No No No	27 27 27		0.2 0.2 0.17	2.0-2.5 2.0-2.5 1.8-2.3		***	0.25 x 0.8 0.25 x 0.8 0.25 x 0.8	6/10 6/10 6/10	F F F	S S S	14.5 15.7 16.2	1050.00 1895.00 2495.00	
KAB ELECTRO- ACOUSTICS	KS500-27 (78-rpm only)	10-17	мм	No	25		10	3-7	275	S	2.7 x 2.7	<mark>10/</mark> 10	U	S	6	42 <mark>.9</mark> 5	30. <mark>00</mark>
LINN	K5 K9 K18ll Klyde Arkiv	20-20 ± 2 20-20 ± 2 20-20 ± 1 20-20 ± 1 20-20 ± 1	MM MM MC MC MC	NO NO NO NO	20 20 30 30 30		4.5 4.5 4.5 0.15 0.15	1.7 1.7 1.7 1.7 1.7 1.7	200 200 200			12/12 12/12 14/14 10/10 10/10	U U U	S S S S	6 7 7.B 8 8	150.00 295.00 595.00 1095.00 2195.00	90.00 177.00 357.00
LYRA	Parnassus Clavis Lydian	10-50 10-50 10-40	MC MC MC	No No No	35 35 30		0.2 0.25 0.3	1.8-2.0 1.8-2.0 1.8-2.0		M M M			F F F	S S S	12 11 10.5	3000.00 1695.00 895.00	1600.00 995.00 600.00
JOHN MAROVSKIS	JMAS MIT-1	10-10 ± 1.0	MC	No	25	20	0.25	2.25-2.5	500	V	0.2 x Line	/16	F	S	5.5	650.00	325.00
MORCH	DACAPO	10-40 ±1	MC	No	30	25	0.25	1.8-2		X		14/14	F	S	6.8	1200.00	850.00
ORTOFON	MC5000 MC3000M11	20-20 + 2.5,-0 20-20	MC MC	No No	25 25		0.14 0.15	2.2-2.7 1.7-2.2		X	0.5 x 0.10 0.5 x 0.10	12/12 13/13	F	S S	9.5 9.5	2000.00 1600.00	1400.00 1120.00
	MC3000mli MC10 Super Quastro Quartz MC3 Turbo MC3 Turbo X5 MC X3 MC X1 MC 540 540 530 520 510 0M30 Super OM10 Super OM10 Super OM10 Super	$\begin{array}{c} +2.50\\ 10.30+51\\ 20.20+41\\ 20.20+41\\ 20.30+41\\ 20.30+31\\ 20.30+31\\ 15.35+41\\ 20.30+31\\ 20.30+31\\ 20.30+31\\ 20.23+31\\ 20.23+31\\ 20.20\\ 20.20+20\\ 20.20+31\\ 20.20\\ +31\\ 5\end{array}$	MC MC MC MC MC MC MC MM MM MM MM MM MM M	No No No No No No No No No No No No	25 25 24 25 25 25 25 25 25 25 25 25 25 22 22 22		0.13 0.2 0.2 0.5 3.3 3.3 2.2 2.2 2.2 2.2 3 3 3 3 4 4 4 4	1.3-1.8 1.6-2.0 1.6-2.0 1.8-2.2 1.8-2.2 1.7-2.2 1.7-2.2 1.7-2.2 1.25-1.5 1.25-1.5 1.25-1.5 1.25-1.5 1.0-1.5 1.25-1.75	300 300 300 300		0.5 x 0.8 0.5 x 0.7 0.8 x 0.18 0.40 x 0.8 0.18 x 0.8	14/14 15/15 15/15 14/14 13/13 12/12 13/13 13/13 30/30 25/25 25/25 35/30 30/25 25/25	F F F F F F U U U U U U U U U U U U	S S S S P/S P/S P/S P/S P/S P/S P/S	7 10 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	$\begin{array}{c} 140.00\\ 650.00\\ 450.00\\ 350.00\\ 200.00\\ 150.00\\ 300.00\\ 175.00\\ 125.00\\ 300.00\\ 225.00\\ 75.00\\ 225.00\\ 150.00\\ 75.00\\ 50.00\\ \end{array}$	$\begin{array}{c} 100.00\\ 455.00\\ 315.00\\ 245.00\\ 150.00\\ 128.00\\ 127.00\\ 92.00\\ 92.00\\ 150.00\\ 150.00\\ 150.00\\ 40.00\\ 90.00\\ 90.00\\ 30.00\\ 20.00\\ 20.00\\ \end{array}$
	OM3E TM2OUD TM14U TM7	20-20 + 3,-2 20-20 + 3,-1 20-20 20-20	MM MM MM MM	No No No No	20 25 20 20		4 3.5 4.5 5	1.25-1.75 1.0-1.5 1.0-1.5 1.0-1.5 1.0-1.5	300 400 400 400	EXEE		25/25 35/35 30/30 30/30		P/S P/S P/S P/S	5 6 6 6	35.00 129.00 89.00 60.00	12.00 75.00 30.00 25.00
PICKERING	XSV/5000 TL-3S TLE XV-15/625E XV-15/150DJ V-15/DJ XV-15/0J XV-15/625DJ	10-50 10-25 10-25 10-25 10-20 20-20 20-20 20-20	MM iM IM IM IM IM	No No No No No No	35 35 28 35 28 30 30		3.8 4.4 4.4 4.4 8.0 4.4 4.4	0.75-1.5 0.75-1.5 1-1.5 0.75-1.5 2-4 2-5 1-4	275 275 275 275 275 275 275 275	XXEESEE	0.3 x 2.8 0.3 x 2.8 0.3 x 0.7 0.3 x 0.7 0.7 0.7 0.7			S P/S S S S E	5.6 5.9 6.3 6.3 6.3 5.5 5.5	330.00 185.00 72.60 146.30 104.50 56.75 108.35	26.40 39.60
REALISTIC	Realistic/Shure V15 Realistic/Shure R25XT Realistic/Shure A47XT Realistic/Shure RXP3 Realistic/Stanton R55000J Realistic/Audio- Technica AX1500	5-30 20-20 20-20 20-20 20-20 15-25	MM MM MM MM MM	Yes Yes Yes Yes Yes No	20 25 29			1.25-1.75 2.5-3.5 1.75-2.25 1.25-1.75 2.5 1.0-1.5		E E E S E	1.5 x 2.0 0.4 x 0.7 0.4 x 0.7 0.2 x 0.7		U U U U	S S P		79.95 19.95 26.95 29.95 29.95 29.95 29.95	19.95
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STYLUS TYPE C—Conical S—Sphericai E—Eilipticai Microfidge, or sim V—Van den Hul X—Hyper-Eiliptical Stereohedron, Fine Line Contact, Long Line Trace, or simi MANUFACTURER	Line, Line,	fequencing the	Pilling to the second	Ing Hone I ton - M. In I ton - M. Indiana	Chan Response Coli-MC.	Char Separation Curve S.	Duput 500 10, 10, 10, 10, 00, 00	Percentine in the second secon	Peconne lians tating force	Sh. Thender Logu	Mus has be lot	Omanic C Radii, Mis	Sittue Compilance, Land	Mount Represent	Weins 100 - 19 - 19 - 19 - 19 - 19 - 19 - 19	Piles 5	Relievenen Street Files Files
ROKSAN	Shiraz Corus Biack Corus Blue	10-22 ±3 20-20 ±2 20-20 ±2	MC MM MM	Yes No No	30 25 26	25 26	1.25 6.5 6.5	2.0-2.5 1.8-2.5 1.8-2.5	150-300 150-300	M M M		16/16 16/24 16/24	FU	S S S	8.2 6.5 6.5	1700.00 325.00 200.00	1300.00 200.00 90.00
SHURE	V15 Type V-MR M110HE M104E M92E M55E M44C M44G M44G M44G M44G M495HE ME95ED ME90B SC35C	$\begin{array}{c} 20\text{-}28 \ \pm 0.75 \\ 20\text{-}20 \\ 20\text{-}20 \\ 20\text{-}18 \\ 20\text{-}20 \\ 20\text{-}20 \\ 20\text{-}20 \\ 20\text{-}20 \\ 20\text{-}20 \\ 20\text{-}20 \\ 20\text{-}20 \\ 20\text{-}20 \\ 20\text{-}20 \\ 20\text{-}20 \end{array}$	MM MM MM MM MM MM MM MM MM MM MM	Yes No No No No No No No No	25 20 20 20 20 20 20 20 25 25 20 20 20	18	3.2 4.0 5.0 6.2 9.5 6.2 9.5 4.0 4.7 6.0 5.0	$\begin{array}{c} 1.0\text{-}1.25\\ 1.25\\ 1.25\\ 1.25\\ 0.75\text{-}2\\ 3.0\text{-}5.0\\ 0.75\text{-}1.5\\ 1.5\text{-}3\\ 0.75\text{-}1.5\\ 1.5\text{-}3\\ 0.75\text{-}1.5\\ 1.5\text{-}3.0\\ 4\text{-}5\\ \end{array}$	250 250 250 250 450 450 450 450 250 250 250 250 250	M X E E E S S S X E S S	0.15 x 3.0 0.2 x 1.5 0.2 x 0.7 0.4 x 0.7 0.7 0.6 0.7 0.2 x 0.7 0.2 x 1.5 0.2 x 0.7 0.6 0.6			S P/S P/S S S S S S S S S S S S	6.6 5.9 5.9 6.7 6.7 6.7 6.7 6.6 5.8 6.5 6.2	175.00 69.95 39.95 24.95 54.95 49.95 49.95 49.95 79.95 59.95 19.95 44.95	115.50 46.20 26.40 16.50 22.50 18.95 18.95 18.95 52.75 39.60 13.20 18.95
SIGNET	AT-ART1 AT-0C9 AM50 AM40 AM30 AM10 103 101 100 MCR Signature	10-50 15-50 5-37 5-35 5-30 15-25 20-20 20-22 10-50 ± 0.5	MC MC MM MM MM MM MM MM MM	Yes Yes Yes Yes No No No	30 29 33 30 27 25 24 22 40	20 25 23 20 17 15 15 35	0.35 0.4 5 5 5 5 5 5 5 4.2 0.25	1.4-1.8 1.25-1.75 0.8-1.8 0.8-1.6 1.3-2.3 1.6 1.5-2.5 1.8		MEMXEEECE	0.2 x 0.7 0.3 x 0.7 0.3 x 0.7 0.4 x 0.7 0.6 0.4 x 0.7	8/ 9/ 8/ 8/ 8/ 8/	F F U U U U U U U U U U U U U U U U U U	S S S P/S P/S P/S S S	9.5 7.8 6 6 6	1300.00 395.00 350.00 275.00 225.00 125.00 90.00 60.00 60.00	260.00 200.00 115.00 65.00 45.00 30.00 30.00
STANTON	IIA 881 MKIIS 681EEE MKIIS L747S L727E L720EE L720EE L580EL 680EL	10-25 10-22 10-30 10-20 10-20 10-20 20-18 20-18 20-18	MM IM MM MM MM IM IM	Yes Yes Yes No No No No	35 35 32 28 28 28 28 30	33	3.5 3.5 3.0 4.4 3.0 3.2 4.5 4.5	0.75-1.5 0.75-1.5 0.75-1.5 0.75-1.5 0.75-1.5 0.75-1.5 0.75-1.5	275 275 275 275 275 275 275 275 275 275	XXXEEEEE	0.3 x 2.8 0.3 x 2.8 0.3 x 0.7 0.4 x 0.7 0.4 x 0.7 0.4 x 0.7 0.4 x 0.7	30/ 25/ 13.5/ 13.5/	U U U U U U U	S S P/S P/S P/S P/S P/S S	5.5 6.3 5.9 5.7 5.7 5.7 5.7 8.4 5.5	1495.00 237.00 171.00 191.00 125.00 90.00 79.00 152.00 152.00	40.80 24.40 52.80 32.35 29.00 29.00 39.60 39.60
(Continued)	680AL 500AL 500AL-MP	20-18 20-17 20-17 20-17	IM MM MM	No No No	30 28 28		4.5 4.0 4.0	4-5 2-5 2-5 2-5 2-5 2-5	275 275 275	s s	0.7 0.7 0.7	13/13 10/	U U U	S S S	5.5 5 5	132.00 81.00 171.00	33.00 23.75 47.50
Pues Specify Audio 34 ADC Ka Ortofo Grado Zo Stanto 68 Bang M A.D.C. • AUE LAST • N Voted BE ALB - Mpl The N	BE S on M3E S D CE+1 S on BoEL S <b>&amp; Olufsen</b>	tandard     S       \$14.99       \$19.99       \$24.99       \$29.99       \$2000000000000000000000000000000000000	CA pecify P Sumika Blu Denon DL- Shure V15 Ortofo X5- Signet OC: Ortofo MC Ortofo MC Ortofo MC Ortofo MC Selecti and C	RTR Mon e Poi e Poi e Poi e Poi e Poi m MC -9 n MC -9 n 10SM sen • B. sen • Sen • B. sen • B.	KII B.E PR Free Ca T I N rid	A FSC \$80 \$12 \$16 \$16 \$299 DENCO OJECT gess gess vet	ND Indered Call 9.99 4.99 9.99 Call 9.99 Call 9.99 Call 9.99 tiles 11es 11es	REC Discu Rec Bru Styl Kit Zer LAST Star The I Rec Carbo Fiber WASHER • D OKSAN • SHI ELTS- Call us Friefstaf	ORD RECOR ACCES washer cord Ca ish lus Carl SC-2 ostat G i + 2 + rter Kit Pig cord Gr on r BrusJ YNAVECTO URE + SIGN swith tur ndly e f with ship Min	DR • E iun 3 ip h DR • E isa pin	RIES \$15.00 \$7.50 \$49.99 \$19.99 \$9.99 \$9.99 \$9.99 \$9.99 MPIRE • EPO SUMEKO • ST/ ert sales me day g! eapoli	A C SPI INTE A CH • ESOT WTON • T Toodel run	EAKE RCON Udio Speal Crys Indi Typ Inter Rub Top Tur ERIC SO AllSMA der!	S S O C R Win NIEC quest ker W stal go e 4 conne y az quoise un - cer finnee Sunda ker S O	RII REP TS mo t vire ects \$ s coldring rails s apolit turda y 12- ota •	ES! 4 4 4 4 4 4 4 4 4 4 4 4 4	

# PHONO CARTRIDGES

STYLUS TYPE C—Conical S—Spherical E—Eliptical MicroRidge, or sim V—Van den Hul X—Hyper-Eliliptical Stereohedron, Fine Line Contact, Long Line Trace, or siml MANUFACTURER	Line,	Fequency Res.	Printing Manual 1	Individe Anti- Ind. "	Chan Responder	Chan Separation Curre Sur	Duput and Separation, 1 kHz, 08	Recommended in the desired	Recome Vians Facting Force	Stui. Coad Coad C	Shing Pipe - Specifique, pr	Ofnamic of Radin, Mile	Styles Dieral nee, Lm man	Mountie U. Factorie	Weint Sansher	Price 5	Splacement Splacement Plue ment
STANTON (Continued)	L500AL 500AL-DP	20-17 20-17	MM MM	No No	28 28		4.0 4.0	3.5-4 3.5-4	275 275	ss	0.7 0.7		UUU	P/S S	8.4 6.3	81.00 105.00	26.40 68.65
	(w/2 Styli) 680EE 680EL-MP	20-20 20-18	IM IM	No No	35 30		3.5 4.5	0.75-1.5 2-5	275 275	E	0.3 x 0.7 0.4 x 0.7	18/18 13.5/	UUU	S S	6.3 5.5	112.00 211.00 Pair	41.25 72.60 Pair
	500E MKII STC-710 890AL 680AL	10-22 10-20 20-20 20-18	MM MM MM	No No No	35 28 30 28		0.8 3.0 3.0 1.1	0.75-1.5 0.75-1.5 2-7 2-5	275 275 275 275 275	E E S S	0.4 x 0.7 0.4 x 0.7 0.7 0.7	14/ 10/	U U U U	S P/S S S	5.5 5.9 5.5 5.5	79.00 26.00 178.00 132.00	19.80 19.80 48.50 33.00
	(w/2 Styli) Collectors Series 100	20-20 ±1	мм	No	35		3.2	0.75-1.5	275	x	0.3 x 2.8		U	s	5.5	396.00	145.00
SUMIKO	Blue Point Special Blue Point	10-35 15-30	MC MC	No No	35 32	35 32	2.3 2.3	1.7-2.1 1.5-1.9		E	0.3 x 0.7 0.3 x 0.7	15/15 15/15	F	S P	9 6	295.00 150.00	195.00 90.00
	Pearl Black Pearl Oyster	15-25 18-22 20-20	MM MM MM	No No No	30 28 25	30 28 25	5 5 4	1.5-1.6 1.5-1.6 2-2.5		ESS	0.2 x 0.8 0.5 0.5	17/17 17/17 12/12	U U U	S S S	6 6 5	90.00 60.00 40.00	50.00 35.00 25.00
	RG 8	10-50 ± 3	MC	Yes	40	40	2.0	1.5-1.7		X	0.1 x 0.3		F	S	18	4000.00	300.00
LINE	The Source RG 8 Gold	10-60 ± 3	MC	Yes	40	40	0.45	1.5-1.7		X	0.1 x 0.3		F	S	18	5000.00	300.00
TUBE RESEARCH LABS	RPC	20-20	MC		30	20	0.9			V			F	S	10	2400.00	500.00
VAN DEN HUL	MM-1 MM-2 MC-10 MC-One MC-One Super MC-Two Grasshopper III Gold- Neodymium	$\begin{array}{c} 10\text{-}30 \ \pm 1.5 \\ 10\text{-}30 \ \pm 1.5 \\ 5\text{-}50 \ \pm 1.5 \\ 5\text{-}50 \ \pm 1.5 \\ 5\text{-}50 \ \pm 1.5 \\ 5\text{-}50 \ \pm 1.5 \\ 5\text{-}60 \ \pm 1.5 \\ 5\text{-}60 \ \pm 1.5 \\ 5\text{-}60 \ \pm 1.5 \end{array}$	MM MC MC MC MC MC MC MC	No Yes Yes Yes Yes Yes Yes	30 30 35 35 35 35 35 35 35	25 28 30 30 30 30 30 32 32	5.6 5.6 0.35 0.35 1.0 2.0 0.75 0.75	0.75-1.25 0.75-1.25 1.0-1.5 1.0-1.5 1.0-1.5 1.0-1.5 1.0-1.5 1.0-1.5 1.0-1.5	300 300	~~~~~	0.14 x 3.2 0.10 x 3.2 0.1 x 3.2 0.1 x 3.2 0.1 x 3.2 0.1 x 3.2 0.1 x 3.2 0.1 x 3.2 0.1 x 3.2 0.1 x 3.2 0.1 x 3.2	20/18 20/18 12/12 12/12 12/12 12/12 12/12 14/14 14/14	U U F F F F F	S S S S S S S S S	6.5 6.5 7.6 7.6 7.6 7.6 7.6 12.5 12.5	450.00 500.00 1100.00 1500.00 1600.00 1775.00 3125.00 4150.00	150.00 150.00 250.00 250.00 250.00 250.00 250.00 250.00 250.00
	Grasshopper III Gold-Alnico	5-60 ±1.5	MC	Yes	35	32	0.40	1.0-1.5		۷	0.1 x 3.2	14/14	F	S	12.5	4150.00	250.00



## HEADPHONES

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	MANUFACTURER	Hodel	Operati	ng Principle	uency Rand	e Hi LU	191 18 591	num mout. mil	a a5 48 5	AL PROPERTY	seet Fi	TYPe one	With Strip	anaural De	panti-panti-A.	Materiu	an Ounces	Holos
	AIWA	HP-X1000 HP-X500 HP-X500 HP-X35 HP-A560 HP-A560 HP-A560 HP-A500 HP-A260 HP-A250 HP-A150 HP-415	Dynamic Dynamic	5-30 5-27 5-25 5-23 5-23 5-20 7-20 20-20 20-20 20-20 20-20 20-20 8-25 8-25 8-25 8-25 8-25 10-25 7-25 7-25 7-25 7-25 7-25	40 40 40 40 40 40 40 40 40 32 40 32 16 16 16 16 16 16 16 16 16 16 16	104 104 102 102 103 103 97 97 97 105 105 105 105 105 105 105 105 105 109 109 109	1.5W 1.5W 1W 1W 200mW 200mW 200mW 200mW 100mW 100mW 40mW 40mW 40mW 40mW 50mW 50mW 50mW 50mW		9.8 9.8 9.8 26 8 16.4 6.5 6.5 3.6 4.9 4.9 3.9 4	RECEFER FFFRFFFFFFFFFFFFFFFFFFFFFFFFFFFF	A A A A A A A M M A M M M M M M M M	NO NO NO NO NO NO NO NO NO NO NO NO Yes Yes Yes NO NO	C C C/D C/O C/O C/O C/O I I I I I I I I I I	A A A A A A A A F A A N N A N N N N N N	Leather Leather Foam Foam Foam Foam Foam Foam Foam Plastic Plastic Plastic Plastic Plastic Plastic Plastic Plastic Plastic Plastic Plastic Plastic Plastic	8.8 8.4 4.9 4.9 2.6 3 2.3 1.9 1.7 1.6 0.18 0.32 0.21 0.18 0.18 0.18 0.18 0.18	$\begin{array}{c} 150.00\\ 100.00\\ 70.00\\ 70.00\\ 80.00\\ 35.00\\ 20.00\\ 20.00\\ 20.00\\ 15.00\\ 55.00\\ 55.00\\ 55.00\\ 55.00\\ 55.00\\ 55.00\\ 15.00\\ 27.00\\ 27.00\\ 20.00\\ 15.00\\ \end{array}$	
:	AKG	K141/2 K240M K240DF K270S K280 K400 K500 K1000	Dynamic Dynamic Dynamic Dynamic Dynamic Dynamic Dynamic Dynamic	20-20 15-20 15-20 20-20 20-20 20-26 15-27 20-20	600 600 75 75 120 120 120	97.5 88 92 94 96 94 74	200mW 200mW 200mW 200mW 200mW 200mW 200mW	0.05	10 10 10 10 10 10 10	R R R R R R R R R R	P P P M/A M/A	No No No No No No	SCCCCCC 0	A A A A A A A	Vinyl Vinyl Vinyl Vinyl Vinyl Fabric Fabric& Leather Metal	7.9 8.4 9.5 8.75 7.8 8.1	119.00 139.00 169.00 209.00 199.00 189.00 229.00 999.00	Auto on/off switch. Doesn't touch ear.
	AUDIO-TECHNICA	ATH-M2X ATH-M3X	Dynamic Dynamic	20-20 20-21	4-16 4-16	100 100			11.5 11.5	F F	M/A M/A	No No	C C	A A	Vinyi Vinyi	4 5	29.95 39.95	
	AZDEN	OM-100 DM-90 DM-70 DM-40	Dynamic Dynamic Dynamic Dynamic Dynamic	3-28 4-26 4-24 15-22	32 32 32 40	106 105 103 102	1V 800 500 200		10 10 10 10	F F F	A A A A		C S S S	A A A A	Vinyi Vinyi Vinyi Vinyi		129.95 99.95 79.95 69.95	
1//	BANG & OLUFSEN	Form 1 Form 2	Dynamic Dynamic	20-20 40-20	35 30	94 94			10 10	C F	M/A M/A	No No	0	A	Foam Foam	5.5 2.4	130.00 85.00	
e l	BEYERD YNAMIC	DT-911 DT-901 OT-811 OT-801 DT-511 DT-511 DT-311 DT-211 DT-211TV IRS-890	Dynamic Dynamic Dynamic Oynamic Dynamic Oynamic Dynamic Dynamic Dynamic	5-35 5-30 5-35 5-30 10-22 15-20 20-20 30-18 30-18 5-35	250 250 250 250 250 250 40 40 40 250	115 115 114 114 114 118 118 118 118 115	50 50 100 100 100 100 100 100 50	0.2† 0.25† 0.2† 0.2† 0.2† 0.2† 0.3† 0.3† 0.3† 0.3† 0.3† 0.3†	10 10 10 10 10 10 10 20	C C C C F F F F F	P P P P/A P/A P/A	No No No No No Yes Yes	C/O C C/O C C/O S/O S/O S/O S/O S/O C/O	A A A A A A A A A A	Velvet Velvet Velvet Velvet Velvet Cloth Cloth Cloth Cloth	10 10 9 9 7 5 5 5 5 5 11	429.00 389.00 339.00 299.00 199.00 149.00 99.00 59.00 69.00 499.00	tAt 115 dB. Diffuse-field EQ replaceable cushion cover. tAt 114 dB. Diffuse-field EQ replaceable cushion cover. tAt 114 dB. As above; close back. tAt 114 dB. As above; close back. tAt 114 dB. Oiffuse-field EQ replaceable cushion cover. tAt 118 dB. tAt 118 dB. tAt 118 dB. tAt 118 dB. Stereo/mono switch.
		IRS-790 DT-770 PRD	Dynamic Dynamic	20-23 5-35	40 600 -	116 116 .	100 100	0.3	10	C	P	Yes No	C/O C	A	Cloth Cloth	11 9	339.00 299.00	As above. †At 116 dB. Diffuse-field EQ closed back.
	CALRAD	DT-990 PRO 15-148 15-120 15-135 15-135 15-145A 15-118 15-110 15-147 15-146	Dynamic Dynamic Dynamic Dynamic Dynamic Dynamic Dynamic Dynamic Dynamic	5-35 18-22 20-22 25-20 20-18 20-20 20-20 20-20 20-20 20-22	4-16 4-32 4-16	116 105 105 95 100	100 300mW 100mW 100mW	0.2†	10 6 7 7 10 5 6 4 4 5	C FFFCFCFFF	P P P M M M/A M/A	No Yes Yes	C/O O O C C I I O	A A A A A A A N F	Cloth	9 6.5 5.7 3.9 2 0.9	339.00 65.00 38.00 29.00 15.00 6.00 25.00 12.00 5.00 6.00	†At 116 dB. Olffuse-field EC
	DATAWAVE	WH-200		80-10	40	50	5V				M	Yes	C/0	A	Foam	5	89.95	Wireless.
	DENON	AH-D950 AH-D750 AH-D650 AH-D550 AH-D350 AH-D330 AH-D210	Dynamic Dynamic Dynamic Dynamic Dynamic Dynamic	2-31 2-30 3-29 3-28 3-26	30 35 35 32 32	106 106 106 106 104 104	6.7V 6.7V 6.5V 6.5V 5V 5V		10 10 10 10 10 10	FFFFF	M/A M/A M/A M/A M/A	No No No No	000000	A A A A A A A A A	Vinyi Vinyi Vinyi Vinyi Vinyi Vinyi	9 7 7 7.5 5.6	150.00 125.00 100.00 75.00 60.00 50.00	

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# HEADPHONES

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				ing Principle Free	ency Ram	a ance. of	at wat	num input.	a195-196	or length		Weighe	AUSING	SIDE DE	and aple A	Material	ant Ounces	5
	MANUFACTURER	Hodel	Opera	Fred	In Int	ver sen	INT Hat	r THD	<u>°</u>	std CS	std _ 0149	ind ind	WIL CITE	open Head	Adjust CONS	Wei	ant. price	Notes
	DISCWASHER	Micro 30 Micro 40 Micro 50 DR 60 DR 70 HP 110 PRD 410 PRD 410 PRO 510 PRO 610 HP 40 HP 50 HP 50 HP 70 PRO 80												N N N N			7.99 9.99 17.99 27.99 9.99 11.99 17.99 17.99 24.99 23.99 23.99 29.99 39.99 44.99 49.99	
	ETYMÖTIC Research	ER-4S	Dynamic	20-16	100	98	3V	1.5†	4	R	M/A	Na	1	N		1	330.00	†At 100 dB.
	GC ELECTRONICS	61-550 61-555 61-548 61-546 61-546 61-540 61-533	Dynamic Dynamic Dynamic Dynamic Dynamic Dynamic Dynamic	40-20 40-20 40-18 40-20 40-20 40-20	32 32 32 32 32 32 32	100 101 101 100 98 100	1.8V 1.8V 1.8V 1.4V 1.4V 1.4V		9 4 4 4 4	R F F F F	M/A M M M M	No No No No No	C 0 0 0 0 0	A A N A	Vinyi Foam Foam Foam Plastic Foam	12 1.7 1.7 0.17 1.2 1.7	19.99 3.29 6.49 4.39 6.99 3.29	
	GRADO LABORATORIES	SR80 SR100 SR200 SR325	Dynamic Dynamic Dynamic Dynamic Dynamic	20-20 20-22 20-22 18-24	32 40 40 40	94 94 94 96	100mW 100mW 100mW 150mW		7 7 7 7 7	R R R R	P P P P	No No No No		A A A	Foam Foam Foam Foam	8 8 8 11	95.00 150.00 200.00 295.00	
Ì	JOSEPH GRADO Signature Products	HP-1 HP-2	Dynamic Dynamic	18-24 18-24	40 40	96 96	150mW 150mW		7 7	R R	P P	t No	†† ††	A A	Foam Foam	14 14	595.00 495.00	†Polarity. ††Proprietary design.
	KENWOOD	KH-959 KH-535 KH-R300	Dynamic Dynamic	15-25 18-22	16 16	110 105			4	R R	P/A P/A	No No	1	N N	Plastic Plastic	0.5 0.5	45.00 30.00 30.00	
	KOSS	PRO/480 Pro/4aa Prd/4xtc	Dynamic Dynamic Dynamic	10-22 10-22 10-	108 230 93	100 94 100	100 2.45V	0.1 0.5 0.055	10 10 10	C C C	M/A P/A M/A	No No No	C C C/D	A A A	Plastic Vinyl Cloth	22 11.5	79.99 99.95 99.99	
		KX/4 KX/3 KX/2 LS/7 LS/6 JCK/200 JCK/200 HV/PRD HV/PRD HV/1A Plus TNT/88 TNT/66 TNT/75 Porta Pro 2000	Dynamic Dynamic Dynamic Dynamic Dynamic Dynamic Oynamic Dynamic Dynamic Dynamic Dynamic Dynamic Dynamic Dynamic Dynamic	24.5 20-20 25-20 30-20 20-20 20-20 20-20 20-20 20-20 15-35 15-35 15-35 15-20 15-20 15-25 10-25	32 32 16 32 32 32 32 32 32 100 140 60 60 60 60 32	91 91 84 92 98 93 95 94.5 91.5 91.5 93.5 90 101	1.79V 1.79V 1.25V 565 565 565	1 1 1 1 1 1 1 1 0.1 0.75 0.20 0.20 0.20 0.2 0.2 0.1	3 3 3 3 10 10 10 10 10 4	F F F F F F F F F F	M M M M M M M P/A P/A P/A A M/A	No No No No Yes No No No No No No	S/D S/D S/D S/D I I C C C C S/O C S/O C S/O	A A A A A A A A A A A A A A A A A A A	Foam Foam Foam None None None Vinyl Vinyl Foam Foam Vinyl Foam Plastic	2.56 2.2 1.78 0.9 0.78 0.5 10 9.23 9.3 5 4.5 3 2.05 3.42	19.99 15.99 9.99 14.99 9.99 274.95 159.95 59.99 49.95 69.99 39.99 29.99 29.99 69.99	Cordless; includes transmitter. As above. Includes snap-on circumaural
		Porta Pro Porta Pro Jr. CD/4 ESP/950 MAC/7 HB/500 TD/75 TD/65 TD/60 GT/4 GT/3 GT/2 Gamephone	Oynamic Dynamic Dynamic Dynamic Dynamic Dynamic Dynamic Dynamic Dynamic Dynamic Dynamic Dynamic Dynamic Dynamic	15-25 15-25 20-20 8-35 20-20 20-20 20-20 20-20 20-20 20-20 20-20 20-20 20-20	60 60 100 60 150 27 36 36 32	97 97 101 95 95 101 90 90 85 94	900 100mW 100mW 100 50 40 40 100mW	0.20 0.20 0.02 0.001 0.2 0.3 1 0.2 0.2 0.5 1 1 1.5	6 41/2 9 4, 6 9 8 8 8 10 5 3 3 1/2	F F F F F F F F F F	P/A P/A M/A M/A M/A P/A M M M M	No No Yes No No Yes No Yes No No No No	S/0 S/0 C/0 S C C C C C C S/0 S/0 S/0 S/0 S	A/F A/F A A A A A A A A A A A A A	Foam Foam Foam Vinyl Foam Plastic Plastic Plastic Plastic Plastic Plastic Plastic Foam	2.3 2.3 3.6 12.45 5.5 3.4 7.5 9 6 7.3 2.3 2 1.65 1.75	49.99 39.99 44.95 799.99 29.99 119.99 39.99 29.99 19.99 19.99 15.99 9.99 9.99	ear cushions. Includes E/90 energizer amp. Cordless; includes transmitter.
	MAXELL	HP100 HP200 HP300 HP400 HP500 HP600 HP1000 HP2000		50-18 50-18 20-20 20-18 20-20 20-20 20-20 20-20 18-22	32 32 32 32 32 32 32 32 32 32	96 90 90 96 96 102 100 102	20 100mW 100mW 20mW 100mW 20mW 100mW 100mW		3.5 3.3 3.3 4 5 4 9 5	F F F R R R R	M M M M/A M/A M/A M/A	No No No No No No No	1 0 1 1 0 1 C C	N A A N A A A	Foam Foam Foam Foam Foam Foam Plastic		4.99 5.99 5.99 9.99 14.99 14.99 14.99 19.99 24.99	Includes extra earpads. Includes mini earphones.
	MB QUART Electronics	QuartPhone 30X QuartPhone 45X QuartPhone 55X QuartPhone 75X QuartPhone 95X QuartPhone 85X	Dynamic Dynamic Dynamic Oynamic Dynamic Dynamic	24-21 24-20 10-22 20-20 16-23 28-24	80 100 100 100 300 300	102 98 98 97 96 92			10 10 10 10 10 10	F C C C C C	M/P P P P P		C C C C C	A A A A A	Foam Foam Foam Foam Foam Foam	5.6 7.8 7.8 8.1 7.6 9	89.00 119.00 139.00 159.00 199.00 299.00	

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Speaker sound pressure measurement for	square
wave input	





1kHz Response

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proprietary "Deconvolution Processor," that uses a fully

patented method to virtually eliminate acoustic smear. To substantiate this claim, the waveform graphs below clearly show the remarkably accurate acoustic squarewave reproduction of the DDAS system—unmatched in the industry.

he DDL-1 loudspeakers complete the system. They feature a 12-inch mica/pp cone woofer, a 2-inch ferrofluid-cooled softdome midrange and a 1-inch ferrofluid-cooled soft-dome tweeter. The DDL-1 loudspeakers have been designed and manufactured as a perfect-balancedmatch for the DDA-1

amplifier, with all acoustic tuning performed with the complete system in mind.

As a whole, the revolutionary DDAS system renders the three most critical areas of sound reproduction-localization, imaging and separation-with a degree of accuracy never before accomplished in the audio industry. In fact, it reproduces an audio signal so pure, clean and accurate, we dare say it's better than any system available.

all DGX now at 1-800-544-4DGX to arrange a risk-free 30-day U home trial. Our courteous technicians are standing by to discuss any aspect of the DDAS system and to take your order.

#### HEADPHONES

MANUFACTURER	<b>F</b> rate	OPER	ing Principle	s Refer for the	Hearte Ser	KL SUIT RIVER	aun inger P	A BASSING CO	Set of and land	a Feel Pru	THE PARTY	sed C. P.	open to	Bart A Ba	Interior to the second	on Est Cuto	-S Holes
MEMOREX	Ear Buds SL 40 Color Phones Flair Fone Weather Phones SL 55 2-Fer		100-16 50-18 50-18 50-20 22-20 20-20	32 32 32 32 32 32 32 32	94 80 88 92 92 92	25mW 50mW 100mW 25mW 20mW 25mW		3 <sup>3</sup> ⁄4 3 <sup>3</sup> ⁄4 3 <sup>3</sup> ⁄4 3 <sup>3</sup> ⁄4 4 3 <sup>3</sup> ⁄4	F F F F	M M M M M	NO NO NO NO NO	 	N A A N A N	Foam Foam Foam Foam Plastic Foam	1 1½ 1½ 1 1 1 1¼	3.99 4.99 5.99 6.99 7.99 7.99 9.99	
	Headphone Earphone SL 60V SL 78 SL 80 SL 90V SL 88V DL 92 DL 92 DL 94 DL 100 DL 101V DLX 200	Dynamic Dynamic Dynamic Dynamic Dynamic Dynamic Dynamic	50-18 100-20 20-20 20-20 20-20 20-20 20-20 16-22 50-18 18-22 20-20 16-20	32 32 32 32 32 32 32 32 32 32 32 32 32	88 94 96 97 110 103 100 103 100 102 104 100	100mW 25mW 100mW 50mW 50mW 30mW 30mW 100mW 100mW 100mW		$   \begin{array}{r}     3^{3} \\     3^{3} \\     6 \\     4 \\     4 \\     6 \\     3^{3} \\     4 \\     6 \\     5 \\     6 \\     6^{1} \\     2   \end{array} $	FFFF <mark>RRRR</mark> FRR	M M M/A M M/A M/A M/A	No No Yes No Yes Yes No Yes No	S   S   O S     S S S C	A N A A N N A A A A A A	Foam Foam Plastic Foam Plastic Foam Plastic Foam Foam Foam Foam Foam Foam	$     \begin{array}{r}       11/2 \\       13/4 \\       13/4 \\       21/2 \\       11/4 \\       21/2 \\       21/2 \\       21/2 \\       63/8 \\     \end{array} $	9.99 11.99 12.99 14.99 16.99 16.99 17.99 19.99 21.99 29.99	Includes headphone and earphone below. Cord retracts into case.
NADY	WH-90														<u> </u>	124.95	Wireless; includes transmitt extra headsets, \$69.95 each
NAKAMICHI	SP-7	Dynamic	20-20	45	98	100		10	F	Р	No	0	A	Foam	4.8	100.00	Includes extra earpads.
NUMARK	HM5500A HM6000A HM7000A		15-22 15-22 15-22	150 150 150				6 6 6		P P P	No No No		A A A		8 12 16	57.95 77.95 88.95	
DPTIMUS	PR0-90 PR0-60 LV-20 Nova-56 Nova-56 Nova-44 Nova-28 PR0-25 Nova-43 Nova-43 Nova-37 Nova-42 Nova-41 Nova-38 Nova-36 Nova-35	ES ES ES ES ES ES ES ES ES ES ES ES ES E	10-22 15-25 20-20 20-20 20-20 30-18 20-20 15-25 20-20 20-20 50-20 50-20 20-20 20-20 20-18 40-20					8 8 8 10 10 9 4 <sup>1</sup> / <sub>2</sub> 6 <sup>1</sup> / <sub>2</sub> 3 <sup>3</sup> / <sub>4</sub> 9 <sup>1</sup> / <sub>2</sub> 4 4 4	C R R R R R R R R R R R R R R R R R R R	P P P P P P P P P P P P P P P	No No No No No No No No No No No No No N	S C 0 C 0 C 0 C 0 C 0 C 0 C 0 C 0 C 0 C 0	<b>A</b> A A A A A A A A A A A A A A A A A A	Plastic Plastic		70.00 50.00 40.00 35.00 25.00 20.00 20.00 20.00 20.00 13.00 12.00 10.00 8.00 7.00	
PICKERING	CD-5 CD-4 CD-2 F102	Dynamic Dynamic Dynamic Dynamic Dynamic	20-20 20-20 20-20 20-20 20-20	35 32 32 32 32	100 105 112 92	100mW 100mW 100mW 50mW	0.5 0.5 0.5 0.5	7 <sup>1</sup> /2 7 <sup>1</sup> /2 7 <sup>1</sup> /2 5	C C C F	P P M	No No No	0 0 0 0	A A A A	Foam Foam Vinyl Foam	8.8 3 5 1.1	79.95 66.00 50.00 25.00	
PIONEER	SE-M50 SE-500D SE-400D SE-32 SE-22 SE-12 SE-205	Dynamic	3-50 5-25 5-26 12-22 30-18 80-22 20-20							M/A		C C C S/0 0 0			8.1 6.3 6.2 3.3 2.2 2.1 16	75.00 75.00 65.00 38.00 32.00 23.00 48.00	
RECOTON	HTS 90 HTS 80 HTS 60 HTS 40 HTS 40 HTS 50 PRO 65 PRO 45 PRO 25 PRO 25 PRO 25 PRO 15 PRO 44 EG 19 EG 17 EG 16 EG 12 EG 12 EG 12 EG 2 EG 1 EG 33 EG 22 EG 11 EG 10	Dynamic Dynamic	5-30 10-30 12-28 18-22 20-20 18-22 20-20 18-22 20-20	40 40 40 16 32 32 32 32 32 32 32 32	98 102 102 104 104	500mW 500mW 500mW 500mW 20mW 120 120 100 100 20		8 8 8 9 9 9 8 9 5 5 4		M/A M/A M/A M/A M/A M/A M/A M/A			N N N N N		$\begin{array}{c} 10\\ 10\\ 7\\ 51/2\\ 20\\ 14\\ 12\\ 10\\ 111/2\\ 8\\ 12\\ 12\\ 12\\ 91/4\\ 5\\ 5\\ 5\\ 5\\ 5\\ 5\\ 5\\ 7/8\\ 4\\ 4\\ 4\\ 4\\ 4\end{array}$	$\begin{array}{c} 149.99\\ 99.99\\ 79.99\\ 79.99\\ 39.99\\ 39.99\\ 39.99\\ 34.99\\ 24.99\\ 24.99\\ 24.99\\ 24.99\\ 19.99\\ 19.99\\ 19.99\\ 9.99\\ 19.99\\ 5.99\\ 4.99\\ 14.99\\ 14.99\\ 14.99\\ 14.99\\ 15.99\\ 5.99\\ 12.99\\ 6.99\\ 5.99$ 5.99	Includes carrying case. As above. As above.

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## HEADPHONES

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SENNHEISER	HD 10 HD 35 HD 435 HD 435 Vegas HD 44011 HD 44011 HD 44011 HD 45011 HD 45011 HD 53011 HD 53011 HD 53011 HD 55011 HD 55011 HD 25011 HD 2501	Dynamic Dynamic Dynamic Dynamic Dynamic Dynamic Dynamic Dynamic Dynamic Dynamic Dynamic Dynamic Dynamic Dynamic Dynamic Dynamic Dynamic Dynamic Dynamic	50-17 50- 18-5 20-20 22-20 20	32 32 32 32 32 32 60 60 60 60 60 60 60 70 300 32 300 300 300 300 10k	100 100 94 94 94 94 94 94 94 94 94 100 94 94 100 94 94 98 94	2.5V 387	1 1 1 1 0.1 0.3 0.3 0.4 0.2 0.2 0.2 0.5 1 0.01	3 3 10 10 10 10 10 10 10 10 10 10 10 10 10	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	M/A M/A M/A M/A M/A M/A M/A M/A M/A M/A	No No No No No Opt. Opt. No Opt. No Pot. No Yes Yes	\$/0 \$/0 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	A A A A A A A A A A A A A A A A A A A	Foam Foam Foam Foam Foam Foam Cotton Cotton Cotton Cotton Vinyi Vinyi Vinyi Vinyi Vinyi Vinyi Vinyi Vinyi Vinyi Vinyi Foam Foam	2.1 2.19 2.54 4.2 4.5 4.5 4.5 4.5 4.5 4.5 4.8 7.5 8.3 8.8 8.8 8.8 8.8 1.4 3.88 1.4 5.2	29.00 49.00 59.00 59.00 79.00 79.00 129.00 129.00 129.00 129.00 199.00 199.00 239.00 239.00 239.00 239.00 349.00	Active noise compression. Includes tube amp with volume control and D/A converter. Stereo infrared system; includes transmitter. As above.
SONY	MDR-CD1000 MDR-CD850 MDR-C0550 MDR-V900 MDR-V600 MDR-64 MDR-277 MDR-055 MDR-W121 MDR-077 MDR-275 MDR-276 MDR-172 MDR-17510K	Dynamic Dynamic Dynamic Dynamic Dynamic Dynamic Dynamic Dynamic Oynamic Oynamic Dynamic Dynamic Dynamic Dynamic	20-20 20-20 5-30 5-30 12-24 16-20 5-30 10-25 12-22 12-22 12-22 18-22 10-23 18-22 20-25	32 32 45 24 45 24 45 45 16 16 16 16	104 102 100 107 106 106 102 106 104 104 104 104	1W 1W 500 mW 3W 1W 100 mW 100 mW 100 mW 500 mW 50 mW 50 mW 50 mW		9.8 9.8 9.8 9.8 9.8 6.6 6.6 4.9 3.4 3.9 3.9 3.9	R R R R R R R R R R R R	A A A A A A A A A M M M M	No No No No No No No No No Yes Yes	CCCCCCCCC	A A A/F A/F A/F A F N A A	Vinyl Vinyl Vinyl Foam Foam Vinyl Plastic Plastic Plastic Foam Foam	10.5 10.5 9.5 10.5 9.1 1.9 4.9 4.2 0.7 0.6 0.2 0.2 6.3 2.3	299.95 199.95 199.95 99.95 39.95 14.95 199.95 14.95 14.95 24.95 24.95 24.95 29.95 199.95	Includes carrying case. As above. Infrared; cordless; operates u to 23 teet. As above.
STANTON	SR8-275 SR8-265 SR8-225 SR5-215 ST-1 ST-2 ST Surround ST-10 LS-1 LS-4 30 M/SR 35M/HB 35M/HB	Dynamic Dynamic Dynamic Dynamic Dynamic Dynamic Oynamic Oynamic Oynamic Dynamic Dynamic Dynamic	5-22 5-22 10-22 20-20 25-20 20-22 20-20 10-20 20-20 20-20 20-22 20-22 20-18	100 100 100 50 32 32 32 50 32 32 32 100 100 400	101 96 94 110 100 103 98 92 102 110 110 96	100m W 100m W 100m W 100m W 100m W 100m W 100m W 100m W 50m W 250m W 500m W	0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5	$ \begin{array}{c} 10\\ 10\\ 10\\ 10\\ 7\frac{1}{2}\\ 7\frac{1}{2}\\ 7\\ 5\\ 3\\ 12\\ 12\\ 12\\ 12\\ 12\\ 12\\ 12\\ 12\\ 12\\ 12$	C F F F F F C C F	A P P M/P P M/P M/P P P (2)P	No No No No No No No No No No No No No	+ 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	A A A A A A A A N N A A	Fabric Vinyl Vinyl Vinyl Foam Vinyl Foam Foam Foam Foam Vinyl	8.6 8.6 8.5 2.1 3.2 5 9.8 9.3 1 0.25 3.8 3.8 7	192.00 162.00 96.00 72.00 29.95 35.95 83.95 132.00 17.95 41.95 69.00 79.00 150.00	†Semi-open. Dual driver; closed back. Closed back; includes mike.
STAX	SR-84 Pro SR-34 Pro SR-5NB SR-Gamma SR-Lambda SR-Gamma Pro 1 SR-Lambda Pro 2 SR-Sigma Pro 1 SR-Lambda Classic MX SR-Lambda Classic MX SR-Lambda Signature MX SR-Lambda Signature MX	ES ES ES ES ES ES ES ES ES ES ES ES	20-25 20-25 15-25 10-35 8-35 8-35 8-35 25-38 20-25 8-35 8-35 8-35 7-41 7-41	8 8 8	95 95 97 97 102 100 108 108 110 95 108 108 108		0.02 0.02 0.05 0.05 0.005 0.005 0.005 0.005 0.005 0.001 0.02 0.001 0.001 0.001 0.001	7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	F FF F F F F F F F F F	A A A A A A A A A A A A A A A A A A A	NO NO NO NO Yes Yes Yes Yes Yes	C/0 C/0 C/0 C/0 C/0 C/0 C/0 C/0 C/0 C/0	A A A A A A A A A A A A A A A A A A A	Vinyl Vinyl Vinyl Vinyl Vinyl Vinyl Vinyl Vinyl Vinyl Vinyl Vinyl	7.5 8 13 7.5 15.1 7.5 15.1 15.1 18.2 7.5 15.1 15.1 15.1 15.1	299.95 199.95 349.95 599.95 699.95 799.95 799.95 1299.95 1299.95 1199.95 1499.95	Includes Model SRD-4 Pro adaptor. As above. Includes Model SRO-6SB adaptor. As above. As above. Includes Model SRD-7 Pro adaptor. Includes Model SRD-7 Pro adaptor. Includes Model SRD-7 Pro adaptor. Includes Model SRM-XS direct drive amp. Includes Model SRM-XH direct drive amp. Includes Model SRM-XH cludes Model SRM-XPro Class-A amp. Includes Model SRM-X Pro direct drive amp. Includes Model SRM-X Pro direct drive amp. Includes Model SRM-T1 tube amp.
TELEX	V-200 V-210 V-220	Oynamic Dynamic Dynamic	10-20 10-20 10-20	600 160 80	85 90 90	<mark>11V</mark> 11V 11V	0.3 0.3 0.3	5 5 5	R R R	Opt. Opt. Opt. Opt.	No No No	C C C	A A A	‡ †			†Moleskin.

(max)



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## DIGITAL RECORDERS

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MANUFACTURER	A REAL	Ren	Reco	Fred	2/0	0.10	indu	Culon	Oeco Of	findune Coast	No. 10 - 10 - 10	Her	De. 4	Repeat	And	Price	Holes
AWA	AMD-100	MD	8	10-20	105		A	A		M/L/F	L/HL/F	No	A/M/R/S/E	A/8/C	Yes	850.00	Portable.
DENON	DTR-80P(RO)	DAT	A/B/C	20-22 ± 0.5	90	0.008	B	A	18-8X	M/L/D/F	L/HL/D	Yes	A/R/S/E/X		Yes	900.00	Portable; uses alkaline ( nickel-cadmium batterie mike inputs; digital in/or
JAC	XD <b>2507TN(RI)</b> XD21010TN(RI)	DAT DAT	A/B/C A/B/C	2-22 ±0.5 2-22 ±0.5	91 93	0.004 0.003	A A	A	18-8X 18-8X	L/D/F M/L/D/F	L/HL/D/F LL/HL/D/F	Yes Yes	A/M/R/S/E/X A/M/R/E/X	A/8 A/8/C	Yes Yes	1000.00 1700.00	
MAGNAVOX	DCC600/37(RI)	DCC	A/B/C	20-20 ±0.5	90		A	A	1	L/D	L/HL/D		A/M/R/ <mark>S/E</mark> /X	A/B		799.00	
MARANTZ	DD-82(RI)/ DD-92(RI)	DCC	A/B/C	10-22 ±0.2	100	0.003	8	A	1-128X	L/D/F	LL/HL/D/F	No	A/M/R/S/E/X	A/B	No	From 1099.00	
MERIDIAN	COR	CDR	8	20-20 ±.05	96	0.003	A	A	1-256X	M/L/8/D/F	LL/HL/B/D/F	Yes	A/M/S/E	A/B/C	Yes	6995.00	
MICROMEGA	Solo CDR(RI)	CDR	8						1-256X	M/L/B/D/F	L/HL/B/D/F	Yes				9900.00	
NAKAMICHI	1000DARS(R/)	DAT	A/B/C	5-20 ±0.5	100	.0005	A	A	20-8X	L/B/D/F	LL/HL/8/0/F	Yes	A/M/R/S/E/X	A/C	Yes	11,900.	Includes 1000P A/D and D/A converter (see also "D/A Converters").
<mark>optimus</mark>	DCT-2000(RI)	DCC	B	5-20 ± 0.5	90	.0035	A	A	18-64X	L/D/F	L/HL/D/F	Yes	A/M/R/S/X	٨	No	699.00	
PHILIPS	DCC-900(RI)	DCC	A/8/C	20-20 ± 0.2	95	0.003	A	A	16-256X	L/D/F	LL/HL/D/F	No	A/M/R/S/X	A/B	No	799.95	-
SANYD	MDG-P1	MD	8	20-20 ±3	85	0.09		A	18-8X		LL/HL	No		A/B/C	Yes	599.99	Portable; playback onły.
SHARP	MD-\$10(RI) MD-D10	MD		20-20 ±1 20-20					1		H			A	Yes Yes	549.00 599.00	Portable; playback only; wired remote with LCD display; includes earbud headphones. Portable; playback only; includes headband
				±1													includes headband headphones.
SONY	MDS-101	MD	8	5-20 ± 0.5	105	0.01	A	A	1-8X	M/L/F	L/HL/F	Yes	A M/R/S/E/X	A/B/C	Yes	1000.00	
	MZ-1 MZ-2P ZS-M1(RI)	MO MD MD	8 8 8	20-20 20-20 20-20	88 88	0.08 0.08 0.1	A	A A A		M/L/F L/F	L/HL/F L/HL/F L/H/F	¥es Yes	A/M/R	A/B/C A/B/C A/B/C	Yes Yes Yes	749.95 549.95 899.95	Portable. As above; playback only Portable; includes radio.
	DTC-690 TCD-D7	DAT DAT	A/B/C A B/C	2-22 ±0.5 20-22	90 90	0.005 0.008	A	A	1-8X 16-8X	L/D/F M/L/D/F	L/HL/F L/HL/F	Yes Yes		A/8/C	Yes Yes	750.00 629.95	Portable.
	WMD-DT1	DAT	A/B/C	±1 20-22 +1, -1.5		0.008	e.	A	16-8X		HL	No	S/E	В	Yes	449.95	As above; playback only
SDNY <mark>ES</mark>	DTC-59ES DTC-87ES	DAT Dat	A/B/C A/B/C	2-22 ±0.5 2-22 ±0.5	93 94	.0045 .0045	8 8	A	1-8X 1-8X	L/0/F L/0/F	L/HL/0/F L/D/F	Yes Yes		A/B/C A/B/C	Yes Yes	820.00 1850.00	Four heads for live monitor.
TECHNICS	SV-DA10 RS-DC10	DAT	A/8/C A/8/C	10-22 ±0.2	90 95	0.003	AA	A	MASH 1-64X	D/F	LL/HL/D/F		A'R.S/X	A/B	Yes Yes	899.95 999.95	

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## ANALOG CASSETTE DECKS

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FACTURER	XK-S9000(RI)	13-23 ± 3	/Yes	0.018	×~	80	B/C/	»°/«	3	No	No	№ РН	E E	<u>«⁄</u> ۴	× 1	» <sup>•</sup> / 0	31		<i>{</i>
<b>A</b> 1110	AD-F810(RI)	15-20 ± 3	Yes	0.035		78	S/H B/C/H	M	3	Yes	No	PH	E		0	No No	11.2	400.00	Built-in D/A converter.
ARCAM	Delta 100(RO)	20-20 ± 3		0.07	66	88	B/C/S	M	3	No	No	РН	E	No	0	No	17	1800.00	
BANG & OLUFSEN	Beocord 7000 Beocord 4500	30-18 ±3 30-18 ±3	No No	0.09	55 55	74 66	B/C/H B/H	A	3	Yes Yes	No No	P/PH P	T	Yes Yes	1	No No	18.4 9.9	1250.00 900.00	
CAMBRIDGE AUDIO	CT50(RO)	30-16 ±3	No	0.07	55	75	B/C/H	A	3	No	No		T	No			9.7	499.95	
CARVER	TD-1770(RI)	20-19 + 2,-3	Yes	0.05		75	B/C/H	M	3	Yes	No	P	E	No	0	No	15	599.95	
	TDR-2400(RI) TDR-1550(RI)	$30-19 \pm 3$ 20-18 ± 3	No No	0.08	<u> </u>	74 75	B/C/H B/C/H	M	3	Yes Yes	No No	P P	E	Yes Yes	2 0	Yes No	16 15	499.95 459.95	High-speed dubbing.
DENON	DRW-840 DRW-660	20-18 ± 3 20-18 ± 3	No No	0.06		74	B/C/H B/C/H	M	3	Yes Yes	No No	P P	T T	Yas Yes	0	Yes Yes		400.00	High-speed dubbing; twin and relay record; relay play. High-speed dubbing; relay play.
	DRR-730 DRS-810	20-19 ± 3 20-20 ± 3	No Yes	0.06 0.038		74	B/C/H B/C/H	M	3	Yes	No No	P P/PH	Ť E/R	Yes	Ö O	No No		300.00	Horizontal loading; dual
	DRM-710 DRS-610	20-20 ±3 25-18 ±3	Yes No	0.038 0.055		75 74	B/C/H B/C/H	M	33	Yes	No	P/PH P	E	No	0	No		400.00	capstan. Dual capstan.
DUAL	DRM-540 CC 5850 RC	25-18 ± 3 25-19	No	0.055	C.E.	74	B/C/H	м	3	Yes Yes	No No	P	E/R T	NO NO	Ö	No No	40	300.00 250.00	Horizontal loading. CD sync.
	(RI) CC 8065 RC (RI)	25-15	Yes Yes	0.05 0.06	65 65	75 73	B/C/H B/C/H	A A		Yes		PH PH	E/R E/R				13 12	505.00 440.00	Two motors. As above.
ELITE	CTW-53 CT-43	20-20 15-21	Yes	0.07 0.023	57 60		B/C/H B/C/ S/H	A		Yes Yes		A A/PH	E/R E/R	Yes Yes	0 0	Yes No	11 16	460.00 650.00	High-speed dubbing.
FISHER	CRW983 CRW683	50-17 ±3 50-15 ±3	Yes Yes	0.12 0.18	54 54	70 62	B/C/H B	A A	3 3	Yes No	No No	Р Р	E	Yes Yes	0 0	Yes Yes	9.4 8.7	199.95 149.95	High-speed dubbing. As abov <del>e</del> .
HARMAN Kardon	TD4200	20-20 ±3† 20-20	No	0.05	57	73	B/C	м	3	No	No	Р	E	No	0	No	11.9	329.00	†At O VU.
	TD4400 DC5300	20-20 ±3† 20-18 ±3	No No	0.05	57 57	73	B/C/H B/C	M	3	No No	Yes No	P P	E	No Yes	0	No Yes	11.9	449.00 549.00	One-touch normal and high-
				0.00		70	5/0	111						169		163	17.2	345.00	speed dubbing; sync dub with auto reverse.
JAC	TDV1050TN TDV661TN	10-23 ±3 10-21 ±3	Yes Yes	0.022 0.035	61 59		B/C/H B/C/H	A/M A/M	3	Yes Yes	No No	A/PH A/PH	E/R E	No No	0 0	No No	17 11.5	700.00 399.95	
	TDR441TN TDW805TN TDW709TN	20-17 ±3 20-17 ±3 20-17 ±3	NO NO NO	0.08 0.08 0.08	58 58 58		B/C/H B/C/H B/C/H	A/M A/M A	333	Yes Yes Yes	No No No	A/PH A/PH A	E E E	Yes Yes Yes	0 0 1	No Yes Yes	10.2	260.00 370.00	
	TDW309TN TDW209TN	20-17 ±3 20-17 ±3	No No	0.08	58 58		B/C/H B/C/H	Â	3	Yes	No No	Â	Ť	Yes	1 0	Yes	11.5 10.9 10.9	329.95 259.95 209.95	
KENWOOD	KX-5550(RI) KX-W8050(RI) KX-W6050(RI) KX-W4050(RI)	20-20 ±3 25-18 ±3 25-18 ±3	Yas Yas Yas	0.06 0.09 0.09	57 52 52	72 68 66	B/C/H B/C/H B/C/H B/C/H	A		Yes Yes Yes	Yes Yes Yes Yes	A/P A/P A/P A/P	E/R E/R T	Yes Yes Yes Yes	0 0 0	No Yes Yes Yes	13 13 12 12	299.00 379.00 299.00 279.00	High-speed dubbing. As above. As above.
MARANTZ	SD-72(RI) SD-725(RI)	15-20 ±3 20-19 ±3	Yes No	0.03 0.06	60 59	80 79	B/C/H B/C/H	м	3	Yes Yes	Yes Yes	PH PH	T/E T	No Yes	0	No Yes	23 20	599.00 599.00	Dual capstan. Recording in both wells.
	SD-63(ŘI) SD-525(RI) SD-52R(RO)	20-18 ± 3 20-18 ± 3 30-19	Yes No No	0.05 0.06 0.06	58 58 58	78 78 78	B/C/H B/C/H B/C/H	M	333	No Yes No	No No No	PH PH PH	Ť T T	No Yes Yes	0 1 0	No Yes No	18 12 11	399.00	Defeatable MPX filter. Mike mixing. Defeatable MPX filter.
NAD	SD-52(RO) 6100(RI)	30-19 30-19 ±3	No No	0.06	58 57	78 77	B/C/H B/C/H	M	3	No No	No No	PH P	T T	No No	0	No No	11 105/8	299.00 499.00	As above.
NAKAMICHI	602 Dragon(RO)	35-16 ± 3 20-22 ± 3	No Yes	0.06	56	66 72	B/C B/C	No M	3	No No	No No	P P	T T	No Yes	0	No No	9¾ 21	299.00 2499.00	Auto azimuth correction.
	RX-505(RO) RX-202(RO) CR-7A(RI)	20-20 ±3 20-20 18-21 ±3	Yes No Yes	0.08 0.11 0.048		70 68 72	B/C B/C B/C	M No A	3 3 3	Yes No No	No No No	P P P/PH	Ť T T/E/R	Yes Yes No	0	No No No	22 19¾ 19¾	1549.00 879.00 1849.00	Flips cassette for tape reverse. As above. Manual playback azimuth
	DR-1(RO) DR-2(RO) DR-3(RO)	20-21 ±3 20-21 ±3 20-20 ±3	Yes Yes No	0.06 0.06 0.11		72 72 70	B/C B/C B/C	M M M	3 3 3	No No No	No No No	P P P	T T	No No No	0 0 0	No No No	12¾ 12½ 11¾	879.00 699.00 399.00	adjustment. As above.
ONKYO	TA-201(RO) TA-203(RO)	30-18 ±3 30-18 ±3	No No	0.07 0.07	58 58	78 78	B/C/H B/C/H	M	3 3	No Yes	No Yes	PH PH	T E/R	No No	0 0	No No	11 12	240.00 320.00	As above.
	Integra TA-207(RI) Integra	30-19 ±3 20-20 ±3	Yes Yes	0.04 0.035	60 60	80 80	B/C/H B/C/H	A	3	Yes	Yes	PH PH	E/R	No	0	No	15	530.00	Three motors; dual capstan.
	TA-2800(RI) TA-R301(RO) TA-R401(RI)	30-18 ± 3	No	0.07	58	78	B/C/H	м	3	Yes No	Yes No	РН	E/R T	No Yes	0 0	No No	14 11.2	650.00 290.00	As above; record calibration. CD sync.
	TA-R401(RI) TA-RW313 TA-RW414	30-18 ±3 30-16 ±3 30-16 ±3	No No No	0.07 0.07 0.07	58 58 58	78 78 78	B/C/H B/C/H B/C/H	M A A	3 3 3	Yes No Yes	Yes No No	PH P P	E/R T E/R	Yes Yes Yes	0 0 0	No Yes Yes	11 12.1 13.2	380.00 240.00 350.00	As above; two motors. High-speed dubbing. Recording in both wells.
	TA-RW505 Integra	20-17 20-17 20-17	Yes Yes	0.065 0.065	58 58	78 78 78	B/C/H B/C/H B/C/H	A/M		Yes Yes	No No	A/P A/PH	T E/R	Yes	0	Yes Yes	13.2 12.6 18.1	400.00 700.00	Record and quick reverse in
OPTIMUS	TA-RW909		¥-		_		<b>D</b> .0.**					_			_	M		4	both wells; separate power supply; power loading.
OPTIMUS	SCT-7500 SCT-39 SCT-5500 SCT-86		Yes				B/C/H B/C/H B B	A M A M	3 3 3 3	No No	No No	P P P		Yes No No No		Yes Yes Yes No		180.00 170.00 150.00 90.00	
OPTIMUS PRO-	SCT-52 SCT-51	25-16.5 25-16.5	Yes Yes	0.1 0.1	57 57		B/C/H B/C/H	A	3	Yes Yes	No No	P P		Yes Yes	0 0	Yes Yes	9,2 9,4		High-speed dubbing. As above.
FESSIONAL		-																	

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range of audible frequencies with low distortion and wide dynamic range. In other words: little

speaker, big time sound. And now, Advent Mobile "...easiest install I've ever performed...the model 6.5i has just become my favorite two-way speaker...the more you listen, the more you want."

Tom Nousaine, Car Stereo Review Sept/Oct '92

Inductive Coupling Technology offers the "Sweeter Tweeter."

Ivan Berger, Audio

"Advent's implementation [of ICT] brings several significant benefits to car audio...elimination of any crossover network...greater efficiency...completely blow-proof tweeter...designed easily to fit behind stock grilles..."

Daniel Kumin, TWICE

Audio completes its line with more award-winning models. Introducing a series of free air dual voice coil subwoofers and two Innovations '93 winners: matched tweeter/ midrange component systems and the drop-in-the-trunk subwoofer enclosures, the pyramid-style AM ISO10 Isobarock.<sup>™</sup> The Isobarock's molded Nu-Stone<sup>™</sup> enclosure is like granite. It has dual 10" Tuff-Kote<sup>™</sup> woofers, one inside and one chrome outside, thundering up to 750 watts of the deepest bass.



The extremely durable AM ISOI0 Isobarock Dual 10" Subwoofer.



INNOVATIONS 93

Much has already been said about our awardwinning ICT speakers. And when the reviews for these new Advent products are published, we'll most likely respond the same way as usual — with our thanks.

For free information and a dealer near you, call 1-800-477-3257.

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newest shape in

Inductive Coupling Technology provides acclaimed acoustic performance while fitting behind virtually any vehicle's original grilles.



# ANALOG CASSETTE DECKS ster perfetter and the state of

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  |
| FC-910(RO)<br>FC-930(RO)<br>FC-950(RO)   | 40-16<br>40-16<br>30-18   | No<br>No<br>Yes  | 0.07<br>0.07<br>0.05  | 56<br>57<br>59   
   
   | 66<br>77<br>79  
   
  | B/H<br>B/C/H<br>B/C/H  
   | A<br>A<br>M  | 3<br>3<br>3  
   | No<br>Yes<br>Yes  
   
  | No<br>Yes<br>Yes   | A/PH<br>A/PH<br>A/PH  | T<br>T<br>T/E   
   | Yes<br>Yes  
  |   | Yes<br>Yes<br>Yes   | 11.4<br>11.4<br>12.7   | 229.95<br>279.95  | High-speed dubbing.<br>As above.<br>Defeatable MPX filter.  
  |
| CT-WM62R<br>(RI)<br>CT-W802R<br>CT-W602R<br>CT-W502R<br>CT-W402R<br>CT-W402R<br>CT-W402R   | 20-17<br>25-16<br>25-16<br>25-16<br>25-16<br>25-16<br>30-16   |  | 0.009<br>0.009<br>0.1<br>0.1<br>0.1<br>0.1<br>0.1   | 58<br>57<br>57<br>57<br>57<br>57<br>56   
   
   |   
   
  | B/C<br>B/C/H<br>B/C/H<br>B/C<br>B/C<br>B/C<br>B/C  
   | A<br>A<br>A<br>A                                     | 1<br>1<br>0<br>0   
   | Yes<br>Yes  
   
  |  | A<br>A<br>A<br>A<br>A   | E/R<br>E/R<br>E/R<br>E  
   | Yes<br>Yes<br>Yes<br>Yes<br>No  
  | 0<br>0<br>2<br>0<br>0   | †<br>Yes<br>Yes<br>Yes<br>Yes<br>Yes  | 15<br>10<br>9<br>9<br>9<br>8   | 500.00<br>420.00<br>345.00<br>265.00<br>245.00<br>225.00  | †One well, six-cassette<br>changer, other well, normal.<br>High-speed dubbing.<br>As above.<br>As above.  
  |
| RD955AX  | 30-18 ± 3   | No   | 0.035   | 55   
   
   | 64  
   
  | B/C/H  
   | м  | 3  
   | Yes   
   
  | No   | Р   | Ţ   
   | No  
  | 0   | No  | 101/4  | 350.00  |   
  |
| 0-X519HXR<br>D-X317WR(RO)  | 30-17 ± 3<br>20-19 ± 3  | No<br>Yes  | 0.06†<br>0.06   | 50<br>58   
   
   | 70<br>75  
   
  | 8/C/H<br>8/C/H<br>8/C/H  
   | A<br>M   | 333  
   | Yes<br>Yes  
   
  | No<br>No   | P/PH<br>P   | T<br>T/E  
   | Yes<br>Yes  
  | 0   | No<br>Yes   | 9.5<br>10.8  | 250.00  | †Wtd. rms.<br>High-speed dubbing; edit<br>dubbing; timer record and   
  |
| D-X117WR(RO)<br>D-X117HX(RO)<br>D-790WR(RO)  | $20-20 \pm 3$<br>$20-20 \pm 3$<br>$20-18 \pm 3$   | Yes  | 0.09  | 58<br>58   
   
   | 75<br>75  
   
  | B/C/H<br>B/C/H   
   | A<br>M   | 3  
   | Yes<br>Yes  
   
  | No<br>No   | P   | Ţ   
   | Yes<br>No   
  | 0   | Yes<br>No   | 10.5<br>8.4  | 270.00<br>230.00  | play.<br>High-speed dubbing; switchab<br>MPX filter.  
  |
| D-590W(RO)   | 40-16 ± 3   | Yes  | 0.2   | 50   
   
   | 60  
   
  | B  
   |  | 3  
   | No  
   
  | No   | P   | T   
   | No  
  | 0   | Yes   | 8.6  | 140.00  | Tuit  
  |
| D06030C(RO)<br>DD4030C(RO)   | 20-17 ±3<br>25-16 ±3  |  | 0.06<br>0.06  |  
   
   | 76<br>74  
   
  | B/C/H<br>B/C/H   
   |  | 3<br>3   
   | Yes<br>Yes  
   
  |  | P   | T/E/R<br>T/E/R  
   | Yes<br>Yes  
  | 1   | Yes<br>Yes  | 12<br>11   | 325.00<br>250.00  | Twin record; CD sync; auto<br>reverse in both wells.<br>CD sync; auto reverse in both   
  |
| DD3010C(RO)<br>DD2010C(RO)   | 35-16 ± 3<br>35-15.5<br>± 3   |  | 0.07<br>0.08  |  
   
   | 73<br>72  
   
  | B/C/H<br>B/C   
   |  | 3<br>3   
   | Yes   
   
  |  | P<br>P  | T<br>T  
   | Yes   
  | 1<br>0  | Yes<br>Yes  | 11<br>9  | 225.00<br>140.00  | wells.<br>Auto reverse in both wells.   
  |
| TC-FX211<br>TC-RX311<br>TC-K611S   | 30-15 ± 3<br>30-15 ± 3<br>20-20 ± 3   | No<br>No<br>Yes  | 0.07<br>0.07<br>0.05  | 58<br>58<br>60   
   
   | 73<br>73<br>75  
   
  | B/C<br>B/C/H<br>B/C/   
   | M<br>A<br>A/M  |  
   | No<br>Yes<br>Yes  
   
  | No<br>No<br>No   | P<br>P<br>P   | T<br>E<br>E   
   | No<br>Yes<br>No   
  | 0<br>0<br>0   | No<br>No<br>No  | 7¼<br>8¼<br>10¼  | 129.95<br>250.00<br>400.00  |   
  |
| TC-W435<br>TC-W535<br>TC-W635S   | 30-18 ± 3<br>30-18 ± 3<br>30-18 ± 3   | No<br>No<br>No   | 0.08<br>0.08<br>0.08  | 58<br>58<br>58   
   
   | 73<br>73<br>82  
   
  | 8/C/H<br>8/C/H<br>8/C/   
   | No<br>A<br>A   |  
   | No<br>Yes<br>Yes  
   
  | No<br>No<br>No   | P<br>P<br>P   | T<br>T<br>T   
   | No<br>Yes<br>Yes  
  | 0<br>0<br>0   | Yes<br>Yes<br>Yes   | 9½<br>9½<br>9½<br>9½   | 200.00<br>250.00<br>330.00  |   
  |
| TC-RX606ES   | 25-19 ±3  | No   | 0.06  | 59   
   
   | 83  
   
  | B/C/<br>S/H  
   | A  |  
   | Yes   
   
  | No   | P   | E   
   | Yes   
  | 2   | No  | 101⁄4  | 4 <mark>00.</mark> 00   |   
  |
|  | _   |  |   |  
   
   |   
   
  | S/H  
   |  |  
   |   
   
  | No   |   |   
   | No  
  | -   |   |  |   |   
  |
| TC-WR701ES   |   |  |   |  
   
   |   
   
  | S/H<br>B/C/  
   | A  |  
   |   
   
  |  | P   |   
   |   
  | 0   | 1.1   | 11   |   | Recording in both wells.  
  |
| TC-WR901ES   | 20-20 ±3  | No   | 0.06  | 59   
   
   | 83  
   
  | S/H<br>B/C/<br>S/H   
   | A  |  
   | Yes   
   
  | No   | Р   | E   
   | Yes   
  | 0   | Yes   | 16¼  | 670.00  | As above; pitch control.  
  |
| TCD-3014A  | 18-23   | Yes  | 0.06†   |  
   
   | 74  
   
  | B/C  
   | м  |  
   | Yes   
   
  |  | Р   | T/E   
   | No  
  | 0   |   | 21.6   | 1794.00   | †Wtd. rms.  
  |
| V-8000S(RI)  | 15-21 ±3  | Yes  | 0.022   | 60   
   
   | -   
   
  | B/C/   
   | м  | 3  
   | No  
   
  | No   | P/PH  | E   
   | No  
  | 0   | No  | 241/4  | 1300. <mark>00</mark>   | CD sync.  
  |
| V-7010(RI)<br>V-5010(RI)<br>V-3010(RI)<br>V-2020\$   | 15-21 ±3<br>15-21 ±3<br>15-21 ±3<br>15-21 ±3  | Yes<br>Yes<br>Yes<br>Yes   | 0.022<br>0.027<br>0.045<br>0.045  | 60<br>60<br>60   
   
   | 84  
   
  | 8/C/H<br>8/C/H<br>8/C/H<br>8/C/  
   | M<br>M<br>M  | 3<br>3<br>3<br>0   
   | Yes<br>Yes<br>No<br>No  
   
  | No<br>No<br>No<br>No   | P/PH<br>P<br>P<br>P   | E<br>E<br>T/E<br>E  
   | No<br>No<br>No<br>No  
  | 0<br>0<br>0<br>0  | NO<br>No<br>No<br>No  | 19 <sup>3</sup> /4<br>17 <sup>1</sup> /2<br>15 <sup>1</sup> /4<br>11   | 790.00<br>620.00  | As above.<br>As above.<br>Dual voltage.   
  |
| V-1010(RO)<br>V-510(RO)<br>V-370(RO)<br>W-6000R(RI)  | 15-21 ±3<br>30-19<br>30-16<br>25-19   | Yes<br>No<br>No<br>No  | 0.045<br>0.06<br>0.09<br>0.06   | 60<br>59<br>59<br>59   
   
   |   
   
  | S/H<br>B/C/H<br>B/C/H<br>B<br>B/C/H  
   | M<br>A<br>A  | 3<br>3<br>3  
   | No<br>No<br>No<br>Yes   
   
  | No<br>Yes<br>No<br>No  | P<br>P<br>P   | T<br>T<br>T   
   | No<br>No<br>No<br>Yes   
  | 0<br>0<br>0<br>2  | No<br>No<br>No<br>Yes   | 13<br>6½<br>6½<br>14¾  | 400.00<br>189.00<br>119.00<br>750.00  | Bidirectional record and play auto reverse in both wells;   
  |
| W-800R<br>W-700R(RI)<br>W-410(RO)  | 25-19<br>25-19<br>30-16   | No<br>No<br>No   | 0.06<br>0.06<br>0.09  | 59<br>59<br>55   
   
   | 79<br>79  
   
  | B/C/H<br>B/C/H<br>B  
   | A  | 0<br>0<br>3  
   | Yes<br>No<br>No   
   
  | Yes<br>No<br>No  | P/PH<br>PH<br>P   | T<br>T<br>T   
   | Yes<br>Yes<br>No  
  | 2<br>0<br>0   | Yes<br>Yes<br>Yes   | 10 <sup>3</sup> /4<br>9 <sup>3</sup> /4<br>7   | 369.00<br>279.00<br>159.00  | auto fade in/out.<br>Bidirectional record and play  
  |
| RS-TR979<br>RS-TR777<br>RS-TR333   | 20-18 ±3<br>20-18 ±3<br>20-17   | Yes  | 0.1<br>0.1<br>0.1   | 56<br>56<br>56   
   
   | 74<br>74<br>74  
   
  | 8/C/H<br>B/C/H<br>B/C/H  
   | A<br>A<br>M  |  
   | Yes<br>Yes<br>Yes   
   
  | No   | P   | т   
   | Yes<br>Yes<br>Yes   
  | o   | Yes<br>Yes<br>Yes   | 11 <sup>3</sup> /4<br>10 <sup>7</sup> /8<br>10.6   | 419.95<br>319.95<br>219.95  | Auto reverse in both wells;<br>high-speed editing.  
  |
| RS-T R232<br>RS-BX606<br>RS-BR465  | 20-17<br>30-19 ±3<br>30-17 ±3   | Yes<br>Yes<br>No   | 0.1<br>0.05<br>0.07   | 56<br>57<br>56   
   
   | 74<br>74<br>74  
   
  | 8/C/H<br>8/C/H<br>8/C/H  
   | M<br>M   |  
   | Yes<br>Yes<br>No  
   
  | No<br>No<br>No   | P<br>PH<br>PH   | T<br>T/E<br>T   
   | Yes<br>No<br>Yes  
  | 002   | Yes<br>No<br>No   | 10.6<br>9.5  |   | High-speed editing.   
  |
| CR 1600<br>CR 1601   | 30-16 ±1<br>20-19 ±1  | Yes<br>Yes   | 0.3   | 52<br>50   
   
   | 60  
   
  | В  
   | A  | 4  
   | Yes<br>Yes  
   
  | Yes<br>Yes   | P   | T   
   | Yes   
  | 1   | No<br>No  | 777  | 2179.00<br>2179.00  | 8-hour record time.<br>As above.  
  |
| KX-150<br>KX-260(RO)<br>KX-360(RO)<br>KX-670(RO)<br>KX-R470(RO)<br>KX-W162(RO)<br>KX-W262(RO)<br>KX-W362(RO)<br>KX-W362(RO)<br>KX-W352(RI) | $\begin{array}{c} 20 \cdot 16 \pm 3\\ 20 \cdot 19 \pm 3\\ 20 \cdot 20 \pm 3\\ 20 \cdot 21 \pm 3\\ 20 \cdot 20 \pm 3\\ 20 \cdot 20 \pm 3\\ 20 \cdot 18 \pm 3\\ 20 \cdot 20 \pm 3\\ 20 \cdot 20 \pm 3\\ 20 \cdot 20 \pm 3\\ 20 \cdot 20 \pm 3\\ \end{array}$  | No<br>Yes<br>Yes<br>Yes<br>No<br>No<br>Yes<br>Yes<br>No  | 0.15<br>0.08<br>0.05<br>0.07<br>0.15<br>0.15<br>0.08<br>0.08<br>0.08  | 58<br>58<br>60<br>60<br>58<br>58<br>58<br>58<br>58<br>58<br>58   
   
   | 74<br>74<br>76<br>76<br>74<br>74<br>74<br>74<br>74<br>74  
   
  | 8/C<br>8/C/H<br>8/C/H<br>8/C/H<br>8/C/H<br>8/C<br>8/C<br>8/C/H<br>8/C/H  
   | A<br>M<br>A/M<br>M                                   | 3<br>Var.<br>3<br>3  
   | No<br>Yes<br>Yes<br>Yes<br>Yes<br>No<br>Yes<br>Yes<br>Yes   
   
  | No<br>Yes<br>Yes<br>Yes<br>No<br>No<br>No<br>Yes   | P<br>A/P<br>P/PH<br>P/PH<br>P<br>A/P<br>A/P<br>A/P<br>A/PH  | T<br>T<br>E<br>F<br>T<br>T<br>T<br>E<br>R   
   | NO<br>NO<br>NO<br>Yes<br>NO<br>Yes<br>Yes<br>Yes  
  |   | NO<br>NO<br>NO<br>Yes<br>Yes<br>Yes<br>Yes  | 93/8<br>103/8<br>105/8<br>113/4<br>107/8<br>111/2<br>115/8<br>115/8<br>115/8<br>115/8  | 219.00<br>249.00<br>329.00<br>379.00<br>249.00<br>249.00<br>299.00<br>429.00<br>729.00  | "Playtrim" adjustment.<br>As above.<br>High-speed dubbing.<br>As above.<br>"Playtrim" adjustment.   
  |
|  | FC-910(R0)<br>FC-930(R0)<br>FC-930(R0)<br>FC-950(R0)<br>CT-WM62R<br>(RI)<br>CT-W62R<br>CT-W602R<br>CT-W602R<br>CT-W602R<br>CT-W602R<br>CT-W602R<br>CT-W602R<br>CT-W602R<br>CT-W602R<br>CT-W502R<br>CT-W502R<br>CT-W502R<br>O-X519HXR<br>D-X317WR(R0)<br>D-X117WR(R0)<br>D-X117WR(R0)<br>D-X117WR(R0)<br>D-X117WR(R0)<br>D-X117WR(R0)<br>D-X117WR(R0)<br>D-X117WR(R0)<br>D-X117WR(R0)<br>D-X117WR(R0)<br>D-X117WR(R0)<br>D-X117WR(R0)<br>D-X117WR(R0)<br>D-X117WR(R0)<br>D-X117WR(R0)<br>D-X117WR(R0)<br>D-X117WR(R0)<br>D-X117WR(R0)<br>D-X117WR(R0)<br>D-X117WR(R0)<br>D-X117WR(R0)<br>D-X117WR(R0)<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>TC-FX211<br>T | FC-910(R0)<br>FC-930(R0)         40-16<br>FC-950(R0)         40-16<br>FC-950(R0)           CT-WM62R<br>FC-950(R0)         25-16<br>CT-W602R         25-16<br>CT-W602R         25-16<br>CT-W602R           CT-WM62R<br>CT-W602R         25-16<br>CT-W602R         25-16<br>CT-W602R         25-16<br>CT-W602R           CT-W402R         25-16<br>CT-W602R         30-18 ± 3<br>30-18 ± 3<br>30-18 ± 3<br>30-18 ± 3<br>D-X317WR(R0)         30-17 ± 3<br>20-19 ± 3           D-X117WR(R0)         20-20 ± 3<br>D-X317WR(R0)         20-20 ± 3<br>20-17 ± 3<br>D-790WR(R0)         20-17 ± 3<br>D-16 ± 3<br>D-900W(R0)           D-X317WR(R0)         20-17 ± 3<br>D-3010C(R0)         35-16 ± 3<br>3D16 ± 3<br>TC-165 ± 3<br>TC-W635S         30-18 ± 3<br>3C-16 ± 3<br>30-18 ± 3<br>TC-W635S           TC-FX211         30-15 ± 3<br>TC-W635S         30-18 ± 3<br>TC-W635S         30-18 ± 3<br>TC-W635S           TC-RX606ES         25-19 ± 3<br>TC-W701ES         30-19 ± 3<br>TC-W701ES         30-19 ± 3<br>TC-W701ES           TC-WR701ES         30-19 ± 3<br>TC-WR901ES         20-20 ± 3<br>TC-WR901ES         20-20 ± 3<br>TC-WR701ES           TC-WR701ES         30-19 ± 3<br>TC-WR901ES         20-20 ± 3<br>TC-WR901ES         30-19 ± 3<br>TC-WR901ES           V-010(R1)         15-21 ± 3<br>V-3010(R1)         15-21 ± 3<br>V-3010(R1)         30-16<br>W-6000R(R1)           V-1010(R0)         30-16<br>W-6000R(R1)         30-16<br>W-6000R(R1)         30-17<br>W-7008(2S)         15-21 ± 3<br>W-7008(2S)           W-800R         20-17<br>S-18 ± 3<br>RS-TR377 | FC-910(RO)<br>FC-930(RO)         40.16<br>40.16<br>40.16<br>FC-930(RO)         No<br>40.16<br>40.16<br>KC-950(RO)         No<br>FC-950(RO)           CT-WM62R<br>FC-930(RO)         20.17<br>(RI)         20.17<br>KC-950(RC)         Yes           CT-WM62R<br>CT-W602R<br>CT-W602R<br>CT-W502R<br>CT-W502R<br>CT-W502R<br>CT-W502R         25.16<br>CT-W502R<br>25.16<br>CT-W502R         No<br>80.18 ± 3<br>No<br>20.19 ± 3         No<br>80.18 ± 3<br>No<br>20.19 ± 3         No<br>75.99<br>Ves           D-X117WR(RO)<br>D-X317WR(RO)         20.20 ± 3<br>20.19 ± 3         Yes<br>Yes           D-X117WR(RO)<br>D-300(RO)         20.17 ± 3<br>20.18 ± 3<br>Yes         Yes<br>Yes           D-X117WR(RO)<br>D-590WR(RO)         20.17 ± 3<br>20.18 ± 3<br>Yes         No<br>75.16 ± 3<br>Yes           D06030C(RO)         25.16 ± 3<br>D016 ± 3<br>Yes         No<br>75.15.5<br>± 3         No<br>75.15.5<br>± 3           TC-FX211<br>30.15 ± 3<br>NO<br>TC-K611S         30.15 ± 3<br>Yes         No<br>75.15.5<br>± 3         No<br>75.15.5<br>± 3           TC-FX211<br>30.15 ± 3<br>NO<br>TC-K611S         30.18 ± 3<br>Yes         No<br>75.15.5<br>± 3         No<br>75.15.5<br>± 3         No<br>75.15.5<br>± 3           TC-FX211<br>30.15 ± 3<br>Yes         30.18 ± 3<br>NO<br>75.16.15         No<br>75.17.5<br>± 3         No<br>75.17.5<br>± 3         No<br>75.17.5<br>¥es           TC-W435<br>TC-W635S         30.18 ± 3<br>NO<br>75.21 ± 3<br>Yes         No<br>75.21 ± 3<br>Yes         Yes<br>Yes<br>Yes<br>Yes<br>Yes<br>Yes<br>Yes<br>Yes<br>Yes<br>Yes | FC-910(R0)<br>FC-930(R0)         40-16<br>40-16<br>A0-16<br>FC-930(R0)         No<br>0.07<br>FC-930(R0)         0.07<br>0.05           CT-WM62R<br>(R1)<br>CT-W602R         25-16<br>25-16<br>CT-W602R         0.009<br>CT-W602R         0.009<br>CT-W602R         0.009<br>CT-W602R           CT-W602R         25-16<br>CT-W602R         0.01<br>CT-W602R         0.01<br>CT-W602R         0.009<br>CT-W602R           D-T-W502R         25-16<br>CT-W602R         0.01<br>CT-W602R         0.035<br>CT-W602R         0.035<br>CT-W602R           D-T-W502R         30-18 ± 3<br>CT-W402R         No<br>CT-W602R         0.06<br>CT-W602R         0.06<br>CT-W602R           D-X117WR(R0)         20-20 ± 3<br>CT-W6030C(R0)         20-17 ± 3<br>CT-B ± 3<br>CT-ST3TWR(R0)         0.06<br>CT-B ± 3<br>CT-B ± 3<br>CT-FX211         0.05<br>CT-W6030C(R0)         0.06<br>CT-T ± CFK11         0.06<br>CT-T ± CFK11         0.06<br>CT-C ± CT           DD4030C(R0)         25-16 ± 3<br>CT-K331         No<br>CT-CT<br>CT-K331         0.07<br>CT-K331         0.07<br>CT-CFK315         0.07<br>CT-CFK315           TC-FX211<br>TC-K6115         30-18 ± 3<br>CT-W635S         No<br>CT         0.07<br>CT-W735         0.06<br>CT-K707ES         0.022<br>CT-W735           TC-W435<br>TC-W635S         15-22 ± 3<br>CT-W7301KR         No<br>CT         0.06<br>CT           TC-W701ES         30-19 ± 3<br>No         No<br>CT         0.022<br>CT           TC-W701ES         30-19 ± 3<br>No         No<br>CT         0.022<br>CT           TC-W701ES <td>FC-910(R0)<br/>FC-930(R0)         40-16<br/>40-16<br/>40-16<br/>FC-930(R0)         No<br/>40-16<br/>40-16<br/>No<br/>0.05         No<br/>57<br/>59           CT-WM62R<br/>(RI)<br/>CT-W602R         20-17<br/>FC-950(R0)         0.009<br/>57<br/>CT-W602R         58<br/>FC-950(R0)           CT-W602R         25-16<br/>FC-950(R0)         0.009<br/>77<br/>CT-W602R         55<br/>FC-950(R0)           RD955AX         30-18 ± 3<br/>30-18 ± 3<br/>SD-16         No<br/>0.035         0.05<br/>FC           RD955AX         30-18 ± 3<br/>30-18 ± 3<br/>SD-530(R0)         No<br/>0.05<br/>FC         0.06F<br/>FC         58<br/>FC           D-X117W(R0)         20-20 ± 3<br/>20-18 ± 3<br/>20-18 ± 3<br/>Yes         0.06F<br/>FC         58<br/>FC         55<br/>FC           D-X117W(R0)         20-20 ± 3<br/>20-18 ± 3<br/>Yes         0.06F<br/>FC         58<br/>FC         58<br/>FC           D-X117W(R0)         20-17 ± 3<br/>20-18 ± 3<br/>Yes         0.06F<br/>FC         58<br/>FC         50<br/>FC           D06030C(R0)         25-16 ± 3<br/>PC         0.07<br/>FC         58<br/>FC         58<br/>FC         58<br/>FC           D06030C(R0)         25-16 ± 3<br/>PC         0.07<br/>FC         58<br/>FC         58<br/>FC         58<br/>FC           TC-FX211<br/>TC-FX311         30-15 ± 3<br/>PC         No<br/>PC         0.07<br/>FC         58<br/>FC           TC-FX211<br/>TC-W355<br/>TC-W635S         30-18 ± 3<br/>PC         No<br/>PC         0.07<br/>FC         58<br/>FC           TC-FX211<br/>TC-W707ES         20-21 ± 3<br/>PC         No<br/>PC         <t< td=""><td>FC-310(R0)         40-16<br/>40-16<br/>40-16<br/>FC-330(R0)         No<br/>40-16<br/>40-16<br/>40-16<br/>80-00         No<br/>0.07<br/>0.05         55<br/>59         66<br/>77           CT-WM62R         25-16<br/>CT-W602R         25-16<br/>25-16         0.009<br/>0.1         58         1           CT-W602R         25-16<br/>CT-W602R         25-16<br/>0.1         0.1         57         64           RD955AX         30-18 ± 3<br/>30-18 ± 3         No<br/>0.035         55         65           0-X519HXR<br/>D-X317WR(R0)         20-20 ± 3<br/>20-18 ± 3         No<br/>9         0.065         58         75           D-X117WR(R0)         20-20 ± 3<br/>20-18 ± 3         Yes<br/>0.06         58         75           D-X117WR(R0)         20-20 ± 3<br/>20-18 ± 3         Yes<br/>0.2         0.06         58         75           D-X117WR(R0)         20-17 ± 3         Ves<br/>0.2         0.06         58         75           D-X117WR(R0)         20-17 ± 3         Ves<br/>0.06         0.06         74         74          
D30100C(R0)         35-16 ± 3<br/>30-18 ± 3         No<br/>0.07         58         73           TC-FX211         30-15 ± 3<br/>30-18 ± 3         No<br/>0.08         58         73           TC-K2113         20-20 ± 3         No         0.08         58         73           TC-K2115         20-20 ± 3</td><td><math display="block">\begin{array}{cccccccccccccccccccccccccccccccccccc</math></td><td>FC-510(RD)<br/>FC-530(RD)         40-16<br/>40-16<br/>30-18         No<br/>FC         0.07<br/>557         56<br/>59         66<br/>75         87<br/>77         B/C/H         A<br/>M           CT-WM62R<br/>(RI)<br/>(RI)<br/>(RI)         20-17         0.009         58         0.009         57         D         D/C         A           CT-W602R<br/>CT-W602R         25-16         0.009         57         D         D/C         A           CT-W602R         25-16         0.1         57         D         B/C/H         A           CT-W602R         25-16         0.1         55         65         B/C/H         A           D/TW402R         25-16         0.1         57         B/C/H         A           D/S191MRD         30-18 ±3         No         0.025         55         65         B/C/H         A           D/X117WR(R0)         20-20 ±3         Yes         0.06         58         75         B/C/H         A           D/S00(R0)         20-17 ±3         Ves         0.06         58         75         B/C/H         A           D/S00(R0)         25-16 ±3         0.06         58         73         B/C/H         A           D/S00(R0)         35-15 ±3         No         0.07         58<!--</td--><td>FC-910(R0)         40-16<br/>30-18         No         0.07<br/>0.05         59         77<br/>79         BCH         A         A         3           CT.WM62R         20-17         0.009         58         J.         BCH         A         1           CT.W002R         25-16         0.11         57         BCH         A         1           CT.W02R         25-16         0.1         57         BCH         A         1           CT.W302R         25-16         0.1         57         BCH         A         1           CT.W302R         30-18         No         0.035         55         64         BCH         A         1           DyStSAX         30-18         No         0.065         58         70         BCH         A         3           DyStSAX         30-18         Yes         0.065         58         75         BCH         M         3           DyStSAX         30-18         Yes         0.065         58         75         BCH         M         3           DyStSAX         20-20         3         Yes         0.06         58         75         BCH         M         3         3           <td< td=""><td>FC-910(R0)<br/>FC-930(R0)       40-16<br/>40-16<br/>30-18       No       0.07<br/>Ves       57<br/>0.05       77<br/>57       78<br/>77       B/CH<br/>B/CH       A<br/>M       3<br/>3       Ves<br/>Ves         CT-WM62R<br/>(RI)       20-17        0.009       57        B/CH       A<br/>M       1       Yes         CT-W602R<br/>CT-W602R<br/>CT-W602R       25-16        0.009       57        B/CH       A<br/>M       1       Yes         D055AX       30-18        No       0.035       55       64       B/CH       A<br/>M       3       Yes         D&gt;5307/70       30-18        No       0.035       55       64       B/CH       A       3       Yes         D&gt;5307/70       20-19       3       No       0.035       55       64       B/CH       A       3       Yes         D-5307/RON       20-18       3       Yes       0.065       58       75       B/CH       A       3       Yes         D-5907/RON       20-18       3       Yes       0.06       76       B/CH       M       3       Yes         D-5907/RON       20-18       3       No       0.07       58       73       B/</td><td>Cr. Stripting Cr. Str</td><td>Cross(R)0         40-16<br/>40-16         No.<br/>40-16         No.<br/>0.07         55<br/>57         77<br/>79         Birth<br/>Birth<br/>Birth         A.<br/>A.<br/>A.<br/>A.         3.<br/>3         No.<br/>Yes         No.<br/>Yes         Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appl</td><td>C-330(R0)       40-16       Ne       0.0.7       55       67       B/H       A       3       Ne       Ves       <thves< th=""> <thv< td=""><td>C-010(R)<br/>FC-30(R)       40-16<br/>31-18       No.<br/>Yes       0.07<br/>0.07       55<br/>59       57<br/>59       77<br/>58       8C H<br/>8C H       A<br/>8C H       3<br/>4       No.<br/>Yes       No.<br/>Yes       No.<br/>APH<br/>APH<br/>APH<br/>T       T       Yes       Yes       No.<br/>APH<br/>APH<br/>T       T       Yes       Yes       No.<br/>APH<br/>APH<br/>T       T       Yes       Yes       No.<br/>APH<br/>APH<br/>T       No.<br/>APH<br/>T       &lt;</td><td><math display="block"> \begin{array}{c} c + 0.00 \\ c +
0.00 \\ c + 0.00 \\ c +</math></td><td>C-030(R0)<br/>FC-300(R0)       40-16<br/>x c       No<br/>x c       0.07<br/>x c       55<br/>x 77       6       C       A       3       No<br/>x es<br/>x " td=""/><td>C-030(R0)       40-16       No       0.07       55       66       B C.H       A       3       Yes       Ves       &lt;</td><td>C - 5281(RM)       40-15       No.       0.07       55       75       8C //       A       3       No.       No.       APH       T.       Ves.       N.       N.       27.9&lt;</td></td></thv<></thves<></td></td<></td></td></t<></td> | FC-910(R0)<br>FC-930(R0)         40-16<br>40-16<br>40-16<br>FC-930(R0)         No<br>40-16<br>40-16<br>No<br>0.05         No<br>57<br>59           CT-WM62R<br>(RI)<br>CT-W602R         20-17<br>FC-950(R0)         0.009<br>57<br>CT-W602R         58<br>FC-950(R0)           CT-W602R         25-16<br>FC-950(R0)         0.009<br>77<br>CT-W602R         55<br>FC-950(R0)           RD955AX         30-18 ± 3<br>30-18 ± 3<br>SD-16         No<br>0.035         0.05<br>FC           RD955AX         30-18 ± 3<br>30-18 ± 3<br>SD-530(R0)         No<br>0.05<br>FC         0.06F<br>FC         58<br>FC           D-X117W(R0)         20-20 ± 3<br>20-18 ± 3<br>20-18 ± 3<br>Yes         0.06F<br>FC         58<br>FC         55<br>FC           D-X117W(R0)         20-20 ± 3<br>20-18 ± 3<br>Yes         0.06F<br>FC         58<br>FC         58<br>FC           D-X117W(R0)         20-17 ± 3<br>20-18 ± 3<br>Yes         0.06F<br>FC         58<br>FC         50<br>FC           D06030C(R0)         25-16 ± 3<br>PC         0.07<br>FC         58<br>FC         58<br>FC         58<br>FC           D06030C(R0)         25-16 ± 3<br>PC         0.07<br>FC         58<br>FC         58<br>FC         58<br>FC           TC-FX211<br>TC-FX311         30-15 ± 3<br>PC         No<br>PC         0.07<br>FC         58<br>FC           TC-FX211<br>TC-W355<br>TC-W635S         30-18 ± 3<br>PC         No<br>PC         0.07<br>FC         58<br>FC           TC-FX211<br>TC-W707ES         20-21 ± 3<br>PC         No<br>PC <t< td=""><td>FC-310(R0)         40-16<br/>40-16<br/>40-16<br/>FC-330(R0)         No<br/>40-16<br/>40-16<br/>40-16<br/>80-00         No<br/>0.07<br/>0.05         55<br/>59         66<br/>77           CT-WM62R         25-16<br/>CT-W602R         25-16<br/>25-16         0.009<br/>0.1         58         1           CT-W602R         25-16<br/>CT-W602R         25-16<br/>0.1         0.1         57         64           RD955AX         30-18 ± 3<br/>30-18 ± 3         No<br/>0.035         55         65           0-X519HXR<br/>D-X317WR(R0)         20-20 ± 3<br/>20-18 ± 3         No<br/>9         0.065         58         75           D-X117WR(R0)         20-20 ± 3<br/>20-18 ± 3         Yes<br/>0.06         58         75           D-X117WR(R0)         20-20 ± 3<br/>20-18 ± 3         Yes<br/>0.2         0.06         58         75           D-X117WR(R0)         20-17 ± 3         Ves<br/>0.2         0.06         58         75           D-X117WR(R0)         20-17 ± 3         Ves<br/>0.06         0.06         74         74           D30100C(R0)         35-16 ± 3<br/>30-18 ± 3         No<br/>0.07         58         73           TC-FX211         30-15 ± 3<br/>30-18 ± 3         No<br/>0.08         58         73           TC-K2113         20-20 ± 3         No         0.08         58         73           TC-K2115         20-20 ± 3</td><td><math display="block">\begin{array}{cccccccccccccccccccccccccccccccccccc</math></td><td>FC-510(RD)<br/>FC-530(RD)         40-16<br/>40-16<br/>30-18         No<br/>FC         0.07<br/>557         56<br/>59         66<br/>75         87<br/>77         B/C/H         A<br/>M           CT-WM62R<br/>(RI)<br/>(RI)<br/>(RI)         20-17         0.009         58         0.009         57         D         D/C         A           CT-W602R<br/>CT-W602R         25-16         0.009         57         D         D/C         A           CT-W602R         25-16         0.1         57         D         B/C/H         A           CT-W602R         25-16         0.1         55         65         B/C/H         A           D/TW402R         25-16         0.1         57         B/C/H         A           D/S191MRD         30-18 ±3         No         0.025         55         65         B/C/H         A           D/X117WR(R0)         20-20 ±3         Yes         0.06         58         75         B/C/H         A           D/S00(R0)         20-17 ±3         Ves         0.06         58         75         B/C/H         A           D/S00(R0)         25-16 ±3         0.06         58         73         B/C/H         A           D/S00(R0)         35-15 ±3         No         0.07         58<!--</td--><td>FC-910(R0)         40-16<br/>30-18         No         0.07<br/>0.05         59         77<br/>79         BCH         A         A         3           CT.WM62R         20-17         0.009         58         J.         BCH         A         1           CT.W002R         25-16         0.11         57         BCH         A         1           CT.W02R         25-16         0.1         57         BCH         A         1           CT.W302R         25-16         0.1         57         BCH         A         1           CT.W302R         30-18         No         0.035         55         64         BCH         A         1           DyStSAX         30-18         No         0.065         58         70         BCH         A         3           DyStSAX         30-18         Yes         0.065         58         75         BCH         M         3           DyStSAX         30-18         Yes         0.065         58         75         BCH         M         3           DyStSAX         20-20         3         Yes         0.06         58         75         BCH         M         3         3           <td< td=""><td>FC-910(R0)<br/>FC-930(R0)       40-16<br/>40-16<br/>30-18       No       0.07<br/>Ves       57<br/>0.05       77<br/>57       78<br/>77       B/CH<br/>B/CH       A<br/>M       3<br/>3       Ves<br/>Ves         CT-WM62R<br/>(RI)       20-17        0.009       57        B/CH       A<br/>M       1       Yes         CT-W602R<br/>CT-W602R<br/>CT-W602R       25-16        0.009       57        B/CH       A<br/>M       1       Yes         D055AX       30-18        No       0.035       55       64       B/CH       A<br/>M       3       Yes         D&gt;5307/70       30-18        No       0.035       55       64       B/CH       A       3       Yes         D&gt;5307/70       20-19       3       No       0.035       55       64       B/CH       A       3       Yes         D-5307/RON       20-18       3       Yes       0.065       58       75       B/CH       A       3       Yes         D-5907/RON       20-18       3       Yes       0.06       76       B/CH       M       3       Yes         D-5907/RON       20-18       3       No       0.07       58       73       B/</td><td>Cr. Stripting Cr.
Stripting Cr. Str</td><td>Cross(R)0         40-16<br/>40-16         No.<br/>40-16         No.<br/>0.07         55<br/>57         77<br/>79         Birth<br/>Birth<br/>Birth         A.<br/>A.<br/>A.<br/>A.         3.<br/>3         No.<br/>Yes         No.<br/>Yes         Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appl</td><td>C-330(R0)       40-16       Ne       0.0.7       55       67       B/H       A       3       Ne       Ves       <thves< th=""> <thv< td=""><td>C-010(R)<br/>FC-30(R)       40-16<br/>31-18       No.<br/>Yes       0.07<br/>0.07       55<br/>59       57<br/>59       77<br/>58       8C H<br/>8C H       A<br/>8C H       3<br/>4       No.<br/>Yes       No.<br/>Yes       No.<br/>APH<br/>APH<br/>APH<br/>T       T       Yes       Yes       No.<br/>APH<br/>APH<br/>T       T       Yes       Yes       No.<br/>APH<br/>APH<br/>T       T       Yes       Yes       No.<br/>APH<br/>APH<br/>T       No.<br/>APH<br/>T       &lt;</td><td><math display="block"> \begin{array}{c} c + 0.00 \\ c +</math></td><td>C-030(R0)<br/>FC-300(R0)       40-16<br/>x c       No<br/>x c       0.07<br/>x c       55<br/>x 77       6       C       A       3       No<br/>x es<br/>x " td=""/><td>C-030(R0)       40-16       No       0.07       55       66       B C.H       A       3       Yes       Ves       &lt;</td><td>C - 5281(RM)       40-15       No.       0.07       55       75       8C //       A       3       No.       No.       APH       T.       Ves.       N.       N.       27.9&lt;</td></td></thv<></thves<></td></td<></td></td></t<> | FC-310(R0)         40-16<br>40-16<br>40-16<br>FC-330(R0)         No<br>40-16<br>40-16<br>40-16<br>80-00         No<br>0.07<br>0.05         55<br>59         66<br>77           CT-WM62R         25-16<br>CT-W602R         25-16<br>25-16         0.009<br>0.1         58         1           CT-W602R         25-16<br>CT-W602R         25-16<br>0.1         0.1         57         64           RD955AX         30-18 ± 3<br>30-18 ± 3         No<br>0.035         55         65           0-X519HXR<br>D-X317WR(R0)         20-20 ± 3<br>20-18 ± 3         No<br>9         0.065         58         75           D-X117WR(R0)         20-20 ± 3<br>20-18 ± 3         Yes<br>0.06         58         75           D-X117WR(R0)         20-20 ± 3<br>20-18 ± 3         Yes<br>0.2         0.06         58         75           D-X117WR(R0)         20-17 ± 3         Ves<br>0.2         0.06    
    58         75           D-X117WR(R0)         20-17 ± 3         Ves<br>0.06         0.06         74         74           D30100C(R0)         35-16 ± 3<br>30-18 ± 3         No<br>0.07         58         73           TC-FX211         30-15 ± 3<br>30-18 ± 3         No<br>0.08         58         73           TC-K2113         20-20 ± 3         No         0.08         58         73           TC-K2115         20-20 ± 3 | $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | FC-510(RD)<br>FC-530(RD)         40-16<br>40-16<br>30-18         No<br>FC         0.07<br>557         56<br>59         66<br>75         87<br>77         B/C/H         A<br>M           CT-WM62R<br>(RI)<br>(RI)<br>(RI)         20-17         0.009         58         0.009         57         D         D/C         A           CT-W602R<br>CT-W602R         25-16         0.009         57         D         D/C         A           CT-W602R         25-16         0.1         57         D         B/C/H         A           CT-W602R         25-16         0.1         55         65         B/C/H         A           D/TW402R         25-16         0.1         57         B/C/H         A           D/S191MRD         30-18 ±3         No         0.025         55         65         B/C/H         A           D/X117WR(R0)         20-20 ±3         Yes         0.06         58         75         B/C/H         A           D/S00(R0)         20-17 ±3         Ves         0.06         58         75         B/C/H         A           D/S00(R0)         25-16 ±3         0.06         58         73         B/C/H         A           D/S00(R0)         35-15 ±3         No         0.07         58 </td <td>FC-910(R0)         40-16<br/>30-18         No         0.07<br/>0.05         59         77<br/>79         BCH         A         A         3           CT.WM62R         20-17         0.009         58         J.         BCH         A         1           CT.W002R         25-16         0.11         57         BCH         A         1           CT.W02R         25-16         0.1         57         BCH         A         1           CT.W302R         25-16         0.1         57         BCH         A         1           CT.W302R         30-18         No         0.035         55         64         BCH         A         1           DyStSAX         30-18         No         0.065         58         70         BCH         A         3           DyStSAX         30-18         Yes         0.065         58         75         BCH         M         3           DyStSAX         30-18         Yes         0.065         58         75         BCH         M         3           DyStSAX         20-20         3         Yes         0.06         58         75         BCH         M         3         3           <td< td=""><td>FC-910(R0)<br/>FC-930(R0)       40-16<br/>40-16<br/>30-18       No       0.07<br/>Ves       57<br/>0.05       77<br/>57       78<br/>77       B/CH<br/>B/CH       A<br/>M       3<br/>3       Ves<br/>Ves         CT-WM62R<br/>(RI)       20-17        0.009       57        B/CH       A<br/>M       1       Yes         CT-W602R<br/>CT-W602R<br/>CT-W602R       25-16        0.009       57        B/CH       A<br/>M       1       Yes         D055AX       30-18        No       0.035       55       64       B/CH       A<br/>M       3       Yes         D&gt;5307/70       30-18        No       0.035       55       64       B/CH       A       3       Yes         D&gt;5307/70       20-19       3       No       0.035       55       64       B/CH       A       3       Yes         D-5307/RON       20-18       3       Yes       0.065       58       75       B/CH       A       3       Yes         D-5907/RON       20-18       3       Yes       0.06       76       B/CH       M       3       Yes         D-5907/RON       20-18       3       No       0.07       58       73       B/</td><td>Cr. Stripting Cr. Str</td><td>Cross(R)0         40-16<br/>40-16         No.<br/>40-16         No.<br/>0.07         55<br/>57         77<br/>79         Birth<br/>Birth<br/>Birth         A.<br/>A.<br/>A.<br/>A.         3.<br/>3         No.<br/>Yes         No.<br/>Yes         Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appli<br/>Appl</td><td>C-330(R0)       40-16       Ne       0.0.7       55       67       B/H       A       3       Ne       Ves       <thves< th=""> <thv< td=""><td>C-010(R)<br/>FC-30(R)       40-16<br/>31-18       No.<br/>Yes       0.07<br/>0.07       55<br/>59       57<br/>59       77<br/>58       8C H<br/>8C H       A<br/>8C H       3<br/>4       No.<br/>Yes       No.<br/>Yes       No.<br/>APH<br/>APH<br/>APH<br/>T       T       Yes       Yes       No.<br/>APH<br/>APH<br/>T       T       Yes       Yes       No.<br/>APH<br/>APH<br/>T       T       Yes       Yes       No.<br/>APH<br/>APH<br/>T       No.<br/>APH<br/>T       &lt;</td><td><math display="block"> \begin{array}{c} c + 0.00 \\
c + 0.00 \\ c +</math></td><td>C-030(R0)<br/>FC-300(R0)       40-16<br/>x c       No<br/>x c       0.07<br/>x c       55<br/>x 77       6       C       A       3       No<br/>x es<br/>x " td=""/><td>C-030(R0)       40-16       No       0.07       55       66       B C.H       A       3       Yes       Ves       &lt;</td><td>C - 5281(RM)       40-15       No.       0.07       55       75       8C //       A       3       No.       No.       APH       T.       Ves.       N.       N.       27.9&lt;</td></td></thv<></thves<></td></td<></td> | FC-910(R0)         40-16<br>30-18         No         0.07<br>0.05         59         77<br>79         BCH         A         A         3           CT.WM62R         20-17         0.009         58         J.         BCH         A         1           CT.W002R         25-16         0.11         57         BCH         A         1           CT.W02R         25-16         0.1         57         BCH         A         1           CT.W302R         25-16         0.1         57         BCH         A         1           CT.W302R         30-18         No         0.035         55         64         BCH         A         1           DyStSAX         30-18         No         0.065         58         70         BCH         A         3           DyStSAX         30-18         Yes         0.065         58         75         BCH         M         3           DyStSAX         30-18         Yes         0.065         58         75         BCH         M         3           DyStSAX         20-20         3         Yes         0.06         58         75         BCH         M         3         3 <td< td=""><td>FC-910(R0)<br/>FC-930(R0)       40-16<br/>40-16<br/>30-18       No       0.07<br/>Ves       57<br/>0.05       77<br/>57       78<br/>77       B/CH<br/>B/CH       A<br/>M       3<br/>3       Ves<br/>Ves         CT-WM62R<br/>(RI)       20-17        0.009       57        B/CH       A<br/>M       1       Yes         CT-W602R<br/>CT-W602R<br/>CT-W602R       25-16        0.009       57        B/CH       A<br/>M       1       Yes         D055AX       30-18        No       0.035       55       64       B/CH       A<br/>M       3       Yes         D&gt;5307/70       30-18        No       0.035       55       64       B/CH       A       3       Yes         D&gt;5307/70       20-19       3       No       0.035       55       64       B/CH       A       3       Yes         D-5307/RON       20-18       3       Yes       0.065       58       75       B/CH       A       3       Yes         D-5907/RON       20-18       3       Yes       0.06       76       B/CH       M       3       Yes         D-5907/RON       20-18       3       No       0.07       58       73       B/</td><td>Cr. Stripting Cr. Str</td><td>Cross(R)0         40-16<br/>40-16         No.<br/>40-16         No.<br/>0.07         55<br/>57         77<br/>79         Birth<br/>Birth<br/>Birth         A.<br/>A.<br/>A.<br/>A.         3.<br/>3         No.<br/>Yes         No.<br/>Yes        
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Ves.       N.       N.       27.9&lt;</td></td></thv<></thves<></td></td<> | FC-910(R0)<br>FC-930(R0)       40-16<br>40-16<br>30-18       No       0.07<br>Ves       57<br>0.05       77<br>57       78<br>77       B/CH<br>B/CH       A<br>M       3<br>3       Ves<br>Ves         CT-WM62R<br>(RI)       20-17        0.009       57        B/CH       A<br>M       1       Yes         CT-W602R<br>CT-W602R<br>CT-W602R       25-16        0.009       57        B/CH       A<br>M       1       Yes         D055AX       30-18        No       0.035       55       64       B/CH       A<br>M       3       Yes         D>5307/70       30-18        No       0.035       55       64       B/CH       A       3       Yes         D>5307/70       20-19       3       No       0.035       55       64       B/CH       A       3       Yes         D-5307/RON       20-18       3       Yes       0.065       58       75       B/CH       A       3       Yes         D-5907/RON       20-18       3       Yes       0.06       76       B/CH       M       3       Yes         D-5907/RON       20-18       3       No       0.07       58       73       B/ | Cr. Stripting
Cr. Stripting Cr. Str | Cross(R)0         40-16<br>40-16         No.<br>40-16         No.<br>0.07         55<br>57         77<br>79         Birth<br>Birth<br>Birth         A.<br>A.<br>A.<br>A.         3.<br>3         No.<br>Yes         No.<br>Yes         Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appli<br>Appl | C-330(R0)       40-16       Ne       0.0.7       55       67       B/H       A       3       Ne       Ves       Ves <thves< th=""> <thv< td=""><td>C-010(R)<br/>FC-30(R)       40-16<br/>31-18       No.<br/>Yes       0.07<br/>0.07       55<br/>59       57<br/>59       77<br/>58       8C H<br/>8C H       A<br/>8C H       3<br/>4       No.<br/>Yes       No.<br/>Yes       No.<br/>APH<br/>APH<br/>APH<br/>T       T       Yes       Yes       No.<br/>APH<br/>APH<br/>T       T       Yes       Yes       No.<br/>APH<br/>APH<br/>T       T       Yes       Yes       No.<br/>APH<br/>APH<br/>T       No.<br/>APH<br/>T       &lt;</td><td><math display="block"> \begin{array}{c} c + 0.00 \\ c +</math></td><td>C-030(R0)<br/>FC-300(R0)       40-16<br/>x c       No<br/>x c       0.07<br/>x c       55<br/>x 77       6       C       A       3       No<br/>x es<br/>x " td=""/><td>C-030(R0)       40-16       No       0.07       55       66       B C.H       A       3       Yes       Ves       &lt;</td><td>C - 5281(RM)       40-15       No.       0.07       55       75       8C //       A       3       No.       No.       APH       T.       Ves.       N.       N.       27.9&lt;</td></td></thv<></thves<> | C-010(R)<br>FC-30(R)       40-16<br>31-18       No.<br>Yes       0.07<br>0.07       55<br>59       57<br>59       77<br>58       8C H<br>8C H       A<br>8C H       3<br>4       No.<br>Yes       No.<br>Yes       No.<br>APH<br>APH<br>APH<br>T       T       Yes       Yes       No.<br>APH<br>APH<br>T       T       Yes       Yes       No.<br>APH<br>APH<br>T       T       Yes       Yes       No.<br>APH<br>APH<br>T       No.<br>APH<br>T       < | $ \begin{array}{c} c + 0.00 \\ c + 0.00
\\ c + 0.00 \\ c + 0.00 \\ c + 0.00 \\ c + 0.00 \\ c + 0.00 \\ c + 0.00 \\ c + 0.00 \\ c + 0.00 \\ c + 0.00 \\ c + 0.00 \\ c + 0.00 \\ c + 0.00 \\ c + 0.00 \\ c + 0.00 \\ c +$ | C-030(R0)<br>FC-300(R0)       40-16<br>x c       No<br>x c       0.07<br>x c       55<br>x 77       6       C       A       3       No<br>x es<br>x d>C-030(R0)       40-16       No       0.07       55       66       B C.H       A       3       Yes       Ves       &lt;</td> <td>C - 5281(RM)       40-15       No.       0.07       55       75       8C //       A       3       No.       No.       APH       T.       Ves.       N.       N.       27.9&lt;</td> | C-030(R0)       40-16       No       0.07       55       66       B C.H       A       3       Yes       Ves       < | C - 5281(RM)       40-15       No.       0.07       55       75       8C //       A       3       No.       No.       APH       T.       Ves.       N.       N.       27.9< |

AUDIO/OCTOBER 1993

# **BLANK TAPES & DISCS**

ANALOG CASSETT TAPE TYPE CODE	/			4	, ,	A	NALOG	CASSE	TTE			DCC	$\square$	DAT		AD COR
I — Normal Ferr II — Chrome/ Chrome Equ IV — Metat Partic	ivatent			ode		20			/	/	/	/	/	//	//	11
	/		Seal	90	/ /	5. or C. 76		/ /		1	/	1	/ /	//	/ /	
MANUFACTURER	grand	1	C. de Vine	0 01 C.46	5. N 8	C.90	C. Inc	C. 120	0.0	0.00	1	R. 90	R. 120	W.60	N. 12	Mules
BASF	Ferro Extra I Chrome Extra II Chrome Super II Chrome Maxima II Reference Maxima II DCC Maxima			1.45 1.89 3.25 3.79		1.59 2.29 2.99 3.49 3.99	1.89 2.79 3.33 3.99 4.59			12.99						D-75, \$10.99.
DENDN	R-DT	Γ									8.99	10.99	12.99			20-minute Demo-Master DAT, \$7.99.
	MG-X HDM HD8 HD7 HD6 S-PORT S-PORT DX1			3.75 1.75	4.99 4.25 3.50 2.75	5.50 4.75 4.00 3.25 2.25	8.99 5.99 4.99 4.25 3.50 3.49† 2.49†					2				†Sold in two-pack only.
DIC DIGITAL	HQ Series										7,19	7.69	8.19		31.99	R-10, \$4.59; R-30, \$7.99
FUJI	DR-I DR-II FR-IIx FR-IIx Pro ZII FR-Metal DAT DCC			1.49 2.49 3.49 4.49 4.49 5.49		1.99 2.99 3.99 4.99 4.99 5.99	3.49 4.99 5.49 5.49 6.49		8.99	9.99	10.95	11.95	12.95			Double-coated. As above. As above.
GREENCORP	XDS Music Plus Genuine Chrome	1	.46 .50 .60	.51 .57 .66		.63 .70 .88	.91									C-12, 33¢; C-32, 41¢. C-12, 36¢; C-32, 46¢. C-12, 43¢; C-32, 53¢.
JAC	GI AFII XFIV R-XD	1 11 1V	5	1.29 2.19		1.55 2.49 3.89					10.00	12.00	14.00			R-100, \$12.70.
LDRAN	ESQ 90 Pro DAT	0.				4.99					6.50	10.25	11.50			
MAXELL	UR XLU UDII XLII-S MX MX-S MV DAT		1.49 1.89 3.29	1.49 1.89 4.99† 3.29 3.59 2.99 4.39		1.79 2.39 5.99† 3.79 4.39 3.99 5.29 14.99	3.29 4.39 4.99 5.99	2.79			10.99	12.99	14.99			†Two-pack. C-110, 54.49. R-46, 58.99.
MEMOREX	dbs HBSII CDXIV MMC Micros DRX DCC	     V 	1.19	1.29 1.99 1.99		1.59 2.19 3.49	1.79 2.69 3.99	1.99	7.99	9.99						
MERIDIAN	CDR-T														34.80†	†62 minutes.
PANASONIC	RT-DA								9.49	10.99						D-45, \$8.99; D-75, \$9.99
REALISTIC	Supertape LN Supertape Premium XR Extended Range Supertape Digital-Ready HD Chrome Supertape Premium Mil Metal Supertape Digital-Ready Metal Supertape SD	і І Н Н		1.99† 2.99† 6.49† 3.99 4.99	2.79 4.49	2.39† 5.29† 7.99†† 4.79 5.99	3. <mark>69</mark> 4.99	3.49† 2.79		9.99						†Two-pack, C-30, two- pack, \$1.69. †Three-pack. †Three-pack, ††Three- pack; five-pack, \$12.99.
RECDTON	RC SX XR XCD	1 8 8		1.99† 3.99†		1.99†† 4.49† 6.99†	4.99† 7.99†									†Three-pack. ††Two-pack †Two-pack. †Five-pack; ten-pack, \$13.99. †Two-pack.
SKC	GX QX CD ZX	-==2		1.39	2.99	1.59 2.79 3.39 5.59	2.39 3.99									Colbalt-doped ferric oxide Pure chromium dioxide.





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#### **BLANK TAPES & DISCS**

			L	ער		11	1 L					/				
ANALOG CASSETTE TAPE TYPE CODE I — Normal Ferric II — Chrome/ Chrome Equiv IV — Metal Particle MANUFACTURER	/	Tano Time So	C.60	C.M.	C.90 0. C.76 04. C.76	NALOG	/	7	0.30	7	20CC	A. 13-	DAT	1	7	ND CDR
SONY	DT-RN MDW HF CDit UX Turbo UX Pro CDit Metal SR Metal Master Super Metal Master		1.59 † 2.49 3.29 3.49 † 2.99	2.49 2.99	1.69 11 3.19 3.99 3.99 3.49 3.49 10.99 20.99	3.49 3.69 4.49 3.99 3.99	2.69			12.49	15.99	18.00	13.99	16.99		†C-54, \$1.99. ††C-94, \$2.99. †C-54, \$2.49.
TDK	D DS-X SD SA SA-X MA MA-X MA-XG DA-R MD-XG CD-W08EL CD-W08EL CD-W12EL DCW12EL DCC-XG		1.69 2.49 2.49 3.29 3.99 2.99 4.39 16.99		1.99 2.99 2.99 3.79 4.49 3.99 5.29 18.99	3.69 3.69 4.39 4.99 5.99	2.99	8.99 13.99	10.99	10.99	12.99	14.99	13.99	17.49	50.00† 55.00† 70.00† 80.00†	C-30, \$1.49; C-50, \$1.69. C-50, \$2.49. C-50, \$3.29. C-50, \$3.99. C-110, \$4.49. R-16, \$8.99. †18 minutes. †21 minutes. †33 minutes. †74 minutes. D-74, \$17.49.
3M BLACK WATCH	2020 4040 7707 2002	l <mark>l</mark>		3.95 5.95		5.95 8.95			15.95			17.95				
3M/SCOTCH	BX CX XSII-S DAT DCC	1 1 1	1.69 2.59 2.99		1.99 2.99 3.79	4.39		7.49	7.99	10.99	1 <mark>2.4</mark> 9	14.99				

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| Note LFA   | 122<br>2   | 31<br>15<br>31   | 1/3<br>1/3  | No No  | Yes  |   
   
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| Mono<br>Furbo . LFA                                |  | 1  |   | NU   | Yes<br>Yes   | 20<br>20<br>20  
   
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  | Yes<br>Yes<br>Yes   | No<br>No<br>No   | 339.00<br>349.00<br>599.00  |   |
| CRQ-12   |  | 1  |   |  |  |   
   
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   | Yes<br>Yes  
   
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  | Yes<br>Yes  |  | 795.00<br>1595.00<br>Pair   | For B & W Matrix 2 series<br>speakers; balanced version,<br>\$1095.00.<br>For speakers as above;<br>balanced and unbalanced.  |
|  | 2  | 6  | Var.  | No   | Yes  | t   
   
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| Limited<br>Equalizer 6                             | 2  | 6  | Var.  | No   | Yes  | 20  
   
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  | No  | No   | 2800.00   |   |
| AC-GE215<br>AC-GE131                               | 2  | 15<br>31   | 2/3<br>1/3  | No<br>No   | No<br>No   | 15<br>15  
   
   | 0.01<br>0.01  | 95<br>95  
   | No<br>No  
   
   | No<br>No  
   | 12<br>12  
   | No<br>No  
   | No<br>No  | No<br>No  
   | 0  | 0  
  | No<br>Yes   | No<br>No   | 365.00<br>365.00  |   |
| C-131  | 1  | 30   | 1/3   | No   | Yes  | 7.5   
   
   | 0.002   | 112   
   | No  
   
   | No  
   | 15  
   | No  
   | No  | No  
   | 0  | 1  
  | t<br>No   | No   | 529.00<br>649.00  | Constant Q; balanced and RCA<br>inputs and outputs. †Variable<br>subsonic filter.<br>Real-time analyzer for model   |
| The Architect                                      | 2  | 6  | var.  | No   | No   | 7.5   
   
   | 0.002   | 120   
   | No  
   
   | Yes   
   | 15  
   | No  
   | No  | No  
   | 0  | 1  
  | t   | No   | 189.00  | above.<br>For wall-mount speakers.<br>†Variable subsonic filter.  |
| Octave<br>Ten                                      | 2  | 10<br>10   | 1   | Yes<br>Yes   |  | 7.5<br>7.5  
   
   | 0.008   | 118<br>120  
   | No<br>No  
   
   | Yes<br>Yes  
   | 12<br>15  
   | No<br>No  
   | No<br>No  | No<br>No  
   | 0<br>0   | 1  
  | Yes<br>Yes  | No<br>Yes  | 159.00<br>229.00  | I variable substine inter.  |
| Series Two<br>Ten Plus                             | 2  | 10   | 1   | Yes  |  | 7.5   
   
   | 0.005   | 120   
   | No  
   
   | Yes   
   | 15  
   | Yes   
   | w   | Yes   
   | 0  | 1  
  | Yes   | Yes  | 329.00  | Stepped warble generator;<br>0-dB indicator.  |
| C-101 III<br>Richter Scale<br>Series III           | 2<br>2   | 10<br>6  | 1<br>1⁄2  | Yes<br>Yes   | No   | 7.5<br>8.0  
   
   | 0.005<br>0.005  | 120<br>120  
   | No  
   
   | Yes<br>Yes  
   | 15<br>12  
   | Yes<br>Yes  
   | P<br>W  | Yes<br>Yes  
   | 0  | 1  
  | Yes<br>Yes  | No<br>No   | 459.00<br>349.00  | Includes 24-dB/octave<br>crossover and bridging<br>adaptor (see also<br>"Crossovers").  |
| Bass-Only<br>EQ                                    | 1  | 1  | Adj.  |  |  | 5   
   
   | 0.001   | 100   
   | Yes   
   
   | Yes   
   | + 30  
   | No  
   | No  | No  
   | 1  |  
  | No  | No   | 149.00  |   |
| EQ Eight/II<br>EQ Ten                              | 22   | 10<br>12   | 1   | Yes<br>Yes   | Yes<br>Yes   | 11<br>12  
   
   | 0.03<br>0.008   | 85<br>99.7  
   | No<br>No  
   
   | Yes<br>Yes  
   | 12<br>12  
   | Yes<br>Yes  
   | No<br>Yes   | No<br>Yes   
   | 0<br>4   | 1<br>2   
  | Yes<br>Yes  | Yes<br>No  | 159.95<br>429.95  | Auto EQ; remote controlled;<br>reverse EQ.  |
| EQ Eleven<br>EQ Twelve                             | 2  | 10<br>10   | 1   | Yes<br>Yes   | Yes<br>Yes   | 6<br>10   
   
   | 0.03<br>0.015   | 80<br>98  
   | Yes<br>No   
   
   | Yes<br>No   
   | 12<br>12  
   | Yes<br>Yes  
   | No<br>P   | No<br>Yes   
   | 0  | 22   
  | Yes<br>Yes  |  |   | Tape-to-tape dubbing.   |
| EFC  | 2  |  | 1⁄3   | No   | No   | 10.5  
   
   | 0.02  |   
   | No  
   
   | No  
   |   
   | No  
   | No  | No  
   | 0  | 0  
  | Yes   | No   | 369.00  | For Bright Star Altair series<br>loudspeakers.  |
| Audio Palette<br>Palette                           | 2  | 6  |   | No   | No<br>No   | 15<br>9   
   
   | 0.005   | 80<br>80  
   | No  
   
   | No<br>No  
   |   
   | No<br>No  
   | No<br>No  | No<br>No  
   | No<br>No   | 0<br>2   
  | No<br>No  | No<br>No   | 15,000.<br>6500.00  | Requires external power<br>supply, Master Supply,<br>S3000.00; with multiple<br>inputs, Audio Palette MIV,<br>\$17,000.<br>Includes external power<br>supply (see also "Preamps").  |
| DB-5   | 2  | 6  |   | -  | -  | 4   
   
   | .0008   | 108   
   | Yes   
   
   |   
   | 15  
   |   
   | -   | -   
   |  |  
  |   | -  | 470.00  | Model DB-2A power supply or   |
| EQ-131<br>EQ-215<br>F0-231                         | 1 2 2  | 31<br>15<br>31   | 1/3 2/3 1/2   | No<br>No<br>No   | Yes<br>Yes<br>Yes  | 7.75  
   
   | 0.01<br>0.01<br>0.01  | 97<br>97<br>97  
   | No<br>No<br>No  
   
   | Yes<br>Yes<br>Yes   
   | 12<br>12<br>12  
   | No<br>No<br>No  
   | No<br>No<br>No  | No<br>No<br>No  
   | 000  | 0<br>0<br>0  
  | Yes<br>Yes<br>Yes   | No<br>No<br>No   | 480.00  | DBP-1 cable required.<br>Balanced inputs and outputs.<br>As above.<br>As above.   |
| Re-Equalizer                                       | 2  |  | 10  | No   | No   | 3.5   
   
   | 0.02  | 85  
   | No  
   
   | No  
   | 16  
   | No  
   | No  | No  
   | 36   | 0  
  | No  | No   | 310.00  | For replay of early LPs, 78s, and transcriptions.   |
| PVX-30<br>PVX-31                                   | 2  | 15   | 2/3<br>1/2  | No   | Yes  | 5.5   
   
   | 0.03  | 90<br>90  
   |   
   
   |   
   | 12  
   | No  
   | No  | No  
   | 0  | 0  
  | Yes   |  |   |   |
| EQ-8   | 2  |  | 1/3   | -  | -  | 2   
   
   | 0.02  | t   
   | No  
   
   |   
   | 12  
   | No  
   | No  | No  
   | 0  | 1  
  | tt  | No   | 349.00  | <mark>†105 dB r</mark> e: 0.5 V out.<br>††Variable subsonic filter.   |
| SA MOD<br>EQ MOD                                   | †<br>†   | 30<br>30   | 1/3<br>1/3  | No<br>No   | No<br>No   | 6<br>6  
   
   | 0.05  | 90<br>90  
   | No<br>No  
   
   | NO<br>NO  
   | -15<br>-15  
   | Yes<br>No   
   | PNO   | Yes   
   | 0  | 0  
  |   |  |   | †Two inputs, four outputs.<br>Includes spectrum analyzer.<br>Requires 120-V adaptor.  |
| E AA C A T OTSTSOFS BE BE SE I / III               | iqualizer 6         IQ: GE215         IQ: GE131         2-131         3-130         The Architect         Dotave         Series Two         Fensor         Series Two         C-10111         Bass-Only         EQ         EQ Eight/II         EQ Eight/II         EQ Eleven         EQ Eleven         EQ Twelve         EFC         Audio Palette         Palette         Preamplifier         DB-5         EQ-231         Re-Equalizer         PVX-30         PVX-31         EQ-8         SA MOD | iqualizer 6         2           CC-GE215<br>XC-GE131         2           1         1           2-131         1           2-131         1           2-131         1           2-131         1           2-131         1           2-131         2           Creation         2           Creation         2           Colorve         2           2         2           Series Two         2           EQ Eight/II         2           EQ Eight/II         2           EQ Eight/II         2           EQ Eight/II         2           Palette         2           Preamplifier         2           DB-5         2           Re-Equalizer         2           PVX-30         2           PVX-30         2           SA MOD         † | iqualizer 6         I           iqualizer 6         I           iqualizer 6         I           IQ-GE215         1           iqualizer 3         1           iqualizer 4         30           iqualizer 3         30           iqualizer 3         30           iqualizer 4         30           iqualizer 4         30           iqualizer 5         30           ipolizer 5         10           ipolizer 6         10           ipolizer 5         2           ipolizer 5         2           ipolizer 5         2           ipolipolitier | iqualizer 6         Image: squalizer 6         Image: squalizer 6           C-GE215<br>XC-GE131         2         15         2/3<br>31         1/3           2-131         1         30         1/3           1-130         2         30         1/3           2-131         1         30         1/3           3-130         2         30         1/3           3-130         2         30         1/3           3-130         2         30         1/3           3-130         2         30         1/3           Che Architect         2         6         Var.           Detave         2         10         1           Series Two         1         1         Adj.           C-101 III         2         10         1           Series Two         1         1         Adj.           E0 Eight/II         2         10         1           E0 Eight/II         2         10         1           E0 Eieven         2         6            Palette         2         6            Preamplifier         2         6            E0-1 | iqualizer 6         i         i         i           CC-GE215<br>NC-GE131         2         15 $\frac{3}{25}$ No           C-131         1         30 $\frac{1}{3}$ No           A-130         2         30 $\frac{1}{3}$ No           C-0404         2         10         1         Yes           Series Two         2         10         1         Yes           Series Two         2         10         1         Yes           Series III         2         10         1         Yes           Series III         2         10         1         Yes           Series III         2         10         1         Yes           EQ Eleven         2         10         1         Yes           EQ Eleven         2         10         1         Yes           EFC         2         6         No         No           DB-5 | iqualizer 6         i <th< td=""><td>iqualizer 6         instruction         <thinstruction< th="">         instruction</thinstruction<></td><td>iqualizer 6         i         <th< td=""><td>iqualizer 6         i         j         <th< td=""><td>iqualizer 6         i         <th< td=""><td>iqualizer 6         i         <th< td=""><td>interface         interface         <t< td=""><td>instruction         instruction         <thinstruction< th="">         instruction</thinstruction<></td><td>qualizer 6         i        
i         i&lt;         i         i&lt;         i&lt;         i&lt;         i&lt;         i&lt;         i&lt;         i&lt;         i&lt;</td><td>qualizar 6         I         <thi< td=""><td>Guardian         Construction         No         No<td>Guardizer 6         2         0         No.         No.</td><td>Substring Guidentier 6         2         1         <th1< th="">         1         1         1</th1<></td><td>Bauelizer 6         2         0         100</td><td>auxilizer 6         2         0         10</td></td></thi<></td></t<></td></th<></td></th<></td></th<></td></th<></td></th<> | iqualizer 6         instruction         instruction <thinstruction< th="">         instruction</thinstruction<> | iqualizer 6         i <th< td=""><td>iqualizer 6         i         j         <th< td=""><td>iqualizer 6         i         <th< td=""><td>iqualizer 6         i         <th< td=""><td>interface         interface         <t< td=""><td>instruction         instruction         <thinstruction< th="">         instruction</thinstruction<></td><td>qualizer 6         i    
    i         i&lt;         i         i&lt;         i&lt;         i&lt;         i&lt;         i&lt;         i&lt;         i&lt;         i&lt;</td><td>qualizar 6         I         <thi< td=""><td>Guardian         Construction         No         No<td>Guardizer 6         2         0         No.         No.</td><td>Substring Guidentier 6         2         1         <th1< th="">         1         1         1</th1<></td><td>Bauelizer 6         2         0         100</td><td>auxilizer 6         2         0         10</td></td></thi<></td></t<></td></th<></td></th<></td></th<></td></th<> | iqualizer 6         i         j <th< td=""><td>iqualizer 6         i         <th< td=""><td>iqualizer 6         i         <th< td=""><td>interface         interface         <t< td=""><td>instruction         instruction         <thinstruction< th="">         instruction</thinstruction<></td><td>qualizer 6         i&lt;         i         i&lt;         i&lt;         i&lt;         i&lt;         i&lt;         i&lt;         i&lt;         i&lt;</td><td>qualizar 6         I         I         I         I         I         I         I         I     
   I         <thi< td=""><td>Guardian         Construction         No         No<td>Guardizer 6         2         0         No.         No.</td><td>Substring Guidentier 6         2         1         <th1< th="">         1         1         1</th1<></td><td>Bauelizer 6         2         0         100</td><td>auxilizer 6         2         0         10</td></td></thi<></td></t<></td></th<></td></th<></td></th<> | iqualizer 6         i <th< td=""><td>iqualizer 6         i         <th< td=""><td>interface         interface         <t< td=""><td>instruction         instruction         <thinstruction< th="">         instruction</thinstruction<></td><td>qualizer 6         i&lt;         i         i&lt;         i&lt;         i&lt;         i&lt;         i&lt;         i&lt;         i&lt;         i&lt;</td><td>qualizar 6         I         <thi< td=""><td>Guardian         Construction         No         No<td>Guardizer 6         2         0         No.         No.</td><td>Substring Guidentier 6         2         1 
       1         <th1< th="">         1         1         1</th1<></td><td>Bauelizer 6         2         0         100</td><td>auxilizer 6         2         0         10</td></td></thi<></td></t<></td></th<></td></th<> | iqualizer 6         i <th< td=""><td>interface         interface         <t< td=""><td>instruction         instruction         <thinstruction< th="">         instruction</thinstruction<></td><td>qualizer 6         i&lt;         i         i&lt;         i&lt;         i&lt;         i&lt;         i&lt;         i&lt;         i&lt;         i&lt;</td><td>qualizar 6         I         <thi< td=""><td>Guardian         Construction         No         No<td>Guardizer 6         2         0         No.         No.</td><td>Substring Guidentier 6         2         1         <th1< th="">         1         1         1</th1<></td><td>Bauelizer 6         2         0         100</td><td>auxilizer 6         2         0         10</td></td></thi<></td></t<></td></th<> | interface        
interface         interface <t< td=""><td>instruction         instruction         <thinstruction< th="">         instruction</thinstruction<></td><td>qualizer 6         i&lt;         i         i&lt;         i&lt;         i&lt;         i&lt;         i&lt;         i&lt;         i&lt;         i&lt;</td><td>qualizar 6         I         <thi< td=""><td>Guardian         Construction         No         No<td>Guardizer 6         2         0         No.         No.</td><td>Substring Guidentier 6         2         1         <th1< th="">         1         1         1</th1<></td><td>Bauelizer 6         2         0         100</td><td>auxilizer 6         2         0         10</td></td></thi<></td></t<> | instruction         instruction <thinstruction< th="">         instruction</thinstruction<> | qualizer 6         i<         i         i<         i<         i<         i<         i<         i<         i<         i< | qualizar 6         I      
  I         I <thi< td=""><td>Guardian         Construction         No         No<td>Guardizer 6         2         0         No.         No.</td><td>Substring Guidentier 6         2         1         <th1< th="">         1         1         1</th1<></td><td>Bauelizer 6         2         0         100</td><td>auxilizer 6         2         0         10</td></td></thi<> | Guardian         Construction         No         No <td>Guardizer 6         2         0         No.         No.</td> <td>Substring Guidentier 6         2         1         <th1< th="">         1         1         1</th1<></td> <td>Bauelizer 6         2         0         100</td> <td>auxilizer 6         2         0         10</td> | Guardizer 6         2         0         No.         No. | Substring Guidentier 6         2         1 <th1< th="">         1         1         1</th1<> | Bauelizer 6         2         0         100 | auxilizer 6         2         0         10 
       10         10 |

#### Making Good Stereo Sound Better AudioControl is the world's leading manufacturer of high quality equalizers & analyzers



We are the best because we *specialize* in forming a perfect match between stereo components and listening rooms.

Shown is the NEW C-101 Series III, a precision octave equalizer with a built in real time spectrum analyzer and laboratory quality microphone and digital pink noise generator.

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#### EQUALIZERS

/	1	/					/	/	/	/	10	With	/	/	1	er?	· .	/	//	
		ncluded	tional me	15 AS DEL	Channe	ED?	mon	INSV	OUR	al. aster	Output	uencies.	1	an arean	n Analy	the tone	WHE?	ories	Monitors	
Hodenia	emote .	Humbel	of Cratter of	Bandwithin .	ownened	ane Eur	Control?	Ins V	N. H.	Variable	variable Fi	the O'	and Time	Senetaria	e sin cal	Number	Alles Alles	Junsonis	Hanton's	Hees Hotes
Remote Unit	2	6	1	Yes	Yes	7	0.001	110	No	No	8						Yes	Yes	625.00	JRM preamp or 3PBP crossover required; continuously variable loudness.
GE-7030 GE-4030 GE-292	2 2 2 2	14 7 7		Yes Yes Yes	No No Yes	9 5.4 4.5	0.006 0.006 0.009	100 100 96	Yes Yes Yes	No No No	12 12 10	Yes Yes No	No No No	No No No	11 10 0	1 1 1	No No No	No No No	379.00 249.00 79.00	
MQ108	2	7	1/3	No	Yes	2.5	0.002	105	Yes	Yes	12	No	No	No	0		No	No	300.00	Treble compensation controls; balanced and unbalanced inputs and outputs.
EQ440 Pro	2	21	1⁄3	Yes	Yes	10	0.01	114	No	No	15	No	No	No	0	1	No	No	<mark>54</mark> 9.00	Differential comparator system; ISO center frequencies.
EQ-101 EQ-201 Integra EQ-35	2 2 2	7 7 12	1 1 1	Yes Yes Yes	No No Yes	0.15 0.15 0.15	0.01 0.01 0.01	100 100 100	No No No	No No No	12 12 12/5	No Yes No	No No P	No No No	0 0 0	1 1 2	No No No	No No No	160.00 250.00 350.00	
31-2025	2	10		Yes	Yes	10	0.015	95	No	No	12	Yes	No	No	0	2	No	No	120.00	
Multifilter														-					231.50	For Owl 1 preamp; selectable treble-cut, treble-notch, and mids-notch filters; adjustable bass/rumble filter.
GR-777(RI) GR-555 GR-470	2 2 2	10 7 7	1/3 1/3 1/3	Yes Yes Yes	Yes Yes Yes	0.15 0.15 0.15	0.02 0.02 0.03	110 104 106	No No No	No No No	10 10 10	Yes Yes No	No No No	No No No	5 0 0	1 1 1	No No No	N o No No	410.00 260.00 135.00	
THX 44 ME 60 ME 30 ME 15 RE 27 FPE 13	4 2 1 2 1	13 30 30 15 27 3	1/3 1/3 1/3 1/3 2/3 1/3 .03-	No No No No No	No Yes Yes Yes Yes Yes	1.3 1.3 1.3 1.3 1.3 1.3	0.015 0.008 0.009 0.009 0.009 0.009 0.009	89 94 92 92 90 90	Yes No No No No Yes	Yes No No No Yes	6 12 12 12 12 12 + 15,	No No No Yes No	No No No P No	No No No Yes No			No No Yes Yes Yes Yes	No No No No No	1299.00 669.00 389.00 399.00 849.00 299.00	Constant Q. As above. As above. As above. As above. As above.
MQ 15	2	15	2.0 3⁄3	No	Yes	1.3	0.009	92	No	No	-20 12	No	No	No			Yes	No	499.00	As above.
PO-16 PO-40	1	1 5		No No	No No	6 6	0.1 0.1	80 80	Yes No	No No	15 6	No No	No No	No No	0 0	0	No No	No No	91.50 104.00	Parametric; requires PO-1 power supply. Requires PO-1 power supply.
PFM-8	2	3	Adj.	Yes	Yes	17	0.03	118	Yes	Yes	+4, -12	No	P	No	0	3	Sel.	No	2450.00	Tilt control; peak/average level meters; tape outputs pre- or post-EQ.
SX201	1	3	.05- 3.0	No	Yes	6	0.025		Yes	Yes	+ 15, -30	No	No	No		0	No	No	279.00	Balanced inputs and outputs.
EQA-220 EQA-110	2 2	10 10	1⁄3 1⁄3	Yes No	No No		0.01 0.01	90 90	No No	No No	12 12	Yes No	No No	No No	0	1	No No	No No	139.00 99.00	Dual voltage; line/tape input select; source/tape monitor. Dual voltage; line/tape input select.
SH-GE70 SH-8038 SH-8017	2222	7 7 7 7				1 1 1	0.03 0.01	105 110 110				Yes No No			12	1		NO No No	179.95 119.95 99.95	
Ultimate EQ	2	3		Yes	No	20	0.05	90	Yes	Yes	15	No	No	No		1	No	Yes	4000.00	Tube line preamp with variable midrange tilt control.
EQ-70	2	10	1	Yes	Yes	5.4	0.005	105	No	No	12	No	No	No	0	1	No	No	199.00	
EU-390	2			Tes	Yes			105	NO		12	1 03		163			105	NU	333.00	
	Remote Unit           GE-7030 GE-4030 GE-4030 GE-292           MQ108           EQ440 Pro           EQ-101 EQ-201 Integra EQ-35           31-2025           Multifiiter           GR-777(RI) GR-555 GR-470           THX 44 ME 60 ME 30 ME 15 PO-16 PO-40           PFM-8           SX201           EQA-220 EQA-110           SH-GE70 SH-8038 SH-8017           Ultimate EQ	Remote Unit         2           GE-7030 GE-4030 GE-292         2           M0108         2           EQ440 Pro         2           EQ440 Pro         2           EQ-101 EQ-201 Integra EQ-35         2           31-2025         2           Multifilter         2           GR-777(RI) INTEgra EQ-35         2           GR-777(RI) INTEgra EQ-35         2           Multifilter         2           GR-777(RI) INTEGR-555 GR-470         2           THX 44 ME 50 INF 52 INF 15 INF 15 INF 15 INF 15 INF 15 INF 22 INT 44 ME 50 INF 80 INF 15 INF 22 INF 80 INF  Remote Unit       2       5         GE-7030       2       7         GE-4030       2       7         MQ108       2       7         EQ440 Pro       2       21         EQ-101       2       7         EQ-101       2       7         EQ-101       2       7         EQ-35       2       10         Multiliiler       2       7         GR-777(RI)       2       17         GR-777(RI)       2       10         GR-777 RI       2       17         FE 0       2       17         THX 44       4       30         ME 15       2       15         PO-16       1       1         PO-16       1       1         PFM-8       2       3         SX201       1       3         SX201       1       3         SX201       1       3         SH-8038       2       7         SH-8037       2       7         Utimate EQ       2       3	Remote Unit         2         6         1           GE-7030 GE-4030 GE-4030         2         14 7         .           MQ108         2         7         1/3           EQ440 Pro         2         21         1/3           EQ440 Pro         2         7         1           EQ-101 EQ-35         2         10         .           S1-2025         2         10         .           GR-777(RI) GR-757         2         10         .           GR-777 (RI) GR-757         2         10         .           GR-777 (RI) GR-557         2         10         .           GR-777 (RI) GR-757         2         10         .           GR-777 (RI) GR-757         2         10         .           GR-777 (RI) GR-757         2         10         .           Multifilter         2         30         .           MU 15         2         15         .           PO-16         1         1         .           PFM-8         2         3         Adj.           SX201         1         3         .05-           SX201         1         3         .05-	Remote Unit         2         6         1         Yes           GE-7030 GE-4030 GE-292         2         7         1         Yes Yes           MQ108         2         7         1/3         No           EQ440 Pro         2         2         7         1         Yes           GE-7030 GE-292         2         7         1         Yes         Yes           MQ108         2         7         1         Yes         Yes           EQ-101 EQ-35         2         7         1         Yes           Multifilter         2         7         1         Yes           Multifilter         2         10         '/3         Yes           ME 60         1         1         No         No           FE 27         1         30         '/3         No           FF 27         1         3         2.0         No           RE 27         1         3         No         No           FF 13         1         1         No         No           PO-16         1         1         No         No           PO-40         1         5         No         No <td>Remote Unit         2         5         1         Yes         Yes           GE-7030 GE-4030 GE-292         2         14 7         Yes         No         Yes           MQ108         2         7         1/3         No         Yes           EQ440 Pro         2         2         7         1/3         Yes         Yes           EQ-101 EQ-201 EQ-35         2         10         Yes         Yes         Yes           31-2025         2         10         Yes         Yes         Yes           GR-777(RI) GR-757(RI) GR-470         2         10         Yes         Yes         Yes           Multilifiter         2         10         Yes         Yes         Yes         Yes           FE 27 FFE 13         1         13         Ya         No         No         Yes           RE 27 FPE 13         1         1         No         No         Yes         Yes           P0-16         1         1         No         No         Yes         Yes           P0-40         1         5         No         No         Yes           SX201         1         3         .05-         No         No</td> <td>Remote Unit         2         6         1         Yes         Yes         7           GE-7030 GE-4030 GE-292         2         14         Yes         Yes         No         9           MQ108         2         7         1/3         No         Yes         Yes         9.5.4           EQ440 Pro         2         7         1/3         No         Yes         10           EQ-101 EQ-201 Integra         2         7         1         Yes         No         Yes         10           31-2025         2         10         Yes         Yes         10         15         15           31-2025         2         10         Yes         Yes         10         15           Multifilter         2         7         1/3         Yes         Yes         0.15           GR-777(RI)         2         10         Ya         Yes         Yes         0.15           THX 44         4         13         Ya         No         Yes         1.3           ME 15         2         15         Ya         No         Yes         1.3           PO-16         1         1         No         No         Yes</td> <td>Remote Unit         2         6         1         Yes         Yes         7         0.001           GE-7030 GE-4030 GE-292         2         7         7         Yes Yes         No         9         0.006           MQ108         2         7         1/3         No         Yes Yes         No         9.4         0.006           E0-101         2         7         1/3         No         Yes         10         0.01           E0-101         2         7         1         Yes         Yes         No         0.15         0.01           E0-101         2         7         1         Yes         Yes         No         0.15         0.01           Integra         2         7         1         Yes         Yes         Yes         0.015         0.01           GR-777(RI)         2         7         7         ½         Yes         Yes         0.15         0.02           GR-777(RI)         2         7         7         ½         Yes         Yes         0.15         0.02           GR-777(RI)         2         7         ½         No         No         Yes         1.3         0.02</td> <td>Remote Unit         2         6         1         Yes         Yes         7         0.001         110           GE-7030 GE-2920         2         14 7         Yes         No         9.4 4.5         0.005         100           M0108         2         7         1/3         No         Yes         1.0         0.001         100           E0440 Pro         2         21         1/3         Yes         No         Yes         0.001         0.011         114           E0-101 E0-201 integra         2         7         1         Yes         No         0.15         0.011         100           31-2025         2         10         I.         Yes         Yes         No         0.15         0.011         100           GR-777(RI) GR-575         2         10         J.         Yes         Yes         Yes         0.05         0.015         0.02         100           GR-777(RI) GR-757         2         7         J/3         Yes         Yes         1.3         0.015         0.02         100           GR-777(RI) GR-757         2         7         J/3         Yes         Yes         1.3         0.009         92</td> <td>Remote Unit         2         6         1         Yes         Yes         7         0.001         110         No           GE-7030 GE-292         2         14         Yes         No         9         0.005         1000         Yes           M0108         2         7         1/2         No         Yes         No         9.4         0.005         100         Yes           E0440 Pro         2         2         1         1/2         Yes         No         Yes         10         0.011         114         No           E0-401         2         7         1         Yes         No         0.15         0.01         100         No           GR-777(RI)         2         7         1         Yes         Yes         No         0.15         0.02         100         No           GR-777(RI)         2         10         Yes         Yes         Yes         0.15         0.02         100         No           GR-777(RI)         2         10         Ya         Yes         Yes         0.13         0.009         92         No           GR-777(RI)         2         13         Ya         Yes         Na</td> <td>Remote Unit         Z         6         1         Yes         Yes         7         0.001         110         No         Ho           GE-7030 GE-2922         2         14         Yes         No         9.4         0.005         100         Yes         No           M0108         2         7         19         No         Yes         10         0.01         114         No         No           EQ440 Pro         2         21         19         Yes         Yes         10         0.01         114         No         No           EQ440 Pro         2         7         1         Yes         No         0.15         0.01         100         No         No           E0-101         2         7         1         Yes         No         0.15         0.01         100         No         No           E0-201         2         7         1         Yes         Yes         10         0.015         0.01         100         No         No           GR-777(R1)         2         10         1/2         Yes         Yes         Yes         0.15         0.02         110         No         No           GR-</td> <td>Remote Unit GE-7030 GE-7030 GE-7030         2         14 7         Yes 7         Yes Yes Yes         No Yes Yes         9 5.4 7         0.001         100 100         Yes Yes Yes         No Yes Yes         No Yes Yes Yes         No Yes Yes Yes         No Yes Yes Yes         No Yes Yes Yes Yes         No Yes Yes Yes Yes Yes Yes Yes         No Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes</td> <td>Remote Unit         2         6         1         Yes         Yes         7         0.001         110         No         8         Yes         Yes           GE-7030 GE-4330         2         14         Yes         No         9         4.         0.005         100         Yes         No         12         Yes         Yes         Yes         No         12         Yes         Yes         Yes         No         100         Yes         No         12         Yes         Yes         No         100         0.01         114         No         No         15         No         12         No           E0-101         2         7         1         Yes         Yes         Yes         10         0.01         114         No         No         15         12         No           E0-101         2         7         1         Yes         Yes         Yes         10         0.015         0.01         100         No         No         12         Yes         Yes         Yes         No         No&lt;</td> <td>Remote Unit         2         6         1         Yes         Yes         7         0.001         110         No         No         8         J           GE-7030 GE-292         2         7         1         Yes         No         9.4         0.006         900         Yes         No         12         Yes         No           M0108         2         7         1/2         No         Yes         10         0.01         114         No         No         12         Yes         No         No           E0.440 Pro         2         21         1/2         Yes         Yes         No         0.15         0.01         100         No         No         No           E0.400 Pro         2         7         1         Yes         Yes         No         0.15         0.01         100         No         No         12         No         No           Iftergr         2         70         1         Yes         Yes         10         0.015         5         No         No         12         Yes         No           GR-757(R1)         2         7         1/2         Yes         Yes         1.3         0.025</td> <td>Remote Unit         2         6         1         Yes         Yes         7         0.001         110         No         No         8         J         J         J           GE-7030 GE-232         2         14 7         Ves         Yes         No         9         4.0005         100         Yes         No         12         Yes         No         No         No         No         No         No         100         Yes         No         12         Yes         No         No</td> <td>Remote Unit         2         5         1         Yes         Yes         7         0.001         110         No         No         8         J         J         No         No         10           GE-7030 GE-292         2         1/4         Ves         Yes         No         0.005         100         Yes         No         12         Yes         No         No         No         10           M0108         2         7         1/2         No         No         Yes         10         0.005         100         Yes         No         12         Yes         No         No         No         0           E0-400 Pro         2         21         1/2         Yes         No         0.15         0.01         110         No         No         15         No         No         No         0         0         0.01         100         No         No         No         No         No         0         0         0         0         0         0         10         No         No         No         No         No         0         0         0         0         0         0         0         0         0         0</td> <td>Remote Unit         2         6         1         Yes         Yes         7         0.001         110         No         8         J         J         No         11           GE-7030 GE-2030         2         1         7         V         Yes         No         5.4         0.005         100         Yes         No         12         Yes         No         No         10         1           M0108         2         7         Vo         No         Yes         Vo         100         Yes         No         12         Yes         No         No         No         1           E0440         Pro         2         71         1         Yes         No         0.01         114         No         No         15         No         No         No         1           E0-401         2         7         1         Yes         No         0.15         0.01         100         No         No         No         No         No         No         1         1         1         1         1         No         No</td> <td>Remote Unit         2         6         1         Yes         Yes         7         0.001         110         No         8         J.         J.         J.         Yes           GE-7030 GE-4030 GE-4030         2         17         J.         Yes         No         5.4         0.005         100         Yes         No         12         Yes         No         No         1         No           M0108         2         7         J.         No         Yes         Ves         100         105         Yes         No         N</td> <td>Remote Unit         2         5         1         Yes         Yes         7         0.001         100         No         8         1         Yes         Yes         Yes           GE-7030 GE-2322         2         1/7         Ves         No         9.4         0.005         100         Yes         No         10         10         No         No</td> <td>Remote Unit         2         6         1         Yes         Yes         7         0.001         110         No         No         6         1         Yes         Yes         Yes         S2.00           0E-7030 0E-7020         2         14         Yes         No         5.4         0.005         100         Yes         No         12         Yes         No         No</td>	Remote Unit         2         5         1         Yes         Yes           GE-7030 GE-4030 GE-292         2         14 7         Yes         No         Yes           MQ108         2         7         1/3         No         Yes           EQ440 Pro         2         2         7         1/3         Yes         Yes           EQ-101 EQ-201 EQ-35         2         10         Yes         Yes         Yes           31-2025         2         10         Yes         Yes         Yes           GR-777(RI) GR-757(RI) GR-470         2         10         Yes         Yes         Yes           Multilifiter         2         10         Yes         Yes         Yes         Yes           FE 27 FFE 13         1         13         Ya         No         No         Yes           RE 27 FPE 13         1         1         No         No         Yes         Yes           P0-16         1         1         No         No         Yes         Yes           P0-40         1         5         No         No         Yes           SX201         1         3         .05-         No         No	Remote Unit         2         6         1         Yes         Yes         7           GE-7030 GE-4030 GE-292         2         14         Yes         Yes         No         9           MQ108         2         7         1/3         No         Yes         Yes         9.5.4           EQ440 Pro         2         7         1/3         No         Yes         10           EQ-101 EQ-201 Integra         2         7         1         Yes         No         Yes         10           31-2025         2         10         Yes         Yes         10         15         15           31-2025         2         10         Yes         Yes         10         15           Multifilter         2         7         1/3         Yes         Yes         0.15           GR-777(RI)         2         10         Ya         Yes         Yes         0.15           THX 44         4         13         Ya         No         Yes         1.3           ME 15         2         15         Ya         No         Yes         1.3           PO-16         1         1         No         No         Yes	Remote Unit         2         6         1         Yes         Yes         7         0.001           GE-7030 GE-4030 GE-292         2         7         7         Yes Yes         No         9         0.006           MQ108         2         7         1/3         No         Yes Yes         No         9.4         0.006           E0-101         2         7         1/3         No         Yes         10         0.01           E0-101         2         7         1         Yes         Yes         No         0.15         0.01           E0-101         2         7         1         Yes         Yes         No         0.15         0.01           Integra         2         7         1         Yes         Yes         Yes         0.015         0.01           GR-777(RI)         2         7         7         ½         Yes         Yes         0.15         0.02           GR-777(RI)         2         7         7         ½         Yes         Yes         0.15         0.02           GR-777(RI)         2         7         ½         No         No         Yes         1.3         0.02	Remote Unit         2         6         1         Yes         Yes         7         0.001         110           GE-7030 GE-2920         2         14 7         Yes         No         9.4 4.5         0.005         100           M0108         2         7         1/3         No         Yes         1.0         0.001         100           E0440 Pro         2         21         1/3         Yes         No         Yes         0.001         0.011         114           E0-101 E0-201 integra         2         7         1         Yes         No         0.15         0.011         100           31-2025         2         10         I.         Yes         Yes         No         0.15         0.011         100           GR-777(RI) GR-575         2         10         J.         Yes         Yes         Yes         0.05         0.015         0.02         100           GR-777(RI) GR-757         2         7         J/3         Yes         Yes         1.3         0.015         0.02         100           GR-777(RI) GR-757         2         7         J/3         Yes         Yes         1.3         0.009         92	Remote Unit         2         6         1         Yes         Yes         7         0.001         110         No           GE-7030 GE-292         2         14         Yes         No         9         0.005         1000         Yes           M0108         2         7         1/2         No         Yes         No         9.4         0.005         100         Yes           E0440 Pro         2         2         1         1/2         Yes         No         Yes         10         0.011         114         No           E0-401         2         7         1         Yes         No         0.15         0.01         100         No           GR-777(RI)         2         7         1         Yes         Yes         No         0.15         0.02         100         No           GR-777(RI)         2         10         Yes         Yes         Yes         0.15         0.02         100         No           GR-777(RI)         2         10         Ya         Yes         Yes         0.13         0.009         92         No           GR-777(RI)         2         13         Ya         Yes         Na	Remote Unit         Z         6         1         Yes         Yes         7         0.001         110         No         Ho           GE-7030 GE-2922         2         14         Yes         No         9.4         0.005         100         Yes         No           M0108         2         7         19         No         Yes         10         0.01         114         No         No           EQ440 Pro         2         21         19         Yes         Yes         10         0.01         114         No         No           EQ440 Pro         2         7         1         Yes         No         0.15         0.01         100         No         No           E0-101         2         7         1         Yes         No         0.15         0.01         100         No         No           E0-201         2         7         1         Yes         Yes         10         0.015         0.01         100         No         No           GR-777(R1)         2         10         1/2         Yes         Yes         Yes         0.15         0.02         110         No         No           GR-	Remote Unit GE-7030 GE-7030 GE-7030         2         14 7         Yes 7         Yes Yes Yes         No Yes Yes         9 5.4 7         0.001         100 100         Yes Yes Yes         No Yes Yes         No Yes Yes Yes         No Yes Yes Yes         No Yes Yes Yes         No Yes Yes Yes Yes         No Yes Yes Yes Yes Yes Yes Yes         No Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes	Remote Unit         2         6         1         Yes         Yes         7         0.001         110         No         8         Yes         Yes           GE-7030 GE-4330         2         14         Yes         No         9         4.         0.005         100         Yes         No         12         Yes         Yes         Yes         No         12         Yes         Yes         Yes         No         100         Yes         No         12         Yes         Yes         No         100         0.01         114         No         No         15         No         12         No           E0-101         2         7         1         Yes         Yes         Yes         10         0.01         114         No         No         15         12         No           E0-101         2         7         1         Yes         Yes         Yes         10         0.015         0.01         100         No         No         12         Yes         Yes         Yes         No         No<	Remote Unit         2         6         1         Yes         Yes         7         0.001         110         No         No         8         J           GE-7030 GE-292         2         7         1         Yes         No         9.4         0.006         900         Yes         No         12         Yes         No           M0108         2         7         1/2         No         Yes         10         0.01         114         No         No         12         Yes         No         No           E0.440 Pro         2         21         1/2         Yes         Yes         No         0.15         0.01         100         No         No         No           E0.400 Pro         2         7         1         Yes         Yes         No         0.15         0.01         100         No         No         12         No         No           Iftergr         2         70         1         Yes         Yes         10         0.015         5         No         No         12         Yes         No           GR-757(R1)         2         7         1/2         Yes         Yes         1.3         0.025	Remote Unit         2         6         1         Yes         Yes         7         0.001         110         No         No         8         J         J         J           GE-7030 GE-232         2         14 7         Ves         Yes         No         9         4.0005         100         Yes         No         12         Yes         No         No         No         No         No         No         100         Yes         No         12         Yes         No         No	Remote Unit         2         5         1         Yes         Yes         7         0.001         110         No         No         8         J         J         No         No         10           GE-7030 GE-292         2         1/4         Ves         Yes         No         0.005         100         Yes         No         12         Yes         No         No         No         10           M0108         2         7         1/2         No         No         Yes         10         0.005         100         Yes         No         12         Yes         No         No         No         0           E0-400 Pro         2         21         1/2         Yes         No         0.15         0.01         110         No         No         15         No         No         No         0         0         0.01         100         No         No         No         No         No         0         0         0         0         0         0         10         No         No         No         No         No         0         0         0         0         0         0         0         0         0         0	Remote Unit         2         6         1         Yes         Yes         7         0.001         110         No         8         J         J         No         11           GE-7030 GE-2030         2         1         7         V         Yes         No         5.4         0.005         100         Yes         No         12         Yes         No         No         10         1           M0108         2         7         Vo         No         Yes         Vo         100         Yes         No         12         Yes         No         No         No         1           E0440         Pro         2         71         1         Yes         No         0.01         114         No         No         15         No         No         No         1           E0-401         2         7         1         Yes         No         0.15         0.01         100         No         No         No         No         No         No         1         1         1         1         1         No         No	Remote Unit         2         6         1         Yes         Yes         7         0.001         110         No         8         J.         J.         J.         Yes           GE-7030 GE-4030 GE-4030         2         17         J.         Yes         No         5.4         0.005         100         Yes         No         12         Yes         No         No         1         No           M0108         2         7         J.         No         Yes         Ves         100         105         Yes         No         N	Remote Unit         2         5         1         Yes         Yes         7         0.001         100         No         8         1         Yes         Yes         Yes           GE-7030 GE-2322         2         1/7         Ves         No         9.4         0.005         100         Yes         No         10         10         No         No	Remote Unit         2         6         1         Yes         Yes         7         0.001         110         No         No         6         1         Yes         Yes         Yes         S2.00           0E-7030 0E-7020         2         14         Yes         No         5.4         0.005         100         Yes         No         12         Yes         No         No	

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## Ambience & Surround Sound Processors

MATRIX CODE A—Ambisonics D—Dolby Surrou DP—Dolby Pro-I DM—Dynaco Ma SQ—SQ O—Other	.ogic itrix	/	/	/		1.	7	TYPI	18	7	DEL	TONS	channel	/			OUTPUT CODE 2F-Left & Right Front 3B-Left, Center, & Right Front 2B-Left & Right Back 3B-Left, Center, & Right Back 2S-Left & Right Sides SW-Subwoofer
MANUFACTURER	Not in the sea	Engeneende	Alina See	ode Hantals	Provide State	the set of the set of	of our Times	winner of the	Start House Co	A Paule Stranger	Power.	Nation Ratio	. A with	stered stered	on. 08	1 200 Hontos	ee." poles
ADCOM	GSP-560(RI)	0P/0	D/R	F/P/0	3F, 2B, SW	40-15	3		80 x 1, 40 x 2	0.09	110		Yes	1	No	600.00	
AUDIO DESIGN ASSOCIATES	SSD-66 SSD-66THX	DP DP	O D		3F, 2B, SW 3F, 2B, SW	0-40 0- 97.5	6			0.03 0.003		35 35	Yes Yes			1780.00 2995.00	THX certified.
AUDIOFILE HOME THEATER	MTVS-1(RI)	DP	0		3B, SW	30-50	4	v	30 x 3	0.5	90		Yes	1	Yes	329.99	
AUDIOSOURCE	SS One/II	D/Q	D	F/P/0	28	10-30			30 x 2	0.01	85	60	Yes	1	No	199.95	100-Hz and 10-kHz boost; front/rear
	SS Two(RI) SS Three/II (RI)	D/O SQ	D	F/P/0 F/P	2B 3F, 2B, SW	10-30 30	1	v	30 x 2 30 x 2	0.01 0.01	85 90	60 60	Yes Yes	1	No No	249.95 399.95	fader; master volume. As above. Automatic balance calibration; selectable crossover frequency; subwoofer level control; with center- channel speaker, two satellite speakers, and cable. Model SS 3001, S579.95.
	SS Four	DP	D	F/P	3F, 2B	30-50	1		24 x 2	1	90	45	Yes	1	No	329.00	With center-channel speaker, two satellite speakers, and cable, Model SS 4001, \$499.95.
B & K COMPONENTS	AVP 1000(RI)	0	D		5F, 5B, SW	0-130				0.02	89	70	ŀ	1	4	898.00	A/V tuner/preamp (see also "Tuners" and "Preamps"); eight user-defined presets; 16-character alphanumeric
	AVP 2000(RI)	0	D		5F, 5B, SW	0-130			0 1 - 3	0.02	89	70		1	4	998.00	display. Mutit-zone A/V preamp (see also "Preamps"); eight user-defined presets; three S-video inputs.
CAMBRIDGE SOUNOWORKS	PL-100	DP/O	D		3F, 2B, SW	20-30	2		40 x 1, 15 x 2	0.001	105			1	No	399.00	
CARVER	DPL-33(RI) DPL-20(RI)	D/DP D/DP	D D	P/0 P/0	3F, 2B, SW 3F, 2B, SW	20 or 30 20 or 30	2 2		25 x 1, 15 x 2	0.05 0.2	85 85	80 80	Yes Yes	1 1	No No	469.95 379.95	Motorized level controls.
COGENT RESEARCH	PN1	0	No	No	4F	0	0			0.001	112		No	0	No	990.00	Simultaneous Polyphonic Isolator, separates stereo into four front channels to re-create soundstage and
	PN2 PN4 PN3	0 0 0	No No No	No No No	4F 4F 3F	0 0 0	0 0 0			0.002 0.002 0.002	106 104 103		No No No	0 0 0	No No No	750.00 399.00 299.00	As above. As above but three front channels with dual center-channel output.
COUNTERPOINT	HC808(RI)	DP	0		3F, 2B, SW	30-50	1		-							1195.00	
DENON	AVP-5000(RI)	DP/O	D/R	F/P	3F, 2B, SW	0-150	6	t		0.005	105		No	4	Yes	2500.00	Digital processing preamp (see also "Preamps") with two DSP units, two A/D converters, and six D/A converters; parametric EQ. †Volume
	AVR-3000(RI)	DP/D	D/R	F/P	3F, 2B	0-150	9	v	110 x 3, 35 x 2	0.03, 0.05			No	2	Yes	1400.00	and liveness adjustments. A/V receiver (see also "Receivers") with digital signal processing for surround and ambience modes;
	AVR-2000(RI)	DP/O	D/R	F/P	3F, 2B	0-150	9	v	80 x 3,	0.03,			No	2	Yes	900.00	adjustable parameters; two remotes. As above but one remote.
5 - Ja	AVR-1000(RI)	DP/O	D/R		3F, 2B	6-30	6	1.1	25 x 2 70 x 3,	0.05			No	2	Yes	700.00	As above.
	AVR-800(RI)	DP/O	D		3F, 2B	15-30	2		20 x 2 60 x 3, 15 x 2	0.1			No	1	Yes	500.00	A/V receiver (see also "Receivers").
	AVC-3030(RI)	DP/O	D/R	F/P	3F, 2B	0-150	9	V	15 x 2 110 x 3, 35 x 2	0.03, 0.05						1350.00	AV amp (see also "Amps") with digital signal processing for surround and ambience modes; on-screen TV display; adjustable parameters; two remotes.
DYNACD	QD-1/IIL	DM			3F, 2B										No	89.95	Passive unit; no additional amps required; with double banana jacks, QD-2, \$140.00.
ELITE	SP-91D	D/DP	D	F/P	3F, 2B, 2S, SW	1-50	8	V/S			95		Yes		No	1000.00	18-bit D/A conversion.
FOSGATE- AUDIONICS (Continued)	Three-A	0P/0	D	0	3F, 2B, 2S, 4SW	15-70				0.05	100	45	Yes	1	Yes	2799.00	A/V preamp; THX certified.

CHININ THE



# Perhaps w carried



#### A new reason to be afraid of the dark.

Crunching footsteps behind you. Laser beams shooting over your head. Just a typical night at home with Adcom's new GSP-560 Surround Sound Processor/Amplifier. At Adcom's level of critically acclaimed performance it doesn't just produce surround sound. It creates effects that are out of this world.

The GSP-560 expands your two-channel audio system into a full five/six-channel home theater. Multiple surround modes, user selectable time delay and a full-featured remote give you the control and convenience to create a sonic experience that surpasses anything you've ever heard in a movie theater.

#### Awardwinning technology takes you to the outer-limits.

The GSP-560 features a high-current 80 watt center channel amplifier and a pair of high-current 40 watt amplifiers for the rear channels. It will accurately drive the



most demanding loudspeakers, even those with impedance ratings less than 2 ohms. The GSP-560 gives you a choice of Dolby Pro Logic, Concert Hall,

CONSUMER ELECTRONICS SHOW

Nightclub, and Five-Channel Matrix

yot Way	T	litt	e
tape mon rear/ctr reset	rear center	master volume	

4

surround modes so you can select the listening environment that best suits your source and your mood. Selectable time delay lets you optimize the surround performance precisely for the acoustics of your room.

bass EQ

muting

Additional 5-Channel Stereo and Bypass modes assure optimum enjoyment of audio-only sources.

active channels:

Yech

The GSP-560 Surround Sound Processor/Amplifier follows in the footsteps of other critically acclaimed Adcom components. Its award-winning, life-like sound captures the attention of audio/video lovers throughout the universe.

#### Surround yourself now at your Adcom dealer.

Preview the new GSP-560 at your authorized Adcom dealer today, but be careful, you might want to leave the lights on.



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#### AMBIENCE & SURROUND SOUND PROCESSORS

MATRIX CDDE A—Ambisonics D—Dolby Surro DP—Dolby Pro- DM—Dynaco M SQ—SQ O—Dther	-Logic latrix		/	/	-	10	1	TYP	E 588	FI	DEL	10110	Channel		/		DUTPUT CDDE 2F—Left & Right Front 3F—Left, Center, & Right Front 2B—Left & Right Back 3B—Left, Center, & Right Back 2S—Left & Right Sides
UUINEY MANUFACTURER	Hogen a	engendenden	and See	Jobe Manualt	And Strate And Strategy Strate	and and and and and and and and and and	a ol Outer	humber of	AND ADD STRAT	sources by	Power.	Natis V	. A' with	Separation Stereo	on de linuation	12 Monther Print	s SW-Subwooler
FOSGATE- AUDIONICS (Continued)	Four Five	DP/D DP/0	D	O D	3F, 2B, SW 3F, 2B, SW	15-45 15-45				0.05 0.05	100 100	45 45	Yes Yes	1	Yes No	999.00 599.00	A/V preamp.
HARMAN KARDON	AVP-1A(RI)	DP/DM/ D	D/R	F/C/P/D	3F, 2B, 2S,	15-45	9	V/S		0.05	95	50	Yes	1	6	2795.00	Digital servo logic; THX certified.
	AVP-2(RI) AVR30(RI) AVR15(RI)	DP/DM/ 0 DP/0 DP	D/R D D	F/C/P/O F/O	4SW 3F, 2B, SW 3F, 2B, 2SW 3F, 2B	15-45 15-30 15-30	7 20	V/S V	50 x 3, 20 x 2 30 x 3,	0.05 0.09 0.09	90 98 98	50 70 70	Yes Yes No	1 4 2	6 6 3	1049.00 1099.00 699.00	Digital servo logic. Dn-screen TV display.
JAC	XPA1010(RI)	D	D/R	F/O	4F, 28	0-200	20	V/S	10 x 2	0.002	110		No	1	No	1200.00	Compensation for tistening room size, tistening room reverb time, and source
	SUA400(RI) SUA30	D/0 D/0	D D	F/P F/P	2F, 2B 2F, 2B	15-30 15-30	22		10 x 2 10 x 2	0.5 0.5	85 85		Yes Yes	1	No No	305.00 235.00	reverb.
KENWOOD	SS-992(RO) SS-592	DP D	D D		3B 2B	20-30 20-30	2 2	V V	† 10 x 2	0.9 0.9	95 62		No No		No No	299.00 199.00	†Center, 35 watts; rear, 15 watts x 2.
KINERGETICS RESEARCH	KSP-2(Rt)	DP/D	D	F/D	3F, 2B. SW	10-40	0	0		0.01	92	80	No	0	No	4500.00	THX certified; 18-bit digital signal processing; Class A; for use with KSP-3 A/V preamp.
LEXICON	CP-1 + (RI) CP-2(RI)	D/DP/0 D/DP/0	D/R D	F/P/0 F/P/0	3F, 2B, 2S, SW 3F, 2B,	† 16-32	27	V/S		0.05	85 85	40 Min. 40	Yes Yes	1 0	No No	1595.00 995.00	†0 mS to 14 S. Auto azimuth; auto input balance; true digital Pro Logic. As above.
	CP-3(RI)	D/DP/O	D/R	F/P/0	SW 3F, 2B, 2S, SW	t	9	V/S		0.025	90	40 Min.	Yes	1	Yes	2995.00	As above; THX; on-screen TV display; includes two remotes (see also ''Preamps'').
LIRPA LABS	U8-tT2	D/0/B D/D/B D/D	D†	0	3F, 2F, 2B, 3B, 16SW	t	tt		Var.	50.3	2.5	1/2	Var.	1/2	No	723.93	115 mins. inbound, 20 outbound (75 on L.I.E.). ††Presets include "Concert Hall, Coughs" and "Jazz Club, Drunks at Bar." Optional Virtual Reality (gas- operated) system, \$3.99.
MARANTZ	AV-500(RI) PM-700AV(RI)	DP DP	D D	C/P C/P	3F, 2B 3F, 2B	10-99 10-30	6 2		50 x 3, 25 x 2	0.09			Yes No	2 2	Yes Yes	899.00 699.00	A/V preamp; digital picture-in-picture. Universal remote.
MITSUBISHI	HTS-100(RI)	DP	D		3F, 2B	20			50 x 3, 25 x 2	0.08			No		No	599.00	A/V network; dual center-channel output; learning remote, compatible with Mitsubishi TVs.
MUSEATEX AUDIO	HES-5500(RI)	0	D		3F, 2B, 2S, SW	16-36				0.1	90		Yes	1	No	1749.00	Programmable memory.
NAD	910	DP	D				3						1			599.00	
ONKYD	ES-600PRO (RI)	DP/O	D		3B	5-40	3		t	0.09	80		No	0	No	4 <mark>00.</mark> 00	†Center, 50 watts; rear, 20 watts x 2. Input balance control; programmable remote.
	A-SV610PRD Integra A-SV810PRD (RI)	DP DP	D		3F, 2B	15-30	2	V	70 x 3, 20 x 2 75 x 2	0.08 0.06	80	1		2	Yes Yes	630.00 1100.00	remote: Multi-room/multi-source capability (see also "Amplifiers"). Digital sound processing; AV amp (see also "Amplifiers"); S-video inputs; on-screen TV display. AV receiver (see also "Receivers").
	TX-SV717PRO Integra TX- SV909PRO (RI)	DP/O A/DP/O	D/R D/R		3F, 2B 3F, 2B, 2S, SW	15-30 15-30	5	S V/S	85 x 3, 30 x 2 110 x 3, 30 x 4	0.04	80 100			2	Yes 6	950.00 1850.00	AV receiver (see also "Receivers"). AV receiver (see also "Receivers"). with digital signal processing, true digital Pro Logic, and multi-room/ multi-source capability; on-screen TV display; S-video inputs; programmable remote.
PIONEER	SP-700D(RI)	D/DP/O	D/R	0	5F, 5B, 2S	10-35	16	V/S		0.008	90		+		No	735.00	Oigital signal processing; digital seven-band EQ.
PROCEED	PAV(RI)	D/DP/O	0	F/P/O	3F, 2B, SW							1			4	4000.00	A/V preamp (see also "Preamps"); on-screen programming; S-video and composite-video compatibility.
PROTON	SD-1000(RI)	0		F/P	3F, 3B, SW			v		0.008	100	58	No	1	No	600.00	Enhanced logic; four- to seven-channe surround.
SDUND CONCEPTS	SSD550	D	D/R		2F, 2B	5-100		v		0.1	92	80	Yes		No	975.00	Music/film mode switching.



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At last, a home theater sound system that can satisfy even the most demanding audiophile! Counterpoint, using our award-winning technology, have put together a system of matchless quality and value. Components are meticulously crafted and carefully matched in our California facility to leave the guesswork out.

#### <u>HC-808 Dolby</u> <u>ProLogic</u><sup>®</sup> <u>SurroundSound</u>

**Processor** Boasting high quality parts such as Roderstein 1% metal film resistors, Wima polypropylene capacitors

and Alps motordriven potentiometers, the HC-808 offers better, more lifelike sound than others. It also features stereo subwoofer ouputs, adding impact to footsteps, gunshots and other low frequency sound effects, as well as a bypassable monitor loop for insertion of an equalizer.

#### <u>HC-818 Audio</u> Controller

A dual-purpose audio control center, it offers fixedlevel outputs for connection to the HC-808. You can select between 7 audio sources by remote. There

are two tape loops with full dubbing. The tape outs are controlled independently from the main system outputs permitting "background" recording while listening to another source. Equally important is the audiophile-grade line stage



#### <u>HC-828</u> <u>Video</u> <u>Switcher</u> Slaved off the HC-828, this optional video switcher offers 5 video inputs (Svideo or composite) and can be connected to

three monitors and a VCR with independend source selection for each monitor. All outputs are also S-video and composite.

#### <u>Solid 1</u> Power Amplifier

This amplifier, lauded as the "Best Buy" in Taiwan, and "One of the 10 Best Buys in Audio" by Bound for Sound, is the perfect amplifier for the home theater, or for a dual purpose audio/video system. Based upon FET and bipolar cascode technology, this amplifier offers an impressive 60 amps of peak current, with 100 WPC at 8 Ohms, and 170 at 4. And potentially speaker damaging DC offset is eliminated.





How often do you find yourself thinking, "What did she just say?" when watching a film? It is the all-important center dialogue channel which makes the difference here. By using drivers of a quality found in the finest audiophile systems, ultimate clarity is achieved.

The <u>ORPHEUM</u> <u>Right/Left Satellite</u> These stereo speakers are good enough to stand alone in a quality home stereo. What they do in a home theater is simply astonishing. Their ability to localize characters and action will astound you.

> <u>Ihe MISTIC</u> <u>Dipolar</u> <u>Surround</u> Speaker

The rear surround speakers are what gives your theater system its front to back localization and depth. Counterpoint speakers are designed to enhance the presentation with an extremely sophisticated



dipole that gives the rear signal increased ambience and depth.

<u>EMBASSY</u> Subwoofer

These stereo subwoofers not only provide solid bass to 30 Hz, but a ls o a re attractive speaker stands or endtables. Finished in piano-black lacquer, these subwoofers have a built-in crossover. The

versatile Embassies can enhance performance in any system.

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#### AMBIENCE & SURROUND SOUND PROCESSORS

MATRIX CODE A Ambisonics D—Dolby Surro DP—Dolby Pro- DM—Dynaco M SQ—SQ O—Other MANUFACTURER	ound -Logic	Reference for the second	A inst	Ine Noner	an and a second an	18	7	TYP		1	DEL UNCT	TION	S channel	Selaren Selaren	Number .	1 1 200 Hondes	OUTPUT CODE 2F-Left & Right Front 3F-Left, Center, & Right Front 2B-Left & Right Back 3B-Left, Center, & Right Back 2S-Left & Right Sides SW-Subwooler
SOUNDSTREAM	C.2THX(RI)	DP/DM/ O	D/R	F/C/P/O	3F, 2B, 2S, 4SW	<mark>15</mark> -30	9	V/S	Í	0.05	95	40	Yes	1	6	2795.00	THX certified; A/V preamp (see also "Preamps"); two S-video inputs.
SRS LABS	AK-100 Retriever	0		†	2F								Yes			299.00 179.00	†Sound Retrieval System.
SSI SURROUND SOUND	System 3000 (AI) System 3200 (AI) System 4000II (AI) System 5000	DP DP D/O DP	D D D D		3F, 2B, SW 3F, 2B, SW 3F, 4B, SW 3F, 2B, SW	15-30 15-30 10-30 5-40	3 3 3 3		25 x 2 25 x 2 45 x 2 50 x 2	0.25 0.25 0.25 0.25 0.25	80 80 80 80	65 65 85 65	No No No No	1	No No 4 Yes	249.00 299.00 499.00 449.00	A/V preamp with multi-media input/ output port (see also "Preamps"); S-video inputs.
TECHNICS	SH-GE90	0					6			0.08	86					319.95	Digital sound processor with parametric EQ; six additional "sound" presets; two mike inputs; karaoke/ voice mute; spectrum analyzer.
YAMAHA	DSP-A2070 (RI) DSP-A1000 (RI) DSP-A970(RI) DSP-E1000 (RI) DSP-E200(RI)	DP/O DP/O DP/D DP/O DP/O	D/R D/R D/R D/R D/R D	F/D 0 F/0 0 D	5F, 2B, 2SW 5F, 2B, SW 5F, 2B, SW 5F, 2B, SW 3F, 2B	1-49 1-49 1-49 1-49 1-49 1-100	24 23 23 23 6	V V/S V V/S V	80 x 3, 25 x 4 80 x 3, 25 x 4 65 x 3, 22 x 4 80 x 1, 25 x 4 25 x 3	0.015 0.05 0.015 0.015 0.015 0.08	96 96 96 96 95	60 60 60 65 65	Yes Yes Yes Yes Yes	1 2 † 1	Yes Yes Yes 1 No	1999.00 1499.00 1299.00 999.00 499.00	Digital sound-field processing. As above. As above. †Selectable record out. As above. As above.

#### SURROUND System 5000 The Future Of Home Theater

The **SSI System 5000** is *The* State-of-the-Art add-on Dolby Pro Logic decoder.

Check out these features:

- Analog Devices 2126 Dolby Pro Logic Processor
- On-Screen Display
- Motorized Master Volume Control Knob
- Bridgeable 25 Watts x 2 RMS Amplifier
- Camcorder Input on front Panel (with S-Video)
- Multimedia I/O Port
- Four total inputs (Plus two S-Video inputs)
- EEPROM for setting memory
- Complete Line Outputs
- Manufactured in the USA
- Suggested Retail: \$449.00

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It took seven continuous years of design work to make it happen. In the end, it took a whole new approach to sound reproduction. But, at last, the moment of truth has arrived.

It's called DIGITAL PHASE. It's a family of loudspeaker systems without compromise. Gone is the trade-off between low bass extension and upper bass transients. At the heart and soul of these new

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Say good-bye to high-frequency harshness. DIGITAL PHASE brings you an uncommon sweetness throughout the musical spectrum. The secret is a one-piece dome tweeter of spun titanium. Ferro fluid dampened and resting in a

butyl surround. Driven by a powerful neodymium motor.

Welcome the combination of focus and dimensionality that has for so long eluded speaker designers. DIGITAL PHASE redefines the standard for imaging and phase coherence. A recording is as it should be. So lifelike you feel you can reach out and touch the music as it touches you. But hear it all for yourself. Call 615-894-5075 for your nearest DIGITAL PHASE dealer. Then prepare for the moment of truth.





Pictured, the DIGITAL PHASE AP-1, one of five DIGITAL PHASE systems featuring the patented ACOUSTA-REED technology. Enter No. 38 on Reader Service Card

# SIGNAL PROCESSORS

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MANUFACTURER	Model (R) - Remove (R) - Remove (R)	Type or Pocessi	Function: C.	Application: Ta	Simulas	Lefter of house fricter and and a second	Recom	They are the second	Freedon State	Price S	toles
ACE AUDIO	4000 4100	Subsonic Filter Infra/Ultrasonic Filter		R/P/F R/P/F	No No	ţ	RP RP	0.002 0.002	20-20 + 0,-3 20-20 + 0,-3	98.50 101.00	†18 dB/octave slope below 20 Hz. †Low, 18 dB/octave slope; high, 12 dB/octave.
	4000-X24 4100-X24	Subsonic Filter Infra/Ultrasonic Filter		R/P/F R/P/F	No No	Ŧ	RP RP	0.002 0.002	20-20 + 0,-3 20-20 + 0,-3	132.00 142.00	†Low, 24 dB/octave slope. †Low, 24 dB/octave slope; high, 12 dB/octave.
AUDIOCONTROL	Phase Coupled Activator	Proprietary	0	U	No		RP	0.005	25-20 ±0.5	259.00	Restores lower frequencies; includes programmable crossover (see also "Crossovers").
BROOKLINE TECHNOLOGIES	VS301 Volume Stabilizer	Compressor/ Limiter	0	U			RP	0.05	20-60 +0,-3	129.50	Increases low-level signals; threshold adjustable from -50 to +10 dBm; Includes external power supply.
CARVER	ECS-U	Sonic Hologram Generator, Sub-Bass	0	U			Р	0.1	5-20 +0,-0.3	349.95	High-frequency EQ; variable bass Q; soundstage distancing; for dipole speaker designs.
	H-9AV	Restoration, EQ Sonic Hologram Generator	0	U			P	0.05	10-20 + 0,-0.3	399.95	Dialog processor; precognition circuit; independent outputs for L - R and L + R.
OB SYSTEMS	DB-7	Polarity Inverter/ Subsonic Filter	0	U			RP	0.003	20-20 + 0,-0.2	205.00	Requires DB-2A power supply, \$125.00.
ENSEMBLE	Subsonic Filter	Subsonic Filter		U			RP	0.003	39-100	1000.00	25-Hz high-pass filter, -40 dB at 5 Hz includes external power supply.
MARANTZ	AX-1000	Audio Computer		U	Yes				20-20 ±0.1	15,000.	Digital EQ, reverb, hall ambience, compander, LP scratch eliminator, tester, and spectrum analyzer; automatic digital room-acoustic compensation.
MARCHAND	WM8	Bass Correction	0				Р	0.01	2-20	345.00	For use with subwoofers and full- range speakers; kit, \$225.00.
PACKBURN	323 A	Transient, Dynamic NR	0/Т	U	No	Varies	RP	0.05	Sel.	2650.00	Mono/stereo; has three NR processors.
RANE	DC 24	Compressor/ Limiter/	D	U			Р	0.05	20-20 + 0,-0.5	599.00	
	FSC 22 FPL 44	Noise Gate Compressor Limiter	0 0	U U			P P	0.05 0.03	20-20 + 0,-0.5 20-20 ± 0.25	399.00 389.00	Four-channel.
SESCOM	P0-34	ALC	c	U			1	0.2	30-15 ±1	116.25	Requires PO-1 power supply.
SIGTECH	TF10 D-3(RO)	Time-Field Acoustic Correction		U			P	0.0014	20-20 ±0.5	4900.00	Room measurement and calibration by dealer.
SNELL ACOUSTICS	CQ 10	t	0	U			RP				†Corrects time, room, and speaker frequency response in digital domair Updatable; analog and digital inputs and outputs.
SOUND CONCEPTS	IR2100(RI) IR2200 VSP-1	lmage Enhancer Image Enhancer Stereo Synthesizer	0 0 0	U U U			RP RP RP	0.D1 0.D1 0.01	$\begin{array}{c} 20\text{-}25 \pm 0.1 \\ 20\text{-}20 \pm 0.3 \\ 20\text{-}20 \pm 0.3 \end{array}$	360.00 199.00 169.00	Includes wired remote. Kit, Modei KIR-1, \$95.00. Kit, Modei KVSP-1, \$90.00.
SYMETRIX	421 425	AGC-Leveler/ Limiter Compressor/ Limiter/	0	U U				0.D5 0.02	20-50 10-60 +0,-3	549.00 579.00	Balanced and unbalanced inputs and outputs. As above; dual mono or stereo.
	501	Expander Compressor/ Limiter/	0	u				0.025	20-20 + 0,-1	349.00	Balanced and unbalanced inputs and outputs; separate limiter.
	SX208	Compressor	0	U				0.03	20-20 + 0,-1	299.00	Balanced and unbalanced inputs and outputs.
	402 564E	Digital Delay Expander/	0	U U				0.015 0.03	12-20 ± 1.5 20-20 +0,-1	695.00 989.00	As above; one input, two outputs; maximum delay time, 885 mS. Balanced and unbalanced inputs and
	601	Noise Gate Digital Voice Processor		U				0.01	12-20 ±1.5	1995.00	outputs; four channels; sidechain filters. Mike preamp, parametric EQ, expander, de-esser, and delay; MiD controlled; balanced analog inputs
	528	Voice Processor		U				0.05	20-20 +0,-1	679.00	and outputs; digital inputs and outputs. Mike preamp, parametric EQ, expander, and compressor; balanced inputs and outputs.
TADDEO	Digital Antidote	Time-Domain Filter		t						169.95	†Corrects time-domain errors in CD playback; passive.

Titter article


The best system for the videophile is now the only choice for the audiophile. Kinergetics Research introduces the **High Performance Home Theatre™** (HPHT) system.

Products that unite all of the features, flexibility and superb performance that *both* have been demanding.

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KPS-2 Surround/Steres Processor



KPS-3 Source/Switching Processor



KBA-280 140 Watts/Channel Pure Class "A" Power Amplifier



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## CROSSOVERS

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			E-multi ter	N with O	Superior Contract of Contract	Frequencies	ndente	Sector Server	First state	Sterido ono Brido	HONO DSE	B 010	minal moul	Level.	and instant	3
MANUFACTURER	Hotel	4	Peconon Nonor	ereomet	unne cross	Int	energine to	equanae Sub	Invent Leve	Low C	NH DIS	Min Ho	mill In	aul Oi	Hour Price	Notes
ACE AUDIO	6500-DSB 6000 6000-6	A A C	M/S/X S S	2 2 2	30-200 200-15k 30-18k	Yes Yes Yes	P P P	S/M S/M	H or L H or L H or L	90 90 90	0.002 0.002 0.002	1.0 1.0 1.0	100k 100k 100k	100 100 100	175.00 175.00 195.00	Optional subsonic filter, \$25 As above. As above; transient-perfect filter.
AMERICAN Hybrid Technology	AHT/X	A	S	2	Custom	No	F		н	120	0.005		10k	100	5200.00	Line-level preamp/crossovel (see also "Preamplifiers"); optional low-pass level control; custom filter slopes external power supply.
ANALOG Research	Custom	A	s	2	Custom	Yes	F	S	L	90	0.01		10k	500	From 600.00	External power supply required.
APOGEE ACOUSTICS	DAX 3	A	S	2	330	No	F	No	H/L	100	0.003	1	Adj.	8	3295.00	For Apogee Diva, Duetta Signature, and Centaur Maj
A <b>tla</b> s/ Soundolier	ThundraPro CXA	A	x	2	80-200	Yes	V	M	L						599.00	Subwoofer crossover with mono amp (see also "Amps"); reverse-polarity switching; input sensing; subsonic filter.
AUDIO CENTRON	AC-X32	A	S		20-10k	Yes	۷		H/M/L	95	0.001	1.0	10k	1k	365.00	
AUOIOCONTROL	Phase Coupled Activator Richter Scale Series III	A	S S	2	20-20k 20-20k		P P	S S/M/B	L	118	0.005 0.005	1.0 1.0	100k 100k	150 150	259.00 349.00	Proprietary bass restoration circuits; subsonic filter (see also "Signal Processors"). Linkwitz-Riley alignment; ½-octave bass EQ and ana-
AUDIO RESEARCH	EC-22	A	S	2	Custom	Yes	P		L	120	0.01	1	50 k	250	2600.00	lyzer (see also "Equalizers' Frequency and slope (6, 12, or 18 dB/octave) selected by changing circuit cards; bypa outputs; mute switch.
BAG END	ELF-1 Dual Integrator	A	S	2	50-205	Yes	\$	S	H/L	100	0.05	0.75	50k	100	2460.00	For Bag End D18E-I, S18E-O and S10E-T subwooters.
BRYSTON	10B-SUB	A	S	+	40-500	Yes	S	S	н	90	0.005	1	20k	100	1195.00	†Usable as stereo 2-way or mono 3-way. Optional Linkwitz-Riley alignment.
CALIBRATION	10B-Standard HLE-2	A	S S/0	1	70-4.5k 30-200	Yes	S S/P	S S/M/B	H 12	90 92	0.005	1	20k 10k	100 600	1195.00 2490.00	As above. ELF system.
STANDARD INSTRUMENTS							0.1	U/ III/ D		31	0.02	0.00	IUK	000	2430.00	ELI System.
CAMBRIDGE SOUNDWORKS	EXO-1	A	S		55, 80, 100, 140	No	S	M							299.00	
CASCADE AUDIO Systems	BSX-18.2	A	S/X	2	45-15k	Yes	P	S/M/B	L	92	0.05	1.0	100k	250	459.00	Bessel third-order slopes; low-impedance version, \$499.00.
CURCIO Audio Engineering	MP-D2X0	<b>A</b>	S	2	60-4k	Yes	V	S	H/L	85	0.006	0.75	470k	300	3000.00	Tube; kit, ASM-D2XO, \$1350.00.
DB SYSTEMS	DB-3-18	A	S/X	2, 3	Optional	Yes	F	S/M/B	H/M/L	100	0.0008	1	90k	1.4k	From 450.00	18-dB/octave slope; 6 or 12 dB available.
	DB-3-24 DB-3-36	A	S/X S/X	22	Optional Optional	Yes Yes	F	S/M/B S/M/B	H/L H/L	100 100	0.0008 0.0008	1	90k 90k	1.4k 1.4k	615.00 690.00	Linkwitz-Riley alignment. 36-dB/octave slope.
DeCOURSEY	120-B4	A	M/S/X	2	Optional	Yes	P	S/M/B	Opt.	90	0.002	1	100k	100	184.25	Optional rack and panel; optional summing circuit an
	120-T8 120-Q8	A	M/S/X M/S/X	3 4	Optional Optional	Yes	P P	S/M/B S/M/B	Opt. Opt.	90 90	0.002 0.002	1	100k 100k	100 100	288.75 387.75	subsonic filters. As above. As above.
ELECTRD-VOICE	EX-18 EX-24	A	M/S	t	80-6.3k	Yes	F/P	S/M	H/M/L	96	0.05	.775	15k	100	426.00 640.00	†Usable as stereo 2-way or mono 3-way. Balanced and unbalanced inputs and outputs; balanced impedanc 30 kilohms in and 200 ohms out; EQ for constant-directivi horn.
ESSENCE	MF2 MF3 Reference	P P P	M M	2 3 †	40-200 40-200, 100-1k Adjustable	Yes Yes Yes	P P P	M M M	H/L H/M/L †	120 120 120	0.001 0.001 0.001		Adj. Adj. Adj.	Adj. Adj. Adj.	485.00 685.00 ††	†2 to 6 bands per channel, with plug-in level control for each band. ††5985.00 to \$2350.00. Optimized for Essence Reference 12 syster (Amethyst 10A and Reference subwoofer).
FM ACOUSTICS	236-X100 MK II	A	S	2	60-1.6k	Yes	P	S	H/L	110	0.008	.775	30k	1	10,980.	Balanced inputs; with balanced inputs and outputs Model 236-X100B MK II,
	236-X1000 MK II	A	S	2	600-16k	Yes	Р	S	Ĥ/L	110	0.008	. <b>775</b>	30k	1	10,980.	\$11,980. Balanced inputs; with balanced inputs and outputs
	236/4-3 MK II 236/4-4 MK II	Å	M	3 4	60-16k 60-16k	Yes Yes	P P	M	H/M/L 4	110 110	0.009 0.009	.775 .775	40k 40k	5 5	9980.00 10,980.	236-X1000B MK II, \$11,980 Balanced inputs and outputs As above.

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## CROSSOVERS

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			Ne Actue	Stereo	no St Frequency we frequency	2	Ash H	Selection Sering	HUS OUTPUTS	nontrois	H001 8	000	minal Input	Level inpedar	Bal Interestance	
MANUFACTURER	Mode	110	Compines Nonoise	eomet v	uner Cross	Inde	Senuena Fr	equeriable Suby	nveneo Level	CO Past	AN Ratio	on Non	mino Int	and In On	put Price	Holes
OLD SOUND	GS224 GS224EQ	A	s	2	40-4.2k 40-4.2k	No No	v v	S	6	108	0.01	2	20k 20k	300 300	439.00 499.00	24-dB/octave slope; Linkwitz Riley alignment. As above; bass EQ and
	GS224SEQ GS424	A	S S/O	2	40-4,2k 40-9k	No No	v v	S S	6 12	108 108	0.01 0.01	2 2	20k 20k	300 300	549.00 549.00	subsonic filter. As above. †Usable as stereo 3-way or four-channel 2-way. 24-dB/
	GS424EQ	A	X/0 S/0	† †	40-9k 40-9k	No No	v	M	12	108 108	0.01 0.01	2	20k 20k	300 300	609.00 659.00	octave slope. As above; bass EQ and subsonic filter. As above.
ARRISON	GS424SEQ 2W-1	A	S	2	50-200	Yes	S	S	No	130	0.005	10	Var.	Var.	59.95	H3 00000.
ABORATORIES	LP-1	P	S	1	50-200		s	S	No	130	0.005	Max. 10	Var.	Var.	49.95	
	2W-2/BP-1	P	S	3	50-200, 3.5 <b>k</b> -8k	Yes	s	s	No	130	0.005	Max. 10	Var.	Var.	99.95	
	PFMOD FMOD LP/HP	A P	S M	1	50-300 50, 70, 100, 150, 200, 500, 1k, 2.5k, 3.5k,		S F	S/M M	L	90 130	0.01 0.005	Max. 0.20 10 Max.	Var. Var.	1k Var.	59.95 29.95 Pair	Requires 120-V adaptor. Color-coded.
	FMOD Cable	Ρ	S	1	6.5k, 10k, 20k 50/70, 70/100, 100/200, 200/500 1k/2.5k, 6.5k/10k		t	S		130	0.005	10 Max.	Var.	Var.	24.95	As above. †Reverse plugs.
ISU RESEARCH	HDEC	A	s	2	20-100	No	Р	S	L	90	0.01	0.75	100k	100	350.00	Custom EQ for Hsu Researc HRSW subwoofers.
ANIS	Interphase 3aT	A	X	2	100	No	F	M	L	98	0.01	0.6	200k	100	600.00	18-dB/octave Butterworth filters; independent low-pas filter output with continuous phase-shift capability.
RM	3PBP/X8 3PBP/X4	A	S/X S/X	t 2	75-600, 180-1.5k, 1.2k-10k Optional	Yes	P	S/M/B S/M/B	8†† 4†	110 110	0.001	Sel. Sel.	10k 10k		1125.00 750.00	tUsable as stereo 2-, 3-, or 4-way, t+0.5-dB steps. Cascaded 18-dB/octave filts stereo and bridging outputs for all sections; infrasonic and ultrasonic filters; optio E0 for each band. t0.5-dB steps. As above bu 2-way only.
KINETIC AUDIO	Three-Point Four-Point	P P	M	Ŧ	60/90/180 60/90/180/350	Yes Yes	SS	M	H/M				8	Var. Var.	150.00 150.00	†High-pass only. †Low-pass only.
RELL	KBX	A	M/S/X	t		Yes	P	S/M/B	H/M/L				47		3500.00	†Usable as stereo 2-way ou mono 3-way. Includes external power supply.
MADISOUND	24CX-2 24CX-4	A	M/S M/S	t t	60-7k 60-700, 600-7k	No No	v v	S/M S/M	H/L H/M/L	108 108	0.01 0.01	1.95 1.95	20k 20k	300 300	425.00 525.00	†Usable as stereo 2-way o mono 3-way. Linkwitz-Rile alignment. †Usable as stereo 3-way, mono 5-way, or four-chann
MARCHAND	XM1-A XM6-A XM9-A	A A A	M X M	2 2 2 3	20-5k 20-5k 20-5k 20-5k	No No No	P V P	M S/M/B M	H/L H/L	100 110 110	0.005 0.005 0.001	2 2 2 2	25k 25k 25k	100 50 100	24.00 495.00 50.00	2-way. Alignment as above Kit, \$19.95. Kit, \$40.00.
	XM9-AA XM16-A	A	M	3 2	20-5k 20-5k	No Yes	P P	S/M M	H/L H/L	110 110	0.001 0.001	22	25k 25k	100 100	275.00 75.00	Kit, \$225.00. Kit, \$60.00.
MILBERT	TC-2R TC-4R	C C	X	22	60, 72, 80, 100 60, 72, 80, 100	Yes Yes	SS	M	H/L †	90 90	2 2	0.3 0.3	15k 15k	3k 3k	670.00 830.00	Hybrid tube design. As above. †For surround system; front and rear high pass, subwoofer low-pass.
M & K SOUNO	LP-1S	P	s	t	100	No	F	S	H/L					1	350.00	tHigh-pass only, to match low-pass filter in M & K powered subwoofers. Line level.
444010	VF-100	P	S	1	100	No	F	S	114	100	0.001	0.5	1001	600	50.00	As above.
AUSIC REFERENCE	RM-3	A	S	2	20-20k	Yes	P	S	H/L	100	0.001	0.5	100k	600	1200.00	Selectable filter slopes.
NAIM AUDIO	NAX03-6	A	S	3	Custom	Yes	F		H/M/L	90	0.1	1	20k	47	1125.00	Requires Naim Hi-Cap pow supply, \$1355.00.
NELSON BEED	NAX02-4 AC-1204	A	S	2	Custom 62	Yes	F	S/M	H/L L	90 118	0.1	1	20k 22k	47	1125.00 850.00	As above. For Nelson-Reed 1204/P
NELSON-REED	AU-1204	A	S	2	200	No	F	S/M	H/L	90	0.007	1.0	22k	100	935.00	For Nelson-Need 1204/P subwoofer. For Nestorovic System 12A
LABORATORIES		^	°	ŕ		HU		3		50	0.01		JUN	100	533.00	Tor realized by the system 12A
NOBIS TECHNOLOGIES	EC-1	C	S	2	80	No	F	S/B	L	92	0.01	.775	50k	600	399.00	

CHIMM MANUAL

#### CROSSOVERS

MANUFACTURER	Wode	147	E Active & Active	M Steren	S-sumone transfer to the state t	a Indi	spendenty	Stector Setup	Fixed Roden	Controls Controls	Hate Pasto A	ontion . Ho	minal local	level.	Stat Indeasor	Noes
RANE	AC 22	A	S	t	70-3.6k	No	V	M	H/L	92	0.02	0.75	20k	100	399.00	†Usable as stereo 2-way or mono 3-way.
	AC 23	A	S	t.	70-1k, 450-7k	No	V	M	H/M/L	92	0.02	0.75	20k	100	499.00	†Usable as stereo 3-way or mono 4-way.
	FAC 24 FAC 28 DC 24	A A A	M M M	2 2 2	60-12k 60-12k 70-7k	No No No	v v v	M	H/L H/L H/L	95 95 92	0.02 0.02 0.05	0.75 0.75 0.75	20k 20k 20k	100 100 100	339.00 449.00 599.00	nonu 4-way.
SESCOM	P0-51	A	M	3	20-200, 200-2k, 2k-20k	Yes	P			80	0.01	0.75	10k	100	190.60	Requires PO-1 power supply.
SNELL ACOUSTICS	EC 200	A	0	2	80	No	F	S/M	5	92	0.01		15k	100	299.00	12-dB/octave high-pass, 24- dB/octave low-pass; summed output for use with a single subwoofer.
SNELL MULTIMEDIA	EC 300	A	0	2	80	No	F	S/M	6	92	0.01		15k	100	299.00	12-dB/octave high-pass, 24- dB/octave low-pass; summed output for use with a single subwoofer; high-pass output for center channel.
SOUND ENGINEERING	PFM-9	A	x	3	40-160, 400-3.2k	No	S/V	S/M	L/†	118	0.03	Var.	20k	50	2050.00	†Subwoofer.
SUMO	Delilah II	A	S/X/O	2	50, 63, 80, 100, 125	Yes	S	S/M/B	L	95	0.007	2	47k	75	599.00	Bypassable Class-A high-pass section.
SYMETRIX	524E	A	M/S/O	t	70-10k	Yes	P		4	109	0.03	1.23	10k	200	1095.00	†Usable as stereo 2-way, mono 3-way, or mono 4-way. Balanced inputs and outputs; phase controls; outputs have independent limiters.
TC SOUNDS	TCX	A	S		30-10k	Yes	P	^S	L	95	0.01	1	10k	100	995.00	Balanced version, \$1595.00.
UNITY AUDID	Unity PARM	C	S	2	40-300	Yes	P	S	L	115	0.001	1	600	600	2750.00	Fully balanced differential circuits.

## Advanced Technology from Tice Audio

"I assure you that you will be dumbfounded by George Tice's newest creations. I will gladly go way out on the limb for this one - TPT Treated Digital and Analog Interconnects, Power Conditioners and Power Cords produce INCREDIBLE ... NO - MIND BOGGLING - NO - AUDIO ORGASMIC SOUND STAGE!!!"

#### Comparing The Digital Cables:

"I am not going to describe in detail the sound of the XLO and KCAG in comparison; let's just say in my system there was no comparison. The **Tice DC-1** put the performers in the room with analog warmth and vibrance; the others sounded like mediocre digital hi fi in my system - flat and dry with somewhat vague imaging etc...It's in the comparison that they fall so very far short."

#### Comparing The Analog Interconnect Cables:

"A comparison of the **Tice IC-1** Interconnect with MIT, Discovery and Wire World Eclipse, produced nearly the same disparity in performance as the Digital Cable comparison."

#### Comparing The Power Conditioners:

" The players consisted of the familiar Counterpoint PACs, the venerable Power Wedge and two new contenders: the Promethean Audio Power Flo and the **Tice Audio MBF-3**."

MBF-3 "Images within the soundstage are extremely well focused with an unbelievable sense of roundness and space around them. As an extra bonus you get deeper more accurate bass and a gloriously warm midrange." "The bass had genuine slam." "The midrange was lush, but not licentious with a wonderful sense of ease. But best of all, the depth and width of the soundstage had increased significantly. There was a uncanny sense of layering and space together with extraordinary localization of images. It sounded much more like real music in real space. Time for a reality check. Back in goes the Power Flo... Woosh! The sound of the soundstage collapsing."

#### Stuart Mc Creary - Positive Feed Back Magazine

"There was no doubt about it - the TPT cables and Interconnects had wrought a fundamental improvement in the sound of the system."

"What a difference! Run - Do Not Walk - And Get Tice Cables Into Your System."

David Robinson - Editor - Positive Feed Back Magazine

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ACCLAIM/ MAVFICK	Acclaim 802 Series II	Air Spring	8			3/4	Oome		49-25 ±4	93	20		5/4	10 x 8 x 16	Oak	Black Knit		399.90 Pair
	Acclaim 1002 Series II	(AS) AS	10			3⁄4	Dome		37-25 ±4	93	20		5/4	12 x 15 x 25	Oak	Black Knit		699.90 Pair
	Acclaim 1203 Series II	AS Sat. &	12	6	Cone	3⁄4	Dome		29-25 ±4	92	20		5/4	Four Pieces	Oak	Black Knit		999.90 Sys.
	Acclaim 1200S	Subwoof. AS	12						29-150	94	20	Opt.	5/4	15 x 12 x 25	Oak	Black		999.90
	Series II	Subwoof.	6			1	Ribbon		±4 50-22	91	25		5/4		Black	Knit Black		Pair w/Xover 699.90
	Ebony Seven	Aperiodic Pressure Release	0				11100011		±4	31	2.5		0/4		Lacq.	Knit		Pair
	Ebony Ten	(APR) APR	6			1	Ribbon		40-22	91	25		5/4		Black	Black	1	999.90
	Ebony	AS	15						±4 28-150	95	30	Ext.	5/4	18 x 16 x 28	Lacq. Black	Knit Black Knit		Pair 1799.90 Pair
	"The Woofer" Ebony	Subwoof. AS	12	3x3	Ribbon	1	Ribbon		±3 30-22	88	30		5/4	Four Pieces	Lacq. Black	Knit Black		w/Xover 2299.90
	Ribbon Tower Ebony	AS	15	(2)	Ribbons	1	Ribbon		±3 28-22	88	30		5/4	Four Pieces	Lacq. Black	Knit Black		Sys. 2999.90
	Ribbon System Nonspeaker	AS	12	3x3 (4) 3x3	Ribbons	¥4x4	Ribbon		±3 30-44	88	40		4/3	Four Pieces	Lacq. Black	Knit Black		Sys. 4400.00
	Ribbon Reference Four			313					±3						Lacq.	Knit	l i	Sys.
	Nonspeaker Ribbon Reference	AS	12	(4) 3x3	Ribbons	¥4x4	Ribbon		29-44 ±3	88	40		4/3	Four Pieces	Opt.	Black Metal Mesh		6600.00 Sys.
	Three Nonspeaker Ribbon Reference	Bandpass	15	(6) 3x3	Ribbons	¥4x4	Ribbon		22-44 ±3	88	40		6/4	Five Pieces	Opt.	Black Metal Mesh		9900.00 Sys.
	Two Nonspeaker Ribbon Reference	Bandpass	15	(8) 3x3	Ribbons	¥4x4	Ribbon		17-44 ±3	89	100		6/4	Six Pieces	Opt.	Black Knit		14,000. Sys.
	One Mavrick	Bandpass	(4)15	(20)	Ribbons	¥4x4	Ribbon		17-44	89	100		5/4	Six Pieces	Wood	Black		22,000.
	Signature Two Mavrick Signature One	Bandpass	(2)18	3x3 (20) 3x3	Ribbons	¥4x4	Ribbon		±2 15-44 ±2	89	100		5/4	Six Pieces	Wood	Knit Black Knit		Sys. 44,000. Sys.
ACI	LV Satellite	Sealed Sat.	5¼			1	Dome		80-20 ±3	89	20		8/6	11 x 7 x 10	Opt.	Black Knit	14	599.00 Pair
	LV Subwoofer	Aperiodic Subwoof.	12						35-100 ±3	89	30	100	8/6	25 x 13 x 14	Opt.	Dirah	65	649.00 Each
	Spirit G3	Aperiodic Aperiodic	8 10	51/4	Cone	1	Dome Dome		48-20 ±3 36-20	89 89	30 40		8/6 8/6	31 x 10 x 12 36 x 12 x 12	Oak Opt.	Black Knit Black	48 70	899.00 Pair 1399.00
	Encore	Sealed	5	J74	Cone	1	Dome		±3 100-20	86	15		8/6	10 x 6 x 5	Opt.	Knit Black	10	Pair 429.00
	Encore II	Sealed	(2)5			(2)1	Domes		±3 100-20	86	20		6/4	11 x 8 x 7	Opt.	Knit Black	15	Pair 799.00
	AV1	Dipole A/V	51⁄4			1	Dome	w	±3 65-20	89	20		8/6	11 x 7 x 8	Opt.	Knit Black	18	Pair 379.00
	B-Flat	Ported In-Wali	61/2			1	Dome		±3 60-20 ±3	89	30		8/6	8 x 12 x 3	White	Knit White Metal	61⁄2	Each 349.00 Pair
	LX	Aperiodic	8			(1)	Dome		65-20 ±3	89	30		8/6	16 x 10 x 8	Opt.	Black Knit	20	489.00 Pair
	Sapphire II Ti	Aperiodic	7			1	inv. Dome		64-20 ±3	90	50		6/4	16 x 10 x 10	Opt.	Black Knit	281/2	1699.00 Pair
	Sub 1	Bandpass Subwoof.	12		[			W	20-90 ±3	89	40	90	4/3	25 x 13 x 14	Opt.		65	1599.00 Pair
ACOUSTIC ENERGY	AE-1	Bass Ref.	5			1	Dome		70-22 ±3	88	30	3k 2k	8/	12 x 7 x 10	Satin Black	Black Knit	18	1495.00 Pair 2105.00
•	AE-2a Aegis 1	Bass Ref. Bass Ref.	(2)5 6			1	Dome Dome		60-18 ±2.5 50-18 ±2.5	90 86	50 30	3k 3k	8/6 8/6	15 x 9 x 12 8 x 10 x 12	Satin Black Black	Black Knit Black	38 18	2195.00 Pair 795.00 Pair
ACOUSTIC	Angstrom	Ac. Sus.	61/2	-		1	Dome		±2.5	90	15	5k	8/6	13 x 7 x 6	Ash Black	Knit Black	10	150.00
INTERFACE	Tremor	Vented	(2)12					M,T	±2.5 29-200 ±2.5	95	15	100	8/6	62 x 26 x 16	Enam. Oiled Wal.	Cloth Black Cloth	150	Each 1290.00 Each
	Shadow	Subwoof. Ac. Sus.	8			1	Dome		± 2.5 69-20 ± 2.5	91	15	5k	8/6	25 x 9 x 9	Black	Black	18	190.00 Each
	Intimate	Ac. Sus.	10			1	Dome	T	49-20 ± 2.5	93	15	5k	8/6	24 x 12 x 10	Olled Oak	Black Cloth	29	290.00 Each
2	Transcendant	Vented	12	11/4	Dome	11/4	Dome	M,T	38-20 ± 2.5	94	15	1.9k	8/6	32 x 16 x 12	Oiled Wal.	Black Cloth Black	51 80	490.00 Each 890.00
	Professional Series II S Professional Series III	Vented Vented	12 12	2 3,1½	Dome Oomes	1 3⁄4	Dome Dome	M,T T. (2)	29-20 ± 2.5 25-20 ± 2.5	95 95	15 15	800,6.6k 600,2k,6k	8/6 8/6	48 x 16 x 14 48 x 16 x 14	Oiled Oak Oiled Wal	Black Cloth Black Ctoth	90 90	Each 1290.00 Each
	Studio	Vented	12	4x15	Hom	2x5½	Horn	M,T	22-20	98	15	880,5k	8/6	60 x 16 x 14	Oiled Wal.	Black Cloth	102	2190.00 Fach
	Reference Sound Portal	Horn	24x52	24	Horn	61/2	Hom	M,T	±2.5 15-20 ±2.5	101	15	550,5k	8/6	80 x 27 x 36	Oiled Oak	None	400	Each 7500.00 Each
	Sound Prism	Triamped, Horn	24x52	24	Horn	61/2	Hom	M,T	10-20 ± 1	105	100, 300, 1.5k Inc.	550,5k	8/6	80 x 27 x 36	Oiled Wal.	None	500	30,000. Pair

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ACOUSTIC PROFILES	PSL-AVS 1 PSL-AVS 2	Ctr. & Rear Ch. A/V Sat.&												Three Pleces				299.00 Sys. 499.00
	PSL-AVS 2P	Subwoof. A/V Sat.&	9								Inc.			Three Pieces				Sys. 699.00
		Powered Subwoof.														ĺ		Sys.
	PSL-AVS 3	4 Sats., Ctr. Ch.&											16	Six Pleces				798.00 Sys.
	PSL-AVS 3P	Subwoof. 4 Sats., Ctr. Ch.&									Inc.	-		Six Pleces				998.00
		Powered Subwoof.																Sys.
ADJO	Ethic	Vented	61/2			1	Dome		55-20 ±3	88	30	3.3k	8/6	10 x 12 x 35	Opt., Wood	Black	271/2	2400.00 Pair w/
A/D/S/	M30	Bandpass	(2)10	(2)6	Cones	1	Dome		20-22	91	50	160,3k	-	56 x 22 x 25	Rswd.	Black	150	Stands 8000.00
	SubSat 2	Sat. &	6	4	Cone	1	Dome		±3 42-20	86	20	150,2k	4/	Three Pleces	Opt.	Metal Perf.	33	Pair 669.00
	SubSat 3	Subwoof. Sat. & Subwoof.	6	51⁄4	Cone	1	Dome		±3 42-20 ±3	88	20	150,2k	4/	Three Pleces	Opt.	Metal Perf.	Sys. 41	Sys. 769.00
	SUB 6	Bandpass Subwoof.	6						42-150 ±3	89	20	150	8/	9 x 8 x 19	Opt.	Metal	Sys. 21	Sys. 269.00 Each
	SUB 10	Powered Subwoof.	10					w	20-100 ±3		150 Inc.	60,80,100 (Adi.)		18 x 19 x 19	Opt.			1295.00 Each
	SUB 12	Powered Subwoof.	12					w	15-100 ±3		350 Inc.	(Adj.) 60,80,100 (Adj.) 1k,4k		22 x 19 x 19	Opt.			1895.00 Each
	750iL	In-Wall Inf. Baf.	7	11/2	Dome	1	Dome		35-20	90	50			18 x 10		Perf. Metal		999.00 Pair
	SAT 5	Ac. Sus.	5			1	Dome		60-20 ±3	86	15	2k	4/	10 x 6 x 7	Opt.	Black Perf. Metal	14	649.00 Pair
	SAT 6	Ac. Sus.	6			1	Dome		50-20 ±3	87	15	2k	4/	13 x 8 x 9	Opt.	Black Pert. Metal	22	799.00 Pair
	SAT 7	Ac. Sus.	8	11/2	Dome	1			40-20 ±3	87	15	700,4k	4/	17 x 9 x 11	Opt.	Black Pert.	19	1399.00 Pair
	L400e	Ac. Sus.	7			1	Dome		60-20 ±3	88	35	2k		12 x 8 x 8	Opt.	Pert.	91/2	599.00 Bols
	L300e	Ac. Sus.	51⁄4				Dome		10-20 ±3	88	30	2k	4/	9 x 6 x 6	Opt.	Metai Perf. Metal	91/2	Pair 499.00 Pair
	L200e	Ac. Sus.	4			1	Dome		85-20 ±3	86	15	2k		7 x 5 x 9	Opt.	Pert. Metal	6	399.00 Pair
	L150e	Ac. Sus.	4			1	Dome		85-20 ±3	87	15	3.5k	4/4	4 x 5 x 8	Opt.	Pert. Metal	5	329.00 Pair
	C3001/s C4001/s	In-Wall Inf. Baf. In-Wall	5¼ 6			1	Dome Dome		50-20 ±3 42-30	9 <b>0</b> 91	5 5	2.5k 1.6k	4/	7 x 9 7 x 11	Opt. Opt.	Opt., Metal	5 6½	399.95 Pair 499.95
ADVANCED	101 MklV	Inf. Baf. QB3	5			11/8	-	Na	±3						·	Opt., Metal		Pair
AKUSTIC	Micro	Vented	Ð			178	Dome	No	50-24 ±2	87	50	2.7k	8/4	13 x 7 x 9	Opt., Wood	Black Pert. Metal	25	1500.00 Pair
	201 MkIV Compact Monitor	Aperiodic	7	-		11/8	Oome	No	45-20 ±2	86	50	3.15k	8/6	15 x 9 x 11	Opt., Wood	Black Perf.	35	1300.00 Pair
	401 MkIV Akustic	Aperiodic	(2)7			11/8	Dome	No	40-24 ±2	90	50	3.15k	4/3	37 x 9 x 11	Opt., Wood	Metal Black Perf.	65	2300.00 Pair
	Monitor 701 MkIV Reference	QB3 Vented	9			11/8	Dome	No	35-24 ±2	90	50	2.25k	8/6	40 x 10 x 13	Opt., Wood	Metai Black Perf.	75	2500.00 Pair
	Monitor 801 MkIV Reference	B6 Vented	(2)9			11/8	Dome	No	30-24 ±2	92	50	2.25k	4/3	50 x 11 x 16	Opt., Wood	Metal Black	110	3700.00
	Monitor 1001 MkIV	Aperiodic	(2)12	(2)5	Cones	11/8	Dome	No	25-24	92	100	115,2.7k	4/2	62 x 14 x 22	Opt.,	Perl. Metai Black	250	Pair 7000.00
	Akustic Reference 1001 MkIV	Push-Pull	(4)12	(2)5	Cones	11/18	Dome	No	±2 20-24	92	100	115,2.7k	4/2	62 x 14 x 22	Wood Opt.,	Perl. Metal Black	350	Palr 10,500.
	PPIS	Isobarik	(4)12	(2)5	60163	178	DOILS	NU	±2	92	100	115,2.78	4/2	02 X 14 X 22	Wood	Perf. Metal	300	Pair
	Standard MkIV Compact	86	9					w	30-200	96	50	115,0pt.	8/6	24 x 11 x 16	Opt.,	Black	75	1300.00
	SubWooter	Vented Subwoof.							±2						Wood	Pert. Metai		Pair
	MkIV Reference SubWoofer	Aperiodic Subwoof,	12					W	25-200 ±2	90	100	115,0pt.	8/6	26 x 14 x 22	Opt., Wood	Black Pert.	110	2300.00 Pair
	Mkiv PPIS Reference	Push-Pull Isobarik	(2)12					W	20-200 ±2	90	100	115,0pt.	4/3	26 x 14 x 22	Opt., Wood	Wood Black Perf.	150	3500.00 Pair
	SubWoofer Dynaudio	Subwoof. QB3	(2)5			11/8	Dome	No	50-24	90	50	2.7k	4/2	22 x 7 x 10	Opt.,	Metal Black	50	2400.00
	Gemini II Enhanced	Vented							±3						Wood	Perf. Metal		Pair
	Dynaudio Twynn II Enhanced	Aperiodic	(2)7			11/8	Oome	No	40-24 ±3	90	50	3.15k	4/3	40 x 9 x 12	Opt., Wood	Black Perf. Wood	65	2200.00 Pair
ADVANCED ELECTRO-	Cybele DLS-73	int. Bat.	12			2x6	Cyl.	No	30-20 ±3	85	40	1.5k	8/7	15 x 10 x 44	Cloth	Opt., Knit	63	2195.00 Pair
DYNAMIC SYSTEMS																		

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ADVANCED Sound	Bi Polar Satellite Bi Polar Amplified	Bipolar Sat. Powered Subwoof.	(2)8 (4)10	41/2	Cone	1,1¼	Domes	No W	150-22 ±3 30-150 ±3	94 94	200 160 Inc.	150,1k, 5k,12k 150	6/4 3/4	50 x 30 x 6 50 x 20 x 28	Opt., Wood Opt., Wood	Opt., Knit Opt., Knit	180 300	9000.00 Pair 6500.00 Pair
	Subwoofer Ziggurat	Time Aligned, Tuned	12	8	Cone	3	Oome	M/T	32-20 ±3	91	200	900,6k	6/B	41 x 17 x 15	Opt., Wood	Opt., Knit	150	3500.00 Pair
	Campanile I	Port Tuned Port	(2)8	41/2	Cone	3	0ome	M/T	38-20 ±3	92	100	300,2.5k	6/4	36 x 13 x 13	Opt., Wood	Opt., Knit	95	2000.00
	Campanile II	Tuned Port	(2)10	8	Cone	3	Dome	M/T	35-22 ±3	93	200	300,2.5k	4/3	49 x 13 x 20	Opt., Wood	Opt., Knit	130	Pair 4000.00 Pair
	Monolith 12P	Powered Tuned Port	12					W	32-150 ±3	91	100 Inc.	150	6/8	22 x 20 x 20	Opt., Wood	Opt., Knit	130	2000.00 Pair
	Monolith 12	Subwoof. Tuned Port Subwoof.	12					No	32-150 ±3	91	100	150	6/B	22 x 20 x 20	Opt., Wood	Opt., Knit	110	1200.00 Pair
	Monolith 10P	Powered Tuned Port	10					w	32-150 ±3	91	100 (nc.	150	68	22 x 20 x 20	Opt., Wood	Opt., Knit	125	1800.00 Pair
	Monolith 10	Subwoof. Tuned Port Subwoof.	10					No	32-150 ±3	91	100	150	6/8	22 x 20 x 20	Opt., Wood	Opt., Knit	110	1100.00 Pair
	Cornerstone Bookshelf	Sat.	(2)41/2			3	Dome	No	120-20 ± 3	94	35	6k	4/6	18 x 8 x 12	Opt., Wood	Opt., Knit	30	60 <mark>0.0</mark> 0 Pair
	Cornerstone 12SP	Powered Tuned Port	12					(2)W	38-150 ±3	89	(2) 80 (nc.	150	4/3	22 x 20 x 20	Opt., Wood	Opt., Knit	130	1200.00 Each
	Cornerstone 4/BSP	Stereo Subwoof. Powered Tuned Port Stereo	(4)8					(2)W	45-150 ±3	94	(2) 80 Inc.	150	4/3	22 x 20 x 20	Opt., Wood	Opt., Knit	145	1350.00 Each
	Cornerstone 12S	Subwoof. Tuned Port Stereo Subwoof.	12					No	38-150 ±3	89	100	150	4/3	22 x 20 x 20	Opt., Wood	Opt., Knit	115	800.00 Each
	Cornerstone 4/8S	Tuned Port Stereo Subwoof.	(4)8					No	45-150 ±3	94	100	150	4/3	22 x 20 x 20	Opt., Wood	Opt., Knit	115	800.00 Each
ADVENT	Heritage	Ac. Sus.	(2)8			1	Dome	1	42-23 ±3	89.5	10	3.5k	8/4	38 x 10 x 13	Oiled Hard-	Brown Knit	45	699.95 Pair
	Legacy III	Ac. Sus.	10			1	Dome		40-23	90	10	2.5k	8/6	32 x 14 x 10	wood Oiled	Black	42	450.00
	Graduate	Ac. Sus.	8	1		1/2	Oome		±3 55-21	89		4.5k	8/4	18 x 12 x 7	Pecan Oiled	Cloth Black	18	Pair 249.00
	Mini Advent	Ac. Sus.	51⁄4	1		1/2	Oome		±3 110-21	88	10	4.5k	6/4	11 x 6 x 5	Wood Pecan		10	Pair 179.00
	Mini Advent Subwoofer III	Ac. Sus. Subwoof.	(2)61/2	1					±3 50-180 ±3	91	10	180	6/4	13 x 15 x 8	Black Vinyl	Knit	20	Pair 199.00
	Baby III	Ac. Sus.	61/2			1/2	Dome		60-21 ±3	89	10	4.5k	B/4	16 x 11 x 6	Opt.	Brown Knit	13	Each 229.00 Pair
	Video Shielded Prodigy Tower	A/V, Ac. Sus.	8		1	3/4	Dome		45-23 ± 3	89	10	3k	8/6	28 x 10 x 9	Black Hard-	Black Cloth	25	379.00 Pair
	Prodigy Tower	Ac. Sus.	8			3/4	Dome		45-23	89	10	3k	8/4	28 x 10 x 9	wood Hard-	Brown	251/4	349.95
	Indoor/Outdoor Mini II	Ac. Sus.	51⁄4			1/2	Dome		±3 110-21 ±3	88	10	4.5k	8/4	11 x 6 x 5	wood Opt.	Knit Poly.	10	Pair 179.00 Pair
	Laureate	Ac. Sus.	(2)61/2			1	Oome			90	10	3k	8/4	38 x 9 x 12	Black/ Hard- wood	Brown Knit	46	Pair 549.95 Pair
	In-Wall Gallery Series In-Wall Mini	In-Wall	61/2			1/2	Dome		60-21 ±3	89	10	4.5k	6/4	13 x 9		8łack		299.00 Pair
	Gallery Series	In-Wall	51/4			1/2	Dome		80-21 ±3	87	10	4.5k	8/6	12 x 9	White			199.00 Pair
	-	Ctr. Ch.	(2)4						80-20 ±3	92	10		8/	6 x 13 x 6	Black Vinyl	Black	6	129.00 Each
AERIAL ACOUSTICS	10T 5	Vented Ac. Sus.	10¼ 7	51/4	Cone	1	Oome Dome		28-22 ±2 60-22 ±3	86 85	100 50	360,2.7k 2.5k	4/3 4/3	42 x 13 x 19 13 x 8 x 10	Opt., Wood Opt., Wood	Black Foam Black Foam	110 25	4495.00 Pair 1595.00 Pair
AES	AES-25M	in-Wall	51/4		1			1	70-18	88	10		16/8	12 x 8 x 3	White	White	5	79.95
	AES-50S	in-Wall	51⁄4			3/4	Dome		70-20	90	10	3k	8/4	12 x 8 x 3	Plast. White Plast.	Steel White Steel	5	Each 99.95 Each
	AES-100S	in-Wall	61/2			3⁄4	Dome		55-20	90	10	3k	8/4	12 x 8 x 3	White Plast.	White	6	124.95 Each
	AES-200S	In-Wall	6 <sup>1</sup> /2			1	Oome		40-20	90	10	2.5k	.8/4	12 x 8 x 3	White Plast.	White Steel	8	179.95 Each
	AES-300W AES-400W	In-Wall Subwoof. In-Wall Subwoof.	6x9 6x9						28-90 28-90	90 90	10 10	90 90	8/4 8/4	12 x 8 x 3 12 x 8 x 3	White Plast. White Plast.	White Steel White Steel	9 9	229.95 Each 295.00 Each

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ALLISON	AL-100	Ac. Sus.	6		$\left\{ \begin{array}{c} \cdot \\ \cdot \end{array} \right\}$	1	Dome	$\bigwedge$	64-18	90	15	2.5k	6/	15 x 10 x 7	Black	Black	11	119.95
ACOUSTICS	AL-100	Ac. Sus.	6			1	Dome		±3 58-18	90	15	2.5k	6/	15 x 10 x 7	Opt.	Knit Black	13	Each 149.95
	AL-110	Ac. Sus.	6			1	inv.		±3 54-21	90	15	2k	6/	15 x 10 x 9	Opt.	Knit Black	16	Each 179.95
	AL-115	Ac. Sus.	8			1	Cone Inv. Cone		±3 41-21	90	15	2k	6/	20 x 11 x 10	Opt.	Knit Black	22	Each 229.95
	AL-120	Ac. Sus.	(2)6			1	lev. Cone		±3 52-21 ±3	90	15	100,2k	6/	24 x 11 x 11	Opt.	Knit Black Knit	33	Each 329.95 Each
	AL-125	Ac. Sus.	(2)6	31/2	Inv. Cone	1	Inv. Cone		48-21 ±3	90	15	450,4k	6/	31 x 11 x 12	Opt.	Black Knit	40	479.95 Each
	AL-130	Ac. Sus.	(2)8	31/2	Inv. Cone	1	lev. Cone		35-21 ±3	90	15	450,4k	6/	38 x 13 x 14	Opt.	Black Knit	57	599.95 Each
	AV-200/ MS-200	Home Th. Sat.	4			1	Dome		90-22 ±5	90	10	4k	8/	10 x 6 x 5	Opt.	Black	6	From 199.95
	AV-202/ MS-202	Home Th. Ctr. Ch.	(2)3			1	Dome		90-22 ±5	86	10	4.5k	8/	5 x 19 x 11	Opt.	Black	10	Pair From 129.95
	AV-W4/MS-W4	Home Th. Subwoof.	8						40-200 ±5	86	20	200	4/	11 x 11 x 11	Opt.	Black	16	Each From 159.95
ALÓN	V	Inf. Baf.	10	5	Dipole	1	Oipole	No	34-25	87	75	400,3.5k	8/4	49 x 12 x 15	Opt.	Black	90	Each 4800.00
	IV	inf. Baf.	12	5	Cone Cone	1	Dome Dome	No	±3 29-25 ±3	87	100		8/3	46 x 15 x 18	Opt., Wood	Opt., Knit	105	Pair 3000.00
	II	inf. Baf.	10	5	Cone	1	Dome	No	39-25 ±3	87	100		8/4	40 x 11 x 13	Opt., Wood	Opt., Knit	60	Pair 1800.00 Pair
	I	Air Sus.	8	41/2	Dipole Cone	3/4	Dome	No	49-25 ±3	87	50	500,3.5k	8/4	38 x 9 x 13	Opt., Oak	Black	40	1200.00 Pair
	C1	Bipolar Ctr. Ch.	(2)5			(2)1	Domes	No	80-25 ±3	87	50	3.5k	8/4	7 x 15 x 9	Black Ash	Black	20	600.00 Each
=	Phalanx	Inf. Baf.	10	(5)5, 5	Cones, Dipole	1	Dipole Dome	No	32-25 ±3	87	140	125,400, 3.5k	8/4	58 x 13 x 18	Opt.	Black	140	20,000. Pair
	C2/C2S	Air Sus.	8	5	Cone Dipole Cone	1	Dome	No	49-25 ±3	87	50	400,3.5k	8/4	25 x 22 x 13	Black Ash	Black	45	From 1200.00
	SW1	lsobaric Subwoof.	(2)12					No	25-500 ±3	87	100		4/2	16 x 25 x 25	Black Ash		80	Pair 990.00 Each
ALTEC LANSING	75	Ac. Sus. Ctr. Ch.	51⁄4	<u> </u>	1	1/2	Dome		50-20 ±3	89	10	4k	8/	10 x 6 x 7	Opt., Vinyl	Black Knit	9	80.00 Each
Chitolite	115	Ac. Sus.	6			1	Dome		50-20 ± 3	91	10	2.5k	8/	17 x 10 x 9	Opt., Vinyl	Black	20	275.00 Pair
	215	Ac. Sus.	8	31/2	Dome	1	Dome		40-20 ±3	91	10	250,3.5k	8/	22 x 12 x 9	Opt., Vinyi	Black Knit	35	500.00 Pair
	315	Ac. Sus.	10	2	Dome		Dome		30-20 ±3	93	10	550,3.5k	8/	27 x 15 x 12	Dpt., Vinyl	Black Knlt	50	650.00 Pair
	515 SW8	Ac. Sus. Subwoof.	10 8	31/2	Dome	1	Dome		28-22 ±3 35-250	92 90	10 10	250,3.5k	8/ 6/	34 x 12 x 13	Opt., Vinyl Opt.,	Black Knit Black	54 25	700.00 Pair 150.00
-4	PSW10	Powered	10						± 3 26-180	90	Inc.	50,80,	0/	17 x 17 x 17	Vinyi Opt.	Knit	62	Each 850.00
	ACS300	Subwoof. Computer Sat. &	(2)4	4		1/2	Deme	(2)W,		90		100,150 120,3.5k		Three Pieces			19 Sys.	Each 400.00 Sys.
	AC \$200	Subwoof. Computer	4			1/2	Dome	W,T	100-20	90		3.5k					11	300.00
	ACS150	Speaker Powered Computer	(2)4						±3 35-250 ±3		Inc.	250		6 x 11 x 7	Beige		9	Pair 150.00 Each
	ACS100	Subwoof. Computer	3			1/2	Dome	w.T	± 3 80-20						Gray		21/2	180.00
	ACS50	Speaker Powered	21/2x			3/4	Dome		±3 100-20		Inc.				Beige		11/2	Pair 100.00
	AHT-2300	Computer Speaker THX;	1¼ (2)10						±3 26-180		Inc.	50,80,		15 x 27 x 19	Black		75	Pair w/Amp 1200.00
=	AHT-2200	Powered Subwoof. THX;	(2)51/4			(2)1/2	Domes		±3 80-16	89	20	100,150 (Adj.) 2.5k	8/	16 x 8 x 7	Opt.	Opt.,	6	Each 300.00
	AHT-2100	Front THX	(2)4	(4)3		(2)3/4	Domes		±3 80-20	89	20	180,3k,	4/	15 x 11 x 6	White	Mesh White	221/2	Each 900.00
	ITW 265	Surround In-Wall Inf. Baf.	61/2			7/8	Dome		40-20 ± 3	90	10	3.5k 3.5k	6/	12 x 9 x 4	Plast.	Mesh White	10	Palr 300.00 Pair
	ITW 260	Sat. In-Wall	(2)61/2						32-250	90	30	180	4/	20 x 13 x 4	Black	White	45	400.00
	System 3	Subwoof, Sat. &	(2)8	(2)3		1/2	Dome		±3 32-20	90	10	180,4.5k	8/	Three Pieces	Vinyl Opt.		40	Paír 600.00
	Bias 550	Subwoof. Pentamp., Ac. Sus.	(2)10, 8	6 <sup>1</sup> ⁄2,2	Cone, Dome	1	Dame	<b>₩,М</b> , Т	±3 20-22 ±2	90	inc.	80,150, 450,1.5k,		71 x 19 x 24	Wal. Ven.	Black Knit	Sys. 437	Sys. 12,000. Pair
	512	Triamp.,	(2)10	61/2,2	Cone,	1	Dome	<u>₩</u> ,м,	20-22	90	75	4.5k 180,1.5k,		57 x 13 x 14		Black	120	4500.00
-	511	Ac. Sus. Ac. Sus.	(2)10	61/2,2	Dome Cone,	1	Dome	1	±3 20-22	92	lnc. 50	3.5k 180,1.5k,	4/	57 x 13 x 14	Opt.	Knit Black	110	Pair 3000.00
	510	Ac. Sus.	(2)10	2	Dome Dome	1	Dome		±3 20-22 ±3	92	10	3.5k 550,3.5k	4/	49 x 12 x 14	Opt.	Knit Black Knit	100	Pair 1600.00 Pair
(Continued)	508	Ac. Sus.	(2)8	2	Dome	1	Dome		±3 32-22 ±3	90.5	10	750,3.5k	6/	40 x 11 x 11	Opt.	Knit Black Knit	63	Pair 1100.00 Pair

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MANUFACTURER	Hotel	Desi	Sto Principle.	indisus of States	Hans Dans	St. Inches	Set Disnest	wites	In the series the second	NA DE HERE	Wines	e 5 sors. http://www.es	s. Eng Pov	e. une the second	is instant	ist cit	HE COOL S	M. US- ST. ST.
ALTEC LANSING	100	Ac. Sus.	(2)8	4	Dome	3⁄4	Dome		38-20	91	10	250,3.5k	8/	41 x 11 x 11	Opt., Vinyi	Biack Knit	63	500.00 Pair
(Continued)	96	Ac. Sus.	(2)6½			3/4	Dome		39-20 ±3	91	10	3.5k	8/	32 x 9 x 10	Opt., Vinyi	Black Knit	30	400.00 Pair
	95	Ac. Sus.	8	4	Dome	3/4	Dome		40-20 ±3	91	10	250,3.5k	8/	22 x 12 x 9	Opt., Vinvi	Black Knit	28	300.00 Pair
	85	Ac. Sus.	61/2			3⁄4	Dome		50-20 ±3	91	10	3.5k	8/	17 x 10 x 9	Opt., Vinyl	Black Knit	171⁄2	200.00 Pair
	66	indoor/ Outdoor; Ctr. Ch.	(2)6			3/4	Dome		45-20	90	10	3.5k	8/	16 x 8 x 7	Opt., ABS	Opt., Mesh	15	200.00 Each
	56	Indoor/ Outdoor	51⁄4			1/2	Dome		50-20	89	10	4k	8/	10 x 8 x 6	Opt.		6	125.00
	55	Indoor/ Outdoor:	4			3⁄4	Dome		±3 85-20 ±3	86	10	3.5k	6/	9 x 7 x 5	Black ABS	Opt., Mesh	51⁄2	Pair 250.00 Palr
	44	Ac. Sus. Ctr. Ch.	(2)4			1/2	Dome		80-21 ±3	90	10	3.5k	8/4	5 x 11 x 8	Black	Black Mesh	6	90.00 Each
AMBLÉ	Viola	Tuned Port	6½			1	Dome		45-20 ±3	88	20	3.5k	8/6	14 x 10 x 12	Black	Black	23	850.00
	Bravo	Tuned	61⁄2			1	Dome		±3 53-18 ±3	89	20	3.2k	8/6	16 x 10 x 8	Lacq. Oak	Knit Black	17	Pair 495.00
	Minl-Viola	Tuned	41/2			3⁄4	Dome		±3 60-20 ±3	86	20	4k	8/6	8 x 12 x 7	Black Lacq.	Knit Black Knit	16	Palr 650.00 Pair
•	HC1000	Home Th.	12	51⁄4	Cone	1	Dome		37-22 ±3	92	50	100,3.5k	8/6	Six Pieces	Opt.	Black Knit	150 Sys.	1790.00 Sys.
AMC	WM50	in-Wall	51/2			1	Dome		60-20 ±5				8/			White Alum,		199.00 Pair
	WM75	in-Wail	61⁄2			1	Dome		50-20 ±5				8/			White Alum,		299.00 Pair
	WM100	In-Wall	8			1	Dome		45-20 ±5				8/			White Alum.		399.00 Pair
	B1-20	Subwoof.	8					₩,М, Т	30-270 +0,-3			40-270 (Var.)	5		Black Oak	AUJIII.		749.95 Each
AMRITA AUDIO	The AMRIT- Motif	Bass Ref.	6			1	Dome		43-20	92	7.5	4.5k	6/5.5	10 x 9 x 16	Opt.	Opt.	17	545.00 Pair
(Continued)	The AMRIT- Logos	Bass Ref.	8			1	Dome		35-20	90	7.5	3.2k	חו	13 x 14 x 20	Opt.	Opt.	34	695.00 Pair



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steel ring is eccentrically welded to the shaft, then dipped into a thermally reactive adhesive. When molded, the ball is then mechanically, thermally, chemically and permanently bonded to the shaft. Clamp Assembly The aluminum alloy clamp assembly opens to receive the ball. The tension screw passes through. When tightened, spherical cavities compress around the ball and internal "teeth" bite into it, locking in the chosen angle of adjustment. **OMNIMOUNT** Our chart matches the speakers you now own or plan to uikly, conveniently and affordably. TEMS S S

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AMRITA AUDIO (Continued)	The AMRIT- Thunderbird	Stereo Bandpass Subwoof,	(2)10						24-100		50		הר	17 x 19 x 36	Opt.	Opt.	96	From 895.00 Each
	The AMRIT- Reference Standard	inf. Baf.	13	(2)61/2	Cones	1	Dome	No	34-20	92	30	180,4k	4/3.4	49 x 17 x 15	Opt.	Opt.	110	3795.00 Pair
	The AMRIT- Summit Towers	Ported	(2)10	61/2	Cone	1	Dome	No	28-20	91	30	180,4k	4/3	42 x 16 x 14	Opt.	Opt.	85	2095.00 Pair
	The AMRIT- Allegra Towers	Ported	10	3	Dome	3⁄4	Dome	No	32-20	90	30	600,4k	4/3	37 x 17 x 13	Opt.	Opt.	73	1195.00 Pai
	The AMRIT- HeartLand Towers	Bass Ref.	(4)8			1	Dome	No	31-20	96	30	3.4k	4/2	36 x 13 x 17	Opt.	Opt.	72	1295.00 Pair
	The AMRIT- MiniMonitors	Bass Ref.	(2)8			1	Dome	No	40-20	92	30	2.5k	4/3	17 x 11 x 12	Opt.	Opt.	37	995.00 Pair
	The AMRIT- Elan Towers	Bass Ref.	8			1	Dome	No	36-20	90	30	2k	6/5	35 x 11 x 12	Opt.	Opt.	50	845.00 Pair
	The AMRIT- Troppo Towers	Bass Ref.	6			1	Dome	No	46-20	90	30	3.5k	6/5	35 x 10 x 8	Opt.	Opt.	31	645.00 Pair
	The AMRIT-	Ac. Sus.	6			1	Oome	No	58-20	90	30	3.5k	6/5	15 x 10 x 8	Opt.	Opt.	16	495.00 Pair
	The AMRIT- Prospero	Powered Conjugate Subwoof.	(2)15					w			175 Inc.		4/3	30 Dia.	Opt.	Opt.	110	1995.00 Each
	The AMRIT- Kronos Towers	Tuned	(2)8	31/2	Dome	1	Dome		24-20 +3,-5	90	7.5	650,4.5k	7/4	12 x 16 x 40	Opt.	Opt.	72	1645.00 Pair
ANDANTE Audio	M100	Vented	4			3/4	Dome		55-21	90	20	3k	8/	8 x 5 x 5	Opt.	Opt.	3	129.00
MUUIU	CF65	Sat. Subwoof.	(2)61/2						30-120	90	50	120	8/6	25 x 14 x 11	Black	Black	34	Pair 399.00 Each
	VM150	AV.	4			3/4	Dome		55-21	90	20	3k	8/	8 x 5 x 5	Black	Black	3	169.00
	SP06	Vented In-Wall	61/2			1	Oome	T	50-21	90	20	2.2k	8/	12 x 9 x 3	White	White	4	Pair 199.00 Pair
ANTIPHON	Aphelion	Vented	(2) 8¼x 11¼	2	Dome	3/4	Oome			87	100		4/	72 x 17 x 15	Opt.	Black Knit	150	14,500 Pair



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POGEE COUSTICS	Studio Grand Ribbon Array Studio Stereo Subwoofer	Ribbon Slot Loaded	14x48 (2)10			0.7x48	Ribbon	W,T SW	30-20 20-70		100 100	400 70	3/ 3/	66 x 29 x 3 17 x 29 x 25	Opt. Gran, Black	Black Cloth	110 85	7500.0 Pa 3995.0 Pa
	Center Channel	Subwoof. Hybrid Ctr. Ch.	(2)6½			0.8x16	Ribbon		40-20		50	900	4/	24 x 27 x 6	Off- White Paint	Metal	30	895. Ea
	Centaur	Ribbon Dipole Hybrid	8			0.7x26	Ribbon	т	38-20		50	500	5/3	15 x 46 x 11	Opt.	Black Knit	65	1795.0 Pa
	Stage	Ríbbon Dipole	12x26			0.7x26	Ribbon	T	35-20		50	600	4/3	26 x 37 x 2	Opt.	Fbgls	60	Fro 2595.0 Pa
	Centaur Minor	Ribbon Dipole Hybrid	61/2	1 560	Ribbon	0.7x26	Ribbon Ribbon	w sw.	40-20 15-25		50 100	1.2k 70.250 9k	6/4 3/	14 x 39 x 9 32 x 86 x 38	Gray	Black Knit Black	50 600	1295.0 Pa Fro
	Grand (w/Remote)	Powered Ribbon & Subwoof.	(2)12, 12x60	1.5x60	nibbun	0.3x60	NUUUN	з <b></b> , М, W, М, Т	19-20		Inc.	70,230.94	3/	32 8 00 8 30	Opt.	Knit	000	80,500 Pair v Amp
	Stage Subwoofer Ribbin-Wall	Subwoof. In-Wall	(2)8 6 <sup>1</sup> ⁄2			0.7x26	Ribbon	w w	20-80 40-20		75 50	80 1.2k	3/ 6/4	11 x 27 x 19 52 x 12 x 3	Gray Paint Matte	Black Metal	55 40	2595.0 Pa 1350.0 Pa
POGEE	SSM	Vented	(2)41/2			1	Dome		85-25	90	150		16/	13 x 6 x 6	Black Black	Black	11	550.0
OUND	AE-1S2	Vented	8	1		1	Dome		±3 63-19 +3	92	60		16 8/8	10 x 16 x 7	Epoxy Black Epoxy	Foam Black Metal	17	Ea 645. Ea
	AE-2S2		(2)8			(2)1	Spheres		±3 63-19 ±3	94	120		16/ 16	32 x 11 x 10	Epoxy Black Epoxy	Black	38	1205. Ea
	AE-3S2	Vented	10	0		1	Sphere		70-18 ±3	96	300		8/8	13 x 10 x 16	Black Epoxy	Black	36	935. Ea
	AE-4	Vented	12			1	Horn		60-16.5 ± 3	100	200		8/8	14 x 23 x 14	Black Epoxy	Black Foam	59	1670. Ea
	AE-5	Vented	12			1	Horn		53-17 ±3	99	400		8/8	14 x 23 x 17	Black Epoxy	Black Foam	76	2280. Ea
	3X3S2	Horn- Loaded Vent	(2)15	2	Horn	1	Horn		55-17.3 ±3	105			8/8	29 x 45 x 30	Black Epoxy	Black Foam	270	5315.I Ea
	MPTS-1	Front Loaded	(5)12	(2)51/2	Cones	2	Compr. Horn		20-18	93	100	80,200.2k	8/6	Eleven Pieces	Black	None	430 Sys.	21,25 Sy
R	Holographic Imaging M.5	Ported	51⁄4			1/2	Dome		68-23 ±3	88	10	6k	6/4	6 x 9 x 7	Vinyl	Black Knit	71/2	200. Pa
	M1	Ac. Sus.	6		1	3⁄4	Dome		65-20 ±3	88	10	3.6k	6/4	11 x 8 x 12	Vinyl	Black Knit	101/2	230. Pa
	M2	Ac. Sus.	8			3/4	Dome		58-20 ±3	90	10	3.6k	6/4	16 x 9 x 14	Vinyi	Black Knit	17	300. Pa
	M4	Ac. Sus.	6	6	Cone	3/4	Dome		50-20 ±3	88	20	100,3.6k	6/4	29 x 8 x 15	Vinyi	Black Knit	26	500. Pi
	M4.5	Ac. Sus.	8	8	Cone	3/4	Dome		47-23 ±3	88	20	65,3.84	6/4	36 x 9 x 12	Vinyl	Black Knit	371/2	700. Pa
	MC.1	Pas. Rad. Ctr. Ch.	4			3⁄4	Dome		80-20 ±3	87	10	3.6k	6/6	5 x 7 x 18	Vinyl Owi	Black Knit	11	150. Ea
	Classic 5	Ported	5			1	Dome		60-20 ±3	88	20	3k	6/4	7 x 9 x 14	Opt., Vinyl	Black Knit	131/2	300. Pa
	Classic 6	Ac. Sus.	6			1	Dome Dome		55-20 ±3 50-20	88 88	20 20	3k 3k	6/4 6/4	9 x 11 x 19 10 x 13 x 22	Dpt., Vinyl	Black Knit Black	21½ 30	350. Pi 450.
	Classic 8 Classic 12	Ac. Sus. Ac. Sus.	8 (2)6			1	Dome		±3 46-20	88	30	2k	4/3.5	9 x 11 x 33	Opt., Vinyl Opt.,	Knit Black	30 50	450. P 1000.
	Classic 12	Ac. Sus.	8	(2)5	Cones	l'i	Dome		±3 42-20	88	30	200,2k	4/3.5	10 x 13 x 36	Ven. Opt.,	Knit Black	63	P 1300.
	Classic 26	Ac. Sus.	(2)8	(2)5	Cones	1	Dome		±3 40-20	88	30	200,2k	4/3.5	10 x 13 x 46	Ven. Opt.,	Knit Black	76	P 1800.
	Classic 30	Ac. Sus.	(2)10	(2)5	Cones	1	Dome		±3 38-20	88	50	200,2k	4/3.5	11 x 15 x 52	Ven. Opt.,	Knit Black	153	P 2200.
	Athena System	Filt. Sus. Sat. &	8	(2)31/2	Cones	(2)¾	Domes		±3 48-20 ±3	89	10	140,6W	6/4	Three Pieces	Ven. Gray Nxtl.	Knit Perf. <mark>Met</mark> al	40 Sys.	P 599. S
	Limited	Subwoof. Ac. Sus.	12	(2)3	Domes	1	Oome		38-20 ±3	88	50	300,2.5k	4/3	49 x 13 x 13	Black	Perf. Metal	85	6875. P
	Loudspeaker 3 Powered Partner 570	Powered Ac. Sus.	5			1	Dome	W,T	±3 40-25 ±3		Inc.	6k	15	6 x 11 x 8	Opt.	Perf. Metal	10	399. P
	Powered Partner 622	Powered Filt. Sus. Sat. &	6			(2)2½	Cones	W,T	50-20 ±3		Inc.	180		Three Pieces	Black	Perf. Metal	28 Sys.	349 S
	Powered	Subwoof. Powered	(2)2 <sup>1</sup> /2					т	80-20		Inc.			3 x 3 x 9	Opt.	Perf.	41/2	229
	Partner 42 Powered	Ac. Sus. Powered	21/2						±3 100-20 +3		Inc.			3 x 3 x 5	Opt.	Metal Perf. Metal	31/2	P 109. P
RANT	Partner 22 A-50	Ac. Sus. Inf. Baf.	51/4			11/4	Cone	-	±3 70-20	89	15	3.5k	4/	10 x 7 x 5	Oiled	Black	10	225
	A-60	Vented	61/2			1	Dome		±3 49-22	90	12	3.3k	8 6	17 x 10 x 8	Wal. Oiled	Knit Black	15	9 300
	A-80	Vented	8			1	Dome		±3 38-22	91	10	2.7k	8/6	19 x 11 x 10	Wal. Oiled	Knit Black	19	475
	A-100T	Inf. Baf.	8			1	Dome		±3 27-25	87	12	2.5k	8/6	28 x 10 x 10	Wai. Olled	Knit Black	30	600
	A-140	Pas. Rad.	61/2			1	Dome	1	±3 40-22 ±3	89	12	2.2k	8/6	19 x 11 x 11	Wał. Oiled Wal.	Knit Black Knit	25	550. P

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MANUFACTURI ARANT (Continued)	A-W6	In-Wall	6			1/8	Dome	T	60-20	91	10	A80 CS	8/	12 x 3 x 8	White			eight pr
ARTEMIS	EOS	Ported	7			1	inv.		± 3 48-32	87	40		8/6	17 x 14 x 1	Meta 5 Opt.			4900
SYSTEMS	AB-100	Bass Ref.	. 6	-		1	Dome Dome		± 2.5	90		2.5k				Knit		
	AB-200	Bass Ref.		31/2	Cone	1	Dome		±3 38-20	90		400,2.5k	8/6 8/6	8 x 11 x 20 10 x 11 x 2	Oiled Wal.	Black Knit		700
	SR-I	Bass Ref.				1	Dome		± 3 45-20	90		4k	8/6	7 x 11 x 13	Wal.	Black Knit		1000
	SR-II	Trans.	51/4			1	Ribbon		±3 38-25	90		5k	8/6	8 x 13 x 36	Olied Wal. Oiled	Black		1100 F
	SR-III	Line Trans.	(2)7			1	Ribbon		± 3 35-25	90		5k	B/6	10 x 14 x 4	Wal.	Black Knit Black		1800 F
	SR-IV	Line Bass Ref.	(2)8	51/4	Cone	(4)1	Ribbons		± 3 32-25	90		100	8/6	11 x 14 x 6	Wal.	Knit Black		2600. P 4500.
ATLANTIC	Pattern 100	Sat. &	(2)61/2	-		(2)3	Cones	w	± 3 38-20	-	Inc.	100	10k/	Three Piece	Wal.	Knit Black	45	9 399.
TECHNOLOGY		Powered Subwoof.							±3	1			2k		Vinyl, Black	Plast. Black	Sys.	S
	Pattern 200 (w/Surround Decoder)	5 Sats. & Powered Subwoof.	(2)8			(2)3	Cones	W,M, T,ST	30-20 ±3	6	Inc.	100	10k/ 2k	Six Pieces	Plast. Black Vinyl,	Metal Black Plast.	55 Sys.	899. Sy
	151 LR	Sat.	4			1/2	Сопе		80-20	0.0	10	1.54			Black Plast.	Black Metal		
	252 PBM	Powered	12				Gone	W,T	±3 30-120	88	10	1.5k	8/6	5 x 5 x 8	Opt., Plast.	Opt., Metal	31/2	149. P
	152 PBM	Subwoof. Powered	8					W.T	±3 30-120		Inc.	80,120 120	10k/ 2k	20 x 14 x 14	Black Vinyl	Black Knit	45	599. Ea
	153 C	Subwoof. Ctr. Ch.	(2)31/2			1/2	Cone	•••, •	± 3 80-20	89	10	1.5k	10k/ 2k 8/6	15 x 11 x 13	Black Vinyl	Black Plast.	25	499. Ea
	154 SR	Surround	(2)31/2						± 3 120-12	88	10	I.JK	8/6	10 x 5 x 6 5 x 5 x 8	Black Plast. Opt.,	Black Metal Opt.,	4 3½	139. Ea 149.
TLAS	ThundraPro 1	Subwoof.	(2)8		-				±3 38-500				-		Plast.	Metal		Pa
SOUNDOLIER	ThundraPro 3	In-Wall	8		1				± 5 45-500	90	10		8/4	25 x 11 x 15	Opt. Gloss	Opt., Knit	32	599. Ea
		Subwoof.	ľ						40-000 ±5	89	10		8/7	15 x 11 x 3	White	White Perf.	5	199.0 Ea
	AS83	in-Wall	8	4	Cone	1	Dome	T	45-20 ± 3	88	10	2.2k,5k	8/	15 x 11 x 3	White	Metal White Perf.	71/2	450.0 Pa
	AS80	in-Wall	8			1	Dome	T	50-20 ±4	88	10	2.8k	8/	15 x 11 x 3	White	Metal White Perf. Metal	5 <sup>1</sup> /2	275.( Pa
	AS62	in-Wall	61/2			1	Dome	T	60-20 ±4	86	5	2.5k	8/	11 x 9 x 3	White	White Perf. Metal	41/2	220.0 Pa
	AS60	In-Wall	61/2			2	Cone		60-15 ±5	85	5	3.4k	8/	11 x 9 x 3	White	White Perf. Metal	3	99.( Pa
	W150T	Ac. Sus. Sat.	51/4			1	Dome	. 5	75-20	86	20		8/	9 x 6 x 6	Opt.	Opt., Perf. Metal	8	194.0 Eac
	W130T	Sat.	4			1	Dome		95-20	85	10		8/	7 x 5 x 4	Opt.	Opt. Perf. Metal	6	119.0 Eac
	W115T	Sat.	4			1	Cone		140- 14.3	85	10		8/	7 x 5 x 4	Opt.	Opt., Perf. Metal	5	65.0 Eac
	FA136	In-Ceiling Ac. Sus.	61/2			1/2	Dome		65-20 ±5	88	10	4k	8/	10 x 10 x 8	White	White Perf. Metal	3	36.0 Eac
TOMIC	1294	Subwoot.	12						30-120	88	30		4/3	14 x 14 x 30		molai	50	800.0
	0616	Coaxial; Inf. Baf.	6	2					40-19 ±4	90	60	2k	4/	6 x 6 x 3	1	Black	6	Eac 144.0
UDIENCE	Mikro Au	Sealed	4	-		1	Dome	No	±4	85	40	4k	8/6	7 x 5 x 4	Fabr.	Metal Black	6	Pai 498.0
	Mikro Au Bass Module	Aperiodic Subwool.	12			h			20-120	85	30	120	8/3	11 x 18 x 16	Black	Knit Black		Pa 598.0
UDIGO	SGI	Biamp,	8	21/4	Dome	11/8	Dome	-+	40-20	88	(2) 100	700,6k	4/2	15 x 11 x 14	Lacq.	Knit	49	Eac 4995.0
	One	Trans. Line Biamp, Trans.	8	21/4	Dome	11/8	Dome		± 2.5 40-20 ± 2.5	88	100 (2) 100	700,6k	4/2	15 x 11 x 14			52	Pai 2995.0
UDIXRON	VTS 5+1	Line Sat. &	12	(5)41/4	Cones	(5)1	Domes	-	±2.5 20-20	87	30	90,2.5k	8/4	Six Pieces	Black	Black	441/4	999.0
UDILE	ACTI	Subwoof.	61/2		-	1/2	Dome	-	60-20	88	100	4k	8/6	14 x 11 x 20	Gloss		Sys. 35	Sys 7850.0
	(with Digital Signal Processor) ACT I/SB		13	61/2	Cone	1/2	Dome		± 0.1	88	200	100,4k	6/4	42 x 11 x 20	Gloss Mnri. Acryi. Gloss	Black	35 110	7850.0 Pai w/DSP& Stand: 13,100
JDIO	(with OSP) Mozart	Tuned	(2)6	_		1	Dome		±0.1						Mnri. Acryi.	Knit		Pai w/DSI
TISTRY ontinued)	Mozart Signature	Port Tuned Port	(2)6			1	lav. Dame		48-20 ±3 48-25 ±3	91.5 91.5	1	1.8k	4/3.8	44 x 8 x 15 44 x 8 x 15	Oak Rswd.	Black Black	68 68	2495.00 Pai 3995.00

N. ST			/	/	n THOS	/ ,	/ /	/	/ ,	/	/	5	/	ats Ch.	/	/		/
		/		orsy	sterr			/		1	Herweete	onse.	DOW	et. Wate	/ /	/	/	/
		/		actosure	Inches	I Inches		nches	1	Wooleg	ncy Rest	at all all	Amp	acles Hit is a	thesal	/	/	Material
	/	/	o Principle. E	ameter	Diamen	1400	aiameter		WEL WE CONTINE	Freque	×188	1 We aled MI	Freque	e Minimuti jor	in Inch	/	101 an	A M'S 63
	Model	dia	n Pri	oter Die	ange in	ange	aler D. we	let nat	ale neeringe neering	10 the	W	comment	over	daninal Dinenst	ea. mis		e Cot	mt. D Pris
MANUFACTURER	6							50.0	A. 4.	5	4	er Ch		Faur Diasas				11,99
NUDIO ARTISTRY Continued)	Mozart Grand	Dipole; 2 Sats.& 2 Subs.	(4)12	(2)8	Cones	1	Inv. Dome	w	± 1.5								Sys.	2995.0
Sec. 1	Mozart Woofer	Dipole Woofer	(2)12					W	±1.5									Pa
UDIO CENTRON	CE12H	Tuned Bass Ref.	12												Ozite	Metal		550.0 Pa 750.0
	CE126	Tuned Bass Ref.	12	6											Ozite	Metal	40	900.
	CE156	Tuned Bass Ref.	15	6	Cone	21/2	Dome								Ozite	Metal		Pa
	CE15H	Tuned Bass Ref.	15	10x8	1 1		1150. Pi											
	CE1510	Tuned Bass Ref.	15	10	Cone	5x6	Horn						8/	29 x 25 x 16	Ozite	Steel	-	1300. P
	CE1510EV	Tuned Bass Ref.	15	10	Cone	5x6	Horn		50-20	101	75				Ozite	Steel		1700. Pi
	CE50	Tuned Bass Ref.	(2)15	(2)10	Cones	(2)5x6	Horns		50-20	101	100	500,2k,5k	8/	39 x 39 x 19				2400. Pa
	ACE1	Tuned Bass Ref.	15			22x9½	Horn		40-15	101	75	1.6k	8/	32 x 25 x 17	Black Ozite	Steel		1200. Pa
	CE18	Tuned Bass Ref.	18						30-300	97	75		4/	32 x 25 x 23	Black	Perf.	93	1050. P
	ADE OT	Subwoof.	(2)15	22+01/2	Horn			м	30-15	103	100	1.8k	8/	49 x 25 x 17			115	1600.
	ACE-2T	Tuned Bass Ref.	(2)15 15												Ozite			P 1300.
	ACE-1T	Tuned Bass Ref.	19	221972	nvin										Ozite			P
AUDIOFILE	TV4.5	Ctr. Ch.	(2)41/2			3/4	Oome	1	±5	89					Ash	Knit		129. Ea
THEATER	Sat 4.0	Sat. or Rear Ch.	4			1	Dome			88	50	6k	4/2		Ash	Knit		129 P
	M6.5		6½			1	Dome			89	55	4.5k	4/2	9 x 15 x 8				149. P
	M12.0		12	3	Cone	1	<mark>Oome</mark>		50-20	90	120	6k	4/2	14 x 30 x 11				149. Ea
	Sub 6.5	Subwoof.	(2)61/2						40-200	88	100	180	4/2	22 x 9 x 14			25	149. Ea
	AF1200	Sat. & Subwoof.	12,4			1	Dome		40-20	89	100	150,5k	8/4	Three Pieces	Black		42 Sys.	229 S
AUDIO NOTE	1/B	Inf. Bat.	8			3/4	Oome	No		91	7	2.3k	8/4	18 x 11 x 8			19	895. P
	1/SP	inf. Baf.	8			3/4	Dome	No	65-19	91	7	2.3k	8/4	18 x 11 x 8	Opt.,	Black	19	1295. P
	1/SPX-SE	inf. Baf.	8			3/4	Dome	No	60-20	92	6	2.3k	8/4	18 x 11 x 8		Black	19	5750. P
	2/B	Ported	8			3/4	Dome	No	42-21	93	5	2.3k	6/4	23 x 13 x 10	Opt.	Black	28	1395. P
	2/SP	Ported	8			3/4	Dome	No	42-21	93	5	2.3k	6/4	23 x 13 x 10	Opt.	Black	28	1795. P
	2/SPX	Ported	8			3/4	Dome	No	42-21	93	5	2.3k	6/4	23 x 13 x 10	Opt.	Black	28	2295
	2/SPX-SE	Ported	8			3/4	Dome	No	40-22	94	4	2.3k	6/4	23 x 13 x 10	Opt.	Black	28	6500
	3/B	Ported	8			3/4	Dome	No	36-21	94	4	2.3k	6/4	32 x 14 x 11	Opt.,	Black	43	1895
	3/SP	Ported	8			3/4	Dome	No	36-21	94	4	2.3k	6/4	32 x 14 x 11	Opt.,	Black	43	239 <mark>5</mark>
	3/SPX	Ported	8			3/4	Dome	No	±2 36-21	94	4	2.3k	6/4	32 x 14 x 11	Opt.,	Black	43	2995
, i i i i i i i i i i i i i i i i i i i	3/SPX-SE	Ported	8		1	1		1	±2		3		6/4		Wood	Black	43	7500
	3/SPC-SEC	Ported	8						±1		3		6/4		1	Black	44	9750
									±1			1	24			Knit	5	129
AUDIOSOURCE	LS.7	Inf. Baf.	4			12												129 199
- 1 · · ·	LS One	Inf. Baf.	4										1.1.1		Metal			h B
	LS Six	Inf. Baf.	4					No				_			Metal	Metal		219
	LS Two/A	inf. Baf.	51/2		1		Dome	1	1	n					Metal			249
	LS Ten/A	inf. Baf.	4			1												99
	VS-One	Tuned Port	(2)4					1	1	93								119
	VS-Two	Powered Tuned	(2)4			1	Dome		70-20		30 Inc.	5K	8/	13 x 6 x 6	Wood	Black Metal	1	159
	VS-Three	Port Tuned	51⁄4			1	Dome		4 1						Wood	Black		139
S	SW 3.1 System	Port	12						25-160	89	10	100	8/	12 x 18 x 16	Opt.	Opt.	27	399
	ett off ogatum	Port Subwoof.	1															E
	SW 4	Powered Subwoof.	12					W	<mark>25</mark> -200		100 Inc.	40-200 (Adj.)		13 x 8 x 16	Black	Black Metal	37	399 E
	IW One	In-Wall	51/4	1		1/2	Dome			90	75		8/		White	White		12
	IW Two	In-Wall	61/2			1	Oome	4		90	75	1	8/		White	White		19
	IW Three	In-Wall	8			1	Dome	1		92	100		8/		White	Knit Black Knit12 Knit 32Black Knit32Black Knit25Black Knit19 KnitBlack Knit19 KnitBlack Knit19 KnitBlack Knit28 KnitBlack Knit28 KnitBlack Knit28 KnitBlack Knit28 KnitBlack Knit28 KnitBlack Knit28 KnitBlack Knit43 KnitBlack Knit43 KnitBlack Knit43 KnitBlack Knit43 Si/4Dpt.5 Dpt.Dpt.51/4 Si/4Dpt.51/4 Si/4Black Black Dpt.27Black White37 White	249	
	IW Four	In-Wall	8						1	92	100		8/		1	1	1	149



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ANUFACTURE	f (	- f	~	4.	( T	$\angle$	$\sim$	4	35-22	86	100	~ ~	8/8	74 x 14 x 1	Satin	None	50	3000.0
AUDIOSTATIC	ES-100 ES-50	ES ES					1		±3 45-22	86	100		8/8	54 x 14 x 1	Black Satin	None	37	Pa 2200.0
	ES-300RS	ES							±3 25-22	86	75		8/8	76 x 16 x 2	Black Gloss	None	68	Pa 4800.0
	PDSW-1	Powered	8					w	±3 35-110	ļ	Inc.	100		12 x 12 x 12	Black Black	None	40	Pa 1000.0
UDIX	MM-5	Subwoof. Vented	51/4			1	Dome		±3 50-18	88	25	3.2k	4/3	6 x 9 x 9	Matte	Black	8	Ea 249.0
	HRM-1a	Venled	6 <sup>1</sup> /2			1	Dome		±3 50-18	88	50	3k	8/3	10 x 16 x 7	Black Matte	Black	15	599.0
	HRM-3a	Vented	(2)6 <sup>1</sup> /2			1	Dome		±3 47-18	90	50	3k	4/3	12 x 19 x 10	Black Matte Black	Black	30	899.0 Pa
	M-4	Vented	7			1	Dome	ş – I	±3 40-20 ±2	90	50	2.3k	8/2	11 x 22 x <mark>13</mark>	Opt.	Black	35	1499.0 Pa
	M-4T	Vented	7			1	Dome		40-20 ±2	90	50	2.3k	8/2	10 x 46 x 10	Opt.	Black	55	1799.0 Pa
	M-7	Vented	10	41⁄2	Cone	1	Dome		35-20 ±2	89	50	2.5k	8/2	13 x 45 x 13	Opt.	Black	60	1999.0 Pa
	M-8	Vented	6½			1	Dome		40-20 ±2	87	50	2.2k	8/3	10 x 15 x 10	Opt.	Black Knit	30	1995. P
	M-10	Vented	(2)6½		1	ा ब	Dome		38-20 ±2 38-20	89 89	50 50	2.2k 2.2k	4/3	10 x 13 x 22 10 x 44 x 14	Opt. Opt.	Black Knit Black	55 90	2995. P: 3495.
	M-12	Vented	(2)61/2			1	Dome		± 2			2.2R				Knit		P
AVALON ACOUSTICS	Ascent	Sealed	11	2	Dome	1	Dome		28-24 ±3	87	50 50		6/5.5 4/3.6	Four Pieces	Wood Wood	Black Knit Black	460 Sys. 170	16,50 St 10,50
	Radian	Sealed	(2)9	31/2	Cone	1	Dome Dome		20-24 ±3 35-24	88 86	50 30		6/5.5	48 x 12 x 19 39 x 11 x 15	Wood	Knit Black	95	7600.
	Eclipse Avatar	Sealed Sealed	9 8				Dome		±3 35-24	85	30		6/5.5	34 x 10 x 13	Chrry	Knit Black	65	4350.
1415	1				-	1	Dome		±3 70-20	87	10	3.5k	8/	14 x 9 x 8	Birch	Knit Knit		P 180.
AVID DYNAMICS	60AD 80AD	Ac. Sus. Ac. Sus.	61⁄2 8			1	Dome		+0,-3	88	10	3k	8/	19 x 12 x 9	Vinyl Birch	Knit		P 240
	102AD	Ac. Sus.	10			1	Dome		+0,-3 43-20	89	10	2.5k	8/	25 x 15 x 10	Vinyl Birch	Knit		300.
	232AD	Vented	12	41/2	Cone	1	Dome		+0,-3 40-20	90	8	650,5k	8/	28 x 15 x 10	Vinyl Birch	Knit		520.
AVONDALE	Mini-Monitor	Ported	6	_	-	1	Dome		+ 0,-3	87	30	4k	8/3	15 x 10 x 7	Vinyl Metal	Black	50	2995.
AUDIO	SBM	Ported	(2)8			11/2	Dome		±2 35-20	87	30	4k	8/3	27 x 14 x 10	Metal	Black	70	P 3995.
	DBM	Ported	(2)8	3	Dome	11/2	Dome		±2 30-20	87	30	300,4k	8/4	35 x 14 x 10	Metal	Black	110	5995.
A.W.H.	AWH180A	Bipolar						-	±2 20-20	96	20		8/6	60 x 13 x 12	Black	Black	45	495.
AXIOM	AX 1.5	Tuned	61/2			3/4	Dome		±2 50-22	89	15	3,5k	8/6	15 x 8 x 8	Lacq. Opt.,	Knit Black	15	P 199.
	Bookshelf AX 1.5	Port Tuned	61/2			3/4	Dome		±2 45-22	89	15	3.5k	8/6	19 x 8 x 8	Dak Opt.,	Knit Błack	18	299.
	AX 2	Port Tuned	8			٦ <u>.</u>	Dome		±2 43-22	89	15	3.2k	8/6	19 x 10 x 10		Knit Black	22	459.
	Bookshelf AX 2	Port Tuned	8			1	Dome		±2 40-22	89	15	3.2k	8/6	24 x 10 x 10	Dak Opt., Dak	Knit Black Knit	25	569. P
	AX 3	Port	8,5			1	Dome		±2 36-22 ±2	88	30	3k	6/4	36 x 10 x 10		Black Knit	33	899 P
	AX 1.5 Walfmount	in-Wall	61⁄2			3⁄4	Dome		45-22 ±2	89	15	3.5k	8/6	14 x 19 x 1	Opt.	Black Knit	8	299 F
	AX 5 Reference		10,5			1	Dome		29-22 ±2	87	40	3k	6/4	36 x 12 x 12	Opt., Dak	Black Knit	40	1649 F
	AX 1 Reference	Tuned Port	5	L.		1	Dome		70-22 ±2	87	30	3k	6/4	11 x 6 x 6	Opt., Dak	Black Knit	15	599 (
BAG END	TA12-0	Time	12			4x6	Dome/	No	70-19	103	10	3.3k	8/7	23 x 18 x 15	Dak	Black	55	1476
	TA12-JRD	Align Time Align	12			4x6	Horn Dome/ Horn	No	±3 75-19 ±3	101	10	3.3k	8/7	21 x 14 x 12	<mark>Dak</mark>	Knit Black Knit	40	1176
	TA15-D	Time	15			8x16	Horn	No	50-19 ±3	103	10	1.7k	8/6	27 x 22 x 18	Dak	Black Knit	86	1976
	AF1-0	Time	18	12	Cone	4x6	Dome/ Horn	No	40-19 ±3	103	10	125,3.3k	4/3	43 x 22 x 18	Dak	Black Knit	140	3136
	D18E-I	Align ELF Subwoof.	(2)18						8-80 ±2	95	400		4/4	43 x 22 x 18	Paint	Black Metal	130	1358 E
	S18E-D	ELF Subwoof.	18			1			8-80 ±2	92	200		8/8	22 x 22 x 18		Black Knit	65 32	738 E
	S10E-I	ELF Subwoof.	10			ļ			8-80 ±2	82	100		8/8	12 x 12 x 8	Black Paint	Black Knit	32	234 E
BANG & OLUFSEN	Beovox CX50	Pressure Chamber	4			1	Dome		80-20 + 4,-8	89	20	2.5k	6/6	5 x 8 x 8	Opt.	Opt.	73/4	175 E
	Beovox CX100	Pressure Chamber	(2)4				Dome		50-20 + 4,-8	89	20	2.5k	6/6	5 x 13 x 8	Opt. Steel	Opt. Grav	53	250 E
	Beolab Penta	Powered Bass Ref.	(4)5 (2)61/5	(4)3	Cones	1	Dome Dome		40-20 + 4,-8	92 93	Inc. 20	700,5k 800,3k	8/8	64 x 13 x 15 28 x 20 x 10		Gray Cloth Opt.	53 33	1900 E 600
	RL7000 RL6000	Bass Ref. Bass Ref.	(2)61/2	5	Cone	1	Dome		40-20 + 4,-8	93 93	20	000,38		26 x 20 x 10 21 x 16 x 7	Opt.	Opt.	19 <sup>5</sup> /8	E
(Continued)	1120000	pass nel.			1					30				2				Ĕ

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MANUFACTURE		16		NOT 1	MD. A	10 14	10 14	ser ser	Will' Ano	H1 0	St.	Reco. C	1055 IN	Won Din To	4	mish	Stille V	veight. Price.
BANG & OLUFSEN (Centinued)	RL1000	Bass Ref.							ni	32	20		4	16 x 13 x 5	Opt.	Opt.	71/8	
(canonaca)	IWS1000	In-Wall Inf. Baf. In-Wall	5½ 5¼		č.	1	Oome Oome		55-20 + 3,-8 55-30	87 87	20	2.5k	8/8	11 x 8 x 3	White	Plast		400.00 Pair
	Beolab 8000	Inf. Baf. Biamped	(2)4	6		3/4	Dome		+ 3, -8	61	20 Inc.	2.5k 4.2k	8/8	11 x 8 x 3 6 x 52 x 6	Alum	Plast		500.00 Pair 1500.00
	Beolab 6000	Bass Ref. Biamped	(2)33/4			3/4	Dome	.	+4,-8		Inc.	3k		8 x 44 x 9	Alum	Cloth		Each 2000.00
	Beolab 4500	Bass Ref. Powered Bass Ref.	5			1	Dome		+4,-8	87	Inc.	3:5k	8/8	8 x 21 x 3	Steel	Cloth Opt.		Pair 850.00
	Beovox 4500	Bass Ref.	5			1	Dome	1 1	+ 4,-8 75-20 + 4,-8	87	20	3.5k	8/8	8 x 15 x 3	Steel	Opt.	25	Each 350.00
B-I-C AMERICA	Venturi V12	Powered Subwoof.	12						28-120 ± 3	91	Inc.	85	8/8	21 x 17 x 19	Black	Black	40	Pair 600.00 Each;
	Venturi V52	Tuned Port	5			1/2	Dome		60-20	90	5	5k	8/	11 x 7 x 7	Dak	Black	9	w/o Amp, 329.00 165.00
	Venturi V52 Plus	Ctr. Ch.	(2)51⁄4			1/2	Dome		±3 55-20 ±3	90	5	5k	8/7	7 x 18 x 11	Black	Knit Black	13	Pair 159.00
	Venturi V52S	Tuned Port	5			1/2	Dome		60-20 ± 3	90	5	5k	8/	11 x 7 x 7	Black	Black Knit	9	Each 85.00 Each
	Venturi V62A	Venturi Vented	6	1		3/4	Dome		50-20 ±3	91	10	4.5k	8/	14 x 8 x 9	Dak	Black	14	219.00 Pair
	Venturi V620A Venturi V820A	Venturi Vented Venturi	6			3/4	Dome Dome		49-20 ±3	90 91	10	3k	8/	22 x 9 x 11	Dak	Black Knit	1.000	329.00 Pair
	Venturi V630A	Vented Venturi	6	6	Cone	1	Dome		40-22 ±3 45-22	90	15 15	2.5k 800,3k	8/	26 x 10 x 11 34 x 9 x 11	Oak Oak	Black Knit Black	27	439.00 Pair 599.00
	Venturi V830A	Vented Venturi	8	6	Сопе	1	Dome		±3 38-22	91	20	800,3k	8/	40 x 10 x 11	Dak	Knit Black	45	Pair 799.00
	Realta	Vented Venturi Vented	(2)10	(2)51⁄4	Cones	1	Dome		±3 20-27	90	30	20,3k	4/3.5	53 x 12 x 15	Opt.	Knit Black	87	Pair 1199.00
	Muro M-5	In-Wall	5			1/4	Dome		60-21 ±4	90	5	5k	8/	11 x 7 x 3	White	Knit White	3	Pair 169.00
	Muro M-6	In-Wall	6			1	Dome		50-22 ± 4	90	5	4.5k	8/	12 x 8 x 3	White	Metal White Metal	5	Pair 219.00 Pair
BOSE	901 VI	Ac. Matrix	(9)41/2								10		8/	21 x 13 x 13	Wal.	Brown Knit	35	1499.00 Pair
	601 III	Ported	(2)8		, i	(4)3	Cones				10		8/	12 x 12 x 30	Wal.	Brown	45	w/EQ 999.00
1.00	501 IV	Ported	10			(2)3	Cones				20		8/	16 x 14 x 25	Wal. Vinyl	Knit Brown Knit	40	Pair 699.00 Pair
	401 301 III	Ported Slotted	(2)6			2	Cone				10	2-1	4/	12 x 12 x 30	Opt., Vinyl	Opt., Knit	31	599.00 Pair
	201	Port	8 6		ĺ	(2)3 2	Cones Cone				10 10			11 x 17 x 10	Opt.	Opt.	16	369.00 Pair
	10.2	Port Acousti-	8	8	Cone	(2)2	uune				10		8/	8 x 15 x 9 39 x 12 x 12	Opt. Teak	Opt. Brown	10 46	229.00 Pair 1299.00
	6.2	mass Ported Ported	8			(2)3	Cones				10	•	4/		Ven.	Cloth		Pair
	4.2 11	Slotted	8			(2)3	Cones				10		•	20 x 10 x 10 11 x 17 x 10	Teak Ven. Opt.	Brown Knit Opt.	93⁄4 16	599.00 Pair 369.00
	2.2 11	Port Slotted Port	6			2	Cone				10			8 x 15 x 9	Opt.	Opt.	10	Pair 229.00
	Acoustimass 7 Home Theater	Home Th.; Acousti-	(2)6			(6)2	Cones				10			Four Pieces	Black	Black	31	Pair 999.00
=	System Acoustimass 5 II System	mass Sat. & Acousti-	(2)51⁄4			(2)21/2	Cones				10		6/	Three Pieces	Opt.	Opt.	Sys. 33 Sys.	Sys. 799.00 Sys.
	Acoustimass 4 Home Theater System	mass Subwoof. Home Th.; Acousti- mass;	51⁄4			(3)2½	Cones				10		6/	Four Pieces	Opt.	Opt.	17 Sys.	599.00 Sys.
	Acoustimass 3 II System	3 Sats.& Subwoof. Sat. & Acousti- mass	51⁄4			21/2	Cone				10	e i	6/	Three Pieces	Opt.	Opt.	15 Sys.	499.00 Sys.
	Freestyle	Subwoof. Ported	41/2								10		6/	10 x 6 x 6	Opt.	Opt.	5	339.00
	100	Ported	41/2								10		8/	6 x 11 x 6	Opt.	Opt.	4	Pair 199.00
	101 Music Monitor	Ported	41/2			i ii					10		4/	6 x 9 x 5	Opt.	Opt.	5	Pair 219.00 Pair
	121 Mobile Monitor	Ported	41/2								10		4/	6 x 9 x 6	Black	Black Metai	5	249.00 Pair
	151 VS-100	Outdoor; Ported Tuned	41/2 41/2	[							10		8/	6 x 9 x 6	Opt.	Opt., Steel	4	299.00 Pair
	Acoustimass 3	Port Powered	6			(2)2	Cones				10 Inc.		8/	9 x 6 x 6 Three Pieces	Black Opt.	Black Cloth	5½ 25	129.00 Each 799.00
	Powered System	Sat. & Acousti- mass													<b>.</b>		Sys.	Sys.
(Continued)		Subwoof.						_							1			



#### DYNAMIC BALANCE. SEE IT IN PICTURES BEFORE YOU HEAR IT IN PERSON.

Before we could design and build speakers as sophisticated as the new LS Series, we had to design and build a whole new way to "look" at speakers.

At Johns Hopkins' Center for Non-Destructive Evaluation, a joint Polk/Hopkins team created a new Full-Field, Quasi-heterodyne, Laser Interferometry test. Much more useful than pronounceable, it allowed us for the first time to take a full-field hologram "snap shot" of microscopic forms of distortion generated by speaker materials themselves.

In the LS Series, the manifestation of Dynamic Balance<sup>™</sup> is brilliantly executed with the addition of aramid fibers to the cone, insuring that music, not unwanted resonance, literally jumps off the cone.

Through a new patented process known as vapor deposition, we formed a trilaminate tweeter dome of aluminum, stainless steel, and polyamide. This turned out to be quite the musical combo, providing all the listening ease of soft domes with the superb liveliness of metal domes.

Styling in the LS Series is not only breathtaking, it is highly functional. The slim, tapered cabinet design belies its technological contribution. The angled sides break up standing waves inside the cabinet, so detrimental to midrange performance. At the same time, this design feature also enhances the stereo presentation dramatically.

All LS Series speakers are available in a striking, gloss rosewood laminate. The LS50 and L70 are also offered in oak laminate with the LS90 available in natural Oak.

And each one of them is Dynamically Balanced.

Our pictures prove it. And so will your ears at your Polk Dealer.

## THE NEW LS SERIES FROM THE SPEAKER SPECIALISTS OF





For Dealer Location

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BOSI (Continued)	Acoustimass 5 Powered System	Powered Sat. & Acousti- mass	(2)6			(4)2½	Cones				Inc.			Three Pieces	Opt.	Opt.	43 Sys.	10 <mark>99.00</mark> Sys.
	Lilestyle	Subwoof. Powered	41/2								Inc.		- 1	6 x 9 x 6	Opt.	Opt.	6	339.00 Pair
	RoomMate II System	Powered	41/2								Inc.			7 x 10 x 7	Black	Black Alum.	6	339.00 Pair
	Video RoomMate	Powered	41/2								Inc.			6 x 9 x 6	Gray	Black Cloth	6	339.00 Pair
	System RoomMate Computer Monitor	Powered	4½								Inc.			6 x 9 x 6	White	White Cloth	51/2	339.00 Pair
BOSTON	Surround Satellites	Ac. Sus. Rear Ch.		4	Cone	3/4	Dome		120-20 ±3	89	15	4.5k	8/	9 x 5 x 5	Opt.	Perf. Steel	51/2	200.00 Pair
	555x THX	THX; Ac. Sus.	(2)51/4			(2)1	Domes		80-20 ±3	90	15	3k	8/	18 x 11 x 8	Black Ash	Black Knit	24 01/2	300.00 Each
	575x THX	THX; Ac. Sus. Dipole	51⁄4			(2)21/2	Cones		125-20 ±3	85	15	350	8/	12 x 8 x 5	Opt.	Black Knit	9 <sup>1</sup> / <sub>2</sub>	250.00 Each
	595x THX	THX; Subwoof.	12	E1/.	Cana		Domo		20-80 ±3 32-35	85 85	100	125,2.6k	8/	19 x 18 x 19 Four Pieces	Black	Black Knjt Błack	60 100	500.00 Each 5000.00
	Lynnfield Series 500L	Ac. Sus. Sat. & Subwoof.	(2)6½	51⁄4	Cone	1	Dome		32-35 ±3	03		123,2.0K	5/3	TOM FICCES	Opt., Wood	Knit	100	Pair
	Lynnfield Series 300L	Ac. Sus.	51⁄4			1	Dome		50-35 ±3	83		2.6k	8/6.5	11 x 9 x 14	Opt., Wood	Błack Knit	24	2000.00 Pair
	T1030	Ac. Sus.	(2)8	61/2	Cone	1	Dome		40-20 ±3	90	15	250,2.5k	8/	43 x 10 x 12	Opt. Opt	Black Knit Black	65 50	1000.00 Pair 750.00
	T930 II	Ac. Sus.	10 8	6½ 3½	Cone	1	Dome Dome		42-20 ±3 45-20	90 88	15 15	350,2.5k 800,4k	8/ 8/	37 x 11 x 12 33 x 10 x 10	Opt., Vinyl Opt.,	Black Knit Black	50 40	Pair 550.00
	T830 HD10	Ac. Sus. Pas. Rad.	° 10	5 1/2 6 <sup>1</sup> /2	Cone Cone	1	Dome		±3 40-20	90	15	2.5k	8/	24 x 13 x 10	Vinyl Opt.,	Knit Błack	26 <sup>1</sup> /2	Pair 440.00
40 <sup>1</sup>	НД9	Pas. Rad.	8	61/2	Cone	1	Dome		±3 48-20	90	15	2.8k	8/	21 x 11 x 8	Vinyi Opt.,	Knit Black	18	Pair 340.00
	HD8	Ac. Sus.	8			1	Oome		±3 52-20	90	10	3k	8/	18 x 11 x 8	Vinyl Opt.	Knit Black	16	Pair 250.00
	HD7	Ac. Sus.	7			3/4	Dome		±3 52-20	90	10	3k	8/	14 x 9 x 7	Vinyl Opt., Vinyl	Knit Black Knit	10	Palr 200.00 Pair
	H05	Ac. Sus.	51/4	ļ		3⁄4	Dome		±3 65-20 ±3	89	5	3.5k	8/	10 x 6 x 7	Opt., Vinyl	Black Knit	61/2	150.00 Pair
	380	In-Wall	8	1		1	Dome		48-20 ±2	90	5	2.7k	8/	10 x 13 x 4	Matte White	White Perf.	6	500.00 Pair
	360 Series II	in-Wali	61⁄2			1	Dome		58-20 ±2	90	5	3k	8/	11 x 8 x 3	Matte White	Steel White Perf.	4	400.00 Pair
	350	in-Wall	51⁄4			1	Dome		68-20 ±2	90	5	3.5k	4/	10 x 7 x 3	Matte White	Steel White Perf.	3	3 <mark>00.00</mark> Pair
	325	In-Wall	51⁄4			3/4	Dome		68-20 ±3	90	5	3.5k	8/	7 x 7 x 2	Matte White	Steel White Perf. Steel	2	200.00 Pair
	305	in-Wall	51⁄4						68-17 ±3	90	5		8/	7 x 7 x 2	Matte White	White Perf. Steel	2	130.00 Pair
	SubSat 6 Series II	Sat. & Subwoof.	(2)6½	4	Cone	3/4	Dome		46-20 ±3	89	15	150,4.5k	8/	Three Pieces	Opt.	Perf. Steel	30 Svs.	500.00 Sys.
	SubSat 7	Subwoor. Sat. & Subwoof.	(2)7	4	Cone	1	Dome		41-20 ±3	89	15	150,2.5 k	8/	Three Pieces	Opt.	Perf. Steel	Sys. 40 Sys. 49	750.00 Sys.
	SW10	Powered Subwoof.	10					W	34-95 ±3		Inc.	90		20 x 11 x 16	Black Ash	Black	49	600.00 Each
	404v	Ctr. Ch. Ac. Sus.	(2)4						100-20 ±3	90	5		8/	5 x 17 x 6	Vinyi Black Ash Vinyi	Black Knit	8	129.00 Each
1.1	424v	Ctr. Ch. Pas. Rad.	4			3/4	Dome		88-20 ±3	90	5	3.5k	8/	5 x 17 x 6	Black Ash	Black Cloth	9	179.00 Each
	525v	Ctr. Ch. Pas. Rad.	51⁄4			3/4	Dome		65-20 ±3	90	5	3.5k	8/	6 x 18 x 6	Vínyi Black Ash Vinyi	Black Cloth	10	249.00 Each
	PV300	In-Floor Subwoof.	(2)61/2						45-140 ±3	89	15	140	8/	7 x 13 x 24	Vinyl Black	l.	21	400.00 Each
	Voyager	Indoor/ Outdoor	51⁄4			1	Dome		65-20 ±3	89	5	3k	8/	10 x 6 x 7	White Lexan	Perf. Steel	6	400.00 Pair
	RunAbout II	Ac. Sus. Indoor/ Outdoor	41/2			3/4	Dome		90-20 ±3	89	5	3.5k	8/	9 x 6 x 6	White	Perf. Steel	6	250.00 Pair
	RunAbout	Ac. Sus. Indoor/ Dutdoor	41/2						100-17 ±3	89	5		8/	9 x 6 x 6	White	Perf. Steel	6	200.00 Pair
BOZAK	Grand	Ac. Sus. Pas. Rad.	(4)6	(2)5	Cones	1	Dome		28-20 + 1,-2	93	40	200,2k	8/	31 x 16 x 48	Wood	Opt., Knit	180	5000.00 Pair
LABORATORIES	Symphony II	Pas. Rad.	(2)8	(2)5	Cones	1	Dome		31-20 +1,-2	92	20	225,2k	6/	25 x 15 x 44	Ven. Opt., Wood		130	3600.00 Pair
(Continued)	Concerto II	Pas. Rad.	(2)6	5	Cone	1	Dome		35-20 + 1,-2	91	20	250,2.5k	6/	22 x 15 x 40	Ven. Opt., Wood Ven.	Opt., Knjt	105	2600.00 Pair



## We've turned a visual medium,



## into an audio extra large.

You've never heard anything like this.

With Sensurround" Home Theater you won't just



be surrounded by sound, you'll be

enveloped, involved, and like never

before, entertained. Cerwin-

Vega originally designed

Sensurround (with MCA\*) to

bring deep bass into movie

houses. Now we can bring it



Sensurround HomeTheater **Speaker Systems** 

{Winner Of The 1992 Design And Engineering Award} into your house. Our 5-piece speak-

er system for direct-view televisions

(pictured here) and 7-piece system for projection

TVs give you extremely high sensitivity and uide

Not to mention, a tub cf Orville

Redenbacher's" and a ticket booth.

Cerwin-Vega Sensurround. It makes big screen tele-



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dynamic range (both exceed 90 decibels). As a re-

sult, you'll feel violent explosions as well as violin

solos. On that note. Sensurround

speakers are well-suited to music.



So you don't need separate speakers for audio and video. WF at you will need is an AV

receiver with Dolby Pro Logic®

and a fairly large screen TV.



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BOZAK AUDIO	Rhapsody II	Vented	8	5	Cone	3/4	Dome		38-20 + 1,-2	90	10	300,3k	8/	19 x 12 x 38	Opt., Wood	Opt., Knil	80	1900.00 Pair
LABS (Continued)	Sonata	Vented	8	5	Cone	3⁄4	Dome		40-20 + 1,-2	90	10	300,3k	8/	19 x 11 x 26	Ven. Opt., Wood	Opt., Knit	55	1400.00 Pair
	1	Tuned	61⁄2			1	Dome		57-18	87	10	2.5k	8/	15 x 10 x 8	Ven. Opt., Vinyl	Black Knit	22	395.00 Pair
	2	Port Tuned Port	8			1	Dome		45-18	89	10	2.2k	8/	24 x 12 x 14	Opt., Vinyl	Black Knit	36	545.00 Pair
	3	Tuned	8			1	Dome		40-20	88	20	1.7k	8/	37 x 12 x 14	Opt., Vinyl	Black Knit	65	795.00 Pair
	4	Tuned	<mark>(2)</mark> 8			1	Dome		35-20	89	30	400,1.7k	5/	42 x 12 x 15	Oak Ven.	Black Knit	85	1295.00 Pair
BRIGHT STAR	Altair Pro	Dipole	10	5	Cone	1,1½	Dome,	No	32-20	89	40	400,3.15k	6/3	20 x 12 x 30	Sim. Gran.	Black Cioth	68	2450.00 Pair
AUDIO	Altair	Dipole	10	5	Cone	1,¾	Ribbon Domes	No	±3 44-24	88	20	450,3.15k	6/3	20 x 12 x 28	Sim. Gran.	Black	40	1150.00 Pair
	Shadow	Corner Loading	8			1	Dome	No	±3 50-24	87	15	2.6k	6/5	18 x 9 x 15	Sim. Gran.	Black	17	499.00 Pair
B&W	V201	Vented	6		-	3/4	Cone		66-20	90	25	2.5k	4/	14 x 8 x 8	Black	Black	9	200.00
	V201	Vented	8			1	Dome		±3 48-20	90	25	2.5k	4/	20 x 10 x 9	Black	Knit Black	121/2	Pair 300.00
	DM600	Sealed	6			1	Dome		±3 80-20	87	30	2.5k	8/4	14 x 8 x 10	Black	Knit Black	10	Pair 350.00
	DM610	Sealed	8			1	Dome		±2 70-20	89	30	2.5k	8/4	20 x 10 x 12	Black	Knit Black	17	Pair 500.00
	DM620	Sealed	8			1	Dome		±2 58-20	90	25	3k	8/4	30 x 10 x 12	Black	Knit Black	31	Pair 800.00
	DM630	Vented	8	8	Cone	1	Dome	1	±2 53-20	91	25	400,3k	8/4	34 x 9 x 16	Wal. Black	Knit 8lack	42	Pair 1100.00
	DM640	Vented	(2)8	5	Cone	1	Dome	1	±2 46-20	91	25	300,3k	8/4	38 x 9 x 16	Wal. Black	Knit Black	53	Pair 1500.00
	Matrix 805	Vented	61⁄2			1	Dome		±2 45-20	87	50	3k	8/ <mark>4</mark>	13 x 13 x 8	Wal. Black	Knit Opt.,	19	Pair 1600.00 Pair
1000	Matrix 804	Vented	61/2	61⁄2	Cone	1	Dome		±2 31-20 ±2	89	50	150,3k	.8/4	36 x 10 x 10	Wal. Black Wal.	Knit Opt., Knit	43	Pair 2200.00 Pair
	Matrix 803 Series 2	Vented	(2)61⁄2	61/2	Cone	1	Dome		25-20 ±2	90	50	150,3k	8/4	40 x 10 x 13	Black Wal.	Opt., Knit	59	3000.00 Pair
-	Matrix 802 Series 3	Vented	(2)8	4	Cone	1	Dome		27-20 ±2	90	50	400,3k	8/4	41 x 12 x 15	Black Wal.	Opt., Knit	70	4000.00 Palr
	Matrix 801 Series 3	Vented	12	4	Cone	1	Dome		20-20 ±2	87	100	380,3k	8/4	40 x 17 x 22	Black Wal.	Opt., Knit	119	5500.00 Pair
	Matrix 800	Vented	(2)12	(2)4	Cones	11/2	Dome		20-20 ±2	93	150	380,800, 3k	4/	75 x 20 x 23	Black Wal.	Black Knit	240	15,000. Pa <del>i</del> r
	CWM5	in-Wall	5			3/4	Cone		75-20 ±3	89	20	2.5k	8/4	9 x 6 x 3	White	White Metal		300.00 Pair
	CWM6	In-Wall	6			1	Dome	-	45-20 ±3	89	20	2.5k	8/4	12 x 8 x 3	White	White Metal		400.00 Pair
	CWM8	In-Wall	8			1	Dome	T	35-20 ±3	90	20	2.5k	4/	14 x 11 x 3	White	White Metal		600.00 Pair
	TC-1	Auto Damping	8,10	51/4	Cone	1,2	Dome, Cone	M,T		87	25	250,3.5k, 8k	8/6.5	24 x 15 x 11	Diled Wal.	Brown Cloth	44	1195.00 Pair
	Mobile Monitor One	Auto Damping	(2) <mark>5<sup>1</sup>⁄4</mark>			1	Dome	T		87	15	2.5k	8/	14 x 8 x 8	Oiled Wal.	Brown Cloth	15	595.00 Pair
	TC-2	Auto Damping Subwoof.	8,10					W	20-125	87	25	125	8/	24 x 15 x 11	Oiled Wal.	Brown Cloth	40	650.00 Pair
CALIBRATION STANDARD	MOM-4	Ported	(2)61/2			31/2	Cone	-	60-17 ±3	89	15	1.5k	8/5	19 x 13 x 10	Rswd. Lam.	Brown Cloth	25	1490.00 Pair
INSTRUMENTS	MDM-TA2	Time Align	61/2	21/	0	3/4	Dome	T	60-20 ±3	87	15	2.5k	8/5	16 x 12 x 9	Rswd. Lam.	Alum.	20	1490.00 Pair
8× 8 · · ·	MDM-TA3	Time Align	(2)61/2	31/2	Cone	3⁄4	Dome	M,T	45-20 ±3	91	15	1.8k,7k	8/4	19 x 16 x 12	Rswd. Lam.	None Black	35 35	1990.00 Pair 1290.00
	B8/70 B18	ELF Subwoof. ELF	8						30-100 ±1 16-100	91 97	100 300	100	8/4 8/6	16 x 19 x 12 20 x 20 x 12	Black Lam. Black	Cloth	55 60	Pair 1990.00
		Subwoof.		-					±1	3/					Lam.	Cioth	00	Pair
CALRAD	20-337	In-Wall	8			1	Dome		30-20		60	2.5k	8/8	14 x 4 x 10	White	White		190.00 Pair
	20-330	in-Wail	51/4			5/8	Dome		50-20		35	3k 2 54	8/	8 x 11	White	White		79.00 Pair
	20-335	in-Wall	6	2		1	Dome		40-20		50	2.5k	8/	9 x 12 8 x 4 x 4	White	White		125.00 Pair 35.00
	20-318	Outdoor	4	2		1	Dome Dome		50-18 50-20		30 30	6.5k	4/ 8/	8 x 4 x 4 8 x 4 x 4	Opt. White	Opt. White		35.00 Each 50.00
0.4.4.0				<b>İ</b>			L				1	24					491/	Pair
CAMBER	1.0ti	Bass Ref.	61/2			3/4	Dome		60-20 ±3	86	10	3k	8/7	15 x 9 x 12	Black Ash Vinvl	Black Knit	171/2	399.00 Pair
a second s	2.0ti	Bass Ref.	61/2			3/4	Dome		55-20 ±2	86	10	2.6k	8/7	17 x 9 x 12	Vinyl Text. Black	Black Knit	20	499.00 Pair
	3.0tl	Bass Ref.	87⁄8			3/4	Dome		± 2 50-20 ± 2	87	15	2.7k	8/6	20 x 11 x 12	Lacq. Text. Black	Black	29	599.00 Pair
	3.5ti	Bass Ref.	87/8			3/4	Dome		45-21	87	15	2.5k	8/6	25 x 11 x 12	Lacq. Text.	Black	35	799.00
(Continued)									±2						Black Lacq.	Knit		Pair
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Digital music sources and home theater have heated up the home entertainment scene. To meet the challenge, the all-new Infinity Reference Standard



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CAMBER (Continged)	4.5ti	Bass Ref.	(2)61/2			3⁄4	Dome		40-21 ±2	89	20	2.6k	8/6	38 x 9 x 12	Text. Black	Black Knlt	44	999.00 Pair
	LS1 AV	Ac. Sus.	61⁄2			1/2	Dome		60-20 ±3	86	10	3k	8/7	12 x 8 x 9	Lacq. Black Ash	Black Knit	15	269.00 Pair
	L\$3	Bass Ref.	61⁄2			1/2	Dome		60-20 ±3	86	10	3k	8/7	16 x 8 x 9	Vinyl Black Ash Vinyl	Black Knit	17	249.00 Pair
	L\$7	Bass Ref.	8			3⁄4	Dome		40-22 ±3	87	10	2.8k	8/7	24 x 10 x 11	Black Ash Vinvl	Black Knit	35	499.00 Pair
	LS9 MKII	Bass Ref.	(2)6½			3⁄4	Dome		40-22 ±3	89	15	2.7k	8/6	37 x 8 x 12	Black Ash Vinyl	Black Knit	50	699.00 Pair
	LS Sub	Bass Ref. Subwoof.	8						20-120	86	10	120	8/6	24 x 12 x 10		Black Knit	35	499.00 Pair
	SC300	Bass Ref.	61⁄2			1/2	Dome		60-20 ±3	86	10	3k	8/7	16 x 8 x 9	Black Ash Vinyl	Black Knit	17	249.00 Pair
	SC700	Bass Ref.	8			3⁄4	Dome		20-10 ±2	87	10	2.8k	8/6	24 x 10 x 11	Black Ash Vinyl	Black Knit	35	499.00 Pair
	SC900	Bass Ref.	8			3/4	Dome		80-10 ±2	89	15	2.7k	8/6	37 x 8 x 12	Black Ash Vinyl	Biack Knit	50	699.00 Pair
CAMBRIDGE Physics	G-711	Vented	61/2			3⁄4	Dome		60-22		8	2.2k	8/5	16 x 12 x 5	Cak	Brown	12	300.00
rntaitea	G-11ii	Vented	8			1	Inv.		±3 38-25		12	1.5k	5/4	19 x 12 x 8	Vinyl Oak	Knit Brown	18	Pair 450.00
	G-3311	Pas. Rad.	8			1	Dome Inv.		±2 28-25		15	1.5k	5/4	29 x 18 x 8	Vinyl Dak	Knit Brown	28	Pair 700.00
	G-6611	Vented	(2)8	3	Dome	1	Dome Inv.		±2 23-25		30	400,4k	6/4	44 x 18 x 12	Vinyi Oak	Knit Brown	81	Pair 2000.00
	K-5	Inf. Baf.	5 <sup>1</sup> /4			3⁄4	Oome Dome		±3 70-20	89	10	5.5k	6/	12 x 8 x 7	Cak	Knit Black	18	Pair 225.00
	KW-7	in-Wall	61⁄2			1	Dome		40-20		8	2.5k	8/	12 x 9	White Plast.	Cioth White Perf. Metal		Pair 300.00 Pair

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Your ears have an amazing memory, which is why you seek a loudspeaker that's as unforgettable as live music. Had nature intended sounds to travel only forward; acoustics would be a simple science. Unlike conventional speakers, Mirage's M-si Series Bipolar loudspeakers set the music free over a full 360 degrees. It's only natural.

Because what defines the sound of music is as much the physical space surrounding them as the instruments themselves. In reproducing music, a loudspeaker must place you, the audience, in that space. Mirage's Bipolar speakers do just that. But before you audition the M-si Series at your Mirage dealer, take in a live concert or two. Then you can experience for yourself just how unforgettably life-like the M-si's really are.

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**MIRAGE LOUDSPEAKERS** 

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CAMBRIDGE	Eleven A	Powered	1	3	Cone	3/4	Dome	<u> </u>	<u> </u>		Inc.	200,2.2k	(	Suitcase	Black	Black	23	699.00
SOUNDWORKS	Flower	Downstad			6	3/4	Dama					200 2 21	-	System	<b>C</b>	Metal	Sys.	Sys. w/Amp
	Eleven Stationary	Powered Ac. Sus. Sat. &	7	3	Cone	74	Dome				Inc.	200,2.2k	1	Three Pieces	Gray, Black	Black Metal	36 Sys.	649.00 Sys.
	Ensemble	Subwoof. Ac. Sus.	(2)8,4			13/4,5/8	Dome,	No		85	25	140,1.9k	6/	Four Pieces	Opt.	Black	52	599.00
		Sat. & Subwoof.				A1/ E/	Cone									Metal	Sys.	Sys.
	Ensemble II	Ac. Sus. Sat. & Subwoof.				13/4,5/8	Dome, Cone	No		85	25	140,1.9k	6/	Three Pieces	Opt.	Black Metal	36 Sys.	399.00 Sys.
	Ensemble Utility	Ac. Sus. Sat. &	(2)8,4			13⁄4,5⁄8	Dome, Cone	No		85	25	140,1.9k	6/	Four Pieces	Nxtl., Vinyl	Black Metal	52 Sys.	499.00 Sys.
	Ambiance	Subwoof. Ac. Sus.	61/2			1	Dome	No		83	20	1.8k	8/	7 x 11 x 5	Opt.	Black	10	From
	Ambiager	- 14'-''	e1/				Decre							0 40 - 4		Metal		350.00 Pair
	Ambiance In-Wall Ten	Ac. Sus. Ac. Sus. Ac. Sus.	6½ 3			1 3/4	Dome Dome	No		83 83	20 10	1.8k 2.2k	8/	8 x 12 x 4 4 x 7 x 3	Nxti.	Metal	9	329.00 Pair 150.00
	Six	AC. SUS. Ac. Sus.	8			94 13/4,5/8	Cone,	10		83 90	15	2.2k	4 8/6.5	4 x / x 3 18 x 11 x 7	Opt.,	Black Metal Gray	3 19	Pair 238.00
	Surround	Dipole	4			(2)21/2	Dome Cones						8/	8 x 5 x 6	Wood Nxtl.	Knit Black		Pair 399.00
	Surround II	Dipole	31/2			21/2	Cone						8/	5 x 7 x 5	Nxtl.	Metal Black		Pair 249.00
	Powered Subwoofer	Powered Ac. Sus.	12					w			140 Inc.	60,80, 100,140		27 x 16 x 10	Black	Metal Black Metal	56	Pair 599.00 Each
	Slave	Subwoof. Ac. Sus.	12									(Sel.)		27 x 16 x 10	Black	Black	53	299.00
	Subwoofer Center	Subwoof. Ctr. Ch.										2k		25 x 7 x 4	Black	Metal	12	Each 219.00
	Channel Pius Center Channel	Ac. Sus. Ctr. Ch. Ac. Sus.										2k		8 x 5 x 5	Nxti.	Black	5	Each 149.00
CANTON	AV 500	Bass Ref.	(2)4	-		1	Dome		40-30	88		3k	4/	17 x 5 x 6	Opt.	Metal Opt.,	10	Each 400.00
	AV 950	Bass Ref.	(2)7			1	Dome		26-30	88		2.8k	4/	9 x 20 x 10	Opt.	Metal Opt.,	25	Each 700.00
	Patio 160	Outdoor Ac. Sus.	6		1	ĺti ⇒	Dome		42-30	87		2.5k	4/	7 x 11 x 5	Opt.	Metal Opt., Metal	8	Each 450.00 Pair
	Combi 24 DC System	Ac. Sus. Sat. &	(2)8	(2)4	Cones	(2)1	Domes		22-30	88		120,2.5k	4/	Three Pieces	Opt.	Opt., Metal	37 Sys.	995.00 Sys.
	0	Bandpass Subwoof.		2														
	Combi SC	Bass Ref. Sat. & Subwoof.	9	4	Cone	1	Dome		22-30	86		120,3.3k	4/	Three Pieces	Opt.	Opt., Metal	25 Sys.	1500.00 Sys.
		w/Active EQ																
	HC 100	Ac. Sus.	4			1	Dome		48-30	87		1.7k	4/	5 x 8 x 6	Opt.	Opt., Metal	5	300.00 Pair
	Plus S	Ac. Sus.	4			1	Dome		45-30	87		2.2k	4/	8 x 5 x 4	Opt.	Opt., Metal	6	350.00 Pair
- je	Plus X Plus F	Ac. Sus. Ac. Sus.	4 <sup>1</sup> /2			1	Dome Dome		45-30 48-30	87 87		2.5k 2.5k	4/	5 x 8 x 5 7 x 11 x 3	Opt. Opt.	Opt., Metal	6 5	375.00 Each 400.00
	Plus D	Bass Ref.	6			1	Dome		40-30	88		2.5k	4/	7 x 11 x 7	Opt.	Opt. Metal Opt.,	9 9	400.00 Pair 500.00
	Plus C	Ac. Sus.	12						22-120	89		120	4/	14 x 14 x 13	Opt.	Metal Opt.,	26	Pair 600.00
	Plus E	Subwoof. Ac. Sus.	12						18-120	91		120	4/	22 x 14 x 14	Opt.	Metal Opt.,	60	Each 1000.00
	Plus Alpha 1	Subwoof. Powered Ac. Sus.	12					W	20-120			60-120 (Var.)	4/	13 x 15 x 15	Opt.	Metal Opt., Metal	40	Each 1100.00 Each
	Fonum 251	Subwoof. Bass Ref.	6		Į.	1	Dome		42-26			3.2k	4/	8 x 12 x 8	Black	Biack	10	329.00
	Fonum 301	Bass Ref.	8			1	Dome		38-26			3k	4/	9 x 14 x 9	Vinyl Black	Metal Black	13	Pair 439.00
	Fonum 401	Bass Ref.	9			1	Dome		35-26			3k	- 4/	10 x 17 x 10	Viny) Black	Metal Black Metal	18	Pair 549.00 Pair
	Fonum 501	Bass Ref.	8			1	Dome		30-26			3.2k	4/	10 x 32 x 11	Vinyi Black Vinyi	Metal Black Metal	34	Pair 829.00 Pair
	Fonum 601	Bass Ref.	8	8	Cone	1	Dome		25-26			300, <mark>3k</mark>	4/	10 x 35 x 11	Black Vinyl	Black Metal	40	1139.00 Pair
	Fonum 701	Bass Ref.	(2)8	6	Cone	1	Dome		20-26	87		300,3.5k	4/	10 x 39 x 12	Black Vinyl	Black	49	1549.00 Pair
	inwali F inWali P	In-Wall Ac. Sus. Outdoor,	4			1	Dome Dome		48-30 42-30	87 87	-	2.5k 2.5k	4/	7 x 11 x 3 7 x 11 x 5	White White	White Metal White		500.00 Pair 550.00
		in-Wall Ac. Sus.					50116		42-30	37		2.JK		7 8 11 8 9	**1116	Metal		Pair
	inWail D	in-Wall Ac. Sus.	6			1	Dome		41-30	88		2.5k	4/	7 x 11 x 7	White	White Metal		650.00 Pair
	Inwall 6	In-Wall Inf. Baf.	6			1/2	Dome		45-22	89		2.5k	8/	7 x 7 x 3		Opt.	5	450.00 Pair
	Inwall 9 Karat 920 DC	In-Wali Inf. Baf. Bass Ref.	9			1	Dome Dome		34-22 36-30	89 91		2.5k 2.8k	8/ 4/	10 x 10 x 3 9 x 13 x 9	Opt.	Opt.	7 12	600.00 Pair 750.00
(Continued)		unes (10).	ľ			Ľ .	50116		00-00	31		L.OR	-	3 10 1 3	- Ομι.	Opt., Metal	14	Pair

# MC In-Wall Loudspeakers

Music Brings A Room To Life.



#### Relax,

You don't have to sacrifice needed floor space with conventional loudspeaker cabinets to get quality audio performance reproduced in your home.

Introducing rich tull-range audio performance from MTX InWall Loudspeakers. MTX InWalls actually flush mount into the walls of your home making spacesaving, architechtural sound a practical reality for serious music lovers.

To ensure durability, MTX InWalls are ruggedly engineered and manufactured to withstand and resist moisture, dust and temperature changes. MTX InWall speakers are extremely versatile. You can leave MTX InWalls white, or easily paint or wallpaper them to match your home's decor. They are available in a range of sizes and configurations to fit any wall or room.

You can use MTX InWalls in your main listening room, or to supply foreground, background, front or rear surroundsound in your home theater. MTX InWalls feature driver-specific crossover components that allow polypropylene woofers to produce deep, powerful bass while ferrofluid cooled soft dome tweeters provide smooth, clean high frequency clarity and detail.

Check out MTX's complete line of InFloor subwoofers and electronics to perfectly complement your InWall speakers.

For more information, specs, or the name of the authorized MTX dealer nearest you, call us at 815-232-2000 or write to us at MTX 555 West Lamm Road, Freeport, IL 61032. In Canada call SCL Products at 604-273-1095(B.C.) or 416-890-0298(Ont.).

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CANTON (Continued)	Karat 930 DC Karat 950 DC	Bass Ref.	9			1	Dome		30-30	36		2.04	4/	10 x 17 x 10	Opt.	Opt., Metal	22	1000.00 Pair
	Karat SC	Bass Ref. Bass Ref.	7 8			1	Dome		26-30	88		2.8k	4/	9 x 20 x 10	Opt.	Opt., Metal	24	1250.00 Pair
	Narat 60	w/Active EQ				1	Dome		22-30	86		3k	4/	9 x 13 x 10	Opt.	Opt., Metal	19	2000.00 Pair
	ERGO 70 DC	Bass Ref.	6¼	61⁄4	Cone	1	Dome		25-30	88		300,3.5k	4/ =	8 x 35 x 10	Opt.	Opt.,	38	1750.00
	ERGO 80 DC	Bass Ref.	8	8	Cone	1	Dome		22-30	88		300,3.5k	4/	9 x 37 x 11	Opt.	Metal Opt., Metal	42	Pair 2000.00
	ERGO 90 DC	Bass Ref.	(2)8	6¼	Cone	1	Dome		20-30	88		300,3.5k	4/ 5	10 x 40 x 12	Opt.	Opt., Metai	50	Pair 3000.00 Pair
	ERGO 100 DC	Bass Ref.	(2)9	61⁄4	Cone	1	Dome		18-30	89		300,3.5k	_4/	11 x 45 x 14	Opt.	Opt., Metal	79	4000.00 Pair
	ERGO SC-L	Bass Ref. w/Active	9	6	Соле	1	Dome		18-30	89		800,3.5k	_4/ _	10 x 41 x 12	Opt.	Opt., Fabr,	52	4000.00 Pair
	ERGO 120 DC	EQ Bass Ref.	(2)10	6¼, 1½	Cones	1	Dome		18-30	89.4	1	300,3.5k, 7k	4/	13 x 51 x 17	Opt.	Opt., Metal	110	6000.00 Pair
CARVER	Amazing Loudspeaker	Dipole	(4)12			60	Ribbon	₩,M,	23-40	89	60	120	8/3	30 x 66 x 10	Opt.	Black	115	2899.95
	Platinum MKIV AL-III	Ribbon Dipole	10			48	Ribbon	Ч.М, Т	±3 34-20 ±3	89	100	150	8/3.3	15 x 73 x 17	Opt.	Knit	90	Pair 1699.95 Pair
CASO ADT	TS-S30	Hybrid Sat. & Subwoof.	10	5¼	Cone	3⁄4	Dome		38-20	89	10	200	8/4	Three Pieces	Opt.		37 Sys.	799.95 Sys.
CASCADE AUDIO	2.05	Aperiodic	6 <sup>1</sup> /2			1	Dome	Т	55-20 ±3	87	30	2.6k	8/4	14 x 8 x 14	Oak	Black Knit	28	749.00 Pair
SYSTEMS	3.15 4.25	Aperiodic Aperiodic	61/2	61/2	Cone	1	Dome	M,T	41-20 ±3	89	35	525,2.6k	8/3	39 x 8 x 14	Oak	Black Knit	82	1699.00 Pair
		Aperiodic	10	(2)61/2	Cones	1	Dome	M,T	30-20 ±3	91	40	75,2.9k	8/3	51 x 14 x 24	Oak	Black Knit	125	2699.00 Pair
CASTLE ACOUSTICS	Winchester	Folded Horn	(2)6			1	Dome		35-22	90	30	3k	8/	43 x 10 x 17	Wood Ven.	Black Knit	80	2800.00 Pair
	Trent	Bass Ref.	5			1	Dome	No	70-22	89	10		8/6	13 x 7 x 8	Wood Ven.	Black Knit	8 <sup>1</sup> ⁄2	350.00 Pair
	Warwick	Bass Ref.	6			1	Dome	No	55-22	89	10		8/6	18 x 10 x 10	Wood Ven.	Black Knit	17	450.00 Pair
	Durham	Bass Ref.	6			1	Dome	No	60-22	89	15		8/6	16 x 9 x 9	Wood Ven.	Black Foarn	16½	550.00 Pair
	York Chester	Bass Ref. Bass Ref.	6 8			1	Dome		50-20 ±3	89	25	3.3k	8/6	17 x 9 x 10	Wood Ven.	Black Knit	16	799.00 Pair
						1	Dome		40-20 ±3	87	30	3.3k	8/6	21 x 11 x 12	Wood Ven.	Black Knit	37	1600.00 Pair
CDE	Mini Monitor	inf. Baf.	51/2			1	Dome		50-20	90	20	1.5k	/4	7 x 11 x 9	Lacq. Teak	Black Knit	15	650.00 Pair
	Mini Monitor V Tower I	Inf. Baf.	5½	-	C	1	Dome		50-32	86	20	1.5k	/4	15 x 6 x 9	Lacq. Teak	Black Knit	15	1100.00 Pair
	Mini Tower	Pas. Rad. Inf. Baf.	8 8	7 5½	Cone Cone	1	Dome		40-20	91	20	200,1.5k	/8	8 x 37 x 12	Black Lacq.	Black Knit	47	2900.00 Pair
	& Double Subwoofer	Sat. & Ported Subwoof.			CONE		Dome		22-32	91	40	150,1.5k	4/16	Four Pieces	Black Lacq.	Black Knit	100 Sys.	5400.00 Sys.
	Reference	Inf. Baf. Sat. & Ported Subwoof.	(2)10	(2)51/2	Cones	1	Dome		20-32	90	50	100,1.5k		Four Pieces	Black Lacq.	Black Knit	500 Sys.	37,000. Sys.
£	Colossus	inf. Baf. Sat. & Ported Subwoof.	(2)8, (6)10	61⁄2	Cone	1	Dome		15-32	91	50	65 <b>,300</b> , 1.5k		Four Pieces	Black Lacq.	Black Knit	1100 Sys.	55,000. Sys.
CELESTION	AVC-1	Ctr. Ch.	(2)31/2			1	Dome		77-20		10	2.5k	6/	5 x 13 x 6	Gray	Black	-	179.00
	AVS-1	Powered Subwoof.	8					w	30-120		75	Var.	8/	20 x 15 x 10	Text. Gray	Knit		Each 399.00
	AV2	Bass Ref.	4			1	Dome		63-20		inc. 10	4k	8/	11 x 6 x 8	Text. Gray	Black		Each 229.00
	AV4	Bass Ref.	5			1	Dome		61-20		20	4k	8/	13 x 7 x 9	Gray	Knit Black		Pair 329.00
	AV6	Bass Ref.	(2)5			1	Dome		44-20		20	800,4k	8/	33 x 7 x 11	Text. Gray	Knit Black		Pair 699.00
	AV8	Bass Ref.	(2)5	41/2	Cone	1	Dome		41-20		20	500,1k,4k	8/	39 x 8 x 11	Text. Gray	Knit Black Knit		Pair 799.00 Pair
	1	Bass Ref.	4			1	Dome		68-20 ±3	89	10	6.4k	8/	10 x 6 x 7	Text. Opt.	Knit Black Knit	8	Pair 199.00 Pair
	3 MK II	Bass Ref.	5			1	Dome		52-20 ±3	88	10	5k	8/	12 x 7 x 9	Opt.	Black Knit	9	Pair 289.00 Pair
	5 MK II	Bass Ref.	6			1	Dome		51-20 ±3	89	10	4k	8/ ~	14 x 8 x 10	Opt.	Black Knit	12	399.00 Pair
	7 MK II	Bass Ref.	8	.1/		1	Dome		47-20 ±3	89	20	3.5k	8/	18 x 10 x 12	Opt.	Black Knit	20	499.00 Pair
	9	Bass Ref.	6	41/2	Cone	1	Dome		48-20 ±3	89	20	1k,4k	8/	20 x 8 x 10	Opt.	Black Knit	17	599.00 Pair
	11 15	Bass Ref. AFT	8 6	41/2	Cone	1	Dome		42-20 ±3	89	20	1k,4k	. 8/ -	22 x 9 x 12	Opt.	Black Knit	23	699.00 Pair
						1	Oome	[	38-20	89	20	4k	8/	39 x 8 x 10	Opt.		27	799.00
	CS-135	Stereo	8			·			±3 38-143	86	10	143	8/ =	7 x 20 x 13	Black	Black   Knit	27 22	Pair

AUDIO/OCTOBER 1993

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BY PLACING THE TWEETER AT THE CENTER OF THE WOOFER KEF HAS CREATED THE UNI-Q, A VIRTUAL POINT SOURCE OF SOUND.

No matter how good loudspeakers may sound in the lab, in a review column, or in a dealer's showroom – what really matters is how they sound when you get them home. This is why KEF developed the Uni-Q<sup>®</sup> Driver... to help reduce the adverse effects of your room's boundaries. Uni-Q works as a point-source of sound, producing a precisely controlled, highly uniform dispersion pattern. This reduces the room reflections that can muddy the sound and destroy the spatial accuracy of the stereo image. The result? Freedom to place the speakers where they fit best, knowing they will also *sound* their

best. Uni-Q's realistic sound, accurate imaging and placement flexibility become especially valuable in home theater and surround sound applications, which require precise localization to effect cinematic realism.

For KEF, the world's finest loud-speakers are those that sound the best in your home.



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MANUFACTURER	Hotel	Desin	° WO	or wi	att with	TWP	14°	58 C.S. C.S.	Midre Anet	\$1 <sup>1</sup> 4	<u>`</u> /	Hecon. Clas	ss Ind	Non On To	es Finit	° sril	RE CONVER	mt. Price.
CELESTION (Continued)	100	Inf. Baf.	6 <sup>1</sup> /2			1¼	Dome		53-20 ±3	84	50	2.2k	8/	17 x 8 x 10	Opt., Wood	Black Knit	21	1199.00 Pair
	300	Trans. Line	6 <sup>1</sup> /2			1¼	Dome		26-20 ±3	84	50	2.2k	8/	38 x 8 x 13	Opt., Wood	Black Knit	44	1799.00 Pair
-	600	Inf. Baf.	61/2			1¼	Dome		60-20 ±3	82	50	2.3k	. 8/	15 x 8 x 9	Gray Nxtl.	Biack Knit	11 3	2099.00 Pair 699.00
	DLP-600	Digital Proces- sor for												10 x 7 x 2	Black		3	Each
-	700	600s Inf. Baf.	61/2			1¼	Dome		50-20	82	50	3k	8/	15 x 8 x 10	Gray	Black	14	3399.00
=	System 6000	Dipole	(4)12					w	±3 20-100	82	50	100	8/	18 x 15 x 21	Nxti. Gray	Knit Black	76	Pair 3100.00
я 	(w/Controller)	Subwoof.							±3						Nxti.	Knit		Pair w/ Stands
CELLO LTD.	Stradivari Premiere	Vario- Vent	12	3	Dome	1	Dome				50	500,7k	6/4	17 x 18 x 45	Dpt.	Black	260	From 10,000. Pair
-	Stradivari Master	Ac. Sus.	(2)12	(4)2	Domes	(4)¾	Domes				200	500,5k	3/2	17 x 18 x 62	Dpt.	Black	370	From 26,000.
	Stradivari	Ac. Sus.	(2)12	(8)2	Domes	(8) <del>3</del> ⁄4	Domes				200	500,5k	2/1	17 x 18 x 87	Dpt.	Black	500	Pair From
	Grand Master Amati	Ac. Sus.	12	(4)11/2	Domes	(4)3⁄4	Domes				50	400,5k	4/2	27 x 20 x 10	Dak	Black	85	48,000. Pair 10,000.
	Center	Ac. Sus.	12	3	Dome	1	Dome				50	500,7k	8/4	28 x 13 x 15	Black	Black	80	Pair 3000.00
CERWIN-VEGA	Channel L-7	Ctr. Ch. Ported	7			1	Dome		40-20	92	5	4k	8/6	9 x 14 x 8	Rswd.	Black	28	Each 170.00
	L-9	Ported	10			1	Dome		±3 40-20	93	5	4k	8/6	13 x 22 x 11	Vinyl Rswd.	Knit Black	34	Each 220.00
	Q-1	Horn-	10			1	Dome		±3 30-20	100	25	3.5k	4/4	15 x 26 x 15	Vinyl Wal.	Knit Black	39	Each 1489.00 Pair
х III	SW-12B	Flex Vented Subwoof,	12						±2 28-110	92	5	110	6/4.5	13 x 25 x 16	Ven. Wood Vinyl	Knit	48	320.00 Each
-	VS-80	Bass Ref.	8			1	Dome		38-20 ±3	94	5	4k	6/4	10 x 10 x 11	Wal. Vinyl	Black Knit	26	205.00 Each
	VS-100	Bass Ref.	10	4	Cone	1	Dome		37-20 ±3	94	5	600,5k	6/4	12 x 27 x 11	Wal. Vinyl	Biack Knit	40	310.00 Each
	VS-120 VS-150	Bass Ref. Bass Ref.	12 15	4 6½	Cone	1	Dome Dome		28-22 ±3 28-22	97 102	5 5	500,4k 300,5k	4/3.5 4/3.4	16 x 32 x 14 18 x 35 x 18	Waí. Vinyl Waí.	Black Knit Black	57 90	345.00 Each 540.00
	DX-1	Bass Ref.	8	0 72	Guile		Dome		±3 40-18	92	5	2.5k	8/6.4	11 x 20 x 11	Vinyl Wood	Knit Black	25	Each 205.00
	DX-3	Bass Ref.	10	4	Cone	1	Dome		±3 37-18	94	5	350,5k	8/6.4	13 x 28 x 11	Vinyl Wood	Knit Black	34	Each 320.00
	DX-5	Bass Ref.	12	4	Cone	1	Dome		±3 36-18 ±3	96	5	500,4k	8/6.4	15 x 31 x 10	Vinyl Wood Vinyl	Knit Black Knit	44	Each 345.00 Each
	DX-7	Bass Ref.	12	61⁄2	Cone	1	Dome		34-20 ±3	98	5	250,5k	4/3.5	15 x 34 x 15	Wood Vinyl	Black Knit	64	410.00 Each
	DX-9	Bass Ref.	15	61/2	Cone		Dome		30-20 ±3	101	5	250,5k	4/3.5	18 x 36 x 18	Wood Vinyl	Black Knit	85	555.00 Each
	AT <sub>2</sub> 8 AT-10	Bass Ref. Bass Ref.	8 10	5	Cone	1  1	Dome	M,T M,T	38-22 ±3 30-22	94 95	5 5	3k 400,3k	6/4 6/4	12 x 21 x 10 14 x 28 x 13	Dpt., Vinyi Dpt.,	Black Knit Black	26 40	410.00 Pair 620.00
	AT-10	Bass Ref.	12	5	Cone	1	Dome	M,T	±3 28-28	97	5	400,3k	6/4	16 x 30 x 14	Vinyl Dpt.,	Knit Black	55	Pair 690.00
	AT-15	Bass Ref.	15	(2)5	Cones	1	Dome	M,T	±3 28-28	102		400,3k	4/4	19 x 36 x 18	Vinyl Dpt.,	Knit Black	85	Pair 1080.00
	HT-CTR	Home Th. Vented	(2)61⁄2			1	Dome		±3 80-20 ±3	94	5		8/6.5	16 x 8 x 11	Vinyi Black Wood	Knit Black Knit		Pair 320.00 Each
	HT-SMC	Ctr. Ch. Home Th.	4x10						100-10	91	5		8/8	6 x 15 x 8	Vinyi Biack	Biack	9	165.00
		Ctr. Ch.							±2			100	8/7		Wood Vinyl Black	Knit Black		Each 290.00
	HT-110	Home Th. Vented Subwoof.	10						38-125	94	5	100	0/1	13 x 17 x 24	Wood Vinyl	Knit		Each
	HT-S6	Home Th. Vented	61/2			1	Dome		80-20 ±3	92	5		8/6.5	8 x 11 x 11	Black Wood	Black Knit		380.00 Pair
	HT-S5	Sat. Home Th. Vented	5			1	Dome		125-20	60	5	125	8/8	9 x 7 x 7	Vinyl Black Wood	Black Knit	101/2	330.00 Pair
	HT-210C	Sat. Home Th.	(2)10	6½	Cone	1	Dome		38-20	94	5		8/8	33 x 19 x 20	Vinyl Black	Black		650.00
		Ctr. Ch./ Vented							±3						Wood Vinyl	Knit		Each
	HT-10D	Subwoof. Home Th. Vented	10						38-125	94	5	125	8/8	13 x 19 x 17	Black Wood	Black Knit	34	330.00 Each
	HT-12D	Subwoof. Home Th.	12						38-125	94	5	125	8/8	15 x 19 x 24	Vinyl Black	Black	54	445.00
	HT Sustan 7	Vented Subwoof.												Seven Pieces	Wood Vinyl Black	Knit Black		Each 1660.00
	HT System 7	Home Th.; 4 Sats., Ctr. Ch.&												007011 F18685	Wood Vinyl	Knit		Sys.
-	HT System 6	2 Subs. Home Th.;												Six Pieces	Black	Black		1155.00
(Continued)		4 Sats., Ctr. Ch.&													Wood Vinyl	Knit		Sys.
(vontinusu)	1	Subwoof.	1				1	1	1	1		<u> </u>	1	1	L	1	L	1





THE KEE COLIPLED CAVITY BASS SYSTEM COMBINES DEEP BASS WITH HIGH EFFICIENCY.

The laws of physics dictate that deep bass can only be produced by larger loudspeakers or by inefficient, smaller designs. While the laws of physics can't be broken, they can be bent a little. KEF's loudspeaker science has developed the Coupled Cavity Bass system, which combines the deep bass extension of sealed enclosures with the high efficiency of ported designs. The result? Speakers capable of full concert volume with deep, tight bass and crisp transients... without requiring excess power or space. Realistic deep bass and audio/video compatible magnetic shielding make KEF Reference loudspeakers ideal for home theater applications.

The Coupled Cavity Bass System, joins such other KEF scientific advances as the Uni-Q® Driver, which helps eliminate the adverse effects of room acoustics; and Conjugate Load Matching, which makes it less strenuous for your amplifier to drive your speakers.

Together, these advances have earned KEF its international reputation for real-world performance. For KEF, the world's finest speakers are those that sound best in your home



KEF Electronics of America, Inc. 89 Doug Brown Way, Holliston, MA 01746

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ANUFACTURER	Model	Desir	AL MC	Nit Wit	aro Mil	TWE THE	TWE	Sep	Hidran Aneth	3	~/~	Hecon Cros	Ind	Hom Din To	Els Finit	S. Gui	e Con Weid	nt. Price
ERWIN-VEGA Continued)	W-8x2	Home Th. In-Wali	8			1	Dome		40-20 ±2	92	5	3.5k	8/6.8	15 x 11 x 4	Matte White	White Metal		530.00 Pai
ontinuse)	W-SUBB	Home Th. In-Wall Subwoof.	8						40-125 ±3	92	5	125	8/6.8	15 x 11 x 4	Matte White	White Metal		450.0 Pai
HAPMAN	T-7	Compr. Line	10	7	Cone	1	Dome	No	28-20 ±3	90	50	125,3k	4/3	44 x 13 x 10	Oiled Oak	Black Knit	90	1999.0 Pai
HARIO	Academy 1	Bass Ref.	5			11⁄4	Dome		50-20 ±2	81.5	50	1.85k	8/6	13 x 8 x 12	Solid Wal.	Black Knit	20	2500.0 Pa
LARK AUDIO	Contrabass	Subwoot.	(2)12					SW	18-60		50	60	4/2.5	21 x 19 x 28	Opt.	Î	110	2000.0 Eac w/Xove
CLASSIC NUDIO REPRO- DUCTIONS	Hartsfield	Folded Horn	15	2	Horn	(2)1½	Slot Horns	M,T	31.5-16 ±5	110	10	800,7k	8/6	47 x 47 x 24	Opt.	Opt.	300	8950.0 Pa
LEARFIELD	Metropolitan	Vented Trans. Line	(2)8	(2)6	Cones	1	Oome	W,T	25-25 ±3	91	50	125,2 <mark>k</mark>	4/4	10 x 24 x 62	Opt., Wood	Black Knit	156	6000.00 Pai
	Continental	Vented Trans. Line	(2)6½			1	Oome	W	31-25 ±3	88	50	2.6k	4/4	8 x 17 x 50	Opt., Wood	Black Knit	89	3500.0 Pai
	Diplomat	Sealed	61/2			1	Dome		60-25 ±3	87	30	2k	8/6	12 x 12 x 17	Opt.	Black Knit	46	1200.0 Pai
	Embassy	Slotted Port	8					W	30-60	87	30	60	8/6	12 x 15 x 25	Black		60	800.0 Pa
	Orpheum	Subwoof. A/V Sat.	61/2		ſ.,	1	Dome		60-25 ±3	87	20	2k	8/6	9 x 10 x 14	Black	Black	25	895.0 Pa
	Bijou	A/V Ctr. Ch.	(2)51⁄4			1	Dome		70-25 ±3	87	20	2k	4/4	7 x 8 x 18	Black	Black	35	495.0 Eat
	Mystic	Dipole Surround	(2)51⁄4			(2)1	Domes		80-25 ±3	85	20	2k	4/4	7 x 8 x 10	Black	Black	25	795.0 Pa
LEMENTS	Reference RT-7	Compr. Line	8			7	Ribbon	M,T	26-40 ±3	88		1.575k	6.5/	11 x 19 x 46	Opt.			5595.0 Pa
	Reference 1	Compr. Line	51⁄4			5	Ribbon	M,T	42-40 ±3	87		2.4k	6/	8 x 12 x 17	Opt.	Black		2795.0 Pa 1200.0
	800si	Compr. Line Compr.													Black Oak Black	Knit Black		950.0
	600si 300si	Line Compr.													Oak Black	Knit Black		Pa 650.
	Vsi	Line Ctr. Ch.;	(2)41/2			3/4	Dome		55-20	100		3.5k	8/	17 x 7 x 5	Oak Black Oak	Knit Black Knit		200. Ea
	308di	4th Order Vented 4th Order	(2)8				Dome		±3 35-20	92		2.8k	8/	11 x 11 x 40	Black	Black		800.
	208di	Vented 4th Order	8			1	Dome		±3 38-20	91		2.8k	8/	11 x 11 x 32	Oak Black	Knit Black		P 600.
	108di	Vented 4th Order	8			3/4	Dome		±3 40-20	90		2.5k	8/	11 x 11 x 24	Oak Black	Knit Black		400.
	106di	Vented 4th Order	6				Dome		±3 50-20	89		3k	<b>B</b> /	8 x 9 x 14	Oak Black Oak	Knit Black Knit		9 300. P
1 7 1	104di	Vented 4th Order Vented	41/2				Dome		±3 70-20 ±3	89		3.5k	8/	6·x 5 x 9	Black Oak	Black Knit		200. P
LIF DESIGNS	KR-708	Sat. & Subwoof.	12	4	Cone	3/4	Dome		33-21 ±3	88	35	140,5k	4/4	Three Pieces	Sand Text.	Opt.		749 S
	KR-608	Sat. & Subwoof.	8	4	Cone	3/4 3/4	Dome Dome		36-21 ±3 46-21	88 88	35 35	140,5k 140,5k	4/4 4/4	Three Pieces	Sand Text. Sand	Opt. Opt.		699 S 599
	KR-508 K-101	Sat. & Subwoof. Ctr. Ch.	8 4½	4	Cone	3/4	Dome		±3 55-20	91	25	140,5k	4/4	21 x 6 x 8	Text. Sand	Opt.		S 249
	K-101	Ctr. Ch.	41/2			1/2	Dome		±3 55-20	91	20	12k	4/4	21 x 6 x 8	Text. Sand	Opt.		E 199
	K-400		8		Cone	1	Dome		±3 45-22	90	35	3.5k	4/4	10 x 17 x 12	Text. Sand	Opt.		249
	K-350		5		Cone	3⁄4	Dome		±3 65-21	91	25	5k	4/4	8 x 11 x 8	Text. Sand Text.	Opt.		199 E
	K-300	Sat.		4	Cone	3/4	Dome		±3 100-21 ±3	90	25	5k	4/4	5 x 7 x 4	Sand Text.	Opt.		299 F
	K-200	Sat.		4	Cone	3/4	Dome		110-20 ±3	90	25	5k	4/4	5 x 7 x 4	Sand Text.	Opt.		199 F
	Minuscolo	Bass Ref.	4			31/2	Horn		65-20	92	15	2.96k	8/	12 x 8 x 6	Opt.	Opt.	12	Fr 249 F
SYSTEMS	Bambino	Bass Ref.	61/2			31/2	Horn		50 <mark>-20</mark>	92	15	2.96k	8/	16 x 10 x 8	Opt.	Opt.	20	Fr 399
	Piccolo	Bass Ref.	61/2			31/2	Horn		38-20	92	15	2.96k	8/	19 x 12 x 9	Opt.	Opt.	30	P Fr 499
	Grande	Tuned Port	8	5¼	Cone	31/2	Horn		30-20	92	15	155, 2.96k	8/	36 x 14 x 14	Opt.	Opt.	60	P Fr 899 P
	Quattro	Sat. & Subwoof.	(2)12	( <mark>2)5</mark> ¼	Cones	(2)3½	Horns		25-20	92	15	155, 2.96k	8/	Four Pieces	Opt.	Opt.	130 Sys.	Fr 1199
(Continued)	Ultimo	Sat. & Subwoof.	(2)15	(2)51⁄4	Cones	(2)3½	Horns		20-20	92	15	155, 2.96k	8/	Four Pieces	Opt.	Opt.	160 Sys.	1339. S

#### Why won't conventional hi-fi speakers work for Home Theater?

KEF REFERENCE SERVES



UNI-Q DRIVER TECHNOLOGY LETS EVERYONE BE IN THE "SWEET SPOT." You need three front speakers - left, right and center - to achieve realistic home theater. A stereo pair would place the dialog in the center (where it belongs) from only one listening position. You can't use conventional hi-fi speakers for the center channel, even shielded models, because their dispersion patterns prohibit raising them too high or laying them on their sides.

KEF's proprietary Uni-Q<sup>®</sup> driver, which places its tweeter at the center of the woofer, allowed KEF's engineers to create the ideal center channel speakers, the Models 100 and

90. Their uniform dispersion patterns let them be placed beautifully above or below the screen, creating the impression that the sound is coming *directly* from the screen. Moreover, the Models 100 and 90 are both Reference Series, which not only ensures their quality and consistency; it permits their use as satellites and their seamless integration with other KEF Reference and Q-Series loudspeakers.

The Uni-Q driver. One of a series of KEF scientific achievements dedicated to one goal: the most realistic performance in your home.



KEF Electronics of America, Inc., 89 Doug Brown Way, Holliston, MA 01746

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MANUFACTURER	<u> </u>	í – – –		51/4		31/2	Horn	4	25-20	92	15	155,	<b>∠</b> ` 8/ ≣	36 x 17 x 17	Opt.	Opt.	92	From
COLLETTI SPEAKER SYSTEMS	Torre	Tuned Port	12	374	Cone	372	nora		23-20	52		2.96k			,			1469.00 Pair
(Continued)	Siciliano	Sat. & Subwoof.	(4)15	(4)51⁄4	Cones	(4)31⁄2	Horns		20-20	92	100	155, 2.96k	8/	Eight Pieces	Opt.	Opt.	350 Sys.	From 3000.00 Sys.
COMMUNITY PROFESSIONAL	CSV52	Bass Ref.	15	61⁄2	Cone	1	PZT		40-18 ±4	98	200	500,5k	4/4 **3	34 x 18 x 18	Oak Lam.	Brown Knit	90	880.00 Each
SOUND	CSV35	Bass Ref.	15			1	PZT		60-18	99	150	2.5k	8/6	24 x 17 x 14	Oak Lam.	Brown Knit	43	510.00 Each
	CSV25	Bass Ref.	12			1	PZT		70-18	97	100	3k	8/6 -	18 x 15 x 14	Dak Lam.	Brown Knit	32	438.00 Each
	CSV8	Bass Ref.	8			1	PZT		70-18	94	100	2.5k	8/7	13 x 13 x 9	Oak Lam.	Brown Knit	23	226.00 Each
CREATIVE ACOUSTICS	DECO 7	In-Ceiling Inf. Baf.	61/2			3⁄4	Dome		55-19 ±3	89	20	5k	6/4	8 Dia.	White	White Perf. ABS	5	450.00 Pair
	DECO 5	In-Ceiling	51⁄4			3⁄4	Dome		65-19 ±3	89	20	5k	8/6	8 Dia.	White	White Perf.	3	290.00 Pair
	DECO 7W	In-Ceiling Inf. Baf.	61⁄2			3⁄4	Dome		60-19 ±3	89	20	5k	6/4 =	8 Dia.	White	ABS White Perf. ABS	5	550.00 Pair
CROSBY AUDIO WORKS	CAW-1	Reflect. Quad ESL-63 Modifi-							36-20 ±5	86	100		8/6.2	26 x 36 x 10	Black	Black	68	2900.00 Pair
	\$D.9024	cation	8			1	Dome	T	35-20	90	60	2.2k	8/	14 x 10 x 4	ABS	White	51/2	157.50
CSI	SP-802A	in-wali	6			1	Dome	Т	±3 40-22	90	40	2.5k	8/	12 x 9 x 3	ABS	Metal White	4	Each 135.00
	SP-602A SP-502A	In-Wall	51/4			1	Dome		±3 50-20	90	20	3k	8/	11 x 8 x 3	ABS	Metal White	3	Each 67.95
	SP-402	In-Wali	4			1	Dome		±3 50-20	90	15	3k	8/	8 x 5 x 3	ABS	Metal White	21/2	Each 39.95
	SP-100/100W	111- 40 011	31/2			2	Dome		±3 55-22	90	45		8/	7 x 5 x 4	Plast.	Metai Opt.	5	Each 139.95
	SW-850	Subwoof.	8						35-240 ±3	90	50		8/	20 x 13 x 5	Black Wood		20	Pair 149.50 Each
OAHLQUIST	0Q-30i	Phased	10	5	Cone	7/8	Dome		27-25	89	50	280,3.3k	4/4	47 x 18 x 15	Opt., Wood	Gray	69	2000.00 Pair
	DQ-28	Array Phased	8	4	Cone	7/8	Oome		±3 37-25	91	25	470,4k	4/4	44 x 16 x 12	Opt., Wood	Knit Gray Knit	50	1400.00 Pair
	OQ-18	Array Phased	8			7/8	Dome		±3 37-25	91	25	2.1k	4/4	42 x 15 x 12	Opt., Wood	Gray Knit	46	1000.00 Pair
	0Q-16	Array Phased	6			7/8	Oome		±3 38-25 ±3	89	25	2.5k	4/4	38 x 11 x 10	Błack Ash	Gray Knit	30	750.00 Pair
	DQ-6ci	Array Phased Array	6			7/8	Dome		50-25 ±3	89	25	2.5k	4/4	23 x 11 x 11	Vinyi Black Ash	Gray Knit	20	500.00 Pair
			c14	<u> </u>		3/4	00000		63-20	89	15	3.15k	8/8	15 x 9 x 7	Vinyi Biack	Black	13	199.00
DANA AUOIO	1 Signature	Ac. Sus.	6 <sup>1</sup> /2			1	Dome		±3 55-20	89	15	3k	8/8	15 x 9 x 7	Vinyi Black	Knit Black	15	Pair 399.00
	Signature Sub-1	Ac. Sus. Ported	6½ 8				Dome		±3 25-100	92	30	80	8/8	38 x 10 x 13	Vinyl Varn.	Knit Black	28	Pair 295.00
	System 1	Subwoof. Sat. &	8	61/2		3/4	Dome		±3 25-20	90	30	80,3.15k	8/8	Three Pieces		Metai Black	54 Sve	Each 494.00 Sys.
		Subwoof.							±3						Vinyl, Varn. Red Dak	Knit, Black Metal	Sys.	
	System 2	2 Sats.& 2 Subs.	(2)8	61/2		3⁄4	Dome		25-20 ±3	90	30	80,3.15k	8/8	Four Pieces	Black Vinyl, Varn. Red	Black Knit, Black Metal	82 Sys.	789.00 Sys.
		14171			0			84	140.40	50				9 x 5 x 5	Oak ABS	Ont	3	99.95
DATAWAVE	WS-7 S-7	Wireless System Wireless		4	Cone Cone			M	140-10 140-10	00	4			9 x 5 x 5 9 x 5 x 5	Opt.	Opt., Plast. Opt.,	2	Each 69.95
		Speaker Only								İ						Opt., Plast.		Each
	WRS-10	Wireless System Wireless		5	Cone			M	140-10	50	4			8 x 17 x 10	Fbgis Rock	Gray	5	149.95 Each 99.95
	RS-10	Wireless Speaker Only Wireless		5	Cone			M	140-10	50	5			10 x 8 x 18	Fbgis Rock ABS	Gray White	31/4	99.95 Each 129.95
	WSH7	Shower System								30						Plast.	1	Each
	SH7	Wireless Shower Speaker		4	Cone			M	140-10		4			12 x 4 x 3	Opt.	White Plast.	2	79.95 Each
	WOS-7	Only Wireless Outdoor		4	Cone			M	140-10	50	4			12 x 5 x 4	ABS	Gray Piast.	3	129.95 Each
	OS-7	System Wireless Outdoor Speaker		4	Cone			м	140-10		4			12 x 4 x 3	Opt.	Gray Plast.	2	79.95 Each
		Only										<u> </u>						

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		/	/.	nclosure	inches	Inches	/ /	Inches	/ ,	Woote	SUPE RE	5001 AB	Amppo	185.HL	5.	,	/	and Material and Material South Lass teen Prices
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	del	8	on Print	ster Dia.	Tange	eter Type	eler Die	ester Type	ale and here	noichtz	WS	an mmenor	sovert	edance in al Million ensit	HEBIES		18 Color	115. 5
MANUFACTURE	R Model	183	·		MIL MIL	AN 14	st 14	set	ant one pret	R _ c	\$ <sup>\$</sup> `_c	PECOMPENSES	1 Int	states in the states of the st	ons inchest inch Hearest inch	15 61	III He	and US. EST
D-BOX	Ouverture	Sat. & Subwoof,	(2)5	4	Cone	1	Dome	[]	±3	86	50	150,2.58	5/4	Inree Pieces	Black Metal	Black Metal	24	669.00 Sys.
	Finale	Powered Sat. &	(2)5	4	Cone	1	Dome	'	52-20 ±3		50 Inc.	150,2.6k		Three Pieces		Black Metal	Sys. 27 Sys.	899.00 Sys.
	M-55A	Subwoof. Powered	4	/		1	Dome		80-20			4.7k .		9 x 5 x 6	Black	Black	91⁄4	295.00
	SV-100A	Ac. Sus. Powered Subwoot.	(2)5					1	40-100			80		7 x 14 x 12	Metal Black Wood	Metal Black Metal	22	Each
	Minimax	Ac. Subwoot.	`4	/					60-20		25 Inc.			9 x 5 x 6	Wood Black Metal	Metal Black Metal	111/2	270.00 Pair
	SO2DAS	Powered Ac. Sus.	4	/					80-15 ±4.5		10 Inc.		10k	9 x 5 x 6	Black	Black Metal	5	599.00 Pair
	S040A	Powered Ac. Sus.	4	1		1	Dome	1	80-20 ±4.5		20 Inc.	2.6k	15k	9 x 5 x 6	Biack	Black Metal	51/2	469.00 Pair
	SD70A	Powered Ac. Sus.	4	/	'	1	Dome	1	80-20 ±3	1 26	35 Inc.	4.4k	15k	9 x 5 x 6	Black	Black Metal	6	359.00 Pair
	SD35PS S050P	Ac. Sus. Ac. Sus.	4	1	'	1	Dome	1	90-14 ±4.5 90-20	86	5 5	4 44	4/	9 x 5 x 6	Opt.	Opt., Metal	4	199.00 Pair 330.00
	S100	AC. SUS. Bass Ref.	4 (2)5			<b>'</b>	Dome	1	90-20 ±3 52-150	86	5	4.4k 150	4/	9 x 5 x 6 7 x 14 x 12	Opt. Dpt.	Opt., Metal Opt.,	41/4	339.00 Pair 399.00
DCM	TimeWindow	Subwoof.		(2)616	Cones	(2)3/4	Domas		±3			100			· ·	Metal		Pair
DCW	TimeWindow Seven	Stag- gered Trans.	(2)9	(2)61/2	Cones	(3)¾	Domes		28-25 ±3	92	10		4/	48 x 14 x 19	Gloss Black	Black Knit	70	2999.00 Pair
	TimeWindow	Line Folded	8	61/2	Cone	(2)3⁄4	Domes	M,T	24-20	89	5		8/	39 x 17 x 12	Dak	Black	45	1499.00
	TW-3	Trans. Line											-			Knit		Pair
	TimeWindow TW-1A	Hybrid Trans.	(2)61/2	/	'	(2)¾	Domes		30-20	90	5		8/	36 x 15 x 12	Oak	Black Knit	30	949.00 Pair
	TimeFrame TF-1000	Line Folded Tapered Trans.	8	4	Cone	3⁄4	Dome		26-20	90	5		8/	49 x 20 x 8	Opt., Oak	Black Knit	49	1099.00 Pair
	TimeFrame TF-600	Line Stag- gered Trans.	61⁄2	61⁄2	Cone	(3)¾	Domes		30-20	92	5		, 6/ *	41 x 17 x 8	Opt., Oak	Black Knit	47	699.00 Pair
	TimeFrame TF-400 Series Two	Line Stag- gered Trans. Line	61/2	61⁄2	Cone	(2)3⁄4	Domes		40-20	92	5		6/	38 x 15 x 8	Opt., Oak	Black	38	598.00 Pair
	Monitor Cx-Center	Line Ac, Sus.	(2)4		!	3⁄4	Dome		90-20	89	5		8/	17 x 5 x 10	Biack	Gray	9	124.50 Fach
	Monitor CX-007	Ac. Sus.	4	1		3⁄4	Dome		90-20	88	5		8/	6 x 8 x 5	Black	Black	3	Each 139.00 Pair
	Monitor CX-07	Bass Ref.	6 <sup>1</sup> /2			3/4	Dome		55-20	91	5		8/	15 x 8 x 9	Black	Black Knit	12	249.00 Pair
	Monitor CX-17	Trans. Line Trans	6½	-14		3/4 3/.	Dome		45-20	92	5		8/	17 x 9 x 10	Opt.	Black Knit	15 or	349.00 Pair
	Monitor CX-27 Series Two Sub 712	Trans. Line Powered	6½ 8	61/2	Cone	3/4	Dome	ew	35-20	93	5	75	6/	27 x 10 x 11	Black	Black	25	519.00 Pair 699.00
	Sub 712 Sub 710	Powered Subwoof. Powered	(2)6 <sup>1</sup> /2					SW SW	28-80 (Adj.) 32-120	('	inc. Inc.	75 100		9 x 14 x 19	Black Black	Black Black	25	699.00 Each 349.00
DEFINITIVE	BP20	Subwoof. Bipolar	(4)61/2	ļ!	ļ!	(2)1	Domes		(Adj.) 18-28	90	20		5 /A					Each
TECHNOLOGY		Trans. Line			[]	(4)1	Domea		10-20	   06	20	2.5k	6/4	9 x 15 x 46	Opt.	Black Knit	70	799.00 Each
	BP10	Bipolar Trans.	(2)61⁄2	1		(2)1	Domes		20-28	90	20	2.5k	6/4	9 x 12 x 42	Opt.	Black Knit	55	550.00 Each
	BP8	Line Bipolar	(2)51⁄4		1 1	(2)3⁄4	Domes		22-28	90	20	3.5k	8/4	7 x 11 x 38	Opt.		38	399.00
	DR7 Tower	Trans. Line Trans.	61/2	)	1	1	Dome		22-28	90	20	2.6k	8/4	8 x 11 x 35	Black	8lack	38	Each 299.00
	DR7 Tower DR7 Bookshelf	Line Trans.	6 <sup>1</sup> /2		1		Dome		22-28	90 90	20	2.6k	8/4 8/4	8 x 11 x 35 8 x 11 x 22	Black Black	8lack Knit Black	38 28	299.00 Each 249.00
	BP2	Line Bipolar	(2)51/4	)	1	(2)3/4	Domes		50-28	90	10	3.5k	8/4	7 x 7 x 11	Opt.	Knit Opt.,	10	Each 250.00
		Sat.; Surround		)	1											Knit		Each
	C1 C/L/R 1000	Ctr. Ch. A/V;	(2)5 <sup>1</sup> ⁄ <sub>4</sub> (2)6 <sup>1</sup> ⁄ <sub>2</sub>	)	1	1	Dome Dome	1	45-28 25-28	90 90	10 20	3.5k 2.6k	8/4 8/4	19 x 6 x 8 8 x 12 x 22	Black Black	Black Knit Black	21 32	299.00 Each 450.00
	6/L/n 1000	A/V; Front or Ctr. Ch.	(2)0/2	)	[ ]	[']	Dome		23-20	1 20	20	2.04	0/4	8 X 14 X 44	Black	Black Knit	32	450.00 Each
	PowerField 1500	Powered Subwoof.	15						15-150	93	250 Inc.	Var.		18 x 18 x 20	Opt.	Black Knit	90	995.00 Each w/Xover
DENNESEN	ESL-X	Hybrid ES Hybrid	6½	[]		(4)31/2	ES	No	65-35	89	50	3k au	8/5	26 x 9 x 13	Opt.	Black Foam	40	1850.00 Pair
	ESL-Mini	Hybrid ES	5			(4)31/2	ES	No	75-35	89	50	3k	8/5	24 x 7 x 10	Opt.	Black Foarn	25	1250.00 Pair
OENDN	SC-7.5	Ported	6 <sup>1</sup> /2			11/2	Dome		40-20	89	10		8/	8 x 14 x 9	Gray Text.	Black Knit	11	500.00 Pair
	SC-5.5 DSW-1	Ported Powered	5¼ 5¼			1	Cone		40-20	88	10 Inc		8/	6 x 12 x 7	Gray Text.	Black Knit	4	200.00 Pair
	DSW-1	Powered	51/4	1	1	1 1	()	, I	39-150	, · · · ·	Inc.		, ,	8 x 14 x 13	Gray Text.		11	250.00



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mance, and are magnetically shielded. Center

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ESIGN COUSTICS	Summit Series DA1000	Vented	10	(2)5	Cones	3/4	Dome		00-20	0.5	15 15	110,3.5k 130,3.5k	8/ 8/	11 x 42 x 15 9 x 37 x 11	Opt. Opt.	Black Black	64 52	1100.0 Pa 800.0
	Summit Series DA900 Summit Series	Vented Vented	8 8	5	Cone Cone	3/4 3/4	Dome Dome		40-25		15	150,4k	8/	9 x 17 x 11	Opt.	Black	22	600.
	DA800 PS-24	Ctr. Ch.,	(2)4		CONC	3/4	Dome		50-20	89	10	10k	8/	20 x 5 x 14	Black	Black	19	Pa 189.
	PS-SW	Vented Vented	10				_		30-130		15		8/	16 x 22 x 11	Vinyl Black	Metai Black	38	Ea 339.
	PS-CV	Subwoof. Ctr. Ch.,	51⁄4			3/4	Dome		65-20	88	10	4k	8/	7 x 10 x 6	Vinyl Black	Black	6	Ea 119. Ea
	DA360	Video Outdoor	6			1½	Cone		90-18	84	10	3k -	8/	7 Dia. x 10	Vinyl Tan ABS		5	89. Ea
	PS-55	Vented	51⁄4			3/4	Dome		65-20	88	10	4k -	8/	7 x 10 x 6	Black	Black	6	219. Pi
	PS-6a	Ac. Sus.	6 <sup>1</sup> ⁄2			3/4	Dome		<mark>55-2</mark> 0	88	10	3k 🛛	8/	8 x 12 x 12	Opt.	Black	12	279. Pi
	PS-8c	Ac. Sus.	8			1	Dome		50-20	90	15	2.8k	8/	10 x 13 x 12	Opt.	Black	15	379. Pa
	PS-9	Ac. Sus.	8	51/4	Cone	3⁄4	Dome		47-20	90	15	200,3k	8/	10 x 15 x 12	Opt.	Black	20	499. P
	PS-10a	Ac. Sus.	10	51⁄4	Cone	1	Dome		45-22	91	20	200,3k	8/	11 x 16 x 13	Opt.	Black	23	599. Pa
	CLW	Ac. Sus. Subwoof.	10						40-150	88	15		8	12 x 14 x 12	Black Vinyl		24	249. Ea
DGX AUDIO	DDL-1	Powered Bass Ref.	12	2	Dome	1	Dome	No	20-20 ±3	91	100 Inc.	2.3k,6.3k	8/4	16 x 11 x 40	Opt.	Black Knit	68	1995. Pair DD/
DIGITAL	AP5	Acousta- Reed	3			1	Dome		35-20 ±2	81		3k	8/7	13 x 8 x 9	Opt., Lacq. Dak	Black Knit	17	650 P
	SM-1	Acousta- Reed	6		0	1	Dome	T	35-20 ±2	87		3k	8/6	24 x 13 x 12	Opt., Lacq. Oak	Black Knit	35	950 P
	AP-1	Acousta- Reed	6			1	Dome	1	34-20 ±1.5	87		3k	8/6	38 x 10 x 11	Opt., Lacq.	Black Knit	43	1250 F
	AP-2	Acousta- Reed	(2)6			1	Dome		34-20 ± 1.5	91		3k	4/4	42 x 13 x 14	Oak Opt., Lacq. Oak	Black Knit	76	1700 F
	AP-4	Acousta- Reed	(4)6			(4)1	Domes		30-20 ±1	92		3k	8/5	50 x 16 x 17	Opt., Lacq. Oak	Black Knit	110	3200 P
DUAL	CLX 9200	Closed Box	2(7)	41/8	Cone	3/4	Dome	W,M, T		88	20		4/	10 x 12 x 37	Black Paint	Black Knit	35	1800 P
	CLX 9100	Closed Box	7	7	Cone	3/4	Dome	W,M, T		88	20		4/	9 x 11 x 34	Black Paint	Black Knit	25	1050 F
	CL 9040	Closed Box	8	5	Cone	1	Dome	W,M,		87	20		8/	10 x 11 x 22	Black Paint	Black Knit	20	495 F 360
	CL 9020	Closed Box	6½	4	Cone	<sup>3</sup> /4 2 <sup>1</sup> /2	Dome	W.M. T W.M.		86 86	20 20	1 _ <mark>8</mark>	8/ 8/	10 x 11 x 20 10 x 7 x 16	Black	Black	16 10	220
	CL 9010	Closed Box	61/2	4	Cone		_	T				000.01.07			Paint	Knit		F
DUNTECH	Sovereign C-7000	Pulse Coherent	(2)12, (2)7	(2)2	Domes	3/4	Dome	W,M, T	27-20 ±2	90	100	300,2k,6k	4/3	74 x 14 x 35	Rswd.	Black Knit	375	30,0 F W/K
	Sovereign	Pulse	(2)12,	(2)2	Domes	3/4	Dome		27-20	90	100	300,2k,6k	4/3	74 x 14 x 35	Oak	Black	375	Xo 19,9
	C-6000 Princess	Coherent Pulse	(2)7 (2)9	(2)5	Cones	1	Dome		±2 38-20 ±2	90	100	500,5k	4/3	74 x 12 x 20	Oak	Knit Black Knit	146	9995
	C-5000 Marquis C-4000	Coherent Pulse Coherent	(2)8	(2)4	Cones	1	Dome		45-20 ±2	92	60	1k,5k	4/3	59 x 11 x 18	Dak	Black Knit	117	5995
	Regent D400	Pulse Coherent	(2)12	(2)7	Cones	1	Dome		30-20 ±3	90	80	450,4k	4/3	74 x 14 x 23	Satin Black	Black Knit	161	6995
	Baron D300	Pulse Coherent	(2)8	(2)4	Cones	1	Dome		45-20 ±3	92	40	1k,5k	4/3	57 x 11 x 14	Black	Black Knit	99	3995
	Viscount D200	Puise Coherent	(2)63/8			1	Dome		50-20 ±3	91	30	3k	4/3	34 x 11 x 14	Black	Black Knit	53	2495
	Esquire D100	Puise Coherent	(2)63/8				Dome		55-20 ±3 70-20	91	30 40	3k 3.5k	4/3 6/4	26 x 11 x 14 13 x 9 x 8	Satin Black Oak	Black Knit Black	40 14	1995
	Duchess PCL15 Contessa MRM1	Pulse Coherent Sealed	4			1	Dome	1	70-20 ±3 85-13 ±3	83 85	40 30	3.3K	8/6	9x6x5	Satin Black	Knit Black Knit	33/8	698
DZURKO ACOUSTICS	Shadow	Aperiodic	(2)8½	(2)5	Cones	1	Dome	W	45-20 ±3	91	40	200,3.5k	4/3.5	49 x 10 x 17	Opt., Wood	Black Knit	180	8250
EDGE	CS.5	Ported			Flat	11/2			80-20	91	10	2.5k	6/4	12 x 10 x 3	Oak	Black	71/2	22
ELECTRONICS	CS-1	Ported			Flat	11/2	1		±2 55-20 ±2	91	10	2.5k	6/4	13 x 11 x 7	Oak	Black	111/2	
	CS-3	Sealed	8	51⁄4	Cone	2		1	$\frac{1}{38-20}$ ± 2	92	10	150,2.5k, 5k	6/4	12 Dia. x 31	Oak	Black	23	69
	CS-7	Sealed	( <b>4</b> )6½	51⁄4	Cone	2			31-20 ±2	90	40	150,2.5k, 5k	6/4	12 Dia. x 46		Black	42	120
	CS-9	Sealed	(4)6½	(2)51/4	Cones	2			28-20 ±2	88	40	80,1.5k, 4k,8k	4/4	12 Dia. x 61		Black	62	270
	SW-1	Subwoof.	(2)10						20-200	90	50	100	4/4	18 x 21 x 10	Oak		59	650 E



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.F.A.	2	Bass Ref.	8	ſ	ſ	11/8	Dome	1	38-20	90	25	Zk	8/6	35 x 11 x 12	Opt.	Black	50	1495.
GGLESTON-	Bookshelf	Vented	51/4			3/4	Dome		± 3 48-20	50	20				L .	Knit		Pa
ORKS	Pedestal	Vented	6		1	1	Dome		±3 45-20		20		8/7 8/7	9 x 14 x 8 17 x 13 x 13	Lacq.	Dpt. Opt.	18 28	1895. P 3250.
	Hepplewhite	Vented	(2)6,			1	Dome		±3 31-20		30	, - <b>1</b> -	6/5	30 x 24 x 15	Lacq.	Opt.	50	7695.
	End Table	Vented	8 (3)6,			11/8	Dome		±3 22-20		30		8/7	25 x 16 x 26	Lacq.	Opt.	75	9925.
LECTRO-	S-40 Monitor	B4 Vented	10 51⁄4		+	1	Dome	+	± 3 85-20	85	+	3.5k	4/3.7	10 x 7 x 6	Opt.,	Opt.,	6	9 346.
OICE.	Sentry 100A	<b>B4 Vented</b>	8			11/2	Dome	т	±3 45-18	91		2k	6/4.5	17 x 12 x 11	Paint Black	Paint Gray	28	P 426.
	Monitor Sentry 100EL Monitor	Powered B4 Vented	8			11/2	Dome	т	±3 45-18		Inc.	2k	30k/	17 x 12 x 12	Vinyl Black	Knit Gray	33	900.
	Sentry 500 Monitor	B4 Vented	12			11/2	Dome	T	±3 40-18 ±3	96		1.5k	10k 8/6	24 x 27 x 13	Black	Gray	70	850.0
	Sentry 505 Monitor	B4 Vented	12			11/2	Dome	т	40-18 ±3	96		1.5k	8/6	19 x 26 x 19	Vinyl Black Vinyl	Knit Gray Knit	60	Ea 872.0 Ea
	S-181	Subwoof.	18	4					48-200 ± 3	98	50	200		28 x 21 x 23	Black Cptg.	Black	78	820. Ea
LITE	S-F100	In-Wall	61/2			1	Dome		200-20 ± 2.5		60 Max		6.5/	8 x 16 x 4			43/8	350.I Pa
MINENT	LFT-VI	Planar Mag.	321 Sq. In.	94 Sq. in.	Planar Mag.	10 Sq. In.	Planar Mag.	M,T	38-20 ±4	83	100	400,10k	6/4	78 x 18 x 2	Oiled Oak	Black Poly	90	3250.0
	LFT-VIII	Planar Mag. Hybrid	8	160 Sq. in.	Planar Mag.	5 Sq. In.	Planar Mag.	Т	36-20 ±4	84	75	180,10k	8/6	60 x 13 x 18	Oiled Oak	Black Poly	60	Pa 1500.0 Pa
NERGY	ESAT-2	Bass Ref. Sat.	41/2			3/4	Dome		140-22 ± 3	86	15	2.5k	8/6	8 x 5 x 5	Opt.	Opt.	5	349.
	ESUB-2	6th Order Bandpass	61/2						37-140	86	15	140	6/4	12 x 8 x 14	Black Ash	Black	18	349. Pa
	ECC-1	Subwoof. Ctr. Ch., Vented	(2)41/2	1		1/2	Dome		60-20	90	15	2.5k	12/8	6 x 20 x 8	Black	Black	15	169.9
	RVS-1/RVS-2	Home Th.; Front,	(2)5¼			1	Dome		±3 45-23 ±3	86	50	2k	4/	8 x 19 x 12	Ash Black Gloss	Black	18	Ea 350. Ea
	Veritas V2.8	Ctr. Ch. Vented	(2)8	3	Hybrid	1	Hybrid		29-30	85	100	350,2.2k	6/4	6 x 19 x 8	Gray	Black	120	6000.0
	Veritas V1.8	Vented	8	3	Dome Hybrid	a –	Dome Hybrid		±3 30-30	87	75	400,2.2k	6/4	45 x 12 x 15	Gloss Gray	Black	115	Pa 3000.0
	22.3	Vented	(2)6 <sup>1</sup> ⁄2		Dome	3/4	Dome Dome		30-23	87.5	50	1.9k	6/4	40 x 10 x 16	Gloss Opt., Wood	Black	67	2000.
	22.2	Vented	7			3/4	Dome		32-23 ±3	86	50	1.9k	6/4	27 x 10 x 12	Opt., Wood	Black	45	Pa 1400.0
	22.1	Vented	61/2			3⁄4	Oome		40-23 ±3	85	50	1.9k	6/4	16 x 10 x 12	Opt., Wood	Black	27	Pa 1000.1 Pa
	5.1e	Vented	(2)7			1	Oome		35-20 ±3	89	40	2.1k	6/4	33 x 10 x 16	Opt.	Black	55	1000.0 Pa
	4.1e	Vented	7			1	Dome		35-20 ±3	87	40	2.1k	6/4	24 x 10 x 12	Opt.	Black	36	750.0 Pa
	3.1e 2.1e	Vented Vented	8			3/4	Dome	1	40-20 ±3	87	30	2.3k	6/4	19 x 10 x 10	Opt.	Black	22	450.0 Pa
	.1e	ACHICO	6½ 5¼			3/4 3/4	Dome Dome		45-20 ±3 55-20	86 86	30 30	2.3k	6/4	16 x 10 x 10	Opt.	Black	18	300.0 Pa
	Excel	Bass Ref.	51/4			1/2	Dome		60-20	86	30	2.6k 3.5k	6/4 6/4	12 x 7 x 8 11 x 8 x 10	Dpt.	Black	9	200.0 Pz 150.0
	Encore	Bass Ref.	61/2			1/2	Dome		±3 48-20	87.5	1	2.5k	6/4	13 x 8 x 10	Opt. Opt.	Opt. Opt.	17 22	Pa 200.0
	EAS6.5	In-Wall	6 <sup>1</sup> /2			1	Dome		±3 45-22		5	2k	8/	9 x 13 x 3	White	White	**	Pa 400.0
	EAS5.25	in-Wali	51⁄4			1/2	Dome		60-20	86	5	3.5k	8/	7 x 7 x 3	White	Metal White		Pa 250.0
	SAS-400	Powered Subwoof.	(3)10					sw	18-150 ±3		INC.			18 x 17 x 24	Pearl Gloss	Metal Black	85	Pa 2000.( Ea
	AS-180	Powered Subwoof.	12					w	25-150		180 Inc.	Var.		17 x 18 x 19	Black Ash	Black		w/Xov 750.0 Eau
	AS-90	Powered Subwoof.	12					W	28-150		90 Inc.	Var.	1.4	17 x 16 x 17	Black Ash	Black		550.0 Ea
NSEMBLE	Profundo	Tuned Port	7						35-250 ±3	91	30	250	8/5	9 x 12 x 26	Black Satin		29	4480.0 Pa
	Reference	Subwoof. Pas. Rad.	5			3⁄4	Dome		60-20 ±2	90	25	2.5k	4/3.2	9 x 9 x 14	Opt.	Opt., Knit	16	5000.( Pai Bi-wir
	PA-1	Pas. Rad.	5			3/4	Dome		60-20	89	25	2.5k		9 x 9 x 14	Opt.	Opt.,	15	5300.0 3180.0
	Tango	Bass Ref.	61⁄2			3/4	Dome		±2.5 80-19	91	20		6.5/	13 x 9 x 5	Black	Knit	16	Pa 2580.0
	Prima Donna	Tuned Port							±3 40-20	92	25	2.6k	5.5 4/3.2	45 x 14 x 12	Satin Black		75	Pa 9900.0
NTEC	L21-20	Powered	(2)10					W	±2 15-180		Inc.	Adj.		12 x 24 x 24	Satin Black	Gray	87	Pa 5995.0
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ENTEC (Continued)	L21-40	Powered Servo Subwoof.	(4)10					W	15-180		Inc.	Adj.		Four Pleces	Black Lam.	Gray	170 Side	9995.00
	L <sub>2</sub> 1-60	Powered Servo	(6)10					w	15-180		Inc.	Adj.		Six Pieces	Black Lam.	Gray	255 Side	15,495. Sys.
	L <sub>2</sub> f-120	Subwoof. Powered Servo	(12)10					w	15-180		Inc.	Adj.		Twelve Pieces	Black	Gray	510	25,000.
	1000L-f	Subwoof. Powered Servo	10					w	18-180		Inc.	60,100,		12 x 18 x 24	Black	Gray	Side 45	Sys. 2100.00
	90	Subwoof. Vented	7			1	Dome		40-19	88	25	180   (Adj.)   3.5k	8/	8 x 8 x 42	Lam. Black	Black	45	Each 4100.00
	90205	Vented Sat. &	(2)10	7	Cone	1	Dome	w	±6 18-19	88	25,	100,3.5k	8/	Four Pieces	Black	Mesh Black	260	Pair 9171.00
		Powered Servo							±6		inc.						Sys.	Sys.
	9020M	Subs. Vented Sat. &	10	7	Cone	1	Dome	w	18-19	88	25,	100, 3.5k	8/	Three Pieces	Black	Black	180	6698.00
		Powered Servo							±6		Inc.					Mesh	Sys.	Sys.
	100	Subwoof. Hybrid	(6)10	(9)4	Cones	2	Ribbon		12-45					Four Pieces	Clear		300	100,000.
EPIK	Ultima X	Trans.	61/2			1	lny.	No	35-27	88	50	1.8k	10/8	14 x 15 x 43	Plexi- glass Chrry	Black	Side	Sys.
MONITOR SYSTEMS	Ultima Y	Line Trans.	8	4	Inv.	3⁄4	Oome Inv.	No	±2 28-27	86	100	800,5.2k	10/8	16 x 17 x 50	Chrry	Black	140	9450.00 Pair 8800.00
	Ultima YSIG	Line Trans. Line	(2)61⁄2	4	Dome Inv. Dome	1	Dome Inv. Dome	No	±2 22-27 ±2	86	100	800,5.2k	6/4	18 x 20 x 50	Opt.	Black	175	Pair From 7500.00
	Ultima XW	Trans. Line	8						25-100	88	100	100	10/8	14 x 15 x 60	Chrry	Biack	110	Pair 4995.00
EPOS	ES14	Subwoof.	8	<u> </u>		1	Dome		50-20	96	25		0.7	20 - 40 - 40	0-1			Pair
	ES11	Inf. Baf.	61/2			1	Dome		60-20	86 87	35 30		8/7 8/7	20 x 19 x 12	Opt., Wood Opt., Wood	Black Foam	25 20	1295.00 Pair 850.00
ESPER SIGNALS	E-401	Rear Vented	51/4			1	Dome	<u> </u>	60-20	83	50		4/3	12 x 7 x 8	Wood Black	Black	131/2	Pair 1095.00
SIGNALS	E-601	Rear	61⁄2			1	Dome		±3 45-20 ±3	86	50		8/7	24 x 8 x 11	Wood Black Wood	Knit Black Knit	26 <sup>1</sup> /2	Pair 1595.00 Pair
	E-808		(2)51/4			1	Dome		40-20 ±3	84	50		4/3	24 x 10 x 11	Wood	Black Knit	35	2975.00 Pair
ESSENCE	Gem Super Gem	Trans. Line Trans.	6½ 6½			1	Dome		38-21 ±3	89	20	2k	4/3.6	20 x 10 x 13	Opt., Wood	Opt., Knit	34	1495.00 Pair
	Reference	Line Trans.	61/2			1	Dome Dome		34-21 ±2	89 89	30 30	2k 2k	4/3.6 4/3.6	23 x 10 x 15 23 x 10 x 15	Opt., Wood Opt.,	Opt., Knit Opt.,	52 54	2450.00 Pair 4975.00
	Super Gem Sardonyx	Line Trans. Line	8	5	Cone	1	Dome		26-23	89	50	200,2k	8/6.6	52 x 14 x 16	Wood Opt.,	Knit Opt.,	85	Pair 5850.00
	Amethyst 10A	Trans. Line	11	6,11/2	Cone, Dome	1,3⁄4	Domes		24-23 ±3	89	60	80,1k,2k, 6.5k	8/6	51 x 15 x 25	Wood Opt., Wood	Knit Opt., Knit	240	Pair From 19,850.
	Reference Subwoofer	Trans. Line	(2)13						16-100 ±1	89	150	(Adj.) Adj.	8/6	72 x 16 x 25	Opt.	Opt.,	420	Pair 19,850
EUGENEX	Heaviside	Subwoof. 2 Sats.&	(2)15	10	Cone	1 <sup>1</sup> /2x4	Dibbon								Wood	Knit	_	Pair
LOULNEX	lo	2 Subs. 2 Sats.&	(2)10	8	Cone	13/4x4	Ribbon		24-27 ±3 29-25	95 91	20 50	100,1.2k 100,1.2k	- 4/4 4/4	Four Pieces Four Pieces	Opt. Opt.	Knit Knit	360 Sys. 220	4400.00 Sys. 2900.00
FIDELUS	903FL	2 Subs. Slot	9	5	Cone	11/4	Dome	No	±3 30-22	88	50	250,6.5k	8/5	13 x 14 x 48	Oiled	Opt.	Sys. 80	Sys. 2295.00
AUDIO	Contra-Bass	Loaded Port Subwoof,	12		{				±3 16-100	90	50	Ext.	8/4	22 x 22 x 48	Oak Oiled			Pair
FISHER	ST58B	Bass Ref.	8			3	Cone		±3 50-20	90		6k	8/	10 x 17 x 10	Oak Black	None Black	185	1795.00 Each 199.99
	ST56B	Bass Ref.	6 <sup>1</sup> /2			3	Cone		60-20	88		6k	8/	8 x 14 x 9	Black	Knit Black	10 /2	Pair 179.99
	ST54B	Bass Ref.	41/2			3	Cone		60-20	88		6k	8/	7 x 12 x 9	Black	Knit Black Knit	8	Pair 169.99 Pair
	ST515 ST512	Bass Ref. Bass Ref.	15 12	4	Cone Cone	1/2 1/2			40-20	91 00		1.5k,6k	8/	18 x 36 x 13	0ak	Black Knit	40	399.99 Pair
	ST510	Bass Ref.	10	4	Cone	1/2			45-20 45-20	90 90		1.5k,6k 1.5k,6k	8/ 8/	14 x 33 x 13 12 x 28 x 11	Oak Oak	Black Knit Black	27 20	299.99 Pair 199.99
FLATLINE	175	Ribbon	10	5		69	Ribbon	No	35-40	88	50	100,350	5/3	15 x 15 x 69	Opt.	Knit	80	4000.00
DESIGN Fosgate-	MC110	Hybrid Sat.	5			1	Dome		85-23	88	25	3k	8/6	11 x 8 x 6	Black	Knit Black	15	Pair 899.00
AUDIONICS	MC220 THX	THX; Inf. Baf.	(2)6½			(2)1	Domes		±3 60-23 ±2.5	91	20	3k	4/3	25 x 11 x 14	Black	Knit Black	35	Pair 1599.00
(Continued)	CPS200 THX	THX; Powered	12						±2.5 30-100 ±3	91	Inc.		8/6		Black	Knit Black Knit	55	Each 1299.00 Each
(Continued)		Subwoof.											_					24011

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AUDIONICS (Continued)	FS400 THX	THX; Subwoof. THX;	12 14						30-100 ±3 26-100	91 91			8/6 8/6		Black Black	Black Knit	48	599.00 Each
. ,	SD90 THX	Subwoof. THX Sur-	(2)5			(2)1	Domes		±3 100-20	91	20	3k	8/4	11 x 14 x 6	Black	Black Knit Black	85 15	999.00 Each 699.00
	SD180 THX	round; Dipole THX Sur-	(2)5½			(2)1	Domes		±3 85-20	91	20	3k	£ 8/4	22 x 14 x 8	Black	Knit Black	35	Pair 1850.00
	AS502	round; Dipole In-Wall	5			1	Dome		±3 65-22		10	24	9/E	11 . 9 . 7	Verblag	Knit		Pair
	AS602	in-Wall	6			1	Dome		±4 50-22	88 88	10	3k 3k	8/5 8/5	11 x 8 x 3 12 x 9 x 4	White White	White White	9 12	229.00 Pair 299.00
	AS820	in-Wall	8			1	Dome		±3 40-25	88	10	2.5k	8/5	15 x 11 x 3	White	White	18	Pair 349.00
FRIED	Beta V	Distrib.	61/2			1	Dome		±4 60-20	89	20	3.5k	8/6	14 x 8 x 8	Opt.	Black	15	Pair 399.00
PRODUCTS	Q/5	Loading Line Tun.	8			1	Oome		±3 37-20 ±3	89	25	2.5k	8/5	20 x 11 x 9	Opt.	Cloth Black	24	Pair 599.00
	A/5	Line Tun.	8			1	Dome		32-20 ±3	89	25	2.5k	8/6	34 x 10 x 12	Opt.	Cloth Black Cloth	52	Pair 825.00 Pair
	R/5	Trans. Line & Line Tun.	10	51/2	Cone	1	Dome		30-20 ±3	89	25	300,3k	8/5	34 x 12 x 12	Opt., Wood	Black Cloth	61	1495.00 Pair
	Studio V	Dual Trans.	8	61⁄2	Cone	3/4	Dome		26-22 ±2	90	25	200,2.7k	8/6	39 x 12 x 18	Opt.	Black Cloth	90	3595.00 Pair
	C/5	Line Trans. Line	61⁄2			3⁄4	Dome	1	60-22 ±3	90	25	2.7k	8/6.3	14 x 11 x 16	Opt.	Black	20	2495.00
	0/2	Trans. Line	8						25-99 ±3	90	25	100	8/6.3	36 x 11 x 16	Opt.	Cloth Black Cloth	80	Pair 2995.00 Pair
	Valhalla System	Subwoof. Trans. Line; 2 Sats.&	8	6½	Cone	3/4	Dome		25-22 ±3	90	25	100,2.7k	8/6.3	Four Pieces	Opt.	Black Cloth	200 Sys.	5490.00 Sys.
GC	30-3500	2 Subs. In-Wall	51⁄4	<u> </u>	<u> </u>	1	Dome		50-20	90	20	2.8k	8/	8 x 11 x 2	White	White		125.00
ELECTRONICS	30-3506	in-Wall	6 <sup>1</sup> ⁄2			1	Oome		±3 50-20	90	20		8/	12 x 9 x 3	Plast. White	Metal White		Pair 155.00
	30-3508	In-Wall	8			1	Oome		±3 40-20 ±3	90	20		8/	14 x 10 x 4	Plast. White Plast.	Metal White Metal		Pair 212.00
	30-3510	Ac. Sus.	51/4			1/2	Horn		50-20 ±3	89	20		4/	9 x 6 x 5	Black Plast.	Black Metal		Pair 165.00 Pair
-	30-3526	In-Wall	61/2			1/2	Dome		65-20 ±3	92	20		8/	8 x 8 x 2	White Plast.	White Metal		105.00 Pair
GEMINI Souno Products	MB-150 MB-160			4x10	Horn	3	Piezo Piezo		4k-30k 3k-30k					19 x 9 x 5	Cptg.		9	122.00 Each
	MB-350		10	4x10	Horn		11620		32-18				8/	19 x 9 x 5 21 x 10 x 15	Cptg. Cptg.		10 27	140.00 Each 173.00
•	MB-360		12	4x10	Horn				40-16				8/	25 x 16 x 12	Cptg.		36	Each 186.00
L	MB-365		12	4x10	Horn	3	Piezo		40-16				8/	25 x 16 x 12	Cptg.		37	Each 221.00
	MB-410 MB-415		15			3	Piezo		40-15		ĺ		8/	29 x 19 x 14			51	Each 242.00 Each
	MB-415 MB-425		15 15	4x10 15x7	Horn Horn	3	Piezo Piezo		40-15 40-15				8/ 8/	29 x 19 x 14			53	265.00 Each
	MB-475		15	4x10	Horn	3	Piezo		40-15				8/	29 x 19 x 14 33 x 24 x 16			56 74	325.00 Each 347.00
	MB-550		(2)15	4x10	Horn	3	Piezo		30-16				8/	44 x 24 x 16			96	Each 450.00
	MB-565		(2)15	15x7	Horn	3	Piezo		30-16				8/	44 x 24 x 16			99	Each 535.00 Each
GENESIS TECHNOLOGIES	IM 5200		51/2			1	Planar Ribbon	T	77-34 ±2	85	60		4/2.8	14 x 11	Piano Black	Black Knit	20	895.00
	Servo 10 Servo 12	Powered Subwoof.	10						32-160 ±3		inc.	-	100k		Opt.	Black Knit	45	Pair 895.00 Each
	Genesis III	Powered Subwoof.	12 (2)8	3	Dome	1	Planar	т	22-160 ±3 32-34	87	lnc. 200	70.250	100k 4/2	E0 v 20 v 47	Opt.		70 156	1695.00 Each
-		Powersd					Ribbon	T, (2) M	±3			70,250, 850,4.2k		52 x 20 x 17	Opt.	Black Knit	156	5999.00 Pair
	Genesis I	Powered Line Source	(6)12	60	Ribbon	(26)1	Planar Ribbons	₩,	16-34	90	100 Inc.	70,3.5k	4/3	Four Pieces	Rswd.	Black Knit	2000 Sys.	60,000. Sys. w/Amp
	Genre I	Oipole Interior Cylin.	8	41/2	Cone	1	Planar Ribbon		46-34	88	75	500,3.7k	4/3	39 x 10 x 14	Opt.	Black	65	1300.00
	Genre II	interior Cylin.	6 <sup>1</sup> /2			1	Planar Ribbon		49-34	87	50	3.8k	4/3	36 x 9 x 14	Opt.	Black	53	Pair 800.00 Pair
	Genre III 8300F	Interior Cylin.	6½ 8	3	Demo	3⁄4	Oome		55-22	87	50	3.8k	4/3	34 x 8 x 13	Opt.	Black	40	500.00 Pair
	8200F		8 8	3	Dome	1	Planar Ribbon Planar	M,T T	41-34 ±3 47-34	87 86	100 100	3.2k 3.2k	4/2.5 4/3	39 x 11 x 11 37 x 12 x 11	Opt. Opt	Black Knit Black	55 50	2599.00 Pair
							Ribbon		±3			V.2.R	-,0	97 X 12 X 11	Opt.	Black   Knit	50	1999.00 Pair
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AT \$1175 per pair, the new Magneplanar® MG-10 was designed for use with subwoofers. The 10-1/2" wide MG-10 offers sweet sound with the combination of quasi-ribbons and planar technology from 80Hz to 22kHz at a modest cost-- an ideal product for the music lover who also enjoys an occasional movie.

Contrary to popular belief, subwoofers should be placed with care to realize their full potential. To assist you in the setup, we pay part of the cost for the dealer to visit your home after you purchase the MG-10's -- it's that important to us.

When the final assembly is done, you will have the open, airy sound of Magneplanar quasiribbon/planar technology smoothly blended to a subwoofer--ready for a Saturday night movie or music at any time.



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MANUFACTURE	A Hotel	Dest	9 <sup>1</sup> W	sole Hi	bra. Mit	140	BIT TWO	St Sell	Aldrant Anec	N110/55	~`/q	econ. cros	en leite	Nonth Dimito	18 <sup>15</sup> Finit	<sup>sh</sup> Gril	Ne COLUME	mt. Price.
GERTNER 3	CEL 3096	Angled	12	10	Cone	11/2	Dome			96	5	450,2k	8/8	16 x 16 x 46	Opt.	Black	112	4250.00
-	CEL 1596	Port Angled Port	10			11/2	Dome		±5 30-20 ±5	96	5	2k	8/8	14 x 14 x 32	Opt.	Knit Black	62	Pair 2150.00
g (	CEL 1091	Angled	8			11/2	Dome		35-20 ±5	91	5	2k	8/8	13 x 12 x 24	Opt.	Knit Black Knit	40	Pair 1395.00 Pair
GILLUM	g2R	Pas. Rad.	8			1¼	Horn		38-20	92		2.8k	4/4	35 x 9 x 12	Opt.	Opt.	36	998.00
	g2P	Inf. Baf.	8			1¼	Horn		±3 58-20 ±3.5	91		2.8k "	4/4	14 x 10 x 10	Opt.	Opt.	14	Pair 400.00 Pair
	g2M	inf. Baf.	8			1¼	Horn		55-20 ± 3.5	91		2.8k	4/4 =	20 x 10 x 9	Opt., Wood	Opt., Cloth	26	450.00 Pair
-	g3	inf. Baf.	12	2	Horn	1	Horn		50-17 ±4	97		750,6.5k	8/9	24 x 14 x 13	Opt., Wood	Opt., Cloth	55	1100.00 Pair
	gC	Inf. Baf.	6			11/4	Horn		60-20 ±3	89		3.2k	4/4	14 x 9 x 7	Black Ash	Black Knit	13	300.00 Pair
GNP	1	Sealed Subwoof.	8						40-125 ±3	89	20	125	4/3	25 x 12 x 12	Opt.	Black Knit	36	450.00 Pair
	2	Sealed Subwoof.	(2)61/2	-1/					34-125 ±3	90	30	125	12/10	25 x 12 x 15	Opt.	Black Knit	48	600.00 Pair
N.	05	Sealed Sat.	c16	51⁄4	Cone	1	Dome	T	100-20 ±3	89	10	3k	4/3	11 x 7 x 6	Opt.	Black Knit	91/2	299.00 Pair
-	10 25	Seated Sat. Sealed	6 <sup>1</sup> /2 6 <sup>1</sup> /2	2	Dome	1	Dome Dome	T M,T	68-20 ±3 58-20	90 90	10 20	3k 800,3k	8/6 8/6	12 x 8 x 7 18 x 9 x 9	Opt.	Black Knit Block	15 24	399.00 Pair 799.00
ŕ	s Valkyrie	Sat. Sealed	(2)6 <sup>1</sup> /2	2	Dome	1	Dome	M,T	± 3 34-20	90	50	125,800,	12/18	Three Pieces	Opt. Opt.	Black Knit Black	78	Pair 2295.00
GOLOMUND	Series IV Dialogue	Tuned	7	7	Cone	1	Inv.	,.	±3	96		3k	4/	Per Side 14 x 14 x 47		Knit	Side	Sys.
docomono.	* Super	Port	10	7	Cone	1	Dome Inv.			90 96			4/ 4/	14 x 14 x 47 50 x 14 x 18	Biack Lacq. Black	Black Knit Black	150 170	7200.00 Pair 13,500.
-	Dialogue Analogue	Port Tuned	13	8	Cone	(2)1	Dome Oomes			95			4/	26 x 65 x 65	Lacq. Black	Knit Black	330	Pair 41,250.
	Apologue	Port Inf. Baf.	(2)12	8	Cone	(2)1	Domes			100			4/	34 x 46 x 74	Lacq. Black	Knit Black	700	Pair 82,500.
GOLD SOUND	.2AV		51/4			3/4	Dome		49-20	88	5	3k	8/	8 x 12 x 7	Lacq. Opt.	Knit Black	12	Pair 129.00
	.241	In-Wall	51/4			3/4	Dome		±3 49-20	88	5	3k	8/	16 x 12 x 4	Opt.	Knit White	16	Pair 129.00
F	.6AV	1	61/2			1	Dome		±3 44-20	89	5	3k	8/	10 x 16 x 7.	Opt.	Knit Black	23	Pair 169.00
	.6AVI	in-Wall	61/2			1	Dome		±3 44-20	89	5	3k	~8/	16 x 20 x 4	Opt.	Knit White	28	Pair 169.00
, <sup>†</sup>	.9AV		(2)51⁄4			1	Dome		±3 41-20	92	5	3k	4/	10 x 16 x 7	Opt.	Knit Black	26	Pair 239.00
	.9AVI	in-Wall	(2)5¼			1	Dome		±3 41-20 ±3	92	5	3k	4/	16 x 20 x 4	Opt.	Knit White Knit	31	Pair 239.00 Pair
	BAV		61/2			1	Dome		48-20	89	5	3k	8/	10 x 16 x 7	Opt.	Black Knit	25	479.00 Pair
	BAVI	in-Wali	61/2			1	Dome		48-20	89	5	3k	8/	16 x 20 x 4	Opt.	White Knit	31	479.00 Pair
	CAV	1- 14/-14	(2)6 <sup>1</sup> /2			1	Dome		46-20	92	5	3k	4/	10 x 16 x 7	Opt.	Black Knit	30	749.00 Pair
	CAVI Dynaudio A	In-Wall Sat.	(2)6½ 5			1 3⁄4	Dome Dome		46-20	92 89	5 5	3k 3k	4/ B/8	16 x 20 x 4 12 x 8 x 7	Opt. Opt.	White Knit	35 11½	749.00 Pair 329.00
14.	Oynaudio B	Sat.	6			1	Oome		±3 58-22	89	5	3k	8/8	16 x 10 x 8	Opt.	Opt. Opt.	14	23.00 Pair 479.00
	Oynaudio C	Symm.	(2)6			1	Dome		54-22	92	5	3k	4/4	19 x 12 x 10	Opt.	Opt.	19 <sup>1</sup> /2	Pair 749.00
	GS6	Array	12	(2)61/2	Cones	1	Dome		32-30	93	5	60,300,3k		37 x 14 x 11	Oak	Opt.	98	Pair 999.00
	GS.8	Symm. Array	(2)41/2			1	Dome		61-20 ±3	89	10	3k	8/4	16 x 8 x 7	Opt.	Opt.		Pair Kit, 299.00
	Kit #1494	Vented	18	10,8	Cone,	5	Horn	M,T	28-21	98	5	100,1.2k,	8/	46 x 29 x 19	Opt.	Brown	196	Pair Kit,
					Horn			, .	±3			5k				Knit		2999.00 Pair
	Kit #.2	Sealed	51/4			3⁄4	Dome		68-20 ±3	91	5	3k	4/8	12 x 8 x 7	Opt.	Brown Knit	9	Kit, 109.00
	Kit #.6	Sealed	61/2			1	Oome	т	58-20	92	5	3k	4/8	16 x 10 x 8	Opt.	Opt.	12	Pair Kit,
	Kit #1	Vented	8			11/4	Dome	т	±3 45-20	93	5	2k	4/8	25 x 14 x 11	Opt.	Opt.	29	149.00 Pair Kit,
									±3									149.00 Pair
	Kit #294	Vented	8	4	Cone	1	Dome		45-30 ±3	91	5	90,300,4k	4/8	19 x 12 x 10	Opt.	Opt.	18	Kit, 449.00
	Kit #394	Vented	12	51⁄4	Cone	1	Dome		38-30	92	5	80,200,3k	4/8	25 x 14 x 11	Opt.	Opt.	341/2	Pair Kit,
	Kit #494	Vented	10	(2)41/2	Cones	1	Dome		±3 33-30	93	5	70,250,3k	4/8	37 x 14 x 11	Dpt.	Opt.	64	549.00 Pair Kit,
	AL # 434	101100		(=)=72	001163		Donie		±3	30	ľ			57 8 14 8 11	οµι.	ομι.	04	629.00 Pair
	Kit #594	Vented	12	(2)6	Cones	1	Dome	м	32-30 ±3	93	5	60,300,3k	4/8	37 x 14 x 11	Opt.	Opt.	79	Kit, 699.00
	Kit #794	Vented	(2)10	(2)61/2	Cones	1	Dome		28-35	93	5	50,300,	4/8	37 x 14 x 11	Opt.	0-1	116	Pair Kit,
(Continued)			(-/ -	(-/-/-		· ·	Dome		±3	30	<u>۱</u> ۳	3k,8k		37 8 14 8 11	Opt.	Opt.	110	1199.00

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with thunderous realism and crystalline clarity, rendered with remarkable imaging and trueto-screen sound placement.

Choose to surround yourself gradually, or all at once with the identically matched Venturi V52 Plus dedicated center-channel speaker and V52 front-channel/ rear-channel speakers. And for astounding yet impeccably clean bass effect: the V12 powered subwoofer with separate component amplifier.

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MANUFACTURER	Mo	08.	M	- M	MIL MIL	14	14	Ser	Allo All S	4 - S	19	set cro	Int	40. 0.1.	File	Gr	We	ant Price
OLO SOUND Continued)	Kit #894	Vented	(2)12	(2)6	Cones	1	Dome		26-25 ±3	95	5	200,4k	4/8	44 x 18 x 14	Opt.	Opt.		Ki 1399.0
	Kit #1194	Vented	15	8	Cone	5x5	Horn	M,T	28-21 ±3	93	5	200,5k	8/	44 x 18 x 14	Opt.	Opt.	109	Pa K 1599. Pa
	Performance Pro 12 Kit	Sealed	12	_	0	3x7	Horn	T	50-21 ±3		5	3k	8/	20 x 16 x 15	Opt.	Black Metai	391/2	108. Ea
	M15 Performance	Sealed Vented	15 15	7 7	Cone Cone	3x7 8x10,	Horn Horns	M,T	45-21 ±3 45-21		5 5	500,5k 400,5k	8/ 8/	30 x 17 x 14 44 x 18 x 14	Opt. Opt.	Black Metal Black	57 70	349. Ea K
	Pro 15 Kit Performance Pro Double	Vented	(2)15	7	Cone	3x7 8x10, (2)3x7	Horns	M,T	±3 43-21 ±3	98	5	400,5k	4/	46 x 24 x 21	Opt.	Metai Black Metai	120	679. Ea K 999.
	15 Kit Performance Pro Double	Vented	(2)18	10	Cone	8x10, 5x5	Horns	M,T, St	⊥3 33-21 ±3	99	5	200,2k, 10k	4	Two Pieces Per Side	Opt.	Black Metal	240 Side	Ea K 1249.
	18 Kit Performance Pro 12JBL Kit	Sealed	12			3x7	Horn	T	45-21 ±3		5	3k	8/	20 x 16 x 15	Opt.	Black Metal		Sie
	M15JBL Performance	Sealed Vented	15 15	7 7	Cone Cone	3x7 8x10,	Horn Horns	M,T	39-21 ±3 39-21		5 5	500,5k 400,5k	8/ 8/	30 x 17 x 14 44 x 18 x 14	Opt. Opt.	Black Metal Black	62 80	589. Ea K
	Pro 15JBL Kit Performance	Vented	(2)15	7	Cone	3x7 8x10,	Horns	M,T	±3 38-21	100	5	400,5k	4/	46 x 24 x 21	Opt.	Metal Black	130	799. Ea
	Pro Double 15JBL Kit Performance	Vented	(2)18	10	Cone	(2)3x7 8x10, 5x5	Horns	M,T, St	±3 29-21	101	5	200,2k,	4/	Two Pieces Per Side	Opt.	Metal Black	280	1299. Ea 1949.
	Pro Double 18JBL Kit GS12 Kit	Subwoot.	12			525		31	±3 32-150 ±3	92	5	10k 150	4,8	18 x 18 x 16	Opt.	Metal Opt.	18	1949. Ea 99
	GS12(2) Kit	Compd. Load	(2)12						25-150 ±3	95	5	150	4,8	18 x 18 x 16	Opt.	Opt.	18	Ea 189
	JBL15 Kit	Subwoof. Subwoof.	15						28-150 ±3	96	5	150	8/	44 x 18 x 14	Opt.	Opt.	25	9 1 315
	JBL15(2) Kit	Compd. Load	(2)15						23-150 ±3	99	5	150	8/	44 x 18 x 14	Opt.	Opt.	50	598.
	JBL18 Kit	Subwoof. Subwoof.	18						28-150 ±3	95	5	150	8/		Opt.	Opt.	33	P 495.
	JBL18(2) Kit	Compd. Load Subwoof.	(2)18						23-150 ±3	98	5	150	8/		Opt.	Opt.	66	Ea  4  969.  P
	8C	In-Wall	8			11⁄4	Dome		40-25 ±3	92	5	4k	4/8		Opt.	Opt.	10	258. P
	BAC	In-Wall	8			2	Cone		32-20 ± 3	92	5	3k	4/8		Opt.	Opt.	18	318. P
	824 844	In-Wall Subwoof. In-Wall Subwoof.	8	1					32-2 ±3 30-2 ±3	92 92	5 5		4/8 4/8		Opt. Opt.	Opt. Opt.	16 24	199. P 249. P
GRADIENT	1.3	Line Source	8	12	Cone	(4)1½	Cones		45-20 ± 2.5	86	25	250,1.5k	4/3.5	38 x 15 x 11	Opt.	Opt., Metal	25	2500. P
	Avanti	Dipole & Bass Ref. Bass Ref.	6			3⁄4	Dome		60-22	86	25	3k	8/	20 x 10 x 12	Opt.	Opt.,	10	1250.
									±2							Foam		Pair Star
GREEN WOUNTAIN Audio	Imago Series II Diamonto	Line	10 8	4	Cone Cone	(2)1 <sup>1</sup> /8, 1/2x2 1 <sup>1</sup> /8	Domes, Ribbon	W,M, T,ST	35-35 ±3	90	35	350,3k,9k	8/5 e/E	14 x 18 x 52	Lacq. Chrry	Black Knit	200	7495. P
	Diamante Continuum 1	Trans. Line Trans. Line	12	41/2	Cone	1% 11/8	Dome Dome	M.T W,M, T	42-23 ±3 38-23 ±3	88 90	35 35	350,3k 300,3k	8/5 8/6	14 x 14 x 42 14 x 14 x 45	Mrbl. Marbl& Chrry	Black Mesh Black Mesh	110 85	3795 P 2995 P
EUBEN GUSS	Custom Monitor	Sat. & Inf. Baf.	(24)15	(48)5	Domes	(32)1, (100)3	Domes, Piezos	M,T	±3 10-30 ±3	98	100	400,460, 950,3.5k,	6/4	Six Pieces	Opt.	Black Knit	2200 Sys.	100,0 S
	System 1 Monitor	Sat. & Inf. Baf.	(12)15	(24)5	Domes	(16)1, (50)3	Domes, Piezos	M,T	15-30 ±3	98	50	4k 400,560, 950,3.5k, 5k	6/4	Four Pieces	Opt.	Black Knit	1100 Sys.	50,0 S
	System 2C Symphony	Sat. & Inf. Baf.	(4)15	(6)5	Oomes	(4)1, (12)3	D <mark>om</mark> es, Piezos	M,T	20-30 ±3	96	50	400,560, 950,3.5k, 5k	4/3	Four Pieces	Opt.	Black Knit	355 Sys.	16,0 S
	System 3 Concerto	Sat. & Inf. Bat.	(4)12	(6)5	Domes	(4)1, (8)3	Oomes, Piezos	M,T	30-30 ±3	92	50	400,560, 950,3.5k, 5k	4/3	Four Pieces	Opt.	Black Knit	350 Sys.	10,0 S
	System 4 Sonata System 5	Sat. & Inf. Baf. Sat. &	(2)12 (2)15	(2)5 (2)5	Domes Domes	(2)1, (6)3 (2)1, (6)3	Domes, Piezos Domes,	M,T M,T	30-30 ±4 25-30	88 88	50 50	460,3.5k 460,4k	8/6 5/4	Four Pieces Four Pieces	Mahog Mahog	Black Knit Black	140 Sys. 200	5000 6000
HALES AUDIO	Monitor System Three	Inf. Baf. Inf. Baf.	10	5	Cone	1	Piezos Dome		±3 31-20	84	100		5/5	13 x 20 x 45	Opt.	Knit Black Knit	Sys. 120	2650 P
Continued)	System Two	Inf. Baf.	(2)7			1	Dome		45-26 ±3	89	30		4/	11 x 16 x 38	Opt.	Black Knit	92	3300 P

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HALES AUDIO (Continued)	System Two Signature	Inf. Baf.	(2)7			1	Dome		45-26 ±3	87	50		4/	11 x 21 x 48	Opt.	Black Knit	181	5900.00 Pair
	System One Reference	Inf. Bat.	11	2	Oome	1	Dome		28-34 ±3	88	50		6/	13 x 35 x 52	Opt.	Black Knit	270	w/Xover 16,000. Pair w/Xover
HARBETH ACDUSTICS	HL5	Ported	8			1	Dome		50-18 ±3	86.5	25		8/	25 x 13 x 13	Teak	Black Foam	45	2700.00 Pair
	HL Compact	Ported	8			1	Dome		50-18 ± 3	88	25	Const.	8/	21 x 11 x 11	Black Ash	Black Foam	25	1600.00 Pair
	HLP3	Sealed Box	41/2			3/4	Dome		80-20 ±3	82.5		10.00	6/	12 x 7 x 7	Wal.	Black Foam	12	1100.00 Pair
	LS3/5a	Sealed Box	41/2			3/4	Dome		80-18 ± 3	82	15	-	10/	12 x 7 x 7	Teak	Black Tygan	12	1000.00 Pair
HARMAN KARDON	Ten	Tuned Port	51/4			3/4	Dome		65-20 ±2	86	15	3.3k	6/4	13 x 7 x 9	Gloss Black	Black Knit	12	229.00 Each
	Twenty	Tuned Port	61/2			3/4	Dome		50-20 ±2	87	15	2.2k	6/4	19 x 9 x 10	Gloss Black	Black Knit	211/2	329.00 Each
	Thirty	Tuned Port	8			1	Dome		45-20 ±2	88	12	2.2k	6/4	23 x 10 x 11	Gloss Black	Black Knit	281/2	449.00 Each
	Forty	Tuned Port	(2)61/2			1	Dome		40-20 ±2	90	10	2.2k	6/4	38 x 14 x 10	Gloss Black	Gray Knit	52	699.00 Each
	Fifty	Tuned Port	(2)8			1	Dome		35-20 ±2	91	10	400,2.5k	6/4	43 x 16 x 12	Gloss Black	Gray Knit	75	1099.00 Each
	Sixty	Tuned Port	(2)8	3	Dome	3/4	Dome		30-20 ±2	90	10	500,2.8k	6/4	50 x 19 x 12	Gloss Black	Opt., Kait	100	1599.00 Each
	One	Tuned Port	51/4			1/2	Dome		70-20 ±3	87	15		6/4	11 x 7 x 6	Black	Black Metal	7	119.50 Each
	Two	Tuned Port	61/2			7/8	Dome		60-20 ±3	88	12		6/4	17 x 9 x 8	Black	Black Metal	14	174.50 Each
	Three	Tuned Port	8	61/2		1/10	Dome		45-20 ±3	90	10		6/4	35 x 9 x 10	Black	Black Metal	35	334.50 Each
	CS5	Port	(2)4	(2) 51(	0	1/2	Dome		75-20 ±3	87	15	0.0	8/4	5 x 18 x 8	Black	Black Knit	18	179.00 Each
	AVS-30	Home Th.	(2)8	(3)5¼, (2)4	Cones	(3)1	Domes		35-20 ±3	90	30		6/4, 8/4	Seven Pieces	Gray	Gray Metal	55 Sys.	1099.00 Sys.
HARMONIC PRECISION	15C Echelon	Phase Aligned	6½ 8½	2	Dome	1	Dome Dome	1	47-20 39-20	88 90	40 60	2.7k 1.4k,7.5k	8/6 8/6	16 x 9 x 15 45 x 11 x 14	Wood Oiled Wal.	Black Knit Black Knit	25 65	695.00 Pair 1795.00 Pair
HARMS	Mini	Inf. Baf.	51/4			1	Dome		70-20	87	10	3k	8/7	13 x 9 x 16	Wal.	Black	12	280.00
SOUND LABS	HL1	Pas. Rad.	51/4			1	Dome		±2 45-20	87	10	3k	8/7	20 x 10 x 9	Stain Wal.	Knit Black	18	Pair 380.00
	HL1P	Pas. Rad.	6 <sup>1</sup> /2			1	Dome		±2 37-20	90	10	3k	8/7	22 x 10 x 10	Stain Wal.	Knit Black	22	480.00
	HL2	Pas. Rad.	8			1	Dome		±2 30-20	91	10	3k	8/7	24 x 14 x 10	Stain Wai.	Knit Biack	35	Pair 580.00
	HL3	Pas. Rad.	10	61/2	Cone	1	Dome		±2 26-20	90	10	300,3k	8/7	34 x 12 x 13	Stain Wal.	Knit Black	50	780.00
	HL4	Sat. & Pas. Rad.	12	(2)6 <sup>1</sup> /2	Cones	(2)1	Domes		±2 22·20 ±2	94	10	200,3k	8/4	Four Pleces	Stain Wal. Stain	Knit Black Knit	164 Sys.	Pair 1200.00 Sys.
	HL5	Subwoof. Sat. & Pas. Rad.	(2)12	(4)51/4	Cones	(4)1	Domes		18-20 ± 2	97	10	150,3k	8/4	Six Pieces	Wal. Stain	Black Knit	230 Sys.	3000.00 Sys.
	Small Subwoofer	Subwoof. Pas. Rad. Subwoof.	10						To 150 ± 3	91	30	125	4/4	25 x 14 x 10	Wal. Stain	Black Knit	38	249.00 Each
	Large Subwoofer	Pas. Rad. Subwoof.	12						± 3 To 150 ± 3	94	50	125	4/4	32 x 17 x 13	Wal. Stain	Black Knit	<mark>53</mark>	399.00 Each
	HL Small Loud	Bass Ref.	8	1		4x4	Horn		40-18	96	10	4k	8/8	22 x 10 x 10	Black Lacq.	Black Knit	22	199.00 Pair
	HL Large Loud	Bass Ref.	10			4x4	Horn		35-18	96	10	4k	8/8	24 x 14 x 10	Black Lacq.	Black Knit	29	299.00 Pair
	HL Small PA	Bass Ref.	12	2x7	Horn	2x5	Horn		55-22	101	10	2k,4k	8/8	25 x 16 x 14	Cptg.	Metal	35	399.00 Pair
	HL Large PA	Bass Ref.	15	10	Cone	2x5	Horn		40-22	102	10	250,4k	8/8	33 x 19 x 14	Cptg.	Metal	61	599.00 Pair
HARRISON LABORATORIES	PM-Cube	Subwoot.	10						30-90 ±3	94	50		4/2	16 x 16 x 16	Oak Ven.		35	249.00 Each
LAUUNATUNI23	PM-Bass	Powered Trans. Line	6 <sup>1</sup> /2					w	±3 40-120 ±3	110 Max		120		31 x 9 x 5	Black		18	399.00 Each
	PM-3Way	Woofer Triamp; Trans. Line	61/2	3	Cone	11/2	Crystal	W,M, T	40-20 ±5	116 Max		120,2.5k		31 x 9 x 5	Black		20	499.00 Each
HARTLEY	Compact Reference	Air Col.	61/2			1	Oome	No	45-25 ±4	87	10	5k	8/6	12 x 12 x 16	Opt., Wood	Black Knit	30	400.00 Pair
	Reference	Air <mark>Col</mark> .	(4)61/2			(4)1	Domes	No	24-25 ±3	95	5	3.6k	5/4	18 x 18 x 45	Opt., Wood	Black Knit	100	1500.00 Pair
	Reference Mini-Tower	Air Col.	(2)61/2			1	Oome	No	32-25 ±3	93	5	3.1k	5/4	33 x 12 x 12	Opt., Wood	Black Knit	50	695.00 Pair
	Concertmaster	Inf. Baf.	18	10	Cone	(2)7	Cones	No	16-25 ±3	92.5	25	125,3k,8k	8/5	29 x 18 x 42	Opt., Wood	Black Knit	175	6095:00 Pair
	Reference	Inf. Baf.	24	10	Cone	(2)7	Cones	No	16-25 ±3	93	25	12 <mark>5,3k,8</mark> k	8/5	36 x 24 x 50	Opt., Wood	Black Knit	300	7295.00 Pair
	SW-10	Air Col. Subwoof.	10					Na	25-3.8 ±3	93	15		8/6	18 x 18 x 24	Opt., Wood	Black Knit	70	550.00 Each
	SW-18	inf. Baf. Subwoof.	18					No	16-350 ±4	92.5			5/4	29 x 18 x 42	Opt., Wood	Black Knit	150	1100.00 Each
	SW-24	inf. Baf. Subwoof.	24			Ļ		No	16-250 ±3	93	25		5/4	36 x 24 x 50	Opt., Wood	Black Knit	250	1495.00 Each

AUDIO/OCTOBER 1993



#### DYNAMIC BALANCE." IT TOOK A JUGGUNG ACT TO ACHIEVE IT. NOW WE'LL NEVER DROP IT.

The trick to Dynamic Balance™ is to juggle a number of considerations and materials at the same time. If you do it right, you wind up with the astonishing sound of the new S Series.

Could we discover the perfect combination of materials to defeat unwanted resonance? In the S Series you'll find a cone made out of composite materials, whose blending insures clarity and musical purity.

Could we find a means of joining cone to basket that would assist in this damping function, too? In the S Series you'll also see a highly sophisticated rubber surround that extends all the way to the edge of the basket to do exactly that.

Could we project the new tweeters' output to maximize dispersion, yet minimize diffraction? Every S speaker features a unique baffle frame and tweeter faceplate to preserve musical depth and width as it takes the guess-work out of room placement.

The old axiom that the whole is greater than the sum of its parts was never more true than when we matched these new drivers and tweeters to create four remarkable sound systems. You'll hear a new level of clarity, transparency, and sound staging no equivalently priced speaker, and few expensive ones, can match.

The "package" we designed to house all this engineering prowess is especially befitting. The new S4, S6, S8 and S10 cabinets are available in an elegant black ash or a traditional oak grain finish.

But no matter which of the S Series you choose, you'll know these Dynamically Balanced speakers feature enduring sound advances.

And that's a thought you shouldn't drop.

# THE NEW S SERIES FROM THE SPEAKER SPECIALISTS OF

5601 Metro Drive, Baltimore, MD 21215 USA, (410) 358 3600. In Canada call (416) 847-8886. Enter No. 86 on Reader Service Card

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HIGH BISCUS	Kevin Ingram One	Vented	(6)7	28x13	Horn	51/4X 51/4	Horn, Leaf		40-85	94		600,3.5k, 12k	8/6	68 x 28 x 32	Mahog	None	130	1350.00 Each
HINSON AUDIO	Jade Signature	Inf. Baf.	8	2	Dome	1	lnv. Dome		50-25 ±2	87	50	800,4.5k	8/6	11 x 11 x 40	Opt., Wood	Black Knit	88	5000.00 Pair
	Pearl Signature		7			1	lnv. Dome		55-25 ±2	85	50	2k	8/6	10 x 10 x 18	Opt., Wood	Black Knit	35	3000.00 Pair
HSU RESEARCH	HRSW 10	Bass Ref. Subwoof.	10					SW	20-100 ±1		40	40-100	8/7	14 Dia. x 27	Oiled Wal	Black Knit	23	800.00 Pair
	HRSW 12	Bass. Ref. Subwoof.	12					SW	19-100 ±1		40	40-100	8/6	13 Dia. x 82	Oiled Wal.	Black Knit	35	1600.00 Pair
	HRSW 212 HRIBR	Bass Ref. Subwoof. Bass Ref.	(2)12					sw sw	16-100 ±1 10-100		100 1k	28-91 20-40	8/6	21 Dia. x 90 Sixteen	Rswd. Rswd.	Black Knit Black	100 2400	5000.00 Pair 80,000.
		Subwoof.	(16)18	<u> </u>				34	±1	00			_	Pieces		Knit	Sys.	Sys.
ACDUSTICS	Lumen Lumen SE	Bass Ref. Bass Ref.	6½ 6½			1	Dome Dome		55-22 ±3 55-22	90 90	20 20	1.5k 1.5k	8/5 8/5	10 x 11 x 18	Opi. Opt	Black Knit Black	26 28	795.00 Pair 995.00
	Joule	Bass Ref.	8			1	Dome		±3 32-22	90 88	20 40	1.5k	8/3 8/5	11 x 11 x 44	Opt. Opt.	Black Knit Black	20 70	Pair 1495.00
	Parsec	Bass Ref.	10	61/2	Cone	1	Dome		± 3 25-22	90	40	350,1.5k	8/5	12 x 16 x 47	Opt.	Knit Black	98	Pair 1995.00
	Micron	Bass Ref.	7			1	Dome		±3 42-35	88	30	1.5k	8/5	15 x 18 x 22	Dpt.	Knit None	50	Pair 4995.00
MPULSE	LeF II	Sat. &	12			(4)2	Cones	T	±3 28-22	88	100	250	4/2	Two Pieces	Oak	Black	80	Pair 3000.00
		Ported Subwoof.		İ.			0		±3		100	250		Per Side	0	Knit	Side	Side
	LeF III LeF VDG	Ported Horn	8 18	4	Horn	2	Cone Horn	W, M,	46-22 ±3 40-18	88 110	100 (3)	250 150,4k	4/2 8/4	10 x 8 x 14 74 x 48	Oak Fbgis	Black Knit	32 300	2500.00 Pair 30,000.
						-		T	± 3		(3) 100	100,44	0,4		1 0 9 10			Pair w/Xover
INCUS	GFS-5	Ported	5											11 x 7 x 9	Black	Black Knit		230.00 Pair
	GFS-6II	Ac. Sus.	6											12 x 8 x 9	Black	Black Knit		260.00 Pair
	GFS-8	Ac. Sus.	8	_		-14								17 x 10 x 8	Black	Black Knit		360.00 Pair
	GFS-12 GFS-Sub	Ported	12	5	Cone	21/2	Cone						12.1	25 x 3 x 11	Black Black	Black Knit		380.00 Pair 290.00
	CTR-14	Subwoof. Ctr. Ch.	(2)6											13 x 21 x 11	Black	Black		Each 150.00
	IFS-525	In-Wall	51/4			1	Dome							9 x 7 x 3	White	Knil White		Each 200.00
	IFS-650	In-Wall	61/2			1	Dome							12 x 9 x 3	White	Metal White		250.00
	IFS-800	in-Wall	8			1	Dome								White	Metal White Metal		Pair 430.00 Pair
INFINITY	IRS Series V	Servo	(12)12	(24)	EMIMs	(72) 1/2x2	EMITS	M,T,	16-44	87	108	70,5k	4/3	Four Pieces	San-	Brown	1550	60,000.
	IRS Epsilon	Planar	12	4x6	Planar	<sup>1</sup> /2x2 (2)	EMITS	ST W, M,	±2 25-35	86	150	150,500,	4/	59 x 18 x 15	tos Opt.	Cloth Black Cloth	Sys. 150	Sys. 10,000. Pair
	Signature Kappa 5.1	Ported	6½		Mag.		EMIT R		±1.5			3k			Dpt.	Black		850.00 Pair
	Kappa 6.1	Ported	8	3	Dome		EMIT R		45-35 ±2	89	30	500,4.5k	6/	38 x 12 x 9	Opt.	Black	48	629.00 Each
	Kappa 7.1	Ported	10	3	Dome		EMIT R		39-35 ±2	89	40	500,4.5k	6/	43 x 14 x 10	Opt.	Black Black	63 97	799.00 Each
	Kappa 8.1 Kappa Video	Ported Ported	12 (2)5½	61/2	Dome		EMIT R	M,T	32-35 ±2 90-35	89 89	40 25	180,700, 4.7k 4k	6/ 6/	48 x 17 x 12 21 x 8 x 6	Opt. Dpt.	Black Cloth Black	87 16	2198.00 Pair 399.95
	SM 152	Ported	15	(2)41/2	Cones	1	Dome	M,T	±2 44-25	102	10	500,5.5k	8/	40 x 18 x 13	Vinyl	Cloth Black	76	Each 1198.00
	SM 122	Ported	12	41/2	Cone	1	Dome	M,T	±3 49-25	100		750,5.5k	8/	35 x 15 x 13	Vinyl	Black	66	Pair 918.00
inter and	SM 112	Ported	10	41/2	Cone	1	Dome	т	±3 59-25	100	10	900,5.5k	8/	30 x 14 x 13	Vinyl	Black	56	Pair 738.00 Pair
e	SM 102	Ported	10			1	Oome		±3 65-25 ±3	100	10	3.3k	8/	21 x 12 x 12	Vinyl	Black	34	538.00 Pair
8 C	SM 82	Ported	8			1	Dome		72-25 ±3	98	10	2.8k	8/	18 x 11 x 11	Vinyi	Black		438.00 Pair
	SM 62	Ported	61/2			3/4	Dome		78-25 ±3	94	10	5k	8/	13 x 8 x 13	Opt. Vinyi	Black Cloth	13	279.95 Pair
	SL 10	Sealed Box	51/4			1/2	Dome		74-20 ±3	90 90	10	4.5k	6/	8 x 12 x 6	Opt., Vinyl Dak	Black Cloth Black	9 12 <sup>3</sup> ⁄4	158.00 Pair 198.00
	SL 20 SL 30	Sealed Box Ported	6 <sup>1</sup> /2 6 <sup>1</sup> /2			1/2 3/4	Dome Dome		70-20 ±3 65-20	90 92	10 20	3.5k 3.3k	6/ 6/	9 x 14 x 7 11 x 18 x 9	Oak Vinyl Oak	Cloth Black	12%	278.00
	SL 30	Pas. Rad.	8	6 <sup>1</sup> /2	Соле	3/4	Dome		±3 52-20	92	20	3.3k	6/	11 x 10 x 3 11 x 31 x 12	Vinyl Oak	Cloth Black	321/2	Pair 378.00
	SL 50	Pas. Rad.	(2)8	8	Cone	3/4	Dome		±3 40-20	92	20	3.3k	6/	11 x 38 x 12	Vinyl Oak	Cloth Black	401/2	Pair 594.00
	SL Micro	Sealed	(2)61/2	31/2	Cone	1/2	Dome		±3 50·22	87	10		6/	Three Pieces	Vinyl Black Vinyl	Cloth Black Metal	31 Sys.	Pair 399.00 Sys.
	System	Sat. & Ported Subwoof.							±3						Vinyl	metal	345.	ays.
(Continued)	SL Micro Satellites	3 Sealed Sats.		31/2	Cone	1/2	Dome		150-22 ±3	87	10		6/	Three Pieces	Black Vinyl	Black Metal	14 Sys.	199.00 Sys.

#### **The Velodyme 15" Subwoofer:** Controlling Brute Force Through Superb Engineering

High-output, low distortion bass response can only be achieved by creating and controlling the power of brute force. Perfection of such an accomplishment demands superb engineering, critical manufacturing, and dedication to ideals: A feat, according to the audio press and listeners worldwide, that has been attained only by Velodyne Acoustics.

More than a decade of engineering excellence has generated Velodyne's "High Gain Servo" speakers to the forefront of the audio industry.

Velodyne's patented speakers are built in-house, to the most exacting specifications, using the finest materials available. With their superb design, engineering, and errorcorrection electronics, Velodyne's subwoofers remain the standard by which all others are judged.

#### LOW MASS (2.5 GRAMS) ACCELEROMETER The brains of

Velodyne's patented "High Gain Servo System,"



this amazing device is mounted directly on the voice coil, and measures the actual movement of the driver. The information is sent to a circuit, which makes corrections for any deviations from the pure input signal. This "error correction" circuit virtually controls the motion of the driver, and eliminates distortion. **HOLE PATTERN IN CONE** Used to break up unwanted standing waves radiating from the throat of the cone.

#### HIGH DENSITY FOAM SURROUND PNENOLIC IMPREGNATED LINEN SPIDER / AND SPACER To handle the long, 5/8 inch

peak-to-peak cone excursion, Velodyne uses the strongest most durable surround and spider available.

#### 3 OUNCE RESIN REINFORCED CELLULOSE CONE

Disatisfied with "off the shelf" cones that flex and distort when called upon to reproduce the lowest bass frequencies, Velodyne designed the strongest and stiffest cone ever produced.

#### 3 INCH EDGEWOUND COPPER VOICE COIL

Carefully matched to the massive magnet structure, it assures constant linearity and instant response.

#### STEEL BASKET

Specially designed to accept the deep cone and voice coil structure.

#### 26 LB TOTAL MAGNET STRUCTURE

One of the largest magnet structures on any speaker, it provides the necessary torque required for maximum high-output, low distortion bass response. Includes:

STEEL TOP AND BOTTOM PLATES

10 LB. CERAMIC MAGNET STEEL POLE PIECE 3 1/2 LB. CERAMIC SHIELDING MAGNET

Velodyne The Bottom Line In Bass

Velodyne Acoustics, Inc. 1070 Commercial St., Suite 101 San Jose, CA 95112 408/436-7270 800/835-6396

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INFINITY (Continued)	SS 2001	Box	3%4			УZ	Dome		±3	50	10	4.5k	6/	6 x 12 x 6	Black Vinyl	Black Cloth	9	159.00
	SS 2002	Sealed Box	61/2			1/2	Dome		70-20 ±3	90	10	3.5k	6/	9 x 14 x 8	Black Vinyl	Black Cloth	141/2	Pair 219.00 Pair
	SS 2003	Sealed Box	8			1	Dome		50-25 ±3	90	10	3k	6/	11 x 18 x 9	Black Vinyl	Black Cloth	201/2	329.00 Pair 429.00
	SS 2004	Sealed Box	8		Como	1	Dome		47-25 ±3	90	15	3k	6/	11 x 33 x 9	Black Vinyl	Black Cloth	35	Pair
	SS 2005 CS 3006	Sealed Box Ported	8 8	5	Cone Cone	1	Dome EMIT R		40-25 ±3 55-35	90 86	20 30	400,3.5k	6/ 6/3	11 x 22 x 12	Black Vinyl	Black	51 25½	559.00 Pair
	CS 3000	Ported	o (2)8	5	Cone	1	EMIT R		±3 50-35	87	30	450,3k 450,3k	6/3		Opt. Opt.	Black Cloth Black	25 %2 54	899.00 Pair 1199.00
	CS 3008	Ported	10	5,6½	Cones	1	EMIT R		± 3 45-45	87	40	300,1.1k,	6/3		Opt.	Cloth Black	63	Pail 1599.00
	CS 3009	Ported	(2)10	5,61/2	Cones	1	EMIT R		±3 40-35	87	40	3k 300,1.1k,	6/3		Opt.	Cloth Black	76	Pair 1999.00
	RS125	Sealed	51⁄4			1/2	Dome		±3 74-20	90	10	3k 4.5k	6/	8 x 12 x 7	Opt.,	Cloth Black	71/4	Pair 179.00
	RS225	Box Sealed	61/2			1/2	Dome		±3 70-20	90	10	3k	6/	9 x 14 x 8	Vinyl Opt.,	Cloth Black	111/2	Pair 21 <mark>9.0</mark> 0
	R\$325	Box Ported	61/2			3/4	Dome		±3 65-25	92	20	3.3k	6/	9 x 17 x 11	Vínyl Opt.,	Cioth Black	13 <sup>1</sup> /2	Pair 289.00
	RS425	Pas. Rad.	(2)61/2			3/4	Dome		±3 58-25	92	20	3.1k	6/	9 x 23 x 11	Vinyl Opt.,	Cloth Black	211/4	Pair 459.00
	R\$525	Pas. Rad.	(2)61/2			1	Dome		±3 52-25	92	20	2.8k	6/	9 x 32 x 12	Vínyl Opt.	Cloth Black	321/2	Pair 550.00
	RS625	Pas. <mark>Rad</mark> .	(2)8			1	Dome		±3 40-25	92	25	2.8k	6/	11 x 38 x 14	Vínyi Opt.,	Cloth Black	44	Pair 650.00
	RS Video	Ported	(2)5¼		1	1	Dome		±3 100-25 ±3	89	20	2.2k	8/	19 x 7 x 6	Vinyl Opt., Vinyl	Cloth Black	15	299.00
	RS10 SUB	Ported Subwoof.	10					w	40-200 ± 3			50-200		13 x 13 x 13	Opt., Vinyl	Cloth Black Cloth	34	Each 779.00 Each
	RS12 SUB	Ported Subwoof.	12					w	35-200 ± 3			(Var.) 50-200 (Var.)		17 x 17 x 17	Opt., Vinyl	Black Cloth	54	999.00 Each
	Renaissance 80	Sealed Box	8		EMIM		EMIT		35-45 ±3	87	75	550,3k	4/	41 x 14 x 11	Opt., Oak	Black	65	999.00 Each
	Renaissance 90	Sealed Box	10		EMIM		EMIT		27-45 ±3	87	75	200,600. 3k	4/	49 x 17 x 12	Opt., Dak	Black	80	1599.00 Each
	Infinitesimal Four	Ported	51/4				EMIT R		100-40 ±3	90	10	5k	6/	10 x 6 x 7	Black Strct.	Black Metal	191⁄2	419.95 Pair
	Infinitesimal	Ported	(2)51/4				EMIT R		100-40	90	10	5k	6/		Foam Black	Black		299.00
	Video	Ctr. Ch. Ported	10					w	±3 40-200			50-200		13 x 13 x 13	Vinyi Black	Metal Black	34	Each 648.00
	SUB Video One	Subwoof. Cir. Ch.	51/2			1/2	Dome		±3 58-20	89	5	(Var.) 4.5k	8/	18 x 7 x 5	Vinyl Black	Cloth Black	14	Each 189.00
	Micro II	Sat. &	(2)61/2	4	Cone	1/2	Oome		±3 25-40	90	20	5k,150	6/4	Three Pieces	Black	Black	36	Each 779.00
	SSW-210	Ported Subwoof. Sealed	(2)10					w	±3 30-120			40-120		18 x 26 x 9	Opt.	Black	Sys.	Sys. 1098.00
		Box Subwoof.	(2)10						±3			(Var.)		10 x 20 x 3	Ομι.	DIACK	57	Each
	SSW-212	Sealed Subwoof.	(2)12					W	25-120 ±3			40-120 (Var.)		20 x 31 x 11	Opt.	Black	71	1598.00 Each
	ERS 440	In-Wall	4						90-15 ±3	85	8		4/	7 x 7 x 3	White ABS	White Metal	23/4	180.00 Pair
	ERS 540	In-Wall	51/4			3/4	Dome		75-22 ±3	85	10	6k	4/	8 x 8 x 3	White ABS	White Metal	31/2	250.00 Pair
	ERS 640	In-Wall	6			3/4	Dome		60-22 ±3	85	15	3.8k	4/	13 x 9 x 3	White ABS	White Metal	5	320.00 Pair
	ERS 840	In-Wall	8						50-45 ±3	85	20	3.8k	4/	16 x 11 x 4	White	White Metal	71⁄4	580.00 Pair
INTERSONICS	Contra Bass	Powered Pas. Rad. Subwoof.	(2)15						16-100 ±1.5	91	100 Inc.	80-100 (Adj.)	4/ 2.75	18 x 22 x 37	Opt.	Opt.	120	2160.00 Each
IN-WALL AUDIO	IWA808	in-Wall Ported	(2)8			1	inv. Dome		35-25	92	30	3.2k	8/6	48 x 14 x 3	Black Lam,	Opt., Cloth	21	1095.00 Pair
	IWA800	In-Wall Ported	8			1	Inv. Dome		40-25	89	30	3.2k	8/6	36 x 14 x 3	Black Lam.	Opt., Cloth	18	892.00 Pair
	IWA650	In-Wall Ported	61/2			1	Dome		60-22	89	30	3.2k	8/6	24 x 14 x 3	Black Lam.	Opt., Cloth	14	580.00 Pair
	Retronx	in-Wall Closed Box	61/2			1	Dome		70-22	89	30	3.2k	8/6	8 x 11	Black Lam.	Opt., Cloth	10	499.00 Pair
ISLAND AUDIO	Islander	Sealed, Outdoor	61/2			1	Dome	No	55-20 ±5	89	50		4/	7 x 7 x 27	Matte Black	Wire Mesh	20	975.00 Pair
	Islander Light	Sealed, Outdoor	61/2			1	Oome	No	55-20 ±5	89	50		4/	7 x 7 x 31	Matte	Wire	25	1450.00 Pair
JACKSON LOUDSPEAKER	AU-3	Air Sus.	51/4			1.5/8	Domes		85-20	87	30	2.5k,12k	8/6	14 x 7 x 7	Opt.	Opt.,	11	949.00
Levogi LANEN	AU-6	Hybrid, Pas. Rad.	61/2,8			1,5⁄8	Domes		±3 48-20 ±3	87	50	2k,10k	8/6	17 x 11 x 11	Opt.	Knit Opt., Knit	28	Pair 1849.00 Pair
	AU-20	Hybrid, Pas. Rad. Subwoof.	10,15						33-100 ±3	90	100	100	8/6	18 x 17 x 18	Opt.	Öpt., Knit	29	929.00 Each
JAMO	707	Bass Ref.	(2)8	(2)5	Cones	1	Oome		35-20 ±3	90	70	150,3k	8/6	41 x 10 x 15	Mahog	Black	51	1500.00 Pale
	507	Bass Ref.	(2)6½	(2)4	Cones	1	Oome		±3 40-22 ±3	88	150	150,3k	8/6	37 x 9 x 4	Mahog	Black	42	1200.00 Pair
	407	Bass Ref.	61/2	1	Cone	1	Dome		45-20 ±3	88	80	300,108	8/6	16 x 9 x 10	Mahog	Black	15	700.00 Pair

AUDIO/OCTOBER 1993 250

### Most Subwoofers Give You 25% More Than You Bargained For!

"Muddy" or "boomy" sounding bass is the by-product of TONAL HARMONIC DISTORTION (THD), the result of an increase in sound pressure level and a decrease in definition. THD is caused when a speaker is unable to accurately reproduce the required musical signal, creating extra harmonics that don't belong in the music. *And surprisingly, 25% THD is a typical accepted distortion specification for most of the subwoofers on the market today.* 



#### "It is the cleanest low-frequency reproducer I've ever beard." \*

Velodyne solves the distortion problem with their patented "Motional Feedback – High Gain Servo" System. Unlike most "Servo" systems, which are based on voice coil impedance fluxuations and offer little improvement, Velodyne's system is based on a motion sensing device called an accelerometer.



This device is mounted directly to the speaker's voice coil, specificially to measure the acceleration of the speaker cone. The information is then sent to a comparator circuit, which compares the differences between the pure signal from the source and the signal derived from the speaker's motion. *These differences represent distortion*.

The signal going to the woofer is then corrected (at 3500 times per second), to match the source signal. The result – *clear, powerful bass with virtually no distortion* – is the sound of a Velodyne.



#### "...the Velodyne produced no distortion I could hear or see on the scope...This placed it in a class by itself." \*

Velodyne invented high-technology, low distortion subwoofers over ten years ago, receiving such critical acclaim from the audio press worldwide that it remains the standard by which others are judged.

Which is exactly what you bargained for.

"...If you want it all, the Velodyne is the subwoofer of choice." \*

Velodyne Acoustics, Inc. 1070 Commercial St., Suite 101 San Jose, CA 95112 408/436-7270 800/835-6396

\* Graphs & quotes reproduced from "THUNDER IN THE LISTENING ROOM by D.B.Keele, Jr. – Andio Magazine, Nov. 1992 Enter No. 114 on Reader Service Card

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MO	307	Bass Ref.	51/4	(-	(	1	Dome	$\leftarrow$	50-20	87	70	3k	8/6	12 x 7 x 10	Mahog	Black	11	500
onlinued)	Oriel	Bass Ref.	(2)81/4	61/2	Honey-	1	Dome		±3 20·22	87	70	100,3k	8/6	70 x 16 x 12	Smoke	Gray	159	9000
			(=)=		comb										Glass, Chrry	Cloth		
	Center 100	Ctr. Ch.	(2)4			1	Dome		40-20	90	40	3k .	<b>B</b> /	17 x 4 x 7	Gray Alum,	Metal	121/2	189 E
	Graphic	Wall Mount	51⁄4			1	Dome		40-20	88	35	3k	<b>B</b> /	15 x 3 x 17	Smoke Acryl.	Opt., Cloth	6%	59
	Professional 200	Bass Ref.	10	5	Horn		Horn		35-20 ±3	92	80	1.2k,6k	8/3	26 x 15 x 12	Black		42	399 E
	Professional 300	Bass Ref.	12	5	Horn	(3)	Horns		30-20 ±3	93	100	1k,5k	8/3	30 x 17 x 13	Black		57	<b>5</b> 9
	Professional 400	Bass Ref.	15	5	Horn	(5)	Horns		25-20 ±3	94	180	900,4k	8/3	35 x 21 x 17	Black		93	89
	Classic CL-20A	Bass Ref.	8			1	Dome	n a	40-20 ± 3	92	40	3.5k	B/3	18 x 11 x 10	Opt.		18	19
	Classic CL-25A	Bass Ref.	8	4	Cone	1	Dome		37·20 ±3	92.5		2.5k,5k	8/3	21 x 11 x 10	Dpt.		25	24
	Classic CL-30A	Bass Ref.	8	4	Cone	1	Dome		35-20 ±3	92.5		2.5k,5k	8/3	33 x 11 x 10	Opt.		29	29
	BX 100	Bass Ref.	8	3	Cone	1	Horn		40-20 ±3	91	45	2k,4.2k	8/3	21 x 12 x 11	Black		22	24
	BX 150	Bass Ref.	10	3	Cone	1	Horn		35-20 ±3	92	60	2.3k,5k	8/3	25 x 15 x 12	Black		30	29 34
	BX 200	Bass Ref.	12	3	Cone	1	Horn		30-20 ±3	93	90	2k,3k	8/3	28 x 17 x 13	Black	Riask	39	34 9
	Cornet 40	Bass Ref.	5¼			1	Dome		50-20 ±3	89	30	3k	8/3 8/3	12 x 8 x 9 15 x 9 x 9	Black Black	Black Black	8 6	13
	Cornet 50	Bass Ref.	6 <sup>1</sup> /2		Cana	1	Dome		47-20 ±3 47-20	90	35	1.5k,5k	6/3 B/3	15 x 9 x 9	Black	Black	13	14
	Cornet 60	Bass Ref.	61/2	3	Cone	1	Dome	[	±3 43·20	90 90	35 40	1.5k,5k 400,3k	8/3	30 x 11 x 11	Black	Black	22	19
	Cornet 70	Bass Ref.	(2)6½ 8	3	Cone	1	Dome Dome		±3 40-20	90 91	40 55	1.5k,4k	8/3	34 x 11 x 10	Black	Black	22	21
	Cornet 75	Bass Ref. Bass Ref.	51/4	3	COILE	1	Dome		±3 40-20	88	35	3k	B/3	15 x 10 x 6	Opt.	Metal	8	39
	Atmosphere Art	Wall-	51/4			1	Dome		±3 40-20	88	35	3k	8/3	14 x 16 x 4	Opt.	Metal	11	24
	An	Mount Bass Ref.	J 74				Duine		±3			UK .	0.0		op.	menar		1
	Silhouette	Bass Ref.	51/4	51/4	Cone	1	Dome		47-20 ±3	90	35	300,4k	8/3	48 x 10 x 7	Opt.	Black	22	39
	Converta	Bass Ref.	4			2	Cone		80-20 ± 3	90	30	2.5k	B/3	9 Dia.	Opt.	Opt., Metal	41/2	19
	SW 100 System	Sat. & Subwoof.	(2)6 <sup>1</sup> /2	4	Cone	2	Cone		35.20 ±3	90	45	80,200, 4.5k	8/3	Three Pieces	Opt.	Opt.	35 Svs.	49
	Compact System	Sat. & Subwoof.	(2)6 <sup>1</sup> /2	31/2	Cone	2	Cone	0	45-20 ±3	90	30	80,200, 2.5k	8/3	Three Pieces		Black Metal	Sys. 27 Sys.	34
	SW 300 System	Sat. & Subwoof.	(2)8	4	Cone	3/4	Dome		30-20 ±3	90	45	80,200, 3.5k	8/3	Three Pieces	Opt.	Metal	36 Sys.	69
	SW 500 System	Sat. & Subwoof.	(2)10	4	Cone	1	Dome		30 <mark>-20</mark>	90	60	200,3.5k	<b>B</b> /	Three Pieces	Black Ash,	Black Cloth	6Ó Sys.	79
													4		Smoke Acryl.			
	SW 600	Powered Subwoof.	(2)10					W	30-150 ±3	90	100 Inc.	80-150 (Var.)		16 x 13 x 21	Black		55	99
NIS	W1	Slot Loaded	15						30-100 ±1	87	60	100	8/7	18 x 22 x 22	Oiled Wal.	Black Wood	100	85
	W3	Subwoof.	12						30-100	85	60	100	8/7	18 x 18 x 18		Black	67	60
	113	Loaded Subwoof.	12						±1						Wal.	Wood		
	System 3/A	Powered	12						30-100 ±1	85	50 Inc.	100	8/7	18 x 18 x 18	Oiled Wal.	Black Wood	87	99
		Loaded Subwoof.						1										
IL.	PS60	Powered	61/2				-	-	32-250		50	50-200		11 x 14 x 7	Black	Gray	19	44
	PS100	Subwoof. Powered Subwoof. Powered	10						30-250		Inc. 50	(Var.) 50-200		14 x 17 x 9	Vinyl Black	Cloth Gray	32	54
	PS120	Subwoof. Powered	12						23-250		Inc. 100	(Var.) 50-200		15 x 19 x 10		Cloth Gray	36	67
	SC305	Subwoof. Ctr. Ch.	5			1/2	Dome		100-20	87	Inc. 100	(Var.) 2.7k	8/	7 x 20 x 6	Vinyl Black	Cloth Gray	14	17
	P10	Tuned	51/4			1/2	Dome		70-20	87	10	3k	6/	12 x 7 x 9	Wal.	Cloth Gray	4	•
	P20	Port Tuned	6½			1	Dome		±6 55-20	88	10	3k	6/	15 x 9 x 9	Wal.	Knit Gray	6	1:
	P30	Port Tuned	8	5	Cone	1	Dome		±6 50-20	89	10	600,3.5k	<b>B</b> /	21 x 11 x 10	Wal.	Knit Gray	10	2
	P40	Port Tuned	10	5	Cone	1	Dome		47-20	89	10	600,3.5k	8/	24 x 12 x 13	Vinyl Wal.	Knit Gray	26	32
	P50	Port Tuned	(2)8	5	Cone	1	Dome		42-20	91	10	600,3.5k	6/	38 x 11 x 13	Vinyi Wal.	Knit Gray	36	4
	11	Port Tuned	61/2			1	Dome		47-27	87	35	3k	8/	16 x 8 x 10	Vinyl Black	Knit Charc.	16	3
	L3	Port Tuned	8		1	1	Dome		±6 35-27	89	35	3k	8/	33 x 10 x 12		Charc.	37	4
	L5	Port Tuned	8	5,61/2	Cones	1	Dome		±6 35-27	90	35	170,900,	6/	37 x 10 x 13		Charc.	54	64
	L7	Port Tuned	12	5,8	Cones	1	Dome		30-27	91	35	4k 180,900,	6/	46 x 10 x 18		Charc.	75	9
Continued)		Port							±6			4k			Ash			

## Velodyne Subwoofers: Heard In The Finest Places

#### The Bottom Line In Bass

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## DSPEAKERS Endowed States Inc

Inches

BL (ontinued)	LX300	Tuned Port	61/2			1	Dome	50-23	90	10	2.7k	8/	16 x 9 x 10	Black	Black	18	198.0
onunueu)	LX440	Fort Tuned Port	8			1	Dome	45-23	90	150	2.4k	8/	21 x 11 x 13	Vinyl Black	Knit Gray	30	Ea 259.0
	LX500	Tuned	8	5	Cone	1	Dome	45-23	90	10	750,3.4k	8/	24 x 11 x 13	Vinyl Black	Cloth Black	34	Ea 319.
	LX600	Tuned Port	10	5	Cone	1	Dome	40-23	91	10	800,4.7k	8/	26 x 13 x 12	Vinyl Black Vinyl	Knit Black Knit	39	Ea 429. Ea
	J2045	Tuned Port	51⁄4			1/2	Dome	70-20	87	80	4k	8/	12 x 8 x 7	Oak	Gray Cloth	8	89. Ea
	J2050	Tuned Port	51⁄4			5⁄8	Dome	70-23	88	10	4k	8/	13 x 8 x 6	Vinyl Oak Vinyl	Gray	8	99. Ea
	J2060	Tuned Port	61⁄2			5/8	Dome	45-23	89	10	4.5k	8/	17 x 9 x 8	Oak Vinyl	Gray Knit	12	129. Ea
	J2080	Tuned Port	8			5⁄8	Dome	40-23	89	10	3.5k	8/	23 x 11 x 10	Oak Vinyl	Gray Knit	20	169. Ea
	Pro Performer		41/2					100-18	88	10		6/	6 x 6 x 5	Black Matte	Black	4	199
	Pro III		5			1	Dome	65-27	87	10	3k	4/	9 x 6 x 6	Black	Black	4	Ea 299. Ea
	Pro III Plus	Sat. & Subwoof.	8	5	Cone	1	Dome	35-27	90	10	125,3k	4/	Three Pieces	Black	Black	41½ Sys.	659. Si
	Pro VIII	Tuned Port	61/2			1	Dome	55-27 ±3	90	10	3k	6.5	15 x 10 x 9	Poly& Rub-	Black Metal	10	429. P
	A/VP3		5			1	Dome	65-27	87	10	3k	4/	9 x 6 x 6	ber Black	Black	121/2	169.
	S-3	In-Wall	51⁄4			1	Dome	125-22	86	10		4/	10 x 7 x 4	White	White	7	Ea 225. P
	S-4	In-Wall	61⁄4			1	Dome	125-22	88	10		4/	12 x 9 x 4	White	White	8	298. P
	8460	Biamp Subwoof.	18					24-125 +0,-6	94	50	63 Ext.	8/6	25 x 38 x 24	Wal.	Brown Knit	126	2150.
	HT Series (models below)	THX; Home Th.											(3) 1F, (2) 1D,				Ea 3000. S
	HT1F	Tuned Port		5	Cone	1	Cone	70-20	87	100	2.8k	8/	(2) 15 17 x 10 x 8	Black	Gray Cloth	21	
	HT1D	Dípole		5	Cone	1	Cone	110-20	87	100	2.8k	6/	14 x 9 x 8	Vinyl Black	Gray	15	
	HT1S	Tuned Port Subwoof,	12					35-80	91	100		6/	21 x 25 x 18	Vinyl Black Vinyl	Cloth Gray Cloth	62	

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Speaker wire for the discerning ear.

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Unit	Length	Price.\ pair
FL12G10BP	10ft	\$73.00
FL12G15BP	15ft.	\$96.00
FL12G20BP	20ft.	\$119.00
FL12G25BP	25ft.	\$143.00
FL12G30BP	30ft.	\$166.00

#### **Bi-amp Cables with Gold Plated Banana Plugs**

FL12G15BA	15ft.	\$183.00
FL12G25BA	25ft.	\$276.00
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FL12GF	1 to 20ft.	\$3.00
	21 to 50ft.	-10%
	51 + ft	-20%

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JENSEN	Digital 3080	Vented	(2)8	_		3	Cone						0/0	36 1 10 1 13	Hick. Vinyl	Black Knit	38	349.00 Pair
	3152 3122	Vented	15 12	5 5	Cone	3	Cone		33-21 43-21	94 91	10	5k,10k	8/6	32 x 18 x 11	Hick. Vinyl	Black Knit	35	399.00 Pair
	1525	Vented Indoor/	51/4	5	Cone	2	Cone Cone		43-21 80-20	89	10 10	5k,12.5k 7k	8/6 8/6	29 x 15 x 10	Hick. Vinyi Black	Biack Knit Biack	14 10	260.00 Pair 129.00
	Concert Series	Outdoor Ctr. Ch.	(2)5			2	Cone		±3 70-20 ±3	94	10		8/6	18 x 5 x 5	Poly. Black Ash	Metal Black Knil	7	Pair 99.00 Each
in Charles	Concert Series	Vented	6 <sup>1</sup> /2			3	Cone		55-21	90	10	10k	8/6	15 x 11 x 6	Vinyl Hick. Vlayl	Black Knit	11	129.00 Pair
1.00	Concert Series 3103	Vented	10	5	Cone	3	Cone		48-21	90	10	5k,12.5k	8/6	26 x 13 x 11	Hick. Vinyi	Black Knit	24	160.00 Pair
-	JPS45	Powered	3			2	Cone				inc.			4 x 5 x 9	Gray	Gray	4	149.00 Pair
6	JPS35	Powered	31/2		3				_		inc.			6 x 4 x 4	Gray	Gray	3	99.00 Pair
JK AUDIO	6.5	Ported	6 <sup>1</sup> /2			1	Dome		55-20 ±5	89	40	3.5k	8/6	8 x 11 x 16	Satin Black	Black Knit	45	850.00 Pair
	8	Subwoof.	8						35-150 ±5		50	150	8/6	10 x 11 x 16	Satin Black	Black Knit	65	800.00 Pair
JMIab	Symbol I	Bass Ref.	6 <sup>1</sup> /2			1	Inv. Dome		65-19 +0,-3		30	3.8k	8/4	8 x 9 x 14	Black	Black Knit	11	495.00 Pair
	Symbol II Micron	Bass Ref. Bass Ref.	7 5¼			1 1	Inv. Dome Inv.		60-19 + 0,-3 60-23		30 40	3.8k 2.8k	8/4 8/4	9 x 10 x 17 8 x 8 x 12	Black Opt.	Black Knit Black	16 11	650.00 Pair 695.00
-	Megane	Bass Ref.	7			1	Dome Inv.		+0,-3		30	3.5k	8/4	9 x 10 x 16	Opt.	Knit Black	19	Pair 1095.00
	Point Source	Vented	51/4			1	Dome Inv.		+0,-3 65-23		50	0.04	4/3	10 x 8 x 12	Maple	Knlt Black	16	Pair 1695.00
	2 Point Source	Vented	(2)51/4			1	Dome Inv.		+0,-3 60-23		50		4/3	10 x 9 x 19	Maple	Knit Black	26	Pair 2495.00
	5 DB 09	Bass Ref.	7			1	Dome Inv.		+0,-3 55-20	92	30	3.5k	8/4	10 x 11 x 17	Opt.	Knit Black	20	Pair 850.00
	DB 19	Bass Ref.	81/4			1	Dome Inv.		+0,-3	93	30	3.5k	8/4	12 x 13 x 21	Opt.	Knit Black	<mark>25</mark>	Pair 1050.00
	DB 29	Bass Ref.	81/4	81⁄4	Cone	1	Dome Inv. Dome		+0,-3 47-20 +0,-3	93	30	150,3.5k	8/6	12 x 12 x 25	Opt.	Knit Black Knit	31	Pair 1395.00 Pair
	Profil 3	Bass Ref.	51⁄4			1	Inv. Dome		52-20 +0,-3	91	40	3k	8/4	7 x 8 x 33	Opt.	Black Knit	23	1095.00 Pair
-	Profil 5	Bass Ref.	51⁄4	51/4	Cone	1	Inv. Dome		50-20 +0,-3	90	40	700,4k	8/4	7 x 7 x 33	Opt.	Black Knit	25	1350.00 Pair
	Profil 7	Bass Ref.	7	7	Cone	1	Inv. Dome		45-20 +0,-3	92	35	300,3.5k	8/4	9 x 10 x 39	Opt.	Black Knit	40	1795.00 Pair
i i i	Daline 3 Daline 6	Trans. Line Trans.	5 <sup>1</sup> /4 (2)6			1	Inv. Dome Inv.		40-23 +0,-3	89 90	40	4k	8/4	7 x 9 x 38	Opt.	Black Knit Block	34	1350.00 Pair
11. mil	908 Spectral	Line Bass Ref.	(2)7	41⁄4	Cone	1	Dome		35-23 +0,-3 40-23	90 92.5	40 50	2.5k 600,3.5k	8/6 8/4	8 x 11 x 40 10 x 13 x 39	Opt. Oak&	Black Knit Black	49 57	2195.00 Pair 3295.00
	913 Spectral	Bass Ref.	(2)81/4	5	Cone	1	Dome Inv.		+0,-3 35-23	93.5		500,3.5k	8/4	12 x 15 x 44	Black Oak&	Knit Black	86	Pair 4295.00
ne la	Vega	Bass Ref.	10	5	Cone	1	Dome Inv.		+0,-3 35-25		70	200,3k	6/4	14 x 16 x 40	Black Dak&	Knit Black	102	Pair 5995.00
	Utopia	Bass <mark>Re</mark> f.	10	(2)5	Cones	1	Dome Inv.		+0,-3 27-25	93	75	120,2.5k	6/3	13 x 16 x 48	Black Oak&	Knit Black	179	Pair 8795.00
	Alcor	Bass Ref.	12	(2)5	Cones	1	Dome Inv. Dome		+0,-3 27-25 +0,-3	93	75			16 x 18 x 48	Black Dak&	Knit Black	220	Pair 11,000.
	SW 20	Bass Ref. Subwoof.	10¼				Dome		40-130 + 0,-3	90	50		8/4	13 x 20 x 15	Black Opt.	Knit Black Knit	36	Pair 695.00 Each
JOSEPH AUDIO	RM20		8			1	Dome		38-20 ±2	89	20	2k	8/5	36 x 11 x 13	Opt.	Black	53	2095.00 Pair
	RM9		8			1	Oome		47-20 ±3	89	20	2k	8/5	19 x 11 x 12	Opt.	Black Knit	42	1199.00 Pair
JPW	Subsat	inf. Baf. Sat. & Bass Ref.	(2)8	4	Cone	1/2	Dome							Three Pieces	Black	Black Cloth	30 Sys.	595.00 Sys.
	Minim	Subwoof. Inf. Baf.	51/2			1	Dome		70-20	87			8/	11 x 7 x 8	Black	Black	6	250.00
	Sonata	Inf. Baf.	61⁄2			1	Dome		±3 70-20 ±3	87			8/	13 x 9 x 9	Vinyl Opt., Wal.	Knit Black Knit	10	Pair 335.00 Pair
	Sonata Plus	Inf. Baf.	6 <sup>1</sup> /2			1	Dome		70-20 ±3	87			8/	13 x 9 x 9	Opt. Wal.	Black	11	395.00 Pair
	P1	Inf. Baf.	8			1	Dome		65-20 ±3	89			8/	17 x 10 x 10	Opt., Wal.	Black Knit	17	450.00 Pair
	AP2 AP3	Inf. Baf. Inf. Baf.	8			1	Dome Dome		65-20 ±3 55-20	89 88			8/ 8/	17 x 10 x 10 20 x 10 x 11	Opt., Wal.	Black Knit Black	21 26	525.00 Palr 695.00
ipti			1.00	2-25	How			147 84	±3		1 5	105 41 91			Opt., Wal.	Knit		Pair
JRM	Reference System Monitor I	Powered Powered	(2)18, (8)8 15, (2)8	3x26 (2)3	Horn Cones	1 <sup>7</sup> /8 (2)1 <sup>7</sup> /8	Horn Horns	W,M T,ST W,M T,ST	18-20 18-20		1.5k Inc. 750 Inc.	125,1k,7k 150,1k,5k	20k 20k	Nine Pieces Three Pieces	Opt. Opt.	Opt. Opt.		15,000. Sys. 5500.00 Sys.
20 21	Monitor II	Powered	(2)15, (2)8	(2)3	Cones	(2)1 <sup>7</sup> /8	Horns	W.M. T,ST	18-20		1k Inc.	150, 1k, 5k	20k	Four Pieces	Opt.	Opt.		w/Xover 7500.00 Sys. w/Xover
	S18B	QB3 Vented	18						30-250 ±1.5	95	200	Sel.	8/6	Opt., 8 Cu. Ft.	Opt.	Opt.	150	1100.00 Each

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## LOUDSPEAKERS Entropy of Steam Tra

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JRM (Continued)	S18B-5	Powered Subwoof.	18				ſ	W,M	20-200 ±1.5	[	200 Inc.	Sel.	20k	Opt., 8 Cu. Ft.	Opt.	Opt.		2500.00 Each
(00000000)	S15A	QB3 Vented Subwoof.	15						30-300 ± 1.5	92	200	Sel.	8/6	0 Cu. Ft. 0pt., 6 Cu. Ft.	Opt.	Opt.	130	875.00 Each
	S15A-5	Powered Subwoof.	15					W,M	20-250 ±1.5		200 Inc.	Sei.	20k	Opt., 4 Cu, Ft,	Opt.	Opt.		2200.00
	D15A-5	Powered Subwoof.	(2)15					W,M	19-300 ±1.5		500 Inc.	Sei.	20k	4 GU. Ft. Opt., 10 Cu. Ft.	Opt.	Opt.		Each 2200.00
	VLS Satellite Tower	Triamped, Sealed	(6)6½	3x26	Horn	17/8	Horn	W,M, T	20-20	98	200, (2) 40	125,900, 7k	Opt.	78 x 16 x 8	Opt.	Opt.		Each 2800.00 Each
JS AUDIO	26J	Ac. Sus.	6			1	Dome		46-21 ±4	94	5	2.5k	8/	12 x 8 x 8	Oak	Opt.	171/2	450.00
	26P	Vented	6			1	Dome		±4 40-22 ±3	92	15	2.5k	8/	16 x 10 x 11	Oak	Opt.	221/2	Pair 650.00
	28P	Vented	8			1	Oome		±3 38-22 ±4	91	15	2.5k	8/	19 x 12 x 10	Dak	Opt.	25	Pair 650.00
	38P	Vented	8	3	Cone	1	Dome		32-22 ±3	93	15	700,4k	8/	19 x 12 x 10	Oak	Opt.	32 <sup>1</sup> /2	Pair 1100.00
	310P	Vented	10	5	Cone	1	Dome		±3 28-22 ±3	95	15	700,4k	8/	24 x 14 x 10	Oak	Opt.	60	Pair 1600.00
*	412P	Vented	12	5	Cone	(2)1	Dome, Horn		24-23 ±3	98	15	600,4k, 10k	8/	27 x 16 x 12	Oak	Opt.	75	Pair 2100.00
	415P	Vented	15	5	Cone	(3)1	Dome, Horns	1	22-24 ±3	99	30	600,4k, 12k	8/	36 x 19 x 12	Oak	Opt.	100	Pair 2900.00 Pair
	612P	Vented	(2)12	(2)5	Cones	(4)1	Oomes		24-22 ±3	99	30	600,4k, 10k	8/4	74 x 16 x 12	Oak	Opt.	150	4800.00
	Mesa II	Trans. Line	12	2	Dome	11/2,1	Domes		25-25 ±2	90	40	400,3k, 10k	8/	33 x 16 x 15	Oak	Opt.	90	Pair 4000.00 Pair
	DC I	Vented	(2)10	(2)4	Cones	(4)1	Oomes		22-20 ±2	96	50	400,4k, 10k	8/	61 x 8 x 16	Oak	Opt.	100	5400.00
	Subwoof	Vented Subwoof.	15						20-120	91	40	120	8/4	18 x 18 x 19	Oak	Opt.	78	Pair 950.00 Each
	310N	Vented	10	4	Cone	1	Dome		32-22 ±3	91	20	700,3k	8/	24 x 14 x 10	Oak	Opt.	60	1700.00 Pair
	415 15	Vented	(2)15	4	Cone	1	Oome		24-22 ±3	96	30	300,600, 4k,10k, 14k	8/	48 x 19 x 12	Oak	Opt.	125	3800.00 Pair





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GEORGE KAYE AUDID LABS	4	Vented	10	5	Cone	(2)1	Domes	No	30-20	95	5	700,4k, 10k	8/6	24 x 14 x 10	Dpt.	Black Knit	62	1950.00 Pair
KEF	Reference 107/2	Coupled Cavity	(2)10	5	Cone	1	Dome		20-20 ±2	90	50	160,2.5k	4/4	46 x 13 x 18	Opt., Wood	Black Knit	99	5900.00 Pair
	Reference 105/3	Coupled Cavity	(2)8	(3)6½	Cones	1	Dome		49-20 ± 2	93	25	150,400, 2.5k	4/4	44 x 11 x 16	Opt., Wood	Black Knit	93	3900.00 Pair
	Reference 104/2	Coupled Cavity	(2)8	(2)5	Cones	1	Dome		35-20 ±2	92	25	160,2.5k	4/4	36 x 11 x 17	Opt., Wood	Black Knit	71	2400.00 Pair
	Reference 103/4	Coupled Cavity	(2)61/2	61/2	Cone	1	Dome		50-20 ±2	91	50	160,2.5k	4/4	36 x 9 x 12	Opt., Wood	Black Knit	38	1800.00 Pair
	Reference 102/2 Reference	Coupled Cavity	6½ 6½		Cone Cone	3/4 3/4	Dome		50-20 ±2 50-20	89 88	25 25	150,2k	4/4 4/4		Opt., Wood	Black Knit	24 16	1200.00 Pair 800.00
	Reference 101/2 Q90	Vented Vented	8	8	Cone	1	Dome Dome		±2 50-20	89	25 25	3k 160, <mark>2.5k</mark>	8/4	35 x 10 x 12	Opt., Wood Dpt.	Black Knit Black	41	Pair 999.00
	Q50	Box Vented	6 <sup>1</sup> /2	Ů	oone .	3/4	Dome		±3 45-20	03	20	2.5k	6/4	36 x 8 x 11	Dpt.	Knit Black	44	Pair
	Q30	Vented	6 <sup>1</sup> /2			3/4	Dome		±3 50-20		20	2.5k	6/4	32 x 8 x 11	Opt.	Knit Black	24	
	Q10	Vented	61/2			3/4	Dome		±3 55-20		20	2.5k	6/4	11 x 8 x 10	Dpt.	Knit Black	11	
	K160	Pas. Rad.	8			1	Dome		±3 48-20	89	25	2.5k	8/4	30 x 10 x 9	Dpt.	Knit Black	26	549.00
	K140	Closed	8			1	Dome		±3 55-20	89	25	2.5k	8/4	19 x 10 x 9	Dpt.	Knit Black	19	Pair 399.00
	K120	Box Closed	6½			1	Dome		±3 65-20	87	25	2.5k	8/4	13 x 8 x 10	Dpt.	Knit Black	9	Pair 249.00
	CR200F	Box In-Wall or Ceiling	8			1	Dome		±3 55-22 ±2	90	10	2.5k	/4	13 x 10 x 4	White	Knit White Metal	5	Pair
	CR160S	Mount In-Wall or Ceiling	6½			3⁄4	Dome		60-20 ±2	88	10	3k 🚽	/4	9 x 9 x 4	White	White Metal	4	
	CR160R	Mount In-Wall or Ceiling Mount	6½			3⁄4	Dome		60-20 ±2	88	10	3k	/4	9 Dia. x 4	White	White Metal	4	
	CR250SW	in-Wall or Ceiling Mount	10						32-150 ±2	90	10	150	/4	13 x 10 x 4	White	White Metal	8	
9	CR200Q	Subwoof. In-Wall or Ceiling Mount	8			1	Dome		50-20 ±2	92	25	3k	/4	10 x 10 x 4	White	White Metal	6	
	CR160F	In-Wall or Celling Mount	6 <sup>1</sup> /2				Cone		60-15 ±2	88	25	0.51	14	9 x 9 x 4	White	White Metal	4	
	100 90	Vented Ctr. Ch. Vented Ctr. Ch.	6½ 6½			1 3⁄4	Dome Dome		70-20 ±3 80-20 ±3		25 20	2.5k 2.5k	6/4 6/4	7 x 18 x 7 7 x 16 x 7	Gray Opt.	Black Knit Black Knit	12 9	
KENWODD	KS-H91	Surround	15	61/2	Cone	2	Cone		30-20	92		2k,5k	8/	17 x 29 x 13	Teak	Black	36.6	199.00
2	KS-H71		12	5	Cone	2	Cone		35-20	92		2k,5k	8/	15 x 37 x 13	Teak	Knit Black	29.1	Each 149.00
	KS-H51		12	5	Cone	2	Cone		35-20	92		2k,5k	B/	15 x 27 x 13	Teak	Knit Black	24.4	Each 249.00
	KS-H31		B			2	Cone		50-20	90		5k	8/	13 x 22 x 9	Teak	Knit Black Knit	15.7	Pair 149.00 Pair
KINERGETICS RESEARCH	SW-800	Subwoof.	(5)10					W	17-100 + 0,-3	100	200	Var.	3/2	64 x 11 x 16	Dpt.	Black Knit	350 Sys.	3995.00 Pair
R The second second second second second second second second second second second second second second second se	SW-100	Powered Subwoof.	(2)10					w	20-100 + 0,-3	94	150 Inc.	100	4/3	24 x 11 x 16	Dpt.	Black Knit	127 Sys.	w/Xover 1885.00 Pair w/ Amp &
	SW-150V THX	Powered Subwoot.	15					w	20-80 + 0,-3		200 Inc.	BO	8/8	14 x 29 x 20	Dpt.	None	85 Sys.	Xover 1595.00 Each w/ Amp &
8. 	SW-120V	Powered Subwoof.	12					w	24-80 + 0,-3		150 Inc.	80	4/4	14 x 23 x 20	Dpt.	None	71 Sys.	Xover 1295.00 Each w/
	SW-102V	Powered Subwool.	10					w	26-80 + 0,-3		100 Inc.	80	4/4	14 x 22 x 15	Dpt.	None	61 Sys.	Amp & Xover 995.00 Each w/
	SW-101V	Powered In-Wall Subwoot.	10					w	20-80 + 0,-3		1 00 inc.	80	8/8			White Metal	54 Sys.	Amp & Xover 895.00 Each w/ Amp &
KINETIC AUDID	Nouveau Stat	TAL	8			1	Dome	T	38-22	91	15	1.Bk,2.8k	Sel.	10 x 10 x 26	Opt., Wood	Black	45	Xover 2000.00
14-12-	Identity Select	(Tap. Ac. Line) TATL (Tap. Ac.	12	2	Dome	1	Dome	M,T	±2 18-22 ±2	91	15	(Sel.) 900,7k	Sel.	15 x 15 x 40	Wood Opt., Wood		95	Pair 3000.00 Pair
	Refined	Trap. Line) TATL	12	61/2	Cone	2,1	Domes	M, (2)T	18-22 ± 2	90	25	90,1k,9k	Sel.	15 x 16 x 48	Opt., Wood	Black Knit	140	5000.00 Pair
(Continued)	Ethereal	TATL	12	61/2	Cone	2,1	Domes	(2)M, T	12-22 ± 1.5	90	45	90,1k,9k	Sel.	15 x 18 x 48	Opt., Wood	Black Knit	195	7000.00 Pair

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(INETIC AUDID Continued)	Nonpareil	TATL	12	61/2	Cone	2,11/2,1	Domes	(2)M, T,ST	12-22 ±1.5	90	45	90,1k,5k, 9k	Sel.	15 x 20 x 60	Opt., Wood	Black Knit	265	10,00 Pa
ountinuou)	Stat	TAL	61/2			1	Dome	T, T	38-22 ± 3	91	15	2k	6/	9 x 15 x 9	Opt., Wood	Black Knit	35	1500. P
	Identity (Impulse)	TATL	12	61/2	Cone	1	Dome	M,T	18-22 ± 2.5	91	15	1 <mark>80</mark> ,2k	8/	15 x 15 x 26	Opt., Wood	Black Knit	95	2000. P
	Trapezoid	TATL	12	61/2	Cone	11/2,1	Domes	M,T, St	18-22 ± 2.5	90	25	180,2k,9k	8/	16 x 15 x 40	Opt., Wood	Black Knit	120	3500. P
	Labyrinth	TATL	12	61/2	Cone	2,1	Domes	(2)M,	16-22 ±2	90	25	180,1k,5k	6/	16 x 18 x 48	Opt., Wood	Black Knit	185	5000. P
	Trapezium	TATL	12	61/2	Cone	2,1,3⁄4	Domes	(2)M, T,ST	12-22 ±2	90	25	90,1k,5k, 9k	6/	16 x 20 x 60	Opt., Wood	Black Knit	250	6500. Pi
	Standard (Titan)	TATL	(2)12	61/2	Cone	2,1,3/4	Domes	(2)M, T,ST	12-22 ±2	91	45	60,90,1 <b>k</b> , 5k,9k	6/	18 x 22 x 60	Opt., Wood	Black Knit	295	8500. Pi
	Pristine	TAL	8			1	Dome	Т	38-20 ±3	92	15	2k	6/	10 x 9 x 16	Oak	Knit	40	499. Pa
	Mega-Sine	TAL	12		Dome	1	Dome	T	28-20 ±3	92	15	2k	4/	14 x 12 x 24	Oak	Knit	50	799. Pa
	Micro-Stat	TAL	61/2			1	Dome	Т	40-20	90	10	2k	Sel.	8 x 7 x 12	Oak	Knit	25	499. Pa
	Small Stat	In-Wall	61/2			1	Dome	T	38-20 ±3	90	15	2k	8/5	7 x 4 x 13		Opt.	14	499. Pa
	In-Wali Stat	In-Wall	8			1	Dome	T	36-20 ± 2.5	91	10	2k	8/5	9 x 4 x 13		Opt.	14	499. Pa
	In-Wall Rex	in-Wall	12	2	Dome	1	Dome	M,T	18-22 ±2.5	91	15	1k,7k	8/6	13 x 7 x 24		Opt.	19	900. Pa
	In-Wall Stat Subwoofer	In-Wall Subwoof.	12						18-200 ±2	91	15	180, Opt.	Sel.	13 x 6 x 13	<b>A</b>	Opt.	15	499. Pa
	Stat Subwooter	TATL Subwoof.	12						18-200 ±2	92	15	180, Opt.	Sel.	15 x 15 x 26	Opt., Wood	Black Knit	85	900. Pa
	Basic Stat Subwooler	TATL Subwoof.	12						18-200 ± 2	92	15	180, Opt.	Sel.	15 x 15 x 26		None	80	700. Pa
	Trapezoid Subwoofer	Subwoof.	12						16-200 ±1.5	92	15	180, Opt.	Sel.	16 x 15 x 40	Opt., Wood	Black Knit	105	1500.0 Pa
	Basic Trapezold Subwoofer	TATL Subwoof.	12						16-200 ±1.5	92	15	180, Opt.	Sel.	16 x 15 x 40		None	95	900.0 Pa
IRKSAETER	Monitor 102	Vented	8			1	Dome		35-20	92	15	2.5k	8/4	11 x 11 x 17	Oak	Black	22	698.0
	Monitor 123	Vented	8	41/2	Cone	3/4	Dome		30-30	93	15	1k,5k	8/4	11 x 11 x 22	Oak	Knit Black	25	Pa 898.0
	Amadeus 122	Inf. Baf.	8	41/2	Cone	3/4	Dome		28-30	92	15	900,5k	8/4	11 x 11 x 35	Oak	Knit Black	37	Pa 1148.0
	Amadeus 202	Inf. Baf.	(2)8	41/2	Cone	3/4	Dome		27-30	92	20	900,5k	8/4	11 x 11 x 39	Oak	Knit Black	45	Pa 1398.0
	Amadeus 250	Inf. Baf.	(2)8	8	Cone	1	Dome		25-32	92	25	220,2.5k	8/4	11 x 11 x 43	Oak	Knit Black	49	Pa 1798.0
	Monitor	Inf. Baf.	(2)10	41/4	Cone	1	Dome		20-32	92	30	200,1k,5k	8/4	12 x 12 x 43	Oak	Knit Black	60	2998.0
LH	Tower 260CD 82T	Vented	(2)7	3	Dome	1	Dome	No	35-20	87	25	200,800,	6/4	38 x 9 x 11	Opt.,	Knit Black	47	Pa 500.0
	EQ 82T	EQ for							±3 From			3k		3 x 10 x 6	Vinyl	Knit	2	Ear 200.0
		82T							29 Hz + 0,-3									
	62T	Vented	(2)7	51/4	Cone	1	Dome	No	35-20 ±3	87	25	400,900, 1.8k	6/4	38 x 9 x 11	Opt., Vinyl	Black Knit	38	275.0 Ea
	81	Vented	8			1	Dome	No	30-20 ±3	87	5	1.3k	8/6	16 x 10 x 11	Opt., Vinyl	Black Knit	21	350.0 Pa
	61	Vented	61/2			1	Dome	No	40-20 ±3	86	5	1.6k	6/4	13 x 9 x 9	Opt., Vinyl	Black Knit	15	300.0 Pa
	SX9	Vented	15	51/4	Cone	1	Dome	No	25-20	94	5	800,3k	6/4	33 x 18 x 11	Opt., Vinyi	Black Knit	61	350.0 Ea
	SX8	Vented	12	51/4	Cone	1	Dome	No	29-20	92	5	800,3k	6/4	30 x 16 x 11	Opt., Vinyl	Black Knit	44	275.0 Ea
	SX7 CS 2503	Vented	8	41/2	Conc	1 3/4	Dome	No	35-20	87	5	1.3k	8/6	16 x 11 x 10	Opt., Vinyl	Black Knit	15	350.0 Pa
		Sat. & Subwoof.	(2)51/4		Cone	1 1	Dome	No	50-20	86	25	150,3k	6/4	Three Pieces	Black Vinyl	Black Knit	31 Sys. 32	499.0 Sy
	9362	Sat. & Subwoof.	(2)51/4	41/2	Cone	3⁄4 1	Dome	No	50-20	86	25	150,3k	6/4	Three Pieces	Black Vinyl	Black Metal	32 Sys. 41/2	599.0 Sy
	610 403	Indoor/ Outdoor Indoor/	4	2	Cone	3/4	Dome	No No	80-20 90-20	85	1	2.7k	7/5	7 x 5 x 5	Black Alum.	Black Metal		150.0 Pa
	3430	Outdoor Ctr. &	4	1	LONG	74	Dome	NU	70-20	85 87	5	3k,8k	7/5 8/8	8 x 4 x 4 Three Pieces	Black Plast.	Black Metal Black	3½ 9	49.9 Pa 129.9
	610-454S	Rear Ch. Ctr. &	4	*			Oome	No	60-20	87	5	2.7k	8/5	Three Pieces	Black Vinyl Black	Knit	Sys.	Sy 199.9
	010 4040	Rear Ch.	(Ctr),			(Rear)	(Rear)		00-20			(Rear)	0/0	INCE FIELES	Black Vinyl, Metai	Black Knit, Black	Sys.	Sy
	P-60	Powered	(Rear) 8					No	30-150		60	Adj.	50k	14 x 13 x 13	Black	Metal	28	399.0
LIPSCH	SW8	Subwoof. Powered	8			-		w	(Adj.) 32-120	-	Inc. 65	40-120			Vinyl			Ead
eroon	310	Bass Ref. Subwoof.	0						32-120 ± 3		lnc.	40-120		19 x 13 x 14	Opt.	Black Knit	36	549.0 Eac
	SW10	Powered Bass Ref.	10					W	30-120 ±3		100 inc.	40-120		21 x 14 x 15	Opt.	Black	43	749.0
	SW12	Subwoof. Powered	12					w	± 3 28-120		150	40-120		24 x 16 x 16	Opt.	Knit Black	60	Eac 999.0
		Bass Ref. Subwoof.							± 3		inc.	40.120		LT & 10 X 10	ομι.	Knit	00	Eac
	SW15	Powered Bass Ref.	15					w	27-120 ±3		200 Inc.	40-120		26 x 19 x 20	Opt.	Black Knit	82	1499.0 Eac
Continued)		Subwoof.																Lat

AUDIO/OCTOBER 1993

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MANUFACTURE	R Model	nes	on the state	oter	indrange with	drange Tw	Belet IN	selet cer	arate ange Aner	nois th	21.1	a commer an	Sover	adaminal. Oinensi	Aea. Fir	ish ci	The Cont	ton price
KLIPSCH	IW 100	In-Wall			(			(°			-	And U.						
(Continued)	IW 200	In-Wall	6 <sup>1</sup> /2 (2)6 <sup>1</sup> /2			1	Horn Horn		40-20 ±3 40-20	90 93	20	2.2k	8/4	14 x 10 x 3	White	White Metal	5	360.00 Pair
	KG 1.2	Vented	61/2			1	Horn		±3 50-20	90	20	2.2k 2.2k	8/4	21 x 10 x 3 13 x 9 x 9	White Opt.	White Metal Black	8 15	550.00 Pair 350.00
	KG 2.2	Vented	(2)61/2			1	Horn		±3 50-20	93	20	2.2k	8/4	19 x 9 x 9	Opt.	Knit Black	191/2	Pair 450.00
	KG 3.2	Pas. Rad.	8			1	Horn		±3 36-20	94	20	1.8k	8/4	26 x 12 x 11	Opt.	Knit Black	32	Pair 550.00
	KG 4.2	Pas. Rad.	10			1	Horn		±3 36-20	95	20	1.6k	8/4	31 x 14 x 12	Opt.	Knit Black	44	Pair 700.00
	KG 5.2	Pas. Rad.	10			1	Horn	1	±3 34-20	96	20	1.6k	8/4	34 x 15 x 13	Opt.	Knit Black	54	Pair 850.00
	Heresy II	Inf. Baf.	12	11/2	H <mark>orn</mark>	1	Horn		±3 50-20 ±3	96	20	800,7k	8/4	22 x 16 x 13	Opt.	Knit Opt.	37	930.00
	Quartet	Pas. Rad.	10	11/2	Horn	1	Horn		38-20 ±3	97	20	650,7k	8/4	31 x 16 x 12	Opt.	Opt.	52	Pair 1050.00 Pair
	Forté II	Pas. Rad.	12	11/2	Horn	1	Horn		32-20 ±3	99	20	650,7k	8/4	35 x 17 x 12	Opt.	Opt.	67	1298.00 Pair
	Chorus II	Pas. Rad.	15	11/2	Horn	1	Horn		39-20 ±3	101		700,7k	8/4	39 x 19 x 16	Opt.	Opt.	89	1790.00 Pair
	La Scala Belle Klipsch	Folded Horn Folded	15 15	2	Horn Horn	1	Horn		45-17 ±5 45-17	104	20	400,6k	8/4	36 x 24 x 25	Opt.	Opt.	130	1956.00 Pair
	Klipschorn	Horn	15	2	Horn	1	Horn Horn		45-17 ±5 35-17	104 104	1	500,6k 400,6k	8/4 8/4	36 x 30 x 19 52 x 34 x 29	Opt. Opt.	Opt. Opt.	133 185	3000.00 Pair 4000.00
	KG SW	Horn Bandpass	(2)8	-					±3 38-150	94	20	150	8/4	12 x 24 x 16	Opt.	Upt.	42	Pair 350.00
KHÖLL	SP04	Subwoof. Vented	4	-	-	3/4	Dome	-	± 3 60-21	90	20	3k	8/			Plask		Each
	TCO6	in-Wall	61/2			1	Dome	т	50-21	90	20	2.2k	8/	8 x 5 x 5 12 x 9 x 3	Black White	Black White	3	129.00 Pair 199.00
	TCOB	In-Wall	8			1	Dome	T	38-21	91	20	2.1k	B/	15 x 11 x 3	White	White	6	Pair 299.00
KORT AUDIO	CS7	Home. Th.	15		-	4	Cone	-	25-17	84	70	250	8/7.5	Seven Pieces	Opt.	Opt.,	150	Pair 1000.00
	CC-B	Trans.	4						100-17	84	5	230	8/7.5	16 x 5 x 9	Opt.	Metal Opt.,	Sys.	Sys. 290.00
	CC-2	Line Trans.	(2)5			21/2	Cone		55-20	92	35	4k	4/4	44 x 6 x 20	Opt.	Metal Opt.,	70	Pair 700.00
	CC-1e	Line Trans.	10			(3)3	Cones		30-20	93	60	900	4/4	44 x 12 x 31	Opt.	Metal Opt.,	158	Pair 1495.00
	Proxy 3	Line Trans. Line	(2)12			(6)2	Cones		17-22	96	100	550	4/1.9	Four Pieces	Opt.	Metal Opt.,	800	Pair 4500.00
	Surround	Bipolar	4						200-20	88	5		8/7	7 x 2 x 5	White	Metal Metal	Sys. 2	Sys. 85.00
KOSS	M/85	Ac. Sus.	(2)41/2			(2)1	Domes		50-30	86	-		6/		Black	Black	8	Each 190.00
	M/65	Ac. Sus.	41/2			(2)1	Domes		100-30	84			8/	5 x 9 x 6	Vinyl Black	Knit Black	49	Pair 135.00
	KCS/50	Bass Ref.	5			3/4	Dome		70-20	86	15		4/	12 x 7 x 9	Vinyl Black Ash	Knit Biack Knit	9	239.00 Pair Pair
	KCS/100	Bass Ref.	61/2			3/4	Dome		60-20	86	15		4/	15 x 8 x 9	Vinyl Black	Black	11	279.00
	1/00.000		201												Ash Vinyl	Knit		Pair
	KCS/200	Bass Ref.	8			3/4	Dome		40-20	90	15	100	4/	21 x 10 x 11	Black Ash	Black Knit	18	339.00 Pair
	SA/40	Powered	31/2				-		50-20		inc.			7 x 4 x 4	Vinyl Black	Black		60.00
	SA/30	Powered	3					1 - 8	100-20		Inc.			5 x 4 x 4	Plast. Black	Perf. Metal Black		Pair 35.00
															Plast.	Perf. Metal		Pair
	HD/6	Computer Speaker	(2)4						50-20	75	5	10.0	6/4	8 x 5 x 5	White Plast.	Gray Plast.	11/2	99.99 Pair
	HD/4 HD/1	Computer Speaker Computer	(2)3 <sup>1</sup> /2 (2)3						50-20	75	5		6/4	7 x 4 x 4	White Plast.	Gray Plast.	1	59.99 Pair
ANCED		Speaker			-	1.			100-20	75	5		6/4	5 x 3 x 4	White Plast.	Gray Plast.	7/8	39.99 Pair
LANCER ELECTRONICS	LE-25	Vented Vented	4 6 <sup>1</sup> /2			3/4	Dome		55-20	87	10	3.5k	8/6	8 x 8 x 10	Black Oak	Black Cloth	71/2	110.00 Each
	LE-308	Vented	6 ½ (2)6½			3⁄4	Dome Dome		49-20 42-20	88 89	10 15	3k 3.2k	8/6 8/6	9 x 8 x 14	Opt., Oak	Black Cloth	12	137.50 Each
	LE-110	Vented	10	4	Cone	1	Dome		32-20	89 89	25	3.2k 800,4k	8/6	8 x 10 x 29 15 x 12 x 26	Opt., Oak Opt.,	Black Cloth Black	30 45	250.00 Each 375.00
	LE-150A	Vented	10	4	Cone	1	Dome		28-20	89	25	800,4k	8/6	14 x 11 x 39	Oak Oak	Cloth Black	45	Each 500.00
	Video HTF	Vented	(2)4			(2)3/4	Domes	т	80-20	87	20	4k	8/8	6 x 8 x 15	Black	Cloth Black	12	Each 200.00
	Video HTF-H	Vented	(2)4			(2)3/4	Domes	т	80-20	87	20	4k	8/8	6 x 7 x 15	Oak Black	Cloth Black	11	Each 200.00
	Video HTR	Sealed	(2)4			(2)3/4	Oomes		70-20	87	20	250,4k	8/8	8 x 7 x 6	Oak Black	Cloth Black	7	Each 400.00
	LE-1sw	Subwoof.	(2)61/2						<mark>38-160</mark>	88		160	8/8	9 x 14 x 20	Oak Black Text	Cloth None	35	250.00
	SYS-115	Sat. &	(2)61/2	31/2	Cone	3/4	Dome		38-20	88	30	160,4k	8/6	Three Pieces	Text.		45	Each 500.00

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MANUFACTURE	Cinema	4th Order	(2)7	( #	4	1	Dome	T	40-22	96	30	3k Ch	111	9 x 10 x 27	Opt.,	Opt.,	44	9 <sup>m</sup> 1148.00
LEGAUT	Center Channel	Butter- worth	(2)/				DOINE	1	±2	90	30	JK		91 101 2/	Wood	Knit	**	Each
	Focus	F.O.C.S.	(3)12	(2)7	Cones	1/2x4, 11/4	Ribbon, Dome	M,T	16-30 ±2	98	10	180,2.8k, 12k	4/4	56 x 14 x 15	Opt., Wood	Opt., Knit	170	4850.00 Pair
	Convergence	F.O.C.S.	(2)12	(2)61/2	Cones	1	Dome	M,T	21-25 ±2	98	10	180,3.9k	4/4	52 x 16 x 14	Opt., Wood	Opt., Knit	155	3850.00 Pair
	Signature II	Bipolar, Slot Loaded	(3)10	(2)6½. 1¼	Cones, Dome	1⁄2x4, 1	Ribbon, Dome	M,T	20-30 ± 2	95	30	100,2k, 8.5k	4/4	50 x 12 x 13	Opt., Wood	Opt., Knit	130	2996.00 Palı
	Protege	Vented, 6th Order	(2)6½		Cone	1	Dome	т	38-23	96	15	3.5k	4/4	22 x 12 x 12	Opt., Wood	Opt., Knit	55	2296.00 Pair
	1	Bipolar	(2)10	6	Cone	1/2x4, 11/4	Ribbon, Dome	M,T	21-30 ±2	92	30	200,2k, 8.5k	4/4	45 x 12 x 12	Opt., Wood	Opt., Knit	110	1996.00 Pair
	2+	Vented, QB5	10	61/2	Cone	1	Dome	M,T	28-22 ±2	91	30	180,2.6k	8/4	40 x 12 x 11	Opt., Wood	Opt., Knit	80	1448.00 Pair
	Super Satellite	Symmet- rical Array	(2)61/2			1	Dome	Т	38-22 ±2	95	30	2.6k	4/4	20 x 11 x 10	Opt., Wood	Opt., Knit	40	848.00 Pair
	Satellite	QB5 Aided	61⁄2		1 1	1	Dome	T	40-22 ±2	90	30	2.6k	8/8	13 x 11 x 10	Opt., Wood	Opt., Knit	28	596.00 Pair
	Special Edition	QB5 Aided	7	2			Dome	T	39-22 ±2	91	30	2.8k	4/4	13 x 11 x 10	Opt., Wood	Opt., Knit	32	796.00 Pair
	Keviar Satellite Mini Monitor	QB5	51/4			1	Dome	т	59-22	90	30	2.6k	4/4	9 x 7 x 7	Opt.,	0=1	16	458.00
	Mini Monitor Dual 12"	Aided Vented,	(2)12	1			DOULS	w	59-22 ±2 16-100	90 91.5		Var.	4/4	9 x / x / 27 x 16 x 16	Wood Opt.,	Opt., Knit Opt.,	10	458.00 Pair 796.00
	Subwoofer	5th Order Subwoof.							±2			1			Wood	Knit		Each
	Powered Subwooter	Vented, 6th Order	(2)12					w	16-100 ±2		inc.	55-125 (Var.)	1k	27 x 16 x 16	Opt., Wood	Opt., Knit	120	1196.00 Each
LEGENO	1000	Subwoof. In-Wall	61/2			1	Dome	-	35-24	91	30	3k	8/	12 x 9	White	White	7	369.00
	2000	in-Wall	61/2			11/8	Dome		35-30	91	30	3k	8/	12 x 9	White	White	71/2	489.00
	3000	in-Wall	81/2			1	Dome		25-24	91	30	3k	8/	14 x 11	White	White	17	459.00 Pair
	4000	in-Wall	81/2			11/8	Dome		25-30	91	30	3k	8/	14 x 11	White	White	17	559.00 Pair
	S-1	Subwoof.	(2)10						25-140	90	30	140	4/	14 x 14	White	White	8	600.00 Pair
	S-2	Subwoof.	10 4	í			Domo		25-140 70-20	90	30 5	140 2.5k	8/	14 x 14	White	White	8 2 <sup>3</sup> ⁄4	475.00 Each
	LEG-80	Outdoor Sat.				1	Dome			84		2.38	8/	7 x 5 x 5	Opt.	Opt.	294	185.00 Pair
P. E. LÉON	Junior ML 1	Bass Ref.	6			3/4 3/4	Cone Dome		50-20 ±3 45-20	90	15		8/5 8/5	9 x 13 x 9 8 x 32 x 11	Black Black	Black		775.00 Pair 1360.00
	Quattro	Bass Ref. Bass Ref.	8 (2)6			1	Dome		±3 50-20	90 89	15 20	1.0.1	8/5	7 x 12 x 10	Black Black	Black Black	1	Pair 1450.00
	Signature ML2	Bass Ref.	(2)7			1	Dome		±3 40-22	90	20	12.0	8/5	10 x 28 x 11	Black	Biack		Pair 1795.00
	Trilog	Bass Ref.	(2)8			1	Dome		±3 35-22	90	20		8/5	11 x 40 x 13	Opt.	Black		Pair 2850.00
	Integral	Bass Ref.	(2)10	4	Cone	3⁄4	Dome	6	±2 30-22 ±2	91	50		8/5	13 x 46 x 14	Opt.	Black	0	Pair 3895.00 Pair
	Epsilon	Bass Ref.	(2)6, 8	4	Cone	(2)1	Domes		28-22	89	50		8/5		Opt.	Black		6375.00 Pair
	M5	Bass Ref.	(2)8,	3	Dome	1	Dome		25-22 ±2	90	75		8/7	16 x 56 x 20	Rswd.	Black	155	11,400. Pair
LINAEUM	9B System	Paneis & 2 Subs.	8, (2)10 10	(9)6	Lin- aeum			W, M/T	20-23	94, 85	30, 100	80,200	6/, 4/	Four Pieces	Gloss Black	Black Knit	585 Sys. 83	15,850 Sys.
	3	Ported	-	(2)6 6	Lin- aeum	11/4	Lin- aeum		25-30	91	60	450,15k	8/	14 x 19 x 44	Gloss Black	Black Knit		4800.00 Pair
	LS2 LFX	Ported Ported	8 51⁄4	0	Lin- aeum	11/4	Lin-		35-23 60-30	90 88	60 60	600 2.7k	8/ 4/3	11 x 9 x 42 7 x 7 x 10	Black Ash Opt.	Black Knit Black	54 From	895.00 Pair From
		1 01184	574				aeum		00-00		00	2.7K	4/3	/ . / . 10	Opt.	Knit	81/2	600.00 Pair
	Extreme		61⁄2			2	Lin- aeum		60-20	90	30	3k		9 x 9 x 14	Black Ash	Black Knit	15	300.00 Pair
LINN	Keltik	lsobarik	(2) 9x12	5	Cone	3/4	Dome		20-20 ±1		70	Ext.	8/4	10 x 15 x 41	Opt.	Black Knit	121	8995.00 Pai
	Kaber	Inf. Baf.	(2)5			3/4	Dome		60-20 ±3	87	50	300,2.7k	8/4	7 x 10 x 35	Opt.	Black Knit	59	2595.00 Pai
	Kellidh Kan II	Inf. Baf. Inf. Baf.	(2)6 5			3/4 3/4	Dome Dome		50-20 ±2 70-20	87 86	50 50	3k	8/6	8 x 10 x 33 8 x 6 x 12	Opt. Opt.	Black Knit Black	37	1295.00 Pai 995.00
	Index	Inf. Baf.	6		1	3/4	Dome		±3 70-20	87	50	3.5k	8/6	8 x 9 x 17	Black	Knit Black	161/2	Pair 595.00
DAVIO	Audiocell-P	ES						-	±3 30-35	87	30		8/4	26 x 40 x 2	Vinyl Atum.	Knit Black	38	Pai 1995.00
LUCAS, INC.	Double	ES							±3 30-35	90	30		B/4	26 x 80 x 2	Alum.	Knit Black	166	Pai 4385.00
	Audiocell-P								±3							Knit	Sys.	Pair w Stands
	Audiocell-A (w/Controller) Double	ES ES							30-35 ±2 30-35	87 90	60 60		8/2 8/2	26 x 40 x 2 26 x 80 x 2	Atum. Alum.	Black Knit Black	76 Sys. 166	2790.00 Pai 5180.00
	Audiocell-A (w/Controller)	<b>C</b> 0	ł						30-35 ±2	30	00		0/2	LUX OUX Z	Alum.	Knit	Sys.	Pair w Stands



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DAVID LUCAS, INC Continued)	Ballistic Bass (w/Controller)	Hybrid ES Subwoof.	(8)10, (2)26x 40						15-125 ±3	86	200		8/3	26 x 80 x 18	Alum.	Black Knit	300 Sys.	5350.00 Pair w Xover & Stands
ACH 1 COUSTICS	DM-10 Signature	Inf. Baf.	10	41/2	Cone	1	lnv. Dome		30-25 ± 3	89	35		6/4	46 x 13 x 17	Opt., Diled	Black Knit	150	11,995. Pai
	OM-10	Inf. Baf.	91/2	4	lnv. Dome	1	lnv. Dome		40-25 ± 3	87	<mark>35</mark>		6/3	44 x 11 x 15	Wood Opt., Oiled	Black Knit	105	7995.00 Pair
	AV-5.0 Signature	I <mark>nf. Ba</mark> f.	5		Come	1	Dome		80-20 ±3	86	35		8/5	14 x 8 x 10	Wood Opt., Diled	Black Knit	15	2995.00 Pair
	AV-5.0	inf <mark>.</mark> Baf.	5			1	Dome		80-20 ± 3	86	35		8/5	14 x 8 x 10	Wood Opt., Diled Wood	Black Knit	15	2395.00 Pair
MADISOUND	MDY-3	Aperiodic	61/2			1	Dome		50-20	88	50	2.5k	6/5	16 x 9 x 12	Opt., Oak	Black Knit	24	Kit, 535.00
	Sub II	Aperiodic Subwoot.	12						36- <mark>120</mark>	89	100	120	4/3		Black Oak	Black Knit	68	Pair Kit, 375.00
	Sledgling	Sealed	6½			3/4	Dome			90		3.2k	4/3.5	<mark>9</mark> x 12 x 6	Opt.	Black Knit	12	Pair Kit, 150.00
	Cygnet	Vented	8			1	Dome		40-18 ±3	87	30	3k	8/	12 x 19 x 11	Opt., Oak	Black Knit	30	Pair Kit, 375.00
	Infrabass	Vented Subwoof.	(2)10						35-120 ±3	89	50	120	8/6.2	29 x 18 x 16	Opt., Dak	Black Knit	70	Pair Kit, 415.00
	W <mark>S00</mark> 6	in-Wall	6			1	Dome		45-20 ± 3	90	40	3k	8/6	12 x 9 x 4	White	White Metal Mesh	4½	Each 140.00 Pair
MAGNEPAN	SMG b	Olpole	370 Sq. In.			1½x38	Quasi Ribbon	T	50-22 ±3	87	40	900	4/4	19 x 48 x 2	Opt.	Opt.	27	690.00 Pair
	MG.5Q/R	Dipole	370 Sq. In.			1½x40	Quasi Ribbon	т	45-22 ± 3	85	50	980	4/4	19 x 50 x 2	Opt.	Opt.	35	995.00 Pair
	MG1.5Q/R	Dipole	480 Sq. In.			1½x52	Quasi Ribbon	т	40-22 ±3	85	50	900	4/4	19 x 62 x 2	Opt.	Opt.	45	1350.00 Pair
	MG2.6/R	Dipole	609 Sq. In.			1⁄4x40	Ribbon	T	37-40 ±3	87	50	1k	4/3	22 x 71 x 2	Opt.	Opt.	50	1950.00 Pair
	MG3.3/R	Dipole	628 Sq. In.	3x57	Planar Mag.	1/8x60	Ribbon	T	32-40 ± 3	86	75	250,1k	4/3	24 x 71 x 2	Opt.	Opt.	60	3000.00 Pair
	MG20/R MG10/QR	Dipole Dipole	880 Sq. In. 340	3x48	Quasi Ribbon	1/8x60 11/2x55	Ribbon Quasi	T T	20-40 ±3 80-22	87 86	100 50	150,3k 1.:1k	4/3 4/4	28 x 80 x 2 10 x 63 x 2	Opt. Opt.	Opt. Opt.	100 30	8500.00 Pair 1175.00
MABQUIS	Monitor Seven	Sealed	Sq. In. 6½			1	Ribbon Dome	-	±3 60-20	85	20	3.5k	8/7	9 x 9 x 15	Wal.	Black	16	495.00
ELECTRONICS	Ducote Ten	269160	10 10			1	Dome		42-20	90	30	21	8/5	15 x 12 x 25	Wal.	Knit Black	46	495.00 Pair 1100.00
	Relerence One	Sealed Sat. & Motional Feedback	15	(2)5¼	Cones	1	Dome		42-20 20-20	89	50, 100	2k 125,3.5k	4/3	Three Pieces	Black Lacq.	Knit Black Knit	40 300 Sys.	Pair 5600.00 Sys.
MABTIN-LOGAN	Stylos	Woofer In-Wall	61/2			9x39	ES		50-20	88		780		63 x 10 x 5	Opt.	Opt.	40	2750.00
IN COM	Logos	Ctr. Ch.	61/2	(2)	ES	1	Dome		±3 50-20	90		280,5k	4/3	11 x 41 x 12	Opt.	Opt.	40	Pair 1700.00
	The Statement	Inf. Baf. ES &	(4)12	(2) 15x9		36x72	ES	w,T	±3 16-22	90	100	100	6/3	Two Pieces	Opt.	Opt.	2000	Each 60,000.
		Woofer	, . <i>.</i> ,						±1.5					Per Side	-		Sys.	Sys. w/Xover
	The Monolith Illx	ES & inf. Bat. Subwoof.	12			24x48	ES	W,T	28-24 ± 2	90	75	125	6/2	74 x 27 x 12	Opt.	Opt.	265 Sys.	9500.00 Pair w/Xover
	The Monolith Illp	ES & Inf. Baf. Subwoof.	12			24x48	ES	W,T	30-24 ± 2	90	75	125	<b>4/2</b>	Two Pieces Per Side	Opt.	Opt.	272 Sys.	6500.00 Sys. w/Xovers
	The Quest	ES & Inf. Baf. Subwoof.	12			18x48	ES	W,T	28-24 ±2	90	100	150	6/2	73 x 19 x 18	Opt.		125	3995.00 Pair
	The Sequel II	ES & Inf. Baf.	10			12x48	ES	w	30-24 ±2	89	50	250	6/2	14 x 72 x 13	Opt.		100	2995.00 Pair
	The CLS II	Subwoof. ES	24x48		1				45-20 ±2	85	100		6/1.5	28 x 58 x 14	Opt.		75	3500.00 Pair
	Aerius	ES & Inf. Baf. Woofer	8			9 <sup>1</sup> /2x40	ES		40-20 ±3	89	60	500	4/2	<mark>55</mark> x 10 x 13	Black	Black	55	1995.00 Pair
MASTERCRAFT Audio	Black Diamond	Ac. Sus.	(2)8			1	Dome	T	37-27 ±3	91	30	1.2k,3.3k	6/	30 x 15 x 8	Black Oak	Black Knit	44	1549.00 Pair
	Black Ruby	Ac. Sus.	8			1	Dome	T	40-27 ±3	89	30	3.1k	8/	12 x 6 x 26	Black Oak	Black Knit	29½	1159.00 Pair
	Black Pearl	Ac. Sus.	8		1	1	Dome		50-22 ± 3	91	20	3.1k	8/	14 x 10 x 8	Black Oak	Black Knit	21	599.00 Pair
	Black Emerald Music Monitor	Ac. Sus. Subwoof. Ac. Sus.	12 10			1	Oome	W	28-150 ±3 40-22	89 92	50 20	150 2.5k	8/ 8/	30 x 15 x 10 26 x 15 x 11	Black Oak Oak	Black	42 30	749.00 Each 699.00
									± 3			name a				Knit		Pair



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MASTON AUDIC	Limited Edition Deluxe Reference System	Sealed	12	7	Cone	1	Dome		32-20 ±3	87	20	115,2.5k	8/4	14 x 14 x 48	Opt., Lacq.	Black Knit	180	6975. Pa
	Deluxe Reference System	Sealed	12	7	Cone	1	Dome		32-20 ±3	87	20	115,2.5k	8/4	14 x 14 x 48	Dpt., Lacq. Wood	Black Knit	140	4975. Pi
	Tower	Sealed	12	51/4	Cone	1	Dome		37-20 ±3	90	10	500,2.5k	8/4	14 x 11 x 37	Opt., Lacq.	Black Knit	70	1599. Pi
	Minl	Ported	7			1	Dome		50 <mark>-20</mark> ±3	87	20	2.5k	8/4	10 x 12 x 14	Wood Dpt., Lacq.	Black Knit	20	949. Pa
	Micro	Ported	61/2			1	Dome		70-20 ±3	88	20	3k	8/6	9 x 7 x 13	Wood Opt., Lacq. Wood	Black Knit	15	649. Pa
MB QUART	Quart 250	Indoor/ Dutdoor Inf. Baf.	51/4			1/2	Dome		78-22		50	3.2k	4/	7 x 10 x 4	Fbgls	Dpt.		399.0 Pa
	Quart Dne	Bass Ref.	61⁄2			1	Dome		49-32		<mark>60</mark>	2.8k	4/	8 x 14 x 10	Opt.	Opt.	131⁄4	399.
	Quart Two XL	Bass Ref.	61⁄2			1	Dome		42-32		80	2.8k	4/	8 x 33 x 10	Opt.	Opt.	241/4	549. Pa
	Quart Three	Bass Ref.	(2)6 <sup>1</sup> /2			1	Dome		33-32		90	120	4/	8 x 36 x 10	Opt.	Dpt.	32	799. Pi
	Quart 500	Bass Ref.	8			1	Dome	2			110	100	4/	17 x 10 x 12	Opt.		231⁄4	79 <mark>9</mark> .
	Quart 600	Bass Ref.	8			1	Dome				110		4/	32 x 10 x 11	Opt.		353/8	999. P
	Quart 1000	Bass Ref.	8	61/2	Cone	1	Dome				140		4/	39 x 10 x 12	Dpt.		52	1499. P
	Quart 1600	Bass Ref.	(2)61/2			1	Oome				140		4/	42 x 12 x 14	Opt., Wood		44	1999. P
	Quart 2000	Bass Ref.	(2)8	(2)51/4	Cones	1	Dome				200		4/	48 x 11 x 14	Opt.		73	2799. P
2.4	Quart 90M	In-Wall Bass Ref.	8			1	Dome				35		4/	12 x 10 x 3	White	White		649.0 Pa
ACINTDSH	WS 200	in-Wall inf. Baf.	6			1	Dome			86	75	1.3k	8/	12 x 9 x 3	Metal	White	7	600. Pa
	LS 310	Inf. Baf.	8			1	Dome		58-22 ±2	87	50	2.5k	4/	19 x 11 x 11	Opt., Wood	Black	29	1000. Pa
	LS 330	int. Bat.	(2)8			1	Oome		55-22 ±2	88	75	3.5k	4/	36 x 13 x 12	Opt., Wood	Black	61	2000. Pa
	LS 350	Inf. Baf.	(2)10	5	Cone	1	Dome		45-22 ±2	89	100	250,1.5k	4/	44 x 16 x 13	Opt., Wood	Black	88	3000. P
	XRT 26	Inf. Baf.	(2)12	8	Cone	(23)1	Domes		28-20 ±2	87	200	250,1.5k	4/	Two Pieces Per Side	Opt., Wood	Black	162 Side	12,00 P
	XR 290	Inf. Baf.	(4)12	(12)5	Cones	(24)1	Domes		16-20	87	200	400,1.3k	8/	83 x 29 x 13	Opt., Wood	Black	364	25,00 P
	HT-1	THX; Inf. Baf.	(2)8			(3)1	Domes		55-22 ±1.2	89	100	1.4k	4/	23 x 17 x 11	Opt., Wood	Black	43	1000. Ea
	HT-2	THX; Vented	(2)12						42-200 ± 2	91	100	200	4/	21 x 30 x 20	Opt., Wood	Black	90	1500.0 Ea
	HT-3F/HT-3W	Subwoof. THX Sur- round; Inf. Baf.&	(2)5			(2)1	Domes		85-12		75	1.5k	4/	16 x 16 x 6	Text. Black	White	20	2000. Pa
ACNEILL	Audiophile	Dipole Inf. Baf.	8			1	Dome		30-22	92	5	3k	6/4	20 x 13 x 10	Black	Gray	24	199.0
	Tower	Inf. Baf.	(2)8			1	Dome		27-22	92	10	80,3k	4/4	34 x 13 x 10	Black	Knit Gray	49	Ea 399.
	Baby	Inf. Baf.	4			1	Cone		80-22	92	1	8k	8/8	11 x 6 x 5	Black	Knit Gray	14	Ea 99.1
	Big Bass	Inf. Baf.	18						10-80	94	30	80	8/8	23 x 23 x 13	Gray	Kniť Black	59	Ea 399.0
	Autobox	Subwoof. Inf. Baf.	(2)8			(2)1	Horns		30-22	92	5	2k	8/8	30 x 11 x 9	Gray	Mesh Black Mesh	44	Ea 199. Ea
IERET AUDIO	Re	Ported	7			1	Dome		48-20 ±2	89	40		8/6	18 x 9 x 14	Opt.	Black Knit	48	2200.0 Pa
ERIDIAN	DSP6000 (With remote control)	Powered	(4)8	61/2	Cone	1	Dome		22- <b>2</b> 1	112 Max	Inc.	200,2.6k		Two Pieces Per Side	Black Lacq.	Black Knit	188 Side	15,00 Pa
	DSP5000 (With remote control)	Powered	61/2	6 <sup>1</sup> /2	Cone	1	Dome		35-21	108 Max	inc.	2.6k		35 x 8 x 12	Black Ash	Biack Knit	69	4990. Pa
	M6011 M30	Powered Powered	6½ 6½	61/2	Cone	1	Dome Dome	W,M, T W,M,	45-21 45-20	108 Max 106		2.6k 2.6k		35 x 8 x 12 16 x 7 x 12	Black Ash Black	Black Knit Black	68 35	2995. Pa 1990.
IERLIN	EXL 1	Ported	61/2			1	Dome	T	45-20	Max	30		9/4		Ash	Knit		Pa
USIC	EXLI	Ported	8			1	Dome	т	45-20 ±3 38-20	87 91	30 30	2.7k 2.2k	8/4 B/4	10 x 10 x 38	Diled Dak	Black Knit	45	1700. Pa
	EXL III	Ported	8	41/2	Cone	1	Dome	M.T	±3 33-20	91 89	30 50	2.2K 500,3k	8/4 8/4	12 x 12 x 44	Diled Dak Diled	Black Knit Black	65	2200. Pa
	EXL IV	Ported	6 (2)8	(2)41/2	Cones	1	Dome	M,T	±3 30-20	90	50 100	500,3k	8/4	12 x 15 x 45 12 x 15 x 62	Diled Dak Diled	Black Knit Black	120 185	3600. Pi
	Pendragon III	Ported	8	41/2	Cone	1	Dome	M,T	±3 33-20	89	50	500,3k	8/4	12 x 15 x 62	Oiled Dak Oiled	Black Knit Black	185	5800. Pa 7100.
	Excalibur III	Ported	(2)8	(2)41/2	Cones	1	Dome	M,T	±3 30-20	90	100	500,3k	8/4	14 x 17 x 40	Dak Diled	Knit Black	250	9200.0
			,-/•	(=)./1	- 5				±3	33		000,0R		14 4 17 4 04	Oak	Knit	200	9200 P

AUDIO/OCTOBER 1993
# In case you need a second opinion... or a third...or a fourth...

### **CS3.6**

**661** can say without reservation that the Thiel CS3.6 is a remarkable loudspeaker. **77** *—Robert Harley,* Stereophile, Vol. 16, No. 5, May '93

**66**...the Thiel represents a turning point in the market. You absolutely must listen to them before making a buying decision. **99** *—Ugo Stella*, SUONO, *Italy Vol. 21, No. 10, October '92* 

**6 6** ...the sound is so close to reality you immediately think this is it...a new reference. **9 9** *—Menno van der Veen,* Home Studio, *Netherlands, March '93* 

66...they'll give you chills. **77** *—Ken Kessler*, Hi-Fi News & Record Review, U.K., November '92

## CS5

**66** A completely flawless design. **99** *—Nagashima*, Stereo Sound, Japan *No. 105*, *Winter '93* 

**6** ...an extraordinary achievement in speaker-making. **7** *—Larry Archibald*, Stereophile, Vol. 13, No. 6, June '90



From left to right (suggested retail per pair): SCS-\$1,090; CS2 2-\$2,750; CS5-\$10,800; CS3.6-\$3,900; CS1.2-\$1,250.



• Three-time Audio/Video International magazine's Grand Prix "Froduct of the Year" winner for the CS5 and the CS2 2

Stereo Sound

COTY

1992

• Stereo Sound, Japan, magazine's 1992 COTY (Components of the Year) Award for the CS5



• Consumer Electronics Show Innovations Design and Engineering Award winner for the CS5, CS3.6, CS2 2, and CS1.2

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### **CS2** 2

...the CS2 2 is a sonic bargain ...Highly recommended.
John Atkinson, Stereophile, Vol. 16, No. 1, January '93

66...I think they are one of the best, if not the best, performers I have come across. —Andy Benham, Hi-Fi Choice, U.K. Winter 92/93

> ...these Thiels are a steal.
> Sam Tellig, Stereophile, Vol. 15 No. 4, April '92

## **CS1.2**

6 6...the CS1.2 is an exceptional speaker. ? ? -Von Ulrich Michalik, STEREO, Germany, January '93

 ...You might hope for this caliber of sound from a speaker selling for upwards of \$2,000. ??
 —Julian Hirsch, Stereo Review, January '89

## SCS

...I can't think of a better sounding model in such a small enclosure. *Paul Messenger*, Hi-Fi Choice, U.K. January '93

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META RESEARCH	Meta-Speaker	Tuned Port	7	7	Cone	1	Inv. Dome			96	10		6/4	37 x 19 x 16	Black	Black Knit	88	6950.00 Pair
METAXAS	Empress	ES					1		30-25	88	100		4/3	60 x 20 x 3	Piano 8lack		50	6000.00 Pair
SYSTEMS	Czar	ES							20-35	92	100		4/3	80 x 24 x 3	Piano Black		100	15,000. Pair
	Emperor	ES							10-55	100	100	150	4/3	100 x 36 x 3	Piano Black		150	29,000. Pair
MICHAEL GREEN DESIGNS	Chameleon	Bass Ref.	8			1	Dome		40-20	87	50		1/	48 x 12 x 17			148	3450.00 Pair
MIRAGE	M-1si	Bipolar	(2)8	(2)41/2	Cones	(2)1	Hybrid Domes		25-23 ±2	86	200	300,2k	6/4	60 x 20 x 10	Black Gloss	Black	185	5500.00 Pair
	M-3si	Bipolar	10	(2)41/2	Cones	(2)1	Hybrid Domes		30-23 ±2	87	100	350,21	7/4	53 x 18 x 9	Black Gloss	Black	135	3000.00 Pair
	M-5si	Bipolar	(2)61/2			(2)1	Hybrid Domes		32-23 ± 2.5	87	100	2k	6/4	49 x 16 x 8	Black Gloss	Black	85	1800.00 Pair
	M-7si	Bipolar, Vented	8	5		1	Hybrid Dome		35-23 ±3	88	50	500,2k	6/4	45 x 14 x 7	Black Gloss	Black	80	1300.00 Pair
	M-990	Bipolar, Vented	(2)61/2	5		1	Dome		35-22 ±3	88	50	500,2k	6/4	44 x 10 x 11	Opt.	Black	70	From 1300.00 Pair
	M-790	Bipolar, Vented	8	5		1	Dome		38-22 ±3	87	50	500,21	6/4	39 x 10 x 11	Opt.	Black	60	From 900.00
	M-490	Bass Ref.	8			1	Dome		40-22 ±3	86	50	2k	6/4	19 x 10 x 11	Dpt., Wood	Black	28	Pair 600.00 Pair
	M-290	Bass Ref.	6 <sup>1</sup> /2	ļ		1	Dome		45-22 ± 3	86	50	2k	6/4	16 x 9 x 9	Opt., Wood	Black	17	400.00 Pair
	M-190	Bass Ref.	51/4			3/4	Dome		55-20 ±3	85	25	2.2k	6/4	12 x 7 x 8	Opt., Wood	Black	12	250.00 Pair
	M-90i	Bass Ref.	51/2			1/2	Dome		60-20 ±3	86	30	3.5k	6/4	12 x 7 x 8	Opt.	Opt.	20	200.00 Pair
	M-1901 BPSS-212	Bass Ref. Powered	6 <sup>1</sup> /2 (2)12			1/2	Dome	w	48-23 ±3 18-150	87.5	30 Inc.	2.3k Var,	6/4	14 x 8 x 9	Opt. Block	Opt. Ricck	22	250.00 Pair
	0-33-212	Servo Subwoof.	(2)12						+0,-3			Val.			Black Gloss	Black		2500.00 Each
	BPSS-210	Powered Sealed Servo	(2)10					SW	18-150		250 Inc.	42-150 (Var.)	1	18 x 24 x 17	Black Gloss	Black	85	2000.00 Each w/Xover
	Do 40 400	Bipolar Subwoof.	4.0			6									<b>.</b>			
	PS-12-180 PS-12-90	Powered Subwoof. Powered	12 12			ĺ.		w	23-150 +0,-3 28-150		Inc.	Var Var,		18 x 18 x 20	Black Ash Black	Black Black		800.00 Each
	MIDS-6.5	Subwoof.	6 <sup>1</sup> /2			1	Dome	"	+0,-3	87	inc. 5	2k	8/6	17 x 16 x 16 9 x 13 x 3	Ash White	White	4	550.00 Each 200.00
	MIDS-5.25	In-Wall;	51/4			1/2	Dome		±3 60-20	86	5	3.5k	8/6	7 x 7 x 3	White	White	2	Each 125.00
	MC-Si	Coaxial Bass Ref.	(2)51⁄4			1	Dome		±3 45-23	86	50	2k	8/6	8 x 19 x 12	Black	Black	25	Each 500.00
MISSION	760i	Ctr. Ch. Bass Ref.	51⁄4			3/4	Dome		±3 60-20	89	10		6/	12 x 7 x 8	Gloss Black	Black	-	Each 279.00
	761i	Bass Ref.	(2)51⁄4			3/4	Dome		± 2.5 55-20	89	20		8/	15 x 8 x 9	Ash Black	Knit Black		Pair 389.00
	762i	Bass Ref.	8			3/4	Dome		$\pm 2.5$ 45-20 $\pm 2.5$	92	20		8/	20 x 10 x 11	Ash Black	Knit Błack		Palr 499.00
	7631	Bass Ref.	8			3/4	Dome		±2.5 42-20 ±2.5	92	20		8/	31 x 10 x 11	Ash Black Ash	Knit Black Knit		Pair 769.00 Pair
	764i	Bass Ref.	8			1	Dome		35-20 ±1.5	89	20		8/	34 x 10 x 13	Błack Ash	Błack Knit		989.00 Pair
	7651	Bass Ref.	(2)8			1	Dome		35-20 ±1.5	93	20		4/	37 x 10 x 14	Black Ash	Black Knit		1199.00 Pair
	780	Bass Ref.	5 <sup>1</sup> ⁄4 (4)5 <sup>1</sup> ⁄4			3/4	Dome		55-20 ±2	89	20		6/	12 x 7 x 10	Black Rswd.	Black Knit		499.00 Pair
	753	Inf. Baf., Bass Ref. Bass Ref.	(4)5 % 6 <sup>1</sup> /2			G	Dome Dome		40-20 ± 1.5 45-20	90	30 30	1.11	6/	35 x 8 x 12 33 x 8 x 10	Black Rswd. Black	Błack Knit Black		1499.00 Pair 999.00
	752	Bass Ref.	51/4			1	Dome		± 1.5		30			13 x 7 x 11	Black	Knit Black		Pair 699.00
	76C	Bass Ref. Ctr. Ch.	(2)51/4			3/4	Dome		±2 57-20 ±2.5	89				7 x 17 x 10	Rswd. Black	Knit Biack Knit		Pair 249.00 Each
MITSUBISHI	M-S8040	Powered Subwoof.	12					w		91	Inc.	63-120 (Var.)		24 x 25 x 17	Black	Black	72	799.00 Each
	HTS-SAT	Sat.	51⁄4			1	Dome		70-22.5 ±3 38-200	90		3.8k	8/	10 x 7 x 7	Black Vinyl	Black Knit	9	100.00 Each
	HTS-SUB	Subwoof.	8						±3	90		150	8/	14 x 18 x 10	Black Vinyl	Black Knit	29	250.00 Each
M & K SOUND	MX-90	Powered Ac. Sus.	(2)12					w	20-125 ±3		125 Inc.	50-125 (Adj.)	200/ 15k	24 x 16 x 20	Opt., Wood	Błack Knit	70	995.00 Each
	MX-80	Subwoof. Powered Ac. Sus.	(2)12					w	20-125 ± 3		75 Inc.	50-125 (Adj.)	200/ 15k	24 x 16 x 18	Opt., Wood	Black Knit	64	850.00 Each
	MX-70	Subwoof. Powered Ac. Sus.	(2)8					w	25-125 ± 3		125 Inc.	50-125 (Adj.)	200/ 15k	18 x 10 x 14	Błack	Black Knit	48	850.00 Each
	V-90	Subwoof. Powered	12					w	25-125		90	50-125	200/	18 x 16 x 17	Opt., Wood	Black	50	750.00
(Continued)	1	Ac. Sus. Subwoof.							±3		Inc.	(Adj.)	15k		wood	Knit		Each

#### MONITOR AUDIO

Founded in 1972, Monitor Audio is one of the UK's most innovative loudspeaker manufacturers.

While many other specialists have come and gone, Monitor Audio continues to design and manufacture products true to the principles of quality in engineering and craftsmanship.

## To listen.

## To see.

## To *feel*.

The MA 1200 Gold

Only the best materials are used in Monitor's own cabinet manufacturing plant, where matched, real wood veneered cabinets are hand crafted to a quality finish rarely found in modern day speakers.

Every loudspeaker, from the highly acclaimed *Studio 20 SE* to the compact *Monitor One*, is conceived and designed with equal attention. And each pair is built, tested and packed by one craftsman.

#### Listen to a pair of Monitor Audio Speakers and feel the difference.

What the press say "What the reference 1200 Gold offers for a not considerable sum is a speaker which excels in two areas – imaging and bass reproduction."

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## MONITOR AUDIO USA

... the British loudspeakers with "the gold dome"

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M & K (Continued)	S-90 MX-5000 THX	Ac. Sus. Sat. THX; Powered Ac. Sus. Subwoof.	6½ (2)12			1	Dome	M,T W	72-20 ±3 18-125	90	10 400 Inc.	2k	4/4 200/ 15k	12 x 8 x 10 24 x 16 x 26	Opt., Wood Opt., Wood	Black Knit Black Knit	18 115	795.00 Pair 2195.00 Each
	S-5000 THX	Subwoof. THX; Trans. Line	(2)6½			(2)1	Domes	M,T	72-20 ±2	94	25	2k	4/4	24 x 12 x 12	Opt., Wood	Black Knit	52	950.00 Each
	SS-500 THX	Sat. THX Sur- round; Ac. Sus.	(2)5			(2)1	Domes		80-20 ±3	90	10	2k	4/4	16 x 7 x 7	Opt., Wood	Black Knit	25	1 <b>45</b> 0.00 Pair
	S-100B	Sat. Ac. Sus. Sat.	(2)5			(3)1	Domes	M,T	77-22 ±3	93	7.5	2k	4/4	12 x 11 x 9	Black	Black Knit	22	995.00 Pair
	V-100	Powered Ac. Sus.	12					W	20-125 ±3		200 Inc.	50-125 (Adj.)	200/ 15k	18 x 16 x 18	Opt., Wood	Black Knit	65	995.00 Each
	MX-100	Subwoof. Powered Ac. Sus.	(2)12					W	20-125 ±3		200 Inc.	50-125 (Adj.)	200/ 15k	23 x 16 x 20	Opt., Wood	Black Knit	78	1295.00 Each
	MX-2000	Powered Ac. Sus. Subwoof. Powered Ac. Sus.	(2 <mark>)1</mark> 2					w	20-125 ± 3		300 Inc.	50-125 (Adj.)	200/ 15k	23 x 19 x 26	Opt., Wood	Black Knit	105	1795.00 Each
	MX-1000CC	Subwoof. Ctr. Ch.& Powered Ac. Sus.	(2 <mark>)1</mark> 2	(2)5	Cones	(3)1	Domes	<b>W, M</b> , Т	20-22 ±3	93	150 Inc., 7.5	50-125 (Adj.), 2k	200/ 15k, 4/4	26 x 28 x 25	Black	Black Knit	135	1795.00 Each
	MX-1000	Subwoof. Powered Ac. Sus. Subwoof. Ac. Sus.	(2)12					w	20-125 ±3		Ext. 150 Inc.	50-125 (Adj.)	200/ 15k	26 x 28 x 24	Black	Black Knit	115	1295.00 Each
	S-1C	Sat.	(2)5			(2)1	Domes	M,T	77-22 ±3	93	7.5	2k	4/4	21 x 8 x 10	Opt., Wood	Black Knit	18	950.00 Pair
	S-80	Ac. Sus. Sat.	5			1	Dome	M,T	85-22 ±3	90	10	2k	4/4	11 x 8 x 7	Opt., Wood	Black Knit	9	550.00 Pair
	SX7	Ac. Sus. Sat.	4			3/4	Dome		100-20 ±3	87	5	2k	4/4	8 x 5 x 5	Dpt., Metal	Perl. Metal	6	270.00 Pair
	V3B	Powered Ac. Sus. Subwoof.	12					w	24-125 ±3		75 Inc.	50-125 (Adj.)	200/ 15k	18 x 18 x 16	Black	Black Knit	38	650.00 Each
i i	VX4	Powered Ac. Sus. Subwoof.	12				6	w	35-125 ±3		50 Inc.	50-125 (Adj.)	200/ 15k	18 x 18 x 15	Black	Black Knit	33	495.00 Each
	VX7	Powered Ac. Sus. Subwoof.	8					w	40-125 ±3		50 Inc.	90-180 (Adj.)	200/ 15k	10 x 14 x 11	Black	Black Knit	21	425.00 Each
MONITOR AUDIO	Monitor 1 Gold	Ported	41/2			3/4	Dome	No	65-26 ±3	88	15		8/	10 x 6 x 6	Black	Black Knit	51/2	349.00 Pair
	Monitor 7 Gold	Ported	41/2			3/4	Dome	No	60-26 ±3	88	15		8/	14 x 7 x 7	Black	Black Knit	8	429.00 Pair
	Monitor 9 Gold	Inf. Baf. Bortod	6 4 <sup>1</sup> /2			1 3/4	Dome	No	55-26 ±3 60-26	88	15	-	B/	15 x 8 x 8	Black	Black Knit	11	599.00 Pair
	MA100 Gold	Ported Ported	6 <sup>1</sup> /2				Dome	No	±3	88	15		8/	10 x 6 x 6	Opt., Wood	Black Knit	51/2	599.00 Pair
	MA700 Gold MA800 Gold	Ported	6 <sup>1</sup> /2			1	Dome Dome	No No	45-30 ±3 40-30	89 89	20	15.57	8/ 8/	14 x 9 x 10	Opt., Wood	Black Knit	171/2	Pair
	MA120D Gold	Ported	6			1	Dome	No	±3 35-30	89	20 15		6/ 8/	20 x 9 x 10	Opt., Wood	Black Knit Black	29 37	1499.00 Pair
	Studio 6	Ported	6			1	Dome	No	±3 40-30	88	20	3.2k	8/	36 x 8 x 10 14 x 9 x 10	Opt., Wood Opt.,	Black	22	1999.00 Pair 2499.00
	Studio 20 SE	Ported	6			1	Dome	No	±3 30-30	89	20	3.2k	8/	30 x 8 x 10	Lacq. Wood Opt.,	Knit Black	41	Pair 4499.00
	Studio 50	Ac. Sus.	(2)6	6	Cone	1	Dome	No	±3 25-30	89	30	100,3.2k	8/	41 x 8 x 10	Lacq. Wood Opt.,	Knit Black	60	Pair 7995.00
MOINRID	Starter	Sealed	63⁄4			1	Dome		±3 55-20	83	50		6/2	8 x 9 x 14	Lacq. Wood Wal.	<u> </u>		Pair From
		Box																1000.00 Pair
MOREL ACOUSTICS	Encore	Sat. & Subwoof.	(2)9	6		11/8	Dome		30-22 + 1,-3	91 80	20	90,1.6k	4/ -	Three Pieces	Lacq.	Black Cloth	48 Sys. 18	990.00 Sys.
	MLP-203	Ac. Sus.	6			11/8	Dome		45-28 ±3	89	15	1.8k	6/4	8 x 16 x 9	Wood Ven.	Black Knit	1.1.1	640.00 Pair
	CR-7 MLP-201.III	Ac. Sus. Ac. Sus.	6			11/8 11/8	Dome		70-25 ±3	90 00	15	1.6k	6/4	7 x 11 x 7	Black	Black Knit	10	498.00 Pair
	MLP-201.11	AC. SUS. AC. SUS.	6			1 1/8 1 1/8	Dome Dome		45-20 ±3 60-28	90 89	10 15	1k 1.6k	8/6 6/4	9 x 13 x 10 8 x 13 x 10	Black Wood	Black Knit Black	16	349.00 Pair 545.00
	MLP-2021	AC. SUS. Ac. Sus.	9	3	Dome	11/8	Dome		±3 38-25	90 90	20	1.0K	6/4 6/4	8 x 13 x 10 21 x 12 x 10	Wood Ven. Wood	Black Knit Black	14 26	545.00 Pair 745.00
	MLP-501	Ac. Sus.	9	51/2	Dome	11/8	Dome		±3 34-25 ±3	90 90	25	500,5k	8/6.5	11 x 12 x 33	Ven. Opt., Wood	Knit Black Cloth	42	745.00 Pair 895.00 Pair
	Duet	Ac. Sus.	6			11/8	Dome		40-22	91	15	1.8k	5/4	8 x 15 x 12	Ven. Wood	Black	20	995.00
	Prelude	Trans. Line	6			<mark>11⁄8</mark>	Dome		±3 38-21 ±2	90	25	3.8k	8/6.5		Ven. Opt.	Knit Black Cloth	48	Pair 1395.00 Pair
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MORRISON	1.5	Point Source Sealed 1/4-Wave	8			1	Dome	Т	27-22	89	20	4.5k	8/6	12 x 10 x 27	Black Lacq.	Black	51	1950.0 Pa
TX	500	Loading In-Wall;	51/4		1	1/2	Dome	-	69-20	88	35	Bk	8/4	7 x 7 x 2	White	White	8	159.0
	520	Coaxial In-Wall	51/4			1	Dome		± 6 50-20	89	33	2.8k	8/	8 x 11 x 3	WHILE	Mesh White Steel Mesh	10	133. Pa 179. Pa
	600	in-Wall; Coaxial	6 <sup>1</sup> /2			1/2	Dome	ĵ.	63-20 ±6	88	35	8k	8/4	9 x 9 x 3	White	White Mesh	9	169. P
	620	In-Wall	61/2			1	Dome		45-20	90		2.8k	8/	9 x 12 x 3		White Steel Mesh	11	199. Pa
	650WR	In-Wall; Coaxial	6 <sup>1</sup> /2			1/2	Dome		60-20	89	35		8/4	9 x 9 x 3	White	White Mesh	9	199. Pi
	820	in-Wall	8			1	Dome		±6 40-20	90		2.5k	8/	10 x 14 x 4		White Steel Mesh	14	249. P
	FS8	In-Floor Vented	8						52-200 ± 3	90	75	200	8/6	9 x 11 x 28		MC2N		229. Ea
	FS10	Subwoof. In-Floor	10						48-200	92		200	8/	9 x 15 x 29	Black		32	259.
	PR0115	Subwoof. Vented	15	(2)5	Cones	3	Horn	1	60-21	96.6	15	2k,5k	8/	21 x 30 x 16	Gray	Black	77	699.
	PR0210	Vented	(2)10	(2)5	Cones	3	Horn		70-21	98.6	15	2k,5k	8/	23 x 18 x 13	Cptg. Gray	Steel Black	64	499.
	PR0215	Vented	(2)15	(2)5	Cones	3	Horn		50-21	99.2	<u>15</u>	2k,5k	8/	19 x 47 x 16	Cptg. Gray	Steel Black	125	Ea 799.
	02550	Vented	6 <sup>1</sup> /2				Dome		65-22	91.5		3k	4/8	13 x 10 x 7	Cptg. Opt., Wood	Steel Opt.,	12	229.
100	D3550	Vented	8	1			Dome		60-22	94.5		3k l	4/8	<mark>18</mark> x 11 x 8	Opt., Wood	Knit Opt.,	19	P 279.
	D4550	Vented	10	5	Cone		Dome		45-22	95.5		2.7k,6k	4/8	24 x 15 x 10	Opt. Wood	Knit Opt., Knit	34	209.
	D5550	Vented	12	5	Cone	1,3	Dome,		43-22	96.5		1.7k,6k	4/8	27 x 15 x 10	Opt., Wood	Opt., Knit	40	259.
	D9550	Vented	12	(2)5	Cones	1,3	Cone Dome, Cone		32-22	99.5		1.7k,6k		41 x 16 x 15	Opt., Wood	Opt., Knit	76	439. Ea
	AAL 62	Vented	61/2			33/4	Piezo		90-20 ±3	90		2.5k	4/	13 x 9 x 7	Oak	Black Knit	24	199. Pa
	AAL 83	Vented	8	3	Cone	33/4	Piezo		75-20 ± 3	92		3.6k,4k	4/	18 x 11 x 8	Oak	Black Knit	38	229. P
	AAL 103	Vented	10	4	Cone	33/4	Piezo		55-20 ±3	91.5		2k,6k	4/	24 x 15 x 10	Oak	Black Knit	34	179. Ea
	AAL 124	Vented	12	3,4	Cones	33/4	Piezo		50-20 ±3	90		1.4k,3.2k, 6k	4/	27 x 15 x 11	Oak	Black Knit	39	199. Ea
	AAL 154	Vented	15	3,4	Cones	33/4	Piezo		40-20 ±3	92		3.2k,6k	4/	29 x 18 x 15	Oak	Black Knit	59	249. Ea
	AAL 223	Vented	(2)12	5	Sealed	1	Piezo		38-22	93	75	3.2k,6k	6/4	40 x 15 x 15	Oak	Black	76	299. Ea
MUSE	Eighteen Sixteen	Powered 6th Order Subwoof. Powered	(2)10 (4)11					w	15-Sel. 13-Sel.		Inc.	Sel. Sel.		25 x 25 x 25 16 x 25 x 50	Opt., Wood Opt.,		155 280	Fro 2750. Ea Fro
	UNAL CON	6th Order Subwoof.	(4/11						10 001.			001.		10 1 20 1 00	Wood		200	5000. Ea
MUSEATEX	WAL1 Melior In-Walls	In-Wall Planar					1		60-20 ±3	83	40		4/6	18 x 3 x 15	White	White Metal	18	899. P:
AIM AUDIO	NA IBL	Inf. Bat.	5			3/4	Dome		45-20	87		2.4k	6/6	10 x 11 x 32	Opt.	Black	30	1695.
	NA SBL	Inf. Bal.	8			3/4	Dome		± 3 30-20	88		2.4k	6/6	11 x 11 x 34	Opt.	Foam Black Foam	60	Pa w/Xovo 1955. 3495. Pa
	NA DBL	Inf. Baf.	15	5	Cone	3/4	Oome		±3 17-20 ±3	92		350,3.5k	4/4	16 x 26 x 47	Opt.	Black	200	w/Xov 3755. 14,99 Pa
																ruain		w/Xov 16,57
I.E.A.R.	NEAR-50Me	Vented	8	4	Cone	1	Cone		27-26 ±2	91	25	250,4k	8/6	10 x 12 x 48	Opt.	Black Knit	58	Fm 1599. P
	NEAR-40Me	Vented	8			1	Cone		30-26 ±2	88	25	2.3k	8/6	10 x 11 x 39	Opt.	Black Knit	46	Fro 1250. P
	NEAR-30Me	Vented	8			1	Соле		40-26 ±2	88	25		8/6	10 x 10 x 17	Lacq. Wal.	8lack Knit	30	950. P:
	NEAR-10M	Vented	51⁄4			1	Cone		45-26 ±2	88	10	1.8k	4/4	7 x 9 x 11	Opt.	Black Knit	15	Frc 399. P
	MAST	Vented	(2)51/4			1	Cone		35-26 ±2	90	25	3.3k	5/4	7 x 9 x 47	Opt.	Black Knit	52	990. Pa
	AEL-1.1	Outdoor, Sealed	51/4						65-13 ±3	88	10		4/4	8 x 8 x 8	Poly.	ABS	7	299. Pa
	AEL-1.2	Outdoor, Sealed	51/4			1/2	Dome		65-20 ±3	89	10	5k	4/4	8 x 8 x 8	Poly.	ABS	8	349. Pa
	AEL-1.4	Outdoor, Vented	51/4			1	Cone		48-26 ±3	89	25	3k	6/5	8 x 5 x 14	Poly.	ABS	13	399. Pa
Continued)	AEL-1.5	Outdoor, Vented	6 <sup>1</sup> /2			2	Cone		48-20 ±3	89	25	3k	8/6	8 x 8 x 14	Poly.	ABS	15	570. Pa

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	/	/	o Principle. F	niamete	theres Dane	Stends Type	Diameter	set Type	sate are when	ee Fredi	S BB	anded Mr.	Freque	Sans Minimum	Siest no.		alor an	0 Mio 63
IANUFACTURER	Model	Desid	a w	olet	drange wit	Tangt Twe	ater Twee	let sep	ale ane Arech	110/2	~/	ecommo cross	ovo inte	aoninati Dimena H	ee Finis	an Gill	Ne Con Weit	ant. pri
N.E.A.R.	AEL-1.6	Outdoor,	61/2	$\leftarrow$	(	2	Cone	/ .	48-20	89	25	3k	8/6	8 x 5 x 14	Poly.	ABS	15	570.
(Continued)	AEL-2.0(F)	Vented Outdoor,	8			1	Cone		±3 40-26	91	50	3k	8/6	12 x 12 x 20	Fbgis	ABS	22	899.
	AEL-2.0(C)	Vented Outdoor,	8			1	Cone		±3 40-26	91	<u>50</u>	3k	8/6	12 x 12 x 20	Fbgis	ABS	30	1099.
ELSON-REED	8-04/CM	Vented Slot	(2)8	3	Dome	1	Dome	No	± 3 32-20	93	30	320,3.5k	8/6	47 x 12 x 15	Opt.	Opt.	100	P 5400.
	6-02/TC	Loaded Ported	6			1	Dome	No	±2 40-20	90	25	3.5k	8/7	43 x 9 x 9	Opt.	Opt.	60	P 1190.
	5-02/CM	Inf. Baf.	5¼			1	Dome	No	±3 70-20 ±3	90	25	3.5k	8/7	12 x 8 x 8	Opt.	Opt.	12	P 750. P
	1201	Inf. Baf. Subwoof.	12						32-125 ± 3	90	25	90	6/4	18 x 18 x 18	Opt.	Opt.	40	750. Ea
	1204/P	Inf. Baf. Subwoof.	(4)12						16-62 ±3	93	100	62	2/2	39 x 18 x 18	Opt.	Opt.	100	1800. Ea
ABORATORIES	Type 5AS Mk. IV	Nestorovic	8,10	4	Dome	41/2	Planar	M,T	28-40 +1,-3	91	50	1k,7k	8/5	36 x 15 x 15	Opt., Wood	Black Knit	85	4500.0 Pa
	De Lux Signature	Nestorovic	8,10	4	Dome Dome	41/2	Planar	M,T	28-40 +1,-3 28-40	91 91	50 50	1k,7k	8/5 8/5	36 x 15 x 15	Opt., Wood	Black Knit Black	85	5200. Pa 7000.
	Signature Type 4A	Nestorovic Sat.	8,10 8	4	Dome	41/2 41/2	Planar Planar	m, I	28-40 +1,-3 60-40	91 91	50	1k,7k 200,1k,7k	8/5 8/6	36 x 15 x 15 22 x 12 x 12	Opt., Wood Opt.,	Black Knit Black	87 42	4200.
	Mk. III Type 8	Nestorovic	(2)12						+1,-3 18-250	91	100	200	8/5	22 x 26 x 26	Wood Opt.,	Knit Black	135	P 2500.
	Mk. II System 12A Mk. III	Subwoof. 2 Sats.& 2 Nest.	(2)8, (4)12	(2)4	Domes	(2)4 <sup>1</sup> /2	Planars		+1,-3 18-40 +1,-3	91		200,1k,7k	8/5	Four Pieces	Wood Opt., Wood	Knit Black Knit	354 Sys.	9200 S
	System 16A	Subs. 4 Sats.&		(4)4	Domes	(4)41/2	Planars		18-40	91		200,1k,7k	8/4	Six Pieces	Opt.,	Black	438	13,40
	Mk. III	2 Nest. Subs.	(4)8, (4)12						+ 1,-3						Wood	Knit	Sys.	S
EWFORM	R8-2	Inf. Bat.	(2)8			(2) 15x <sup>3</sup> /4	Ribbons		38-20 ±3	87	30	900	8/7	61 x 15 x 11	Sim. Black	Black	71	1995. P
LOLANUN	R8-1	Inf. Bat.	8			8x3/4	Ribbon		42-20	86	30	950	8/6	46 x 15 x 11	Oak Sim.	Black	55	1445.
				<u>/</u>					±3						Black Oak			Pa
	R5-2	Inf. 8af.	(2)51/4			8x <sup>3</sup> /4	Ribbon		52-20 ±3	85	30	1.25k	8/6	23 x 11 x 9	Sim. Black Oak	Black	28	895. Pi
	R8-1C	Ctr. Ch.	8			(2) 8x <sup>3</sup> ⁄4	Ribbons		100-20 ± 2	86	30	950	8/6	28 x 15 x 11	Sim. Black	Black	48	650. Ea
	No Holds	int. Bat.	(2)10			(2)30	Ribbons		32-20	88	30	500	8/6	84 x 20 x 18	Dak Sim.	Black	135	3695.
	Barred	Custom				30x <sup>3</sup> ⁄4	Ribbon		±3 500-20	82	30	500	8/22	30 x 4 x 3	Black Oak Black		30	470.
	Ribbon 30	install Tweeter				30174	HUUUII		± 2	UZ	30	300	0/22	30 4 4 3	DIACK		30	Ea
	Ribbon 15	Custom Install				15x¾	Ribbon		950-20 ±2	87	30	950	8/6	15 x 4 x 3	Black		18	265. Ea
	Ribbon 8	Tweeter Custom				8x3/4	Ribbon		1.2k-	85	30	1.2k	8/10	9 x 4 x 3	8lack		9	165.
	Ribbon 30-2	Tweeter Custom				(2)	Ribbons		±2 900-20	86	30	900	8/8	30 x 4 x 3	Black	3	30	440.
		instali Tweeter				(2) 15x <sup>3</sup> ⁄4			±2									Ea
IHT	Super Zero	Ac. Sus.	41/2			1	Dome		85-25 ±3	86	15	2.2k	8/7.5	9 x 6 x 5	Opt.	Black Knit	6	230. P:
	1.1	Ac. Sus.	6½			1	Dome		63-25 ±3	88	20	3.2k	8/5.6	12 x 7 x 10	Opt.	Black Knit	12	380. Pi
	1.3A 2.1	Ac. Sus. Ac. Sus.	6½ (2)6½	61/2	Cone	1	Dome Dome		55-25 ±3 40-25	86 87	20 35	3.1k 80,3.3k	8/5.2 8/3.2	17 x 7 x 10 34 x 7 x 12	Opt., Gloss Opt.,	Black Knit Black	15 35	500. P 830.
	2.3A	Ac. Sus.	(2)61/2	6½	Cone	1	Dome		±3 35-25	86	35	70,3.1k	4/2.9	37 x 7 x 12	Gloss Opt.,	Knit Btack	46	P 1100.
	3.3	Ac. Sus.	12	41/2.	Cones	1	Dome		±3 24-	87	35	120,350,	6/4.6	42 x 7 x 31	Gloss Opt.	Knit Btack	123	4000.
	SW-2	Subwoof.	10	61/2					24.5 ±3 20-350	90	20	3.1k 130	8/6	16 x 16 x 16	Opt.	Knit Opt.,	40	9 350.
	1.10	Ac. Sus.	6 <sup>1</sup> /2			1	Dome		±3 63-25	88	20	3.2k	8/5.6	12 x 7 x 10	Opt.	Knit Opt.	12	Ea 185
	VT-1 System	Ctr. Ch. Home Th.							±3					Six Pieces				Ea 2000.
	(models below) VT-1	Vented	(2)4 <sup>1</sup> /2			1	Dome		65-21 ±3	90	15	2.8k	8/5	40 x 6 x 6	Opt., Gloss	Opt.	21	650. P
	VT-1C	Ac. Sus. Ctr. Ch.	(2)41/2			1	Dome		90-21 ±3	90	15	2.8k	8/5	6 x 2 x 9	Opt., Gloss	Opt.	16	320. Ez
	HDP-1	Dipole Surround	41/2			(2)3	Cones		105-10 ±3	86	20	450	8/4.4	9 x 6 x 6	Opt., Gloss	Opt.	7	380. P
	SW-2P	Powered Subwoof.	10			ŀ			20-350 ±3	90	80 Inc.	Sel.	86	16 x 16 x 16	Gloss Black	Black Knit	50	650 Ea
NILES AUDIO	75	In-Walt	51/4			3/4	Dome		63-20	86	3	4k	8/8	7 x 7 x 3	White	White	21/2	w/Ai
	76	inf. Baf. In-Wall	51/4			3/4	Dome		±4 63-20 +4	86	3	4k	8/8	8 Dia. x 3	ABS White	Metal White Metal	21/2	
(Continued)	77	inf. 8af. in-Wall inf. Baf.	51⁄4			3/4	Dome		±4 63-20 ±4	86	3	4k	8/8	8 Dia. x 3	ABS White ABS	Metal Black Metai	21/2	

## "IF MUSIC IS TRULY THE UNIVERSAL LANGUAGE, THESE MAY BE ITS MOST ELOQUENT SPEAKERS."

Introducing the new line of surround-sound speakers by Optimus, the name for performance and value in audio. Place the powerful 100-watt subwoofer out of sight and feel the high-impact bass of music and movies throughout your room. Listen as a seamless blend of midrange and highs flows from the swivel-directable satellites.

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# OUDSPEAKERS . Helenue o Schem tree

MANUFACTURER	Hotel	DES	In Principle.	under Diameter W	themes Diams	aren hones	see Daneer	Inches Type	stand Press	Nois Wole	Just of the state	Stonse, 18	an Ang por	source Ht Officient	s inchest inch sales inch	an cri	He Color 2	ind Walertal
NILES AUDIO (Continued)	100	In-Wall Int. Bat.	61/2	Í	[	1	Dome	T	55-20 ± 3	87	10	4k	8/7.5	12 x 9 x 3	White	Opt., White	31/4	(
(oontinaca)	200	In-Wall Inf. Baf.	61/2			1	Dome	T	50-20	88	10	2.8k	8/7	12 x 9 x 3	White	Opt., White	41/2	1
	300	In-Wall	8			1	Dome	Т	±2 40-20	89	10	2.5k	8/6.5	14 x 10 x 4	ABS White	White Opt., White	6	
	NSW-100	inf. Baf. In-Wall Powered Subwoof.	8					w	±2 38-100 ±2	92	inc.	100	8/8	45 x 14 x 3	ABS White ABS	White Opt., White	24	
NOBIS TECHNOLOGIES	DMS-1a	Subwoof.	(2)8					ţ.	27-2 ±3	91	25		4/4	40 x 11 x 18	Dpt.	Opt.	87	995.00
IECHNOLOGIES	DM-2st	Tuned	(2)6			1	Dome		33-20	91	10	4k	4/4	40 x 9 x 13	Opt.	Opt.	56	Each 1999.00
	DM-3t	Port Tuned	(2)6			1	Dome		±3 33-20	91	10	4k	4/4	47 x 9 x 11	Dpt.	Opt.	51	Palr 1099.00
	DM-5	Port Tuned	6			1	Dome		±4 33-25	90	10	4k	4/4	21 x 9 x 13	Opt.	Opt.	25	Pair 699.00
	DM-7	Port Ac. Sus.	6			3/4	Dome		±3 60-20	89	10	6k	4/4	15 x 9 x 10	Dpt.	Opt.	18½	Pair 479.00 Pair
NORMAN	12.3	Ac. Sus.	12	51/4	Cone	1	Dome		28-30	91	25	600,3k	8/	31 x 15 x 13	Opt., Wood	Black	54	800.00
LABORATORIES	50	Ac. Sus.	61/2			3/8	Dome		±5 50-20	91	10	3k	4/	13 x 9 x 7	Wood Opt., Wood	Knit Black	121/2	Pair 240.00
	62P	Ported	61/2			1	Dome		±5 35-20	92	15	3k	8/	19 x 10 x 10	Wood Opt., Wood	Knit Black	24	Pair 360.00
	82	Ac. Sus.	10			1	Dome		±5 38-20	91	15	3k	8/	23 x 12 x 10	Wood Opt., Wood	Knit Black	29	Pair 400.00
	83	Ac. Sus.	10	51⁄4	Cone	1	Dome		±5 38-20	91	15	600,3k	8/	23 x 12 x 10	Wood Opt., Wood	Knit Black	31	Pair 520.00
	93	Ac. Sus.	12	51/4	Cone	1	Dome		±5 35-20	92	25	600,3k	8/	26 x 15 x 10	Wood Opt., Wood	Knit Black	42	Pair 600.00
	235	Ac. Sus.	10	51⁄4	Cone	1	Dome		±5 38-20	91	15	600,3k	8/	23 x 12 x 10	Wood Opt.	Knit Black	30	Pair 630.00
	335	Ac. Sus.	10	51⁄4	Cone	1	Dome		±5 35-20	92	15	600,3k	8/	33 x 13 x 10	Opt., Wood Opt.,	Knit Black	40	Pair 800.00
	400	Ac. Sus.	12	51⁄4	Cone	1	Dome		±5 28-30	91	25	600,3k	8/	33 x 15 x 13	Opt., Wood Opt.,	Knit Black	55	Pair 900.00
	435	Ac. Sus.	(2)10	51/4	Cone	1	Dome		±5 30-20	93	25	600,3k	4/	40 x 15 x 10	Opt., Wood Ont.	Knit Black	56	Pair 1100.00
	635	Ac. Sus.	(3)10	51⁄4	Cone	1	Dome		±5 25-20 ±5	94	30	600,3k	4/	49 x 17 x 11	Opt., Wood Opt., Wood	Knit Black Knit	771/2	Pair 1800.00 Pair

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Particularly inpressive were its wide dynamic range, high sensitivity, powerful bass, response, and very high powes fandling capability has supportness, frequency range, and hadging were also first rate. No subwoofers reduined Convergence would be a very good choice Audio, Peth. 1993



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MANUFACTURER	<u> </u>	In-Wall	<u> </u>	<b></b>	$\bigwedge$	$\sum_{i=1}^{\infty}$	ŕ 1	<u></u>		<u>~</u>	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~			0 = 12	<u> </u>		<u></u> 5	
NPR AUDIO	NPR 602 Omni-Dome	On-	6 8½			1 (4)2 <sup>1</sup> ⁄2	Dome Cones	No No	40-20 30-25	94	50 50	2.5k	8/ 8/	9 x 12 15 Dia. x 9		White White	13	120.00 Pair 600.00
-		Ceiling										*			Dirah			Each
NSM <sup>2</sup> LOUDSPEAKERS	10	Ac. Sus.	41/2			1	Dome	No	55-20 ±5	82	50	2 · 5	16/6	10 x 6 x 6	Black	Black Knit	8	From 595.00 Pair
	15	Ac. Sus. Subwoof.	11					No	25-250 ±5	88	50	5	8/6	14 x 18 x 12	Black	Black Knit	45	Pair 795.00 Each
	25	Ac. Sus.	6 <sup>1</sup> /2	-41	_	1	Dome	No	35-20 ±5	82	50	=. 	20/10	22 x 9 x 10	Opt.	Black Knit	30	Each 995.00 Pair
	50	Ac. Sus.	6 <sup>1</sup> /2	6 <sup>1</sup> /2	Cone	1	Dome	No	30-20 ±5	85	50		16/4	36 x 9 x 10	Opt. Block	Black Knit Block	45	1495.00 Pair
-	75 100	Ac. Sus. Ac. Sus.	(2)6 <sup>1</sup> /2 (2)6 <sup>1</sup> /2	(2)4½ (2)4½	Cones Cones	1	Dome Dome	No No	25-20 ±5 20-20	88 84	75 100	* _	8/2 16/6	47 x 9 x 10 Three Pieces	Black Black	Black Knit Black	70 230	2795.00 Pair 3795.00
	100	Sat. & Subwoof.	(2)6½, 12	(2)4/2	Gonca	•	Dome	110	±5		100		10/0	11100 110003	DIGCK	Knit	Sys.	Sys.
NUMARK T	M330C	Bass Ref.	15		Compr.		Compr.		39-18	90	25 ·		8/2	33 x 21 x 16	Gray Ozite	Black	64	550.00 Each
OEM SYSTEMS	SCI-520	In-Wall Inf. Baf. In-Wall	51⁄4			1/2	Dome	No	60-21 ±3	90	30	5k	8/4	10 x 6	White	Perf. Steel	5	179.95 Pair
Ξ.	SCI-620	inf. Bal. In-Wall Inf. Baf.	61⁄2			1/2	Dome	No	±3 50-21 ±3	90	30	5k	8/4	11 x 7	White	Perf. Steel	51⁄2	199.95 Pair
_	SCI-820	in-Wall Inf. Baf. In-Wall	8			1	Dome	No	100-25 ±3	90	50	2.5k	8/4	13 x 9	White	Peri. Steel	6	249.95 Pair
	SE691	Inf. Baf.	51/4			1/2	Dome	No	60-20 ±3	90	30	5k	8/4	8 x 5	White	Perf. Steel	3	169.95 Pair
	SE690	in-Wall Inf. Baf.	5¼			1/2	Dome	No	60-21 ±3	90	30	5k	8/4	10 x 6	White	Perf. Steel	4	199.95 Pair
	SE694 SE791	in-Wall Inf. Baf. In-Wall	5¼ 6½			1	Dome Dome	No No	60-21 ±3 60-21	90 90	30 30	3.5k 5k	8/4 8/4	8 x 6 11 x 7	White White	Perf. Steel Perf.	3½ 5½	229.95 Pair 209.95
	SE790	Inf. Baf. In-Wall	6 <sup>1</sup> /2			1	Dome	No	±3 60-21	90	30	5k	8/4	11 x 7	White	Steel Perf.	51/2	209.95 Pair 279.95
	SE890	inf. Baf. In-Wall	8					No	±3 30-500	90	50	250	8/4	13 x 9	White	Steel Perf.	41/2	Pair 259.95
	SE892	Inf. Baf. Subwoof.	8				Dome	No	20.25	02	50	2 54	9/4	12 ~ 0	White	Steel	914	Each
	SE893	in-Wall Inf. Baf. In-Wall	о 8	1	Dome	1 1/2	Dome	No No	30-25 ±3 30-30	92 92	50 50	2.5k 750,5k	8/4 8/4	13 x 9 13 x 9	White White	Perf. Steel Perf.	81/2 81/2	329.95 Pair 369.95
	CS540	inf. Baf. Bass Ref.	(2)5 <sup>1</sup> /2		bonne	1	Dome	No	±3 75-20	88	10	3k	8/4	17 x 7 x 7	ABS	Steel Black	71/2	Pair 249.95
-		Ctr. Ch.							±3									Each w/Base
=	SE520 SCB402W	Bass Ref.	5 4			1	Dome Dome	No	65-20 ±3 40-20	87 85	25 25	3k _	8/4 8/4	9 x 6 x 5	ABS	Opt.	5 3¾	269.95 Pair
-	SCB402W	Outdoor Ac. Sus. Bass Ref.	• 5¼			1	Dome	No No	±3 50-21	87	25	2k 3k	8/4	9 x 6 x 5 12 x 8 x 4	ABS ABS	White Opt.	374 5	299.95 Pair 279.95
-	SCB502	Bass Ref.	51⁄4				Dome	No	± 3 40-20	87	30	2.5k	8/4	9 x 6 x 7	ABS	Opt.	51/2	Pair 299.95
4	SCB602	Bass Ref.	61⁄2			1	Dome	No	±3 40-22	87	50	2k	8/4	11 x 8 x 8	ABS	Opt.	71/2	Pair 329.95
OHM	Walsh 5	Coherent							±3 25-25	88	100		4/	17 x 17 x 43	Opt.	Black	95	Pair 6000.00
ACOUSTICS		Line Source							±3							Knit		Pair
	Walsh 300	Coherent Line Source							25-25 ±3	88	40		8/	14 x 18 x 48	Opt.	Black Knit	95	2495.00 Pair
	Walsh 200	Coherent							32-20 ±3	90	25	_	8/	12 x 16 x 42	Opt.	Black Knit	70	1495.00 Pair
	Walsh 100	Source Coherent							40-20	90	15		8/	10 x 14 x 38	Opt.	Black	55	995.00
	CAM 16	Line Source	616			3/.	Dome		±3	90	15	-		0 - 11 - 17	Biost	Knit	24	Pair 400.00
	CAM 16	Vented	6 <sup>1</sup> /2			3/4	Dome		48-20 ±3	89	15	26	8/	9 x 11 x 17	Black Vinvl	Black Knit Block	21	400.00 Pair
omni sound	TCM 1 TCM 2	Vented Vented	6½ 8			1	Dome Dome		62-22 ±3 50-22	90 92	20 20	3k = 3k	4/3.5 8/7	8 x 9 x 13 11 x 12 x 20	Vinyl Lam. Vinyl	Black Knit Biack	22 35	500.00 Pair 560.00
	TCM 3	Vented	8			1	Dome		±3 36-22	92 92	20	3k	8/7	11 x 12 x 20	Lam. Vinyi	Knit Biack	35 55	900.00 Pair 660.00
OMNI-	VRA 608	Sur-	(2)6,5			(2)3⁄4	Domes		±3		90			22 x 10 x 11	Lam.	Knit		Pair 299.00
SURROUND		round & Ctr. Ch.																Each
ONKYØ -	S-19	inf. Baf.	4 <sup>1</sup> /2			1	Dome		40-22	93			8/	18 x 6 x 8	Black Wood	Black Knit	13	99.00 Each
	S-09	inf. Baf.	41/2						40-15	93			8/	7 x 11 x 6	Black Wood	Black Knit	7	99.00 Pair
OPTIMUS	PRO-4000	Tuned Port Post Pot	15	5	Cone	,	Hom		50-20		160		8/	31 x 17 x 12	Oiled Wal.	Black	47.6	300.00 Each
	PRO-300 PRO-200	Bass Ref. Bass Ref.	10 8			3 21/2	Horn Horn		60-20 65-20	89	100 60		8/	23 x 12 x 8 18 x 20 x 7	Oiled Wai. Oiled	Black Black	17.6	100.00 Each 80.00
	PR0-220	Bass Ref.	8			21/2	Hom		65-20		60		8/	18 x 10 x 8	Wai. Oiled	Black		Each 80.00
( <b>0</b> ,	PRO-140	Ac. Sus.	6 <sup>1</sup> /2			1	Cone		70-20		50		8/	15 x 9 x 9	Wal. Oiled	Black		Each 90.00
(Continued)															Wal.			Each

					1		IDPL	'EAN		10	)						
		,	/		Streen The	/	7. /		/	1	5	/	Watsch	/	/	/	
		/	-	ool	SYSTE	/.		305 5 148 150 4 5 148 150 4 5 148 150 150	1	Winnee	Besomer Bo		Net. Wa.	/ /	/	/	/ /
		/	/.	nclosure	et netes bene	Inches	seen Diamet Inc	ines	2 Woole	Supe As	Becomented W	so Ann Post	iles. Ht	1.85		/	and waterial
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	ABI		onPrin	ster Dia.	range	intering Type	Reset Diameter Tweeter	ATHY Jole and	choic thi	. ANS	on mmeno	over	edance inaite mension	Heare.	51	te Color	115.
MANUFACTURE	R Hodel	083	W	*	NO. WI	101 14	5 1WC	Set and An	H1/ 0	St.	Heco Cio	Int	How Only	Hes Fis	St St	We	101 Price
OPTIMUS [Continued]	PR0-127		5			11/4	Cone	85-20		50		8/	12 x 8 x 6	Oiled Wal.	Black		80.00 Eact
	PRO-7	2	4			1	Dome	100-20		50		8/	7 x 5 x 5	Black	Metal		70.00 Eact
	PR0-77		5			1	Dome	90-20		70		8/	9 x 6 x 5	Metal	Metal		80.00 Eact
	PRO-7AV		4			1	Oome	120-20		40		8/	9 x 6 x 5	Metal	Metal		70.00 Eacl
	PRO SWS-500	Sat. & Subwoof.	10	31/4		1/2	Dome	60-18		100		4/	Three Pieces	Oiled Wal.			300.00 Svs
	PRO SWS-501	Sat. & Subwoof.	12	31/2		21/2		35-20	80	20	6.00	8/	Three Pieces	Oiled Wal.		37.2 Sys.	250.0 Svs
	PRO CS-1	Ctr. Ch.	(2)41/2			1/2	Dome	80-20	90	35		8/	10 10 40	Oiled Wal.	Black		80.0 Eac
	PRO SW-12	Subwoof.	12	-		1/2		35-200		100		8/	13 x 18 x 16	Oiled Wal.	Biach		150.00 Eacl
	STS-1000	Tuned Port Sealed	12	5		3/4	Dome	40-20		100		8/	30 x 14 x 11	Oiled Wal.	Black		130.00 Eacl
	STS-126 STS-100	Sealed	5 8	4		21/2 3/4	Dome	90-20 75-20		40 50		8/	11 x 7 x 5 17 x 12 x 11	Oiled Wal. Black	Black		37.0 Eac
	XTS-8	Sat.	0 31/2	4		21/2	LUDINE	220-20		30		8/	1/ x 12 x 11 8 x 4 x 6	Black Vinyl Metal	Cloth Metal		80.0 Eac 80.0
	XTS-9	Bass Ref.	51/4			11/4	Dome	110-20		50		8/	9 x 6 x 6	Metai	Metal		Pai 130.0
	XTS-30	Sat.	3							7		8/	4 x 4 x 3	Oiled	Black		Pai 17.0
	XTS-25	Sat.	4							10		8/	7 x 5 x 4	Wal. Oiled	Black		Eac 20.0
	XTS-21	Sat.	4							10		8/	9 x 6 x 5	Wal. Oiled	Black		Eac 27.0
	XTS-31	Sat.	5							7		8/	10 x 8 x 5	Wal. Oiled Wal.	Black		Eac 17.0 Eac
RACLE AUDIO	Mentor Monitor		51/2			3/4	Dome	55-20 ± 2	89	30	3.5k	4/3	14 x 8 x 12	Gray	Black Knit	19	From 1895.0
	Thalia	Bass Ref.	7	51/2	Cone	3/4	Dome	50-20 ±2	89	30	100,3.5k	4/3	<mark>36</mark> x 10 x 14	Gray	Black Knit	54	Pai From 3195.0
	Mentor Studio	Sat. & Subwoof.	7	51/2	Cone	3/4	Dome	50-20 ±2	89	30	100,3.5k	4/3	Th <mark>ree</mark> Pieces	Opt.	Black Knit	128 Sys.	Pai From 3895.0
	Mentor Woofer	Wooter	7					50-100	89	30	100 (low-	8/5	24 x 10 x 14	Black	Black	54	Sys 2095.00
	Minerva	Hybrid	7	7	Cone	44	Ribbon	50-26 ± 2	85	70	pass) 100,5k	5/4	55 x 15 x 14	Knit Gray	Knit Black Knit	114	Pai Fron 6495.0
	Helicon	Hyb <mark>rid</mark>	91⁄2	51/2	Cone	44	Ribbon	35-20 ± 2	83	80	200,3.5k	6.5/ <b>3</b>	58 x 14 x 14	Piano Black	Black Knit	175	Pai From 9995.0
DRCA	Aria 2	Vented	51/4			1	Dome		⊢	+	2.5k	8/5	9 x 12 x 14				Pai 499.0
	Aria 3	Vented	8	41/2	Oome	1	Dome	45-30	87		400,3.2k	8/5	12 x 12 x 20				Pai 1999.0
	Aria 5	Vented	51/4			1	Dome	70-19	90		2.5k	4/3	9 x 10 x 18				Pa 605.0
	Aria 7	Vented	7		Cone	1	Opme					4/3	10 x 15 x 21				Pa 815.0
	Oaline	Trans.	61/2			1	Dome		90		3.5k		9 x 10 x 44				Pa 1300.0
	133Ti	Line Vented	7		Cone	1	Opme						<mark>8 x 11 x 19</mark>				Pa 550.0
	Allegro		8	61⁄2		11/2	Dome		85	100	350,3.5k		13 x 19 x 46				Pa 2200.0 Pa
	Aria 10	Bandpass Push-Pull	10					20-85	91			4/2.6	4.3 Cu. Ft.				500.0 Pa
	Focal PP12x2	Subwoof. Bandpass	12														1500.0
	15VX Sub	Vented	15					20-85	93	1	-		4.8 Cu. Ft.				Pa 1500.0
	SPV-02	Subwoof.				2	Dome	90-20		36	6k	8/		C		50	Eac
JWI		Outdoor	4				Dome		92	35			24 x 18 x 12	Con- crete, Fbgls			440.0 Eac
	SMA-02	Outdoor	4			2	Dome	90-20	92	35	6k	8/	24 x 18 x 12	Con- crete, Fbgls		50	444.0 Eac
	LPV-03	Outdoor	51/4	2	Come	1/2	Dome	60-22	93	35	6.9k	8/	25 x 22 x 15	Con- crete, Fbgls		70	560.0 Eac
	LMA-03	Outdoor	51/4	2	Come	1/2	Dome	60-22	93	35	6.9k	8/	25 x 22 x 15	Con- crete, Fbgis		70	560.0 Eac
	2 02	Surface	4			2		90-20	92	30	6k	8/3	7 x 5 x 4	Alum.	Opt.	5	169.0 Pa
	2 03	Surface	4	1/2		2		90-22	92	30	6k,9k	8/3	7 x 5 x 4	Alum.	Opt.	6	189.0 Pa
	502	Surface	51/4			2		60-19	93	30	6k	8/3	7 x 10 x 6	Alum.	Opt.	7	319.0 Pa
	503	Surface	51/4	1		2		60-22	93	30	6k	8/3	7 x 10 x 6	Alum.	Opt.	7	349.0 Pa
(Continued)	900	Surface Subwoof.	51/4					40-450	93	30	430	8/4	7 x 10 x 6	Alum.	Opt.	7	229.0 Eac

MANUFACTURER OWI (Continued) M-4F M-5cx 2300 2301 3301 3302 OXFORD KT168 PACIFIC SOUND ALCOM PAC40 CF65 PARADIGM Atom Titan Phantod MINI-M 3seMki SseMk3 9seMk3 11seMki Compac Export Esprit Eclipse	In-Wall Coaxial, In-Wall In-Wall Celling In-Wall/ Ceiling In-Wall/ Ceiling Vented Sat.	4 51/2 51/2 51/2 51/2 51/2 51/2 4	reference of the second s	Steen INP	Barring The	Land Danese	Industry Selection 1995	particular to the state of the		Wither the state	e Si sonse os	I. M. M. D. S. M. S. S. S. S. S. S. S. S. S. S. S. S. S.	e was the surger of the surger	In transfer the	an cri	He Color State	an Ins. Fash
OWI (Continued) H-4F M-5cx 2300 2301 3301 3302 OXFORD KT168 PACIFIC SOUND & SIGNAL PAC40 CF65 PARADIGM Atom Titan Phanton MINI-M 3seMki SseMk3 SseMk3 SseMk3 SseMk3 SseMk3 LiseMk4 Compac Export Esprit	In-Wall Coaxial, In-Wall In-Wall Ceiling In-Wall/ Ceiling In-Wall/ Ceiling Vented Sat. Vented Subwoof Bass Ref	4 51/2 51/2 51/2 51/2 51/2 51/2 4	Endrouse of States	STAD	istense Type		Inches Select Type	TO-18		Winest Parts	e sonse ob	A. HIN POW	S. HIS. H	s honest	an cri	He Color ar	A Hastal
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OWI (Continued) H-4F M-5cx 2300 2301 3301 3302 OXFORD KT168 PACIFIC SOUND & SIGNAL CF65 PARADIGM Atom Titan Phanton MINI-M 3seMki SseMk3 9seMk3 11seMk Compac Export Esprit	In-Wall Coaxial, In-Wall In-Wall Ceiling In-Wall/ Ceiling In-Wall/ Ceiling Vented Sat. Vented Subwoof Bass Ref	4 5½ 5½ 5½ 5½ 4	and Date .	Horace Or	1/2		self Type	70-18		AL WE	teconnester Cros	sover Int	Sonta Min Dimensio	Hearest Fini	ST ST	the Color of	ont price.
OWI (Continued) H-4F M-5cx 2300 2301 3301 3302 OXFORD KT168 PACIFIC SOUND & SIGNAL PAC40 CF65 PARADIGM Atom Titan Phanton MINI-M 3seMki SseMk3 SseMk3 SseMk3 SseMk3 SseMk3 LiseMk4 Compac Export Esprit	In-Wall Coaxial, In-Wall In-Wall Ceiling In-Wall/ Ceiling In-Wall/ Ceiling Vented Sat. Vented Subwoof Bass Ref	4 5½ 5½ 5½ 5½ 4	4	and and and and and and and and and and	1/2		se set	70-18		at a	Hecon Cros	1mp	Home Dim To	Fini	ST. GT	He Wei	ant price.
(Continued) M-5cx 2300 2301 3301 3302 OXFORD RACIFIC SOUND & SIGNAL PARADIGM Atom Titan Phantor MiNI-M 3seMki 5seMk3 9seMk3 11seMk Compac Export Esprit	In-Wall Coaxial, In-Wall In-Wall Ceiling In-Wall/ Ceiling In-Wall/ Ceiling Vented Sat. Vented Subwoof Bass Ref	4 5½ 5½ 5½ 5½ 4			1/2			70-18		-							
M-5cx 2300 2301 3302 OXFORD KT168 PACIFIC SOUND PAC40 & SIGNAL CF65 PARADIGM Alom Titan Phanton MINI-M 3seMki 5seMk3 9seMk3 11seMk Compac Export Esprit	In-Wall In-Wall Ceiling In-Wall/ Ceiling In-Wall/ Ceiling Vented Sat. Vented Subwoof Bass Ref	5 5½ 5½ 5½ 4				Cone			90	15		4/1	4 x 4	Plast.	White	1	65.00
2301 3301 3302 0XFORD KT168 PACIFIC SOUND CF65 PARADIGM Atom Titan Phanton MINI-M 3seMki SseMk3 7seMk3 9seMk3 11seMk Compac Export Esprit	In-Wall In-Wall/ Ceiling In-Wall/ Ceiling In-Wall/ Ceiling Vented Sat. Vented Subwoof Bass Ref	51/2 51/2 51/2 4			2			50-20	94	15		4/1	6 x 6	Plast.	White	2	Each 89.00
3301 3302 OXFORD KT168 PACIFIC SOUND CF65 PARADIGM Alom Titan Phanton MiNI-M 3seMki 5seMk3 9seMk3 11seMki Compac Export Esprit	Celling In-Wall/ Celling In-Wall/ Celling Vented Sat. Vented Subwoof Bass Ref	51/2 51/2 4				Ribbon		50-20	85	35		4/1	9 x 9	Plast.	White	3	Each 229.00
0XFORD KT168 PACIFIC SOUND CF65 PARADIGM Alom Tilan Phantor MINI-M 3seMki 5seMk3 9seMk3 11seMk Compace Export Esprit	In-Wall/ Ceiling In-Wall/ Ceiling Vented Sat. Vented Subwoof Bass Ref	5½ 4						65-20	90	30	£	6/2	9 x 9	Plast.	White	3	Each 160.00 Each
OXFORD KT168 PACIFIC SOUND SIGNAL PARADIGM Atom Titan Phantor MINI-M 3seMkil SseMk3 9seMk3 11seMk Compace Export Esprit	Ceiling Vented Sat. Vented Subwoof Bass Ref	4		1				50-20	90	30	e -	4/1	9 Dia.	Plast.	White	3	217.00 Each
PACIFIC SOUND & SIGNAL PARADIGM PARADIGM PARADIGM NiNI-M 3seMki 5seMk3 9seMk3 11seMki Compac Export Esprit	Sat. Vented Subwoof Bass Ref		1					65-20	91	30		4/1	9 Dia.	Plast.	White	3	191.00 Each
& SIGNAL PARADIGM Atom Titan Phantor MINI-M 3seMk1 5seMk3 7seMk3 9seMk3 11seMk Compac Export Esprit	Vented Subwoof Bass Ref	-			3/4	Dome		55-21	90	20	3k	8/	<mark>8 x 5 x 5</mark>	Opt.	Opt.	3	129.00
CF65 PARADIGM Atom Titan Phantor MINI-M 3seMki 5seMk3 7seMk3 9seMk3 11seMk Compac Export Esprit	Bass Ref	4		1.00	3/4	Dome		60-21	90	5	3k	4/3	8 x 5 x 5	Black	Black	3	Pair 129.00
Titan Phantor MINI-M 3seMki 5seMk3 9seMk3 11seMk Compar Export Esprit		(2)6 <sup>1</sup> /2						±5 30-120	90	50	120	8/6	25 x 14 x 11	Black	Black	34	399.00
Phanton MINI-M 3seMki SseMk3 7seMk3 9seMk3 11seMk Compac Export Export Esprit	Race Pot	51/2	t	-	3/4	Dome	<u> </u>	60-20	89	15	3k	8/4	10 x 7 x 8	Opt.	Black	9	Each 80.00
MINI-M 3seMki 5seMki 7seMki 9seMki 11seMk Compac Export Export Esprit	pass ner	61/2			3/4	Dome		±2 55-20	88	15	3k	8/4	13 x 8 x 10	Opt.	Knit Black	121/2	Each 100.00
3seMki 5seMk3 9seMk3 11seMk Compac Export Esprit	m Bass Ref	. 8			3/4	Dome		±2 40-20 ±2	90	15	2.5k	8/4	19 x 10 x 12	Opt.	Knit Black	22	Each 145.00
5seMk3 7seMk3 9seMk3 11seMk Compac Export Esprit	ikii Bass Ref	61/2			1	Dome		48-20 ±2	89	15	2k	8/4	15 x 9 x 10	Opt.	Knit Black	17½	Each 150.00
7seMk3 9seMk3 11seMk Compac Export Esprit	ll Bass Ref	8			1	Dome		38-20 ±2	91	15	2.5k	8/4	21 x 10 x 12	Opt.	Knit Black Knit	24	Each 200.00 Each
9seMk3 11seMk Compac Export Esprit		8			1	Oome		32-20 ±2	90	15	2.2k	8/4	33 x 10 x 12	Opt.	Black Knit	35	265.00 Each
11seMk Compac Export Esprit					1	Dome		34-20 ±2	92	15	1.8k	6/4	35 x 8 x 15	Opt.	Black Knit	43	315.00 Each
Compac Export Esprit					1	Dome		32-20 ±2	93	15	2k	6/4	37 x 11 x 15	Opt.	Black Knit	50	365.00 Each
Export Esprit			61/2	Cone	1	Dome		28-20 ± 2	92	15	550,1.9k	6/4	44 x 11 x 16	Opt.	Black Knit	68	515.00 Each
Esprit	ct Bass Ret Bass Ret	1.2			1	Dome		40-20 ±2	88	15	1.6k	8/4	16 x 9 x 12	Opt., Wood	Black Knit	22	300.00 Each
	Bass Ref				1	Dome Dome		28-20 ±2 34-20	89 94	15 15	2k	8/4 6/4	24 x 11 x 14 38 x 11 x 15	Opt., Wood	Black Knit	35	425.00 Each
					1	Dome		±2 28-20	91	15	1.7k	6/4	40 x 12 x 17	Opt., Wood Opt.,	Black Knit Black	62 73	600.00 Each 750.00
Studio	Bass Ref	(2)8	5	Cone	1	Dome		±2 25-20	90	15	275,2.5k	6/4	44 x 13 x 17	Wood Opt.,	Knit Black	93	Each 950.00
AMS-20		61/2			1	Dome		±2 55-20	88	15	2k	8/6	12 x 8 x 3	Wood White	Knit White	7	Each 185.00
AMS-30		8			1	Dome		±2 45-20	89	15	1.5k	8/4	13 x 8 x 3	White	Metai White	8	Each 235.00
CC-100		(2)5½			3/4	Dome		±2 70-20	92	15	2.8k	6/4	6 x 20 x 7	Opt.	Metai Black	9	Each 189.00
CC-200		(2)51/2			3/4	Dome		±2 60-20	92	15	2.8k	6/4	6 x 17 x 15	Opt.	Knit Black	10	Each 189.00
SB-100	Bass Ref Bandpass Subwoof							±2 36-100 ±2	94	15	100	8/6	17 x 17 x 19	Opt.	Black	42	Each 239.00
( participation of the second s							_	÷£							Knit		Each
PARAOOX Purpleh	heart Pressure Release	81/2			11/8	Dome		50-22 ±3	89	50	2k	4/3	11 x 12 x 16	Opt., Wood	Black Knit	47	2100.00 Pair
PARAGON Jubilee	Phase Aligned	61/2		1	3/4	Dome		65-20 ± 3	85	25	2.6k	8/5.5	16 x 9 x 10	Opt.	Black Knit	47	1250.00 Pair
Regent	Aperiodic 6th Order				1	Dome		20-20	91	25	2.3k	4/2.8	47 x 10 x 15	Opt.	Black	150	2800.00
PARASOUND AWM36	Vented	4			1	Oome	-	±3 65-20	86	10	2.6k	8/6	5 x 7 x 5	Opt.,	Knit Opt.,	5	Pair 155.00
AWS280		51⁄4			2	Cone		±3 55-20	88	10	2.0k	8/6	7 x 9 x 7	Metal Opt.,	Opt., Metal Opt.,	5 10	Pair 265.00
AWM38		51/4			1	Dome		±3 48-20	88	10	2.4k	8/6	7 x 9 x 7	Metai Opt.,	Metal Opt.,	11	Pair 345.00
AWM38	BOT Inf. Baf.	5 <sup>1</sup> ⁄4			1	Oome		±3 48-20	88	10	2.4k	8/6	7 x 9 x 7	Metal White	Metal White	111/4	Pair 180.00
CS/T-28	80 in-Wall	8			1	Dome		±3 36-22	89	10	2.4k	8/6	10 x 14	Metal White	Metal White	7	Each 465.00
CS/W-8	02 In-Wail Subwoof,	8		ĺ				±3 29-180	89	10	140	8/6	1 <mark>0 x</mark> 14	White	Metal White	<b>9</b> ½	Pair 249.00
CS/T-26		61⁄2			1	Dome		±3.5 42-22 ±3	88	10	2.4k	8/6	9 x 12	White	Metal White Metal	6	Each 345.00 Pair
CS/T-25		51⁄4			1	Dome		54-22 ±3	87	10	2.6k	8/6	8 x 11	White	White Metal	5	249.00 Pair
CS/T-25		51⁄4			1	Dome		70-20 ±4	86	10	2.2k	8/6	8 x 11	White	White Metal	5	139.00 Each
GMAS-1	Aperiodic	18					w	20-80		Inc.	40-80 (Var.)	8/1	30 x 37 x 17	Opt.	Gray Knit	175	3600.00 Each
PATTERSON Referen	Subwoof. nce 1c Vented	61/2			1	Dome		49-25	88	30	1.7k	8/5	16 x 9 x 13	Opt.	Black	26	895.00
AUDIO SYSTEMS Referen		61/2			1	Dome		±2 42-25	88	40	1.7k	8/5	35 x 9 x 13	Opt., Wood Opt.,	Knit Black	471/2	Pair 1595.00
(Continued)	nce 1.5 Trans. Line						D 1	±2						Wood	Knit		Pair

# Shockingly DEEP Bass

For a deeper appreciation of your favorite music and movies, add a DCM powered subwoofer to your audio or home theater system.  $\rightarrow$  Our top-of-the-line SUB-712 and compact SUB-710 both unleash the full power of low frequencies encoded in today's digital software and broad-cast signals. Plug a DCM powered subwoofer into your audio system and feel the gut-level energy of bass guitars, synthesizers and kick drums. Or savor the fundamental tones of pipe organ, acoustic and symphonic music. Hook up a DCM powered subwoofer to your home



theater and experience the bone-rattling roar of airplanes, car chases, starships and explosions, just like at the movies.  $\rightarrow$  The SUB-712 *(pictured)* includes an 8-inch active woofer and a 12-inch passive radiator. The compact SUB-710, measuring only 15"H 9"W x 19"L, includes two active 6½-inch woofers. Both systems provide user-adjustable sensitivity, direct line inputs, pass-through connections, and limiter protection circuitry.  $\rightarrow$  For more information, call DCM at 1-800-878-TIME. Or ask for a SUB-712 or SUB-710 demonstration at your DCM retailer today. The difference in deep bass is electrifying.



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PATTERSON	Klaerion	Vented	51/2	$\leftarrow$	~ •	34	Dome	40	45-20	86	30	3.5k	4/3	13 x 7 x 11	Opt.,	Black	20 No	1395.00
AUDIO SYSTEWS (Continued)	Klaerion II	Trans. Line	51/2			3/4	Dome		±2 43-20 ±2	86	40	3.5k	4/3	35 x 7 x 11	Wood Opt., Wood	Knit Black Knit	41 <sup>1</sup> /2	Pair 1895.00 Pair
PBN SPEAKERS	Audiovector 1X	Bass Ref.	7			1	Dome	No	52-25 + 2,-3	88	50	3.5k	8/8	36 x 7 x 12	Opt.	Black Fabr.	49	1165.00 Pair
	Audiovector 2X Audiovector	Bass Ref. Bass Ref.	7	7	Cone Cone	1	Dome Dome	No No	45-25 + 2,-3 45-25	89 89	50 50	180,2.8k	8/8 8/8	36 x 7 x 12	Opt.	Black Fabr.	52 62	1435.00 Pair
	3X Audiovector	Bass Ref.	(2)8	6	Cone	9	Dome	No	+2,-3 35-22	91	50	250,3.5k 180,600,	8/5	41 x 9 x 15 44 x 11 x 14	Opt. Opt.	Black Fabr. Black	62 89	1859.00 Pair 3600.00
	5 Audiovector	Bass Ref.	10	8,4	Cones	1	Inv.	No	±2 30-20	92	40	3.5k 125,600,	8/4	47 x 15 x 16	Opt.	Fabr. Black	120	Pair 5100.00
	6 Trapez Xi	Bass Ref.	10	4	Cone	1	Dome Dome	No	±2 38-22	88	80	4k 400,3.5k	8/5	35 x 16 x 15	Beech	Fabr. Black	77	Pair 2569.00
PEGASUS AUDIO	Geminł	Compd. Vented	(2)6½			1			± 2 40-20 ± 3	87.2	25	5.5k	4/3.9	39 x 10 x 10	Chrry Lam.	Fabr. Brown Knit	43	Pair 1500.00 Pair;
	Athena	Vented Subwoof.	8						35-200 ± 3	87	25		8/5	39 x 10 x 10	Black Matte	None	43	Kit, 500.00 500.00 Each;
	Appollo	Sealed Subwoof.	12						35-200 ±3	90	25		8/6.5	36 x 14 x 14	Lam. Black Matte	None	60	Kit, 200.00 675.00 Each;
	Alpha III	Vented	51/4			3/4	Dome			87	25	4k	8/	17 x 7 x 11	Lam. Oak Lam.	Brown Knit	20	Kit, 300.00 600.00 Pair;
	Lambda	Vented	61/2			3/4	Dome		48-20 ±3	88	25	4k	6/4	17 x 9 x 11	Oak Lam.	Brown Knit	20	Kit, 420.00 850.00 Pair;
	Delta II	Vented	61/2			1	Dome		44-20 ±3	88	25	3k	8/6	20 x 9 x 13	Oak Lam.	Brown Knit	28	Kit, 595.00 1100.00 Pair;
	Trio	Sealed Sat. &	61/2	41/2	Cone	3⁄4	Dome		50-24	92	25	150,5k	8/6.8	Three Pieces	Oak,	Brown	67	Kit, 770.00 1099.00
	Quartet	Subwoof. Sealed	61/2	41/2	Cone	3⁄4	Dome		±3 46-24	92	25	150,5k -	8/7	Four Pieces	Black Matte Lam. Oak,	Knit Brown	Sys. 70	Sys.; Kit, 770.00 1299.00
	Stereo Subwoofer	Sat. & Vented Subwoof. Vented Stereo	(4)8						±3 32-200 ±3	89	50		4/2.8	22 x 32 x 13	Black Matte Lam. Black Matte	Knit	Sys. 70	Sys.; Kit, 899.00 1299.00 Each;
	RockMaster 1	Subwoof. Vented	15			4x11	Horn		58-20 ±3	97	40	3.5k	8/6	32 x 20 x 13	Lam. Black Paint	Black Metal	67	Kit, 899.00 1600.00 Pair;
	RockMaster 2	Vented	12			4x11	Horn	т	36-20 ±3	94	40	3.5k	8/4.2	26 x 16 x 17	Black	Black	75	Kit, 800.00 2000.00
	RockMaster 3	Vented	15			4x11	Horn		46-20	97	40	3.5k	6/3.3	32 x 20 x 13	Paint Black	Metal Black	79	Pair; Kit, 1000.00 2400.00
PERSONA	Personal	Powered	3	21/2	Cone	1/2x2	Piezo		±3	88	20	150,11.5k	4/4	4 x 9 x 5	Paint	Metal Gray	2	Pair; Kit, 1200.00 199.99
TECHNOLOGIES	Home Theatre Persona One PC 40/50	Sat. Ac. Sus.	10	51/4	Solid	1	Dome		±3	88	inc. 25	90,1.8k	4/4	Three Pieces	Opt.	Black	53	730.00
TECHNOLOGY	Mark II	Sat. & Subwoof.			Piston				± 3							Knit	Sys.	Sys.
	PC 60 50 Mark II	Ac. Sus. Sat. & Subwoof.	10	61/2	Solid Piston	1	Dome		35-20 ±3	88	25	95,2.1k	8/6	Three Pieces	Opt.	Black Knit	65 Sys.	830.00 Sys.
	PC 40 Mark II	Ac. Sus.	51⁄4			1	Dome		70-20 ±3	89	15	1.8k	4/3.5	6 x 5 x 10	Opt.	Black Knit	8½	190.00 Each
	PC 50 Mark II	Ac. Sus. Stereo	10						35-90 ±3	88	25	90	8/6	13 x 14 x 15	Opt.	n.n	33	350.00 Each
	PC 60 Mark II	Subwoof. Ac. Sus.	61/2			1	Dome		55-20	88	25	2.1k	6/4	9 x 8 x 13	Opt.	Black	16	240.00
	PC 80	Tuned	61⁄2			1	Dome		±3 50-20 ±3	88	25	2.5k	6/4	10 x 11 x 16	Opt.	Kn <del>i</del> t Black Knit	32	Each 325.00 Each
	PC 6.5	Ac. Sus.	8	51⁄4	Solid Piston	1	Dome		±3 42-20 ±2	89	25	450,2k	4/4	11 x 9 x 36	Opt.	Black Knit	58	Each 450.00 Each
	PC 8.5	Ac. Sus.	10	51⁄4	Solid Piston	1	Dome		35-20 ±2	89	25	350,2k	4/4	13 x 12 x 36	Opt.	Black Knit	90	600.00 Each
	PC 10.5	Tuned Port	10	51/4	Piston	1	Dome		25-20 ±2	89	25	350,2.2k	6/4	13 x 14 x 44	Gloss Black	Black Knit	110	1200.00 Each
	PC-Center PC 60AV	Ac.Sus. Ctr. Ch. Ac. Sus.	(2)5¼ 6½			1	Oome O <mark>om</mark> e		75-20 55-20	90 88	15 25	2.5k 2.1k	8/6 6/4	20 x 6 x 11 9 x 8 x 13	Black Lam. Black	Black Knit Black	26 18	300.00 Each 275.00
(Continued)	PC 80AV	Tuned Port	61/2			1	Oome		±2 50-20 ±2	88	25	2.5k	6/4	10 x 11 x 16	Lacq. Black Lacq.	Knit Black Knit	26	Each 350.00 Each

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PHASE	2T/T-SUB	Sat. &	(2)61/2	51/4	Cone	3/4	Dome	(	45-20	89	10	150,3k	8/6	Three Pieces	Black	Black	40	399.00
(Continued)	21	Subwoof. Ac. Sus.	51/4			3/4	Dome		95-20	89	10	3k	8/6	10 x 6 x 5	Lam. Black Lam.	Knit Black Knit	Sys. 7	Sys. 200.00 Pair
	T-SUB	Bandpass Stereo	(2)61/2						±3 45-150 ±3	89	10	150	8/6	18 x 15 x 8	Black Lam.	Null.	28	200.00 Each
	10	Subwoof. Ac. Sus.	(2)51/4			3/4	Dome		80-20	90	15	3k	8/6	20 x 6 x 8	Black	Black	23	170.00
	5T	Ctr. Ch. Tuned	61/2			1	Dame		45-20	90	15	2.5k	8/6	8 x 11 x 33	Lam. Black Lam.	Knit Black Knit	45	Each 215.00 Each
	71	Port Tuned Port	8			1	Dome		40-20 ±3	90	15	2.5k	8/6	10 x 12 x 37	Black Lam.	Black Knit	52	275.00 Each
	9T	Tuned	8	11/2	Dome	1	Dome		35·20 ±3	91	15	800,3k	8/6	10 x 15 x 39	Black Lam.	Black Knit	68	375.00 Each
	CI 10 IV B	In-Wall Sat.	51/4			3/4	Dome		55-20	90	15	3.5k	8/6	8 x 12 x 3	White Matte	White Perf.	5	107.50 Each
	CI 20 IV B	in-Wall Sat.	61/2			3/4	Dome		50-20	90	15	2.8k	8/6	8 x 12 x 3	White Matte	Steel White Perf.	5	150.00 Each
	CI 40 IV B	in-Wall Sat.	61/2			1	Dome		4 <mark>5-20</mark>	90	15	2k	8/6	8 x 12 x 3	White Matte	Steel White Perf. Steel	8	200.00 Each
	CI 60 IV	in-Wall Sat.	61/2			1	Dome		40-20	90	15	2.1k	8/6	8 x 12 x 4	White Matte	White Perf. Steel	8	250.00 Each
	CI Sub IV	In-Wall Stereo Subwoof.	6x9						28-90	90	25	90	8/6	8 x 12 x 4	White Matte	White Perf. Steel	9	250.00 Each
PHILIPS	FB-425	In-Wall	61/2			1	Dome		40-20		10		8/	8 x 12 x 4	White	White		250.00 Each
	SW-420	In-Wall Subwoof.	6x9						28-90		10	1.1	8/	11 x 8 x 4	White	White		325.00 Each
	DSS-930	Biamp, Powered	51/4	51/4	Cone		Ribbon		50-20 ±1		Inc.	4k		23 x 9 x 13	Black	Black	351/4	1200.00 Each
	FB-650	Tuned Port	7		0	3/4	Dome		46-20	87	10	5k	8/4 8/4	10 x 16 x 8	Wal. Foil Wal.	Black Knit Black	13 20	125.00 Each 150.00
	FB-670	Tuned Port Tuned	6 7	6	Cone	3/4	Dome Dome		40-20 38-20	87.5 88	10	5k 1.5k,4.5k	8/4	10 x 24 x 9 11 x 26 x 10	Foil Wal.	Knit Black	20	Each 175.00
	FB-690 FB-695	Port	8	8	Cone	1	Dome		37-20	90	10	1.5k,4.5k	8/4	11 x 29 x 13	Foil Wal.	Knit Black	30	Each 225.00
	FB-815	Port Inf. Baf.	8	4	Cone	3/4	Dome		43-20	88	10	600,6k	8/	11 x 24 x 13	Foil Rswd.	Knit Black	30	Each 275.00
	FB-821	Inf. Baf.	(2)7	4	Cone	1/2	Planar		38-20	88	10	350,6k	8/	11 x 35 x 13	Vinyi Rswd. Vinyi	Knit Black Knit	63	Each 375.00 Each
	FB-825	Inf. Bat.	(2)8	4	Cone	1/2	Ribbon Planar Ribbon		32-20	88	10	350,5k	8/	11 x 41 x 13	Rswd. Vinyl	Black	63	425.00 Each
PHYZICS	Illusion FS	Dual Vent	(2)6	-	Cone	1	Dome		50-20	86	60	150.2.5k	4/3	14 Dia. x 35	Lacq. Dak	Black Knit	46	2000.00 Pair
	Illusion M	Dual Vent	(2)4		Cone	1	Dome		±2 55-20 ±2	85	50	150.2.5k	4/3	7 Dia. x 38	Lacq. Dak	Black	32	1100.00 Pair
	Illusion WM	Wall- Mount Dual Vent	(2)4		Cone	1	Dome		55-20 ±2	85	50	150,2.5k	4/3	8 x 22	Nat. Dak	Brown Knit	22	1100.00 Pair
PINNACLE	AC 400	Ported	4			3/4	Dome	1	60-21 ± 3	86	5	5.5k	8/	9 x 6 x 7	Dpt., Vinyl	Black Knit	7	169.00 Pair
	AC 500	Ported	51/4			3/4	Dome		50-21 ±3	86	10	5k	8/	11 x 7 x 8	Dpt., Vinyi	Black Knit	8	199.00 Pair
	AC 550	Ported	51/4			3/4	Dome		45-21 ± 3	87	10	2.5k	8/ 8/	13 x 7 x 8 16 x 9 x 8	Dpt., Vinyl	Black Knit	9 12½	129.00 Each 229.00
. 51 1	AC 600	Ported Ported	6½ 6½			3/4 3/4	Dome Dome		40-21 ±3 40-21	88 91	10 10	4k 2.5k	o/ 8/	17 x 10 x 8	Dpt., Vinyi Dpt.,	Black Knit Black	12.72	Pair 269.00
	AC 650	Ported	8			1	Dome		±3 35-21	92	10	2.2k	8/	19 x 11 x 11	Vinyl	Knit Black	18	Pair 369.00
	AC 850	Ported	8			1	Dome		±3 30-21	93	10	2.2k	8/	26 x 10 x 11	Dpt., Vinyl Dpt.,	Knit Black	24	Pair 429.00
	AC SUB	Ported	(2)61/2					w	±3 36-150	91	20	120	8/	21 x 12 x 11	Dpt., Vinyl Dpt., Vinyl	Knit Black	30	Pair 249.00
	Arctic 1	Subwoof. Ported	51/4			1	Dome		±3 45-22	86	10	2.5k	8/	11 x 7 x 6	Dpt.,	Knit Black	81/2	Each 425.00 Pair
11.500	Arctic 2	Ported	(2)51/4			1	Dome		±3 38-22 ±3	90	10	3k	8/	15 x 10 x 8	Lacq. Dpt., Lacq.	Knit Black Knit	13	Pair 525.00 Pair
PIDNEER	S-W1000	Powered Subwoof.	12					SW, Ctr.			30 Inc.; 25 Ctr.	60,80,140 (Sel.)		20 x 21 x 17	Black		46 <sup>3</sup> /8	550.00 Each
	CS-C400	Bass Ref.	(2)4								Inc. 70			13 x 6 x 10	Black		6	90.00
	CS-C25011	Ctr. Ch. Bass Ref.	57/8			25/8					Max 70			12 x 7 x 7	Black		5	Each 65.00 Each
	S-X7	Ctr. Ch. Bass Ref.	31/2								Max 30 Max			5 x 8 x 5	Black Vinyl	[	13⁄4	Each 140.00 Pair
	CS-X500	Surround	4								Max 30 Max	- 15		6 x 8 x 5	Dpt.		35/8	65.00 Pair
	S-F100	In-Wall	61/2			1	Dome				60 Max			8 x 16 x 4			43/8	350.00 Pair
(Continued)	CS-G403	Bass Ref.	16	43/4		21/2					150 Max			29 x 17 x 12	Dak Vinyl		363/8	190.00 Each

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ONEER	CS-G303	Bass Ref.	12	43/4		25/8				120	1	1	27 x 15 x 13	Oak		33	300. Pa
ontinued)	CS-G203	Bass Ref.	10	3		25/8				Max 100 Max		- 5	24 x 14 x 12	Vinyl Oak Vinyl		235/8	220. P
	CS-G103	Sealed	10			25/8				50 Max			23 x 13 x 8	Oak Vinyl		15 <sup>7</sup> /8	160. P
	CS-G53	Bass Ref.	57⁄8			25/8				70 Max		2.13	9 x 15 x 7	Opt.			140 P
	CS-N775	Ported	12	4 <sup>3</sup> /4, 2 <sup>1</sup> /2		3/4				150 Max			15 x 43 x 13	Opt.		417/8	220 Ea
	CS-N575	Ported	12	43/4		21/2				150 Max			15 x 35 x 11	Opt.		30	176. Ea
	CS-V975	Bass Ref.	12,8	43/4	•	21/2				150 Max			15 x 49 x 13	Black		54	280. Ea
	SV-401	Sat. & Subwoof.	(2)51/4	(5)4	Cones	(3)2 <sup>1</sup> /2, (2)2 (2)216	Domes	40-20	87	5	150,1.3k	8/	Six Pieces	Opt.			880. St
	SV-301	Sat. & Subwoof. Sat. &	(2)5¼ (2)5¼	(4)4 (3)4	Cones Cones	(2)2 <sup>1</sup> /2, (2)2 (3)2 <sup>1</sup> /2	Domes Domes	40-20 40-20	87 87	5	150,1.3k	8/ 8/	Five Pieces Four Pieces	Opt. Opt			770 S 660
	S-40	Subwoof.	(2)5 <sup>1</sup> /4	(2)4				40-20	87	5		o/ 8/		Opt.			S
	S-3D S-SR55	Sat. & Subwoof. Rear Ch.	4	(2)4	Cones	(2)2 <sup>1</sup> /2 2	Domes Dome	150-15	87	5	150,1.3k 3k	8/	Three Pieces 7 x 11 x 5	Opt. Opt.			550 S 220
	S-C55	Ctr. Ch.	4			21/2	Dome	150-20	87	5	J.	8/	7 x 11 x 5	Opt.			125
	1				Cana	3/4		35-25			200.24				Black	25	Ea
ILK AUIDIO	Monitor 6 Monitor	Sat. & Subwoof. Ac. Sus.	(2)6½ 6½	4	Cone	1/2	Dome Dome	35-25	89 91	10 20	200,3k 3k	8/ 8/	Three Pieces	Black Black	Black Knit Black	35 Sys. 12	399 S 219
	Mini Monitor	Ported	51/4			1/2	Dome	42-25	90	10	3k	8/	11 x 7 x 7	Black	Knit Black	71/2	159
	AWM3	Ac. Sus./	51/4			1/2	Dome	80-20	89	20	3k	8/	11 x 7 x 9	White	Knit White	7	299
	LS90	Outdoor Ported	(4)6 <sup>1</sup> /2			1	Dome	20-26	90	30	2.5k	8/	40 x 13 x 15		Black	69	1699
	2000		(1)0/2											Opt., Wood Lam.	Knit	0.5	F
	LS70	Ported	(2)71/2			1	Dome	25-26	90	30	2.5k	8/	37 x 12 x 15	Opt., Wood	Black Knit	59	1199
	L\$50	Ported	(2)61/2			1	Dome	30-26	89	20	2.5k	8/	33 x 11 x 12	Lam. Opt., Wood	Black	<b>4</b> 6	899
	0.40	Dec. Dect	714				Dama	25.25	01	20	-		00 - 12 - 40	Lam.	Knit		6 <mark>99</mark>
	S10	Pas. Rad.	71/2				Dome	25-25	91 00	20	3k	8/	29 x 13 x 10	Opt., Lam.	Black Knit	33	499
	S8	Pas. Rad.	7 <sup>1</sup> /2			1	Dome	28-25 30-25	90 91	20	3k 3k	8/	25 x 12 x 9	Opt., Lam.	Black Knit	28 17½	399
	S6 S4	Pas. Rad. Ported	6 <sup>1</sup> /2 6 <sup>1</sup> /2			1	Dome	32-25	91	20	3k	8/ 8/	22 x 10 x 8	Opt., Lam. Opt.,	Black Knit Black	131/2	279
	AB800	In-Wall	(2)61/2			1	Dome	52-20	91	10	3k	8/	6 x 16 x 3	Lam. White	Knit Opt.	6	549
	AB700	In-Wall	6 <sup>1</sup> /2			1	Dome	+ 0,-3	90	10	3k	8/	6 x 10 x 3	White	Opt.	4	399
	AB610	In-Wall	6½			3/4	Dome	+0,-3	90	10			7 Dia.	White	White		249
	AB500	In-Wall	51/4			3/4	Dome	56-20	89	10				White	White	6	249
	AB410	In-Wall	51⁄4					60-	87	10			7 Dia.	White	White	-	149
	RM3000	Sat. &	(2)61/2	31/2	Cone	3/4	Dome	17.5 42-18	88	10	175,3k	8/	Three Pieces	Opt.	Opt.	46	849
		Pas. Rad. Subwoof.						+0,-3								Sys.	450
	RM2000	Cut-	(0) 01(			3/4	Dome	150-20	88	10	3k		7 x 4 x 6	Opt.	Black	6	459
	RM1000W	Subwoof.	(2)6 <sup>1</sup> /2, 8 (2)6 <sup>1</sup> /2	(4)-914	00-00	(2)14	Domes	25-300	88	10			13 x 20 x 13	Black	Diach	38 60	389 E 1099
	RM5000 Home Theater	Sats., Ctr. Ch.,	(2)6 <sup>1</sup> /2	( <mark>4)3<sup>1</sup>⁄2</mark>	Cones	(3)1/2	Domes	42-18 ± 3	88	10		8/	Four Pieces	Black	Black Knit	60 Sys.	1099
	C\$150	&Pas.Rad. Subwoof. Pas. Rad.	41/2			1/2	Dome	100-20	89	10		8/	16 x 6 x 6	Riant	Black	11	199
	C\$250\$	Ctr. Ch. Ac. Sus.	4 1/2 (2)4 <sup>1</sup> /2			<sup>72</sup>	Dome Dome	80-25	89	10		8/	18 x 6 x 8	Black Black	Knit Black	15	299
	C\$2505	Ctr. Ch. Ported	(2)4 72 (4)4 <sup>1</sup> /2			1	Dome	60-25	89	10		8/	26 x 6 x 11	Black	Knit Black	33	449
	M3	Ctr. Ch.	51/4			1/2	Dome	67-20	89	10	3k		11 x 7 x 9	Opt.	Knit Opt.,	7	239
ien	228	Cailing/	8	·	-	3/4	Dome	60-18	87	15	5k	8/4	18 x 18 x 3	White	Knlt Metal	5	
ISH PEAKER ISTEMS	2201	Ceiling/ Wall; Inf. Baf.	U			74		±3	0/	13	UR	0/4	10 1 10 1 3	white	molai	3	
UTLIND	528d	Ceiling; 2nd Order	8			3/4	Dome	47-22 ± 3	90	15	5k .	8/6	18 x 18 x 7	White	Metal	11	
	928	Sealed Ceiling;	8			1	Dome	35-22	90	20	5k	8/4	18 x 18 x 7	White	Metal	12	
	20	2nd Order Sealed	Č					±3	30								
	835sx	Ceiling; 2nd Order	8				÷.	35-120 ± 3	90	20	120	4/4	18 x 18 x 7	White	Metal	15	
Continued)	4	Sealed Subwoof.															

## LOW FREQUENCY TRADE-OFFS TRANSCENDED

Welcome the new DIGITAL PHASE speaker systems. And say good-bye to the all too familiar trade-off between upper bass transients and deep bass extension. DIGITAL PHASE brings you ACOUSTA-REED<sup>TM</sup> technology, the carefully engineered coupling of a small bass driver with an elaborate network of acoustic reeds. You get upper bass

transient response that only a small bass driver can deliver, yet deep bass extension that was previously reserved for drivers of massive size. The approach is so unique, the sound so refined, that a patent has been awarded. Distortion is lower. Dynamics are wider. A whole new level of bass accuracy and definition is achieved. You'll find ACOUSTA-REED technology in each of the five DIGITAL PHASE systems. But that's hardly their only virtue.

Thanks to a very special titanium tweeter and superb phase coherence, DIGITAL PHASE brings you uncommon sweetness and accuracy throughout the musical spectrum. A good recording is as it should be. So lifelike you feel you can reach out and touch the music as it touches you. All that is good about music comes shining through.

Hear it for yourself. Call

615-894-5075 for your nearest DIGITAL

PHASE dealer.





MANUFACTUR		Moder	/
POSH (Continued)	835s		Cellin 2nd D

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MANUFACTURE	R Hote	Inte	us principe	intersure of	Streen The Streen The streens Dan	aver, inches	WEEE DIAMER	Inches Se	410-00 FIRE	as week	Winese Pre-	se 5 spore of the set	a. Ann Pro-	se ward .	in industrial for	in the second	IIE Color?	son pris
POSH (Continued)	835s	Celling; 2nd Order	8	1-	<u> </u>	1	$\left( - \right)$	$\int$	00-120	90	20	*/ *	4/4	18 x 18 x 7	White	Metal	15	6.
(Continged)	835mx	Sealed Subwoof. Celling;	8						±3 35-120	90	20	120	4/4	18 x 18 x 10	White	Metal	15	
	835m	2nd Order Sealed Subwoof. Celling; 2nd Order Sealed Subwoof.	8						±3 35-120 ±3	90	20		4/4	18 x 18 x 10	White	Metal	15	
PRELUDE	The Reference CPS-1           CPS-2           CPS-SAT           CPS-W1           CPS-W2           CPS-A75           CPS-W100           CPS-W100           CPS-W200           M4           M3           M2           M1           MSAT           MCC           MSub 10	Rear Ch. Ctr. Ch. Ampli- fiable Woofer Base Ampli- fiable Woofer Base Amp Module Amp Module Amp Module Amp Module Amp Module Subwoof. Powered Subwoof. Powered Subwoof. Powered Ath Order Vented Ath Order Vented Ath Order Vented Rear Ch. Ctr. Ch. Powered Subwoof.									75 Inc. 100 Inc. 200 Inc. 90							12,80 Pa 650.0 Pa 350.1 Pa 350.1 Pa 300.1 Ea 750.1 Pa 1200.0 Pa 80 Pa 800.0
PRES Speakers	Mini S Ibex Mini Duat Duat Quad Duat Classic 1	Bass Ref. Bass Ref. Bass Ref. Bass Ref. Bass Ref. Bass Ref. Sat. & Trans. Line Subwoof.	6 <sup>1</sup> /2 8 10 12,6 <sup>1</sup> /2 (2)12, 6 <sup>1</sup> /2 (2)10	11/4 11/4 11/4 11/4 31/4	Dome Dome Dome Oome Dome	1 1 7x3 7x3 7x3 34	Dome Dome Horn Horn Horn Dome	T T T	50-22 ±3 40-22 35-22 30-22 30-22 24-25	92 92 92 92 92 92 88	Inc. 40 40 40 40 40 40 100	2k 2k,6k 2k,6k 200,2k,6k 200,2k,6k 200,2k,6k 200,550, 6k	3/6 4/4 4/4 4/4 4/4 4/4	16 x 10 x 8 24 x 12 x 10 26 x 15 x 14 37 x 15 x 14 55 x 15 x 14 Six Pieces	Oiled Oak Oiled Oak Oiled Oak Oiled Oak Oak Diled Oak	Błack Poły. Błack Błack Poły. Błack Poły. Błack Poły. Błack Poły.	15 20 28 40 55 168 Side	Eac 350.0 Pa 475.0 Pa 590.0 Pa 990.0 Pa 2500.0 Sys
PROFESSIONAL	Tablette 3Studio 100Studio 200Response 1SResponse 2Response 3Response 3Signature Response 4PT265DPT6521PT821	Tuned Port Tuned Port Tuned Port Tuned Port Tuned Port Tuned Port Tuned Port Tuned Port Tuned Port Tuned Port Tuned Port Tuned Port Tuned Port	4 7 8 5 7 (2)7 (2)7 (2)7 (2)10 (2)6 <sup>1</sup> / <sub>2</sub> 6 <sup>1</sup> / <sub>2</sub> 8	(2)3	Domes	3/4 1 3/4 3/4 1 1 1 1/4 1/4	Dome Dome Dome Dome Dome Dome Dome Dome	No	$\begin{array}{c} 60-20\\ \pm 5\\ 40-20\\ \pm 5\\ 30-20\\ \pm 5\\ 50-20\\ \pm 5\\ 50-20\\ \pm 5\\ 30-20\\ \pm 5\\ 30-20\\ \pm 5\\ 30-20\\ \pm 5\\ 20-20\\ \pm 5\\ 33-20\\ \pm 5\\ 33-20\\ \pm 3\\ 31-20\\ \pm 3\\ \end{array}$	89 88 89 86 87 88 88 89 91	30 50 100 50 75 100 100 150 10 10 10	5k 2.5k 2.5k 5k 5k 2.5k 2.5k 100,1.5k, 5k 3k 3k 2k	8/ 8/ 3/ 8/ 8/ 8/ 8/ 8/ 8/ 8/ 8/ 8/	11 x 7 x 9 16 x 8 x 10 43 x 12 x 13 12 x 7 x 9 18 x 9 x 11 48 x 11 x 12 48 x 11 x 12 65 x 14 x 17 12 x 14 x 17 13 x 12 x 17 10 x 13 x 35	Opt., Wood Opt., Wood Opt., Wood Opt., Wood Opt., Wood Opt., Wood Opt., Opt. Opt.	Black Knit Black Knit Black Knit Black Knit Black Knit Black Knit Dpt. Opt. Opt.	12 25 50 15 30 100 100 280 35 20 40	950.0 Pa 1500.0 Pa 3000.0 Pa 3000.0 Pa 1800.0 Pa 18,000 Pa 18,000 Pa 579.0 Pa 579.0 Pa 849.0

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ANUFACTURER	Hodel	Desio	WC	ole. W	aran wit	Tal. Two	resto Twe	ette gel	Hidrand Anech	110 55	N' a	tecom cros	m	Herrin Dimeron	es Finit	Still Still	Ne We	ght. prif
OPHILE	1	Bass Ref.	8	[	[	1	Dome	т	55-20	90	20	2.5k	8/6	18 x 11 x 9	Opt.	Black Knit	22	495. P
	2	Bass Ref.	8			1	Dame	I	±3 45-20 ±3	90	20	2.5k	8/6	36 x 11 x 11	Opt.	Black Knit	45	650. P
	2B	Bass Ref.	8			1,2	Domé, Cane	(2) T	45-20 ± 3	90	30	2.5k,4k	8/6	36 x 11 x 11	Opt.	Black Knit	46	795 P
	3B	Bass Ref.	10			1,2	Dome, Cane	(2) T	35-20 ±3	90	40	1.7k,4k	8/6	38 x 14 x 11	Opt.	Biack Knit	58	995 P
	<b>4</b> B	Bass Ref.	(2)10			1,2	Dome, Cane	(2) T	28-20 ±3	91	60	200,1.7k, 4k	6/4	42 x 15 x 11	Opt.	Black Knit	82	1795
	58	Powered Bass Ref.	10,12			1,2	Dome, Cone	(2) T	23-20 ±3	91	60; 150	150,1.7k, 4k	8/6	48 x 17 x 11	Opt.	Black Knit	125	2795. P
	CC-1	Bass Ref.	(2)5			3/4	Dome	T	58-20 ±2	90	Inc. 20	3k	6/5	19 x 7 x 9	Opt.	Black Knit	18	395 Ea
	FC-1	Ctr. Ch. Bass Ref.	(2)61/2			3/4	Dome	T	45-20 ± 3	90	20	2.5k	6/5	36 x 9 x 9	Opt.	Black	32	650 P
	RC-1	Trans. Line:	(2)4			(2)2	Cones	T	48-10 ±3	90	10	2k	6/5	36 x 7 x 7	Opt.	Black Knit	30	495. P
	PS-1	Surround	12					W	22-125		150	Var.		18 x 18 x 22	Opt.	Black	68	795
CD.		Subwoof. Tuned	6	_		1/2	Dame		±2 90-20	90	Inc. 10	3k	6/5	13 x 9 x 10	Sim.	Knit Black	91/2	Ea 199
SB	Alpha	Port	U				o unic		±2	50					Black Oak			Р
	300	Tuned Port	61/2			3/4	Dame		75-20 ±2	89	10	3k	6/5	14 x 8 x 9	Opt., Oak	Black	13	299 P
	400	Tuned Port	61/2			3/4	Dome		60-20 ±1.5	87	15	2.5k	6/5	16 x 8 x 12	Opt., Oak	Black	18	399 P
	500	Tuned Port	8			3/4	Dome		50-20 ±1.5	90	10	2.2k	6/5	23 x 10 x 12	Opt., Oak	Black	29	499 P 799
	800	Tuned Port	(2)8			1	Dome		48-20 ±1.5	90	10	2k 3k	8/8 6/6	35 x 10 x 13 7 x 17 x 6	Opt., Oak Black	Black Black	45 13	179
	1000	Ctr. Ch., Tuned Port	(2)4			1/2	Dome		100-20 ± 2	91	10	JK	0/0	7 . 17 . 0	Ash Vinyl	DIACK	15	E:
	Stratus Mini	Tuned Port	6 <sup>1</sup> /2			3/4	Dome		55-20 ±1.5	86	10	2.2k	4/4	16 x 9 x 13	Opt.	Black Knit	25	Pr 950 P
	Stratus Silver	Tuned Port	(2)6 <sup>1</sup> /2			1	Dome		40-20 ±1.5	89	10	500,2.1k	4/4	39 x 9 x 13	Opt.	Biack Knit	60	Fr 1500 P
	Stratus Gold	Bass Ref.	10	6	Cone	1	Dome		36-20 ±1	88	10	250,2.2k	4/4	45 x 16 x 17	Opt.	Black Knit	95	2100 P
	HW-1	In-Wall	61/2			3/4	Dome		56-20 ±2	89	5	2.4k	8/	12 x 9 x 4	White	White Metal		350 P
	Subsonic II Powered	Powered Tuned Port Subwoof,	12					w	27-150	106	Inc.			-16 x 16 x 16	Black Oak	Black Knit		799. Ea
S	AS-5	Sealed	_	5	Cone	3/4	Dome		100-20	90	10	2.5k	8/	7 x 10 x 9	Opt.	Black	15	349.
	AS-10	Sat. Powered	10					W	±3 32-125	92	Inc.	125	4/	23 x 21 x 18	Opt.	Knit Black	70	699.
		Ported Subwoof.														Knit Diaut	40	250
	SC-5	Bipolar Sat.		(2)5	Cones	(2)3/4	Domes		100-20	90	10	2.5k	4/	17 x 10 x 16	Opt.	Black Knit	18 18	250 Ea 499
	DR-5	Sealed Sat.		(2)5	Cones	3/4	Dome		100-20 100-20	90 90	10 10	2.5k 2.5k	4/ 8/	7 x 16 x 9 7 x 16 x 16	Opt. Opt.	Black Knit Black	25	799.
	0R-10 BT-5	Bipolar Sat. Bipolar	10	(4)5 (2)5	Cones	(2) <sup>3</sup> /4 (2) <sup>3</sup> /4	Domes Domes		27-20	90	20	150,2.5k	4/	Four Pieces	Opt.	Knit Błack	88	1349
	D1-3	Sat. & Subwool.	10	(2)5	Concs	(2)/4	Domics			50		100,2.04	-		op.	Knit		Sy w/Am
		0000000											10					Xov 2099.
	BT-10	Sat. & Subwoof.	10	(2)5	Cones	3/4	Oome		27-20	90	20	150,2.5k	4/	Four Pieces	Opt.	Black Knit	88	1349 Sy
																		w/Am Xov 2099.
	BT-20	Bipolar	10	( <mark>4)5</mark>	Cones	(2)3/4	Domes		27-20	90	20	150,2.5k	4/	Four Pleces	Opt.	Black Knit	95	1649 Sy
		Sat. & Subwoof.														KUIL		w/Am Xov
JAD	ESL-63	ES					+		32-22	86	100	-	8/5	36 x 26 x 10	Oak	Black	42	2399
	U.S.A. Monitor SW-63	Dipole Dipole	(2)12					w	±3 28-110	86	50	110	Sel.	18 x 26 x 10	Black	Knit Black	45	2995
		Subwoof.							+0,-3							Knit		w/Xo
	SW-57	Dipole Subwoof.	(2)8					W	28-150 + 0,-3	86	25	150	4/	10 x 21 x 6	Satin Black	Black Knit	20	1995. P w/Xo
UADRATURE	DSP 5	Active DSP:	8	(2)5	Cones	<mark>(3</mark> )1	Domes								Opt.	Black Knit		6800. P
		DSP; Pas. Rad.																w/D Mod
Continued)	DSP 4	Active OSP; Pas. Rad.	(2)8	(2)5	Cones	(4)1	Domes								Opt.	Black Knit		9600 P w/D Mod

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UADRATURE Continued)	DSP 3	Active DSP; Pas. Rad.	(4)61/2	(3)5	Cones	(6)1	Domes			90	50	170,2.5ĸ	8/4	68 x 13 x 17	Dpt.	Black Knit	<mark>150</mark>	14, w/
	DSP 2	Active DSP; Pas. Rad.	(6)61⁄2	(6)5	Cones	(10)1	Domes			89	80	150,2k	8/5	Two Pieces Per Side	Opt.	Black Knit	330 Side	Mo 22, W
	DSP 1	Active DSP; Pas. Rad.	(12) 6½	(12)5	Cones	(20)1	Domes			91	80	150,2k	6/3.5	<mark>Two Pieces</mark> Per Side	Opt.	Black Knit	630 Side	M0 34, w/
UANTA TECHNOLDGIES	The Amazing Mini-Monitor	Vented	51⁄4			1	Dome		54-22 ± 3	88	20	2.5k	8/6	17 x 7 x 11	Matte Black	Gray Knit	20	99
	ШМКІ	Hybrid Line	61⁄2			1	Dome		47-20 ± 3	89	25	2k	8/6	20 x 9 x <mark>13</mark>	Matte Black	Gray Knit	28	68 149
	VII MKII	Hybrid Line	8			11/8	Dome		29-20 ±3	91	40	2k	8/6.2	<mark>34</mark> x 11 x 18	Matte Black	Gray Knit	58	1045 2990 F
	A Sub-Woofer	Vented Subwoof.	8	3					30-200 ± 3	89	40		8/5.3	25 x 11 x 17	Matte Black	Black Knit	45	2350 1290 F
	B Sub-Wooter	Hybrid Line Subwoof,	10						25-200 ± 3	92	60		8/5.2	34 x 14 x 24	Matte Black	Black Knit	78	89 325
	C Sub-Woofer (The Rock)	Vented Stereo Subwoof.	(2)10					in :	26-200 ± 3	92	60		8/5.2	24 x 24 x 37	Matte Black	Black Knit	175	2450 6500
	Baby Pyramid MKII Baby Pyramid MKIII	Vented Vented	51⁄4 51⁄4			11⁄8 11⁄8	Dome Dome		54-20 ±3 50-20 ±3	91 89	40 40	2k 2k	8/5.3 8/5.2	15 x 10 x 11 16 x 11 x 12	Matte Black Opt.	Gray Knit Opt.	22 44	399( 550(
	The Pyramid	Vented	8			11/8	Dome			93	40	2k	8/		Opt.	Opt.		9000
	Full Pyramid Great Pyramid	Vented Vent <mark>ed</mark>	10 12	5¼ 6½	Cone Cone	11/8 11/8	Dome Dome		27-20 ±3 25-20 ±3	91 92	60 60	75,2k 75,2k	8/5.2 8/4.2	Four Pieces Four Pieces	Matte Black Opt.	Gray Knit Opt.	400 Sys. 500 Sys.	38,0 78,0
UESTOR	Q-1	Trans. Line	7			1	Dome		33-19 ±3	92	20	2.3k	6/2	27 x 22 x 16	Opt.	Opt.	73	2595
	Q-1/AX	Trans. Line	7			1	Dome	т	33-19 ±3	93	(2) 20	2.3k	6/3	27 x 22 x 16	Opt.	Opt.	73	3395 w/Ac
UINTESSENCE COUSTICS	Reference	Bass Ref.	(2)18, (2)12	(4)7	Cones	(4)1, 1/2	Domes, Horn	No	18-39 ±2	96	100	50,150, 3k,10k	4/	Four Pieces	Opt.	Cloth	1050	Xo 35,0
	Monitor	Bass Ref.	(2)12	(2)7	Cones	(2)1	Domes	No	27-32 ± 3	91	100	200,3k	6/	14 x 46 x 21	Opt.	Cloth	Sys. 500 Sys.	w/Xo 10,0
ADIO SHACK	Black Hole	Bass Ref. Subwoof.	18						18-200 ±1	98	50	50-150 (Var.)	8/	28 x 32 x 21	Opt.	Cloth	400	w/Xo 7000 E w/Xo
AUIO SHACK	AMX-11 AMX-15	Powered Powered	3						40-15 20- <b>2</b> 0		8 Inc. 5 Inc.		8/ 8/	5 x 5 x 6	Metal Metal	Metal Metal		70 F 120
BH SOUND	C-860	In-Wall Inf. Baf.	8	6	Cone	1	Dome	T	35-22	89	20	200,3k	4/4	55 x 15 x 3	Black	Opt.	56	995
	C-820	inf. Baf.	8			1	Oome	T	±3 40-22	89	20	3k	8/6	23 x 15 x 3	Black	Opt.	33	6 <mark>95</mark>
	C-88-SW	In-Wall Subwoof.	8					No	±3 40-85 +3	88	20	85	4/4	23 x 15 x 3	Black	Opt.	34	425
	C1212-SW	In-Wall Subwoof.	12					No	± 3 25-85 + 3	89	20	85	4/4	40 x 29 x 5	Black	Opt.	90	595
	D-8.3	In-Wall	8	1	Dome	1	Dome	No	±3 45-20	90	5		8/8	15 x 11 x 4	White	White	9	395
	D-8.2	In-Wall	8			1	Dome	No	±3 45-20	90	5	2.5k	8/8	15 x 11 x 4	White	White	9	359
	D-6.2	In-Wall	6	•		1	Dome	No	±3 50-20	90	5	2.5k	8/8	12 x 9 x 4	White	White	6	295
	D-5.2	In-Wall	5			3⁄4	Domę	No	±3 65-20	90	5	3k	8/8	11 x 8 x 3	White	White	4	195
	900-DX	Inf. Baf.	(2)6			(2)3⁄4	Domes	T	±3 35-22	90	20	3k	8/6	42 x 7 x 9	Opt.	Opt.	52	795
	800-MX	Inf. Baf.	8	6	Cone	3⁄4	Dome	T	±3 40-22	90	20	3k	6/4	42 x 7 x 9	Opt.	Opt.	51	795
	1261	Inf. Baf.	12	6	Cone	1	Dome	T	±3 30-22	89	20	200,3k	6/4	37 x 12 x 15	Opt.,	Black	72	1095
	861	Tuned	8	6	Cone	1	Dome	τ	± 3 35-22	90	20	200,3k	6/4	25 x 12 x 14	Oak Opt.,	Black	48	695
Continued)	812	Port inf. Baf.	8			1	Dome	т	±3 40-22 ±3		20	3k	8/8	19 x 11 x 12	Oak Opt., Oak	Black	33	5 <mark>95</mark>

## a singular vision of excellence.

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Not an easy task with all the new products out there. But at solus, we thrive on innovations – technical and musical.

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INNOVATIONS 23

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For a new kid on the block, the solus ir8 in-wall loudspeaker sure made a big impression. It won the Innovations '93 Design & Engineering Award.

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RBH SOUND (Continued)	82	inf. Baf.	8			3/4	Dome	T	45-22 ±3	89	20	3k	8/6	16 x 10 x 8	Opt., Oak	Black	22	395.00 Pair
(0011111000)	63	inf. Baf.	6			3/4	Dome	T	55-22 ±3	89	20	3k	6/4	12 x 8 x 7	Opt., Oak	Black	121/2	295.00 Pair
	53	Vented	51/4			3/4	Dome	No	75-20 ±3	90	5	2.5k	8/8	6 x 8 x 5	Opt.	Opt.	5	150.00 Pair
	SW-12A	Subwoof.	12					No	25-85 ±3	89	20	85	4 or 8	18 x 18 x 20	Opt., Oak	Black	57	495.00 Each
	VDS-15 8000	Subwoof. Tuned	15 (2)8	(2)61/2	Cones	1	Oome	No T	25-85 ±3 30-25	89 91	20	85	4 or 8	Custom	Opt., Oak	Black	73	795.00 Each
	0000	Dual	(2)0	(2)072	Guilda		Come		±3	91	100	200,3k	8/4	12 x 55 x 14	Lacq. Oak	Black	87	2600.00 Pair
RCA	SP2700T	Air Sus.	8	4	Cone	1	Cone		50-20	90	10	1k,5k	8/5	44 x 10 x 12	Oak	Black	44	599.00
	SP5100T2	Vented	8	4	Cone	1	Cone		±3 40-20 ±3	90	10	2k,7k	8/8	38 x 6 x 11	Gray	Gray Knit	29	599.00
	SP5060S2	Vented; Surround	31/2						100-10 ±3	90	5		8/8	6 x 4 x 3	Gray	Gray	2	Pair 149.00 Each
	SP5065S2	Vented; Surround	31/2						100-10 ±3	90	5	1915	8/8	6 x 4 x 3	Off- White	Off- White	2	149.00 Each
	SP5050C	Vented	(2)21/2	(2)2	Cones				100-5	94	5	4k	8/8	5 x 17 x 6	Gray	Metal Gray	5	199.00
RDL	RDL FS-1	Ctr. Ch. Ac. Sus.	8			1	Dome		±3	87	15	2k	8/5	25 x 11 x 11	Lacq.	Knit Black	32	Each 549.00
ACOUSTICS	RDL F-1	Ac. Sus.	8			1	Oome			87	15	2k	8/5	25 x 11 x 11	Chrry Lacq	Knit Black	31	Pair 549.00
	RDL B-1	Ac. Sus.	8			1	Dome			87	15	2k	8/5	20 x 11 x 11	Chrry Lacq.	Knit Biack	27	Pair 449.00
	RDL S-1	Ac. Sus.	8			1	Dome			87	15	2k	8/5	12 x 12 x 12	Chrry Lacq. Chrry	Knit Black Knit	19	Pair 449.00 Pair
	RDL AV-1	Ac. Sus.	4			1	Dome		1	87	15	2k	8/5	12 x 7 x 4	Black Lacq	Black	8	99.00 Each
	RDL Three-Piece System	Ac. Sus. Sat. & Subwoof.	8	4	Cone	1	Dome			87	15	150,2k	8/5	Three Pieces	Black Lacq.	Black Knit	321/2 Sys.	385.00 Sys.
	RDL Home Theater	Home Th. Ac. Sus.;	8	4	Cone	1	Oome			87	15	150,2k	8/5	Six Pieces	Black	Black	561/2	680.00
	Set	5 Sats.& Subwoof.													Lacq.	Knit	Sys.	Sys.
RECOTON	SPX110	Powered	4			2	Cone	-	50-15		10 Inc.		8/					129.99
	SPX100		4			2	Cone		<mark>50-</mark> 15				8/					Pair 99.99 Pair
	V632A	Powered Air Sus.	51/4			21/4	Cone	W,T	50-20 ±5	85	12 Inc.	800		16 x 7 x 7	Matte Black	Black Knit	121/2	199.95 Pair
	W100	Powered Bass Ref.	5						20-20	85	12 Inc.			9 x 6 x 6	Matte Black	Black Mesh	7	249.00 Pair
RESEARCH	ELA	Trans. Line	51/2			1	Dome				25		8/		Opt.	Black Knit		1250.00 Pair
	Kyte EL8	Trans. Line	5½ 5½			1				85	20		8/4	12 x 8 x 8	Black	Black Knit	71/2	595.00 Pair
DENALGOANOF		Trans. Line				1				100	20		8/4	29 x 7 x 8	Black	Black Knit	17½	895.00 Pair
RENAISSANCE ACOUSTICS	Companion I Companion II	Ac. Sus. Ac. Sus.	6½			3/4	Dome		65-20 ±3	88	15	3k	8/5	16 x 10 x 8	Opt., Ven.	Opt., Knit	18	450.00 Pair
	Companion	Ac. Sus.	8 6 <sup>1</sup> /2			1   3⁄4	Dome Dome		55-20 ±3 70-20	89 88	15 15	3k 3k	8/5 8/5	19 x 12 x 10	Opt., Ven.	Opt., Knit	271/2	600.00 Pair
	Mini-Monitor Companion	Sat. Ac. Sus.	10						±3 38-100	88	40	100,0pt.	8/5	12 x 8 x 7 18 x 18 x 16	Opt., Ven. Opt.,	Opt., Knit Opt.,	11 37½	395.00 Pair 695.00
RMS AUDIO	Bass Modules Silhouette 1	Subwoof. Ac. Sus.	8			1	Dome		± 3 35-22	92	25	2.2k	8/6.4	10 x 12 x 19	Ven. Oiled	Knit Black	24	Pair
	Silhouette 1.5	Tuned	- 10,8			1	Dome		±3 25-20	91	25	120,2.2k	8/6	13 x 14 x 32	Oak Opt.,	Knit Biack	40	1450.00 Patr 1950.00
	Silhouette	Port Inf. Baf.	10,8	3	Dome	11/8	Oome	M,T	25-20	92	50	120,700,	8/6.2	15 x 18 x 50	Wood Oiled	Knit Black	105	Pair 2895.00
	RS-II Signature One	Tuned	8			1	Dome		±3 30-20	90	25	4.5k 2.2k	8/6.4	12 x 17 x 16	Oak Opt.,	Knit Black	47	Pair 3500.00
	MM-1	Port Ac. Sus.	51⁄4			1	Dome	т	±3 55-22	90	25	2.2k	4/3.8	8 x 9 x 12	Wood Mrbl	Knit Black	24	Pair 1995.00
	RM-1	Tuned Port	(2)10	61/2	Cone	1,1¼	Domes		25-25 ±3	93	20	120,500, 4.5k	7.3/4	Two Pieces Per Side	Oiled Wal.	Knit Black Knit	340 Svs	Pair 5700.00 Sys.
	RM-2	Tuned Port	10, (2)8 (2)10	61/2,4	Cones	11	Dome		25-25 ±3	94	20	120,500, 4.5k	7.3/4	Two Pieces Per Side	Oiled Wal.	Black	Sys. 390 Sys.	6900.00 Sys.
	Reference Monitor III	Tuned Port	(2)10	8,3	Cone, Dome	11/8	Dome		22-20	92	25	100,700, 2.2k,4.5k	8/6	Two Pieces Per Side	Opt., Wood	Black Knit	Sys. 395 Sys.	8200.00 Sys.
ROBERTS ARCHITEC-	RA850	in-Wall Inf. Baf.	8			3/4	Dome		28-30 ±3	90	4	3.5k	8/5.5	14 x 10 x 3	White	White Metal	61/2	649.00 Pair
TURAL AUDIO	RA820	In-Wall Inf. Bat.	8			3/4	Dome		35-30 ±3	90	4	3.8k	8/6	14 x 10 x 3	White	White Metal	6	499.00 Pair
	RA620 RA600	in-Wall Int. Bat. In-Wall	6½ 6½			3/4 3/4	Dome		50-30 ±3	89	4	4.2k	8/6	14 x 10 x 3	White	White Metal	51/2	299.00 Pair
	MP260	In-Wall Int. Bat. In-Wall	6 <sup>1</sup> /2	1		3/4 21/2	Dome Cone		50-20 ±3 50-17	89 90	4	5k 4k	8/6 8/6	14 x 10 x 3	White	White Metal	5 <sup>1</sup> /2	249.00 Pair
	RASSW	int. Bat. in-Wall	8				00110		±3 30-150	90 89	4	4K 150	8/6 8/6	14 x 10 x 3 14 x 10 x 3	White White	White Metal White	5½ 12	199.00 Pair 399.00

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MANUFACTURER	Model	Destr	Nr. Mc	olet Mi	drama Mit	Tans Two	elet twe	ster sep	andrange Anech	10 2	N/	ecomm cress	SA ING	denino Dinetto N	et Finit	in Gil	He Con Hein	price.
		$\leftarrow$	()			1		w	22.21		60	-	6/5	14 x 24 x 46	Black	Black	300	30,000.
RDCIOPORT TECHNOLOGIES	Procyon		(2)8¾	4	Cone	1	Dome	w	22-21 ±2	88	60				Gloss	Foam		Pair
ROCK SOLID SOUNDS	Solid	Vented	5			3/4	Cone		75-20 ±3	90	20	2.5k	8/4	9 x 7 x 6	Opt.		5	300.00 Pair
	Team Twin Boos	Vented	4			3/4	Cone		80-20 ±3 45-120	87 91	10 30	2.5k 120	8/4 4/	8 x 6 x 5 18 x 8 x 24	Opt. Opt.		4 231/2	200.00 Pair 350.00
	Twin Bass Team Bass	Subwoof. Subwoof.	(2)6 <sup>1</sup> /2 (2)6 <sup>1</sup> /2						±3 50-150	87	20	130	4/	10 1 0 1 24	Opt.		2372	Each 250.00
					_	2.			± 3							Direk	4514	Each
ROGERS	LS2A/2	Bass Ref.	6			3/4	Dome	No	80-20 ±2	90	15	3.5k	8/	14 x 9 x 8	Black Ash	Black Knit	151/2	550.00 Pair
	LS4A/2	Ac. Sus.	8			3/4	Dome	No	55-20	88	15	3k	8/	16 x 10 x 10	Ven. Opt., Wood	Black Knit	20	750.00 Pair
	LS6A/2	Bass Ref.	81/2			3/4	Dome	No	±2 50-20	90	15	3k	8/	20 x 11 x 11	Opt., Wood	Black	33	900.00 Pair
	LS5/9	Bass Ref.	8			13⁄8	Dome	No	±2 50-16	87	15	2.5k	8/	18 x 11 x 11	Opt.,	Knit Black	38	2500.00
	LS8A	3	(2)8			3/4	Dome	No	±3 50-20	90	15	400,3.5k	8/	34 x 10 x 10	Wood Opt., Wood	Knit Black Knit	42	Pair 1200.00 Pair
	ST1A	Bass Ref.	8			1¾	Dome	No	±2 80-21 ±2	89	25	3k	8/	25 x 12 x 12	Wood Opt., Waod	Knit Black Knit	40	1600.00 Pair
	ST3	Int. Bat.	4			3⁄4	Oome	No	80-21	90	25		8/	12 x 8 x 7	Opt., Wood	Black	121/2	999.00 Pair
	ST2	Bass Ref.	12			1 <sup>3</sup> /8	Dome	No	±2 40-60 ±3	92	10	2.5k	8/6	<mark>30 x 18 x 16</mark>	Opt., Wood	Black Knit	68	4000.00 Pair
	P-20		8			1	Dame	No	15-20 ±2	90	15	2.3k	13.	16 x 10 x 12	Opt., Wood	Black Knit	32	1700.00 Pair
	P-22		8			1	Dame	No	50-20 ±2	90	15	2.3k		<mark>33 x 10 x</mark> 12	Opt., Wood	Black Knit	44	2400.00 Pair
	P-24A		8	6		1	Dame	No	45-20 ±2	90	50	2.3k		41 x 10 x 14	Opt., Wood	Black Knit	65	3800.00 Pair
	ST7	Bass Ref.	8			1	Dame	No	45-20 ±2	107	25	3k	8/	25 x 12 x 12	Opt., Wood	Black Knit	38	1999.00 Pair
ROHRER	702	Bass Ref.	7			3/8	Dame	T	40-40	90	30	4.5k	8/7	41 x 19 x 12	Oak	Black	65	1600.00
ACOUSTIC DESIGN	2602	Bass Ref.	(2)6			3/8	Dome	т	30-40	93	20	5k	4/3	21 x 9 x 21	Black	Knit	50	Pair 2400.00
	10-03	Inf. Baf.	10	(2)41/2	Cones	3/8	Oome	т	25-40	90	30	125,4k	8/7	48 x 14 x 14	Black	Foam		Pair 3600.00 Pair
	210-03	Pas. Rad.	(2)10	(2)41/2	Cones	3/8	Dome	T	16-40	90	30	125,4k	4/3	48 x 14 x 14	Black	Foam		5400.00 Pair
	1201	Bass Ref.	12						16-100	90	30		<mark>8/6</mark>	19 Dia. x 82	Black Cloth		70	1600.00 Pair
	21201	Subwoof. Bass Ref. Subwoof.	(2)12						16-100	<mark>96</mark>	20		4/3	19 Dia. x 82	Black		80	2400.00 Pair
	21501	Bass Ref. Subwoof.	(2)15						14-100	96	20		8/4	25 Dia. x 82	Black		100	4800.00 Pair
	Reference System	Bass Ref.	(8)1 <mark>5</mark>	(12)6	Cones	(16) 1/4x3	Ribbons	т	12-40	100	20	50,5k	4/4	Three Pieces Per Side	Black		500 Side	44,000. Sys.
ROSSMAN	SA.5a	Powered.	5			1	Dome		55-20		inc.	2.3k	100k		Black	Black Knit		550.00 Pair
AUDIO	SA1.0	Vented Powered,	8			1	Dame		±3 40-20		Inc.	2.3k	100k		Lam. Black	Black		650.00 Pair
ROYD	Topaz	Vented Bass Ref.	5	-		3/4	Oome		±3 40-20	89	15	4k	8/6	12 x 8 x 7	Lam. Black	Black	12	450.00
	Sapphire II	Bass Ref.	5			3/4	Dome		40-20	89	15	4k	8/6	12 x 8 x 7	Vinyl Black	Knit Black	12	Pair 650.00
	Sintra II	Bass Ref.	5			3/4	Dome		40-20	89	15	4k	8/6	12 x 8 x 7	Ash Black	Knit Black	17	Pair 950.00
	Abbot	Bass Ref.	61/2			3/4	Dome		30-20	90	20	4k	8/6	32 x 8 x 12	Ash Black	Knit Black	39	Pair 1650.00
	Prior	Bass Ref.	8			3/4	Dome		30-20	89	20	4k	8/6	38 x 11 x 15	Ash Black	Knit Black	71	Pair 2550.00
RUARK	Crusader	Bass Ref.	61/2	3		1	Dome	No	50-20		25	-	8/	35 x 9 x 13	Ash Opt.,	Knit Black	62	Pair 3300.00
	Accolade	Bass Ref.	11			1	Dome	Na	±3		25		8/	39 x 11 x 15	Opt., Wood Opt., Wood	Knit Black	88	Pair 6000.00
	Swordsman	Inf. Baf.	61/2			1	Dome	No	60-20		20		8/	13 x 8 x 10	Wood Opt., Wood	Knit Black	16½	Pair 750.00
	Plus II Sabre II	Inf. Baf.	61/2			1	Dome	No	60-20		20		8/	15 x 9 x 11	Wood Opt., Wood	Knit Black	18	Pair 950.00
	Templer	inf. Baf.	61/2			1	Dame	No	50-20		20		8/	28 x 8 x 10	Wood Opt., Wood	Knit Black	22	Pair 1200.00
	Talisman II	Bass Ref.	61/2			1	Dome	No	48-20		25		8/	33 x 9 x 13	Wood Opt., Wood	Knit Black	33	Pair 1750.00
	Rhapsody	Inf. Bat.	7			1	Odme	No	50-20		25		8/	30 x 13 x 12	Wood Opt., Wood	Knit Black	40	Pair 2000.00
	Broad Sword	Inf. <mark>Baf</mark> .	7			1	Dome	No			25		8/	17 x 9 x 12	Wood Opt., Wood	Knit Black Knit	24	Pair 2100.00 Pair
RUSH SOUND	333	Powered	7		-	1	Dome	_	34-20		65	1.6k	10k	10 x 12 x 19	Black	Knit Black	31	Pair 895.00
	533P	Bass Ref. Bass Ref.	(2)7			1	Dome		± 2.5 40-21	87	inc. 50	1.8k	16/	12 x 14 x 24	Oak Oak	Knit Black	42	Pair 1115.00
	433	Powered	7			1	Oome		±3 33-25		(2) 45	2k	11	10 x 12 x 19	Oak	Knit Black	38	Pair 1873.00
		Biamp							±3		Inc.		- m -			Knit		Pair
50 T 1	533	Powered Biamp	(2)7			1	Dome		31-25 ±3		90, 45	2k		12 x 14 x 24	Oak	Black Knit	57	3000.00 Pair
(Continued)	1			4							Inc.							



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		/		Enclos	et Indress	eter mon		Inches		ols wor	ency As	Recommended W	In here frees	ancies. In si m	ches	× /	/	and Material
	/	/	on Principle	Diame	e Diam	eter THE	seler Diameter	Bester Type	evel th.	We Frei	Ine up	atul Mr. ended M	Fred	sources. Oursing the sources of the	Instest Inc.	/	101	and Mia Each
MANUFACTURE	R Model	Des	an' w	ooler	hidrang. W	drang.	eeter 14	eelet et	parate ange Ane	H2 10 KI	av.	ecomme no	Sove /	pedaninal Dimensi	Hear Fir	ish	ille Con	and US ES
RUSH SOUNO	733	Powered	(2)9	$\leftarrow$		1	Horn	$\overline{-}$	29-20	4	180,	1.6k	$\bigwedge$	10 + 15 + 20				
(Continued)		Biamp	(2)3						±3		45 Inc.	1.0K		12 x 15 x 39	Oak	Black Knit	105	6500.00 Pair
	Monument II	Sat.	(2)5			1/2	Horn		100-40 ±2	87	50	3.6k	11/	9 x 15 x 12	Black Lacg.		39	5000.00 Pair
	Monument II Subwoofer	Powered Bass Ref.	(2)8					W	20-100 ±3		175 Inc.	100	7k	17 x 18 x 29	Black Lacq.		110	5000.00 Pair
RUSSDUND	SP501	Subwoof. In-Wall	51⁄4	-					70-18	88	10		8/4	7 x 10 x 3	White	White	5	109.95
	SP502	in-Wall	51⁄4		0	21⁄4	Dome		70-20	90	10	3k	8/4	7 x 10 x 3	Plast. White	Steel White	5	Each 99.95
	SP602	In-Wall	61/2			21/4	Dome		±5 55-20	90	10	3k	8/4	7 x 10 x 3	Plast. White	Steel White	6	Each 124.95
	SP610	in-Wall	61/2			1	Dome		±5 40-20 ±5	90	10	2.5k	8/4	7 x 10 x 3	Plast. White	Steel	7	Each 179.95
	SP691	in-Wall Subwoof.	6x9					1	28-90	90	10	90	8/4	7 x 10 x 3	Plast. White Plast.	Steel White Steel	9	Each 229.95 Each
	SP692	in-Wall Subwoof.	6x9						28-90	90	10	90	8/4	7 x 10 x 3	White Plast.	White	9	295.00 Each
RYAN	Two	Inf. Baf.	(2)6			1	Dome		50-20 ±3	89	25		6/3	42 x 9 x 15	Opt., Wood	Black	65	1295.00
	Three	Inf. Bat.	8	4	Cone	1	Dome		40-20 ± 3	88	25	E E	8/6	44 x 10 x 17	Opt., Wood	Knit Black Knit	80	Pair 1995.00 Pair
a	Four	Inf. Baf.	(2)8	5	Cone	1	Oome		35-20 ±3	88	25		8/5	47 x 10 x 19	Opt., Wood	Black Knit	125	3495.00 Pair
SAAT	REF-100AV	Sat.	4			1/2	Dome		100-20 ±3	86	20	5.5k	8/4	6 x 8 x 5	Opt.	Black Knit	41/2	99.00 Pair
	REF-303	Sat.	(2)3			1/2	Dome	1	130-20 ±3	89	20	5k	8/4	4 x 11 x 9	Opt.	Brown Knit	6	199.95 Pair
	REF-BM2W REF-BM4W	Subwoof.	(2)61/2					1	40-200 ± 3	86	30	200	4/4	26 x 16 x 6	Black Vinyl		33	149.95 Each
	REF-402	Subwoof. Bass Ref.	(2)6½ 6½			21/2	Cone		30-200 ±3 50-20	87	30	200	4/4	24 x 13 x 10	Black Vinyl		35	169.95 Each
CACANI			-						± 3	88	20	3.5k	8/4	9 x 23 x 8	Dak Vinyl	Brown Knit	19	229.95 Pair
SASAKI	CB 300M CB 250-DX	Glass Sphere Glass	51/4 51/2			1/2 1	Dome Dome		75-20	91	10	6k	4/4	11 Sphere	Clear Glass	Black Metal	151/2	899.95 Each
	CW 160AV/	Sphere	31/2				Douis		80-20 130-20	87 92	10 10	3k	4/4	10 Sphere	Clear Glass	Gray Metal	131/4 41/2	1099.95 Pair
	CB 160AV-S CB 160 MX	Sphere Glass	31/2						130-20	92	10		4/4	6 Sphere 6 Sphere	Opt., Glass Clear	Opt., Metal Black	4 1/2	479.95 Pair 449.95
	Bass-1	Sphere Subwoof.	(2)61/2						50-130	88	10		4/4	19 x 9 x 12	Glass Black	Metal	271/2	Pair 249.95
SCAN	SD-One	Inf. Baf.	4			3/4	Dome		60-20	90	15	2.4k	4/4	6 x 9 x 7	Vinyl Wal.	Black	10	Each 650.00
AMERICAN	SD-Two	Inf. Baf.	5			3/4	Dome		50-20	88	30	2.4k	4/4	12 x 8 x 7	Opt.	Knit Black		Pair 950.00
	SO-Three	Inf. Baf.	6			3/4	Dome		40-20	89	20		4/4	16 x 10 x 8	Opt.	Black		Pair 1250.00
	SO-Four	Inf. Baf.	8			3/4	Oome		25-20	89	40		4/4	19 x 12 x 10	Opt.	Knit Black		Pair 1650.00
	SA 2.5	Ported	51⁄4			1	Dome		55-22	86	10	2.5k	4/4	13 x 8 x 7	Black	Knit Black		Pair 349.95
	SA 2.6	Inf. Baf.	6			1	Dome		40-22	87	15	2.5k	4/4	16 x 9 x 7	Black	Knit Black Knit		Pair 449.95 Pair
	SA 2.8	Inf. Baf.	8			1	Oome		30-22	89	20	3.5k	4/4	19 x 11 x 8	Black	Black Knit		549.95 Pair
SCIENTIFIC FIDELITY	Crown Joule	Ported	61/2			1	Dome	1	38-25 ± 1.5	83	50	2.5k	8/6	14 x 10 x 16	Opt.	None	26	1590.00 Pair
	Tesia II	Ported	(2)61/2			1	Dome		32-25 ± 2.5	89	20	1.8k	8/5	48 x 8 x 13	Opt.	Black Knit	60	2990.00 Pair
	Substrate	Powered Subwoof.	(2)8 <sup>1</sup> /z					W	20-180	Adj.	250 Inc.	50-180 (Adj.)		25 x 10 x 18	Opt.	Black Knit	62	2490.00 Each
SENNET CONCEPTS	SH5	Indoor/ Outdoor	51⁄4			1/2	Dome		60-20 ±3	89	10	3.5k	8/4	9 x 6 x 5	Opt.		51/2	125.00 Pair
	SH40	Ac. Sus.	4			1/2	Dome		80-20 ±3	90	10	3.5k	8/4	9 x 5 x 4	Opt.		41/2	80.00 Pair
	SH44 SH88	Ctr. Ch. Subwoof.	(2)4 8		5 I	1/2	Dome		80-21 ±3 20-250	90 02	10	3.5k	8/4	5 x 11 x 8	Black	Black Steel	6	90.00 Each
	SH600	Surround							20-250	92	10		8/4	15 x 10 x 12 Six Pieces	Opt. Det		19 43	125.00 Each
R. SEQUERRA	Met 7 Mkll	System Ac. Sus.	61/2			21/2	Cone	Т	53.40	0.0	20	AL	0.7		Opt.	-	Sys.	375.00 Sys.
ASSDCIATES	Met 8 Mkli	AC. SUS.	0 yz		1	6.72	0016		53-19 ±3 23-70	90 90	20 75	4k 70	8/5 8/4	8 x 11 x 11	Oiled Wal.	Foam	13 72	750.00 Pair
	Met 9 Mkil	Subwoof. Ribbon				1/2x12	Ribbon	т	±4 3.8k-	90 92	75 20	70 3.8k	9/7	33 x 18 x 13 8 x 5 x 8	Oiled Wal. Oiled	Foam Pert.	72 14	2000.00 Pałr 1500.00
		Tweeter							40k ±3					0.040	Wal.	Metal		Pair
	Met 10-4	Quasi Line				(4)2 <sup>1</sup> /2	Cones	M	2k-22k ±3	94	20	2k	8/7	13 x 8 x 6	Oiled Wal.	None	7	650.00 Pair
	Met 10-8	Source Quasi Line				(8)21/2	Cones	м	2k-22k	96	20	2k	8/7	24 x 8 x 6	Oiled	None	12	900.00
	Signature	Source Ac. Sus.,	(2)10	61/2	Cone	(5)21/5	Cones,	Ŧ	±3 18-60	93	100	80,3.8k,	8/6	60 x 24 - 12	Wal.	None	200	Pair 25.000
(Continued)	Signature System	Line Source	(-)-0		0.5110	(5)2 <sup>1</sup> /2, (1)	Ribbon	T, St	10-00	30	100	2.8k,2.4k	8/6	60 x 24 x 12	Nxti.	None	280 280	25,000. Pair

# AAL SERIES LOUDSPEAKER'S



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R. SEQUERRA Associates	Sig-7-1	Ac. Sus.	61/2	(	[	21/2	Cone	Т	47-19	93	100	3.8k	8/5	12 x 12 x 8	Nxtl.	None	50	6000.00
(Continued)	T1-Mkili	Ribbon Tweeter				<sup>3</sup> ⁄4x3 <sup>3</sup> ⁄4	Ribbon	т	2.4k- 60k	96	10	2.4k	8/7	9 x 9 x 5	Nxti.	None	24	Pair 3000.00 Pair
SHAHINIAN Acoustics	Super Elf	Damped Vent	51⁄4			1	Dome		45-19 ±3	90	25	4.5k	6/5	14 x 8 x 10	Opt., Wood	Opt., Knit	17	750.00 Pair
	Arc	Pas. Rad.	8	13⁄8	Dome	1	Dome		28-18 ±3	88	30	1.9k,8k	6/4	28 x 14 x 10	Opt., Wood	Opt., Knit	44	1350.00 Pair
	Obelisk	Trans. Line,	8	(2)13/8	Domes	(4) <sup>3</sup> /8	Domes		28-22 ±3	90	50	1.8k,9k	5/4	29 x 15 x 13	Opt., Woqd	Opt., Knit	56	2150.00 Pair
	Hawk Subwoofer	Pas. Rad. Trans. Line,	8					w	25-500	90	100	250,500	6/4	30 x 15 x 11	Opt., Wood	Opt.,	63	1800.00
		Pas. Rad. Subwoof.										(Sel.)			WUUU	Knit		Pair
	Double Eagle Subwoofer	Stereo Trans. Line, Pas. Rad.	(2)8			-		w	20-225	90	150	140,225 (Sel.)	6/3	23 x 15 x 32	Opt., Wood	Opt., Knit	105	1,400.00 Each
	Hawk Module	Subwoof.	(4)4	(3)3/4	Domes	(4)3/8	Domes		250-18	90	50	250,4.5k,	5/4	17 x 12 x 7	Diled	Opt.,	21	3000.00
	Diapason		(4)51/4	(2)13/8	Domes	(2) <sup>3</sup> /4, (6) <sup>3</sup> /8	Domes		140-25	91	150	9.5k 140,4k,	4/3	22 x 15 x 7	Birch Oiled	Knit Opt.,	35	Pair 4800.00
SHERWOOD	Modute SP250	Sat. &	8	31/2	Cone	21/2	Cone		±3 30-20	89	25	7k,11k 150	8/5	Three Pieces	Birch Black	Knit Black	27	Pair 279.00
SIEFERT	Maxim III HP	Subwoof. Ducted	61/2			1	Dome		±5 45-24	87	25	1.8k	8/6	13 x 11 x 9	Opt.,	Mesh Black	Sys. 20	Sys. 559.00
RESEARCH	Paragon II	Port Ducted	8½	5	Cone	1	Dome		±2 40-24	87	25	300,1.8k	6/4	36 x 14 x 11	Wood Opt., Wood	Knit Black	46	Pair 1100.00
	SS88	Port Ducted Port Bandpass	(2)8½						±2 25-100 ±3	88	25	100	6/4	22 x 20 x 12	Wood Opt., Wood	Knit None	60	Pair 559.00 Each
SIERRA AUDIO	1824-F	Subwoof. On-Wall	(2)4			3/4	Dome	-	60-22	88	15	4k	4/3	20 x 26 x 3	Opt.	Opt.,	15	995.00
SYSTEMS	2436-F	Ac. Sus. On-Wall	(4)4			3/4	Dome		±3 45-22	90	30	4k	8/5	26 x 38 x 3	Opt.	Art Opt.,	27	Pair 1395.00
	1114-F	Ac. Sus. Dn-Wall Ac. Sus.	4			3/4	Dome	ļ	±3 70-20	86	15	4k	8/6	13 x 16 x 3	Opt.	Art Opt.,	9	Pair 695.00
	SAS-1	Subwoof.	10						35-110	89	30	110	4/	14 x 14 x 13	Opt.	Art	39	Pair 495.00 Each
	SAS-2	Subwoof.	12						28-110	90	50	110	4/	21 x 21 x 19	Opt.		68	695.00 Each
	PL-1 Surround	Ac. Sus.; Surround	4						95-12	89	10		8/6	23 x 6 x 4	Black	Black	8	799.00 Pair w/ Halogen Pole
SIGNET	SL280exB	Vented	8			1	Dome		30-25	88	20	2.5k	8/7	10 x 13 x 35	Opt.	Black Knit	45	Lamps From 900.00
	SL280B/U	Vented	8			1	Dome		35-25	88	20	2.5k	8/7	10 x 13 x 25	Black	Black	35	Pair 700.00
	SL260B/U	Vented	61/2			3/4	Dome		45-25	87	20	3k	8/7	8 x 13 x 16	Vinyl Black	Knit Black	21	Pair 450.00
	SL2508/U	Vented	51/2			-3/4	Dome		50-22	88	15	3.3k	8/6	13 x 10 x 7	Vinyi Black Vinyi	Knit Black Knit	12	Pair 300.00 Pair
	SL240B/U	Vented	51⁄4			3/4	Dome		65-20	88	10	4k	8/5	7 x 10 x 6	Opt.	Black Knit	6	200:00 Pair
SNELL ACOUSTICS	Type A/Five	2 Towers & 2 Subs.	(4)6½, 18	(2)5	Cones	1,3⁄4	Domes	W,M, T	18-20 ± 1.25	88	80	80,275, 2.8k	8/5	Four Pieces	Opt.	Black	460 Svs:	14,999. Sys.
	Type B	Ac. Sus.	(2)10	(2)51/4	Cones	(2)1	Domes	Ť	20-20 ±1.5	86	100	40,275, 2.7k,5k	8/4	48 x 25 x 19	Opt.	Black Knit	Sys: 152	4799.00 Pair
	Type & Minor Type CIV	Ac. Sus. Ported	12 10	(2)5¼ 5	Cones Cone	1,3⁄4	Oomes Domes	T T	30-20 ±1.75 25-20	86 88.5	40	275,2.7k	8/4 8/4	48 x 10 x 16	Opt.	Black Knit Black	110	3599.00 Pair
	Type D	Ported	8	5	Cone	1,3/4	Domes	T	±2 ±2 36-20	87	20	275,2.7k 350,2.8k	8/4 8/5	46 x 15 x 12 43 x 11 x 13	Opt. Opt.	Black Knit Black	95 90	2299.00 Pair 1699.00
	Type Elli	Ported	8			1,3⁄4	Domes	T	±1.75 35-20	91	15	2.7k	6/5	35 x 13 x 11	Opt.	Black	50	Pair 999.00
	Type Jill	Ported	8			1	Dome	т	±3 49-20	91	15	2.7k	6/5	23 x 13 x 10	Opt.	Knit Black	35	Pair 699.00
	Type KII	Ac. Sus.	8			1	Dome	T	±2 70-20 ±2	90	10	2.7k	6/5	18 x 11 x 9	Opt.	Knit Black Knit	26	Pair 479.00 Pair
	Type Kllv	Ac. Sus.	8			1	Dome	T	70-20 ±2	90	10	2.7k	6/5	18 x 11 x 9	Opt.	Knit Black Knit	27	Pair 249.00 Pair
	Type Q	Ac. Sus.	61/2			1,3⁄4	Domes	T	65-20 ±3	86	15	2.2k	8/	16 x 11 x 7	Opt.	Black Knit	231⁄2	899.00 Pair
SNELL MULTIMEDIA	LCR 500	THX; Ac. Sus.	(2)61/2			(2)3⁄4	Domes	T	80-20 ±3		100		8/4	22 x 10 x 7	Black	Black Knit	35	899.00 Each
	SUR 500	THX; Dipole	(2)61/2			(2)1	Domes		125-20 ±3		100		8/4	17 x 10 x 8	Black	Black Knit	35	899.00 Each
	SUB 550 HCC 500	THX; Subwoof.	12			(2)3/.	Domes		20-80 ±3		100		8/8	23 x 19 x 12	Black	Black Knit	60 05	549.00 Each
	KIIV	Ac. Sus. Ac. Sus.	(2)6 <sup>1</sup> /2 8			(2) <sup>3</sup> ⁄4	Domes Dome	T T	80-20 ±3 70-20	90	100 10	2.7k	8/4 6/5	10 x 22 x 7 18 x 11 x 9	Black Black	Black Knit Black	35 26	899.00 Each 249.00
	LCR 800	THX:	(2)61/2			(2)3⁄4	Domes		±2 80-20	89	100	Lift	4/	22 x 12 x 3	Metal	Knit Black	26 26	249.00 Each 1099.00
(Continued)-		In-Wall														Knit		Each

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SNELL MULTINEDIA (Continued)	SUR 800 SUB 800	In-Wall Dipole Surround THX; In-Wall	5 12	(2)31/2	Cones	(2)1	Domes		125-20 20-80	88 89	100 100		4/ 8/	-12 x 25 x 3 53 x 14 x 7	Metal Black	Black Knlt Black Knit	24 80	799.00 Each
	HCC 800	Subwoof. In-Wall	(2)6 <sup>1</sup> /2			(2)3⁄4	Dames		80-20	89	100		4/	12 x 22 x 3	Metal	Black Knit	26	1099.00 Eact
	LCR 1800	Ctr. Ch.	(2)8			(2)1	Domes	Т	80-20	93	100		4/	25 x 11 x 10	Black Ven.	Black Knit		1499.0 Eac
	HCC 1800	Ac. Sus.	(2)8			(2)1	Domes	Т	80-20	93	100	2k	4/	25 x 13 x 11	Black	Black	45	1499.00 Eac
	SUB 1800	THX; Subwoof.	18						17-80	90	100		8/	45 x 21 x 16	Black Ven.	Black Knit	120	2499.00 Eac
OLO	H500	Ported	(2)8		Horn		Domes	м	45-27 ±3	96	8	1k,18k	8/4	17 x 24 x 19	Chrry	Black Cloth	71	2480.00 Pai
	H300	Dual Compound Closed Box	(4)10		Horn		Domes	M	30-27 ±3	96	8	900, 18k	8/4	39 x 16 x 25	Chrty	Black Cloth	156	3800.00 Pai
OLUS	IR8	In-Wall Inf. Baf.	8			7	Ribbon		50-50 ±3	90	10	2k	8/6	12 x 4	White	White Metal	15	475.00 Each
	IR6	in-Wall Inf. Bat.	61/2			5	Ribbon		58-50 ±3	89	10	2k	8/6	10 x 4	White	White Metal	14	425.0 Eacl
	108	In-Wall Inf. Baf.	8			1	Dome		50-20	90	10	2k	8/6	15 x 12 x 4	White	White Metal	12	375.0 Eac
	ID6	in-Wall Inf. Baf.	61/2			1	Dome		58-20 ±3	89	10	2k	8/6	12 x 10 x 4	White	White Metal	11	290.0 Eacl
ONANCE	45	In-Wall Inf. Baf.	81⁄4			1	Oome	T	35-22 ±2	90	5	2.7k	8/6	16 x 12 x 3	White	Opt., White	11	695.0 Pai
	40	In-Wall Inf. Bat.	8			1	Oome	T	40-20 ±3	89	5	2.8k	8/8	16 x 12 x 3	White	Opt., White	10	525.0 Pai
	\$3500	In-Wall Inf. Baf.	61/2			1	Dome	W,T	45-20 ±2	90.5	1	175,3k	Sel.	12 x 8 x 3	White	Opt., White	10	489.0 Pa
	\$3000	In-Wall Inf. Baf.	61/2			1	Oome	W,T	45-20 ±3	89	5	175,31	Sel.	12 x 8 x 3	White	Opt., White	9	389.0 Pa
	\$2000	In-Wall Inf. Baf.	61/2			5/8	Oome		55-20 ±3	89	5	3.2k	8/8	12 x 8 x 3	White	Opt., White	8	255.0 Pa
	S1000	In-Wall Inf. Baf.	6½			2	Cone		70-19 ±5	90	3	3.5k	8/8	12 x 8 x 3	White White	Opt., White	7	189.0 Pai 325.0
	M300v	In-Wall Int. Bat.	4			1/2	Oome		65-20 ±2	88	5	3.7k	8/7	9 x 6 x 3	White	Opt., White Opt.,	4	240.0
	M200	In-Wall Inf. Baf.	4			1/2	Dome		70-20 ±3 75-15	87 87	5	3.5k	8/8 8/7	9 x 6 x 2 9 x 6 x 2	White	White Opt.	4	Pa 140.0
	M100 PSW2	In-Wall Inf. Baf.	4 8¼			1	Whiz- zer		±5 30-125	87	1	125	8/4	16 x 12 x 3	White	White Dpt.,	14	Pa 460.0
	ASW1S	in-Wall Subwoot. In-Wall	81/4						±3 30-100	92	(2) 25	50/75/100	8/8	16 x 12 x 3	White	White Opt.,	15	Eac 260.0
	SB31	Subwoof. Sealed	4			1	Dome		±2 75-20	87	5	(Sel.) 3.5k	6/3	9 x 5 x 6	Opt.	White Opt.	9	Eac 325.0
	SB11	Sealed	4			-			±3 90-15	85	5		8/6	9 x 5 x 6	Opt.	Opt.	9	Pa 175.0
	MIOR	In-Wall	4				Whiz-		±5 75-15	87	3		8/7	7 Dia. x 3	White	Opt.,	4	Pa 140.0
	S2R	Inf. Baf. Coaxial; In-Wall	6½			1	zer Dome		±5 50-20 ±3	89	5		8/8	10 Dia. x 3	White	White Opt., White	9	285.0 Pa
	S3R	Inf. Bat. Coaxial;	61/2			1	Dome	w	45-20	89	5	175,3k	6/4	10 Dia. x 3	White	Opt.,	9	425.0
	AIS500	In-Wall In-Wall,	4	31/2	Cone	1	Dome		±3 60-20	89	5	3.5k	6/4	16 x 12 x 3	White	White Opt., White	9	499.0 Pa
	MB30	Ambient Ac. Sus.	61/2			1	Dome		±5 60-20 ±3	91	5	3.2k	8/6	13 x 8 x 9	Opt.	Dpt.	21	499.0 Pa
	MB20	Ac. Sus.	61⁄2			1	Dome		± 3 65-20 ± 3	89	5	3k	8/6	13 x 8 x 9	Opt.	Opt.	16	399.0 Pa
	DL1	Powered Ac. Sus.									50 Inc.	40-150 (Adj.)		14 x 12 x 11	Black Wood	Black Knit	27	499.0 Eac
	OL3	Subwoof. Powered Ac. Sus. Subwoof.	15								100 Inc.	40-150 (Adj.)		21 x 17 x 19	Vinyl Black Wood Vinyl	Black Knit	55	999.0 Eac
ONIC Systems	Omniflex	Bass Ref.	16			2	Deme		27-20 ±3	95	10	1.3k	8/7	21 Dia. x 39	Black	None	80	1500.0 Eac
ONY	SS-EX5		8			3/4	Dome		50-20	90	10	3.5k	8/	11 x 18 x 10	Black Dak	Black Knit	141/2	225.0 Pa
	SS-TL4	Trans. Line	61/2	4	Cone	1	Deme		35-25	89	10	600,5k	8/	10 x 40 x 12	Vinyl Black Oak	Black Knit	393⁄4	480.0 Pa
	SS-U310		6			1	Cone		60-20	89	10	lin Le	6/	10 x 16 x 9	Vinyi Oak	Black	111/4	140.0
	SS-U610	Ac. Sus.	12	3	Cone	2	Cone		50-20	92	10		8/	16 x 30 x 11	Vinyl Oak	Knit Black	29½	280.0
	SS-U910	Pas. Rad.	(2)12	3	Cone	2	Cone		45-20	92	10	i	8/	16 x 40 x 11	Vinyl Oak Vinyl	Knit Black Knit	36	Pa 420.0 Pa
	SA-VA3 (w/Doiby Pro Logic)	Powered	61⁄2	5	Cone	2	Cone	w	35-20 ±3		90 inc.	80,4.5k		41 x 12 x 8	Viny <del>i</del> Gray	Gray	621/2	Pai 949.0 Pai



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SONY ES	SS-M3	Sealed	61/2			1	Dome	NO	70-20 ±3	85	10	2k	8/5.5	18 x 12 x 12	Chrry	Black Knit	27	750.00 Pair
1	SS-M7	Sealed	8	41/2	Cone	1	Dome	No	47-20 ±3	86	20	400,4k	8/4.5	29 x 16 x 15	Chrry	Black Knit	53	1250.00 Pair
SOTA	Time Domain	Sealed Box	8			1	Inv. Dome		40-22 ±3	89	50	2.5k	8/4	32 x 12 x 16	Oak	Black Foam	55	1500.00 Pair
	Time Domain Panorama Time Domain		8	7	Cone	1	lnv. Oome		60-22 ±3	89	50	2.5k	8/4	16 x 12 x 12	Oak	Black Foam	32	1900.00 Pair
	2 Time Domain	Sat. &	8	7	Cone	1	linv. Oome linv.		37-22 ±3 40-22	89 89	50 50	125,2.5k 125,2.5k	8/4 8/4	40 x 14 x 16 Two Pieces	Oak Oak	Black Foam Black	80 97	2200.00 Pair 3500.00
SOUNO	4	Subwoof.	294			·	Dome		± 3 70-20					Per Side		Foam	Side	Sys.
ADVANCE		Planar	Sq. In.						±5	90	25	1k	4/3.5	21 x 14 x 3	Hid- den; flush	Paint, wall- paper,	71/2	995.00 Pair
												and a	1.50		with	etc.		
SOUND DYNAMICS	R-818	Bass Ref.	(2)81/2			1	Dome		34-20 ±3	90	40	2.2k	8/6	43 x 10 x 14	Black Ash	Black		700.00 Pair
	R-616	Bass Ref.	(2)61/2	1		1	Dome		39-20 ±3	89	40	2.2k	8/6	39 x 9 x 11	Black Ash	Black		550.00 Pair
	R-515 R-85	Bass Ref. Bass Ref.	(2)5¼ 8			1 3⁄4	Dome		45-20 ±3	89	40	2.2%	8/6	32 x 8 x 9	Black Ash	Black		450.00 Pair
	R-65	Bass Ref.	6 <sup>1</sup> /2			1/2	Dome Oome		45-20 ±3 48-20	89 87	30 30	2.2k 2.5k	6/4 6/4	19 x 10 x 10 13 x 8 x 10	Black Ash Black	Black Black		280.00 Pair 200.00
	R-55	Bass Ref.	51/4			1/2	Dome		±3 60-20	86	30	3.5k	6/4	11 x 8 x 10	Ash Black	Black		Pair 150.00
12.16	Cinesat-2	Bass Ref.	41/2			1/2	Dome		±3 140-22	86	15	3.5k	8/6	8 x 5 x 5	Ash Opt.	Opt.	5	Pair 249.99
	Cinesub	4th Order Bandpass	(2)61/2						45-140	86	15	140	6/4	13 x 7 x 16	Black	Black	20	Pair 199.99
	Cinecenter	Subwoof. Oual	(2)4 <sup>1</sup> /2			1/2	Dome		65-20	90	15	2.5k	12/8	6 x 20 x 8	Ash Black	Black	15	Each 149.99
	A Sub-15	Vented Powered	15					sw	20-150		180	Var.		19 x 20 x 20	Ash Black	Black	68	Each 900.00
	A Sub-12	Bass Ref. Subwoof.	12						02.450		inc.	14-			Ash			Each
	500ti	Powered Subwoof. Bass Ref.	12 (2)8	41/2	Cone	3/4	Dome	W	23-150 27-22	88	90 Inc. 50	Var. 100,3k	6/4	17 x 18 x 20 39 x 13 x 11	Black Ash	Black	52	500.00 Each
	400ti	Bass Ref.	10	41/2	Cone	3/4	Dome		±2 30-22	88	40	900,3k	6/4	33 x 13 x 11	Opt., Wood Opt	Opt. Opt.	52 43	1050.00 Pair 800.00
	300ti	Bass Ref.	8	41/2	Cone	3/4	Dome		±2 34-22	87	35	900,3k	6/4	24 x 11 x 11	Opt., Wood Opt.,	Opt.	31	Pair 600.00
	20011	Bass Ref.	8			3/4	Oome		±2 40-21	87	30	1.8k	6/4	20 x 11 x 9	Wood Opt.,	Opt.	18	Pair 450.00
	100ti	Bass Ref.	61/2			3/4	Oome		±2 45-21 ±2	86	30	1.9k	6/4	16 x 10 x 9	Wood Opt., Wood	Opt.	13	Pair 300.00 Pair
	50ti	Bass Ref.	51/4			3/4	Dome	ļ	55-20 ±2	85	30	2k	6/4	12 x 7 x 8	Opt., Wood	Opt.	10	220.00 Pair
	65 S 45 S	Bass Ref.	(2)12	41/2	Cone	1/2	Dome	Į	30-20	94	30	800,3.5k	8/4	42 x 14 x 11	Black Ash	Black	49	600.00 Pair
	25 S	Bass Ref. Bass Ref.	12 8	41/2 41/2	Cone Cone	1/2 1/2	Dome Dome		35-20 40-20	94 91	30 30	800,3.5k 800,3.5k	8/4 8/4	32 x 14 x 11 24 x 10 x 11	Black Ash Black	Black Black	33 19	500.00 Pair 350.00
	15 \$	Bass Ref.	8			1/2	Dome		45-20	90	20	3.5k	8/4	16 x 10 x 8	Ash Black	Black	14	Pair 250.00
SOUND LAB	Dynastat	ES &	101/2	·		48x10	ES	W,T	28-22	88	50	150	8/6	72 x 17 x 3	Ash Opt.,	Opt.	75	Pair 2700.00
	A-1	Dynamic ES						W,T	±2 30-22	84	100		8/3	81 x 35 x 11	Wood Opt.,	Opt.	185	Pair 10,956.
	A-1 Ultimate	ES						<u>₩,</u> М,	±2 25•22	88	100		50/2	82 x 37 x 27	Wood Gloss	Black	210	Pair 17,790.
	A-3	ES						T W,T	32-22	84	100		8/3	73 x 35 x 11	Black	Span- dex Opt	145	Pair 7990.00
	A-5	ES						W,T	±2 34-22	84	100		8/3	73 x 35 x 11 72 x 28 x 8	Opt. Wood Opt.,	Opt. Opt.	145 152	7990.00 Pair 7990.00
	B-1	ES						w	±2 20-350	86	100	To 350	16/16	81 x 44 x 5	Wood Opt.,	Opt.	220	Pair 6725.00
	B-3	Subwoof. ES Subwoof.						w	±2 20-350	86	100	To 350	16/16	73 x 44 x 5	Wood Opt.,	Opt.	210	Each 6725.00
	8-5	ES Subwoof.						w	±2 22-350 ±2	84	100	To 350	50/50	72 x 57 x 28	Wood Opt., Wood	Opt.	185	Each 5880.00 Each
100	Pristine	ES						W,T	34-22	88	100	5		60 x 28 x 27	Satin Black	Opt., Knit	100	4990.00 Pair
SOUNDS EXCLUSIVE	R45	Vented	(2)5	(2)5	Cones	1	Dome		40-25 ±3	90	60	300,3.5k	8/6	8 x 12 x 44	Opt.	Black Knit	70	3595.00 Pair
	R35	Sealed	61/2	(2)4	Cones	1	Dome	1	45-25 ±3	90	60	450,3.5k	8/6	8 x 12 x 28	Opt.	Black Knit	45	2595.00 Pair
	R15	Vented	61/2			1	Oome		50-30 ±3	90	30	2k	4/3.5	8 x 12 x 18	Opt.	Black Knit	20	1200.00 Pair
SOUNDWAVE	Point Source 4.0	Inf. Baf.	(4)8			(2)1	Domes		29-20 ±3	90	60	100,2k	5/3.5	14 x 17 x 44	Black Acryl.	Black Knit	87	3600.00 Pair
	Point Source 3.0 Point Source	Inf. Baf.	(2)8			(2)1	Domes		35-20 ±3	90	50	2k	5/5	12 x 17 x 42	Black Acryl.	Black Knit	57	2500.00 Pair
(Continued)	2.0	Inf. Baf.	(2)8			1	Dome		39-20 ±3	90	40	21	5/5	12 x 17 x 40	Black Acryl.	Black Knit	52	1890.00 Pair

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"What if, at heart, the real passion of an amplifier manufacturer wasn't electronics, but MUSIC? Such a company might one day offer a loudspeaker worthy of its reputation. That day has come for Counterpoint, whose towering first speaker takes an immediate place among the finest of any design at any price." — Lawrence B. Johnson, Audio Video Interiors, January '93.

Vol. 15, No. 8.

Lawrence B. Johnson, Audio Video Teceve Co-Interiors, January '93.
"Even more important, the Mets were always musical. The most effective word I can think of to describe their overall, long-term performance was "smooth." Music simply flowed effortlessly out of Counterpoint's flagship speaker. I could easily live with the Mets for months, even years." —Jack English, Stereophile, August '93,

The Clearfield Metropolitans were awarded MOST INNOV-ATIVE NEW PRODUCT, 1992 at the CES Design and Engineering Exhibition.

If you're looking for a new speaker, *read our clips*. "The Continental has a way of sonically disappearing into the room - of disassociating its physical self from the recorded event to where, if the eyes are closed, only the music remains. Its presentation and the vividness of its imagery is tactile to a degree that I am tempted to say that "seeing is believing." —Martin G. DeWulf, Bound for Sound, No. 6a/92.

"The Metropolitan's cabinetry and workmanship are toprate...I particularly liked their imaging capabilities and ability to let you listen through the systems and hear subtleties in a recording...the Metros are serious high-end contenders."—D.B. Keele, Jr., Audio, July '93.

"...The impressive and reasonably priced Metros were driven by Counterpoint's gorgeous new monoblocks." — Robert Harley, Stereophile, April '92, Vol. 15, No. 4.

"The pride of this new line is an imposing, beautifully crafted tower dubbed the Metropolitan (\$6000/pair)



"...The sound had an airy, detached-from-the-speakers quality that's rare in speakers of their size, bass response, and dynamic capability..." —Robert Deutsch, Stereophile, April '92, Vol. 15, No. 4. After listening a few minutes, I asked designer Albert Von Schweikert if he was a musician. He beamed and said, 'Yes, a pianist.' Indeed, his speakers are finely tuned instruments." —Lawrence B. Johnson, CD Review

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MANUFACTURE	f		(		4		1	50	W. P. P.	5	19	8° C10						
SOUNDWAVE (Continued)	Point Source 1.0 VR-3	Inf. Baf. Inf. Baf.	(2)8 (2)8			1 (2)1	Dome Domes		47-30 ±3 32-21	90 90	30 50	2k 2.5k	5/5 8/5	12 x 17 x 21 10 x 11 x 40	Black Acryl. Black	Black Knit	37 52	1390.00 Pair 1590.00
	VR-2	Inf. Bat.	(2)8			1	Dome		±3 37-21	90	40	2.5k	8/5	10 x 11 x 38	Acryl. Black	Black Knit Black	47	Pair 1290.00
	VR-1	Inf. Baf.	8			11	Dome		±3 42-20	88	30	2.5k	8/5	10 x 11 x 35	Acryl. Black	Knit Black	37	Pair 890.00
	Dialogue Center Channel	inf. Baf. Ctr. Ch.	8			1	Dome		±3 50-20 ±3	88	30	2.5k	8/5	9 x 21 x 11	Acryl. Black Acryl.	Knit Black Knit	30	Pair 490.00 Each
SOURCE TECHNOLOGIES	1	Bass Ref.	8			1	Dome	T	55-20 ±3	90	20	2.5k	8/6	11 x 9 x 18	Opt.	Black Knit	22	495.00 Pair
	2	Bass Ref.	8			1	Dome	T	45-20 ±3	90	20	2.5k	8/6	11 x 11 x 36	Opt.	Black Knit	45	695.00 Pair
	2B 3B	Bass Ref. Bass Ref.	8 10			1,2	Dome, Cone Dome,	(2) T	45-20 ±3	90 90	30 40	2.5,4k	8/6	11 x 11 x 36	Opt.	Black Knit Black	46 58	795.00 Pair 995.00
	3B 4B	Bass Ref.	(2)10			1,2	Cone Dome	(2) T (2)	35-20 ±3 28-20	90 91	40 60	1.7k,4k 200,1.7k,	8/6 6/4	14 x 11 x 38 15 x 11 x 42	Opt. Opt.	Black Knit Black	58 82	995.00 Pair 1795.00
	5B	Powered	10,12			1,2	Cone Oome,	f (2) T	±3 23-20	91	80;	4k 150,1.7k,	8/6	17 x 11 x 48	Opt.	Knit Black	125	Pair 2795.00
- S.	E.1	Bass Ref.	(2)4			1	Cone Dome	T	± 3 50-20	90	150 Inc. 20	4k 2.5k	6/5	7 4 7 4 15		Knit	14	Pair 295.00
	E-1 ESRC	Bass Ref. Bass Ref.	(2) <b>4</b> 4			(2)2	Cones	т	±3 60-10	90 89	20 20	2.5K 2k	6/5 8/6	7 x 7 x 15 7 x 7 x 12	Opt. Opt.	Black Knit Opt.,	14 12	295.00 Pair 295.00
Ē	ESC	Bass Ref.	(2)5			3/4	Doma	т	±3 60-20	90	20	3k	6/5	19 x 9 x 7	Gloss Gloss	Knit Black	18	Pair 395.00
6	ERC	Trans.	<mark>(2)</mark> 4			(2)2	Cones	T	±2 45-10	89	20	2k	6/5	7 x 7 x 36	Black Gloss	Knit Black	32	Each 449.00
	EST.6	Line Bass Ref.	6			-1	Dome		±3 50-20 ±2	88	40	2.7k	8/6	8 x 10 x 34	Black Gloss Black	Knit Black Knit	42	Pair 549.00 Pair
	EST-1	Bass Ref.	8			1,2	Dome, Cone	T	40-20 ±2	89	40	2.2k	8/6	14 x 11 x 34	Opt.	Black Knit	56	795.00 Pair
	EST-2 E Sub	Bass Ref. Bass Ref.	10 12	6	Cone	1,2	Dome, Cone	T	35-20 ±2 25-70	90 90	60 60	200,2.5k 70	8/6 8/5	15 x 11 x 42 22 x 16 x 14	Opt.	Black Knit Black	86 52	1495.00 Pair 395.00
	EP Sub	Subwoof. Powered	12		1				±2 22-125	90	150	55-125	8/6	22 x 10 x 14	Opt. Opt.	Black Knit Black	52 67	Each 795.00
<b>-</b> 17	KR-1	Subwoof. Trans.	8			1	Dome		±2 27-20	89	inc. 70	(Var.) 2.2k	8/6	37 x 11 x 14	Opt.	Knit Black	66	Each 1950.00
	ST-2	Line Bass Ref.	8			1	Dome	; I	±2 40-20 ±2	89	70	2.2k	8/6	11 x 9 x 19		Knit Black Knit	34	Pair 1295.00 Pair
SPEAKER ART	Proklaim N	Vented	87/8			3/4	Inv. Dome		28-21 ±3	90	100	2.2k	8/4	12 x 14 x 42	Resin	Foam	100	10,000. Pair
	Odyssey	Vented	83⁄4			11/8	Dome		34-21 ±3	92	100	1.5k	8/4	12 x 14 x 27	Opt., Wood	Black Nylon	45	7500.00 Pair
9 - 16 B	Aura	Vented	81/8			1	Dome		30-22 ±3	93	35	1.7k	4/3	12 x 12 x 42	Oak	Black Nylon	55	1600.00 Pair
AU	Clef Concept	Vented Sealed	81/8 81/8			1	Dome Dome		33-22 ±3 37-21	92 90	35 10 <b>0</b>	1.7k 1.2k	8/4 8/4	11 x 13 x 21 11 x 13 x 21	Oak Oak	Black Nylon Black	45 45	950.00 Pair 1050.00
	Thunder	Sat. &	61/2	4		1/2	Dome		±3 38-21	89	100	150,4k	4/3	Three Pieces	Black	Nylon Black	45	Pair 499.00
		Bandpass Subwoof.							± 3	_						Fabr.	Sys.	Sys.
SPEAKERLAB	DAS2	Bass Ref.	5	-		3/4	Dome		50-20 ±3	88	10	2.5k	8/6	13 x 7 x 9	Oak	Błack Knit	13	239.00 Pair; Kit, 189.00
	SL3	Bass Ref.	61⁄2			3/4	Dome		42-20 ±3	89	10	2.5k	8/6	18 x 9 x 10	Oak	Black Knit	21	389.00 Pair; Kit, 299.00
	SL4	Bass Ref.	(2)61⁄2			1	Dome		35-20 ±3	91	10		4/3	32 x 10 x 12	Oak	Black Knit	41	499.00 Pair; Kit,
	DAS6	Bass Ref.	10,8			1	Dome		30-20 ±3	93	10	180,2.5k	4/3	36 x 12 x 14	Oak	Black Knit	62	429.00 799.00 Pair; Kit,
	DAS7	Bass Ref.	12,10	6½	Cone	1	Dome		25-20 ±3	93	20	180,350, 4k	4/3	39 x 14 x 16	Oak	Black Knit	86	589.00 999.00 Pair; Kit,
	DAS/SW	Bass Ref. Subwoof.	10						30-180 ±3	91	10	180	8/7	23 x 14 x 16	Oak	Black Knit	43	799.00 329.00 Each; Kit,
	SL-C	Ctr. Ch.	(2)6½			1/2	Dome		60-20 ±3	89	10	3k	4/3	23 x 8 x 10	Oak	Black Knit	25	240.00 299.00 Each; Kit.
	SL-88	Bandpass Subwoof.	<mark>(2)</mark> 8	1					22-150 ± 3	90	10	150	4/3	14 x 16 x 23	Oak		74	239.00 359.00 Each
SPEAKER- WORLD TECHNOLOGY	Sat I Sat II	Ac. Sus. Sat. Ac. Sus.	5 6½			1	Dome Dome		65-18 ±3 60-18	88 87	30 30	3.5k 3.5k	8/4 8/4	11 x 8 x 5 12 x 8 x 8	Biack Text. Biack	Black Foam Black	10 13	150.00 Pair 200.00
(Continued)		Sat.							± 3						Text.	Foam		Pair





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SPEAKER- WORLD	2000	Tuned Port	61/2			1	Dome	40-18 ± 3	90	20	3k	8/4	16 x 12 x 8	Black	Black	22	400.00
TECHNOLOGY (Continued)	Saturn	Tuned Port	8		1	1	Dome	35-18	89	35	3k		14 x 12 x 10	Lacq. Dak	Knit Black	80	Pali 800.00
(continueu)	Sub 2000	Tuned Port Subwoof.	12					±3 39-100 ±3	89	20	100	4/4	18 x 19 x 8	Black Text.	Knit Black Foam	56	Pair 400.00 Each
	Ultimate	Tuned Port	12	61⁄2	Cone	1	Dome	30-20 ± 3	89	40	200,4k	8/6	38 x 15 x 12	Dak	Black	80	800.00
	Rosemary II	Pas. Rad.	10	5	Cone	1	Dome	30-20	89	50	700,4k	8/4	36 x 14 x 12	Black	Knit Black	70	Pair 500.00
	IW-1	In-Wall	51⁄4			3⁄4	Dome	70-20	90	30	3k	8/4	10 x 7 x 3	Text. White Plast.	Knit White Steel	5	Pair 105.00 Pair
SPECD	DMS-2		3	2	Cone			60-20 ±3	90	20		8/	6 x 3 x 3	ABS	Black		69.95
	DMS-3		4	2	Cone	1	Dome	±3 55-20 ±3	90	30		8/	7 x 5 x 4		Opt.		Pair From 109.50
	DMS-6		5	2	Cone	1	Dome	55-20	90	40			9 x 6 x 5	Plast.	Black	5	Pair 139.95 Pair
SPECTRUM Audio	106c	Bass Ref.	6			3/4	Dome	59-20 ±4	90	30	4k	8/6	13 x 9 x 6	Vinyl	Black	8	199.00
	108c	Bass Ref.	8			3/4	Dome	49-20	90	30	3k	8/6	15 x 12 x 10	Vinyl	Knit Black	17	Pair 349.00
	208c	Bass Ref.	8			3/4	Dome	±3 29-20	90	50	2.5k	8/6	26 x 15 x 11	Vinyl	Knit Black	40	Pair 599.00
	1000	Bass Ref.	(2)8	3	Dome	1	Dome	±3 25-25 ±2	90	50	100,800, 5k	6/3	47 x 16 x 12	Solid Wood	Knit Biack Knit	95	Pair 2500.00 Pair
SPENOOR	LS3/5A	Inf. Baf.	5		-	3/4	Dome	90-20	82.5	25	3.5k	11/	12 x 7 x 6	Opt., Wood	Black	11	896.00
	S20	inf. Baf.	61⁄2			3/4	Dome	±3 70-20	84	20	4k	8/	15 x 8 x 10	Ont.	Knit Black	21	Pair 1140.00
	Prelude 2/2	Bass Ref.	8			1	Dome	±3 60-20	90	15	3k	8/	20 x 10 x 11	Wood Opt.,	Knit Black	27	Pair 1090.00
(Continued)	SP2/2	Bass Ref.	8			1	Dome	±3 60-20 ±3	88	15	3k	8/	20 x 10 x 11	Opt., Wood Opt., Wood	Knit Black Knit	27	Pair 1290.00 Pair



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SPENDOR (Continued)	SP1/2	Bass Ref.	8	ſ		(2)3/4,	Domes		45-20 ±3	89	15	3k,13k	8/	25 x 12 x 12	Opt., Wood	Black Knit	37	1950.0 Pal
r	S100	Bass Ref.	12	6	Cone	3/4	Dome		48-20 ±3	89	20	600,4k	8/	27 x 14 x 17	Opt., Wood	Black Knit	80	2990.0 Pai
	250 450	Powered Inf. Baf. Powered	6 <sup>1</sup> /2 8			3/4 3/4	Oome Dome		70-20 +0,-3 60-20	102 108	Inc.	4k 3k	8/ 8/	16 x 9 x 12 21 x 11 x 15	Opt., Wood Opt.,	Black Black	30 44	5500.0 Pai 8000.0
	1200	Bass Ref. Powered	12	6	Cone	3/4	Dome		+ 0,-3 48-20		100 Inc.				Wood			Pai
	1200	Bass Ref.	12	0	COME	74	DOILIE		+0,-3	112	(3) 100 Inc.	600,4k	8/	28 x 15 x 19	Opt., Wood	Black	101	10,000 Pai
SPICA	SC-30	inf. Baf.	8			11/2	Cone		54-27 ±3	88	25	3k	8/	23 x 10 x 12	Opt., Vinyl	Black Cloth	28	399.0 Pai
	Angelus TC-50	Inf. Baf. Inf. Baf.	8			1	Dome		35-17.5 ±3	87	25	3.4k	8/5.8	46 x 21 x 10	Opt., Wood	Black Cloth	65	1275.0 Pai
SRS LANS	DRB-1		61/2 41/2			1	Dome		58-16.5 ±3	84	25	2.7k	4/3.6	13 x 16 x 12	Opt., Wood	Black Cloth	20	550.0 Pai
	ORB-2	Sat. Sat.	4 1/2 4 <sup>1</sup> /2			1/2 3/4	Dome Dome		65-22 ±3 55-22	88 89	10 10			10 x 7 x 10 10 x 7 x 10	Gray ABS Opt.	Black Metal Opt.		239.0 Pai 319.0
	BASER-1	Subwoof.	(2)8						±3 30-80	88	10			15 x 11 x 23	Gray	Black Fabr,		Pai 379.01 Eacl
SSI	HT-2	Sat.	4			1	Dome	1	90-22		20		8/6	6 x 8 x 5	Black	Black Knit	61/2	129.0 Pai
SOUND	HT-3	2 Sats.& Ctr. Ch.	4			1	Dome		90-22		20		8/6	Three Pieces	Black	Black Knit	17 Sys.	199.0 Sys
	HT-5 CC-2	4 Sats.& Ctr. Ch.	4			1	Dome		90-22		20	-5.2 *	8/6	Five Pieces	Black	Black Knit	Sys. 28 Sys.	299.0 Sys
	SW-2	Ctr. Ch. Subwoof.	7			1	Dome		90-22 40-7		20 60		8/6 8/6	6 x 8 x 5 14 x 14 x 14	Black Black	Black Knit Black	7 27	79.0 Eac 179.0
STANHOPE	KW-1	Ported,	(2)8	(2)51/4	Cones	1	Oome		35-18	89	60	250,2.5k	4/2.8	17 x 19 x 42	Opt.	Knit Black	94	Eac 3000.0
SYSTEMS STEREOSTONE	Sub-Rock	Push-Pull Outdoor	(2)10	-					30-180	91	60	180	8/4	22 x 20 x 19	Opt.,	Knit	60	Pai 699.0
	Sierra Stone	Subwoof. Dutdoor	61/2			1/2	Dome		+ 0,-3 55-20	89	15	2.8k	8/3	13 x 9 x 9	Sím. Rock Opt.,	Opt.	22	Eac 299.0
									± 3						Sim. Rock			Eac
	Classic Stone	Outdoor	61/2			1/2	Dome		55-20 ±3	89	15	2.8k	8/3	19 x 12 x 10	Opt., Sim. Rock	Opt.	30	299.0 Eac
	Omni Stone	Outdoor	8			3/4	Dome		38-20 ±3				8/3	19 x 12 x 17	Opt., Sim.	Opt.	35	399.0 Eac
	Corner Stone	Outdoor	8			3/4	Dome		38-20 ±3				8/3	19 x 15 x 11	Rock Opt., Sim.	Opt.	39	430.0 Eac
	Yosemite Stone	Outdoor	8			3/4	Dome		38-20 ±3				8/3	19 x 12 x 15	Rock Opt., Sim.	Opt.	39	430.0 Eac
	Stereo Stone	Outdoor	(2)8			(2)3⁄4	Domes		38-20	91	25	1.5k	8/3	23 x 20 x 19	Rock Opt.,	Opt.	55	650.0
	Stereo Rock	Outdoor	(2)8			(2)3/4	Domes		±3 38-20	91	25	1.5k	83	24 x 20 x 18	Sim. Rock Opt.,	Opt.	55	Eac 650.0
									±3						Sim. Rock			Eac
	Mirage Fountain	Outdoor	(2)8			(2)3⁄4	Domes		38-20 ±3	91	25	1.5k	8/3	22 x 20 x 19	Opt., Sim. Rock	Opt.	60	825.0 Eac
SUMIKOV SONUS FABER	Extrema	Sealed	71/2			11/4	Dome		27-30 ± 2.5	88	50	2.2k	4/3.5	18 x 11 x 22	Opt.	Black Silk	87	9890.00 Pai
	Electa Amator	Ported	7			11/4	Dome		42-30 ±2.5	89	50	2.2k	6/4	14 x 8 x 10	Opt.	Black Silk	35	5000.0 Pai
	Electa Minima	Ported Ported	7 5½			1	Dome		50-20 ±3 55-25	88 88	30 30	2k 2.4k	6/4 6/4	14 x 10 x 9 11 x 8 x 9	Wal. Wal.	Black Silk Black	31 21	2750.0 Pai 2500.0
	Amator Minuetto	Ported	61/2			1	Dome		±3 60-20	87	30	2.2k	6/4	12 x 9 x 8	Wal.	Silk Brown	26	Pai 1500.0
UPERIOR	SX-1	Powered	51/4					w	± 3 40-250	88	40	72-250	87	9 x 9 x 9	Black	Silk Black	12	Pa 250.0
UDIO	SX-2	Subwoof. Powered Subwoof.	51⁄4					w	±3 40-250 ±3	88	fnc. 40 Inc.	(Adj.) 72-250 (Adj.)	8/	9 x 9 x 9	<u>Black</u>	Black	10	Eac 300.0
	SX-3	Powered Subwoof.	10					w	±3 30-250 ±3	90	80 Inc.	(Adj.) 72-250 (Adj.)	8/	12 x 12 x 12	Black	Black	25	Eac 400.0 Eac
SWANS SPEAKER	Black Swan	2 Sats.& 2 Subs.	131/2	(2)51/4	Cones	1	Dome		25-30 ±3	87	90	100,3k	6/4	Four Pieces	Opt.	Black Foam	300 Sys.	10,500 Sys
SYSTEMS	Leda Gemini Cygnus	2 Sats.& 2 Subs.	13½ 12	(2)5 <sup>1</sup> ⁄4 (2)5 <sup>1</sup> ⁄4	Cones Cones	1	Dome		25-30 ±3	87 87	90	100,3k	6/4	Four Pieces	Opt., Wood	Biack Foam	Sys. 300 Sys.	8000.0 Sys
	Crystal 60-18		12 (2)61/2	(2)3%4	Cones	1	Oome Dome		27-30 ±3 60-18	87 88	90 80	100,3k 3k	6/4 8/4	42 x 16 x 16 40 x 10 x 10	Opt., Ven. Rswd.	Black Foarn Cloth	125 32½	5995.0 Pai 3000.0
	FL1	Ported	7			1	Oome		58-18	90	25	3k	8/4	40 x 10 x 10	Wal.	oloui	25	Pai 1800.0
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# LOUDSPEAKERS WOT Shere S

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ANUFACTURER	<u> </u>	Í.	10	1		1	Dome	<u> </u>	25-25	88	1	100,2.3k	8/4	13 x 13 x 48	Opt.	Opt.,	100	4500.00
YMDEX AUOIO YSTEMS	Epsilon Signature Gamma Signature	Ported Ported	10	7	Cane Cone	1	Dome		45-25	88		2.3k	8/4	6 x 10 x 44	Opt.	Knit Opt., Knit	40	2250.00 Pair Pair
YMPHONIC	RG5 MKII	Sealed	8			11/2	Dome		35-22 ±3	91	50		8/4	10 x 15 x 40	Pearl Lacg.	None	85	7000.00 Pai
ADDEC	Arpeggio	Tran- sition Load	61/2			11/8	Dome		34-25 ±3	91	10	2k	8/5	12 x 9 x 41	Oak	Black	62	2295.0 Pai
ANNOY	C-5	Bass Ref.	5			3/4	Dome		58-20	87	15		6/4	12 x 7 x 7	Opt.	Black Knit	9	229.0 Pai
	C-6	Bass Ref.	61/2			3/4	Dome		50-20	88	15		6/4	14 x 8 x 8	Opt.	Black Knit	10	299.0 Pai
	C-8	Bass Ref.	8			1	Dome		45-20	90	15		6/4	19 x 10 x 8	Opt.	Black Knit	18	399.0 Pai
	C-10	Bass Ref.	10			1	Dome		38-20	91	15		6/4	24 x 12 x 10	Opt.	Black Knit	27	499.0 Pai
	C-88	Bass Ref.	(2)8			1	Dome		35-20	92	15		6/4	35 x 11 x 14	Opt.	Black Knit	45	699.0 Pai
	D-700	Tuned Port; Dual Concent.	(2)10			1	Dome		35-30	93	30	200,1.5k	6/4	45 x 18 x 17	Opt.	Black Knit	90	4995.00 Pai
	Stirling TW	Var. Dst. Port	10			1	Oome		35-25	93	30	1.3k	8/5.5	28 x 20 x 12	Wal.	Beige Knit	60	5000.00 Pai
	Edinburgh TW	Dst. Port	12			11⁄4	Dome		30-25	95	50	1.2k	8/5.5	40 x 26 x 17	Wal.	Beige Knit	96	6500.0 Pai
	GRF Memory TW	Ducted Port; Oual	15			11/4	Dome		29-25	95	50	1k	8/5.5	44 x 32 x 19	Wal.	Beige Knit	184	7500.0 Pai
	Westminster TW	Concent. Compd. Horn; Dual	15			11⁄4	Dome		18-25	99	50	300,1k	8/5.5	51 x 41 x 25	Wal.	Beige Knit	290	12,500 Pa
	603	Concent. Ducted	5			1	Dome		6 <mark>0-30</mark>	86	10	3.5k	6/4	13 x 8 x 6	Opt.	Black	87⁄8	299.0 Pa
	605	Port Ducted	61/2			1	Dome		5 <mark>5-3</mark> 0	87	10	3.5k	8/6	<mark>15</mark> x 11 x 7	Opt.	Black	15 <sup>3</sup> /8	399.0 Pa
	607	Port Ducted	8			1	Dome		50-30	88	10	3k	8/6	19 x 12 x 9	Opt.	Black	19%	599.0 Pa
	609	Port Point Source, Ducted	8			1	Dome		46-30	89	10	2.5k	8/5	19 x 12 x 9	Opt.	Black	22	699.0 Pa
	611	Port Point Source, Ac. Sus.	8	8	Cone	1	Dome		45-30	91	10	400,2.5k	8/5	27 x 12 x 9	Opt.	<mark>8la</mark> ck	33	899.0 Pa
	613	Point Source,	61/2	61/2	Cone	1	Dome		44-30	90	10	400,2.5k	6/4	35 x 11 x 7	Opt.	Black	33	1199.0 Pa
	615	Pas. Rad. Point Source, Pas. Rad.	8 <sup>1</sup> /2	8½	Cone	1	Dome		4 <mark>1-30</mark>	92	10	400,2.5k	6/4	38 x 12 x 9	Opt.	Black	46	1599.0 Pa
C SOUNDS	TC Sub O	Powered Subwoof.	(2)15					W	12-100 +0,-3		350 Inc.	Adj.		42 x 19 x 20	Lacq.	Black Knit		2295.0 Eac
	TC Sub 1	Powered Subwoof.	15					W	12-100 + 0,-3		250 Inc.	Adj.		23 x 19 x 20	Lacq.	Black Knit		1795.0 Eac
	TC Sub 2	Powered Subwoof.	12					W	20-100 + 0,-3		200 Inc.	Adj.		20 x 16 x 20	Lacq.	Black Knit		1295.0 Eac
	TC 1	Coaxial		51/2	Flat Piston	11/2	Ribbon		65-20 ± 1.5	90	50	2.5k	8/4	50 x 11 x 10	Lacq.	8lack Knit		2495.0 Pa
	TC 2	Coaxial		51/2	Flat Piston	11/2	Ribbon		70-20 ±2	90	50	2.5k	8/4	14 x 9 x 10	Lacq.	Black Knit		1995.0 Pa
	TC 3	Coaxial		6	Cone	1	Dome		50-19 ±3	87	50	3.5k	6/4	14 x 9 x 10	Lacq.	Black Knit		895.0 Pa
DL	Reference Standard	Trans. Line	(2) 12x	(2)6	Cones	(2)1, ¥4	Domes		16-35	87	50	200,3.5k, 13k	8/4	48 x 22 x 20	Opt., Wood	Opt., Knit	154	10,000 Pa
	Monitor	Trans. Line	81/4 12x 81/4	6	Cone	1,3⁄4	Domes		1 <mark>8-3</mark> 5	87	40	30 <b>0</b> ,3.5k, 13k	8/4	45 x 12 x 19	Ven. Opt., Wood Ven.	Opt., Knit	103	6000.0 Pa
	Studio 4	Trans. Line	12x 8¼	6	Cone	1	Dome		1 <mark>9-20</mark>	87	40	300,3.5k	8/4	43 x 12 x 17	Opt., Wood Ven.	Opt., Knit	66	4000.0 Pa
	Studio 3	Trans. Line	(2)8			1	Dome		20-20	87	30	3k	8/4	37 x 12 x 16	Opt., Wood Ven.	Opt., Knit	59	3000.0 Pa
	Studio 1	Trans. Line	61/2			1	Dome		28-20	86	30	3k	8/4	28 x 9 x 13	Opt., Wood	Opt., Knit	40	1800.0 Pa
	Studio 0.5	Trans. Line	51/2			1	Dome		3 <mark>0-</mark> 20	85	30	3k	6/4	24 x 8 x 12	Ven. Black Wood Grain	Black Knit	30	1200.0 Pa
	Studio 1m	Trans. Line	61/2			1	Dome		28-20	86	30	2k	8/	30 x 9 x 13	Opt., Wood	Opt.	50	2500.0 Pa
	Studio 0.75m	Trans. Line	5 <sup>3</sup> /8			1	Dome		30-20	85	30	2k	<b>B</b> /	26 x 8 x 12	Opt., Wood	Opt.	35	2000.0 Pa
	RTL3	Trans. Line	(2)63/4			1	Dome		35-20 40-20	90 87	20 20	3k 3k		34 x 8 x 15 28 x 8 x 9	Opt., Wood Opt.,	Opt. Opt.	46 26	900.0 Pa 600.0
(Continued)	RTL2	Trans. Line	63/4			1	Dome		40-20	87	20	JR		20 4 0 4 9	Wood		20	Pai

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DL	RTL1	Trans.	63/4	$\leftarrow$	1	1	Dome	(	45-20	87	20	21	1.	15 - 0 - 0				
Continued)	Near field	Line	5			1/2	Cone/		40-20 50-20	88	15	3k 5k	8/	15 x 8 x 9 11 x 7 x 7	Opt., Wood	Opt.	18	400.0 Pa
	Monitor				-	-	Dome			00	13	JA			Opt., Wood	Opt.	61/2	250.0 Pa
EAC	S-500R S-200	Bass Ref. Bass Ref.	5 45/8			9 <sup>3</sup> /4 9 <sup>3</sup> /4	Dome		70-20 80-20				6/	7 x 14 x 9	Diled Mahog	Gray Knit	12	599.0 Pa
	SW-1	udaa nei.	51/8			374	Dome		00-20				6/	6 x 9 x 7 5 x 17 x 12	Oiled Mahog Wal.	Gray Knit	5 18½	249. Pa
	LS-X20		57/8											11 x 6 x 5	Black	Black	5	240.0 Eac 200.0
	LS-X10		45/8												Black	Mesh Black	41/8	Pa 140.0
ECHNICS	SB-CX700		12	4	Cone	1	Dome		25-45	88	200	400,3.5k	6/	14 x 35 x 12	Wood	Mesh Black	51.7	Pa 349.9
	SB-CX500		10	4	Cone	1	Dome		±16 28-45	88	150	500,3.5k	6/	12 x 32 x 12	Grain Wood	Net Black	37	Eac 299.9
	SB-CX300		8	4	Cone	1	Dome		±16 38-45	88	120	1.5k	6/	11 x 19 x 10	Grain Wood	Net Black	17.2	Eac 199.9
	SB-CL90		8	4	Cone	1	Dome		±16 37-25	88	120	700,5k	8/	9 x 32 x 11	Grain Wood	Net Black	27.5	Eac 239.9
	SB-CL50		71/8	4	Cone	1	Dome		±16 42-25 ±16	88	160	3k	8/	8 x 15 x 8	Grain Wood Grain	Net Black Net	12.1	259.9
	SB-S16		4						110-20 ± 10	86	30		8/	6 x 8 x 5	Grain	NCL		Pa 59.9 Pa
	SB-L80	Bass Ref.	12	4	Cone	21/8	Cone		38-22	92	150	3.5k,5k	8/	14 x 27 x 13			2 <mark>3.8</mark>	229.9 Pa
	SB-L60	Bass Ref.	10	4	Cone	21/8	Cone		40-22	92	120	3.5k,5k	8/	13 x 26 x 10			18.7	179.9 Pa
	SB-L40	Bass Ref.	10	Ľ		21/8	Cone		42-22	91	100	4.5k	8/	13 x 23 x 9			16.3	129.9 Pa
ERPSICHORE	Landes Monitor	Tuned Port	71/2				Ribbon		45-24 ±2	94	10	300,2.4k	6/3	8 x 10 x 16	Opt.	Black Knit	19	700.0 Pa
	SSS Monitor	Tuned Port	51/2			1	Dome		±2 55-20 ±3	91	10	2.4k	6/3	7 x 10 x 12	Opt.	Black Knit	12	375.0 Pa
	Van Arsdale	Tuned Port &	8	4	Cone	1	Dome		32-20 ±2	91	100		8/4		Opt.	Black Knit	180	3200.0 Pa
	1 Subwoofer	Trans. Line Folded	10						00.050		000							
	1 Subwoold	Horn Subwoof.	10						28-250	91	200		6/3	14 x 16 x 25	Opt.	Black Knit	40	600.0 Eac
HIEL	CS5	Sealed	(3)8	5,2	Cone,	1	Dome	No	25-20	87	100	50,400,	3/2	13 x 17 x 64	Opt., Wood	Black	180	10,800
	C\$3.6	Pas. Rad.	10	41/2	Dome Cone	1	Dome	No	±1 29-20 ±1.5	86	100	1k,3k 400,3k	4/2.5	12 x 17 x 48	Wood Opt., Wood	Cloth Black	107	Pa 3900.0
	CS2 2	Pas. Rad.	8	3	Cone	1	Dome	No	35-20 ±2	86	50	800,3k	4/3	12 x 13 x 42	Opt., Wood	Cloth Black Cloth	70	2750.0 Pa
	CS1.2	Bass Ref.	61/2			1	Dome	No	52-18 ±2	87	40	2.5k	4/4	10 x 10 x 36	Opt., Wood	Black Cloth	47	1250.0 Pa
	SCS	Bass Ref.	61/2			1	Dome	No	64-20 ±3	87	40	4k	4/4	8 x 9 x 16	Opt., Wood	Black Foarn	23	1090.0 Pa
08Y	System 93	Sat. & Subwoof.	10	61/2	Cone	1	Dome		35-20 ±3	87	30	100,1.8k	6/4	Three Pieces	Opt.	Black Knit		995.0 Sys
	Six Sat	Sat. & Subwool.	10	61/2	Cone	3/4	Cone		35-15 ±3	87	30	100,3k	6/4	Three Pieces	Black Epoxy	Black Knit		750.0 Sys
	D-61 D-28	Bass Ref. Bass Ref.	8			1	Dome		35-20 ±3	87	30	2.5k	8/6	37 x 14 x 11	Opt.	Black Knit		695.0 Pa
	0-20	Sealed	6½ 6½			1	Dome Cone		40-20 ±3 70-18	86 87	30 30	1.8k 3k	6/4 6/4	33 x 10 x 7	Opt.	Black Knit		595.0 Pa
OTAL MEDIA	TMS-8.5			-	Dama				±4					14 x 9 x 9	Oiled Oak	Black Knit		240.0 Pa
YSTEMS		Tuned Port	81/2	2	Dome	2	Ribbon		30-27 ±3	90	50	650,7k	8/6	11 x 13 x 42	Black Ash	Black Knit	53	2700.0 Pa
OTEM	Rokk	Inf. Baf.	6			1	Dome		50-20 ±2	88	20	3.2k	4/	15 x 7 x 10	Gray	None	11	895.0 Pa
	Dne	Inf. Baf. Inf. Baf.	6 7			1	Dome Dome		50-20 ±3	85	30	3.5k	8/	11 x 6 x 9	Mahog		8	995.0 Pa
	MANI-2	Inf. Baf.	(2)8			11/2	Dome		50-20 ±3 27-20	87 85	15 50	2.7k 4k	4/ 4/	13 x 7 x 9 17 x 9 x 12	Mahog Mahog		9 22	1495.0 Pa 3995.0
RIAD						3/4		_	±3									Pa
PEAKERS	System HT Bronze System HT	Sat. Sat.	4½ 5½			- <del>*</del> /4 1	Dome Dome		110-20 ±3 100-20	87 89	35 35	2.5k 2.5k	4/3 8/6	9 x 5 x 5 11 x 6 x 6	Opt.	Black Cloth Black	7 11	200.0 Eac
	Silver System HT	Sat.	7			11/4	Dome		± 2.5 72-20	91	35	2.5k	4/3	14 x 7 x 7	Opt. Opt.	Cloth Black	15	275.0 Ead 375.0
	Gold System Thun-	Powered	10					w	±2 20-180	90	150	50-180	8.6	15 x 14 x 13	Opt.	Cloth Black	42	Eac 750.0
	der Bronze	Subwoof.	(0)0						+ 0,-3 (Adj.) 20-180		Inc.	(Adj.)				Cloth		Ead
	System Thun- der Silver	Powered Subwoof.	( <mark>2)8</mark>					w	+0,-3	88	250 Inc.	50-180 (Adj.)	4/3	16 x 17 x 16	Paint/ Gran.	Black Cloth	65	1000.0 Eac
	System Thun- der Gold	Powered Subwoof.	(2)10					w	(Adj.) 20-180 + 0,-3	<del>9</del> 0	250 Inc.	50-180	4/3	18 x 19 x 17	Paint/	Black	80	1250.0
	InWall HT	In-Wall	41/2			3/4	Dome		(Adj.) 110-20	87	35	(Adj.) 2.5k	4/3	11 x 7 x 4	Gran. Paint	Cloth Opt.	7	Eac
	Bronze	Sealed Sat.							±3						. unit	opr.	1	6


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## LOUDSPEAKERS

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MANUFACTURE	B Hodel	nesi	an <sup>e.</sup>	ooter D.	librange wi	drange w	oster D TW	aster Type	atile internet	nois the	~~~ /	acomment	SSONET M	adantinality pimensi	Health Fin	IST I	lie colu	AU LIS LEU
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TRIAD (Continued)	InWałl HT Silver	In-Wall Sealed Sat,	51/2			1	Dome		100-20 ± 2.5	89	35	2.5k	8/6	12 x 8 x 4	Paint	Opt.	9	
	inWall HT Gold	in-Wall Sealed	7			11⁄4	Dome		72-20 ±2	91	35	2.5k	4/3	19 x 11 x 4	Paint	Opt.	14	
	inWall Omni	Sat. In-Wall Ported	5¾			21⁄4	Cone		85-16 ±3	85	25	2.8k	8/6	12 x 8 x 4	Paint	Opt.	8	
	InWall Thun-	Sat. In-Wall	10					w	20-180	90	150	50-180	8/6	19 x 14 x 6	Paint	Opt.	32	
	der Bronze/6	Powered Servo Subwoof.							+ 0,-3 (Adj.)		Inc.	(Adj.)	=					
	InWall Thun- der Silver/4	Dual Encl.;	(2)8					W	20-180 + 0,-3	88	250 1nc.	50-180 (Adj.)	4/3	19 x 14 x 4	Paint	Metal	48 Sys.	
		In-Wall Powered Servo							(Adj.)									
	InWall Thun-	Subwoof. Dual	(2)8					w	20-180	88	250	50-180	4/3	14 x 14 x 6	Paint	Opt.	50	
	der Silver/6	Encl.; In-Wall Powered							+ 0,-3 (Adj.)		łnc.	(Adj.)					Sys.	
		Servo Subwoof,												_				
	inWall Thun- der Gold/6	Duai Encl.; In-Wall	(2)10					W	20-180 + 0,-3 (Adj.)	90	250 Inc.	50-180 (Adj.)	4/3	19 x 14 x 6	Paint	Opt.	52 Sys.	
		Powered Servo							(									
	InWali THX LCR	Subwoof. In-Wall; THX Front	(2)51/2			1¼	Dome		80-20 ±2	87	100	2.2k	4/3 =	19 x 11 x 4	Paint	Metal	22	
	InWall THX Surround	In-Wall; THX	(2)51/2			(2)1¼	Domes		85-20 ±3	85	50	2.6k	4/3	14 x 14 x 4	Paint	Metal	20	
	inWall THX Woofer	Surround In-Wall; THX	(2)10					w	35-80 ±3	85	200	80	4/3	19 x 14 x 12	Paint	Metal	45	
	OnWall THX	Woofer On-Wall;	51/2			(2)11⁄4	Domes		85-20	85	50	2.6k	4/3	14 x 14 x 5	Paint	Metal	20	
	Surround System THX	THX Surround THX	(2)10					w	±3 35-80	85	200	80	4/3	18 x 20 x 18	Paint/	Black	70	
TRIPOD	Woofer GS-3	Woofer Outdoor	8			2			±3 40-20	77	25		8/4	13 x 13 x 13	Gran. Green	Cloth Black	12	119.00
	DS-120	Outdoor	8			2			40-20	91	25		8/4	13 x 13 x 13	ABS	Foam Black	13	Each 119.00
	PS-300	Planter	8			2			40-20	77	25		8/4	12 x 12 x 12	ABS Tan	Foam	11	Each 110.00
1	PS-60	Outdoor	51⁄4			2			50-18	91	25		8/4	14 x 8 x 12	ABS Black	Black	10	Each 129.00
	CS-100	Outdoor	8			2			40-20	89	25		8/4 _	18 x 14 x 16	Metal Sim. Rock	Metal	25	Each 139.00 Each
	CS-150	Outdoor	8			2			60-20	91	25		8/4	18 x 15 x 17	Sim. Rock		25	199.00 Each
TUBE RESEARCH LABS	GTRS		(3)9.2	6	Cone	1.2				94	300			13 x 22 x 49	Gloss Black	Błack	220	18,000. Pair
ULTRA AUDID	TS-CT1	Bandpass	(2)10	(2)5	Cones	1	Dome		25-20	86	50	100,3k	7/3	18 Dia. x 63	Metał	Black	175	5900.00
	TS-CW1	Bandpass Subwoof.	12						±3 20-100 ±3	88	50	Opt.	8/4	18 Dia. x 48	Opt.	Cloth None	69	Pair 1399.00 Each
ş	TS-S1	Bass Ref.	6			1	Dome		48-25 ±3	88	50	2.8k	8/4	13 x 8 x 15	Opt.	Black Foarn	38	Each 1500.00 Each
	TS-1	Bass Ref.	8	2	Dome	1	Dome		35-20 ±3	88	40	500,3k	7/3	14 x 10 x 60	Oak	Black	100	2200.00 Pair
UNITY AUDIO	CLA 1	Bass Ref.	10	61/2	Cone	1	Dome	No	34-20 ±2	89	40	175,2.2k	8/5	9 x 10 x 44	Oak	Black Knit	55	2195.00 Pair
	CLA 3mkll		(2)7			1	Dome	No	43-20 ±2	89	40	2.2k	5/7	9 x 5 x 38	Opt.	Black Shift	30	995.00 Pair
	PARM	Biamp, Sat. & Subwoof.	(2)13	(2)7	Cones	11/4	Dome	w	23-22 ±1	91		130,2.2k	6/3	Five Pieces	Cor- ian	Black Knit	400 Sys.	15,000. Sys.
	Fountainhead Signature	Bass Ref.	11	7	Cone	11/4	Dome		28-22 ±1.5	90	50	135,2.2k	7/5	42 x 11 x 11	Cor- ian	Black Knit	90	5500.00 Pair
	Signature 1 Signature 3	Bass Ref. PARM	11	7	Cone	11/2	Dome		30-21 ±2	90	100	135,2k	7/5	9 x 10 x 43	Opt.	Black Knit	68	3300.00 Pair
VANDERSTEEN	VCC-1	Loading	(2)7 6 <sup>1</sup> /2		-	1	Dome		43-20 ±3	89	30	2.3k	5/7	9 x 5 x 38	Opt.	Black Knit	33	1895.00 Pair
AUDIO	1B	Coaxial; Ctr. Ch. Trans.	6½ 8			1	Dome Dome	т	150-21 ±3 38-20	86 90	30 20	3.8k 2.8k	5/4 8/6	12 x 10 x 9	Opt., Wood	Opt., Knit	25	495.00 Each
1	2Ce	Line	10,8	41/2	Cone		Dome	M,T	±3 29-29	88	40	2.0K 600,5k	8/4	12 x 10 x 36 16 x 10 x 40	Opt., Wood Opt.,	Opt., Knit Opt.,	50 70	695.00 Pair 1295.00
	3		10,8	41/2	Cone	1	Dome	M,T	±3 26-30	89	100	500,5k	6/4	16 x 10 x 40	Wood Opt.,	Opt., Knit Opt.,	100	2395.00 2395.00
	2W	Powered	(3)8					W	±3 26-80	Adj.	300	80		18 x 17 x 18	Wood	Knit Opt.,	90	2395.00 Pair 1250.00 -
		Inf. Baf. Subwoof.							±3		Inc.		-		Opt., Wood	Knit		Each w/Amp
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#### Issue No. 19

#### Spring 1993

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#### **MACH 1 Acoustics DM-10**

MACH 1 Acoustics, RR 2, Box 334A, Wilton, NH 03086. DM-10 floorstanding 3-way loudspeaker system, with accessory granite base and grille, \$7995.00 the pair. Tested samples on loan from manufacturer.

Let me say it before we get involved in the details: this is one of the finest loudspeakers known to me, regardless of price. Like everything else in this world, it has its limitations, but those limitations are intrinsic to the basic concept and intended purpose of the speaker; they aren't design faults. The speaker is intended for extremely refined, high-resolution playback at not excessively high levels in not excessively large spaces, and it accomplishes that faultlessly.

The key to the design is the choice of drivers. Marc McCalmont, the designer of the DM-10 (he is a Marine flier turned Pan American pilot turned audio entrepreneur), choose the Accuton 1" inverted-dome tweeter and  $3\frac{1}{2}$ " inverted-dome midrange, and a  $9\frac{1}{2}$ " Dynaudio woofer. The Accutons have ceramic diaphragms made by vapor deposition and are billed to the manufacturer at approximately \$160 and \$200, respectively. They are quite fragile and need to be crossed over just so to keep them out of trouble. The Dynaudio is also ridiculously expensive, so that Marc pays over \$1000 up front for drivers before he has even started to put other parts into a pair of speakers. Welcome to the world of High End. I must say, however, that these are better drivers than you get in say, a Wilson WATT.

The cabinet of the DM-10 has 1" walls, except the front baffle, which is made of 1¼" damped laminate. This guy doesn't fool around. The dimensions of the box are 44" high by 11" wide by 14½" deep: the front edges are rounded; the finish is in your choice of veneers: the grille is optional, the basic design having been conceived with fully exposed drivers. The woofer is located only a few inches above floor level to avoid "floor bounce" (see the ACI G3 review above); the midrange and tweeter sit high and are offset inboard, resulting in a mirror-image pair. The woofer is in a sealed enclosure; the crossover slopes are fourth-order (24 dB per octave); the network is made with air-core inductors (except in the woofer circuit) and polypropylene capacitors; the crossover frequencies are approximately 250 Hz and 3 kHz. The general design philosophy is to be textbook correct and never mind the cost. No tricks, no surprises, no compromises.

I found only two basic design characteristics that I---putting myself in the place of a purchaser-would have wished to see improved at this exalted price level. One is the bass, which is very clean and well-controlled but could go deeper in a box of this size. (An off-the shelf woofer, no matter how costly and how magnificently made, hardly ever has the exact Thiele-Small specs for the particular system optimization one needs.) The near-field response I measured was flat down to an f3 of 44 Hz and declined 12 dB per octave below that-a classic sealed-box profile. The impedance curve indicates that the box is tuned to 35 Hz, so the system must be slightly overdamped. As the near field response at 30 Hz is only 10 dB down, the "room gain" in smallish rooms should bring it up a tad, but in my big room I would have preferred stronger bass. The other small weakness of the design is that the little Accuton tweeter is somewhat deficient in power handling, so that you have to watch the level in opera recordings, for example, because the soprano's fortissimo high notes tend to sound a bit strained if you turn up the volume. This is a medium-signal, rather than a large-signal, transducer.

That said, I must then immediately add that at normal to moderately high levels the sound of the DM-10 is exquisitely beautiful and transparent, absolutely worldclass. Both texture and



structure—to use the John Eargle terminology which is so superior to the high-end tweako vocabulary—are as accurately reproduced as anyone could wish for. Furthermore, the crossover design and driver mounting/positioning are such that the speaker isn't the least bit temperamental when it comes to placement—the soundstage doesn't collapse and the balance doesn't go to hell when you move the cabinets eight inches this way or that. (Marc McCalmont has written an entire manual on room acoustics and speaker placement, by the way.)

In measuring the 1-meter response of the speaker with the MLS technique, I didn't run into the same problem as I did with the ACI G3, although the vertical distance between woofer and midrange is even greater in the case of the DM-10. The much steeper crossover slopes are probably the reason. On the tweeter axis, the response was  $\pm 3$  dB from 300 Hz to 20 kHz which is even better than you'd think because in the crucial three octaves from 1kHz to 8kHz the deviation from absolute flatness was only  $\pm 1.25$  dB. And that's not all. There's hardly any change in the response up to 10kHz at 30° off axis; only the 10 to 20 kHz response starts to slope downward a bit. No wonder the speaker sounds great.

In the time domain, I observed nothing that could change my high opinion of the DM-10. Pulse coherence was of course nil; it's a spread-out 3-way system with high-order crossovers to begin with, and a positive-going pulse pushes the tweeter diaphragm inward, whereas the midrange and woofer diaphragm move outward. It's academic; the proof of the pudding is in the superior frequency response on and off axis. I did see just a tiny bit of garbage between tone-burst envelopes but not enough to attribute any importance to.

The impedance characteristics of the speaker indicate the need for an amplifier of good but not exceptional current capability; above the impedance swings due to the box, the magnitude stays between 3 and 8 ohms and the phase within  $\pm 25^{\circ}$ . Efficiency is of the order of 87 dB, which is about average for speakers in this format.

Where do I rank the MACH I Acoustics DM-10? If sheer transparency, refinement, and naturalness of sound are the top priorities, it ranks very close to the top. I haven't tested everything, of course, but its only competition known to me in that super-finesse category is the Win SM-10. If, on the other hand, the big sound, lifesize dynamics, deep bass, and generally awesome impact are the desire traits, then it lags behind the Waveform Mach 7, the "Carver Amazing Loudspeaker" Platinum Mark IV, and other of that ilk not yet reviewed, which are slightly cruder in sonic texture, at least in my opinion. In any event, although the DM-10 is fairly priced considering the manufacturer's cost of parts and labor and the dealer's normal markup, it's still a classic case of "if you have to ask the price you can't afford it."





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## LOUDSPEAKERS

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ECTOR	VRP-275 Pro-Line	Sat. & Subwoof.	8	31/2	Cone	21/2	Cone		28-20 ±3	90	10	150,3.5k	6/	Three Places	Black Vinyi	Black Alum.	26 Sys.	899. Sy
IDEO	VA 1200BK	Surround	(2)41/2			(4)31/2			78-16	92	20	400	8/4	8 x 10 x 24	Black	Mesh Black	30	499.
COUSTICS	VA 1300BK	Ctr. Ch.	(2)51/4			11/8	Dome		±6 100-19 ±4	90	20	3k	8/5.5	7 x 7 x 16	Wood Black Wood	Knit Black Knit	16	Ea 349. Ea
	VA 1400BK		8	A	_2.91	3/4	Dome		65-17 ± 4	86	30	2.8k	8/7	15 x 7 x 10	Black Wood	8lack Knit	19	599. P
	VA 1500BK	Bass Ref. Subwoof.	(2)8		de la composition de la compos	and the	_ 14 A	_	37-72 ±3	87	50	60 (low- pass)	8	20 x 20 x 20	Black Wood	Black Knit	76	599. Ea
IDEOTONE	Minl-Max	Inf. Baf.	51/4	1.1		1	Dome		70-20 ±5	89	20	3k	8/4	11 x 7 x 7	Black	Black Knit	10	299. Pi
	Preludium	Sealed Box	8	16	<u>i</u> - 1	1	Dome		35-25 ±3	89	20	3.5k	8/4	19 x 10 x 9	Oiled Wal.	Black	17	599. Pi
VIDIKRON	VTS 5+1	Sat. & Subwoof.	12	(5)41/2	Cones	(5)1	Domes		20-20	87	30	90,2.5k	8/4	Six Pieces	Black	Black	441/4 Sys.	999. Sy
VINTEC	Vesuvius	Subwoof.	(2)15, (4)12	112					14-100 ±3	94	100	50,90	4/2	42 x 30 x 24	Oak		300	10,00 Pa
	Vibrato	Subwoof.	(6)10			ange of the second			16-120 ±3	93	60	60,90	4/2	30 x 24 x 24	Oak		215	6000. P
	V94	Subwoof.	(2)10	•	2 (1994) 	क्लान्ड्री दे । १			20-150 ±3	88	30	75,110	4/2	24 x 18 x 17	Oak		60	1800. P
	Valour	Vented	6½ (2)12	(2)61/2	Cones	1	Dome Dome		36-20 ±1.5 20-20	86 90	30 40	1.7k	8/5	16 x 10 x 12	Oak	8lack Knit	30	750. P
	Vanguard System V94	Home Th.			Cones	(5)1	Domes		± 2 20-20	90 91	30	160,1.6k	6/2 8/5	54 x 9 x 18 Seven Pieces	Oak Oak	Black Knit Black	200 290	90 00. P 40 00.
/MPS	QSO 626	Ported	(4)10, (2)8	(2)6½, (2)5¼		-		T	±2 44-18			2k,2.8k	_	-		Knit	Sys.	S
mra	050 404	Ported	(2)6½ 8		Cone	1	Dome Dome	T T	+0,-3 48-17	92 90	20 20	2.5k 3.5k	4/4 8/6	22 x 9 x 12 18 x 12 x 9	Oak Olled	Black Black	35 25	329. Ea 229.
	Mini Tower Ila	Pas. Rad.	(2)10	5	Cone	(2)1	Dome,	М,Т,	+0,-3 28-30	92	20	500,4.5k,	8/6	39 x 12 x 15	Wal. Opt.,	Cloth Black	70	Ea 479.
	Super Tower	Pas. Rad.	(2)15, 12,	(4)5	Cones	(4)1, ¥4x3	Piezo Domes,	ST M,T,	+0,-3	98	20	15k 80,500,	8/6	72 x 17 x 19	Wood Ont.	Cloth Black	300	5200.
	UII QSO 808	Ported	12, (2)10 12	5	Cone	4x3	Ribbon Dome	ST M,T	+0,-3	94	26	4.5k,15k	0.6	25 - 15 - 10	Wood	Cloth	50	P
	Tower II	Multiband	(3)12	5	Cone		Dome,	M,T,	±3 22-50	94 95	20 20	600,5k	8/6 4/4	26 x 15 x 12 43 x 15 x 15	Oiled Wal. Olled	Black Knit Black	50 95	690. P 1298.
	Tower II	Bass Multiband	(3)12	5	Cone	(1) 1,2	Piezo Dome,	ST M,T,	±3 22-50	94	20	4k,12k 80,600,	4/4	15 x 16 x 45	Wal. Oak	Knit Black	100	1876.
	Special Edition	Bass			188.,	1014	Ribbon	ST	+0,-3			5k,15k						P
	Super Tower/R Super Tower/R	Multiband Bass Multiband	(2)15, 12 (2)15	(2)5	Cones	(2)1, (2)2 (2)1,	Domes, Ribbons	M,T, St	20-50 ±3 20-50	96	20	80,400, 4k,12k	4/4	49 x 22 x 17	Oiled Wal.	Black Knit	150	1998. P:
	Special Edition	Bass	(2)15, 10	(2)5	Cones	2	Domes, Ribbon	M,T, St	+0,-3	94	20	80,600, 5k,15k	4/4	18 x 18 x 52	Oak	Black	175	3200.I Pa
	Smaller Subwoofer	Pas. Rad. Subwoof,	12						28-600 ±3	92	20	Var.	8/6	26 x 15 x 16	Oiled Wal.	Black Knit	52	329. Ea
	Original Subwoofer	Pas. Rad. Subwoof.	12	•					19-600 ± 3	94	20	Var.	8/6	27 x 22 x 17	Oiled Wal.	Black Knit	95	429. Ea
	Larger Subwoofer Dedicated	Pas. Rad. Subwoof. Pas. Rad.	15,12 (2)12						17-250 ±3 26-300	95	20 20	Var. 100	4/3	39 x 22 x 17	Oiled Wat.	Black Knit	140 or	599. Ea
	Subwoofer	Subwoof. Dynamic	(2)12			(2)1	Domes	т	+0,-3	92 88	25	2.3k	B/6 4/4	27 x 15 x 16 12 x 8 x 7	Oak Black	Black Black	85 22	400. Ea 299.
	Surround FF-1	Dipole Pas. Rad.	(3)12	(2)5	Cones	(2)1, (1)	Domes,	M,T,	±3 12-45	92	25	450,6k,	4/4	68 x 15 x 18	Opt.	Cloth Black	350	6800.
WALL SOUND	SE 520 W	In-Wall	5			(1)	Ribbon Dome	ST	±3 65-20	87	50	15k 3k	8/	9 x 6 x 5		Cloth Opt.		P 269.
	SE 691	Bass Ref. In-Wall	51/4			1/2	Dome		60-20	90	30	5k	8/	9 x 7 x 3		Opt.		169.
	SE 694	in-Wall	51/4			1	Oome		60-21	90	30	3.5k	8/	9 x 7 x 3		Opt.		229.
	SE 790	In-Wall	61/2			1	Dome		50-22	90	30	3k	8/	12 x 9 x 3		Opt.		279. P
	SE 890	In-Wall Subwoof.	8				19 - 19		30-500	90	50	120	8/	15 x 11 x 4		Opt.		259. Ea
	SE 892	In-Wall	8			1	Dome		30-25	92	50	2.5k	8/	15 x 11 x 4		Opt.		329. P
	SE 893	in-Wall	8	1	Dome	1/2	Dome		30-30	92	50	750,5k	8/	15 x 11 x 4		Opt.		369. P
WATERWORKS	Soundpipe One	Sealed	5			1/2	Dome		80-20	87	10	5k	8/6	13 x 6 x 9	Opt.	Stain-	51/2	399.
ACOUSTICS	Soundpipe	Sealed	(2)5	1		3/4	Dome		±3 80-20	90	10	3k	4/3	22 x 6 x 9	Opt.	less Steel Stain-	10 1/2	P: 699.
	Two					and when			±3			E				less Steel		P
	Soundpipe Sub	Sealed Subwoof.	10		- 86 y 		a and a second	- X.	30-100 ± 3	90	10	100	4/3	16 Dia. x 18	Opt.	Stain- less	25	499. Ea
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VAVEFORM	Mach 7	Tuned	15	(2)61/2	1	1	1	w	20 20									
NATCI ONM	maul /	Port	13	(2)072	Cones		Ribbon	w	28-20 ±1	90	150	150,2k	8/4	20 x 30 x 48	Black Gran.	Black Knit	180	7500. P
VAVEFRONT	Peak One	Sealed	83/4		-	11/8	Dome		35-25	88	30	2k	5.5/	10 x 14 x 24	Oiled	Black	55	w/Xov 4000.
COUSTICS	Peak Two	Sealed	(2)8¾			11/8	Dome		±3 35-25	90	25	2k	5.5 3.2/	12 x 14 x 36	Wal. Oiled	Cloth Black	80	P 6000.
	Peak One	Sealed	83/4			11/8	Dome		±3 35-25	88	30	2 k	3.2 5.5/	10 x 15 x 24	Wal. Lacq.	Cloth Black	75	7000
	Gold Peak Two	Sealed	(2)83⁄4			11/8	Dome		±3 35-25	90	25	2k	5.5 3.2/	12 x 15 x 36	Wal. Lacq.	Cloth Black	100	P 10,00
VESTLAKE	Gold C-6	Ported	6			3/4	Dome		±3 44-20	86	50	2.3k	3.2 6/4	21 x 9 x 11	Wal. Black	Cloth Black	30	P 1750.
CICUL	C-8	Ported	8	31/2	Cone	3/4	Dome		±3 42-19	88	50	500,2k	4/3	41 x 11 x 10	Oak Black	Black	50	9 3000.
	C-10	Ported	10	31/2	Cone	3/4	Dome		±3 40-19	90	50	400,2.4k	4/3	43 x 13 x 12	Oak Black	Black	70	3500.
	C-12	Ported	12	61/2	Cone	3/4	Dome		±3 38-19	92	50	400,1.8k	4/2	45 x 16 x 13	Dak Black	Black	95	4500.
	BBSM-4VNF	Ported	(2)4			3/4	Dome		±3 60-20	89	50	1.5k	4/2	20 x 7 x 11	Oak Opt.	Brown	48	2400.
	BBSM-5VNF	Ported	(2)5			11/4	Dome		±3 58-18	90	50	1.2k	4/2	22 x 7 x 12	Opt.	Brown	52	2900.
	BBSM-6VNF	Ported	(2)6	31/2	Cone	1	Dome		44-18	91	50	550,5.5k	4/2	41 x 10 x 14	Opt.	Brown	85	4000
	BBSM-8VNF	Ported	(2)8	31/2	Cone	1	Dome		±3 42-18	93	50	550,5.5k	4/2	42 x 12 x 16	Opt.	Brown	120	4000. P 5000.
	BBSM-10VNF	Ported	(2)10	61/2	Cone	11/4	Dome		±3 40-16	95	50	550,4k	4/2	46 x 14 x 19	Opt.	Brown	165	6000
	BBSM-12VNF	Ported	(2)12	61/2	Cone	11/4	Dome		±3 38-16	96	50	500,3.5k	4/2	47 x 17 x 21	Opt.	Brown	230	7500
	BBSM-4F	Ported	(2)4			3/4	Dome		±3 60-20	89	50	1.5k	4/2	8 x 15 x 10	Opt.	Brown	25	2250
	BBSM-5F	Ported	(2)5			11/4	Dome		±3 58-18	90	50	1.2k	4/2	10 x 18 x 9	Opt.	Brown	35	2750
	BBSM-6F	Ported	(2)6	31/2	Cone	1	Oome		±3 44-18	91	50	550,5.5k	4/2	10 x 22 x 13	Opt.	Brown	55	3750
	BBSM-8F	Ported	(2)8	31/2	Cone	1	Oome		±3 42-18	93	50	550,5k	4/2	13 x 26 x 16	Opt.	Brown	90	4750
	BBSM-10F	Ported	(2)10	61/2	Cone	11/4	Oome		±3 40-16	95	50	600,4k	4/2	16 x 30 x 21	Opt.	Brown	115	5750
	BBSM-12F	Ported	(2)12	61/2	Cone	11/4	Dome		±3 38-16	96	50	500,4k	4/2	19 x 34 x 23	Opt.	Brown	160	7250
	BBSM-15F	Ported	(2)15	10	Cone	1	Horn		±3 50-15	99	50	350,1.6k	42	27 x 41 x 25	Opt.	Brown	345	P 14,75
	Tower 12	Ported	(2)12			1	Horn		±3 38-16	97	50	1.2k	4/3	55 x 27 x 23	Gloss	Black	350	20,0
	TM-3VF	Ported	(2)15	2	Horn	1	Horn		±3 34-16	99	50	800,4.5k	4/2	44 x 34 x 21	Opt.	Opt.	370	25,00
	TM-3F	Ported	(2)15	2	Horn	1	Horn		34-16	99	50	800,4.5k	4/2	31 x 44 x 21	Opt.	Opt.	345	24,00
	HR-1VF	Ported	(2)15	2,10	Horn.	î.	Horn		±3 34-16	99	50	250,1k,	4/2	48 x 34 x 21	Opt.	Opt.	375	31.00
	HR-1F	Ported	(2)15	2,10	Cone Horn,	1	Horn		±3 34-16	99	50	4.5k 250,1k,	4/2	31 x 44 x 21	Opt.	Opt.	365	91,00 90,00
	HR-7F	Ported	(2)12	10	Cone Cone	1,1/2	Horns		±3 40-20	97	50	4.5k 400,1.8k,	4/2	24 x 38 x 18	Opt.	Opt.	185	24,50
	SM-1F	Ported	(2)18	2,12	Horn,	1,1/2	Horns		±3 20-20		200	7.5k 200,800,	4/2	40 x 51 x 33	Opt.	Opt.	550	72,00
			(-)		Cone	.,			±3			3.2k,10k		40 x 51 x 55	opi.	Opt.	550	P w/Xor
VHARFEDALE	Diamond III	Vented	41/4			3/4	Oome		50-25	86	20	3.5k	8/6.4	9 x 7 x 8	Black	Black	73/4	200.
	Oiamond V	Vented	43/4			1	Dome		47-25	86	20	4k		10 x 7 x 8	Ash Black	Knit Black		300.
	System 2130	Sat. &	(2)8			(2)3⁄4	Domes		40-22	89	30		8/6.4	Three Pieces		Knit Black		600
	CRS3	Subwoof. Ported	6¾			1	Oome		45-20	89	20	3k	8/	15 x 9 x 7	Ash Black	Knit Black	ŝ.	250.
	CRS5	Ported	71/8			1	Dome		42-20	90	20	3k	<b>B</b> /	19 x 11 x 8	Ash Black	Knit Black		P 350.
	CRS7	ABR	71/8			1	Oome		<mark>40-</mark> 20	91	20	3k	8/	24 x 10 x 8	Ash Black	Knit Black		500.
	CRS9	Ported	97⁄8	51/8	Cone	1	Dome		34-20	92	20	1 <mark>k,4</mark> k	8/	32 x 12 x 11	Ash Black	Knit Black		800.
	415	Inf. Baf.	61/2			1	Dome		45-25	87	20	4.1k	8/6.4	14 x 10 x 8	Ash Black	Knit Black	123⁄4	375
	425	Inf. Baf.	73/4			1	Dome		40-25	88	20	3.5k	8 6.4	16 x 11 x 10	Ash Black	Knit Black	193⁄4	475.
	435	Inf. Baf.	8			1	Dome		42-25	90	20	5k	8/6.4	19 x 11 x 12	Ash Black	Knit Black	20½	575.
	515	Inf. Baf.	73/4			1	Oome		42-20	87	20	4k	.8/6.4	16 x 11 x 12	Ash Black	Knit Black	243⁄4	625.
	517	Inf. Baf.	7¾			1	Dome		39-20	87	20	4k	8/6.4	21 x 11 x 13	Ash Black	Knit Black	351⁄4	925
	519	Int. Bat.	73⁄4	43/4	Cone	1	Dome		37-20	87	20	700,3.5k	8/6.4	28 x 11 x 13	Ash Black	Knit Black		1600.
	Harewood	Inf. Baf.	8			1	Dome		39-25	89	30		8/6.4	22 x 10 x 10	Ash Black	Knit Black	36	2000.
VILSON AUDIO	Watt III	Ported	61/2			1	Dome	-	<del>55-17</del>	91	50	2.5k		12 x 17 x 14	Ash Opt.	Knit Black	60	P
TURLILO	Puppy II	Portor	(2).0						28 105	~	60	125						7450. P
(Coatinaed)	Puppy II	Ported Subwoof.	(2)8		1	1		1	28-125	91	50	125		24 x 11 x 16	Opt.	Black	80	5450.

## LOUDSPEAKERS

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MANUFACTURER	Motel	083	W	MI	All MI	14	14	Sel	High PU.H	1.0	3/ 4	Heco Cro.	Int	HOI. D. L.	HE. Fini	GI	We	price.
WILSON AUDIO SPECIALTIES Continued)	WHOW II	Ported Subwoof.	18						25-55	98	50	55		16 x 30 x 40	Opt.	Black	From 250	
	X-1/ Grand Slamm	Ported	15,12	(2)6½	Cones	(3)1	Domes		19.3- 27	95	25		8/5	16 x 25 x 72	Opt.	Black	450	From 58,950 Pair
	WAMM Series VII POW WHOW II	Sat. & Subwoof. Powered Ported	18, (2) 9x13 18	(2)4	Cones	(2)1, (9) 5x5	ES	w		98	25 400 Inc.	55		Four Pieces 17 x 29 x 40	Opt. Opt.	Black	From 260	12,720.
	-	Subwoof.																Each w Xover & Amp
VOLCOTT	Omnisphere MDH-2B/2C		(4)6½			11/8	Dome	T	30-20 ±3	90	20	1.8k	6/3	21 x 21 x 49	Opt., Black	Black Foam	110	From 4850.00 Pair
AMAHA	NS-10M	Ac. Sus.	7			13/8	Dome		60-20	90		2k	8/	8 x 15 x 8	Black Lacq.	Black Knit	131/4	398.00 Pai
	NS-A325	Sat.	31/2			3/4	Dome		150-22 ± 3	87	10	3.5k	6/	8 x 4 x 4	Black	Black Knit	2 <sup>3</sup> ⁄4	170.0 Pai
	NS-A325W	Sat.	31/2			3/4	Dome		150-22 ±3 25-200	87	10	3.5k	6/	8 x 4 x 4 8 x 19 x 13	White Black	White Knit Black	2 <sup>3</sup> /4 28 <sup>5</sup> /8	170.0 Pai 349.0
	YST-SW50	Powered Servo Subwoot	7					W	29-200	86	50 Inc.			0113110	Vinyl	Knit	20%0	Eacl w/Am
	YST-SW100	Subwoot. Powered Servo Subwoot.	(2)7					W	21-180	90	70 Inc.	40.140		8 x 22 x 16	Black Vinyl Black	Black Knit	351/4	449.0 Eac w/Am
	YST-SW200 (w/Remote)	Powered Servo	(2)7				1 /	W	20-160 + 0,-10		100 Inc.	40-140 (Var.)		9 x 23 x 16	Black	Black Knit	40	599.0 Eac
	YST-SW500 (w/Remote)	Subwoof. Powered Servo Subwoof.	10					w	20-160 + 0,-10		120 Inc.	40-140 (Var.)		13 x 17 x 15	Gray	Gray Knit	49 434	849.0 Eac
	NS-A90A	Ac. Sus.	41/2			2	Cone	Ê 🛛	120-18	91	5		4/	9 x 9 x 3	White Vinyl Black	White Knlt	4 <sup>3</sup> /8	79.9 Pa
	NS-A95	Ac. Sus.	41/2			2	Cone		120-18	91 01	5	a 1. 18	4/	9 x 9 x 3	Black Vinyl White	Black Knit White	43/8	79.9 Pa
	NS-E80	Bass Ref.; Effects	4			11/4	Cone		90-20 ±3 60-20	91 88	e		6/	9 x 11 x 3 9 x 12 x 3	White	White Knit Grav	31/2	198.0 Pa 138.0
	NS-A102	Bass Ref. Bass Ref.:	4			3/4	Deme		60-20 70-20	88 91	5 10		6/ 6/	9 x 12 x 3 9 x 12 x 3	Gray White	Gray Knit White	4	138.0 Pa 198.0
	NS-A202 NS-C110	Bass Ref.; Effects Ctr. Ch.	5 4 <sup>3</sup> ⁄4			-94 1	Dome		±3 60-20	91	IU		6/	6 x 18 x 8	Opt.	Knit Gray	10	Pa 199.0
	WS-AC80	Ctr. Ch.	494			3⁄4	Dome		70-20	90	10		8/	5 x 18 x 6	Black	Knit Black	8	Eac 129.0
	NS-AC1	Ctr. Ch.	4						± 3 100-16	85	5		6/	5 x 14 x 6	Black	Knit Black	6	Eac 75.0
10.00	WSX-10	In-Wall	6 <sup>3</sup> /8	/		1	Dome		50-25	89		2k	6/	13 x 9 x 4	Dak Vinyt Ivory	Knit Ivory Metal	5 <sup>1</sup> /4	Eac 400.0 Pa
	NS-A615	Ac. Sus.	61/2			3/4	Dome		60-22 ± 3	89	10	5k	6/4	8 x 16 x 8	Black Dak	Screen Black Knit	14	198.0 Pa
	NS-A620A	Ac. Sus.	61/2			3/4	Dome		60-22	89	10	5k	6/4	8 x 17 x 8	Vinyl Lacq.	Black	14	240.0
	NS-A625A	Ac. Sus.	61/2			3/4	Dome		±3 60-22	89	10	5k	6/4	8 x 17 x 8	Dak Lacq.	Knit Black	15	Pa 240.1
				1					± 3					···· ·· ·· · · · · · · · · · · · · · ·	Black Dak	Knit Black		9a 360 (
	NS-A820A	Ac. Sus.	8			1	Dome		50-22 ±3 50-22	90 90	10	3.5k	6/4.5 6/4.5	10 x 22 x 11	Lacq. Dak	Black Knit Black	24 27	360. Pa 360.1
	NS-A825A	Ac. Sus.	8			1	Dome		50-22 ±3	90	10	3.5k	6/4.5	10 x 22 x 11	Lacq. Black Dak	Black Knit	27	36U.1 Pa
	NS-A930	Ac. Sus.	8	5	Cone	1	Dome		45-22 ±3	89	10	800,3k	6/4.5	10 x 25 x 11	Dak Lacq. Dak	Black Knit	29	500. Pa
	NS-A935	Ac. Sus.	8	5	Cone	1	Dome		15-22 ±3	89	10	800,3k	6/4.5	10 x 25 x 11	Lacq. Black	Black Knit	31	500. P
	NS-A1030	Ac. Sus.	10	5	Cone	1	Dome		40-22	89	10	700,3k	6/6	12 x 33 x 11	Dak Lacq. Dak	Black Knit	45	700.0 Pa
	NS-A1035	Ac. Sus.	10	5	Cone	1	Dome		±3 40-22 ±3	89	10	700,3k	6/6	12 x 33 x 11	Dak Lacq. Black	Knit Black Knit	47	700. Pi
	NS-A525	Ac. Sus.	6	1 7		3/4	Dome		± 3 95-20 ± 3.5	90	10	3.5k	8/	12 x 8 x 9	Black Dak	Gray Knit	7½	125. Pr
	NS-A635	Ac. Sus.	8	4	Cone	3/4	Dome		90-20 ±3.5	91	10	4.2k,13k	8/	16 x 10 x 12	Black Dak	Gray Knit	16	175. P
	NS-A835	Ac. Sus.	12	4	Cone	1	Dome		50-20 ±3.5	92	10	6k,13k	8/	23 x 15 x 14	Black Dak	Gray Knit	33	300. P
	NS-A1235	Ac. Sus.	12	4	Cone	1	Dome		40-20 ± 3.5	92	10	600,4k	8/	39 x 15 x 13	Black Dak	Gray Knit	44	400. Pa
YANKEE AUDIO	FPR-72 Mkill	Planar Ribbon	1020 Sq. In.						29-20	88	50	None	3/3	72 x 30 x 3	Opt., Solid Wood	Black Knit	135	Fro 12,00 Pa
	FPR-78	Planar	1658		1		1		22-20	88	50	None	4/4	78 x 35 x 3	Opt., Solid	Black Knit	225	22,00 Pi

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**Boston Acoustics** 70 Broadway Lynnfield, Mass. 01940

Boulder Amplifiers 4850 Sterling Dr. Boulder, Colo. 80301 FAX: (303) 449-4806

Bozak Audio Laboratories 539 Norwich Ave. Taftville, Conn. 06380 FAX: (203) 886-1413

Bright Star Audio 2363 Teller Rd., #115 Newbury Park, Cal. 91320 FAX: (805) 375-2630

Brookline Technologies 2035 Carriage Hill Rd. Allison Park, Pa. 15101 FAX: (412) 366-0875

**Bryston** 57 Westmore Dr. Rexdale, Ont. Canada M9V 3Y6

Brystonvermont R.F.D. 4, Berlin Box 2255 Montpelier, Vt. 05602

**B & W Loudspeakers** P.O. Box 8 North Reading, Mass. 01864 FAX: (508) 664-4109

#### C

Cadawas Acoustics 92 Oneida Ave. Staten Island, N.Y. 10301 FAX: (718) 981-9138

CADPRO Chicago 2525 East Oakton, C-33 Arlington Heights, III. 60005 FAX: (708) 640-1868

Caig Laboratories 16744 West Bernardo Dr. Rancho Bernardo, Cal. 92127

Calibration Standard Instruments P.O. Box 2727 Oakland, Cal. 94602 California Audio Labs 16812 Gothard St. Huntington Beach, Cal. 92647 FAX: (714) 841-2427

Calrad Electronics 819 North Highland Ave. Los Angeles, Cal. 90038 FAX: (213) 465-3504

Camber 3700 Griffith, #338 Montreal, Que. Canada H4T 1A7

Cambridge Audio See Weltronics

Cambridge Physics Fisk Mill Complex, Box 192 Mar boro, N.H. 03455

Cambridge SoundWorks 154 California St. Newton, Mass. 02158 FAX: (617) 332-5915

Camelot Technology 30 Snowflake Rd. Huntingdon Valley, Pa. 19006 FAX: (215) 357-7859

Canton 915 Washington Ave. South Minneapolis, Minn. 55415 FAX: (612) 338-8129

Cardas Audio 480 11th St. S.E. Bandon, Ore. 97411

Carver P.O. Box 1237 Lynnwood, Wash. 98046 FAX: (206) 778-9453

Cary Audio Design 111A Woodwinds Industrial Ct. Cary, N.C. 27511 FAX (919) 460-3828

Cascade Audio Systems P.O. Box 6303 Napa, Cal. 94581

Castle Acoustics See May Audio Marketing

CDE Classical Design & Engineering 7700 Old Branch, C-102 Clinton, Md. 20735

**CEC** See Parasound

Celestion 89 Doug Brown Way Holliston, Mass. 01746 FAX: (508) 429-2426

Cello Ltd. 315 Peck St., Bldg. 23 New Haven, Conn. 06513 FAX: (203) 624-3679

Cello Music and Film Systems 112 East 71st St., Apt. 4 New York, N.Y. 10021 FAX: (212) 879-1434 **Cerwin-Vega** 555 East Easy St. Simi Valley, Cal. 93065

Chapman Sound P.O. Box 140 Vashon, Wash, 98070

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Clarity Audio and Recordings P.O. Box 411407 San Francisco, Cal. 94141

Clark Audio See Immedia

Classé Audio 9414 Cote de Liesse Rd. Lachine, Que. Canada H8T 1A1 FAX: (514) 636-1428

Classic Audio Reproductions 5115 Red Fox Brighton, Mich. 48116 FAX: (313) 229-5969

Clearfield See Counterpoint

Clements 25 Esna Park Dr. Markham, Ont. Canada L3R 1C9

Clif Designs 1602 Babcock St. Costa Mesa, Cal. 92627 FAX: (714) 645-8740

**Don J. Cochran, Inc.** 1900 Embarcadero Rd. Suite 109 Palo Alto, Cal. 94303

Coda Technologies 9941 Horn Rd., Suite A Sacramento, Cal. 95827 FAX: (916) 363-4627

Cogent Research 25166 Via de Anza Laguna Niguel, Cal. 92677 FAX: (714) 495-6712

Colletti Speaker Systems P.O. Box 62 Port Allen, La, 70767

Community Professional Sound Systems 333 East Fifth St. Chester, Pa. 19013 FAX: (215) 874-0190

conrad-johnson group 2733 Merrilee Dr. Fairfax, Va. 22031 FAX: (703) 560-5360

Convergent Audio Technology 85 High Technology Dr. Rush, N.Y. 14543

Counterpoint 2281 Las Palmas Dr. Carlsbad, Cal. 92009 FAX: (619) 431-5986

**Creative Acoustics** 197-09 Jamaica Ave. Hollis, N.Y. 11423

Creek See Music Hall

**Crest Audio** 100 Eisenhower Dr. Paramus, N.J. 07652 FAX: (201) 909-8744

**Crosby Audio Works** 101 North First St., Suite 163 Los Altos, Cal. 94022 FAX: (408) 732-8107

Crown International 1718 West Mishawaka Rd. Elkhart, Ind. 46517

CSI Div., Components Specialties P.O. Box 624 Lindenhurst, N.Y. 11757

Curcio Audio Engineering P.O. Box 643 Trexlertown, Pa. 18087 FAX: (215) 481-3772

Dahlquist 601 Old Willets Path Hauppauge, N.Y. 11788

Dana Audio 5555 North Lamar Blvd. Suite K-113 Austin, Tex. 78751 FAX: (512) 320-1821

Datawave 16611 Arminta St. Van Nuys, Cal. 91406 FAX: (818) 908-9223

Day Sequerra 330 Turnpike St. Canton, Mass. 02021

**D-Box** 715 Delage, Suite 400 Longueuil, Que. Canada J4G 2P8

DB Systems Main St., Box 460 Rindge Center, N.H. 03461 FAX: (603) 899-6415

DCM 670 Airport Blvd. Ann Arbor, Mich. 48108 FAX: (313) 994-0190

DeCoursey Engineering Laboratory 11828 West Jefferson Blvd. Culver City, Cal. 90230

Definitive Technology 11105 Valley Heights Dr Baltimore, Md. 21117 FAX: (410) 363-9998 Dennesen Electrostatics P.O. Box 51 Beverly, Mass. 01915

Denon 222 New Rd. Parsippany, N.J. 07054

Design Acoustics See Audio-Technica

DGX Audio 778 Marconi Ave. Ronkonkoma, N.Y. 11779

DIC Digital Glenpointe Centre West 500 Frank W. Burr Blvd. Teaneck, N.J. 07666 FAX: (201) 692-7757

Digital Phase 2841 Hickory Valley Rd. Chattanooga, Tenn. 37421 FAX: (615) 894-7281

Dimexs P.O. Box 37, Station E Montreal, Que. Canada H2T 3A5 FAX: (514) 277-2172

Discwasher See Recoton

**Dodson Audio** 8881 Pipestone Way San Diego, Cal. 92129

DoReTech Audio Services P.O. Box 6054 S. Hackensack, N.J. 07606 FAX: (201) 843-0488

dpa digital See RCS Audio Intl

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Duntech Audio 111 South Dr. Barrington, III. 60010 FAX: (708) 526-1669

**Dynaco** Div., Panor Corp. 125 Cabot Ct. Hauppauge, N.Y. 11788 FAX: (516) 434-1457

Dynavector See Muse Electronics

Dzurko Acoustics 901 South Fourth St. LaCrosse, Wisc. 54601 FAX: (608) 784-6367

E

EAD Enlightened Audio Designs 300 West Lowe Fairfield, Iowa 52556 FAX: (515) 472-3566

Edge Electronics 2116 Pearl St. Suite A Boulder, Colo. 80302 Edge Marketing See Axiss Distribution

mpany Addressi

**E.F.A.** 1322 Garner Ave. Schenectady, N.Y. 12309

EgglestonWorks Loudspeaker Co. 378 South Main St. Memphis, Tenn. 38103 FAX: (901) 525-1050

**Eidolon Research** P.O. Box 651 Urbana, III. 61801

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Electronic Visionary Systems 2600 Carisbrook Dr. Oakland, Cal. 94611 FAX (510) 530-4238

**Electro-Voice** 600 Cecil St. Buchanan, Mich. 49107 FAX: (616) 695-1304

Elite See Pioneer

Eminent Technology 225 East Palmer St. Tallahassee, Fla. 32301 FAX: (904) 224-5999

Encore Electronics 14818 Goodman Overland Park, Kans. 66223 FAX: (913) 897-7766

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Entec See Crosby Audio Works

**Epik Monitor Systems** 1720 Lilac Dr. Walnut Creek, Cal. 94595

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Esoteric See TEAC

Esoteric Audio U.S.A. R.R. 3, Box 262 Winder, Ga. 30680

Esoteric Sound 4813 Wallbank Ave. Downers Grove, III. 60515 FAX: (708) 969-9137

**Esper Signals** 206-95A Beech St. Ottawa, Ont. Canada K1S 3J7

Essence 805 'M' St. Lincoln, Nebr. 68508 Etymótic Research 61 Martin Lane Elk Grove Village, III. 60007 FAX: (708) 228-6836

Eugenex 2259 Ward Ave. Simi Valley, Cal. 93065

EuroSôn 694 Ft. Salonga Rd. Northport, N.Y. 11768 FAX: (516) 261-7751

Euro-Tech 19 West 44th St. Suite 1010 New York, N.Y. 10036 FAX: (212) 840-2234

Exposure P.O. Box 26736 Austin, Tex. 78755 FAX: (512) 338-1343

Expressive Technologies P.O. Box 6401 Holliston, Mass. 01746 FAX: (508) 429-6583

#### F

Fanfare FM 2100 Old Union Rd. Buffalo, N.Y. 14227 FAX: (416) 793-5984

Fenton Audio P.O. Box 212 Yellow Springs, Ohio 45387

Fidelus Audio See Apax Marketing

First Order See E.F.A.

First Sound 833 S.W. Sunset Blvd. Suite L57 Renton, Wash. 98055 FAX: (206) 277-8653

Fisher 21350 Lassen St. Chatsworth, Cal 91311

Flatline Design See Immedia

FM Acoustics Seestrasse 5A CH-8810 Horgen Switzerland FAX: (011) 41 1 725-7790

Forté Audio See Threshold

**Fosgate-Audionics** P.O. Box 70 Heber City, Utah 84032 FAX: (801) 654-4112

Fried Products 1323 Conshohocken Rd. Norristown, Pa. 19401 FAX: (215) 277-4390

Fuji 555 Taxter Rd. Elmsford, N.Y. 10523

#### G

GC Electronics P.O. Box 1209 Rockford, III. 61105

Gemini Sound Products 1100 Milik St. Carteret, N.J. 07008 FAX: (908) 969-9090

Genesis Technologies 953 South Frontage Rd. West Vail, Colo. 81657 FAX: (303) 476-3518

German Acoustics 5883 North Victoria Dr. Indianapolis, Ind. 46208 FAX: (317) 299-5578

Gertner Audio 991 Bushkill Dr. Easton, Pa. 18042

Gillum Loudspeaker Systems P.O. Box 123 Ridgedale, Mo. 65739

GNP Loudspeakers 1254 East Colorado Bivd. Pasadena, Cal. 91106 FAX: (818) 577-4263

Golden String P.O. Box 2439 Redmond, Wash. 98073 FAX: (206) 868-7339

**Goldmund** 1100 Stewart Ave. Garden City, N.Y. 11530 FAX: (516) 745-0780

Goldring See Music Hall

Gold Sound P.O. Box 141 Englewood, Colo. 80151

Gordon Instruments P.O. Box 150644 Nashville, Tenn, 37215

Gradient See Quad

**Grado Laboratories** 4614 Seventh Ave. Brooklyn, N.Y. 11220

Joseph Grado Signature Products 921 Tice Pl. Westfield, N.J. 07090

Graham Engineering 1 Baron Park, #33 Burlington, Mass. 01803 FAX: (617) 229-7832

Greencorp Magnetics 1015 W. Newport Ctr., 105 Deerfield Beach, Fla. 33442 FAX: (305) 429-9214

Green Mountain Audio P.O. Box 528 Green Mountain Falls, Colo. 80819

Gryphon Audio Designs 12629 Larchmere Blvd. Cleveland, Ohio 44120 FAX: (216) 791-3131

Reuben Guss Enterprises 215 West 92nd St. New York, N.Y. 10025

#### Η

Hafler 613 South Rockford Dr. Tempe, Ariz. 85281 FAX: (602) 984-1528

Hales Audio 700 Harvest Park Dr. Suite H Brentwood, Cal. 94513

Hanks Electric Co. 757 Montrose St. Clermont, Fla, 34711

Harbeth Acoustics See Golden String

Harman Kardon 8380 Balboa Blvd. Northridge, Cal. 91325

Harmonic Precision 427 South Upper Lexington, Ky. 40508

Harms Sound Labs 2016 Laporte Ave. Fort Collins, Colo. 80521 FAX: (303) 482-0730

Harrison Laboratories P.O. Box 1349 Parker, Colo. 80134

Hartley Products P.O. Box 4794 Wilmington, N.C. 28406 FAX: (919) 392-1077

HeadRoom P.O. Box 6549 611 North Wallace Ave Bozeman, Mont. 59771

High Biscus Audio Systems P.O. Box 441 Butler, Pa. 16001

Hinson Audio P.O. Box 32545 9665 Bayview Ave. Richmond Hill, Ont. Canada L4C 0A2

Hovland P.O. Box 629 Culver City, Cal. 90232

Hsu Research 20013 Rainbow Way Cerritos, Cal. 90701 FAX: (310) 924-7550

Icon Acoustics 13 Fortune Dr. Billerica, Mass. 01821

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Immedia 2629 Mabel St. Berkeley, Cal. 94702 FAX: (510) 654-9039

Impulse Route 2, Box 477 Dover, Ark. 72837

Incus Speaker Systems 5195 Main St. Williamsville, N.Y. 14221 FAX: (800) 446-0065

Infinity Systems 9409 Owensmouth Ave. Chatsworth, Cal. 91311

Intersonics 3453 Commercial Ave. Northbrook, III. 60062

In-Wall Audio 5214 134th Pl. N.E. Bellevue, Wash. 98005 FAX: (206) 861-7619

**Island Audio** 49 Cedar Swamp Rd. Glen Cove, N.Y. 11542 FAX: (516) 676-7861

Itone Audio 3429 Morningside Dr. El Sobrante, Cal. 94803 FAX: (510) 232-3837

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Jackson Loudspeaker Co. 4524 North 35th Pl. Phoenix, Ariz. 85018

Jamo 425 Huehl Rd., Bldg. 8 Northbrook, III. 60062

**Janis** See John Marovskis

JBL Consumer Products 240 Crossways Park West Woodbury, N.Y. 11797

Jensen 25 Tri-State Intl. Office Gtr. Suite 400 Lincolnshire, III. 60069

JK Audio 2701 North 45th Rd. Sandwich, III. 60548

JMIab See Keats and Assoc.

Joseph Audio 2 Pineridge Rd. White Plains, N.Y. 10603 FAX: (212) 724-2509

Joule Electra 222 Post Oak Lane North Augusta, S.C. 29841 FAX: (803) 279-6461

**JPW** See Music Hall JRM Engineering 3716 Broadway N.E. Knoxville, Tenn. 37917

MPANY ADDRESSES

**JS Audio** 643 Speedwell Ave. Morris Plains, N.J. 07950

JVC 41 Slater Dr. Elmwood Park, N.J. 07407

#### s

K

KAB Electro-Acoustics P.O. Box 2922 Plainfield, N.J. 07062

George Kaye Audio Labs 368 Third Ave. New York, N.Y. 10016

Keats and Associates 14038 Tanglewood Ct. Dallas, Tex. 75234 FAX: (214) 243-6081

KEF 1701 Touchstone Rd. Colonial Heights, Va. 23834

Kenwood 2201 East Dominguez St. Long Beach, Cal. 90810

Kimber Kable 2752 South 1900 West Ogden, Utah 84401

Kinergetics Research 4260 Charter St. Vernon, Cal. 90058 FAX: (213) 582-9434

**Kinetic Audio** P.O. Box 215 Arlington Heights, III. 60006

Kirksaeter Niederrheinstr. 193 4000 Düsseldorf 30 Germany

KLH 11131 Dora St. Sun Valley, Cal. 91352

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Klyne Audio Arts 20604 Grand Mound S.W. Centralia, Wash. 98531 FAX: (206) 273-6991

Knöll 1547 Gulf Rd., Suite 1206 Point Roberts, Wash. 98281 FAX: (604) 272-5595

Kort Audio 3646 Lyndale Ave. North Minneapolis, Minn. 55412

Koss 4129 North Port Washington Milwaukee, Wisc. 53212 FAX: (414) 964-8615

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**Krell** 35 Higgins Dr. Milford, Conn. 06460

KSS Audio Engineering 2973 Calle Gaucho San Clemente, Cal. 92672

**Kuzma** See VPI

#### L

Lancer Electronics 12340 McCann Dr. Santa Fe Springs, Cal. 90670 FAX: (310) 941-7975

LAT International 317 Provincetown Rd. Dept. A Cherry Hill, N.J. 08034

Lazarus Electronics 8130 Coldwater Canyon North Hollywood, Cal. 91605 FAX: (818) 982-9308

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Legend Audio 5775 Lindero Canyon Rd. Westlake Village, Cal. 91362 FAX: (818) 879-5717

Lenbrook 633 Granite Ct. Pickering, Ont. Canada L1W 3K1

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LFD Audio See Ultra Systems

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Linn See Audiophile Systems

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Loran 10-48 Clark St. Warren, Pa. 16365 FAX: (814) 726-1117

David Lucas, Inc. 924 Hulton Rd. Oakmont, Pa. 15139

Lyra See Immedia

#### M

Mach 1 Acoustics R.R. 2, Box 334-A Wilton, N.H. 03086 FAX: (603) 654-9826

Madison Fielding 200 William St. Port Chester, N.Y. 10573

Madisound P.O. Box 44283 Madison, Wisc. 53744 FAX: (608) 831-3771

Madrigal Audio Laboratories P.O. Box 781 Middletown, Conn. 06457 FAX: (203) 346-1540

Magnavox See Philips

**Magnepan** 1645 Ninth St. White Bear Lake, Minn. 55110

Magnum Dynalab 8 Strathearn Ave., Unit 9 Brampton, Ont. Canada L6T 4L9

Magnum Dynalab U.S.A. 1237 East Main St. Rochester, N.Y. 14609 FAX: (716) 482-8859

Marantz 1150 Feehanville Dr. Mt. Prospect, III. 60056 FAX: (708) 299-4005

Marchand Electronics 1334 Robin Hood Lane Webster, N.Y. 14580 FAX: (716) 265-1614

Mares Designs 137 E. Fremont, #5265 Sunnyvale, Cal. 94087 FAX: (408) 737-7630

John Marovskis Audio Systems 2889 Roebling Ave. Bronx, N.Y. 10461

Marquis Electronics 901 Charity St. Abbeville, La. 70510

Martin-Logan P.O. Box 707 Lawrence, Kans. 66044

Mastercraft Audio Box 2661 Huntington Station, N.Y. 11746

Maston Audio 88 Howard, #815 San Francisco, Cal. 94105 FAX: (408) 997-1558

Maxell 22-08 Route 208 South Fair Lawn, N.J. 07410 FAX: (201) 796-8790 May Audio Marketing P.O. Box 1048 Champlain, N.Y. 12919 FAX: (518) 298-5314

MB Quart Electronics 25 Walpole Park South Walpole, Mass. 02081 FAX: (508) 668-8979

McCormack Audio 542 North Hwy. 101 Leucadia, Cal. 92024

McIntosh Laboratory 2 Chambers St. Binghamton, N.Y. 13903 FAX: (607) 724-0549

McNeill 417 Temple Rd. Monaca, Pa. 15061

Melos Audio 452 Lincoln Blvd. Middlesex, N.J. 08846 FAX: (908) 302-0507

Memorex Memtek Products P.O. Box 901021 Fort Worth, Tex. 76101 FAX: (817) 878-6743

Meret Audio 10920 Indian Trail, #301 Dallas, Tex. 75229 FAX: (214) 243-0332

Meridian 3800 Camp Creek Pkwy. Bldg. 2400, Suite 112 Atlanta, Ga. 30331 FAX: (404) 346-7111

Merlin Music Systems 4705 South Main St. Hemlock, N.Y. 14466 FAX: (716) 367-2685

Merrill Audio 2125 Central Ave. Memphis, Tenn. 38104

Meta Research See Goldmund

Metaxas Audio Systems 230 Rae St. North Fitzroy Melbourne, Victoria 3068 Australia FAX: (011) 61 3 486-2252 or: (011) 61 3 482-2129

MFA 5530 Moraga Ave. Oakland, Cal. 94611 FAX: (510) 547-4465

Michael Green Designs P.O. Box 57 Sugarcreek, Ohio 44681 FAX: (216) 343-8700

J. A. Michell See Artech Electronics

Micromega See Golden String Milbert Amplifiers P.O. Box 1027 Germantown, Md. 20874

Mirage See API

Mission Electronics 400 Matheson Blvd. East Unit 31 Mississauga, Ont. Canada L4Z 1R5 FAX: (416) 507-0797

MIT Music Interface Technologies 3037 Grass Valley Hwy. Auburn, Cal. 95603

Mitsubishi Electronics 5757 Plaza Dr. Cypress, Cal. 90630

**M & K Sound** 10391 Jefferson Blvd. Culver City, Cal. 90232 FAX: (310) 202-8782

Modern Audio Consultants 112 Swanhill Ct. Baltimore, Md. 21208

The Mod Squad See McCormack

Monarchy Audio 380 Swift Ave., Unit 21 S. San Francisco, Cal. 94080 FAX: (415) 588-0335

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Monitor Audio P.O. Box 1355 Buffalo, N.Y. 14205 FAX: (416) 428-0004

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Monster Cable 274 Wattis Way S. San Francisco, Cal. 94080

Bruce Moore Audio Design See RB Electronics

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Morel Acoustics 414 Harvard St. Brookline, Mass. 02146 FAX: (617) 277-2415

Morrison Audio 334 King St. East Unit 407 Toronto, Ont. Canada M5A 1K8

Motif See conrad-johnson

MSB Technology P.O. Box 141 Moss Beach, Cal. 94038 FAX: (415) 747-0405

#### MTX

MTX Soundcraftsmen 555 West Lamm Rd. Freeport, III. 61032 FAX: (815) 233-2124

COMPANY ADDRESSES

Museatex ADS Technologies One Progress Way Wilmington, Mass. 01887

Muse Electronics P.O. Box 2198 Garden Grove, Cal. 92642 FAX: (714) 554-5643

Musical Concepts 1832 Borman Ct., Suite 1 St. Louis, Mo. 63146

Musical Design See Musical Concepts

Musical Surroundings 5856 College Ave., Suite 146 Oakland, Cal. 94618 FAX: (510) 420-0392

Music for Others 12438 Larkwood Dr. St. Louis, Mo. 63146 FAX: (314) 434-9925

Music Hall 108 Station Rd. Great Neck, N.Y. 11023 FAX: (516) 773-3891

Music Labs See E. A. Zarth

Music Reference P.O. Box 40807 Santa Barbara, Cal. 93140 FAX: (805) 962-8335

Music & Sound Imports 2381 Philmont Ave. Suite 117 Huntingdon Valley, Pa. 19006 FAX: (215) 938-1974

**J & J Myers** 22 Parsons Dr. Swampscott, Mass. 01907 FAX: (617) 581-2164

NAD See Lenbrook

Nady Systems 6701 Bay St. Emeryville, Cal. 94608 FAX: (510) 652-5075

Naim Audio 1748 North Sedgwick St. Chicago, III. 60614

Nakamichi 19701 South Vermont Ave. Torrance, Cal. 90502

N.E.A.R. New England Audio Resource 679 Lisbon Rd. Lisbon Falls, Maine 04252 NEI

2373 N.W. 185th, #286 Hillsboro, Ore. 97124 FAX: (503) 289-8361

Nelson-Reed 15810 Blossom Hill Rd. Los Gatos, Cal. 95032 FAX: (408) 358-3113

Nestorovic Laboratories 8307 N.E. 110th Pl. Kirkland, Wash. 98034

Newform Research 203 Eggert Rd. Buffalo, N.Y. 14215 FAX: (716) 871-1110

NHT Now Hear This 535 Getty Ct , Bldg. A Benicia, Cal. 94510 FAX: (707) 747-0169

Niles Audio P.O. Box 160818 Miami, Fla. 33116 FAX: (305) 238-0185

Nitty Gritty 4650 Arrow Hwy., #F4 Montclair, Cal. 91763

Nobis Technologies N114 W18605 Clinton Dr. Germantown, Wisc. 53022 FAX: (414) 253-9033

Norman Laboratories 1905 Atchison Dr. Norman, Okla. 73069

Now Hear This See NHT

NPR Audio Route 109, P.O. Box 440 Melvin Village, N.H. 03850 FAX: (603) 544-8901

NRG Control P.O. Box 389 Walled Lake, Mich. 48390

NSM See EuroSōri

NSM Loudspeakers P.O. Box 326 Garden City, N.Y. 11530 FAX: (516) 538-0933

Numark East Bay Office Pk., #109 1445 Wampanoag Tr. East Providence, R.L 02915 FAX: (401) 437-9386

OCM Technology See Magnum Dynalab

Octave Research 183-08 Camden Ave. St. Albans, N.Y. 11412

OEM Systems 740 Freeport, Suite 106 Sparks, Nev 89431 FAX: (702) 355-0646 **Ohm Acoustics** 241 Taaffe Pl. Brooklyn, N.Y. 11205 FAX: (718) 857-2472

**Omni Sound** 19020 Preston Rd. Dallas, Tex. 75252 FAX: (214) 964-0113

OmniSurround 60 East Ida St. Antioch, III, 60002

Onix Electronics See RCS Audio Intl.

**Onkyo** 200 Williams Dr. Ramsey, N.J. 07446

Optimus See Radio Shack

Oracle Audio C.P./P.O. Box 394 Edmundston, N.B. Canada E3V 3L1 FAX: (506) 735-5810

Oracle Audio U.S.A. 1237 Nielsen Dr. Clarkston, Ga. 30021

Orca 1531 Lookout Dr. Agoura, Cal. 91301

Ortofon 65 East Bethpage Rd. Plainview, N.Y. 11803

Ötvös Industries R.R. 4 Brighton, Ont. Canada K0K 1H0

**OWI** 1160 Mahalo Pl. Compton, Cal. 90220

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Oxford See Knöll

#### P PAC

Perfectionist Audio Components 32 Church St. Malverne, N.Y. 11565 FAX: (516) 887-6009

Pacific Sound & Signal See Knöll

Packburn Electronics P.O. Box 335 DeWitt, N.Y. 13214

Panasonic One Panasonic Way Secaucus, N.J. 07094

Paradigm See AudioStream

Paradox 16350 Enramada Rd. Victorville, Cal. 92392 FAX: (619) 245-8435

**Paragon Acoustics** 30 93rd St. West Suite 201-A Bloomington, Minn. 55420

Parasound 950 Battery St. San Francisco, Cal. 94111

**Pass Laboratories** 21555 Limestone Way Foresthill, Cal. 95631 FAX: (916) 367-2193

**Patterson Audio Systems** P.O. Box 87261 Canton, Mich. 48187

**PBN Speakers** 16619 Wikiup Rd. Ramona, Cal. 92065 FAX: (619) 789-3784

Pegasus Audio See The Speaker Factory

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Phase Technology 6400 Youngerman Cir. Jacksonville, Fla. 32244

Philips One Philips Dr. Knoxville, Tenn. 37914

Phototronics P.O. Box 977 Manotick, Ont. Canada K4M 1A8 FAX: (613) 692-2605

PhyZics 2680 Post Oak Ct. N.E. Marietta, Ga. 30062

Pickering 101 Sunnyside Blvd. Plainview, N.Y. 11803 FAX: (516) 349-0230

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Pioneer P.O. Box 1540 Long Beach, Cal. 90801

**Placete Engineering** 7345 Cascade Boise, Idaho 83704 FAX: (208) 322-1760

**Planar Audio Marketing** 6218 Saltmarsh Ct. Mississauga, Ont. Canada L5N 5X7 FAX: (416) 824-9214

#### Platinum Electronics 1095 Spice Island, #100 Sparks, Nev. 89431

**PointSource Audio** P.O. Box 788 Whiting, Ind. 46394

Polk Audio 5601 Metro Dr. Baltimore, Md. 21215 FAX: (410) 764-5266

**POSH Speaker Systems** 7865 N.E. Day Rd. West Bldg. C Bainbridge Island, Wash 98110 FAX: (206) 842-0494

Prelude 25 Esna Park Dr. Markham, Ont. Canada L3R 1C9

Presence Audio See First Sound

Pres Speakers 59 North St Hatfield, Mass. 01038

ProAc See Modern Audio Consultants

Pro Audio Ltd. 111 South Dr. Barrington, Ill. 60010 FAX: (708) 526-1669

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