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**stereophile**

RECOMMENDED COMPONENTS

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# THE 500 BEST AUDIO COMPONENTS

COMPONENTS LISTED HERE HAVE BEEN FORMALLY REVIEWED IN *STEREOPHILE* AND HAVE BEEN FOUND TO BE AMONG THE **BEST AVAILABLE** IN EACH OF FOUR OR FIVE QUALITY CLASSES. WHETHER A COMPONENT IS LISTED IN CLASS A OR CLASS E, WE HIGHLY RECOMMEND ITS PURCHASE.

Each listing — in alphabetical order within classes — is followed by a brief description of the product's sonic characteristics and a code indicating the *Stereophile* Volume and Issue in which that product's report appeared. Thus the September 2003 issue is indicated as "Vol.26 No.9." Please note that dedicated home-theater products are no longer included in this listing but are part of *Stereophile* Guide to Home Theater's "Recommended Components," the most recent version of which was published in that magazine's March/April 2003 edition (Issue 63, Vol.9 No.3).

Some products listed have not yet been reported on; these are marked (NR), for "Not Reviewed." We recommend that you read any product's entire review before seriously contemplating a purchase (products without reviews should therefore be treated with more caution) — many salient characteristics, peculiarities, and caveats appear in the reviews, but not here. To obtain back issues of the magazine, visit our website: [www.stereophile.com](http://www.stereophile.com). We regret that we cannot supply photocopies or e-mail copies of individual reviews. Some reviews are reprinted in our website "Archives" Section: these are marked "WWW." More are added each week, so check the on-line listing. PDF files of past listings are also available for purchase. Each \$9.95 file includes a complete year's worth of "Recommended Components."

In general, components do not remain listed for more than three years unless at least one of the magazine's writers and editors has had continued experience with them. Discontinuation of a model also precludes its appearance. In addition, though professional components — recorders, amplifiers, monitor speaker systems — can be obtained secondhand and can sometimes offer performance that would otherwise guarantee inclusion, we do not generally do so. *Stereophile*'s "Recommended Components" listing is almost exclusively concerned with products currently available in the US through the usual hi-fi retail outlets.

## How recommendations are determined

The ratings given components included in this listing are based entirely on performance — ie, accuracy of reproduction — and are biased to an extent by our feeling that things added to reproduced sound (eg, flutter, distortion, colorations of various kinds) are of more concern to the musically oriented listener than are things subtracted from the sound (eg, deep bass or extreme treble). On the other hand, components markedly deficient in one or more respects are downrated to the extent that their deficiencies interfere with the full realization of the program material.

We try to include in "Recommended Components" every product that we have found to be truly excellent or that we feel represents good value for money. Bear in mind that many different tastes are represented. The listing is compiled after consultation with *Stereophile*'s reviewing staff and editors, and takes into account continued experience of a product after the formal review has been published. In particular, we take account of unreliability and defects that show up after extended auditioning. The fact that a product received a favorable review cannot therefore be regarded as a guarantee that it will continue to appear in this listing.

The prices indicated are those current at the time the listing was compiled (August 2003). We cannot guarantee that any of these prices will be the same by the time this issue of *Stereophile* appears in print.

Where we have found a product to perform much better than might be expected from its price, we have drawn attention to it with a \$\$\$ next to its listing. We also indicate, with a I, products that have been on this list in one incarnation or another since the "Recommended Components" listing in Vol.23 No.10 (October 2000). Longevity in a hi-fi component is rare enough that we think it worth noting (although it can also indicate that the attention of design engineers has moved elsewhere).

A note on editorial style is in order. When a passage is quoted from the original review, the past tense is used. But when the comment is taken from a more recent private communication from a reviewer, the present tense is used. For example: "Sounded so good I had to cry," said JA of the original version of the Symphonic Bombast A-123 in his review. ST demurs, however, saying that the current Mk.VIa makes his reference speakers "sound like the woofers are disconnected!"

We are not sympathetic toward letters complaining that the Symphonic Bombast A-123 that we recommended heartily two years ago no longer makes it into "Recommended Components." Where deletions are made, we endeavor to give reasons (there are always reasons). But remember: Deletion of a component from this list does not invalidate a buying decision you have made.

Individual reviewers mentioned by their initials are: John Atkinson, Paul Bolin, Lonnie Brownell, Martin Colloms, Brian Damkroger, Robert Deutsch, Shannon Dickson, Art Dudley, Michael Fremer, Corey Greenberg, Larry Greenhill, J. Gordon Holt, Lewis Lipnick, John Marks, Paul Messenger, Thomas J. Norton, Wes Phillips, Bob J. Reina, Kalman Rubinson, Markus Sauer, Jonathan Scull (J-10), Chip Stern, Sam Tellig, and Barry Willis.

# How to Use the Listings

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Carefully read our descriptions here, the original reviews, and (heaven forbid) reviews in other magazines to put together a short list of components to choose from. Evaluate your room, your source material and front-end(s), your speakers, and your tastes. With luck, you may come up with a selection to audition at your favorite dealer(s). *"Recommended Components" will not tell you what to buy any more than Consumer Reports would presume to tell you whom to marry!*

## Class A

Best attainable sound for a component of its kind, without any practical considerations; "the least musical compromise." A Class A system is one for which you don't have to make a leap of faith to believe that you're hearing the real thing. With the recent launches of Super Audio CD and 24/96 DAD, and the imminent introduction of DVD-Audio, we have created a new Class, A+, for the best performance in those digital categories. Class A now represents the best that can be obtained from the conventional 16/44.1kHz CD medium. We also created a Class A+ category for turntables, to recognize the achievement of the Rockport Sirius.

## Class B

The next best thing to the very best sound reproduction; Class B components generally cost less than those in Class A, but most Class B components are still quite expensive.

## Class C

Somewhat lower-fi sound, but far more musically natural than average home-component high fidelity; products in this class are of high quality but still affordable.

## Class D

Satisfying musical sound, but these components are either of significantly lower fidelity than the best available, or exhibit major compromises in performance — limited dynamic range, for example. Bear in mind that appearance in Class D still means that we recommend this product — it's possible to put together a musically satisfying system exclusively from Class D components.

## Class E

Applying only to loudspeakers, this "Entry Level" classification includes products that may have obvious defects, but are both inexpensive and much better than most products in their mid-fi price category.

## Class K

"Keep your eye on this product." Class K is for components that we have not reviewed (or have not finished testing), but that we have reason to believe may be excellent performers. We are not actually recommending these components, only suggesting you give them a listen. Though the report has yet to be published in certain cases, the reviewer and editor sometimes feel confident enough that the reviewer's opinion is sufficiently well formed to include what otherwise would be an entry in one of the other classes, marked (NR).

# Turntables

## A+

Rockport Technologies System III Sirius: \$73,750 ☆

What can you say about a \$73,750 'table and arm? The System III Sirius is all air-driven, exquisitely constructed, and 550 lbs in its stocking feet, with a "captured" linear-tracking, high-pressure, low-flow arm and bearing. It took all of 30 seconds for MF to realize that "it was in every way laughably better than anything else I'd ever heard." How so? "Its overall presentation was so much bigger, more focused, solid, three-dimensional, sure-footed, dynamic, and seamless, that I lost my footing. Literally. I was floored!" It rotates the LP with utter precision, "puts the stylus on a straight and true path across the record surface, while allowing for precise adjustment of all parameters, which it then reliably holds indefinitely." (Vol.23 No.8; see also "Letters" in Vol.23 No.10 WWW)

## A

Avid Acutus: \$10,000

Based on a main chassis that includes three spring-suspension towers and a cast-aluminum subchassis, the Acutus is built to be "extremely rigid but not critically damped." MF: "The theory behind all of this is to allow vibrational energy at the stylus/record interface to be quickly and efficiently transmitted to the main bearing and then to the subchassis, where, much like an electrical 'diode,' it can't travel back in the other direction." Though MF was disappointed by the Acutus being more than 1% slow, it was still among the handful of the best turntables he's heard: "It definitely matched the SME 30/2 in the way the music emerged from jet-'black' silence," reminding him of the Rockport System III Sirius. "The Avid's bass was deep, powerful, very well-focused, and rhythmically nimble, though it couldn't match the SME's weight, drive, solidity, or ultimate control... The Acutus has an airier top end because I didn't find the overall sound at all bright, though tonally, despite running slightly slow, there was slightly more overall leading edge." (Vol.26 No.5)

Simon Yorke Designs Series 7 Precision

Analogue Disc Transcription System: \$12,500 ☆

This built-to-order belt-drive, suspensionless turntable is MF's current reference — and that of the Library of Congress. MF: "The complete system . . . is a formidable analog playback system, a masterful work of visual and sonic art that's hard to fault. It provides a gloriously cohesive, always musical sound — a superbly balanced sonic picture that combines deep, tightly focused bass...with extended, detailed edge- and etch-free high frequencies devoid of brightness or exaggeration... There's nothing "hi-fi" about the Yorke combo; it just sounds musically 'right' whether handed hard rock or Heifetz." Stereophile's "Analog Component of 1998." Package including Active Vibrplane, \$11,500. (Vol.21 No.6)

SME 30/2: \$25,000

In addition to audio engineering, SME also does precision CNC machining and measuring for Formula One race cars and for the medical, aerospace, and aviation industries. That prowess was evident in their Model 30/2, according to MF: "Dense, compact, and built to run O-rings around the competition, SME's flagship turntable makes every other design I've encountered — with the possible exception of Rockport's System III Sirius — look almost homemade... I don't think anyone else building turntables today is capable of this level of construction quality, never mind design ingenuity and fit'n'finish... The SME Model 30/2's precision-machined parts, its superb damping and isolation, its high-mass,

low-flex plinth, its accurate, stable drive system, and, most of all, its sound or lack thereof, might just make it the finest turntable in the world." Price does not include tonearm. Mikey preferred the Graham 2.2 arm with the 30/2 in his system, rather than SME's own Model IV.Vi. (Vol.26 No.3 WWW)

VPI TNT Mk.V: \$6000 ☆

Modular design allows owners of older models to upgrade easily and inexpensively, or lets the impecunious begin with the TNT Jr. and upgrade as finances allow. Slightly on the warm side of neutrality, asserted MF, but "big, full, weighty, and rich." The massive 'table's speed stability and ultra-low noise floor "float-ed" the sound so far beyond the reality of a stylus in a groove, it liberated it from the mechanical world to the living, breathing, real musical world." WP, a longtime Linnie, feels the current iteration finally swings realistically. He concurs with LA, BJR, and MF: definite Class A. Includes air suspension, flywheel, and bearing attachment. Mk.3 upgrade is \$1400; bearing attachment upgrade is \$400 plus old bearing. The Hot Rod version of the TNT V (\$8000) comes equipped with a JMW-12.5 tonearm and SDS, but drops the three-pulley subchassis and removable arm-board. Fans of the TNT V should not be alarmed by the changes, BD assured us. The soundstage was deep and wide, the tonal balance slightly warm, and the bottom end exceptionally tight and fast. (Vol.19 No.11, Vol.22 Nos.2 & 6, Vol.24 No.12 WWW)

## B

Acoustic Signature Final Tool: \$2500 \$\$\$

Perhaps the greatest mid-priced bargain in analog today, sez MF. Ruggedly built, with precision-machined, 24-lb damped aluminum platter. Should last a lifetime or even two. Sophisticated motor controller, ultra-smooth-running motor, three-arm/three-motor capable. Muscular sound, but not for those who like their analog "warm" and "lush." (Vol.24 No.9)

Linn Sondek LP12, with Lingo power supply:

\$3550–\$3600, depending on finish and options \$\$\$ ☆

Compared with Linn's Valhalla, the Lingo-equipped Sondek minimizes the LP12's propensity toward a slightly fat midbass, subjectively extending the low frequencies by another octave. The Lingo upgrade alone costs \$1550. The Trampolin suspension reduces the effect of the support. Cirkus bearing/subchassis, fitted as standard, costs \$645 including labor as an upgrade kit, and further extends and tightens the 'table's bass, leading to a borderline Class A rating, according to MC, JA, and LG (as long as a good support is used, adds MC). "A deeper, more profound silence," enthuses WP over the Cirkus mod, adding that what stunned him was "the extent to which surface noise receded into insignificance." Superbly low measured rumble and excellent speed stability reinforce the feeling of maximum musical involvement offered by this classic belt-drive turntable. Good isolation from shock and vibration. While the felt mat doesn't offer the greatest degree of vibration suppression within the vinyl disc, what absorption it does offer is uniform with frequency. Despite flirtations with other decks, JA remains true to the basic design he has used now for almost 25 years. Version with internal Valhalla power supply costs \$2275–\$2350, gives Class C sound; with the Basik power supply it costs \$2070. (Vol.7 No.2, Vol.13 No.3, Valhalla; Vol.14 No.1, Vol.16 No.12, Vol.17 No.5, Vol.19 No.2 WWW, Lingo)

Rega P9: \$3500

The P9 is "compact, super-rigid, meticulously built, and definitely not for tweakers." Though it doesn't allow for micro-VTA adjustments, it is "one of the tightest, fastest, quietest analog rides out there at any price." While small and light, it still achieved deep bass: "It packed a wallop in terms of low-fre-

quency extension and dynamic slam, but it had superb low-end focus and control...Airy, easy, open, and light on its feet," MF concluded. The superb RB1000 arm (\$1595) outclasses the turntable, feels PM. MF enthusiastically agrees: "Combines the bearings of a Breuer with the structural integrity of the Brooklyn Bridge!" (Vol.25 No.11)

SME Model 10: \$6995 ☆

Belt drive, polymer-insert suspension. "With its simple suspensionless construction, you can have this 'table up and running in just a few minutes," said MF. "Absolutely magnificent piece of gleaming industrial architecture," he called it. "If you value tight focus, slam, bass control and weight, cleanly sharpened 'edge,' black backgrounds, and relentlessly 'right' rhythmic performance, and are willing to give up a bit of the cushy, floaty lushness and richness in the midrange..." then this is the 'table for you. Price is with SME Model 10 tonearm; without arm, \$6250; with SME IV.Vi tonearm (see "Tonearms"), \$8250. (Vol.23 No.4 WWW)

SOTA Cosmos Series III: \$5520

Incorporates the same drilled-out and damped subchassis of solid aluminum as the \$7360 Millennia and uses a new 24-pole stepper motor with a synthesized-sinewave power supply. Numerous improvements have also been made to the vacuum system and external power supply. PB: "With the new motor and power supply, issues of speed stability are things of the past... The replacement of the wood-and-metal subchassis with solid, damped aluminum drastically calms and improves every aspect of the 'table's performance." Soundstaging, resolution, and dynamics, all strong suits of the earlier SOTA, have been drastically improved. Remanufacture of an early Cosmos to current specification costs around \$3000. (Vol.13 No.7, Vol.15 No.3, original Cosmos; Vol.26 No.7, Series III WWW)

VPI Aries Scout: \$900 \$\$\$

AD: "Designer Harry Weisfeld has whapped the ball so far out of the park with this one, it isn't funny. There's a glorious sense of completeness — of wholeness and rightness — in the way the Aries Scout/JMW-9 combination of turntable and tonearm plays music, echoed and underscored by those same qualities in the player's appearance and ease of use... One song was all it took — one verse, if you want to know the truth — to know that the Scout/JMW combination did an excellent job of getting the notes off the record and weaving them into believable, convincing, rhythmically involving music.... Go hear VPI's new player right away. This is not a cautious, conditional, 'for special tastes only' recommendation... Rather, this is a flat-out, unconditional, 'Holy Mother of Crap, I can't believe how good this thing is' recommendation. It's hard to imagine another way of spending \$1500 that will add this much to your system." Price is for turntable only; add \$700 for JMW-9 tonearm (see "Tonearms"). (Vol.26 No.2 WWW)

VPI Extended Aries: \$4900, including JMW-12.5 tonearm MF advised: "You can save a great deal of money by buying the Aries instead of the TNT, and I bet you the sound is very, very close. But if you're not super-careful about what you place it on, and if you don't level it precisely, you won't get what you paid for." The Aries rests on four cones that used to be hard-mounted to the plinth but are now attached with a Neoprene sandwich to permit some horizontal give. Even so, the VPI turntable is fussy about the support it is placed on. Replacing these feet with new ones and four aluminum plinth cones supplied by VPI, MF found that that motor noise diminished and the 'table's overall sound seemed to tighten and exhibit better focus. Overall, "the sonic picture the Aries/JMW-12.5 painted was still big, assured, and relaxed, but far more detailed overall, with faster transients and far greater rhyth-

mic excitement than the original arm delivered with my TNT." he concluded. "The sound was compelling, the presentation substantial, with form and rhythmic solidarity — all things I'd had trouble finding with the original design." He did warn against using softer, mellower cartridges, however. (Vol.25 Nos.3 & 11)

## C

Clearaudio Champion 2: \$2800

Belt-drive turntable with a supposedly resonance-optimized shape. Excellent speed stability and very good bass, with an overall presentation that was slightly on the forward side and a soundstage with excellent breadth, well-developed images, good depth, and admirable dynamic performance. PB: "The Champion 2 is superbly styled and built, and has a lively, well-balanced, and engaging sound when paired with the [Clearaudio] Unify arm and Benz Micro L2 cartridge. However, the difficulty of its assembly and setup borders on the unacceptable." (Vol.26 No.7 WWW)

Music Hall MMF-9: \$1695

Uses the same Pro-Ject tonearm, inverted thrust bearing, outboard motor, and square drive belt as the Pro-Ject RM-9. MF: "The MMF-9 is a far more handsome and elegantly finished turntable, and adds more features at no extra cost to the basic components of the RM-9." Its sound, too, resembled the RM-9's: "tight, fast, and punchy, and not because it ran a bit fast... But I found myself wanting a little more richness. I felt the MMF-9/Maestro's sound, like the RM-9's, was somewhat clinical." (Vol.26 No.8)

Music Hall MMF-7: \$1099 with tonearm and cartridge With the MMF-7's split plinth, freestanding motor, Pro-Ject 9 tonearm, and Goldring Eroica H cartridge, "Roy Hall has painted his masterpiece," MF declared. Though he found the overall sound to be a bit too warm and rich, it was "a fine all-around performer... The kind of reasonably priced, well-balanced product that will deceive you into thinking you're getting it all." He recommended using a Ringmat in place of a felt mat to gain greater midbass control and tonal neutrality. A bonus: Setup takes no longer than 15 minutes. (Vol.24 No.11)

Nottingham Analogue Horizon: \$1199

The Horizon, Nottingham's least expensive turntable, resembles a stripped-down version of their most expensive model, the AnnaLog. It has a hefty cast-iron platter and uses the Rega RB250 tonearm, supplied with a mounting collar with a locking VTA adjustment insert. MF liked the Horizon's rich, nuanced sound, thinking it mimicked the sound of multi-thousand-dollar rigs, in lacking the "slightly glazed" presentation of other affordable turntables. "The Horizon delivered 'touch' and 'feel' and delicacy that most of the others, good as they were, only hinted at," said MF. (Vol.26 No.2)

Pro-Ject Perspective: \$999

While the Perspective uses the same tonearm as Pro-Ject's RM-4, and a similar main bearing and platter, Mikey noted that "The Perspective's biggest improvement over the RM-4 is its ingenious silicone-damped, suspended subchassis... [It] took a giant step past the RM-4 in every way. Music emerged from a far blacker background to achieve the 'floating sensation' you get with the better turntables... Instruments inhabited separate spaces and attained a greater level of solidity and three-dimensionality. The bass was tighter and more articulate... Dynamics improved markedly... Rhythm and drive scored big as well, with much greater snap, drive, and excitement, although, like the RM-4, the Perspective ran slightly fast." Compared to the top turntables in its class, with the Perspective you "give up significant perform-



ance at the extremes, there's a bit of mush in the upper mid-band, and the overall sound is down a few pegs." However, moving a step up from the RM-4 for "twice the price, you'll get more than twice your money's worth." (Vol.26 No.1)

#### Pro-Ject RM-9: \$1299

The RM-9 uses an inverted thrust bearing with integral Teflon ball, which fits in a brass sleeve and puts the turntable's center of gravity well below the bearing contact point, thus increasing speed stability. MF: "The RM-9 is for those who prefer a slightly faster, punchier, and rhythmically taut ride than the Perspective gives... The improvement in speed stability was noticeable in better transients and greater musical drive and excitement... I admired the RM-9's clarity and drive, and its ability to more precisely define images in space compared to the Perspective, but I'm not sure it's worth the extra \$500... Few \$500 cartridges sound 'rich'; the Perspective, whether because of its suspension or something else, added a pleasant 'richness' to the sound that the Pro-Ject RM-9 did not." (Vol.26 No.1)

#### Rega P3: \$650 \$\$\$

Upgrade of Rega's classic belt-drive Planar 3 features a new, low-mass plinth and a motor arrangement, but still uses Rega's superb RB300 tonearm. The P3's ancestry was also obvious to MF: "The P3 continues the Planar 3's sonic heritage: it's fast, slightly forward, and a bit etched. It's lively as hell but coherent, the music all arriving at close to the same time — an easy-to-listen-to turntable with a well-balanced palette of subtractive faults... The P3 features elegant design, a superb tonearm, and lively, open sound. It rocks." Review sample ran a full 1% fast. (Vol.26 No.2)

#### Rega Planar 25: \$1150, with tonearm \$\$\$

Sam's favorite 'table! "A beautiful, brilliant piece of engineering," says ST. "The same goes for the RB600 arm, which is usually installed on the 'table. Once you set it up, you can forget it. Nothing tweaky here. Rega turntables have an exceptional reputation for reliability." In fact, he thinks this will be the last turntable he ever buys. MF adds: "Dynamic, exciting sound. Compact and easy to use." Stereophile's "Joint Analog Source of 1999." (Vol.22 Nos.3 & 5, Vol.24 No.1 WWW)

#### SOTA Comet II: \$934

While it won't win any beauty contests, the Comet II, equipped with Rega RB300 tonearm, offers a lot of engineering value. However, MF was unhappy with the amount of play in the bearing, and noted that the platter's speed was off by about 1%. He described the negative effects: "Things sound snappy and lively, but a bit crisp: heavy on transients, light on harmonics. Images are forward on the stage, with a bit of etch added to the cymbals and female vocals." The Comet II's overall presentation was "slightly aggressive, but with fine dynamic sock and good bass extension and control." For optimum performance, make sure your sample runs at the right speed — or within 0.5% of it. (Vol.26 No.2)

## D

Music Hall MMF-5: \$549 with tonearm and cartridge  
Split-plinth design with visco-elastic cones and discs to isolate bearing/platter/arm from motor. Plug'n'play, says MF, offering azimuth and VTA adjustment that the Rega Planar 2 and 3 don't have, even if their overall builds are slightly better. MF called it a "pleasant" design, aesthetically and sonically. "It'll make an analog believer out of the most doctrinaire digital fanatic." Warm, sweet, open, and coherent, "a gateway drug into the intoxicating world of analog... Get hooked. You'll never go back." Price includes tonearm and Goldring 1012GX MM cartridge. (Vol.23 No.7)

#### Pro-Ject RM-4: \$499 with tonearm

MF: "The RM-4 is a decent place to start an analog journey, but you won't want to stay there too long... It committed no gross errors, ran impressively quiet and smooth, and its arm could do justice to any reasonably priced cartridge... But the RM-4 was limited in its ability to carve out instruments in three-dimensional space, its dynamic capabilities were somewhat stunted, and it did only a so-so job of resolving low-level details. Transients were somewhat softened, and bass, while impressively extended, was robbed of articulation and rhythmic drive. On the plus side, the RM-4 avoided the hard, metallic, hollow sound of some budget 'tables... However, if \$495 is your limit... the RM-4 will deliver analog's expressiveness as no CD player at any price can." (Vol.26 No.1)

#### Deletions

*Michell GyroDec SE not auditioned in a long time to be sure of rating.*

## Tonearms

## A

#### Graham 2.2: \$3200, depending on options ☆

The most significant difference between the original 1.5 and the 2.0 is the latter's rigid mounting platform. "A major improvement sonically (in the bass) and mechanically," writes MF. "The Graham 2.0 is one of the most neutral, revealing cartridge carriers you can buy, though I wouldn't mind a bit more bloom and richness — a bit more generosity — in the mids and upper mids." Purchasers should experiment with arm cables, which can make a big difference. Ease of setup and removable arm wand "make it the arm for those with multiple cartridges." The Graham 2.0 is appropriate for use on a Linn Sondek LP12 — the Graham LP12 three-layer armboard costs \$150. A 2.0 adapter plate is now available for the SME Model 10 for less than \$100, as well as armboards and adapter plates for the VPI, Linn, Clearaudio, and SME Model 20 and 30 'tables. The upgrade kit to the latest 2.2 spec costs \$325. Although the physical alterations are subtle — a new bearing system, small changes to the armwand support block, and a new one-piece mounting base — the sonic improvements are not. The midbass is "fleshed out" and the very top is "sweeter" and "somewhat less analytical." Overall, the 2.2 sounded "far more supple, rich, and inviting while retaining all of the transient speed and resolution of inner detail that had already placed it in the top echelon of tonearms." Compared to an upgraded 2.0, the all-new 2.2 had "slightly more solidity and weight on bottom, and greater richness and harmonic development in the midrange." However, MF advised: "Should you trade in your old 2.0 for an all-new 2.2, or just upgrade the bearing cap? I'd upgrade; the differences were not major." Also now available are the 2.1 Basic (\$1995) and the 2.1 Basic Ceramic (\$2495), both upgradeable to 2.2 status. (Vol.21 No.2, Vol.24 Nos.1 & 10, Vol.25 No.7 WWW)

#### Immedia Tonearm: \$2995 ☆

Originally called the RPM-2, this medium/high-mass damped unipivot tonearm is one of MF's favorites; WP, too, is a big admirer. Sez Mikey, "It is...brilliantly designed and executed, and it sounds bitchin'!" Not for everyone, however. It must be mounted on a well-isolated armboard. Some will find the RPM-2's "just the facts" delivery lean, but WP thinks it's just reporting what's there, adding next to nothing of its own. Others may find it a bit too "fiddly" — changing VTA also involves changing VTF and damping. New six-nines-copper wiring harness and grounding scheme improve low-level resolution, increase spaciousness, and quiet background even further, per MF. (Vol.20 No.5)

Linn Ekos: \$2695 ☆

Cleaner-sounding than the earlier Ittok (on which it's loosely based), the Ekos rivals the SME in overall neutrality while offering a somewhat brighter, more energetic presentation of the music. The treble is nevertheless superbly transparent. The Ekos also provides a much better match with the Linn LP12 than the English arm, which loses control of the bass when mounted on the Scottish turntable. MC also found the Ekos' bass to be more tuneful and "open" than that of the original Ittok. Azimuth adjustment is not possible. Some users have reported long-term problems with the bearings; the sample JA bought in 1989 has been okay in this respect. (Vol.12 Nos.3 & 4, Vol.13 No.3, Vol.16 No.6 WWW)

Naim ARO: \$2650 ☆

"An inner balance and harmony consistent with the musical message," says MC of this unipivot design. MS found the ARO to offer superb timbral accuracy, soundstaging, dynamics, and rhythmic integrity. He also found it less bright than the Linn Ekos, and better balanced in the bass than the SME V. WP concurs, ranking it high among the arms he's auditioned, but cautions that the lack of any overhang adjustment dictates careful cartridge matching, or the ability to drill new armboards with different radii from the spindle for each new transducer. Additional arm tops cost \$1350. (Vol.16 No.6, Vol.19 No.2 WWW)

SME IV.Vi: \$2995 ☆

Very similar in character to the extraordinarily neutral SME V. Raised the level of performance of the SME Model 10 even further, exclaimed MF. "Noticeable improvement in low-level resolution, retrieval of inner detail, and, not surprisingly, soundstage depth, with back-of-hall events coming into finer focus." Overall, a smoother picture "that bettered in every way an already impressive performance" from the "stock" M10 tonearm. A first-class performer that forced MF to reassess his opinion of SME arms. (Vol.9 No.6, Vol.14 No.8, Vol.16 No.6, SME V; Vol.23 No.4, Vol.24 No.1, SME IV.Vi)

Tri-Planar Mk.VI Ultimate: \$3250

This venerable tonearm maker has a new owner (see "Analog Corner," March 2001). The Mk.VI Ultimate builds on earlier versions, "with a larger-diameter headshell tube, a larger damping trough, and redesigned bearings, featuring handmade hardened and polished needle cones." Many of the arm's parts are still made by Papier's machinist in Maryland. "Right out of the box," MF said, "it was obvious that the Tri-Planar's build quality is still topnotch." But MF still has a beef with the headshell screw slots — "way too wide." Still, "the Tri-Planar was one of the first...captured-bearing tonearms to offer easily adjustable VTA and azimuth adjustment." MF: "The sound of the Tri-Planar had not changed appreciably since I last auditioned it: It offered unerring, rock-solid image and soundstage stability. The bass was extended and lithe, and high-frequency transients were cleanly presented. The picture was airy and big... In any case, the Tri-Planar's ability to resolve low-level detail was superb, and its tonal balance and frequency extension were exemplary." Price includes 1m cable/RCA plug termination or 10" wire to RCA-jack junction box. (Vol.18 No.2, Vol.21 No.3, earlier versions; Vol.24 No.7, Mk.VI Ultimate)

VPI JMW-12.5: \$2400 ☆

Unipivot tonearm features vestigial antiskating, which disconcerted MF. Nonetheless, he enthused over its lush midrange, ultra-smooth top end, and rock-solid imaging and soundstaging: "Subjectively, it seemed to have lower distortion than any other pivoted arm I've heard, but part of that might be the result of its smoooooth frequency balance. Inner detail was out-

standing." However, he added, "I think there's a slight midbass exaggeration that may be part of the spreading warmth above this range, and which gives this arm its inviting midrange." BD says of the 12" version, "lowers the original's already low distortion. The background is blacker and the arm seems to float an infinite well of inner and low-level details. The tonal balance is more neutral, but combined with the TNT III or IV, is still warm and inviting." With the 12.5, Harry Weisfeld made small but important modifications to the 12" JMW that resulted in heightened rigidity, a reduced center of mass, and improved damping. What BD found most impressive was the "obvious-once-you-see-it" touch of the small V groove machined into the top of the headshell. This allows the user to more easily gauge headshell tilt while setting azimuth. "Neat!" MF adds: "Luxurious midrange, low distortion, and ease of setup and use make this a very attractive arm if your table can handle the length." Additional arm assemblies cost \$400. (Vol.20 No.1, Vol.24 No.12, Vol.25 No.3 WWW)

## B

Clearaudio Unify: \$1000

PB: "The Unify is a slick-looking unipivot tonearm with a sexy carbon-fiber armtube for low resonance and high stiffness. Azimuth and VTA are adjustable, and a length of Clearaudio's Six-Stream interconnect is permanently attached. This makes it a bit tricky to handle during setup, as the arm is completely undamped... The Unify's cueing is also undamped... simply flipping the lever forward results in the arm immediately dropping straight down to bang the stylus on the record, with the potential for catastrophic results." (Vol.26 No.7 WWW)

Graham Robin: \$645

Fixed-pivot, medium-mass tonearm with removable headshell, designed to drop into a standard Rega mounting hole using a base plate that permits spring-loaded VTA adjustability. AD's two-sentence summary: "The Robin is a pleasantly forward-sounding arm with great bass extension and overall clarity, but temporal shortcomings in some installations indicate the need for careful matching. Surface-noise performance is all right for the price, but not up to the very best." In a brief comparison with the RB300, MF noted: "The Robin had an open, airy, effervescent sound that I preferred in some ways, but the RB300 (with replacement counterweight) had greater solidity and punch. (Vol.26 Nos.4 & 5 WWW)

Rega RB300: \$350 \$\$\$ ☆

Rega RB600: \$650 ☆

The Rega offers very good detail, depth, midrange neutrality, ambience, and precision of imaging, almost creeping into Class A. Works well with the Rega and Roksan tables. Audio Advisor also offers it as a package with the VPI HW-19 Mk.III and Jr. turntables. Lacks any form of height adjustment, however — VTA can be adjusted only by adding spacers under the base. Similar but closer-toleranced RB600 is "the budget arm for now, worth spending the extra over the RB300 to get the better cabling, etc.," sez Mikey. (Vol.7 No.7, Vol.10 No.1, Vol.19 No.12, RB300; Vol.22 No.3, RB600)

VPI JMW-9: \$850 \$\$\$

The newest and shortest of Harry Weisfeld's JMW tonearm line, the JMW-9 comes standard with the Aries Scout turntable. (AD enthused about the combination's sound.) It uses a reverse-missionary bearing with a hardened tungsten-carbide point and a machined and hardened-steel set-screw for a cup. A quick-connect plug makes for easy removal and easy cartridge swapping, but as with all Harry Weisfeld designs, there is no antiskating mechanism. (Vol.26 No.2 WWW)

*Editor's Note: There are currently no Class C or D tonearms listed.*

#### Deletions

*Rega RB900 no longer available.*

## Phono Cartridges

### A

Audio Tekne MC-6310: \$4995

MF: "The Audio Tekne MC-6310 was fast, articulate, detailed, well-controlled in the bass, surprisingly dynamic given its low output, and presented an enormously wide and deep soundstage. It offered less of the violin's delicacy and textural nuance than did the Lyra Titan, but delivered more of the 'event drama' of the bow scraping across the strings... Didn't sound nearly as rich or as delicate as the Titan, but combined with the right electronics, the MC-6310 delivered spectacular musical performance and a high level of overall excitement." (Vol.26 No.6)

Clearaudio Discovery: \$3500

The moving-coil Discovery features a custom magnesium body and a boron cantilever with two ultra-small-diameter gold coils wound directly onto it. Relatively heavy at 9.8gm, the Discovery does have a tapped top plate, but the unusual threads require use of the manufacturer-supplied screws. Healthy 650µV output at recommended 47k ohm loading, and tracked well at 2.5gm. "Sounded fabulous out of the tube (it didn't come in a box)," deadpanned MF, "and only improved as it broke in." Liquid and open, with a "big, generous, voluminous picture that's well-focused but not unnaturally so." Natural transient performance, plenty of bite and snap — "suave," Mikey characterized it. "Bass was full-bodied, almost voluptuous, but without losing its form or rhythmic integrity," and he liked its silky-smooth harmonic balance. "A great cartridge," he concluded, "if not up to the Insider's magical spell, but possessing the same liquidity and ease." Trade-in/package price is \$2640; retip/exchange costs \$1650. (Vol.24 No.3)

Koetsu Urushi: \$4000 ☆

Another good looker in the Koetsu line, with coils wound from six-nines copper and a price that makes potential buyers think at least twice. But, as MF said, those who value "image solidity and three-dimensionality, harmonic richness, liquidity, and tonal opulence ... will gravitate toward the Koetsu — lush, yet revealing, harmonically suave." Retip and refurbish, \$1800. (Vol.21 No.10; Vol.24 No.10)

Lyra Helikon: \$1995 ☆

Lyra Helikon SL: \$2195

MF says that, even at the price, the aluminum-chassis Helikon from Scan-Tech is a steal. "A well-balanced performer with little character of its own compared to most other cartridges... Not as fast and exciting as some, but smooth, transparent, and ultra-detailed." He also noted "an addictive, plush, creamy midband and total freedom from edge, grain, and 'mechanicalness.'" Detailed and seamlessly articulate, with unrivaled palpability. Mono version (Vol.24 No.6) opened MF's eyes to what treasures had been captured on single-channel recordings. A high-gain, low-noise phono section is mandatory for the high-resolution, low-output (220µV) SL version of the Helikon. "Offers more detail, spatiality, and focus than the original," says Mikey, "but all will be lost if your phono section isn't up to the job." With the Helikon, Scan-Tech has come up with its most cleverly balanced cartridge yet. Not the ultimate, but for most analog lovers, and with most associated equipment, ultimate enough! Retipping, \$1995. (Vol.23 Nos.8 & 11, Vol.24 Nos.6 & 12)

Lyra Titan: \$4500

The Titan's body is machined from a single piece of titanium alloy to minimize standing waves, internal reflections, and resonances. Two symmetrical disc magnets create a symmetrical magnetic field that is said to eliminate distortions common to conventional pole-piece designs. MF: "The Titan is the least 'mechanical'-sounding Lyra I've heard, and one of the most lyrical and liquid-sounding cartridges I've heard from anyone at any price. And it delivered that musical ease without sounding dull or closed-in... [Its] dynamics, soundstaging, depth, detail resolution, bass definition, and all other parameters of cartridge performance were the state of the art or close enough... The Lyra Titan seemed to sail through the grooves, ignoring or minimizing wear, scratches, and other defects, while retrieving and delivering a level of musical nuance that set it apart from any other cartridge I've heard." (Vol.26 No.6)

Transfiguration Temper W: \$4000

More of an upgrade of the Transfiguration Temper Supreme than a completely new design, the W's improvements include an "ultra-grade SS" mu-metal square core supposed to increase sensitivity by 30dB for better S/N ratio, 7N copper coil wire, a non-temperature-sensitive damping material, and a boron cantilever. MF was most impressed by its transparency: "Event detail — snare-drum strokes, rim shots, bows and fingers contacting strings — appeared with unforced clarity where before they'd been not nearly as clean or dimensional... I appreciated the absence of aural cobwebs and the clarity and transparency that had replaced them... While the W wasn't quite as lush as the Lyra Titan or as sharply drawn or as 'widescreen' as the Audio Tekne MC-6310, it once again demonstrated the Temper line's balance of high-performance attributes, while adding a new benchmark for phono cartridges in terms of transparency and 'CD-like' background silence." (Vol.26 No.6)

### B

Benz Micro L2: \$1295

Low-output moving-coil with FG2 line-contact stylus, rated output of 0.4mV at 3.54cm/s, and a recommended tracking force of 1.7–2.0gm. PB: "Paired with the Champion 2, the [Clearaudio] Unify [tonearm] and the L2 made a well-matched and satisfying combination, the Benz in particular standing out for its excellent tracking, its sweet, natural, unhyped presentation, and an easy-going, highly musical personality." (Vol.26 No.7 WWW)

Clearaudio Aurum Beta Mk.II: \$400 \$\$\$ ☆

High-output moving-magnet with 3.4mV output. "The most natural midrange of any cartridge I've auditioned," proclaimed BJR. Then he went out on a limb: "Articulation and resolution of transients and microdynamics in the league of the best moving-coils," with a "timbrally accurate extension of high frequencies" and "nice midrange." Somewhat limited definition and extension in the bass, some compression of high-level dynamics — but hey, it's only \$350! "Extraordinary," BJR summed up. The current lead-bodied iteration of the S version of this excellent cartridge retains the detail resolution, transparency, midrange naturalness, and high-frequency extension of the older plastic-bodied Aurum Beta but without that cartridge's high-level dynamic compression and limitations in bass extension. Trade-in/package price is \$280; retip/exchange costs \$175. (Vol.23 No.4, Vol.24 No.6)

Clearaudio Virtuoso Wood: \$800 \$\$\$

BJR couldn't come up with even one criticism of this wooden-bodied version of the excellent Aurum Beta S. It shares that cartridge's transparency, midrange naturalness, extended treble and bass definition, and dynamics, but adds an additional layer



of detail resolution, sweetness, and subtle low level articulation, BJR decided that the Virtuoso Wood might be the affordable cartridge for lovers of jazz, classical, and rock music. "The performance of the Clearaudio Virtuoso Wood was so ear-opening that I recommend that anyone thinking of spending up to \$2500 on a moving-coil cartridge consider buying the [800] Wood instead." (Vol.25 No.12 WWW)

**Dynavector 20X L: \$525 \$\$\$**

MF prefers this reasonably priced cartridge to the original, more expensive XX-1L. The medium-compliance 20X features a nude elliptical diamond and outputs 250µV. (A high-output version, not auditioned, puts out 10 times as much.) Well-engineered, thought MF, and it sounded really good — no serious sonic bunions, and it did a few things very well. Tonally very smooth, overall a bit dry, not as lush or "tactile" as premium cartridges, and the bite on top didn't take his head off. Bottom-end control was "somewhat hollow as opposed to rock-solid," but by no means "blubbery." Good extension, very good dynamics, slightly "fused" details in the upper octaves. The 20X impressed MF with its overall balance and "musical excitement without brightness." (Vol.23 No.11)

**Dynavector XX-2: \$1650**

A "high-tech piece of machinery," the XX-2 sports an alnico-5 magnet, a patented Magnetic Flux Damper, a solid-boron cantilever, a Pathfinder line-contact stylus, and Pure Copper Ohno Continuous Casting coil wire. MF found it a "fine tracker," but it "seemed to emphasize the aftermath of the musical event rather than the event itself." It leaned ever so slightly toward "rich," MF summarized, "with a strong, lithe bass line and a sweet yet extended top end, but never sounded soft, clogged, or boring." The XX-2 "excelled at portraying harmonic nuance, especially in the midband." (Vol.25 No.7)

**Ortofon Kontrapunkt A: \$600 \$\$\$**

Though it can't quite match up to more expensive cartridges when it comes to depth and resolution of low-level details, MF said, "The Kontrapunkt A exhibited none of the bright, thin, hashy sound you sometimes get" from other cartridges in this price range. What you do get is a cartridge that offers "rich, extended bass that is very well-controlled and tuneful as hell." Even at twice the price, MF would call this "a superbly musical performer" and "a genuine bargain." (Vol.24 No.11)

**Ortofon Kontrapunkt B: \$950**

With its stainless-steel body, the B weighs 10gm and specifies a higher-than-usual recommended tracking of force of 2.5gm. Ruby cantilever is mounted with a "super-polished Nude FG 80 stylus." Coils are wound with six-nines silver wire to give an output of 470µV. The B had ST on the edge of his seat: "I was astonished by how much musical information the Kontrapunkt B retrieved from record to record... I could hear better what individual instruments were doing." ST also found that the Kontrapunkt B may have accentuated surface noise, clicks, and pops. Thus, he advised: "For super recordings in pristine condition, I give the nod to the Kontrapunkt B." Knocking on the door of Class A and "proof that vinyl and analog still rule," says Sam. (Vol.25 No.8)

**Sumiko Celebration: \$1500**

As MF succinctly said about this pearwood-bodied cartridge with an alnico magnet, a stiff, boron cantilever, and an elliptical stylus: "With its 0.5mV output, the Celebration joins the Lyra Helikon and a few other cartridges in what seem to be recent attempts by designers to give vinyl lovers MC cartridges with sufficient output to yield great sound when used with less-than-top-shelf moving-coil phono sections." Tracked best for

Mikey in the Graham 2.0 arm at the recommended 2gm VTF. His final analysis: "Remarkably well-balanced and easy to listen to. With its rich harmonic presentation, its fine transient response, its robust bass, and its bold imaging, it should easily win over many analog lovers." The price, too, is something to celebrate. "A real sweetie," he chortled, adding that the Celebration might even sneak into Class A under the right circumstances. (Vol.24 No.2)

**Transfiguration Spirit Mk.3: \$1500 ☆**

Yokeless magnet technology, boron cantilever, silver coil wires, and 400µV output make a nice, user-friendly package, suggested MF. Though the original Spirit had "spirited" or "spotlit" top-end performance, this was not the case with the Mk.3. MF determined that the Mk.3 did retain the original's "clarity, focus, dynamic authority, and superb tracking abilities while adding a higher level of frequency neutrality." Now distributed by Joe De Phillips of Discovery Cable. (Vol.23 No.5, Vol.25 No.7)

**van den Hul DDT-II Special: \$900**

The DDT-II (DDT stands for "depth, detail, and timbre") is a 0.65mV-output MC cartridge with silver coils, a boron cantilever, and the van den Hul line-contact stylus profile. AD: "I heard no real shortcomings at all. The DDT-II is bettered only inasmuch as certain more expensive cartridges can be counted on to provide more music — but that was it. The vdH is richly but realistically textured and colorful, and its stylus is supremely quiet in the groove...[It] is like a really good Audi: I can't imagine the person it wouldn't please." A "wonderfully dynamic" and "very modern-sounding" cartridge, he concluded, with an overall sound that was "open and explicit and clear." (Vol.26 No.1 WWW)

**ZYX R100FS: \$1995**

**ZYX R100: \$995**

Either version of the R100 weighs only 4.2gm, which may result in balance problems with some arms. The cantilever is boron and the coils are wound with six-nines copper to give a low specified output of 240µV. The R100 "struck me as more forgiving and more romantic [than the Kontrapunkt B]," felt ST. "The sound it produced was not nearly as revealing, but was less involving, less exciting... In my setup, the ZYX tended to richness and ripeness. The cartridge seemed to smooth-over rough edges... With less-than-sublime LPs, I found the ZYX's presentation easier to take." Big soundstage, warm, full, sound. MF felt the more expensive R100FS had "the least mechanical sound from a cartridge," with "almost magical background silence...its high-frequency performance was extended and revealing." It was also very tolerant of chewed-up LPs. Nevertheless, over the long haul, MF found the R100's sound to be "curiously bland, and lacking in excitement and involvement," which keep it from Class A. (Vol.25 No.7, R100FS; Vol.25 No.8, R100)

**C**

**Benz Micro Glider L2: \$795 \$\$\$ ☆**

Improvements to the original Glider include a low-mass stylus, a high-tech O-ring damper, and changes to the rear pole-piece assembly and tracking angle. MF: "The original Glider was competent, sweet-sounding, and reasonably detailed... The Glider L2 is so much better overall that it wouldn't have been out of line to have renamed it altogether." He went on, "The L2 proved a far more interesting cartridge than the original Glider. The top end was more extended and more detailed, with more shimmer to cymbals and bite to brass. It was still on the smooth, slightly warm side, but this balance struck me as ideal for the kinds of systems and turntables it's likely to be used with." Bodiless design makes installation a bit tricky, however, and no stylus guard means unwanted fingers have an easy way in. (Vol.19 No.8, original version; Vol.25 No.3)

Dynavector 10X5: \$360  
(See AD's review in this issue.)

*Editor's Note: There are currently no Class D phono cartridges listed.*

## K

Grado Statement, Linn Akiva.

### Deletions

*Transfiguration Temper Supreme replaced by Temper W; Audio Note Kondo IO-J/silver, Grado Reference Platinum and Reference Sonata, and van den Hul Colibri, all not auditioned in too long a while.*

## Phono Accessories & Record Cleaners

Allsop Orbitrac 2 (model #77500) record cleaner: \$49.99 ☆  
MF considers this indispensable for optimum vinyl hygiene — he uses it to clean records before using a vacuum-operated cleaning machine. Otherwise, he maintains, the machine's intake pads become contaminated and, in turn, contaminate every future record cleaned with the same pads. Refills (model #22923) cost \$7.99. (Vol.20 Nos.1 & 4)

Benz/Aesthetix MC Demagnetizer: \$199  
Battery-powered, reasonably priced, seems to do the job as well as any of them, decided MF. (Vol.25 No.7)

Clearaudio Outer Limit Turntable Ring: \$800  
Heavy, stainless-steel ring acts as a speed-stabilizing flywheel, damps the record, and flattens outer-groove warps. However, MF cautioned, its weight means that you can use it only with turntables with massive platters and/or very powerful motors. MF also noted that a centering template would be a happy addition to the package. The Outer Limit was "a pain to center." Nonetheless, it "blackened backgrounds, solidified images, and made them 'pop' in three dimensions." (Vol.24 No.10)

DB Systems DBP-10 protractor: \$49 ☆  
Fiddly but accurate guide for setting cartridge tangency. JA's preferred alignment protractor. (NR)

Expressimo Audio The Heavy Weight tonearm counterweight: \$99.95  
This stainless-steel replacement counterweight for Rega tonearms has a hard Delrin insert between the armtube and the counterweight to act as a filter. MF commented on both The Heavy Weight and Kerry Audio's F2 Titanium design: "The sonic improvement these two relatively inexpensive accessories made to the RB300's low-frequency performance was not subtle: it was amazing. If you want much better bass response from your system, greater low-frequency extension and control, and a much-improved sense of overall 'weight' and tonal richness, try one of these." (Vol.26 No.5)

Extreme Phono None-Felt Mat: \$28; the Donut version, \$35  
Both versions of the None-Felt Mat (with and without center cut out) are made of the same rubbery mesh and are said to be washable. Unlike with felt mats, ST did not find the sound to be warm or fuzzy. Nor was it lacking definition or detail: "Compared to the Ringmat I'd been using, I heard a richer, fuller sound, with less emphasis of detail and less surface noise." In addition, there was almost no tweaking to be done. ST was relieved: "For lazy me, the Extreme Phono None-Felt Mat just did it — the mat sounded very, very right in my setup with a minimum of fuss." (Vol.25 No.8)

K-A-B SpeedStrobe Digital Phonograph Speed Readout: \$99.95 ☆

Easy-to-use strobe disc simplifies precision adjustment of turntable speeds from 331/3 to all of the variations on "78." "It's just fantastic," effused J-10. "It looks cool, and it's a snap to perfectly set the speed." (Vol.19 No.2)

Kerry Audio Design F2 Titanium tonearm counterweight: \$129

Titanium replacement counterweight for Rega tonearms. Machined with three sets of thin contact rails that ride on the Rega arm's counterweight stub. The sonic improvement was "amazing," thought MF; he found the F2 gave better bass response, greater low-frequency extension and control, and an improved sense of overall weight and tonal richness. (Vol.26 No.5)

LAST Power Cleaner for LPs: \$34.50/3/4-oz bottle, with applicators ☆

This small bottle of Freon-free cleaner is enough to treat 75 LPs. JE found just three drops sufficient to remove dirt, dust, and grime from garage-sale records, though he discovered that a subsequent wash with his VPI HW-17 was still required to reduce groove noise to acceptable levels. "A worthwhile companion to LAST's wonderful Record Preservative." (Vol.17 No.5)

LAST Record Preservative: \$35.50/2-oz bottle ☆

Significantly improves the sound of even new records, and is claimed to make them last longer. A 2oz bottle contains 60 treatments. (Vol.5 No.3)

LAST STYLAST Stylus Treatment: \$28.50/1/4-oz bottle ☆  
Stylus treatment designed to reduce friction between groove and phono cartridge. Some manufacturers caution against it, claiming it migrates up the cantilever and attracts dust, thus clogging the armature. One reader suggests applying treatment to brush rather than stylus, which would reduce the possibility of over-applying. MF has found STYLAST effective, but expresses concern over possible cartridge damage. (Vol.18 No.12)

Living Voice Mystic Mat: \$329

Expensive but the best platter mat Mikey has ever tried features a gel-coat carbon-fiber skin on bottom, a layer of ceramic textile, a 2mm skin of CF polyurethane foam on top, and is made to be used with a clamp. MF: "The Mystic blackened the spaces between notes, and seemed to allow a lushness and depth to develop that I hadn't had before, while causing no sonic damage in terms of transient speed and detail... A real find, and highly recommended." (Vol.26 No.8)

Lyra SPT: \$40/5ml bottle

Includes a small, wedge-shaped applicator with which MF brushed a drop of this fluid carefully, back to front, along the stylus. Don't get any on the cantilever, he warned, and wait 10 seconds before playing a record. Pricey fluid said to lubricate the stylus, to improve S/N ratio and trackability, and to last for one side's playing time. Mikey thinks he noted a slight sound-softening effect, but wouldn't bet the farm on it. (Vol.23 No.11)

May Audio CA 22D2 record brush: \$25 ☆

Properly used (held with the bristles at a low angle against the approaching grooves and slowly slid off the record), these are the most effective dry record-cleaners available. "When used in a conscientiously applied program of regular vinyl hygiene," MF asserted, "these brushes...are very useful for manicuring loose, dry dust from already cleaned records. I recommend giving even the cleanest record in your collection a once-over." No substitute for an occasional wet wash. Originally called the "Decca," "Hunt-EDA," "Goldring," or "Statibrush" brush. (Vol.10 No.8, Vol.19 No.11)

Mozno Zero Dust: \$70

"A circular mound of semi-gelatinous goop in a box, onto which you gently lower your stylus," said MF. Use is simple: "After a few seconds, you lift the stylus, and it's as clean and residue-free as the proverbial whistle... Upside: no potentially dangerous brushing, and no fluids. Downside: if you like to leave your platter spinning, you'll have to stop it each time, or find another steady surface upon which to perform the operation." (Vol.25 No.3)

Naim Armageddon LP12 turntable power supply:

\$1300 ☆

A 430VA low-impedance transformer designed to drive the Linn LP12 Basik turntable while isolating it from powerline noise. WP was enthusiastic, citing the improved pace and energetic presentation of the music over his Valhalla'd LP12. "The snap and surge of the rhythms that propel the song along were better served," he asserted. However, this came at the cost of ultimate bass extension — a tradeoff that many would not undertake willingly (JA, for one). Highly recommended — MC agrees with WP that the Armageddon LP12 is a Class A turntable — but audition before committing your Linn to surgery. AD uses one with great success. (Vol.19 No.2)

Nitty Gritty Mini Pro 2 record-cleaning machine: \$919 ☆

Nitty Gritty 2.5Fi Vacuum record-cleaning machine: \$655 ☆

Nitty Gritty 1.5Fi record-cleaning machine: \$585 ☆

The Mini Pro is a semiautomatic machine that cleans both disc sides simultaneously. The 1.5 is identical to the 2.5 but substitutes black-vinyl woodgrain for the latter's genuine oak side panels. Instead of a vacuuming "tonearm," as on the professional Keith Monks machine, the NG cleaner uses a vacuum slot, with the record cleaned by fixed, chassis-mounted "lips." Gunk-laden fluid is vacuumed off. Cleaning is efficient and as good as Nitty Gritty's Pro, at a significantly lower price, though it takes twice as long, cleaning each side of an LP in turn. Don't smear the schmutz from one record to another, MF warned; he suggests manual pre-cleaning of records for best results. While the vacuum-cleaning Nitty Gritty does a job on dusty albums nearly equivalent to that of the similarly priced VPI HW-16.5, CG felt that the VPI's hard-bristled brush did better with really dirty LPs than did NG's velvet one. He found the effect of both was to produce a less colored, more detailed midband sound from LPs, as well as provide the expected reduction in surface noise. (Vol.8 No.1, Mini Pro; Vol.7 No.5, Vol.8 No.1, Vol.23 No.6, 2.5Fi; Vol.17 No.5, 1.5Fi.)

Nitty Gritty Model 1.0 record-cleaning machine: \$282 \$\$\$ ☆

Audio Advisor Record Doctor II: \$199.95

Both of these machines (the latter is manufactured for Audio Advisor by Nitty Gritty) are manual units that offer the least expensive way to effectively clean LPs. Record Doctor II differs from the original in that it has a roller bearing to make turning the LP easier when the vacuum-cleaning motor is on. The earlier model can be fitted with a roller-bearing accessory — available for \$17 including S&H from K-A-B Electro-Acoustics, P.O. Box 2922, Plainfield, NJ 07062-2922 — which fits beneath the existing platter. The Nitty Gritty 1.0 is also available as the oak-finished 2.0 for \$329. (NR)

Premier! Record cleaner

Great for removing mold-release compound from new LPs, says MF of this spray-on cleaner from [www.microcare.com](http://www.microcare.com), and for quick cleaning of used LPs to see if they're worth a full-blown vacuum cleaning. Contains DuPont's Vertrel CF, which is said to be ozone-friendly. (Vol.25 No.10)

Rega cartridge torque wrench: \$125 ☆

Expensive, but a must, MF felt, "for serious analog addicts and professional installers." Agreed, sez ST, but "for God's sake be careful with this thing, especially with the new Grado wooden-bodied cartridges...best used with very strong-bodied cartridges — such as Rega's." (Vol.19 No.11)

The Disc Doctor's Miracle Record Cleaner: \$23.50/pint plus S&H ☆

The Disc Doctor's Stylus Cleaner: \$25/16ml inc. S&H  
Chemist Duane Goldman, the Disc Doctor, claims that his Stylus Cleaner — a mixture of sub-micron filtered water and separately sub-micron filtered +99.5% 1-propanol alcohol — leaves no residue on the stylus or cantilever. Comes with a stiff brush for the first cleaning of the stylus. After that, the good Doctor recommends a natural-bristle artist's brush that's been cut down at an angle or been given a crew cut, as Mikey put it. One pint of Record Cleaner, \$23.50 plus \$5.95 S&H; quart of fluid, \$36.25/\$6.50 S&H; half gallon, \$58.75/\$7 S&H; size A for LP brushes, \$38.95/pair/\$4.75 S&H; size B for 45s, \$28.25/pair; replacement pads for brushes, \$12.95/4. MF also uses non-alcoholic Torumat TM 7-XH Record Cleaner Solution, mostly to clean noisy or scratched LPs, "which seem to benefit from its slight lubricating action." (Vol.20 No.3, Vol.23 No.11, Vol.24 No.7)

Torumat TM 7-XH Record Cleaner Solution: \$16.99

MF uses non-alcoholic Torumat TM 7-XH mostly to clean noisy or scratched LPs, "which seem to benefit from its slight lubricating action." (Vol.24 No.7)

VPI HW-17 record-cleaning machine: \$1100 ☆

VPI HW-16.5 record-cleaning machine: \$500 ☆

Clearly an industrial-quality machine of reassuring quality, the VPI '17 cleans one side at a time, semiautomatically, and is slower than the Nitty Gritty. "Best I've used," says LA. Latest version has a heavier-duty vacuum system. The '16.5 is a manually operated version with a noisier motor. Adjusts automatically to thickness of record; gets hot quickly. Of the HW-17F, MF says, "Fast, convenient, beautifully constructed, and can be used indefinitely without overheating. The fan version of the 17 is well worth the extra money for those post-garage-sale/record-convention analog orgies when only cleaning the whole pile will do." "The 17F is probably the best record-cleaning machine available," MF concluded; "a true workhorse." (Vol.8 No.1, Vol.19 No.6, Vol.23 No.6, HW-17F; Vol.5 Nos.7 & 9, original HW-16; Vol.17 No.5, Vol.19 No.6, HW-16.5.)

VPI VTA adjuster for Rega tonearm: \$150 ☆

"Seems to maintain the desired rigidity while allowing for about a full inch of vertical adjustability. It's nicely machined from aluminum and has a sturdy mounting collar." Its only downside, reported MF, is that it won't fit into a standard Rega opening. Drill it out yourself or send your armboard to VPI. (Vol.23 No.6)

Walker AC motor turntable drive: \$1500 ☆

This conditioner comprises a transformer, two sets of ultra-high-speed diodes, a sinewave generator and wave-shaping circuit, a 25W power amplifier, and a second transformer to prevent any residual motor hash from coming back down the line. It "made a noticeable improvement in bass dynamics, image solidity, and focus, and especially in transient speed and purity — not earth-shaking, but not subtle either," MF decided. But "icing on the analog cake for the finest 'tables.'" (Vol.21 No.11)

Wally Phono Tools ☆

Makes cartridge installation in these do-it-yourself days, fast, easy, and ultra-reliable, says MF. Custom laser-cut WallyTractor is indispensable. Other tools for VTA, antiskating, and azimuth are

merely supremely useful. "My job has been 100 times easier since Wally came on the scene," sums up the Analog Guru. (Vol.25 No.5)

Winds ALM-1 stylus downforce gauge: \$599 ☆

Winds ALM-01 stylus downforce gauge: \$799 ☆

There are two models of this electronic stylus-pressure gauge: one measures in tenths of a gram, the more expensive one in hundredths. Built-in spirit-level a plus. "Absurdly expensive, but the last word in accuracy — especially the model that measures to the hundredth of a gram," MF sez. "If you can afford either, get one." (Vol.20 No.1)

## K

Record Research Labs LP#9, Clearaudio Diamond Cleaner stylus cleaning fluids.

## Deletions

*Loricraft record-cleaning machine no longer available.*

# Phono Preamps/ Moving-Coil Step-up Devices

## A+

Boulder 2008: \$29,000

Despite everything else he had ever heard or reviewed, MF could never have been prepared for what the 2008 offered. He was taken to a higher level: "What the 2008 delivered was the music's meaning... It was like analog on acid. Every note, every musical gesture became the most important, most profound note ever struck — until the next one.... The 2008 gripped, mesmerized, suspended time, and communicated profoundly." The sound, MF raved on, was "faultless in every area of performance: soundstaging, imaging, dynamics, harmonics, frequency extension, solidity, 'bloom' — you name it." MF had no complaints: "As with the Rockport System III Sirius turntable, the 2008 belongs in Class A+ by itself — the single most impressive electronic audio component I've heard." (Vol.25 No.7 WWW)

## A

Acoustech PH-1P: \$1500 \$\$\$

WP liked the original PH-1 (no longer available), calling this Ron Sutherland-designed solid-state MM/MC phono preamp "a winner when it came to producing dynamic shadings...[It] conceded little to the best in the areas of pace and rhythm...never imposed its own rhythmic signature on the music...[and] had incredible bass extension." The PH-1P has hand-soldered parts and a gold-plated circuit board; Sam found the differences between the basic and Premium versions to be subtle yet significant, raising the rating to Class A. "The PH-1P gave me a welcome and worthwhile sonic improvement. The sound opened up. Highs became more extended. I heard more spatial resolution. I noted a small gain in overall transparency, including better-defined bass." ST is, however, devoted to his reference: "I probably wouldn't run out and sell my standard PH-1 in order to upgrade, but I would plunk down the extra cash for the P if I were buying a PH-1 now." (Vol.21 No.6, PH-1; Vol.25 No.8, PH-1P WWW)

Aesthetix Rhea: \$4000

Direct descendent of the Io and Io Signature phono stages, using five tubes per channel in a three-stage, full dual-mono configuration. While it couldn't match the dynamic range of the Io or the speed and resolution of the Manley Steelhead, the Rhea was never embarrassed by the comparison. PB: "Its spatial expansiveness and timbral richness were unmistakably close kin to the Io Signature's... Its presentation was fast, with a wideband, consistently full-bodied harmonic presentation... Imaging was expansive, solid, and precise... Soundstaging was invariably good... The Rhea's most remarkable accomplishment is to put together an extraordinary combination of sonic performance and useful features at a price that is within reach." (Vol.26 No.9 WWW)

ASR Basis Exclusive: \$4950

(See MF's review in this issue.)

Connoisseur Definitions 4.0: \$19,995

MF came up with a formula for ranking the 4.0 in comparison with the "faultless" Boulder 2008: "Take every good thing I wrote in July 2002 about the Boulder's ability to declare the musical event, add it to the Connoisseur's presentation, subtract a large part of the Boulder's delivery of the musical event's aftermath and ultimate meaning, and you have the sound of the Connoisseur." While their respective designers took opposite approaches to reaching their goals — the Connoisseur is based on simplicity and the shortest signal paths possible, whereas the Boulder is a complex design — "both achieve a rare level of purity, coherence, harmonic integrity, three-dimensionality, and focus, as well as overall musical grip and immediacy." (Vol.25 No.10)

Conrad-Johnson EV-1: \$1495

Scaled-down version of the expensive C-J Premier 15, with a zero-feedback circuit that uses two 12AX7 tubes, a 5751, and a 12AU7 in the input, gain, and cathode-follower stages, respectively. DIP switches provide loading options of 200, 500, 1.9k, 9.6k, and 47k ohms. MF: "I found the EV-1's tonal, textural, and rhythmic balances nearly ideal... The EV-1 had a magical ability to make musical lines flow with relaxing, velvety ease, which is not to say that it emasculated music designed to grate... I wouldn't use the EV-1 with an overly warm system, as it already tended toward that side of the continuum." (Vol.26 No.8)

Conrad-Johnson Premier 15 Series 2: \$4795 ☆

A vacuum-tube phono preamp with switchable subsonic filter that MF said is as "rich and seductive as C-J tubed products tend to be, yet detailed and rhythmically organized." Few preamps will be as "well-balanced and musically satisfying... It was neither sluggish nor 'speedy,' didn't sound syrupy or clinical, and didn't suffer from any obvious tonal anomalies." JA felt the '15 had obviously been designed by engineers "who know what they're doing." Do be careful what you place it on. Series 2 contains faster diodes, improved regulators, and upgraded resistors and internal wiring. J-10 found the bass to be "tighter, more articulated, more harmonic, more palpable," the midrange to be "more detailed and textural," and the upper midrange and highs to be "more extended and linear." While the Series 2 was just as quiet as the original, it seemed to lack the original's bloom from top to bottom, he decided. Original 15s can be upgraded to Series 2 status for \$575, which includes a fresh set of tubes. (Vol.22 No.7, Vol.25 No.3 WWW)

Hagerman Technology Trumpet: \$1895

The all-tube MM-only Trumpet is available in single-ended and balanced-output editions. MF felt it offered "very well-controlled, texturally coherent, and exceptionally nimble" bass, "stellar" pacing and rhythmic flow, and an overall sound that was "open, airy, detailed, and thoroughly intoxicating." (Vol.25 No.12)



Lamm LP2 Deluxe: \$6690

A "super-quiet" dual-mono vacuum-tube phono stage featuring switchable moving-magnet and moving-coil inputs. MF: "Bass extension, control, and definition were startlingly good... Subtle dynamic scaling was on a par with the Boulder and notably superior to the Connoisseur... Subtle string textures, reeds, and female voices were positively thrilling, and the size and weight of the entire picture ... was particularly impressive. Add that to snap-you-back-in-your-seat dynamics and authoritative decay, and the Lamm became one of a handful of the finest phono sections I've ever heard." (Vol.25 No.12)

Linn Linto: \$1600 \$\$\$ ☆

This solid-state, direct-coupled MC phono preamp, a JA fave, doesn't offer a loading network — your sole input impedance choice is 150 ohms. Nor does it offer much in the way of gain matching — 54dB and 64dB are your only options. But WP thought it was about the quietest phono section he's heard to date, and raved about its natural timbre and powerful bass. PM cites its "sheer emotional impact" and comments, "It really does sound 'direct-coupled,' with an immediacy that's quite different from in-her-face exaggeration, and it's super-quiet too." Even so, he reports, he'll stick with his reference Naim. (Vol.21 No.6 WWW)

Manley Steelhead: \$7300

The transformer-coupled Steelhead's multiplicity of gain, loading, and other options prompted MF to deem it "the most flexible, user-friendly phono section" he'd ever encountered. While it's almost impossible to categorize the specific sound of the Steelhead, MF noted a few constants: "unusually low noise, spectacular transient speed, rhythmic certainty, clarity of musical line, breathtaking transparency, and positively astounding dynamics." Though its flexibility is perhaps its most striking feature, it might also be the Steelhead's flaw: Some audiophiles might be left forever wondering whether their chosen setting is the correct one. Nevertheless, the "fast, fast, fast, ultra-quiet" Steelhead is a MF fave and PB's reference. (Vol.24 No.12, Vol.26 No.10)

Pass Labs Xono: \$4200

For MF, listening to great recordings through the Pass Labs Xono became "an overwhelming experience." While retaining the same basic design, the 76dB-gain Xono excels in areas in which its predecessor, the Aleph Ono, faltered. The Ono's soft bass is now firm, and a threadbare midrange has been fleshed out nicely. "One of the most accomplished-sounding phono stages" MF had ever heard. Its ultra-low noise floor, transparency, resolution of detail, ambience retrieval, and tonal neutrality were "absolutely Class A." (Vol.25 No.1)

Tom Evans Audio Designs The Groove: \$3600

Copper shielding on both sides of the sandwiched main boards makes the Groove essentially RF-proof. MF first noted a "keen sense of rhythm and pacing," followed by the "non-tubey, non-solid-state harmonic development — neither leading-edge crystalline nor lushly overripe, but plenty rich. There was an abundance of clean air on top, but no ice particles, no grain, no glare or mechanical etch... Dynamics at both ends of the scale were rendered without hesitation, and the overall resolution was first-rate, thanks to the ultra-quiet noise floor." The Groove "competed, without apology, with most anything out there at any price, the Boulder 2008 and Connoisseur 4.0 excepted." Negatives included a "slightly congested" sound and a lack of decay. (Vol.25 No.12)

Zanden Model 1200: \$15,000 ☆

MF deemed the MC version of Zanden's tubed 1200 (originally called the MC1000 and designed and hand-built by Kazutoshi Yamada) one of the top moving-coil phono stages in the world, offering two transformer taps, three equalization curves, and "an

absolutely mesmerizing presentation from the midrange to the high frequencies." Though it could not achieve the bass dynamics and solidity of the Manley Steelhead, it "exuded liquidity, delicacy, air, and transparency while delivering sharp and fast transients free of mechanical residue." While it sounded "equally convincing on the hardest rock and the most delicate violin solos," MF recommended it especially to those who listen mostly to classical and jazz. "Looking sleek, solid, and unique, it's aimed at the connoisseur of vintage vinyl who owns a wide selection of monophonic LPs pressed before the RIAA curve was adapted worldwide in the mid-1950s," explained Mr. All Things Vinyl. (Vol.23 No.10, Vol.25 No.6)

## B

Camelot Technology Lancelot Pro: \$995 \$\$\$ ☆

Designed by Doug Goldberg of Audio Alchemy fame, the Pro features internal DIP switches for MM/MC setup. Rechargeable battery pack links dual phono boards in separate aluminum chassis. The battery pack plays for 10 hours, but MF "never ran out of enthusiasm for the sound." In some ways, the Pro mimicked the best he's heard: "Big, wide soundstage, on which it placed believably solid, three-dimensional images." Original version had only 44dB of gain in MC mode, barely enough for 500µV cartridges. However, a resistor change in production increases the Pro's MC output to 54dB, bringing this longtime favorite of MF's even closer to his heart. Compared to the Musical Surroundings Phenomena, he found the Pro to be "more coherent, more refined, and easier to listen to." (Vol.23 No.10, Vol.25 No.1)

Coph Nia: \$1295

MF was blown away by this mysterious MC-only phono section: "While its bass response was somewhat soft (but well-extended), its mids and highs exhibited a gorgeously intoxicating tubelike liquidity. The Coph Nia's overall presentation came closest to the extraordinary sound of the Zanden 1200." But "Don't get the wrong idea — the Coph Nia's not even in the Zanden's league — but it won my vote as 'the poor man's Zanden.'" (Vol.25 No.6)

EAR 834P: \$995 ☆

Tim de Paravicini-designed, three-tube (12AX7) MM stage that also offers, for MC use, a pair of step-up transformers (3–50 ohms). MF: "The 834's sound was absolutely gorgeous in the midband, with a touch of 'golden glow,' and an overall spaciousness and enticing musical wholeness... The 834P's bottom-end delivery was well-extended though a bit loose, if only slightly so... [Its] high-frequency extension and transient performance perfectly balanced its bottom: not sharp and etched...but not soft or overly romantic... A slightly sharp, fast-sounding cartridge should really get this thing singing." Add \$300 for chrome Deluxe version. (Vol.20 No.7, Vol.26 No.8)

Emmeline XR-2: \$1050

MM/MC phono section is based on the Analog Devices AD797 op-amp chip. Internal DIP switch offers loadings of 30, 50, 80, 100, 475, and 47k ohms. MF: "The XR-2 was just on the solid-state side of the EAR 834P's tubed personality: tighter and somewhat drier in the bass, very good extension and control, leaner in the midbass, more sharply drawn on top, and with greater transient snap. Overall, it drove the music with greater focus and a more tightly wound spring, but not to the point where it sounded relentless... Its biggest shortcoming was a sin of omission: a midbass leanness that stunted the development of the kind of effortless, coherent soundstage you get with more expensive phono sections... The XR-2 shortchanged instrumental textures somewhat, but, like the 834P, did nothing terribly wrong." (Vol.26 No.8)



#### Final Laboratory Music-4: \$3600

In order to get "the most delicately drawn, non-mechanical, yet perfectly focused, almost effervescent sonic picture ever to tickle your tympanic nerve," MF suggested coupling the Music-4 with a MM cartridge or a moderate-output MC like the Helikon. MF raved about the purity of sound generated from the Music-4. Nevertheless, its modest MC gain (40dB) was just too much of a blemish to be overlooked. Large-scale dynamic swings and realistic SPLs were missing. "Very quirky product with barely sufficient gain for low-output MCs, but very pure sound," he sums up. JA was not impressed by the Music-4's measured performance: "Its very high source impedance at low frequencies and the dependence of its bass response on the loading make it a poor choice for use with line preamps other than Final's own Music-5." Requires either tubed (\$2750) or C-cell outboard power supply (\$450) — AD recommends the batteries — which makes it very expensive for the sound quality. DC-5 power supply with batteries now included. (Vol.25 No.1, Vol.26 No.1 WWW)

#### GSP Audio Gram Amp Jazz Club: \$999

Based on the more expensive Era Gold MM/RIAA, the Jazz Club adds two switches that "allow you to select 15 different LP playback curves, including RIAA, NAB, frrr, and EMI, plus several curves for proper 78rpm playback." The Jazz Club proved to be versatile, exciting, and fun to use, "Whether you just want a dedicated, high-quality MM phono section, or play or digitize 78s, or just want to hear what various LP EQ curves sound like, the Graham Slee Projects Jazz Club is well worth considering. Mikey loved it!" (Vol.25 No.6)

#### Musical Surroundings Phenomena: \$600

Michael Yee's Phenomena offers "a reasonably satisfying amount of the main event while glossing over the subtle spatial, harmonic, and textural details that make music sound alive." Nevertheless, what MF found most important was the fine balance between its strengths and weaknesses. A soft, opaque tonal balance was offset by a reasonably fast and clean transient response. Extended listening left him with a "slight sense of cardboardiness, and of a restriction of the liquidity and flow of live music." Adding the Phenomena's battery pack doubles its price, but replaces the cardboard quality with a "relaxed musical flow." (Vol.25 No.1)

#### Naim Stageline: \$1325 with Flatcap 2 power supply ☆

Solid, inviting-sounding \$350 phono section with choice of power supplies. Smooth yet detailed sound quality has the warmth and richness of tubes with the control, resolution, and rhythmic aptitude of solid-state. "Three-dimensional imaging, quiet, no hardness, edge, or glare," according to MF. Lack of user adjustments may be an obstacle to some, but for those who want to "get it and forget it," the Stageline fills the bill. HiCap power supply (\$1900) is claimed to give higher performance, while MF noted improved dynamic performance, bass extension, and control with the SuperCap supply (\$4450). In addition, everything the original did well was repeated, "only more emphatically," said MF. Still, the Stageline is not characterized by lots of air, fast transients, or soundstage width. Nor is it known for flexibility in resistive load, gain, or capacitance. (Vol.24 No.6, Vol.25 No.1)

## C

#### Acoustic Signature Tango: \$599

Entry-level phono preamp with off-the-shelf outboard power

supply and rear-panel DIP switches to permit a wide variety of MC resistive loadings and MM capacitive loadings, as well as a choice of MM or MC gain. MF: "It did nothing wrong, and quite a bit right. It was quiet, well-organized, and rhythmically taut, with good extension at both ends, but was somewhat brighter and more forward than the [Lehmann Black] Cube... The Tango's presentation was somewhat forward spatially, though not at all bloated, in-your-face forward or fisheye-lens distorted. The build quality and appearance are very good." (Vol.26 No.8)

#### B&K Phono 10: \$698

Competently engineered, fully configurable phono preamplifier, with A/D converter for both recording and playing analog in a home-theater environment. Lacks "magic," however, concluded MF. Solid Class C. (Vol.24 No.6)

#### GSP Audio Gram Amp 2 SE: \$299.95 \$\$\$

Built into a plastic box and with stick-on lettering spelling out its name, the Gram Amp 2 SE's looks say nothing about how good it actually sounds. It delivered "genuine weight and solidity in the midband and midbass. It was quiet, and free of the thinness, edge, and grain you usually get at this price." MF summarized: "Looking for a way into analog on the cheap? Here it is. Don't expect miracles, just pleasant listening." (Vol.25 No.6)

#### J.A. Michell/Trichord Research MM/MC Dino: \$595

While it's smaller and half the price of the Michell/Trichord Delphini, the Dino uses a similar circuit and many of the same high-quality parts. It comes equipped with "unusually flexible resistive and capacitive loading and gain (up to 74dB) DIP switches, and a substantial power supply based on a toroidal transformer." Between the Dino and the Gram Amp 2 SE, it was a tossup: "The Dino in MM mode was a substantial step up from the Gram Amp 2 SE in speed, LF extension, and resolution of inner detail, but it also sounded harder, more forward, and somewhat less engaging in either MM gain position." For MF's purposes, he would not spend the difference between the two. He looks forward, however, to hearing the Dino in MC mode. The Dino+ power supply adds \$450. (Vol.25 No.6)

## D

#### Hagerman Technology Bugle: \$125

"Ridiculously good for the money." Uses two 9V batteries with an estimated life of only around 16 hours, and can be built with 40, 50, or 60dB of gain. MF: "The Bugle sounded very quiet, surprisingly somewhat warm yet reasonably detailed, and a bit wooly... Images lacked pinpoint specificity, and transients were a bit softened, but for \$125 — or more than twice that — the Bugle was quite a credible performer." New plug-in power-supply option available for \$25. Comes with a 30-day money-back guarantee. (Vol.26 No.8)

## K

Aesthetix Io Signature.

### Deletions

*Audio Note AN-SFZ, QED DS-1 Discsaver, Rega Fono MC, all not auditioned in a long time; McCormack Audio Micro Phono Drive no longer available.*

# SACD, DVD-A, & CD Players

*Editor's Note: SACD and DVD-A player ratings are based on how they sound with their respective hi-rez media, not CD.*

## A+

Accuphase DP-85: \$16,500

Expensive, but SACD playback dropped MF's jaw: "The Accuphase is a stunning SACD player combining exciting rhythm and pacing, full harmonic development, high resolution, and precise imaging and soundstaging... The DP-85's SACD performance set a new standard for digital anything... It produced the ease, relaxation, transparency, air, bloom, space — and most important — plain old musical pleasure I had heretofore associated only with fine analog playback." Both MF and JA were disappointed with the DP-85's CD performance, however. "It was almost as if the DP-85 was so interested in keeping my foot tapping that it was more concerned with musical flow than with letting the harmonics ripen and develop," said MF. (Vol.25 No.9 WWW)

Classé Omega: \$12,000

Separate signal paths are used in this two-channel SACD player for standard "Red Book" CD and SACD datastreams so that the best possible performance can be extracted from either medium. J-10 found that the Omega performed well with "Red Book" CDs and that SACDs were communicated with an exquisite "superiority of playback." In SACD mode, J-10 noted a "midrange lusciousness," while CDs were played with "sharp focus" and "dynamics up the hoo-hah." Characteristic of both formats was sound that remained "big, full, dramatic, colorful, detailed, and airy." J-10 recommended running the Omega balanced for best results in each format. "If I didn't already have the Accuphase and the Linn and the dCS, the Classé would be my choice for the one machine that does it all." PB compared the Omega to the Esoteric DV-50: "The Classé's presentation was less forward and its images were a tad rounder, more palpable and lifelike... To my ears, the Omega ultimately sounded more like a superb LP played back under perfect circumstances, while the DV-50's sound was more like that of an analog master tape. Heads, you win; tails, you win." (Vol.24 No.11, Vol.26 No.8 WWW)

Esoteric DV-50: \$5500

Universal multichannel SACD/CD/DVD-Audio/Video player with choice of 8x-oversampling FIR and upsampling RDOT low-pass digital filters, three digital outputs (not SACD), a full set of video outputs, and both balanced and unbalanced analog outputs. PB: "All of the filters offered very good sound, but the maximum upconverting steadily provided the most complete and continuous presentation. Images were invariably rounder, better-focused, and more like the sound of an analog master tape." Overall, the sound was "slightly forward of dead-neutral... Dynamics were always first-rate, with bass dynamics standing out for special commendation... Resolution was outstanding on all types of music... Soundstaging was steadily as deep, high, wide, and handsome as the sources would permit... The DV-50 communicated an exceptional sense of music's flowing lines and real meanings." (Vol.26 No.8 WWW)

Meridian Reference 800: \$17,000–\$19,000, depending on options ☆

The transport is a computer DVD-ROM drive with three memory buffers and three layers of error correction; the back-plane topology has room for another drive and multiple plug-in cards for audio and video, as well as provision for analog inputs (A/D) and outputs (D/A), gain/system control, upsampling, and future mul-

tichannel audio and DSP room correction. KR used it mostly as a source for the Reference 861 Digital Surround Controller in his Meridian surround-for-music exposé: "Via the analog outputs from the D/A plug-in, it was as good as digital gets today." Clarity and impact were beyond reproach, with notable bass definition and treble purity. Superior with 24/96 discs, its 88.2kHz upsampling of "Red Book" CDs puts other players at a disadvantage, feels JA. Also has both in-the-clear and encrypted 96kHz data output. But, as KR summed up, "In consideration of its performance as a player and its configurability as a system controller, the 800 can be considered a really attractive value. Superb as a transport; why look elsewhere for the DAC?" KR's 2003 "Follow-Up" explores its DVD-A capabilities: "Playing stereo DVD-A tracks, the Meridian combo surpassed anything I'd heard before from DVD-A... [T]he Meridian Reference 800-861 made all of the multichannel DVD-As I had, as well as my system itself, sound better than ever, and certainly equal to what I get from SACD." (Vol.23 No.2, Vol.26 No.8 WWW)

Sony SCD-XA777ES: \$3000

"The XA777ES is a top-class CD player whose price might be justified without regard to its SACD capabilities," enthused KR, who appreciated its "ability to communicate a staggering dynamic range without apparent distortion of the musical illusion." The XA777ES presented itself as "transparent, uncolored, and even ruthless in exposing detail in every disc," and "increased the clarity and openness to an almost startling degree." KR went on: "The XA777ES's uncompromising nature could be disadvantageous — brightness in the source was not curable with either CD filter... [It] was definitely in the 'accurate' rather than the 'euphonic' camp." Nevertheless, KR found the XA777ES to "establish a new standard for SACD reproduction... The step from CD to two-channel SACD was rewarding, the step up to multichannel was addictive and polarizing... How could I have been so happy with less?" About to be replaced. (Vol.25 No.1 WWW)

## A

Ayre D-1x: \$8000 as reviewed

The D-1x perfectly illustrates the degree of flexibility possible in today's digital world. The base D-1x is a DVD-Video transport priced at \$5250. Options include video only (\$6000), audio only (\$8000), audio and video (\$8750), video only with VR2 progressive scan (\$8750), or audio plus progressive-scan video (\$11,500). Optioned as a pure CD player, the D-1x plays back 16-bit/44.1kHz CDs, 24/96 DADs, and CD-Rs. Once PB had dealt with the D-1x's "catlike fussiness" about placement and cables, he found big and powerful bass, an "exceptionally detailed and transparent midrange," excellent dynamics, and very good soundstaging. He summed up: "The Ayre D-1x was a bit more temperamental about placement and cables than most other CD players I've used, and would not be my first choice for a forward or lightly balanced system. Those minor caveats aside, the Ayre's performance was consistently musical and satisfying." (Vol.26 No.2 WWW)

Balanced Audio Technology VK-D5SE: \$6000

This straight 16-bit/44.1kHz machine uses 6H30 SuperTubes instead of the BAT VK-D5's 6922s, an upgraded power supply, and a 24-bit DAC section and digital filter. While J-10 noted that the VK-D5SE's highs "bumped up against the limitations of 16/44.1," its bass had "excellent definition, leading-edge snap, roundness, fullness of tone, and a fine integration of the entire bass region into the soundscape." The midrange, too, was "very detailed, warm, flowing, attractive, alluring." J-10 concluded, "It was more than fine. For me, however, it was a little opaque and

somewhat less pellucid up top than what I've become accustomed to." Nevertheless, "If dropping a bazillion bucks on much more expensive up-over-around-and-through oversamplers isn't an option for you, I highly recommend Balanced Audio Technology's VK-D5SE." (Vol.21 No.5, original version; Vol.25 No.3, SE WWW)

**Gamut CD 1: \$3500**

BD was struck by the CD 1's "easy vibrance — a rich, flowing sound that seemed to coax the tension out of me." Within that smooth, vibrant presentation, BD heard a "wealth of inner detail" with a "complex mix of distinct sounds." He commented on the reproduction of ambience cues: "The mix of direct and reflected sound, the perception of distances, even the very density of the ambience — it all coalesced to describe the space at the rear of the stage with uncanny accuracy." However, "images just weren't always as sharply bounded as they could have been," and there was a "slight softening of transients in the upper midrange and lower treble." (Vol.26 No.5 WWW)

**Linn Sondek CD12: \$20,000 ☆**

"Somehow, this CD player just seems to exalt the music — it's easily the finest CD player I've had in my system," says WP. "But ouch, is it ever expensive!" Not, perhaps, a sane purchase, but a player good enough to drive you more than a bit crazy. Its measurements were "about as good as I have seen from a CD player," understated JA, who deems the Linn the finest-sounding CD source he has had in his system. Stereophile's "Digital Source of 1999." (Vol.22 No.2 WWW)

**Marantz SA-8260: \$1099**

JM says that default-recommending the multichannel SA-8260 SACD player at this price is almost a no-brainer. It is "elegantly designed and solidly built... Disc-access times were not excessive, and its tracking was quiet... Its CD playback was so good that only pure-DSD SACDs could make a slam-dunk case for the new medium." The only gripe JM had was that the SA-8260 doesn't allow you to reset the SACD play-mode default from multichannel to stereo on the fly. (Vol.25 No.11 WWW)

**Musical Fidelity Tri-Vista SACD: \$6495**

"Easily Musical Fidelity's most elegant-looking product ever," according to MF, the Tri-Vista is an SACD/CD player with tube analog stage, digital data input, 24-bit delta-sigma, dual-differential DACs, and 8x-oversampling digital filter. Due to the scarcity of the 5703 triode tube, only 800 Tri-Vista SACD players will be manufactured. MF compared it to dCS's \$34,000 stack of Verdi, Purcell, and Elgar Plus: "The Tri-Vista's airy, rich-sounding sonic picture was very similar overall, though the scale of the stage size dropped down a few notches in width, height, and, especially, depth. Image specificity also decreased somewhat, as did solidity and the purity and crystalline clarity of transients. The Tri-Vista produced a somewhat richer overall picture." Commenting on the Tri-Vista's CD capabilities, MF called it "the best-sounding Musical Fidelity has come up with." However, ST disagrees on the sonic characteristics of its CD playback in comparison to that of the Nu-Vista 3D. MF: "The Tri-Vista sounded slightly richer, warmer, and darker..." ST: "The Tri-Vista struck me as more detailed, more informative, less romantic (or warm, if you will)..." "A little lacking in dynamics," he adds. Either way, JA was impressed: "The Tri-Vista offers excellent measured performance, with no shortfall that could be laid at the feet of its tubes." (Vol.26 Nos.5 & 7 WWW)

**Naim CD5: \$2300 \$\$\$**

Mr. Analog felt that while "the CD5 had a few shortcomings, it proved an easy player to enjoy because it made music without apology.... The CD5 may not have sounded as 'exciting' as the

CDX, but its more relaxed sound made listening to music more inviting and compelling, not less: There was more texture and color within the notes, and the sonic picture was more fleshed-out harmonically, giving music a velvety richness I'd not previously associated with Naim players." Slightly dry on top, with a hint of transient softness, this offset by a total lack of grain, edge, and glare. PM is not a fan, but MF found the CD5 does Naim's "rhythm and pacing" thing as well as you'd expect. No digital output. The Flatcap 2 power supply adds \$900, but MF decided you get your money's worth with it. "The Flatcap 2 didn't fundamentally change the CD5's winning personality, but reinforced it in ways not so subtle and very useful." (Vol.24 No.4)

**Pioneer DV-AX10: \$6000**

With onboard Dolby Digital and DTS decoding and Hi-Bit Legato Link Conversion, the DV-AX10 is the first of Pioneer's "universal" disc players launched in the US. It plays two-channel SACD, multichannel DVD-Audio, DVD-Video, CD, and CD-R discs. Intrinsic to all modes were transparency, tonal balance, and palpability, though SACD performance was not as good as either DVD-A or SACD sound from other players. J-10 was struck by a soundstage marked by "linearity, bass authority, sweet and open highs, and a midrange to make the average audiophile plotz with pleasure." Nonetheless, this was offset by a "slightly forward treble region." (Vol.25 No.2 WWW)

**Simaudio Moon Eclipse: \$5500**

The Moon Eclipse is Simaudio's first "statement" digital product. "Everything about it — technology, build quality, user interface, cosmetics — reflects careful thought and lavish attention to detail," declared BD, who thought the Eclipse's performance "excellent in nearly every regard, and truly exceptional in some... While it wasn't perfectly neutral, it was awfully close, and its deviations — a slight lack of low-bass power and a slightly cool overall tonal balance — were minor and very easy to live with." The latest incarnation no longer offers HDCD, but BD said that "it does everything well, and its incredible strengths in the areas of spatial reproduction and detail resolution are, if anything, even stronger than the original's. It does, however, retain its slightly cool tonal balance, so it may not be the best match for some associated gear." The disc-acceptance quirks that bothered BD, as well as the need to jumper past the HDCD filter to achieve its incredible resolution, have also been addressed. Add \$500 for PSX power supply. (Vol.24 No.4, Vol.26 No.4 WWW)

**Sony SCD-C555ES: \$800**

LG found this five-disc carousel SACD/CD changer to be "competent, fast, dynamic, and forceful," with outstanding "punch and rhythmic drive." He loved it in two-channel SACD mode, noting a "width and depth not heard before... There was an open, extended, and effortless quality that had a remarkable smoothness and liquidity." Multichannel sound was "seamless, extremely clear and effortless...very seductive." Built-in multichannel bass management provided only rudimentary room interaction adjustments, however. LG swooned: "The SCD-C555ES rendered timbre and musical color with far greater depth than I've ever heard from a two-channel system... The musical values I heard were not just good, but breathtaking." (Vol.24 No.10 WWW)

**B**

**Arcam FMJ CD23: \$2199 ☆**

This repackaged Full Metal Jacket version of the well-regarded Alpha 9 has new features that are more than skin-deep, reported LB as he hummed over the vibration-damping, upgraded power supply and redesigned analog output stage. The CD23's 24-bit Ring DAC is virtually identical to that of the \$12k Elgar. Gets the low-level details right, sez LB: outstanding performance with



more detail and less tizz. "Your last CD player? You betcha," he promised, scoping the rapidly changing digital landscape. "Which is why I'm buying the review sample. I need a killer CD player now." (Vol.22 Nos.1, 2, & 4, Alpha 9; Vol.23 No.7 WWW, FMJ CD23)

**Atoll Electronique CD 100: \$1295 \$\$\$**

Atoll's top-of-the-line CD player features a single pair of variable-volume analog outputs as well as a coaxial digital out, a Philips CDM 12 laser mechanism, and a one-bit Matsushita DAC. Partnered with the Atoll IN 100 integrated, harmonic presentation was "rich, full-bodied, even voluptuous at times." ST matched the CD 100 against the nearly-five-times-more-expensive Musical Fidelity NuVista 3D: "The CD 100 was not embarrassed... I thought the Atoll player was resolving, dynamic, and authoritative." "A competent performer at a very good price," he sums up. Price is for black faceplate; silver faceplate adds \$65. (Vol.26 No.4)

**Ayre CX-7: \$2950**

In his measurements, JA concluded that Ayre's CX-7 integrated CD player "is a model of modern CD-playing design...[It] sounds as clean as it looks. Its balance is vibrant, its bass well-defined and deep, its highs clean, detailed, and well-resolved." He was impressed by the way the CX-7 preserved the "fragile sense of an acoustic around recorded instruments... Nothing sounded confused or obscured via the CX-7." Though the top-of-the-line Ayre D-1x presented a "more refined sound," JA preferred the CX-7 in his system for its "more coherent character and more vibrant presentation." Compared to the Musical Fidelity Nu-Vista player, the Ayre sounded "more forward, but with better upper-bass definition... The Ayre player presented the bass instrument with the right combination of tonal body, LF extension, and the attack of fingertips plucking the strings." (Vol.26 No.5 WWW)

**Cairn Fog v2.0: \$1195 \$\$\$**

The optional upsampling card (\$500) uses an Analog Devices AD1896 upsampling chip, boosting the signal to 24/192. Despite its name, the Cairn Fog offered only crystalline playback: "Noise — digital artifacts — are summed and canceled, sending a very clean, clear signal to the player's analog output stage." ST raved: "This was surely one of the most exquisitely detailed CD players I have heard, for any price." While he found the midrange and treble to be "exceptionally smooth, sweet, and extended," the top end was marked by "delicacy, definition, and detail." ST checked his wallet and pondered, "Would I buy this player at this price? Absolutely!" (Vol.25 No.6)

**Classé CDP-10: \$2000 \$\$\$**

Integrated CD player with HDCD decoding. Though JA found its bass to lack weight and definition in comparison to the expensive Mark Levinson Nos.31.5/30.6 pair, he was impressed by the CDP-10's "silky-smooth high frequencies," its lack of HF grain, and its "well-resolved soundstaging." A more laidback presentation than the Ayre CX-7, he decided, which will work better in many systems. JA: "It is hard to see how 16-bit digital audio reproduction can get much better than this." Borderline Class A. (Vol.26 No.9 WWW)

**McIntosh MCD205: \$2600**

McIntosh's first CD changer lets you load up to five CDs, one at a time, into one slot, without a tray, drawer, carousel, or loudly grinding gears. ST: "The sound was most impressive...unflappable... It never compressed or collapsed and was never thin, irritating, or edgy... A number of the discs I had admired as performances but not as recordings became more listenable with the MCD205 — smoother, more extended, less objectionable." Sam also appreciated the speed and steadiness with which the

changer loaded and ejected discs, and was very happy with its simplicity and user-friendly operation. "It was like having an automated disc jockey." (Vol.25 No.11)

**Musical Fidelity A3.2 CD: \$1595 \$\$\$ ☆**

Costing \$300 more than the recommended A3, the A3.2 adds the "magic bullet" of upsampling. With the same mechanism, control electronics, DAC, and filter as the no-longer-available, three-times-the price Nu-Vista 3D, the solid-state A3.2 is claimed to reach 85% of the former's sound. Excellent retrieval of low-level information, sweetly extended treble, good dynamics, found ST. "One of my top recommendations in a CD player," Sam sums up. (Vol.23 No.10, A3; Vol.25 No.7, A3.2)

**Musical Fidelity CD-Pre24: \$1995**

Versatile if quirky component that combines a remote-controlled analog preamp and a 16-bit/44.1kHz A/D converter, with the CD transport and 24/96 upsampling DAC used in Musical Fidelity's Nu-Vista 3D CD player. While MF "never felt cheated of a first-class listening experience," JA was a bit "disappointed" with some of the CD-Pre24's measurements, in particular by the fact that the unit resampled 24/96 material. "Sweet, smooth, if a tad soft for my taste," adds PM. (Vol.25 No.11 WWW)

**Philips SACD1000: \$1000 \$\$\$**

The first multichannel SACD player, the SACD1000 impressed CS in 2-channel mode with its slightly laid-back balance, forgiving nature, and very good retrieval of inner detail. "The Philips is undeniably a screaming bargain," declared JM following the dramatic price reduction, but CS feels the SACD1000 doesn't have the last nth degree of resolution offered by the Sony SACD players. Does everything well, decided KR, but ultimately Class B for its CD performance. (Vol.24 Nos.4 & 6, Vol.25 No.11 WWW)

**Rega Jupiter: \$1695**

The Rega Jupiter has the same chassis and top-loading design as the Planet 2000, but costs twice as much due to its using seven separate supplies compared to the Planet's three, and two Wolfson DAC chips in dual-differential mode. In side-by-side comparisons chez Tellig, the Jupiter provided a more powerful, more dynamic sound than the Planet. "The dual DACs delivered superior low-level resolution... There was more detail, but it was presented in a relaxed, natural way. The Jupiter was harmonically rich — Rega's sonic signature." He summed up, "Maybe [\$1695] is more than you want to spend on a player. Maybe the Planet is the bigger bargain. But the Jupiter shines in its own right, by Jove; I'm not sure any other player for less than \$3000 can top its overall performance." (Vol.24 No.5)

**Rega Planet 2000: \$895 \$\$\$**

A top-loader with spiffy new looks and a new DAC, along with other improvements, plus a case "made in Switzerland and beautifully finished," reported ST. The player had the "full, rich Rega sound — with lots of body, like me!" and "could be just the thing to flesh out string-quartet recordings," Sam surmised. "I loved the Planet in whatever system I tried, and I tried lots of stuff... The old Planet offered less low-level resolution than the new... The bottom end was exceptional, the midrange was so neutral, so smooth and sweet, that the Planet was one of the least-fatiguing CD players I have heard. There was a beguiling sweetness of tone regardless of the amp or speakers I used. If your present system sounds aggressively hard, if it's lacking in body and warmth, if the bass doesn't boogie, then the Rega Planet may be just the CD player you're looking for. I see no need to pay more for a player — but you know my cheapskate tendencies. Most warmly recommended!" (Vol.24 No.4)

## C

Apple iPod portable music player: \$299–\$499  
(See WP's review in this issue.)

Cambridge Audio D500SE: \$479 \$\$\$

The Special Edition replaces the D500 and features a new Crystal CD4391 24-bit/192kHz dual-differential stereo DAC and innards sourced from Sony for lower levels of jitter. ST found improvements in low-level resolution with "clean, clear sound" and "particularly good bass, with definition and drive." "No harshness, and very strong dynamic performance — not a little 10-lb weakling like most inexpensive players," he sums up. (Vol.23 No.9, original version; Vol.24 No.11)

*Editor's Note: There no Class D CD players currently listed.*

## K

Krell KPS 28C and SACD player, Mark Levinson No.390S, Meridian 588, Orpheus Zero, Linn Unidisk 1.1.

## Deletions

Oracle CD 2500 not auditioned in a long time; Toshiba SD-9200 no longer available; Wadia 861 because of doubts over availability.

# Digital Processors

*Editor's Note: The sound of any particular CD transport/digital processor combination will be dependent on the datalink used — see "Bits is Bits?" by Christopher Dunn and Malcolm Omar Hawksford, Stereophile, March 1996, Vol. 19 No.3. Unless mentioned, processors are limited to 32/44.1/48kHz sample rates. To be included in Class A+, a digital processor must be capable of handling DSD or 24/96 LPCM data.*

## A+

Accuphase DC-101: \$14,995

With the same sumptuous build quality as Accuphase's DP-100 transport, the DC-101 D/A processor accepts slide-in boards that permit a variety of input and output options and processing capabilities, not the least being SACD playback. If DVD-Audio makes it big, they'll supply a board for that too. Digitalia include six single-bit Multiple Delta Sigma DACs per channel and, in a nod toward independence from a preamp (J-10 preferred using one), a digital volume control. J-10: "The best way to give you an idea of its overall SACD presentation is to talk about ambience... The Accuphase combo delivered it like nothing I've ever heard in our system before. Totally remarkable." Gently, naturally, relaxedly, SACD took over the acoustics of J-10's listening room. Such words as "liquid," "voluptuous," and "immersive" pepper his review. The Marantz SA-1 sounded more fast and transparent with SACDs, but the DC-101 was more refined and detailed than the already musically engaging Sony SCD-1. Playback of 16/44.1 CDs was ultimately somewhat misty and obscured, a victim of the worlds-ahead-in-quality sound of SACD, decided J-10. (Vol.24 No.2 WWW)

dCS Elgar Plus: \$14,995 ☆

A remote-control D/A processor with digital volume control that's future-proof in that it will decode two-channel DSD and 24-bit recordings (although it does lack HDCD decoding). "The Elgar sounds simply superb and has a measured performance to match," JA gushed about the original version. While there were differences between the two units, Our Fearless Leader felt the Elgar was within striking distance of his longtime reference, the

Mark Levinson No.30.5. However, he added, "the sound of 96kHz tapes reconstructed by the Elgar was simply more real. And that is what the High End is all about." Compared with the original Elgar, the Plus adds support of DSD, SDIF-2, and IEEE1394 interfaces, the ability to slave to an outside word clock, a digital output, and a substantially expanded function menu. With these upgrades, J-10 found the best sound to be direct into the amps (no active line-stage necessary), fine-tuned with a choice of four filter settings. "In a way, the elegance of the Elgar Plus is all about the highs," he decided. The rest of the frequency spectrum is a knockout as well: very liquid and musical. MF added that compared to the Elgar driven by the dCS Verdi on CDs, his Nu-Vista 3D sounded somewhat smeared and soft. "Its transient performance can't compare, nor can its spatial presentation." The dCS combo must have caught our analog maven in a moment of weakness: "I thought, 'If CDs had sounded like this in 1982, I'm not sure there would ever have been an 'Analog Corner'... As far as what sets the dCS system apart sonically, I guess it starts with the proprietary Ring DAC, continues with the math encoded on the DSP chips, and ends with the structural rigidity and quality of the parts... But as good as it sounded on SACD — it was the dCS gear's ability to extract the maximum musicality and dimensionality from CDs that most impressed me." The only criticism MF could muster was for the Verdi's "truthful, analytical delivery and lack of tacked-on warmth." See also MF's comments on the dCS Verdi SACD transport. (Vol.20 Nos.7 & 12, Vol.22 No.2, Vol.24 No.1, Vol.26 No.4 WWW; see also the Sony SCD-1 review in Vol.22 No.11.)

dCS Purcell: \$7995

Audiophile version of the \$6995 dCS 972 professional digital/digital processor (reviewed by J-10 in Vol.22 No.2 and Vol.24 No.1) accepts sample rates of 32–96kHz and outputs 32–192kHz at 16–24 bits in a variety of digital formats, as well as DSD. Noiseshaping and dither options are switch-selectable. J-10 found the Purcell's sound, in conjunction with the Elgar Plus DAC, to be "smooth, liquid, very natural, yet fast and revealing." You can save some scratch by pairing it with the less expensive dCS Delius, which uses the same Ring DAC technology as the Elgar. In any case, J-10 points out, the combo gives new and exquisitely musical life to existing 16/44.1 CDs. "For me," he concluded, "the Purcell/Elgar Plus is an upsampling digital reference of the first order." MF added "I've been through laserdisc transports, glass-fiber optics, oversampling, and upsampling, and I've heard enough digital playback systems at audio shows to feel comfortable saying that these components from dCS comprised the best digital playback system I've ever heard for decoding standard CDs." (See also MF's comments on the dCS Verdi SACD transport.) Now includes IEEE1394 interface as standard. (Vol.24 No.1, Vol.26 No.4 WWW)

Esoteric D-70: \$14,000

D/A processor allows HDCD and upconverted CD playback as well as high-sample-rate LPCM playback. Three selectable digital filters include a proprietary design claimed to interpolate data representing frequencies greater than  $F_s/2$ , as well as selectable word-clock options and RAM-buffer refresh. Digitally controlled, optically coupled, variable analog output allowing it to drive a power amp without a preamp. JM: "The sound? Just plain absolutely wonderful. Not a trace of glare or grain. Even more important, this was demonstrably not achieved by rolling off the treble to make it sound 'more like analog.' There was a full measure of detail, which, instead of driving me back into my seat, brought me deeper into the soundstage and deeper into the music." (Vol.26 No.7 WWW)



Mark Levinson No.30.6: \$17,500 ☆

The No.30.6 carries Mark Levinson's "Reference" label, and they're not kidding: Madrigal intends to support the unit no matter what data sources lie in our future. Uses dual-differential 24-bit DACs, accepts data rates up to 96kHz, and does HDCD. JA bought the 1992 review sample, had all the upgrades done, and loved 'em. "Don't infer . . . that the No.30.6 'blew away' the '30.5. It didn't. In absolute terms, the differences were small — but they were still important. I recommend '30.5 owners upgrade their processors as soon as budget and the factory's schedule allow." Upgrades: \$4995 from No.30 or '30.5, \$4495 without new front panel. (Vol.15 No.2, Vol.16 No.6, No.30; Vol.17 No.10, Vol.18 Nos.3 & 4, No.30.5; Vol.22 Nos.10 & 11, No.30.6 WWW)

Weiss Medea: \$13,500

Despite its external simplicity, the Medea is a powerful tool. KR: "In addition to accepting up to 24 bits and sample rates of up to 96kHz at each input, inputs 1 and 2 can be used simultaneously to process rates of 176.4kHz and 192kHz... All inputs are automatically upsampled to 352.8kHz or 384kHz, and all inputs are subject to two jitter-reduction schemes." The results? KR again: "Independent of comparisons, the Medea impressed me with newly discovered solidity and definition in the bass, a smooth, full presence in the midrange, and silky, extended highs. Through the Medea, my CDs, DADs, and DVDs sounded as or more satisfying than they ever had, offering: 1) tighter, more potent bass; 2) greater vocal presence, particularly with male voices; and 3) a deeper soundstage with less highlighting of treble instruments." JA was similarly impressed: "In some performance aspects it is among the best I have measured, while in others it was the best. Wow!" (Vol.26 No.2 WWW)

## A

Chord DAC64: \$3100

JA decided that the sound of the "eye-poppingly gorgeous" DAC64 was "fairly ordinary" without its RAM buffer engaged. However, "switching the buffer in circuit both sweetened the tonal balance and made the perceived stage deeper," he found. Compared to the Musical Fidelity A324, "The Chord had an overall more laid-back presentation and a greater degree of lower-midrange bloom. . . . The Chord's bass was fatter, with less-well-defined leading edges to bass guitar and double bass." Still, JA was impressed: "The DAC64 should be ranked highly... Many listeners should find its silky-smooth highs seductive, as well as its slightly larger-than-life lows." (Vol.25 No.7 WWW)

Grace Design Model 901: \$1495

Accepts digital inputs from 32kHz to 96kHz. See "Headphones & Headphone Accessories." (Vol.26 Nos.3 & 8 WWW)

Mark Levinson No.360: \$5000

Class A, says KR, "ceding by only the finest of margins to the \$10k+ DACs. The 360 is at the point of inflection of the price/performance curve: 24/96, HDCD, and all that jazz." KR continues: "The staggering dynamic range seemed absolutely effortless... Middle and top notes had a glorious ring to them... The music just seemed to be there in my room." His final word on the matter: "no obvious defining character." (Vol.22 No.12 WWW; see also KR's report on the No.360S in this issue.)

Perpetual Technologies P-1A: \$1099

The P-1A digital/digital processor can now enhance resolution to 96kHz and 24 bits, and eventually will output 192kHz. It will also correct loudspeaker amplitude and phase (and the acoustics of your room as well). RD, once he'd figured out the P-1A's multi-function buttons and myriad flashing lights, found that "the

timbral qualities of instruments seemed more true to life, with less of the synthetic 'digital' character that many audiophiles dislike about CD sound." He much preferred the sound of the P-1A/P-3A together than the P-3A alone (see "Digital Processors"), finding the pairing more detailed, with greater clarity and a smoother, more grain-free upper midrange and treble. "Enabling Resolution Enhancement (Output Bit Density set to 24) took performance to a higher level still," he said, voting for Class A for the combo, despite the apparent and significant worsening of the measured performance compared with the P-3A alone, particularly with respect to jitter. This worsening was even apparent with the theoretically better I2S connection between the P-1A and P-3A. This recommendation is therefore provisional. (Vol.24 No.1 WWW)

## B

47 Laboratory 4715: \$1250

Using just 20 parts, the 4715 is among the smallest DACs in high-end audio, and keeps signal paths as short as possible. A "zero-oversampling" design, it has no digital filter chip. With the 4715 partnered with 47 Lab's 4716 transport, AD felt the combo "imparted the same qualities to my system that I heard using just the DAC with a variety of other transports: Music sounded softer, more distant, and altogether a bit less hi-fi... The 47 Lab combination rendered music just a little bit more involving, with slightly improved rhythmic capabilities in particular." Between the two, Art was more impressed with the DAC: "If anything, the 4715 is a better value for what it is, an observation echoed in and reinforced by its performance." (Vol.26 No.3 WWW)

Benchmark Media Systems DAC1: \$850 \$\$\$

Features two front-panel headphone jacks, RCA single-ended and XLR balanced analog line outputs that are switchable between line level, trim-pot set, calibrated level, and variable level. Compared to the three-times-more-expensive Marantz SA-14, JM found the DAC1 to be "slightly more articulate in the musical line, and slightly more detailed in spatial nuances, particularly the localization of individual images in space, and in soundstage depth." (Vol.26 No.7 WWW)

GW Labs DSP Sample Converter: \$399

Using Crystal's "fourth generation" CS8420 sample-converter chip, the DSP Sample Converter upsamples and reclocks the 44.1kHz datastream from your CD player or transport. Upsampling revealed "more space, more air, and smoother, sweeter treble." ST: "The GW Labs DSP is way recommended. You can't go wrong." (Vol.25 No.2)

Monarchy Audio Digital Interface Processor 24/96

Classic: \$249 \$\$\$

This jitter-reducing device uses a PLL to recover the master clock, suppress as much jitter as possible, encode the new data, and clock into a fresh datastream. The Mk.II DIP handles 24/96 signals and passes all digital surround formats, including AC-3 and DTS, and includes a new AC line filter. ST liked the added smoothness and freedom from edginess, as well as the more dynamic sound. "Takes your Class C player and turns it into a Class A transport? Well, maybe not — but a great way to get good sound from an ordinary player, maybe even a CD changer with only a TosLink digital output." (Vol.24 No.2 WWW)

MSB Link DAC III: \$499–\$995 \$\$\$ ☆

The Link III offers user-installed upgrades, including upsampling (\$199), HDCD decoding (\$199), and the MSB 192kHz Network (includes upsampling and AES/EBU input, \$285). Full Nelson version (\$899, factory-only) adds 2% Wima PP caps, low-inductance Caddock ceramic resistors, ultra-high-speed op-amps, Roderstein

1% helical metal-film resistors in the signal path, an improved power supply, as well as the MSB 192k Network. KR: "The charms of the original's transparency and immediacy were retained, joined by a newfound smoothness and sense of ease in the upper frequencies." No downside to upsampling, KR felt: "The obvious upgrade route for all the aged but functional CD players still doing yeoman's duty." The P1000 Power Base (\$299) extends and reinforces the nether regions, and AES/EBU (when it worked properly) earned a double Wow for its "musical and impressive" performance over S/PDIF. "Unbeatable value," summed up KR. ST tried the Link DAC III without the Full Nelson upgrade, but was more positive about the upsampling option (realized with the Crystal chip): "With upsampling, the overall tonality was richer, riper, fuller... I heard cellos take on more body, more bloom. The sound had more weight — like me. This added richness was accompanied by more apparent low-level detail." He thought every recording, when upsampled, seemed "more natural, often spectacularly so." RD is also an MSB fan but ultimately prefers the Perpetual combo. (Vol.22 Nos.1 & 12 WWW, original version; Vol.23 Nos.9 & 12, Vol.24 No.2 WWW, III)

Perpetual Technologies P-3A: \$799 \$\$\$

This high-performance 24/96 D/A converter is based on the latest Crystal CS4397 DAC chip and CS8420 sample-rate converter. "One of the best-measuring D/A converters I have encountered," declared JA, while RD warned that the P-3A, in combination with the P-1A, reached a level of playback "that must have manufacturers of multi-kilobuck digital processors hoping that not too many customers find out about it." RD found that the P3 Power Plant power supply, available for \$349 from Monolithic Sound, improved the sound. ModWright's Dan Wright wrings Class A sound from the P-3A by substituting parts in its analog stage and power supply. The changes are fully endorsed by PT, who extend their warranty to the modified units. RD noted "a drop in background noise, which resulted in music emerging from the background with greater clarity. The treble became more open, detailed, and airy, with no added edge or hardness. There was also an enhancement of dynamics." New unit direct from ModWright costs \$1099; upgrade costs only \$300, plus return shipping and insurance. (Vol.24 Nos.1 & 10 WWW)

## C

Digital Audio Labs CardDeluxe: \$399 ☆

PCI-interface computer soundcard that JA described as "smashing the boundaries between component categories." Handles two channels of balanced I/O on TRS 1/4" phone jacks and two channels of S/PDIF digital on RCAs. Offers up to 24-bit word lengths and sample rates of up to 96kHz, and has extension port to sync with other CardDeluxe cards to assemble a hi-rez, inexpensive multi-track digital recorder. Saves music data as two-channel PCM WAV files, so use fast, big-gig hard drives. JA thought it sounded full-bodied, with good low-frequency extension and definition. Astonishing performance for the money (especially at the new lower price): "the most cost-effective way of making a PC an integral part of a high-end system." Ultimate sound quality will very much depend on the host PC. Optional AES/EBU adapter costs \$50, but lowest jitter and noise floor with external DACs will be achieved with a TosLink connection. (Vol.23 Nos.9 & 11 WWW)

RME Digi96/8 PAD: \$635

The original Pro, no longer available, was a computer soundcard with PCI-bus interface for Macs and PCs. It offered one pair of unbalanced analog outputs on 1/4" TRS jack, digital input and outputs (S/PDIF coax and optical, AES/EBU, ADAT optical), and useful

bundled software. Supports 32, 44.1, 48, 64, and 96kHz, and up to 24-bit resolution. The Digi96/8 PAD is essentially the same as the Pro, but with an A/D input, which worked "marvelously," according to WP. "For what really counts — accurate and easy recording and playback of your own music," he concluded. (Vol.23 No.11, Vol.24 No.1, Pro; Vol.25 No.3, PAD WWW)

## D

Onkyo MSE-U33HB USB: \$199

This iMac-like plastic box hooks up to your Mac or PC and includes "built-in 1-bit A/D and D/A converters and a preamplifier, as well as three convenient front-mounted USB ports. . . . Onkyo bundles [it] with BIAS, Inc.'s Peak LE, which allows easy and very convenient CD-quality (or lower) hard-disk recording from analog systems. Peak LE can also read and encode MP3, Shockwave, and RealAudio files... You can digitize LPs or cassettes, and there's even a microphone input." However, said MF, "The MSE-U33HB is worth getting just for the improvement in sound." The only drawback is that it doesn't include digital inputs and outputs. (Vol.24 No.10)

## K

Theta Gen.VIII, Metric Halo MIO 2882.

## Deletions

*Apogee Electronics PSX-100 SE not auditioned in too long a time; MSB Platinum Plus DAC and Musical Fidelity A324 replaced by new versions not yet auditioned; Wadia 27ix because of doubts over availability.*

# CD, DVD & SACD Transports

## A+

Accuphase DP-100: \$12,995

Built like a golden tank, this impressive transport plays CD, CD-R, and SACD single-layer, dual-layer, and hybrid (SACD/CD) discs. S/PDIF output is for CDs only, with SACD signals appearing on the proprietary RJ-45-based HS-Link. Use of a Sony mechanism means the same long disc-read times as the SCD-1. This suave performer has become J-10's reference transport, beating out even the pump-driven, air-bearing Forsell Air Reference. His usual setup runs HS-Link to the Accuphase DC-101 processor for SACD playback, and the S/PDIF output to the dCS 972 or Purcell/Elgar Plus combo for the Very Best of All Possible Worlds. (Vol.24 No.2 WWW)

dCS Verdi: \$10,995

SACD/CD transport with DSD stream output via IEEE1394 FireWire interface. With the Verdi driving the Purcell and Elgar Plus, "there were a clarity, a focus, and a delineation of individual instruments... Its physical presentation was clearly focused and correctly sized, cushioned by a distinct breath of air... This was the first CD presentation that played on the same musical field as the best analog," said MF. SACD playback via the FireWire-connected Elgar was "the finest, most immediate, most musically pure that I've heard," he summed up. (Vol.26 No.4 WWW)

Meridian Reference 800: \$17,000–\$19,000, depending on options ☆

As well as playing DVDs and CDs, it upsamples its output to 88.2kHz (CD) or 96kHz (DVD). See "SACD, DVD-A, & CD Players." (Vol.23 No.2, Vol.26 No.8 WWW)

## A

47 Laboratory PiTracer: \$25,000, with one Power Humpty Idiosyncratic CD transport from Japan where the entire laser-pickup housing moves over the rotating disc. You can run the PiTracer with one 47 Lab 4700 Power Humpty power supply (\$1800 each), or use a second Humpty to run the two sections separately. J-10 gushed: "My immediate impression of the PiTracer, later backed up by many hours of contented listening, was of sonic clarity. . . . I've heard this kind of presentation so far only from SACD: The backgrounds were blacker than black, resulting in an enhanced sense of imaging. And running it directly into the Elgar Plus, then to the Krells, gave me more of that special ease I crave, and which I associate with high-bit-rate, high-sampling-rate machines." (Vol.24 No.9 WWW)

Esoteric P-70: \$14,000

This CD transport's Vibration-Free Rigid Disc-Clamping System uses a precision mirror-polished platter with a very slight convexity to brace the disc from above. Using it in combination with the D-70 DAC, JM wrote "It is one thing to say that one hears things on a treasured recording one has never heard before. . . . It is quite another thing to say that the sense of immediacy, of being enveloped in the world of a treasured recording, is heightened, so that the music as a whole makes sense to one as never before — and that is what the Esoteric P-70/D-70 did for me." (Vol.26 No.7 WWW)

Mark Levinson No.31.5: \$10,000 ☆

Upgrade to the original No.31. "A 'reference' component if ever I heard one," insisted JA; " . . . a supreme example of a state-of-the-art, potentially future-proof CD transport." The improvement offered over the No.31 transport was substantial, he said. "With the '31.5 recovering the bits. . . . I [heard] the best I have yet to hear from the 16-bit digital standard. . . . However, even the cheapest upgrade to '31.5 status, replacing as it does everything other than the chassis and half the power supply, is quite expensive at a hair under \$3000." (Vol.16 No.6; see also RH's response to a reader's letter in Vol.16 No.9, p.25, No.31; Vol.19 No.10 WWW, No.31.5.)

## B

47 Laboratory 4716: \$1750

Stripped-down CD transport has no doors or drawers, and the user must manually clamp the disc on its exposed drive hub, then press a switch before the disc's ToC can be read. Comparing it driving the 4715 DAC to his reference Sony SCD-777ES SACD player, Art found the 47 Lab combo to be "more midrangey, even to the point of some not-unpleasant pungency on certain instruments and voices," but they "had less shimmer and sense of air, and there was less precision in stereo imaging placement. . . . The combo had a direct, emotive, and ultimately extremely involving way with this music, even if the top end wasn't as sparkly as that of the Sony. . . . The 47 Laboratory combo was a little quacky by comparison — so midrangey it made Barbirolli sound almost like Toscanini, if you know what I mean." (Vol.26 No.3 WWW)

Linn Kivor Tunboks hard-disk music server: \$20,000, in typical setup

See "Complete Music Systems." (Vol.24 No.12 WWW)

*Editor's Note: There are currently no Class C or D CD transports listed.*

### Deletions

Wadia 270, due to doubts about availability.

## CD Accessories

Compact Dynamics Opatrix: \$16.95/2-oz bottle treats 100 CDs ☆

CD-DVD disc cleaner and antistatic spray that does a great job of eliminating fine dust and dirt, says SD, while preventing the return of dust with its long-lasting antistatic properties. Even makes most new CDs sound subtly better, perhaps by removing molding compound left over from disc manufacture. (NR)

Furutech RD-2 CD "demagnetizer": \$349 ☆

"In every case," declared RD, "after the demagnetization treatment the CD sounded fresher, with cleaner highs and a better sense of space." (Vol.23 No.4)

Nordost Eco 3 antistatic spray: \$39.99/8-oz bottle ☆

"Spray it on, wipe it off: a shot of this on CDs, electronic equipment, and cables will clean up a surprising amount of sonic smog," claims BW. BD and BM concur. WP adds, "Frustratingly audible when applied to the label side of CDs." He hates when that happens. (NR)

### Deletions

Auric Illuminator not tried in a long while.

## Music Surround-Sound Components

## A

Bel Canto eVo6: \$4900

Six-channel power amplifier created with three of the two-channel modules from Bel Canto's eVo2, along with a bigger power supply that's suitable for running all six channels at 120W. Comparing the eVo6 to his reference Bryston 9B-ST, KR said, "The eVo6 initially seemed to have less treble energy, but extended listening found nothing missing in terms of balance or detail. . . . The bass was full and extended. . . . The depth of image, in all dimensions, was excellent." KR also found the eVo6 to be "quite forgiving of 'hot' recordings." He concluded, "With both RCA and balanced inputs, the eVo6 is a no-brainer solution to all the obvious demands of multichannel." (Vol.26 No.9)

Bryston 9B-SST: \$4695

Five channels, 120Wpc into 8 ohms. See "Power Amplifiers." (Vol.23 No.9)

Meridian Reference 861 surround controller:

\$16,000–\$19,000, depending on options ☆

Multimedia controller with video, DSP-based decoding for matrixed and discrete multichannel audio sources. See "Preamplifiers." (Vol.23 No.2, Vol.26 No.8 WWW)

Myryad MDP 500: \$2995

As well as nine pairs of analog stereo inputs and six digital inputs, this multichannel processor has a "7.1-channel" analog input that is fed directly to the analog volume control and output stage. "The general impression was one of clarity without glare or brightness," said KR, who preferred feeding the Myryad with digital signals, when it was elevated into "an entirely glorious realm of transparency and openness. . . . It also offered consistent power and warmth from all the players I tried, even though each of these had more 'personality' when fed to the MDP's '7.1' input via their DACs." With DTS or Dolby Digital CDs and DVDs, "the Myryad's decoding was stable and clean." Summing up, KR "found little to criticize about the Myryad MDP 500's perform-

ance. It's a bang-up multichannel preamp-processor with all the digital and analog inputs and modes needed for almost any audio and/or video source out there. (Dolby-EX and DTS-ES capabilities are in the works.)" In addition, purists can use the bypass capability of the "7.1-channel" input/output, which Kal felt was the equal of the highest-quality analog components. "As an analog pass-through controller, it is thoroughly transparent and in the A class." But as a two-channel digital preamp or a DAC, it probably deserves a B, he decided. (Vol.24 No.6)

McCormack MAP-1: \$2395

Remote-controlled, line-level, multichannel analog preamplifier. Uses McCormack's Ambience Recovery Mode (ARM), which derives center, sub, and surround signals from stereo inputs to simulate a true six-channel source. KR: "ARM was nowhere near as impressive or as useful in simulating ambience as Meridian's DSP-based TriField; ARM helped only with congested source material, while TriField was enjoyable with almost all two-channel recordings." Unlike the Sony TA-P9000ES, the MAP-1 comes with a separate stereo preamp and a built-in setup procedure that makes channel offset and balance easy using only the remote. Its overall sound was also "marginally quieter, more open, and tighter than the Sony's with all sources." (Vol.26 No.9 WWW)

Theta Digital Intrepid: \$3500

5-channel, 100Wpc amplifier that KR found ideal for multichannel systems. See "Power Amplifiers." (Vol.25 No.7 WWW)

## No Class Rating

Harmonic Technology Harmony Rainbow: \$310/1m

with RCA terminations, \$40/additional meter

Six individual color-coded cables in a single bundle for multichannel systems, this was KR's salvation from "Cable Hell." (See "Cable Hell" in Vol.25 No.7)

RSCables "The Solution" \$199/1m, \$20/additional 0.5m  
Another excellent 6-conductor multichannel cable at a competitive price. Uses Canare RCA's (like the Rainbow Harmony) but with a slightly brighter sound, according to KR. Choose between them depending on room and speaker. Available from [www.rsables.com](http://www.rsables.com) (Vol.26 No.6)

## K

Bel Canto Pre6, Outlaw Audio ICBM.

## Deletions

Lexicon MC-1 no longer available.

# Preamplifiers

*Editor's Note: Apart from the Blue Circle, Connoisseur, Conrad-Johnsons, Hovland, Nagra, Naim, Musical Fidelity, and CAT, all the Class A preamplifiers offer balanced outputs. And unless noted, the preamplifiers listed do not have phono stages. Note that the Z-Systems rdp-1 only accepts digital sources.*

## A

Ayre K-1x: \$6750

Upgrades to the original K-1 include a completely reworked ground-partitioning scheme, additional RF filtering, and new high-density polymer feet. Owners of the original can upgrade to the latest refinements for \$450. PB found that low-level details emerged effortlessly, transients were tracked like radar, and the overall presentation was sharp and deep-focused. Due to the absence of noise and distortion, PB was brought far closer to the

truth of the music than he'd ever imagined possible: "The K-1x provided a rather disturbing exhibition of how much subliminal-level grunge, hash, and noise is taken for granted as a part of the sound of even top-level high-end components... Does the Ayre K-1x belong in Class A? Are there bears in the woods?" Remote adds \$250, dual-mono phono boards add \$1600. (Vol.20 No.3, K-1; Vol.25 No.6, K-1x WWW)

Balanced Audio Technology VK-40: \$4000 \$\$\$

Like all BAT preamps, the solid-state VK-40 features a single gain stage, an electronic-shunt volume control, zero negative feedback, and no buffers, followers, or op-amps in the signal path. An optional phono board is available. "Getting a handle on the VK-40's sound was fairly tricky, according to RD. "When I look back at the totality of my experience with the VK-40, the word that for me captures its most salient sonic characteristic is 'dynamic.' In fact, I think of this characteristic as a major part of the BAT 'sound.' " At the end of the day, the VK-40 "had power, tautness, and the type of quickness that makes listening to music a compelling experience... Allied with the dynamic quality was a high degree of resolution and transparency." He thought the \$500 price for the internal VK-P20 phono stage was very reasonable, and called it "a smooth, assured performer. ...It sounds a bit soft and laid-back, forgiving rather than hyper-detailed, harmonically rich with plenty of warmth." Optional remote control adds \$500; optional Six-Pak capacitors, \$500. (Vol.24 No.7 WWW)

Blue Circle BC3 Galatea Mk.II: \$4650

This class-A triode dual-mono design has point-to-point wiring, five line-level inputs, and a tape loop — all in a chassis that impressed CS with its understated elegance and red-cherry hardwood knobs. Each channel's volume control is a 31-step true-mono resistor ladder. CS: "firm, laid-back musicality...sweet and silky...yet quick and slamming!" The midrange was "warm and glowing," yet never shortchanged resolution, rhythm, or pacing. Excellent soundstage depth and layering. The Effulgent One also found it airy and extended — "immersive," as he put it. "Supremely musical and non-fatiguing" about sums it up. It's a keeper. Inverts absolute phase. Price includes BCG3.1 power supply. A "Follow-Up" is underway on the current Mk.II version. (Vol.23 No.8 WWW)

Boulder 1012: \$16,000

This all-in-one line-level preamplifier and DAC achieves a maximum sampling rate of 768kHz. J-10: "You want it fast and furious? Mate the Boulder 1012 with a fast amp like the Linn Klimax. Want something a bit more sensual? Go for amps like the Krell FPB monoblocks." The Boulder's sound via its analog inputs was "all about the good side of descriptors like 'clarity,' 'transparency,' 'speed,' 'fast,' leading-edge transients launched with staggering detail," J-10 raved, noting that its analog section outclassed its digital section. "The Boulder 1012 sounds great through its own very special high-speed DACs [but] sounds clear, transparent, and colorful through its line-level inputs. Find a way to feed it low-jitter 24/96 data and it'll give your system a little more of that wonderfulness we're all searching for." (Vol.24 No.12 WWW)

Boulder 2010: \$36,000

Used with the 2008 phono stage, the 2010 had MF enraptured: "the 2010 provided a bit more of everything that was great about the phono stage... I've heard nothing better than what this combination provided. Its dynamic performance was cathedral-like." MF raved, "The 2010 is fabulously built and provides the luxurious accommodations well-heeled audiophiles demand and deserve when they spend \$36,000 on a preamplifier. ...It was open, transparent, endlessly resolving harmonically, and free of grain, glare, or any other audible or fatigue-inducing detritus." (Vol.25 No.7 WWW)



#### Connoisseur Definitions 4.0: \$19,950

MF: "Immediacy, excitement, solidity, organization, rhythmic drive — the combination of Connoisseur line and phono stages was a formidable performer that, with the right cartridge, amplifier, and speakers, will provide musical thrills galore without adding etch, grain, or any of the other supposed solid-state 'baddies.' The combo produced a clarity and sense of musical purpose second in my experience only to the Boulder twins." (Vol.25 No.10)

#### Conrad-Johnson ART Series 2: \$15,995

This limited-edition, dual-chassis, remote-controlled tubed line stage uses five dual-triodes per side, running in parallel to construct a single high-transconductance triode that can be run without a buffer stage or negative feedback. The downside is that things like channel balance are controlled by the performance of the individual tubes used — our sample had a difference between channels of some 0.3dB. This in no way bothered WP, who called the ART's sound "A whole new ball game...involving, rich in timbre and nuance, and staggeringly clear... It is without compromise." Of the Series 2, J-10 gasped, "It was the kind of sound that makes everyone hold their breath. ...I was overtaken. ...Air, quickness, colorful harmonics, timing, defining leading-edge transients — all served up an acoustic pleasure almost beyond description. ...Class A all the way!" Older ARTs can be upgraded for \$1950, including faster rectifier diodes in the power supply, improved DC regulators with lower impedance, new resistors for better sound, and enhanced internal wiring and AC cords. (Vol.21 No.5, Vol.25 No.6 WWW)

#### Conrad-Johnson Premier 17LS: \$4495

The 17LS's circuit is configured as a single triode stage using four paralleled 6922s with no global or local negative feedback. There's also no cathode follower; BD therefore kept cable runs as short as possible and avoided high-capacitance wires. "The 17LS never seemed to get in the way of what I was listening to, or for," he said. "It was not overly lush, vivid, or forward... [It was] sweet in the captivating ways that a live instrument is or a wonderful acoustic space can be, with rich, dense tones and exquisitely, intricately layered harmonic structures." Soundstage was very slightly recessed and the 17LS didn't have quite the punch and impact of other preamps he'd reviewed, "but there was definitely more and finer inner detail with the 17LS in the system." It also seemed to have better resolution of tonal nuances. Overall, BD found, "the C-J's top end was lovely. ...Sweet, luscious, clean, defined, detailed, coherent, and clear." "Sensible engineering, in my opinion," added JA. (Vol.24 No.5 WWW)

#### Convergent Audio Technology SL-1 Ultimate Mk 2: \$6950 ☆

JE found the Mk.I version of the tubed CAT both harmonically accurate and able to endow music with "glorious midrange splendor." J-10 called it vividly balanced and "ruthlessly revealing." Phono stage is quiet enough to work with the AudioQuest 7000nsx. Mk.III upgrade changes tube complement, making it "definitely quieter," said RD. "More lively, yet better behaved than in its previous incarnation." The Ultimate is the Mk.III with more capacitors, more components, and a new circuit board. RD said the Ultimate "sounds more relaxed, more liquid, and draws me more into the music. There is also an improvement in dynamics, the music seeming to 'breathe' with greater freedom." BD demurs, however. (Vol.9 No.7, SL-1; Vol.15 No.12, Vol.17 Nos.1, 9, & 11, Vol.18 No.12, Signature; Vol.19 No.12, Signature Mk.II; Vol.21 No.3, Mk.III; Vol.22 No.8, Vol.24 No.7, Ultimate WWW)

#### Hovland HP-100: \$6495, with MC phono stage

Vacuum-tube full-function preamp with built-in phono stage and MC step-up transformer. No remote, but fabulous looks and a

monocoque chassis (!) that exude "tasteful luxury and authoritative simplicity," gurgled MF, who bought the review sample. Three separate compartments contain the three-tube phono section, the three-tube line stage, and the solid-state power supply. "Tube sound? Not here — unless by 'tube' you mean luxurious liquidity, sensuous liquidity, wrap-around-your-eardrums liquidity, all accomplished seemingly without politeness, sluggishness, or high-frequency rolloff." Plus: "Seemingly limitless high-frequency extension, supple and airy delicacy, and previously-unheard-of transient resolution." Only downside was a bit of hum MF couldn't get rid of that turned out to be sample-specific; the sample MF bought does not have the problem. Line stage alone costs \$4995; price with MM phono stage is \$5995. (Vol.23 No.11, Vol.25 No.3 WWW)

#### Jeff Rowland Design Group Synergy III: \$5950

The original Synergy was an RD favorite. The III was deemed "beyond reproach" by PB, who was most impressed by its ability to communicate the beauty of the musical experience in its entirety: "It combined a free-flowing and light-footed musicality with excellent resolution and a full-bodied harmonic presentation, and did a fine job of keeping everything in order. ...The Synergy did an excellent job of bringing an effortless focus to the whole rather than the individual parts." Music emerged from a silky-silent background... Its tonal character was refined and a tad warm, but never slid into rose-tinted romanticism." However, it did prove to be forgiving: "By focusing on the music instead of the sound per se, it didn't draw as much attention to the recordings' sonic flaws." JA and PB agree: "By any measure, the Rowland Synergy III is a winner." (Vol.20 No.12, Vol.25 No.8 WWW)

#### Lamm Industries L2 Reference: \$13,690

Dual-mono, tubed, line-level preamplifier with separate, choke-filtered power supply and specially selected, superlinear, high-voltage MOSFETs and no overall negative feedback. Both chassis were rather resonant, meaning that J-10 insisted that attention be paid to damping. "The extension and sweetness, plus the dynamics, detail, and tonal color, mesmerized me. ... It seemed to give the music passing through its circuits that extra sense of roundness that tubes do so well." He even called the midrange "flawless." The midbass was controlled and detailed, yet rich and resonant with harmonics and overtones. If a complaint could be leveled, it would be that the L2 sounded a bit light in the bass. Nevertheless, "the L2 has soul, baby, and lots of it — but without being obvious or euphonic about it." JA: "A well-engineered preamplifier with a sensibly arranged gain/distortion structure." (Vol.24 No.5 WWW)

#### Linn Klimax Kontrol: \$9895

"Drop-dead gorgeous" solid-state, two-channel preamp with Mute and Mono switches and a "superb" balance control. Lacks tone controls and switches for reversing signal polarity and channels. AD partnered the Kontrol with the Linn Klimax Twin amplifier: "They were incredibly detailed without being the least bit bright or aggressive. Textures, inflections, nuances, and even non-musical sounds were offered up clearly and organically." The combo conveyed "the essential musical message... I've never heard their betters in terms of dependably right pitches and timings. ...Based on what I've heard over the years, the seemingly passive act of refraining from screwing up the music is the rarest thing in audio. The Linns get that right." "So well made it's a joy just to touch it," sums up AD. (Vol.26 No.6 WWW)

#### Mark Levinson No.32 Reference: \$15,950 ☆

J-10 loved this line-level preamp with optional phono modules, the first to carry ML's "Reference" moniker. Future-forward design stuffs the power supply, control circuitry, and display into



one chassis, with the ultra-sensitive audio circuits in a separate, "clean" box. AC power regeneration feeds the voltage gain stages, microprocessor controls offer lots of flexibility, and a new high-tech attenuator and a wonderfully ergonomic user interface make life easy. You can change cartridge loading on the fly! "The totality of music as presented...was astonishing...engaging, rich, rife, extended, airy, smooth, and oh so palpable." He was also "floored by...the enormous amount of unforced information passing through its circuits... The enormous level of utterly natural detail was evident throughout the audible frequency range." He went on: "the sound was not analytic, you understand, or dry, just there." It "delivers on that promise of More and Better like nothing I've heard to date... Bravo." LG breathlessly adds, "The sonics with a Levinson reference system on the Dynaudio Evidence was tops." JA was sorry when he had to bid adieu to the review sample. PB is working on a "Follow-Up." Optional phono modules add \$2500. (Vol.23 No.1 WWW)

Mark Levinson No.380S: \$7000 ☆

While the circuit, pcb material, and remote-controlled, MDAC-based, 0.1dB-step, balanced volume control are the same as those in the earlier No.38S (as is the price), the substitution of 106 passive components left JA searching for words. "How do you describe something that's superficially identical to your reference, but better?... There was a musical rightness to the sound of the '380S that I consistently preferred. Stereo images seemed better defined, and individual sonic objects within those images had more of a rounded, fleshed-out character." But even he had to admit that, compared with the groundbreaking No.32, the '380S "sounded less informative, more 'gray' — as if a fine screen was washing out some of the sound picture's inherent contrast; as if the system's color-saturation control had been backed off a notch... Don't get me wrong, the '380S still does almost everything I need from a line-stage control preamplifier" — such as, he noted, its signature expansive, enveloping soundstage. "Yep, the No.32 is a spoiler," admits J-10. (Vol.20 No.11, Vol.23 No.1 WWW)

McIntosh C2200: \$4600

ST waited 40 years for McIntosh to introduce this new tube pre-amp. Though its line-stage performance was "superb," ST found the MM phono stage to be "less than stellar." However, he advised, "If LPs are a secondary, occasional source, then the C2200's phono stage might be all you need." ST was most impressed by how quiet the C2200 was. "The C2200 seemed neutral without being clinical [and] did not impart any tube glare." ST raved on: "McIntosh has made a tube preamp that exceeds what, for [\$4600], would have been possible in a solid-state design...[It] was one of the finest line-stage preamps I have ever used, and far and away the most user-friendly... A Mac masterpiece!" (Vol.25 No.5 WWW)

Meridian Reference 861 surround controller:

\$16,000–\$19,000, depending on options ☆

Multimedia controller with video, DSP-based decoding for matrixed and discrete multichannel audio sources. Functions as analog preamplifier-controller, digital and video controller, and A/D–D/A converter. Built-in, reprogrammable decoding of multichannel sources (Dolby Pro Logic, Dolby Digital, DTS, Ambisonic, etc.), plus THX and Trifield output from two-channel sources. All inputs digitally processed. Of Trifield's synthesized front-three-channels output, KR observed, "I came to regard the loss of air and the narrower soundstage as acceptable concomitants of the richer, tighter, better-defined central images. 'Audiophile air' began to seem an artifact rather than an enhancement." DTS and Dolby Digital 5.1 music recordings "injected" ambiances whose acoustics superseded his room's.

Multichannel is immersive, but our KR would rather not sit in the middle of a string quartet or orchestra. For two-channel, "equal to the best... beyond significant reproach." Multichannel, he declared, is the future, and Meridian is ready now. Logical but complicated setup and option procedures entered via PC; heavy dealer involvement is key to getting the best from this ultimate component. But when the 861 is programmed for precise time alignment and amplitude balance among the speakers, and the crossover and bass management adjusted independently for the main, center, and rear channels, "everything seemed just right, and it made for consistently satisfying listening," he decided. "The TriField DSP is a greatly advantageous feature that deserves more recognition. I felt confident that whatever little silver disc I put into the 800-861, it would sound superb." (Vol.23 No.2, Vol.26 No.8 WWW)

Musical Fidelity A3.2CR: \$1795 ☆

Unusually, all of the gain is applied before the volume control. Dual-mono power supplies and choke regulation offer a solid basis for the output stage, explained ST. "All the advantages of an active line stage without any significant loss of information." The A3.2CR uses the same circuit as the original A3CR, but with small changes in component values, and adds a second stage of choke regulation. ST heard something "electronic" in the original that interfered with the music, but with the A3.2CR, he commented that he heard no layer of electronic haze or grunge. "The sound was superbly dynamic. ...The midrange and treble were smoothly and sweetly extended. Detail was delicate to the point of being exquisite." Sam insisted that the A3.2CR was one of the finest line-stage preamps he's heard to date, and notes that it doesn't use exotic devices, but he was not satisfied with the phono stage, which was "merely okay." (Vol.23 No.10, Vol.24 No.6, A3CR; Vol.25 No.12, A3.2CR)

Nagra PL-L: \$7500

With its inputs on the left and outputs on the right, the PL-L offered KR some setup problems, but he found it "practically impossible to criticize the PL-L's sound. The PL-L was "absolutely satisfying and enjoyable. Noise was never noticeable... and all controls worked silently and smoothly. ... The PL-L was revealing and natural, imparting little personality or coloration of its own." KR commended it "not only for professional monitoring, but also for home systems of the very highest quality," and JA found "superb measured performance. ...Another Swiss jewel of a product from Nagra." Remote control adds \$1000; balanced outputs add \$500. (Vol.25 No.11 WWW)

Naim NAC 552: \$22,400

Remote-controlled, solid-state preamplifier with separate power supply. MF was most impressed by how the NAC 552 added "grip and drive" to everything he listened to. "Other than an almost unnoticeable loss of transparency and a slight harmonic darkening, the Naim's performance was exemplary in every way: it was quiet, grain-free, did nothing to change the overall spatial picture, and didn't impose its own texture on the most delicate musical information... The NAC 552's apparent sonic effect was to add enormous weight and meaning to all of the music I listened to through it." However, MF warned, "If you like warm and bloomy, you probably won't go for the 552." JA: "As long as it is not used to drive unrealistically low impedances...the NAC 552 gets a clean bill of health." (Vol.26 No.7 WWW)

Simaudio Moon P-5: \$4300 ☆

"Should be considered among the finest line preamps available today," KR said resolutely. It "worked well with every source and system" and had "transparency, very low noise, and flexibility of control." Class A only when combined with the appropriate com-

ponents/systems, he warns; ie, those that are a little bit assertive. Whereas the old P-5 could "make voices seem recessed," KR found the overall sound of the new P-5 to be "absolutely grain-free, spacious, and open." Midrange, bass, imaging, and soundstage "remained state-of-the-art," he decided. Upgrade to the new version necessitates changing the main circuit board. "The new one was subtly better, primarily in its more open and revealing treble, but if your older P-5 is a good match for your system, an upgrade could be a step in the wrong direction," KR cautions. However, he added, "It's clear that the new version is a more evolved preamplifier." Comes with an "imposing" remote-control wand. (Vol.22 No.3, Vol.25 No.7 WWW)

VAC Renaissance Signature Mk.II: \$13,000

While BD was greeted with excellent reproduction of dynamic contrasts and re-creation of tonal nuance, he was most impressed with the VAC's resolution of detail: "The Signature retrieved more tonal, spatial, and temporal information than any other unit I've heard. ...But where the VAC really stood out was in how well, at lower levels, it reproduced details of instruments buried way down in the mix or at the rear of the stage." He noted, however, a lack of transparency, which resulted in "the faintest sort of softening or sweetening" throughout the frequency spectrum, but most clearly at the extremes. BD suggested pairing the VAC with the very best sources and cables, as it was "mercilessly revealing of shortcomings." Line stage only, \$13,000; with integral phono stage, \$17,000. (Vol.25 No.10 WWW)

VTL TL-7.5 Reference: \$12,500

(See PB's review in this issue.)

Z-Systems rdp-1 reference: \$5000 ☆

"The tone control for the digital age," KR insists. "A fully transparent digital preamp, the rdp-1 is also a flexible and friendly parametric equalizer. The best way to correct tonal imbalance in speakers and source material." Accepts only digital inputs; current production can handle 96kHz sources. "Editor's Choice for 1998." (Vol.21 Nos.7 & 12 WWW)

## B

Audio Research SP16L: \$1995

Tube line preamplifier that uses three 12AX7EH tubes and features eight high- and low-voltage regulators and short signal paths. RD: "The SP16L is very good, too, its somewhat laid-back character complementing the Audio Research VS110 amplifier's slightly forward quality in a way that's synergistic. In matching the SP16L with other equipment, the factors to watch are amplifier gain (loudness may be limited if the gain is much less than the industry-standard 26dB) and source output voltage (the SP16L's maximum input level of 3.5V is lower than the outputs of some 'hot' digital sources)." (Vol.26 No.8 WWW)

Blue Circle BC21.1: \$1500

Tubed line preamp uses two 6SN7 tubes and matched well with companion BC22 amp, said KR, but also complemented the Sonic Frontiers Power-3 and McCormack DNA-1 to create "a big, macho sound." Great power and depth in the sub-100Hz range: tight, clean, extended. Throughout the rest of the frequency range it had "dynamics, clarity, and soundstaging far beyond my expectations...an excellent and satisfying performer." As good as KR's heard from a sub-\$2000 line stage, but remember the rich bass when matching it to a power amp. Its technical performance impressed JA. The BC21.1 replaces the original's 6SN7s with two 6922. KR felt the earlier model was marked by more copious midbass and deep bass than was necessary, but the BC21.1 had none of that excess. "It offers everything nice — clarity, wide soundstage, tight bass — that I

heard from the BC21, while improving on them and adding a subjectively honest tonal balance." (Vol.24 No.2, BC21; Vol.26 No.9, BC21.1, WWW)

Conrad-Johnson Premier 18LS: \$3495

Conrad-Johnson crossed over into solid-state territory with its single-ended, FET-based Premier 18LS. Excelled at being "musical, dynamic, and neutral," said LG, while also being "easy and convenient to use." He found "solid, subjectively smooth bass...with excellent extension, control, pitch definition, and speed," midrange reproduction that had "clarity, openness, and [the] ability to convincingly render instrumental and vocal timbres," and high frequencies that were "extended, neutral, and effortless." In addition, the remote control was able to trigger the 18LS's IR receiver from "any spot in the room." LG did note, however, that the 18LS was "less transparent with some recordings" than his reference, if antique, Mark Levinson ML-7. (Vol.25 No.12 WWW)

Final Laboratory Music-5: \$3600

AD noted that the Music-5 was very similar to its phono stage companion, the Music-4, in design and parts, despite an "altogether more reasonable" input impedance of 50k ohms. Together with the Music-4 and Music-6, it succeeded at conveying "music's natural sense of flow... The Final gear was... natural, nonfatiguing, and downright organic." The Music-5's measured performance was "fairly straightforward" when its trim controls were set for maximum gain. "However, if the trim controls are set to anything other than their maximum settings, the preamp's behavior becomes very dependent on the partnering power amplifier's input impedance," said JA. DC-5 power supply with batteries now included. (Vol.26 No.1 WWW)

Musical Fidelity CD-Pre24: \$1995

Remote-controlled solid-state preamplifier incorporates digital and analog inputs and outputs, as well as full A/D and D/A facilities and a CD transport. See "CD Players." (Vol.25 No.11 WWW)

Rogue Audio 66LSR: \$1395 \$\$\$ ☆

Line stage with two 12AU7 tubes in ceramic sockets, separate power supply, and audiophile-quality parts. Two versions available for the same price: choose a tubed phono section or remote-control operation. CS claimed that you can have your cake and eat it, too. A real sense of ease and musicality, he said; not "slobbering triode my-fi, but tautly focused hi-fi." Extraordinary layering and soundstage depth. Proved "a supple, compliant silent partner for every amp I had on hand." If you're in the market for a "good, modern, cost-effective tube preamplifier, the Rogue is a superb team player." (Vol.23 No.10 WWW)

Rogue Audio Magnum Ninety-Nine: \$2395

The Ninety-Nine uses four 6SN7 twin-triodes and includes bays to allow for future modifications and upgrades, such as a plug-in MM/MC tube phono board. CS: "Smooth and quiet, dynamic and linear, warm and clear, the Ninety-Nine offered a nice balance between tubed liquidity and solid-state precision — an accurate, musical sound, with the supple breath of life that tubes convey so well...[It] delivered a wealth of realistic detail and splendid harmonic control... I can't imagine any preamp at this price point whose performance even vaguely approaches that of Rogue's Magnum Ninety-Nine." Borderline Class A in the right system. Optional tubed MM/MC phono stage adds \$500 (MM) and \$400 (MC). Non-Magnum versions costs \$1995. (Vol.26 No.1 WWW)

VTL TL-5.5: \$3500

Using two 12AX7 and four 12AT7 tubes, the TL-5.5 "had a profoundly crystalline sound — remarkably clear, sweet, and extended," said CS. It showcased "exceptional speed and clarity" to offer dynamic contrasts that were "smooth, sweet, and

richly detailed, without glare or sibilance." Its "luminous midrange" was "juicy and detailed, but blissfully free of euphony." CS summarized: "The VTL TL-5.5 is a fine example of the midrange liquidity and the human character that a tube design can add to any signal chain — even as its bass control, midrange smoothness, sparkling highs, and quiet authority suggest the performance of solid-state." JA gave his approval: "a well-engineered preamp, with nothing to indicate that its use of tubes has compromised its performance." Optional phono stage, \$750. (Vol.25 No.11 WWW)

YBA 2: \$2750 ☆

With its MC transformer module (\$650), this ultraquiet French preamp gave the best sound from vinyl JA had experienced in his system since he retired his Audio Research SP-10. The line stage is merely good. While it has great clarity, a liquid-sounding midrange, and excellent low-frequency weight and definition, it sounds a bit lean overall and has less image depth than, for example, the Classé Six. Both line and phono stages invert polarity, meaning that what will be an optimum setup for LP playback will require an additional polarity inversion for CDs. (Vol.17 No.7, Vol.23 No.10 WWW)

## C

Quicksilver Line Stage: \$1095

"Like its power amplifiers, Quicksilver's Line Stage preamplifier embodies the company's philosophy of simplicity: only one 12AX7 tube per channel," said ST. The parts quality is high, he noted, but no remote. Inverts phase, which must be accounted for elsewhere in the system. Considering the price, an excellent little preamp, he thought, if not as quiet as he might have liked and not the last word in transparency, "but it did sound very neutral, avoiding the excessive warmth of some tube preamps and the hardness of many inexpensive solid-state units... The choke-regulated power supply undoubtedly helped." ST summed up: "I don't know of a better line-stage preamp for around a kilobuck," even if it wasn't "the last word in transparency." (Vol.24 No.3)

*Editor's Note: There are currently no Class D preamplifiers listed.*

## K

Plinius CD-LAD, Krell KCT, PS Audio PCA-2.

### Deletions

Conrad-Johnson Premier 16LS Series 2 no longer available.

## Power Amplifiers

*Editor's Note: Because of the disparity between typical tube and solid-state "sounds," we have split Class A for separate power amplifiers into two subclasses. Nevertheless, even within each subclass, Class A amplifiers differ sufficiently in character that each will shine in an appropriate system. Careful auditioning with your own loudspeakers is therefore essential. Except where stated, output powers are not the specified powers but rather those we measured into an 8 ohm resistive load. All amplifiers are stereo models, except where designated.*

### A (Solid-State)

Bel Canto Design eVo2: \$2900

Solid-state 120Wpc amp with switching "class-T" output stage. (Class-T is claimed to "dither" the switching frequency, adjust the "dead time" to suit the output devices, and modulate the switching frequency with the signal.) "Unimpressive in the best possible way," said KR of the original eVo 200.2. "It did not call attention to itself, and did not color the harmonics or dynamics of the

music." The 200.2 was Stereophile "Editor's Choice of 2001." In addition to a "welcome and successful facelift," the new eVo2 has a transformer and power supply twice the capacity of the original. KR was pleased with the changes: "With the full deletion of restricting power-supply limitations, one eVo2 now has the practical oomph of a pair of 200.2s. Although the upgrade is primarily that, the eVo2 lacks the eVo 200.2's slight HF veil, which had made me question including it in Class A." Compared with the PS Audio HCA-2, he sums up that "the more literal eVo2 seemed to more accurately serve the music" (Vol.24 Nos.3 & 11, eVo 200.2; Vol.25 No.12, eVo2; see also KR's report on the eVo6 in Vol.26 No.9 WWW)

Boulder 1060: \$19,000

"Can [a \$19,000] power amplifier be a bargain?" mused ST. "Can a \$19,000 wristwatch?" He then paraphrased Orwell's *Animal Farm*: "All amps are neutral, but the 300Wpc Boulder 1060 is more neutral than others...Detailed, dynamic, controlled, with a harmonic presentation that rivaled tubes at their best," but also "breathhtakingly fast, bracingly clean, and harmonically pure... You can have it all: awesome power, headroom, dynamic drive, control, detail, sweetness, sensuality...I have not heard solid-state get better than this — effortless power combined with superb transparency... Class A for sure." (Vol.23 No.11)

Bryston 14B-SST: \$5995

The 14B-SST produces high power (600W) with low distortion, and challenged LG's long-standing assumptions that amps with bridged output circuits don't image precisely, throw deep soundstages, or have the transparency of non-bridged output stages. He noted the 14B-SST's "unflappable neutrality" and chameleon-like character: "The Bryston 14B-SST seemed to have no character at all... It ranged from polite to powerful, but no simple profile emerged." However, he did find "solid, massive, deep bass that was rich and expansive," "first-rate" imaging, "clear and extended" treble, and a soundstage that remained "deep, wide, and rich." (Vol.25 No.11 WWW)

Bryston 9B-SST: \$4695 ☆

The 9B-SST (called 9B-THX at the time of the review) boasts five channels, 120Wpc into 8 ohms, and is built like pro gear; ie, like a tank. Hand-soldered, double-sided glass-epoxy boards and elaborate grounding scheme front special-grade steel toroidal transformers. According to JA, "the excellent set of measurements indicates solid, reliable engineering." LG was impressed by this amp's speed, power, extension, its tightness and definition in the bass, and its "excellent" midrange. Fully the equal of more costly amps, with wide dynamic contrasts and "involving" vocals, and sonically similar to previous Bryston ST amps. THX conformance, a 20-year (!) warranty, and a reasonable price make this beefy, reliable amp an attractive package — a perfect choice, suggests LG, for home-theater and multichannel music systems. (Vol.23 No.9 WWW)

Classé CAM 350 monoblock: \$7000/pair

This handsome solid-state monoblock puts out a hefty 350W. BD described it as a "smooth, highly sophisticated design incorporating the very latest in circuit and device developments. ...The execution is enough to take an audiophile/engineer's breath away." Resolution of detail was also "staggeringly good, as was their retrieval of ambience cues." Fast, clean, precise, transparent, open, effortless, dynamic, harmonically rich — all tripped off BD's tongue as he described their sound. "A superb amplifier — pretty much everything I wanted when I wished for my ideal 'really good, big solid-state amp,' " he concluded. (Vol.24 No.1 WWW)



Classe Omega monoblock: \$28,000/pair

The 500Wpc (590W at actual clipping into 8 ohms) Omega mono uses a pair of J-FETs as inputs and MOSFETs as drivers, with voltage amplification provided by a pair of bipolars after the J-FETs, and an array of 32 bipolar output transistors following the MOSFETs. BD: "Ironically, given its massive size and immense power, it was in the reproduction of the tiniest details and subtlest nuances that the Omega was most, and most obviously and immediately, spectacular. ...The notes flowed out with a more natural speed and jump...and bloomed into a denser, more complex mix of tonal nuances....The soundstage was wide and deep. ...Bottom-end articulation and precision were excellent. ...The Omega's top end was the best of any amplifier I've heard. ...[It] didn't sound big and bold or polite and reticent — it didn't sound any way at all, but simply did what the music asked, no more, no less." (Vol.26 No.7)

EAR/Yoshino Paravicini M100A monoblock: \$35,000/pair

"All through my auditioning," wrote J-10, "I wound up riding the gain, setting the volume for the point just before distortion set in, all at a surprisingly low level — basically, anything over 5W!" This, of course, was before it was discovered that the 100W amps were damaged. A new pair was sent, and J-10 was struck by the "immediate intimacy, engendered by their extreme transparency and speed, with an unencumbered, unvarnished sense of musical reproduction." JA's measurements concurred: "Judging by the second sample, this is an amplifier that delivers excellent measured performance, especially since it's a single-ended design." The only grievance J-10 had was with the transformer-coupled low end: "Not the most slammin' I've heard in the bass." (Vol.25 No.1)

Halcro dm58 monoblock: \$27,990/pair

PB warned about this 200W (260W at clipping) Bruce Candy design, "Don't even think about buying a pair of these wonders unless you're willing to hear everything in the recordings you play, and exactly what the rest of your components are doing, for better and for worse." Luckily for Paul, he heard only the best: "The dynamics, purity, and tonal transparency were beyond anything in my prior experience... Detail retrieval bordered on the supernatural... Soundstaging was superb... Depth was little short of incredible... The Halcro offered dynamic performance that mere mortal amps cannot manage." When PB compared the dm58 to the Lamm M2.1, he described it as "yin vs yang, Apollonian vs Dionysian, Platonic ideal vs Aristotelian reality — that was the difference between the two electronic giants. ...I could not conclude that the Lamm's ultimate resolution and noise floor were quite the equal of the Halcro's, but no other amp's are, either. But, but... the M2.1's ability to consistently infuse a genuinely human presence into recorded music placed it on a peak barely less unapproachable than the solitary Everest on which dwells the Halcro dm58." ST demurs, however, respecting the Halcro more than he loved it. Stereophile's "Amplification Component" and "Product of the Year," 2002. (Vol.25 No.10, Vol.26 Nos.4 & 6 WWW)

Lamm Industries M2.1 monoblock: \$16,490/pair

Delivers 200Wpc through a unique hybrid design featuring solid-state input stage, 6922/6DJ8 tubed second amplification driver stage, and MOSFET output stage. Whereas the Halcro dm58 seemed somewhat supernatural, PB found the M2.1s to be "more approachable and spiritual in their presentation." Bass was "always rock-solid, right on pitch and bloomy, not boomy," treble was "smooth and extended," midrange was "simply off the charts." PB was most impressed by the Lamms' combination of musical accuracy and soul: "They are among the very few

amplifiers that are not just impressive, but convincing in their musical presentation... The Lamms made me believe in the music I was hearing... What makes the Lamms so glorious is ephemeral, beyond being pinned down by mere words, but it can't be missed by anyone who loves music delivered with heart and soul." While they run hot, JA agreed: "In addition to fine sound quality, you also get a bombproof design that should deliver that sound for many years." A bit on the expensive side, sniffs ST. (Vol.26 No.4 WWW)

Linn Klimax Twin: \$8995

This 100Wpc, solid-state power amp with a switch-mode power supply was "crazy-easy to use" if "just a wee bit goosed-up in the bass." Some bass lines sounded bassier or thicker than usual. However, AD noted "tube-like perfection" and "superb" transparency. Partnering the Twin with the Linn Klimax Kontrol, AD said: "Music-making was explicit through it, sonic images of singers and instrumentalists coming to life clearly and naturally between the speakers, and with nothing unnatural around them — neither grain in the music nor tizz around it... They not only sing, they sing with uncommon clarity and articulation. And when it's called for, they impress with sheer force." (Vol.26 No.6 WWW)

Mark Levinson No.33H monoblock: \$21,000/pair ☆

"If I go on at length about how great the [150W] '33H 'sounds,' I'm forced to admit it has a sound," kvetched WP. "Soundstaging...was phenomenal — deep, detailed, holographic. Tonal balance was natural, and possessed purity and clarity galore. Low-level detail never leapt out at me, but existed naturally within the musical gestalt. ...Paradoxically, the No.33H exists on a plane where the news isn't about more, it's about less. It had no grain, no grit, no electronic character that I could detect. It had no 'warmth.' ... no MOSFET blur, no transistor etch, no tubey euphony. ...It was practically nonexistent — except that it did what it did better than anything else I've ever heard." JA's reference (he bought a pair). (Vol.21 No.1 WWW)

Mark Levinson No.436 monoblock: \$12,500/pair, \$6250/each

This 350Wpc (500W at clipping!) powerhouse has "Sherman-tank construction, an overkill power supply, and the best components money can buy," according to LG. "Listening to the No.436 was an unusual pleasure," he wrote. "It provided the same open, detailed, lush, sumptuous, warm sonic signature I associate with the No.334, as well as the same appealing mid-bass punch and deep-bass management. ...It's clear to me that the No.436's trimmer chassis, cooler operation, and convenience give the owner even more value than earlier ML amplifiers, and that it represents evolutionary progress in practical amplifier design." (Vol.26 No.8 WWW)

McIntosh MC1201: \$15,000/pair, \$7600 each

Huge solid-state monoblock using Mac's patented output transformers is rated at a startling 1200W. Very much the Harley-Davidson of power amps, thought J-10, transfixed by their huge, blue, backlit meters, which look pretty dramatic in a darkened room. "147 gut-busting pounds of stainless-steel chassis and beautifully finished, black-shrouded transformers and heatsinks," he whistled in admiration. "They made a BIG sound in our loft.... I'm talking gobs of bass, effortless power and dynamics ... and a huge, floaty, billowing soundstage." The highs did sound "slightly tipped up at the top," but "No overhang in the highs at all, a clean and detailed midrange tilting toward the lush side, and a definitely big, lush bottom end with heavy-hitting grunt, power, and sweep." JA was agog at the "humongous gobs of low-distortion power it can deliver." (Vol.24 No.3 WWW)

#### Musical Fidelity A3.2CR: \$1795 \$\$\$

"Astonishing transparency is what makes this the only \$1600 amp to get a Class A rating," woofed ST about the original A3CR. The 150Wpc A3.2CR amplifier differs more from its A3CR predecessor than does its preamp counterpart — there's an entirely new output circuit derived from Musical Fidelity's NuVista M3 integrated amplifier — but the audible differences were not as dramatic. Nevertheless, ST found something "very special" happening with the A3.2 pre/power combo: "I didn't get my kicks from quick thrills and grand, Sturm-und-Drang climaxes. Rather, I especially enjoyed...quieter, more serene and intimate passages of music. ...I luxuriated in the harmonic presentation." Rounder, warmer-sounding than its predecessor, he feels. "Before you buy something more expensive, listen to this," he advises. (Vol.23 No.10, A3CR; Vol.25 No.12, A3.2CR)

#### Parasound Halo JC 1 monoblock: \$6000/pair

MF heard exactly what this high-power — 400Wpc specified, 586W at clipping! — John Curl-designed amp's specs showed: "ultra-wide bandwidth, high-current capability, low, low noise, a high S/N ratio, and a fast slew rate, among many other indicators of outstanding amplifier performance... There was an honesty to the overall tonal and harmonic presentation that transcended technological stereotypes." MF found the overall sound to be powerful, refined, smooth, organized, dynamic, transparent, and rhythmically supple, if a little on the subtly warm and rich side of the sonic spectrum, but decided that this not at the expense of transient speed and resolution of detail. "Perhaps some listeners will find the JC 1 too refined and perhaps a tad polite, but I didn't." JA was equally impressed by how the JC 1 performed on the test bench: "This is excellent measured performance. The Halo JC 1 is not only the best amplifier to come from Parasound, it ranks up there with the best high-end heavyweights." "Rocks for sure," says ST, adding that with the amp driving the Triangle Magellans, he found the "bass firmed up, the sound wasn't strained in any way, and there was an overall sense of ease. Dynamic ease. Listening ease. Just ease. Compared to the Halcros, the Parasound JC 1s brought the soundstage forward. Tonally, the Parasounds were magnificent...with no trace of solid-state hardness. And the amps weren't even broken in." (Vol.26 Nos.2 & 6 WWW)

#### Plinius SA-102 Mk.IV: \$5495 \$\$\$

The 140Wpc SA-102 uses NPN transistors only in its output stage to emulate the way sound behaves in nature. ST: "Bass definition and extension were excellent. So was the overall resolution. I heard superb bottom-end control and a very sweet, smoothly extended midrange and treble." The SA-102 also sounded big "without ever turning harsh, without sounding raucous or losing resolution and fine detail." Sam wondered, however, if it might be too polite: "With the Plinius SA-102, I felt that things were being smoothed over slightly, taming some of the music's bark, blare, and bite... I missed some of the vibrancy and life that I hear with great tube gear...leaving me sometimes less than fully engaged by the music." Nonetheless, "For [\$5500], you get superb performance, excellent build quality, and the smoothest midrange and treble this side of tubes." (Vol.26 No.3)

#### PS Audio HCA-2: \$1695

The 150Wpc HCA-2 is remarkable in using a switching (PWM) output stage. ST: "The HCA-2 was remarkably free of the rich, overripe, sometimes woolly sound associated with tube amplification. There was plenty of bass, but it was extended and tight, not 'all over the place.' The treble was superbly extended...not rolled-off, the way tube amplifiers can sometimes sound." KR echoed Sam's enthusiasm: "There's nothing I'd like more than to

point out that ST missed something, got it all wrong, or that the HCA-2 is undeserving of the accolades. But I can't. The HCA-2 will consistently impress with its speed, resolution, lack of edge or harshness, dynamic range, and — despite its size — power." "A great bargain, but not the ne plus ultra," he sums up. JA was bothered by what looked like old-fashioned crossover distortion in the amplifier's output, and is investigating the matter. "Measurements be damned, I liked it at the price. Transparent." sums up ST. (Vol.25 Nos.10 & 12 WWW)

#### Simaudio Moon W-5: \$5250 \$\$\$ ☆

"Steadfast bass control and tightness," KR declared. "For speakers that benefit from such control — ie, most domestic speakers that behave in a nonlinear fashion at very low frequencies — the Moon W-5 is the perfect mate." If you have Apogees or Maggies, this is the amplifier. With conventional dynamic speakers, its laid-back demeanor is a consideration. Although the measured output power was 190Wpc, the Moon's power capability seemed enormous. 2001 production features increased power-supply capacitance, HF extension from 80kHz to 270kHz, and 10 rather than 8 bipolar output transistors per channel. "Auditioned on the Revel Studios, the W-5 was impressive: There was no shortage of power and control, large dynamic shifts were handled with aplomb, and microdynamic shadings — so important to the subtle communicative powers of great vocalists — were true." Capable of driving anything with power and panache, KR declared. (Vol.22 No.3, Vol.24 No.5 WWW)

Theta Citadel monoblock: \$15,800/pair; \$7900 each  
J-10 actually found these 400W, 110-lb towers of power to have a "feminine" quality: the sound was "delicate, detailed, intricate, articulate, and sweet — not warm, but musical and airy, especially in the highs... Elegant, that's what it was. Elegant." Though the soundstage did present a "beautiful bloom to music, with no artificial aftertaste," J-10 noticed that the bass was a bit light and loose at lower volumes. However, "With the volume turned up, the bass was incredibly detailed and taut, if not the most powerful and balanced and a little on the light side. The mids were true to life, and the highs were as sweet as could be." He raved on: "Refinement, detail, spatiality, truth of timbre, timing, huge soundstages...all these elements are what you get with the Citadel. Highly enjoyable, highly recommended." RS-232 option adds \$300. (Vol.25 No.5 WWW)

#### YBA 2HC: \$3900 \$\$\$ ☆

Well-engineered, slimline, 110Wpc dual-mono amplifier from France features short signal paths, high parts quality, and "a superbly transparent view into the soundstage," found JA. Lows sound a little soft in absolute terms, but well-defined, combined with an excellent sense of pace. Overall, a musically natural presentation; "ultra fidèle," per JA. (Vol.17 No.1, Vol.23 No.10 WWW)

## A (Tube)

#### Air Tight ATM-211 monoblock: \$9800/pair

A single-ended triode design that uses a big, "impressive-looking beast" of a 211 output tube. Low in power — 22W — but worth the price, felt RD: "Beautifully built, the ATM-211 has a touch of the exotic in its appearance, and offers outstanding transparency, tonal neutrality, soundstage width and depth, and dynamics that make it sound like a much more powerful amplifier." While RD was reluctant to endorse the ATM-211 for speakers whose sensitivity was less than 89dB, he concluded that it was "probably the best-sounding amplifier I've had in my system." (Vol.25 No.10 WWW)



Audiopax Model Eighty Eight: \$9970/pair

This 30Wpc single-ended pentode with Perfect Triode Simulation uses two KT88 tubes. "Timbre Lock" bias settings are claimed to fine-tune the amp's distortion spectrum to produce more optimal cancellation of the speaker's distortion. RD was first impressed by the absence of noise coming through the speakers, and by the absence of mechanical noise from the transformers. RD: "The music just seemed to be there, the amplifier (and the rest of the system) getting out of the way...[It] seemed to reduce much of the harshness and edgy quality that I'd assumed was simply a characteristic of certain recordings. . . . Resolution of detail was in the top class...The tonal character...was fundamentally neutral, leaning perhaps in the direction of a little top-end sweetness." Bass extension and power were sometimes lacking, and high-level dynamics could be "on the subdued side, with some negative effect on the perceived pace of the music." JA recommended using this Brazilian monoblock only with horn speakers that have powered woofers, such as Avantgardes. (Vol.26 No.5)

Audio Research VTM200 monoblock: \$14,990/pair

Hybrid transistor-input/tube-output design using three pairs of 6550Cs for 200Wpc continuous power. Balanced input only and very fussy about cables, warned MF. When it was properly matched, he found it "musically generous, powerful, rhythmically forceful, and 'fast,' " and not warm or mellow at all. The right cable produced a "very coherent" sound with "tremendous drive and authority" atop a solid, well-controlled bottom end. The lower midrange through the mids had the "airy give of a good tube amp," while the upper mids and lower highs were "slightly opaque and somewhat lacking in liquidity." The top end was "dead quiet, airy, open, and detailed, with a slight bit of dryness." Still, MF was never entirely comfortable with string sound, which was "frequently thin and rarely sensuous." He was somewhat troubled by a "bright zone" that was not ameliorated by using an all-ARC front end and various brands of interconnect and speaker cable. Careful system matching a must, he concluded, if you're to get Class A sound from the '200. (Vol.24 No.1)

Audio Research VS110: \$3995

The 100Wpc stereo VS110 uses eight 6550EH output tubes and five 6N1P input/driver tubes, and differs significantly from earlier ARC designs in its use of many smaller, faster, reservoir capacitors rather than larger, single capacitors. RD: "This is a truly excellent power amplifier that combines the musicality of tubes with the dynamics and bass extension that characterize the best solid-state, and enough power to drive most speakers to satisfyingly high levels." JA: "The VS110's measured performance strongly indicates that it is very important that the correct output transformer tap be used for its owner's speakers." (Vol.26 No.8 WWW)

Balanced Audio Technology VK-75: \$6000

Balanced Audio Technology VK-150SE monoblock: \$17,000/pair

The VK-75 is a 75Wpc update of the classic VK-60 with a "smooth, easy-on-the-ears quality," decided RD. VK-75SE (\$8500) uses the 6H30 Supertube and improves on the standard amplifier in midrange and mid-treble smoothness, as well as dynamics and bass definition. Of the 150W, wired-for-mono VK-150SE, J-10 bubbled, "BAT has reached the pinnacle of nuance and finesse and more." He noted a bass presentation characterized by "deep, delicious, powerful, strong fundamentals going way the heck down to the deck," and a transition from the upper bass to the lower midrange that was "tuneful," "tight," and "full." As for the soundstage, "The cushions of air around each performer, the utter truth of timbre, the glow from within, the swing and timing that tubes do so well — all were perfectly ren-

dered." Simply put, "This is a first-rank amplifier... Do I think the VK-150SE is worth the price? In every single way there is to judge such amplifiers, the resounding and unequivocal conclusion is: yes." (Vol.24 No.7, '75 & '75SE; Vol.25 No.3, '150SE WWW)

Cary Audio Design CAD-280SA V12: \$4000

The CAD-280SA V12 is really four single-ended class-A amplifiers operating on a single chassis in a combined balanced configuration using EL34 tubes, zero feedback, and big, hot-running transformers! It's switchable from all-triode (sounds best at 50Wpc) to ultralinear running (most powerful at 100Wpc). With the Cary running in all-triode mode, J-10 thought one recording of Ray Brown's bass sounded wonderfully rich, full, and deep, with an enormous soundstage. Fabulous midrange, he decided, with an airy soundstage draped over deep and colorful images. "The V12 is a real nuance-grabber, and the speakers completely disappear." Need some oomph for a party? Flip the switches over to ultralinear operation for a healthy kick-ass 100Wpc. Got your slippers on and a nice rich cabernet next to you? Go all-triode and feel the love. "Performed quite well on the test bench," said JA. (Vol.24 No.6)

Cary Audio Design CAD-805C monoblock: \$8995/pair ☆

Single-ended triode 50W design. Driver and output tubes have changed since DO's 1994 review (driver was EL34, now 300B; output was 211, now 853). "Power ratings can be misleading," said ST. "The CAD-805C sounds big. Humongous, in fact... It's about beauty... the palpable presence of the musicians. The exquisite low-level detail. The perfect timing of the attack and decay of each note. Above all, the truth of timbre and the sheer beauty of the music." Bass could be better, and the "top end may be a tad rolled-off. But so what? The magic of the music is there." Particularly with zero feedback, adds MC. "The space champ!" sums up Mr. T. Tube complement of current production features a Czech-made KR300B, a Philips JAN (Joint Army Navy) 6SL7, and a Chinese 845 output, with capacitor and power-supply upgrades. Improves on the earlier model in a number of important ways, thought ST: "The latest version sounded more powerful: more dynamic, with deeper, better-defined bass. . . . There was more of the stunning immediacy I love with low-powered SET amps, a more pristine sound with a purer harmonic presentation." Of the current 10th Anniversary Edition, ST offered: "I think where the CAD-805 Anniversary improves over previous versions is in its ability to stretch the magic of SETs — to provide the immediacy, delicacy, and the microdynamic magic of the flea-powered wonders with enough power so that one is not limited to super-sensitive loudspeakers." Bass performance was also improved, sounding "more extended and tight." ST preferred the 211 output tube over the 845 (both are standard): "The 845 seemed a little soft and fuzzy. The 211 sounded more authoritative, assured, and revealing." (Vol.17 No.1, Vol.21 No.3, Vol.24 No.1; see also MC's article on feedback in Vol.21 No.1; Vol.26 No.8 WWW)

Conrad-Johnson Premier 140: \$6795

(See ST's review in this issue.)

Conrad-Johnson MV60: \$2795 \$\$\$

Conrad-Johnson MV60SE: \$2995 \$\$\$

ST found the MV60 — rated at 55Wpc into 4 ohms using two EL34s — to be "a step up from the MV55 without being a step down from the Premier Eleven A. . . . Compared to the MV55, the highs were extended and the amp got a tighter grip on the bottom end... I also noted greater resolution of low-level detail and ambient information. Especially when used with the Premier 17LS line stage, the MV60 gave wonderful layering and depth to the soundstage. ...The MV60 was far more revealing — mostly for the better, but occasionally, with certain recordings, for the worse." The 60Wpc Special Edition version of the MV60 uses

Svetlana 6550C tubes instead of Sovtek EL34s, and has a higher bias voltage setting. (Customers who bought MV60s can have their amps upgraded for the cost of the new tubes, a labor charge, and shipping both ways.) ST: "The SE version gave me better dynamic contrast. Louder passages sounded louder...while subtle changes were more apparent. I noted greater bass extension and authority. I heard a wider, deeper soundstage — a more generous spatial presentation...[It] sounded more open and extended in the highs, without excessive brightness or tube glare. I heard increased low-level resolution... The sound seemed more delicate, refined, and, above all, assured. In addition, I heard at least as much 'midrange magic' with the MV60SE as I had with the MV60." "A very good choice for not a lot of money," he sums up. (Vol.25 No.1, MV60; Vol.26 No.5, 'SE WWW)

Hovland Sapphire: \$7800

MF couldn't stop staring at this blue-lit, 40Wpc, two-channel tube amplifier. Aside from its gorgeous looks, MF found it to be "one of the best-balanced amplifiers" he'd ever heard. Its overall presentation was "velvety yet detailed," marked by a "lush, full-bodied sound" that seemed "complete, and nearly ideal." Though listening was "always compelling and never boring," it "lacked the last word in air, ambience, and openness." Indeed, the most unnerving weakness was in the depth of its soundstage. MF: "While it produced exquisitely three-dimensional images, its soundstaging depth was anything but 3D. The amp's ability to separate images depth-wise and to portray depth of field was limited." Nonetheless, "The Sapphire got the music right — its harmonic and textural presentations were world-class." JA's measurements, however, revealed flaws: "Just because an amplifier uses tubes doesn't mean it also has to have hum, an ultrasonic resonance, or fairly high levels of distortion." (Vol.25 No.3 WWW)

Joule Electra Stargate monoblock: \$5500/pair

This 30W SET monoblock uses a Balanced Differential Mu Stage — the same driver found in Joule Electra's OTLs — and the Soviet-era 6C33CB output tube. ST found their harmonic presentation to be "wonderfully alive," with "superb resolution" and "no softening of the sound." In ST's opinion, the Stargate represents the essence of high-end audio: "Small companies making superior, hand-built products based on belief and passion rather than marketing." (Vol.25 No.3)

Kora Cosmos monoblock: \$5900/pair

The 100W, fully balanced Cosmos uses eight Sovtek or Svetlana 6AS7G output tubes. MF raved: "While the Kora Cosmos' seamless sonic presentation was a high point, the pinnacle was the amp's very top end. Here was airy, incredibly detailed high-frequency extension and fast transient response, delivered free of grain, grit, edge, or mechanicalness." However, for all the Cosmos offered in the top end, it lacked a bit down below: "There was just a noticeable lack of bass dynamics compared to a well-damped solid-state amplifier, or a hybrid one like the Nu-Vista 300... The Cosmos lacked the last word in bass oomph and drive." Still, MF felt other amps could not surpass the Cosmos in their ability to communicate music's inevitable flow with a relaxed precision that was "so seductive, revealing, surprising, and comforting." (Vol.24 No.12)

Manley 250 Neo-Classic monoblock: \$9000/pair

PB: "The 250 Neo-Classic had that hard-to-define quality that is instantly apparent when heard: a fundamental fidelity to the music. ... Its sonic personality was honest to the core and completely unfussy, treating music as a thing to be loved and cherished, not as a collection of sounds to be picked apart and

analyzed to death." With a "slightly laid-back" presentation and a "vast" soundstage, the 250s were great at giving PB not only the sound but the feel of all the music he played through them. Switching between 100W triode and 250W tetrode modes didn't change the 250's character much, thought PB, but "Triode mode gave a wonderfully intimate sound, more rich and luscious than tetrode mode, but exacted a slight tradeoff, with slightly reduced back-of-the-stage resolution...With big rock and orchestral recordings, there was a bit more transient snap and immediacy in tetrode, but with jazz, folk, and small ensembles recorded in less imposing spaces, the triode glow was the way to go." (Vol.25 No.9 WWW)

McIntosh MC2102: \$6100

It's big, it's got meters, and it retails at less than half the price of the MC2000 50th Anniversary Special Edition so overwhelmingly lauded by ST and J-10. Four Svetlana KT88s (6550s can also be used) provide the power for each channel: 100Wpc into 8, 4, or 2 ohms. ST said the MC2102 produced a slightly softer, gentler sound than its sibling; "less dynamic, less dramatic, but easier on the ear." But he "warmed to the gentler, less immediately impressive, possibly less insistent sound of the MC2102." Our Sam concluded that the MC2102 had "tube magic" without its bass sounding loose or soggy: "[It] gave me McIntosh bass: extended, tight, and above all, tuneful." He summed up: "For the first time, the Mac circuit has appeared in a fully modern state-of-the-art design, delivering clean, clear sound, natural harmonics, extended highs, and bass with balls." Go Mac Go! (Vol.24 No.5 WWW)

Music Reference RM-200: \$3800 \$\$\$

Fully balanced, 100Wpc, hybrid design uses a bipolar transistor input stage with tube driver and output stages. In terms of overall presentation, MF was greatly impressed by how close the RM-200 came to his reference Nu-Vista 300: "Its spatial presentation and overall transparency were exemplary. ... It was especially adept at layering 3D images in three-dimensional space without spotlighting or tacking on artificial 'edge definition'. ... It's a real sleeper at a real-world price." ST concurs: "Class A for this baby. I wish I had got my hands on it first. A beautifully built, beautiful-looking amp that sounds as good as it looks." (Vol.25 No.4 WWW)

Sun Audio SV-2A3: \$1250

3.5Wpc! "Underpowered or not, there's a magic about this amp," gurgled ST. The SV-2A3 is self-biasing, with no loop negative feedback and a sound that's "Glorious! Superb resolution of low-level details. Spacious soundstage and pinpoint imaging...great bass...harmonic presentation to die for...a lovely liquidity that I can describe only as ravishing, especially with woodwinds and female vocalists." You get the idea. ST even used the SV-2A3 to drive the full-range, 7'-high, \$32,900/pair Triangle Magellan speakers: "The sound was superb — alive, immediate, harmonically right...I heard stunning immediacy. The presentation sounded like music, not like hi-fi." Though the amp ran out of power in the bass and during loud passages, "microdynamics (subtle dynamic shadings) were handled particularly well." Price is for kit; assembled version costs \$2199.80. (Vol.23 No.6, Vol.26 No.6)

VTL MB-450 Signature monoblock: \$9000/pair ☆

MF compared a pair of 200W MB-450s to Conrad-Johnson Premier Twelves and found they "created a bigger soundstage and did a better job of giving the listener the sense of being in a large space — when that was the venue. ... Overall, the 450s sounded warmer, riper, and more laid-back, particularly in the midbass." The monoblock for those who need "lots of clean tube power to drive large speakers," summed up MF. The Signature

update of VTL's 200W MB-450 features a balanced input stage, remote turn-on, revised biasing and grounding, and a set of MultiCaps in the signal path. "Slam, slam, and still more slam!" cried CS, who found "larger-than-life levels of midrange liquidity and dynamic drive, massive bass control, captivating high-frequency purity, and out-of-this-world, holographic layering and depth." Triode mode offered "rich textural complexity, warm immediacy, and gentle, small-scale perspective." Tetrode mode showcased transient speed, immense dynamic headroom, and liquid descents into blackness. Optional balanced input stage costs \$1000. (Vol.19 No.7, Vol.22 Nos.2 & 4, MB-450; Vol.25 No.10 WWW, Signature)

Wavelength Gemini monoblock: \$5000/pair

Low-powered — 2-5W depending on single output tube — single-ended triode with zero negative feedback, so needs to be paired with high-sensitivity speakers for the best sound, said RD. Hum must be minimized with a potentiometer on the monoblock's base. Tube rectification and AC tube heaters are said to result in more realistic sound. However, RD found that "The noise...was considerably higher than I've been used to, and tweaking the hum pots didn't help." The solution required changing the ground hookup inside the amplifier, which will be incorporated into future production. Some reliability problems with the NOS 45 tubes but not with any of the 2A3s. "The 45 tube may be an antique, but its sound in the context of the Wavelength Gemini was anything but," said RD. "Apart from the limitation of output level, the sound with the Sylvania 45s was wide-ranging, with open, extended highs that minimized high-frequency nasties while allowing both detail and the overtones of treble instruments to be presented in a natural manner. Bass was deep and well-controlled, with hardly a trace of the added warmth/midbass emphasis and softness that many people think of as 'tube sound.'" (Vol.24 No.5 WWW)

## A (Integrated)

Brinkmann Integrated: \$3500

The 75Wpc Integrated combines a passive input stage with transformer-coupled balanced operation. JM: "The Brinkmann exhibits all of the virtues and few (if any) of the vices of high-quality, medium-powered solid-state amplifiers: clarity, focus, tonal trueness, dynamic drive, and ample bass." He also commented that it was also "a very quiet amplifier, in terms of both lack of transistor rush at idle and retrieval of low-level musical detail." JM summed up: "If you're looking for a medium-powered one-box solution that combines extremely engaging sound quality with high-quality construction and very distinctive design, Brinkmann's Integrated should be on your audition list." Optional internal DAC, not auditioned, adds \$750. (Vol.26 No.1 WWW)

Cary Audio Design CAD 300-SEI: \$3995 ☆

RH regarded the ultra-smooth, liquid sound of the 300-SEI to be world-class, manifesting a warmth and beauty unmatched by any electronics he's had in his system. "It's actually a tone control, and an unpredictable one at that," JA grumps (though he will admit under pressure that the sound of his B&W Silver Signatures driven by the Cary was first-rate). WP also got great sound using it to drive ProAc Response One SCs. When writing his reviews, the ever-spoiled J-10 now uses the 11Wpc Cary CAD 300-SEI — with a set of Western Electric 300B output tubes, of course! — to drive Sennheiser HD 600 headphones. Classic tube sound, if not the most dynamic Mr. Scull has heard; good bass, a bit plump overall, with "everything grand in the midband. Only a glutton could ask for more." (Vol.18 No.9, Vol.23 No.12 WWW)

Chord CPM 3300: \$9800

This really hot-running 290Wpc model with a switching power supply had a "high-end heart and home-theater brain," according to MF. Lousy instructions made Mikey cranky. He found the British Chord's sonic presentation big, vivid, and exhilarating. Compared to his reference, it sounded "somewhat sandier, while offering up more body and solidity to images and greater transient snap." The Chord was fast, sporting "an intense rhythmic drive and a lean, taut bass that added excitement to very familiar recordings... The CPM 3300 reproduced it all without sounding mechanical, bright, harmonically bleached, or antiseptic. Did it deliver the warmth and harmonic fullness of a good tube amp? No. Do most tube amps deliver the Chord's transient speed, dynamic drive, and taut, well-damped bass? No. If you like your musical presentation big, dramatic, dynamic, fast, and exciting, the Chord will give it to you without adding the usual negatives. Integra leg option — essential for optimal cooling — adds \$550. (Vol.24 No7)

Creek 5350SE: \$1500 \$\$\$

Solid-state, remote-controlled 85Wpc integrated with passive pre-amp stage and extensive switching capability. Headphone output, but no balance control. BJR found the SE neutral throughout the frequency range, with "lifelike, delicate, yet forceful transient articulation...organic reproduction of low-level dynamic nuances and subtle ambient cues," and "a degree of bass definition, articulation, clarity, and bottom-end extension unlike any I've heard from any amplifier in this price range and/or power rating." ST thinks the little integrated is just as transparent and, subjectively, almost as powerful as the Musical Fidelity A3CR. Non-SE version has 75Wpc and some lower-quality parts for \$250 less. Four optional plug-in phono boards available: MM for \$95 or \$60 (SE and non-SE, respectively), MC for \$120 or \$95. (Vol.24 Nos.3 & 4 WWW)

Magnum Dynalab MD 208: \$2975

Remote-controlled 100Wpc solid-state receiver with all-analog FM tuner section, five line-level inputs, and separate record and preamp outputs. The MD 208 took forever to burn in and open up, said CS, but once it had warmed to its task it was "a no-compromise high-end design that I could easily live with over the long haul." Accommodated "any number of musical styles, though it really shone on acoustic music." He also noted a "sweetness and grace" to its "laid-back style of music reproduction — smooth and refined, though not without guts and gusto." A lot of bang for the buck, he decided. LG checked out its RF performance: "Its FM tuner section was surprisingly sensitive and quite selective," though it didn't handle multipath in the upper part of the FM band as well as some more expensive tuners, without quite their transparency and bass response. Thoroughly musical performance nonetheless, he decided, and "an excellent value." (Vol.24 Nos.1 & 3 WWW)

Mark Levinson No.383: \$6500 ☆

Talk about attractive and unique — ML's comprehensively equipped integrated does 100Wpc into 8 ohms and 200W "minimum continuous" into 4 ohms, and is controlled via an elegant, sophisticated remote: "For the first time... from my listening chair...I had command over source selection, system volume, channel balance, polarity, and mute," crowed LG. Includes RCA and balanced XLRs, DC triggers, RJ-11RS-232 ports for upgrades and external control units, and 12 bipolar output devices per channel like ML's 300-series dual-mono amps. LG noted "clarity, transparency, liquid mids and highs, and...dynamic contrasts second only to the No.334." The No.383 was solid and dynamic, he found, with no edge, and controlled, detailed bass. Vocals and jazz sounded "precise, defined, and smooth." The only thing missing was the sense of ultimate power you get from separates. (Vol.23 No.7 WWW)



#### McIntosh MA6900: \$4600

The 200Wpc MA6900 takes its phono stage from the C42 and its output transformers from the MC202. "Compared to these separates," wrote ST, "the MA6900 economizes without sacrificing performance." The sound was "anything but harmonically threadbare, yet the presentation was not overly warm. Bass was tight, fast, deeply extended, never muddy. There were authority and control, never aggression. The MA6900 did not strike me as an audiophile's detail-retrieval machine. There was excellent resolution, but what impressed me was that the sound had fullness, body, warmth — like a tube amp!" (Vol.25 No.2)

#### Musical Fidelity M3 Nu-Vista: \$4995

MF thinks this hybrid, 275Wpc integrated amp has style, but "Appearance aside, there's no mistaking its build quality: beefy and substantial inside, with circuit boards stacked like floors in a high-rise." Impressively neat and orderly, MF pronounced. Dual-mono output stage, miniature nuvistor tubes in the preamp stage, and choke power-supply regulation. "Tended toward the smooth," MF wrote about the M3 in comparison with the Nu-Vista power amp, "but it had the power, dynamic presentation, and finesse to rock hard and reproduce lush massed strings and female vocals with equal aplomb." He was less sanguine about the phono section, however, which he regarded as "serviceable." Still, "I don't know how a relatively small company like Musical Fidelity can offer this level of power, performance, flexibility, superb build quality, and aesthetic refinement at such a reasonable price." (Vol.24 No.2)

#### Musical Fidelity Tri-Vista 300: \$5995

Delivering no less than 350W into 8 ohms, the limited-edition Tri-Vista 300, commemorating Musical Fidelity's 20th birthday, features four line-level inputs, one tape loop, a phono stage, and dual-mono design in both the power amp and preamp sections. Four 5703 "trivistor" tubes are used: two per channel, in the preamp stage only. ST appreciated its combination of power and speed: "It easily surpassed any other Musical Fidelity amplifier I have auditioned over the years, whether moderately powered or high-powered. I heard much of the same delicacy, definition, and detail that I associate with a low-powered SET amplifier... The sound had SET-like immediacy." The 300 controlled the big Triangle Magellan speakers with "a tremendous sense of authority," and moved the sensitive Quad ESL-988s "effortlessly and seductively." Some disagreement between MF and ST over the phono stage, which MF liked but ST felt not quite to the standard of the line stage. (Vol.26 No.7)

#### YBA Intégré DT Delta: \$2500

#### YBA Intégré Passion: \$4500

Introduced in 1991, the Intégré in its various guises continues to be YBA's top-selling model. Current models come equipped with optional dual transformers, a power switch in the rear rather than hidden under the faceplate, and enhanced capacitors. RD found the 50Wpc Intégré DT's sonic character to be cool, but not forward or aggressive, and lively, but not hard or clinical. There was an "open, detailed, transparent quality that made listening to reproduced music a pleasure," RD summed up. ST wrote about the 100Wpc Intégré Passion that he heard "an extraordinary degree of resolution — not just detail, but restitution, or SET-like sonic clarity and purity... The Passion delivered... openness, clarity, speed, with no perceived slowing of the music and no perceived thickening of the harmonic soup... a true benchmark reference at the price." Sam recommended using the Passion with reasonably sensitive speakers, with the caveats: "If you drive the Passion into clipping, you can expect a fuse to fail." Add \$150 for MM phono stage, \$400 for MC transformer, \$150 for remote control. (Vol.19 No.12, Vol.25 No.6, DT Delta; Vol.26 No.2, Passion WWW)

## B

#### 47 Laboratory 4706 Gaincard: \$3300

RD's initial impression was of an amplifier that "seemed to exemplify many of the virtues of solid-state equipment, but also its vices. The sound was clean, dynamic, and wide-ranging — but also had a hardness or glare in the upper midrange and treble." The 22Wpc Gaincard was also "extraordinarily demanding in the choice of associated equipment." However, with the Gaincard fully broken-in, there was "a crystalline clarity that seemed to extend from the lowest bass to the highest treble. The resolution of fine detail was quite extraordinary. . . . The sound had a directness, a feeling that music was being reproduced with a minimum of artifacts getting in the way." Even so, RD had to qualify his enthusiasm: "Given a sufficiently long break-in period and associated equipment that matches the Gaincard's pristine clarity without being too bright, the results can be outstanding." WP points out that choosing a speaker will be critical with the Gaincard. Price includes one Power Humpty power supply, but measured performance suffers unless two Humptys are used. Some QA problems with the review samples. (Vol.24 No.12)

#### Belles 150A Hot Rod: \$1495

The Hot Rod version of this 125Wpc class-AB classic adds oxygen-free copper wiring, gold-plated binding posts, more elaborate mounting of the power-supply transformer, treatment of all connections and joints, and an easy-to-drive, low-noise input. "Not exactly tubelike, it slightly accentuated the mids," said ST, "imparting a liveness and immediacy... that reminded me of single-ended triode designs." From ST, that's high praise indeed. Sam found the amp "exceptionally easy to listen to" and was captivated by its "liquidity" and "easy-flowing quality." Not at all dry, hard, or sterile, he noted, making this a good solid-state choice for those who want plenty of body and bloom but may not want the expense or hassle of tubes. Pair the 150A with a tubed preamp and you'll almost be in "tube heaven," he predicted. Mr. T praised the amp's harmonic presentation, but did hear a touch of "transistory hardness" and a slight lack of ultimate extension and clarity, neither of which disturbed him at the price. "Truth of timbre is the main thing for me," said Sam, who could "live happily with this amp." (Vol.23 No.12)

#### Blue Circle BC22: \$2150

Solid-state, 125Wpc, class-AB design with single-ended and balanced inputs. "[Blue Circle] products share a clean, stainless-steel front-panel design, small size relative to function, and, of course, that soothing illuminated blue circle indicator," said KR. A clean and intuitive design, he decided, with "a tonal sweetness and purity in the midrange well beyond what I expected at the price." Soundstaging, resolution, and dynamics were very good, and highs were tubelike and extended, with "quite sufficient bass for decent musical balances." Lacked the last bit of gut-punching impact when not used with the matching BC21 preamp. "A no-nonsense, dynamic, sweet-sounding power amp that I recommend to anyone shopping in the \$3000-and-under range," KR concluded. JA didn't much like the way it measured. (Vol.24 No.2)

#### Bryston 7B-SST monoblock: \$6590/pair

The 7B-SST raises the power rating of the ST version from 500W to 600W, and features standard SST-upgraded power transformers, bipolar output transistors, and power-supply filter capacitance. LG: "The older amplifier was slightly brighter and more forward, the newer was more neutral... I came to rely on the 7B-SST as a courteous guest who didn't impose but always had clear, unbiased opinions... The 7B-SST retains the 7B-ST's incredible deep-bass abilities, making it the obvious match for bass-shy floorstanding speakers. It also has terrific soundstage depth and midbass punch." (Vol.26 No.4)



Conrad-Johnson MF2250A: \$2495

Rated at 120Wpc, the solid-state MF2250A uses bipolar output transistors and offers twice the power of the MV60SE for \$500 less. "A" version includes a new bridge rectifier and upgraded wiring. ST: "Low-level resolution was excellent. ... Transients were very cleanly rendered, and the harmonic presentation seemed natural. ... [It] managed to avoid the things that have so often annoyed me about solid-state: the stripping away of natural harmonic overtones, the relative lack of body and bloom, the leanness, the comparative absence of palpability." While the MV60SE sounded "a tad more real and a touch more resolving," the MF2250A improved on the smaller amp's bass extension and authority. (Vol.26 No.5)

McCormack DNA-125: \$1695

Same Distributed Node Amplifier topology as the DNA-225, but 125Wpc rating. "Superb," ST said of the DNA-125's authoritative bass control, good resolution, and excellent overall tonal quality. "A bracing purity of sound, a bell-like clarity, without fogginess, fuzziness, phasiness, or soggianness." A pleasing midrange, he noted, not overly rich or lush, and a nicely extended treble. Don't expect the "voluptuous sensuous liquidity of a great tube amp"; nevertheless, "highly recommended!" (Vol.23 No.12)

McCormack DNA-225: \$2795

McCormack's Distributed Node Amplifier topology features a series of "sonically superior" smaller capacitors positioned close to the output devices. The complex DC servo used in earlier DNA designs has been deleted in favor of static trim of DC. "It's a bear," roared KR. "Not since the pricier Simaudio W-5 had I used a single-chassis amp of such seemingly unlimited power." The DNA-225 produced clean sound "at unconscionable, painful, downright unneighborly levels" well beyond those of the original DNA-1. Large dynamic shifts could be enormous, he noted. None of the midbass warmth of the DNA-1 and a bit lean in comparison, but also more accurate, with taut power and bass slam. The upper range, fluid and clear, was "laid bare," eliminating the DNA-1's tizziness. "There's no question the DNA-225 is a better amp. ... One of the best big amps around." A classic reborn, declared KR. McCormack Audio Corp. is now owned by Conrad and Johnson. (Vol.23 No.11 WWW)

Quicksilver Horn Mono monoblock: \$1595/pair

Mike Sanders proved that SETs are not the only type of amplifier that can sound good with horns, decided RD of this 25W push-pull monoblock that uses two EL34 tubes. RD immediately noticed its uncanny lack of noise: "I had to go right up to the speaker to hear any noise at all." JA agreed: "The Quicksilver is enormously quiet. ... In terms of its gain and noise architecture, the Quicksilver is the best amplifier I have encountered for use with high-sensitivity speakers like horns." RD found the Horn Mono to be "smooth, engaging, with little in the way of a distinctive characteristic that could be described as coloration or lack of faithfulness to the source... in the classic tube amplifier tradition of being just a bit soft and forgiving rather than clinical or hyper-detailed." RD again: "Intended primarily for use with high-sensitivity loudspeakers ... the Horn Mono can also work well with speakers of just slightly higher than normal sensitivity." However, he also noted that SETs are still superior in providing "a kind of see-through quality." (Vol.25 No.5 WWW)

Quicksilver Mini Mono: \$998/pair \$\$\$

This update of the original 8417 monoblock sports a simple topology with solid-state rectification and only two gain stages, and is rated at 25W. "Chrome-plated transformer covers, which transform each amp from drab to jewel-like, will set you back an extra \$100/pair," tempted Stylemeister Tellig. ST didn't recall the

8417 monos sounding as transparent or as resolving as the new Minis, and "the new amp's bottom end seemed tighter (unless I pushed them into clipping), the top end more extended and crystalline." And, hooted ST, "Tube-rollers will be in heaven! You can use KT88, 6550, or 6L6 output tubes without doing anything to each amp besides putting in a new matched pair. Hell, you can also use KT66 or KT77 output tubes, if you can scare up any." Detailed, transparent, reasonably dynamic, "with just a touch of the warmth and sweetness so typically provided by tubes. Could I have used more power? Yes, but I wasn't seriously underpowered," said Power Ranger Sam. (Vol.24 No.3)

Rogue Audio Magnum M-120 monoblock: \$3495/pair  
Push-pull vacuum-tube monoblock that can work with 6550s, KT88s, or even EL34s. CS said the M-120 was "so remarkably smooth, clean, warm, detailed, and dynamic that it rarely drew attention to itself with anything that sounded blatantly 'tubey'... [It] managed to convey the best aspects of solid-state and tubes: while the instrument placement, transparency, and frequency extension might suggest solid-state, the depth of soundstaging, the wealth of harmonic detail, and the midrange layering were dead giveaways that tubes were in the circuit." The M-120 can be operated in both ultralinear pentode mode, in which it delivers the specified 120W, and in triode mode, in which it is specified at 60W. Our measurements, performed in triode mode, rated the M-120 at 100W clipping power, thus exceeding its claimed output power of 60 watts. (Vol.25 No.12 WWW)

Smart Devices 2X150VT: \$2250

"A moderately powerful, warm-sounding, tube-MOSFET amplifier that avoids sounding soft and mushy and certainly doesn't sound bright, hard, and sterile, as some solid-state amps at this price can." MF made it clear that though this 150Wpc amp may look very much like an old Hafler DH-200, similarities between the two go no further than cosmetics: "There was no comparison: The DH-200 sounded constricted, threadbare, and cloudy. It sounded soft and dry, while the 2X150VT gave a far more generous impression of musical flow and overall liquidity." MF noted, however, that the Smart "mushed-together instrumental lines occurring in the same tonal space... If you crave crystalline clarity, razor-sharp transients, and an 'exciting' presentation, the 2X150VT probably isn't for you." (Vol.25 No.1 WWW)

Theta Digital Intrepid: \$3500

"The Intrepid is an absolutely silky and open-sounding 5-channel, 100Wpc amp that is ideal for multichannel systems, especially those with an active subwoofer," says KR. In two-channel mode, the Intrepid sounded "sweet and smooth but seemed a bit lightweight, even though there was no overt tonal imbalance... The lows never demanded my attention." Nonetheless, "midrange and highs were essentially pure and free of grain." With all five channels fired up in his surround system, KR found that the Intrepid "made every multichannel mix seem more alive, with more of a feeling of the real event." He was impressed: "The Intrepid's clarity and liquidity, particularly from the midrange up, are world-class. ... It is one of the most subtly transparent power amplifiers I have auditioned." JA, however, found more distortion at moderate power levels than he would have liked. Owners need to ensure that their AC grounding is up to code. (Vol.25 No.7 WWW)

VTL ST-85: \$1950 ☆

Need a stereo amplifier with a well-defined upgrade path? If so, "step right up," said LB, who backed this command with: "The VTL ST-85 is solidly built and a breeze to use ... [it] offers outstanding performance driving real-world speakers ... [and it] imparts a 3-D sense of the original event while retaining truth of timbre, a combination that very few components can match, at

this or any price." Measured output power was a healthy 64Wpc. Used as monoblocks, the ST-85 jumps into Class B, decided LB, as did CS. Now includes triode/tetrode switch. (Vol.22 No.2, Vol.24 No.2 WWW)

## B (Integrated)

### Arcam DiVA A85: \$1699

Whereas older Arcam amps used MOSFETs, the A85 uses discrete bipolar output devices. It took about 200 hours of break-in for the A85 to give signs of its true potential. CS: "Once the A85 was well along in the burn-in process, I found it exceptionally musical...[It] was cool, quiet, refined, and rather neutral in character, its overall sonic signature defined by a beguiling midrange quality." While its presentation may seem too polite for some, CS reminded us that "Politeness shouldn't be mistaken for reticence. ... Ultimately, it is the epic openness, transparency, and low-level detail of the midrange that would inspire me to seriously consider this integrated amp as the steam engine for my audio choo-choo." (Vol.25 No.2 WWW)

### Ayre Acoustics AX-7: \$2950

Recommendation is for balanced sources only. (See AD's review in this issue.)

### Cairn 4808: \$1695

It came as no surprise to ST to find that the 30Wpc 4808's sound complemented the Cairn Fog CD player's, being "clear, clean, quick, perhaps slightly lean, but never austere. The upper midrange and treble were superbly delineated — delicate and sweet, without the slightest hint of hardness or grain. ... It achieved smoothness in the midrange and treble without robbing music of its life, sparkle, or energy." ST could have made use of more than 30W of power, however, citing, "If I cranked the volume, I ran out of power; the sound congested and compressed." Nevertheless, he declared, "I'm not sure you'll find a better-sounding integrated amp, overall, for under \$2k... Within its power capabilities, this is among the finest solid-state integrated amplifiers I've heard, regardless of price." (Vol.25 No.7)

### LFD Mistral LE: \$1495 ☆

The original version of this 50Wpc solid-state integrated was "proof that simpler is better," according to ST. "The openness and airiness is the thing here. Good resolution, too. The story here is simplicity. Get a simple circuit that works and tweak it to death, then QC the production like crazy." WP heard it at Sam's place and was also smitten. The Limited Edition features new capacitors and resistors, a larger mains transformer, and a reduction of global feedback by 4dB. A refined, delicate sound with very good low-level resolution. Sam: "I found the LFD Mistral LE simple and delightful to use. As I did the standard edition's, I loved the LE's harmonic presentation, which had an almost SET-like quality of being 'lit from within.' As for PRAT (pace, rhythm, acceleration, timing), this amp is probably not the champ. But so what? The music sounded so right — from one pair of output MOSFETs per side." (Vol.21 No.9, original; Vol.24 No.11, LE)

### Linn Classik K: \$1500

Remote-controlled 75Wpc (into 4 ohms) CD receiver with MOSFET output stage, clock, AM/FM tuner, three line-level inputs, tape loop, and headphone jack. A "neat and complete all-in-one Linn system," enthused CS. High-density surface-mount PC boards keep it petite as well. On FM, CS found "very good stereo separation and imaging, freedom from crosstalk, a very musical depiction of dynamics, a warm and open midrange, a lack of top-end sibilance, and no apparent honkiness in human voices." The CD section impressed with "a very clear, deep midrange, with remarkable bass extension and a smooth, open top end —

very detailed without being edgy or italicized." Little to gripe about, he summed up: "in combo with a decent power cord, some better speaker cables, and a good pair of loudspeakers, for \$3000–\$4000 you have a serious, no-compromise high-end system." Price is for black finish; colors add \$45. JA is working on a "Follow-Up" on the current multizone version; he shares the Chipster's enthusiasm. (Vol.23 No.11 WWW)

### Naim Nait 5: \$1550

Of this, the fourth iteration of the 20-year old British design, AD said: "The 2003 model had the same pitch certainty, rhythmic insistence, and real, organic sense of musical flow as any of its predecessors. ... A colorful and downright juicy-sounding amp whose stereo imaging was likewise good. Instruments and voices sounded whole and well-rounded... The Naim's way with pace, rhythm, and timing remained... This wasn't just good sound — this was good music-making." The Nait 5 neither comes with a phono section nor can one be installed, and it lacks a mono switch, but "takes traditional Naim strengths and adds color, decent imaging, and greater flexibility and ease of use," says Mr. D. (Vol.26 No.8 WWW)

### Perreux R200i: \$3995

This 200Wpc integrated with MOSFET output stage combines "convenience, performance, modern design, high build quality, and reasonable cost." MF: "Low-frequency punch, extension, detail, and control were among the Perreux's strongest suits, as was its transient clarity and overall speed... What weren't present were grain and etch (good riddance), or the kind of midband richness and textural nuance (sorely missed) available from far more expensive products." MF discovered the thinness and lack of transparency to be associated with the preamp section. "Nonetheless, the R200i offered an impressive balance of strengths and no serious shortcomings." (Vol.26 No.6 WWW)

### Portal Audio Panache Integrated: \$1795

ST pointed out that it was a misnomer to call the Panache an "integrated" amplifier. Rather, it's a solid-state power amp with volume and balance controls, and four line-level inputs. Sam: "clear, quick, and clean, with nice body through the midrange and a smoothly extended treble. The Panache did not impart a transitory tinge." It came "remarkably close" to the Passion Intégré in terms of resolution, "exhibiting very good clarity and harmonic purity." ST wasn't crazy about its styling, however, and missed having a remote control. (Vol.26 No.2 WWW)

### Simaudio Moon i-5: \$2650

CS found that the 70Wpc Moon i-5 had an "inordinately" long break-in time — "at least 300 to 500 hours." Yet, when it was all warmed up, Chip was not disappointed: "I was quite taken by its clarity, coherence, and realism, the elemental purity and neutrality with which it conveyed the emotional experience of music... Its presentation was warm yet neutral and natural, faithful and nonfatiguing... Its top end was smooth, sweet, and fulsomely detailed, while its control of bass frequencies was swift, punchy, and extended, with oodles of harmonic detail." Though the i-5 may be "too laid-back" for some, CS argued that, at what might be considered an entry-level price, "You'll be hard-pressed to find something that blows the Moon i-5 out of the water." (Vol.25 No.7 WWW)

### Simaudio Moon i-3: \$1695

(See AD's review in this issue.)

### Unison Research S2K: \$2295, with remote

This 15Wpc single-ended, KT88-based integrated amp sounded "rich without being sludgy, opulent without being slow or rolled-off, relaxed without being lazy... At moderate levels, it was completely up to the task of critical listening to music that is not

unusually demanding." However, when handed bass-heavy material, such as Brahms' *Ein deutsches Requiem*, "it lost its composure" and JM lost his bass. Nonetheless, JM was impressed by its musical performance and great value: "Doesn't it make sense to at least consider a low-power amplifier that more than makes up in fatigue-free tonal lushness what it lacks in ultimate slam?" (Vol.25 No.11)

**Unison Research Unico: \$1495, with remote**  
Marked by an "astonishing" build quality and "luxurious" looks that contradict its modest price, the 80Wpc Unico had ST ranting: "I could scarcely believe I was listening to a [\$1495] integrated amp." Tubed input stage and MOSFET output stage produce a very smooth midrange and sweetly extended treble. "There was a smoothness, sweetness, and rightness to the harmonic presentation that had me thinking I was listening to an all-tube design. Then a bass note would come along to remind me that the output devices were solid-state and capable of delivering some current." ST did get the feeling that the protection circuitry reined in the amp, making it safe but a little boring. Nevertheless, said ST, "The Unico is fantastico." Phono card adds \$200. (Vol.25 No.9)

**VTL IT-85: \$2750**

Remote-controlled (volume, mute), vacuum-tube, 80Wpc integrated amp with push-pull tetrode output stage and active preamp and headphone output. "I was struck by [the IT-85's] midrange sweetness and smooth top-end extension," said CS, who also admired its "surprising level of rhythmic authority." It delivered "a convincingly deep soundstage, realistic dynamics, and rock-stable images, with the kind of aged-in-oak Balsamic midrange bouquet that fans of EL34s and coherent two-ways hanker after." CS recommends using VTL's gain-matched ST-85 power amp (\$1750; see "Power Amplifiers") in a nifty biamp setup with the IT-85. "Always wanted a fine tube rig?" asked CS. "Look your retailer in the eye, say 'Hit me,' and draw 21 on the nose by throwing down for the IT-85/ST-85 combo. Then walk away from the table flush with the glow of good sound, found money, and the inner contentment that comes from knowing you really don't need much more than this." (Vol.24 No.2 WWW)

## C

**Final Laboratory Music-6: \$3750**

The 10Wpc (17.8W at clipping) Music-6 is powered by series-connected banks of D cells. AD found the Music-6, driven by the Music-5 — see "Preamplifiers" — was "nothing if not smooth — smooth, noiseless, and consistently easy to listen to... These products played music well, meaning they communicated pitches and rhythms without the subtle distortions that cloud meaning and result in indifference, fatigue, or annoyance." Nonetheless, the "smoothness" sometimes sounded wrong: "The Finals never offended, but neither did they ever reach the heights of excitement — of musical drama — that I can attain fairly regularly with other gear." The measurements both raised JA's eyebrows and led him to advise that the Final Laboratory components should not be used with other manufacturers' products. DC-6 power supply, batteries included, costs \$700. (Vol.26 No.1 WWW)

**Rotel RB 1080: \$999**

KR was impressed by how this 200Wpc solid-state stereo power amp was able to drive speakers even 10 times its price: "With everything I matched it with — whether fairly or unfairly — the Rotel did adequately to superbly." Though the RB 1080 lacked soundstage openness and remained slightly withdrawn in the mid- to upper-treble range, sheer power was not

a limitation. And though its overall presentation was lacking in dynamics and presence at low volumes, at high volumes "the Rotel was capable of truly impressive performance." KR concludes, "Only the nth degrees of treble grain and reticence separate it from the very best power amplifiers. I can't think of an amp for even twice its price that I'd prefer." JA's measurements supported this: "Considering its modest price, this is one powerhouse of an amplifier. But [one] best used with speakers whose impedances don't drop much below 2 ohms." (Vol.25 No.3 WWW)

## C (Integrated)

**Atoll Electronique IN 100: \$1075 \$\$\$**

This 100Wpc integrated uses a single pair of MOSFET devices per side and is supplied with 660VA transformer "alimentation" with a relatively high (60V) voltage supply. ST: "The IN 100/[Atoll] CD 100 [CD player] combination produced a beautiful, beguiling sound that in some ways departed from what I consider to be quintessentially French sound. . . . The Atolls treated my music kindly, never imparting an edge or aggressiveness of their own." With the Triangle Titus XS speakers, the sound was "not far short of fabulous." ST warned against speakers whose impedances dip much below 4 ohms. Remote volume control adds \$110, phono stage adds \$75. (Vol.26 No.4)

**Musical Fidelity A3.2: \$1595**

This 115Wpc, solid-state, fully dual-mono integrated combines "superb construction quality and sexily expensive looks," yet maintains an affordable price. BJR: "There was an overall musical rightness, a sense of liquidity and delicacy, an organic quality to the textures of well-recorded acoustic music. The A3.2 exhibited a laid-back, back-of-the-hall perspective that in no way seemed dark, sluggish, or veiled with any of the recordings I demoed. The amp had a coherent dimensional and musical character, but never seemed to euphonically color any type of music...I always heard a level of detail and transparency that suggested the performance of far more expensive gear." BJR found "a slight warmth or ripeness" in the midbass. AD preferred the A3.2's treatment of classical music: "The amp sounded very clear, open, and extended, especially in the trebles. . . . But the A3.2's remarkable clarity and extended top end created something of an obstacle to enjoying indifferently recorded rock." Just misses Class B, AD sums up, "but great scale and color." JA advised: "very demanding speaker loads are best avoided." (Vol.26 Nos.4 & 8 WWW)

**NAD C370: \$699**

CS found this 120Wpc amp to offer smooth, authoritative, solid-state sound, delivered with conviction: "warm, dry, and solid, never edgy or fatiguing. . . . A real blue-collar champion offering an honest day's work for an honest day's pay. (Vol.25 No.1 WWW)

**NAD C320BEE: \$399 \$\$\$**

A 50Wpc integrated from veteran designer Bjorn-Erik Edvardsen — hence "BEE" — with very clean layout and excellent build quality, featuring five line-level inputs, two tape loops, and sets of preamp-out and amplifier-in jacks. AD: "The NAD C320BEE sounded surprisingly good at the basics of playing music — listening to this amp was consistently more an exercise in fulfillment than frustration... The C320 reproduced stereo recordings with excellent depth...[It] preserved the music's sense of flow, regardless of style. . . . The NAD is musically and sonically accomplished, and is probably about as close to organic sound as you can get for this kind of money... One of the greatest bargains in amplifiers today." (Vol.26 No.7 WWW)

Von Gaylord Starlet: \$2995

Striking looks, an active preamp section, and a class-A triode output stage powered by four 6550s, yield 40Wpc. CS was "immediately captivated by its quiet backgrounds and exceptional tonal balance" and "solid overall resolution at very low volumes." He also found a sweet, airy soundstage, and sound that was lush and euphonic "without being syrupy." Measurements revealed extreme levels of volume-control-dependent distortion — the manufacturer claims that a bad preamp tube was to blame. Recommendation provisional, therefore. Manufacturer called "Legend Audio Design" at the time of the review. (Vol.23 No.12 WWW)

## D (Integrated)

Rotel RA-02: \$499

This 40Wpc integrated has sleek low-profile styling, four pairs of line-level inputs, a tape loop, a phono section, and a pair of pre-amp-out jacks whose output signal is affected by the amp's volume, balance, and tone controls, making it ideal for owners of subwoofers. While AD preferred the RA-02's sleek looks to the "olive-drab" faceplate of the NAD C320BEE, he found the Rotel's sound to be "crisp and forward." AD: "The Rotel RA-02 is a well-styled and decent-sounding product; with such features as a built-in phono section, subwoofer outputs, and provisions for a second pair of speakers, it offers undeniably good value for the money. But the NAD C320BEE's music-making is more to my taste." (Vol.26 No.7 WWW)

## K

Musical Fidelity Tri-Vista kW.

### Deletions

Audio Electronic Supply AE-25 Superamp, Lamm Industries ML1, and VAC Avatar not auditioned in a long time; Cambridge Audio A500 and Herron Audio M150 no longer available.

## Loudspeaker Systems

*Editor's Note: Class A "Loudspeakers" are sufficiently idiosyncratic and differ enough from one another that prospective customers should read Stereophile's original reviews in their entirety for descriptions of the sounds. I have therefore just listed every system or combination that at least one of Stereophile's reviewers feels, as a result of his or her experience, approaches the current state of the art in loudspeaker design. (Note that, to be eligible for inclusion in Class A, the system must be full-range — ie, feature bass extension to 20Hz. It must also be capable of reaching realistic sound-pressure levels without any feeling of strain.)*

*For those unconcerned about the last few hertz of low-bass extension, we have created "Classes A, B, and C (Restricted Extreme LF)" for those speakers that are state of the art in every other way. Candidates for inclusion in this class must still reach down to at least 40Hz, below the lowest notes of the four-string double-bass and bass guitar.*

*In addition, such has been the recent progress in loudspeaker design at a more affordable level that we have an extra class: E, for "Entry Level." Someone once asked me why Stereophile bothers to review inexpensive loudspeakers at all: In effect, aren't we insulting our readership by recommending that they buy inexpensive models? Remember: It's possible to put together a musically satisfying, truly high-end system around any of our Class D and E recommendations. That's why they're listed — and why you should consider buying them.*

## A

Acarian Systems Alón Circe: \$12,000/pair ☆  
(Vol.22 No.5, Vol.23 No.4, Vol.24 No.10 WWW)

Avantgarde Uno 3.0: \$11,970–\$13,970/pair, depending on finish

Includes SUB225 powered woofer modules. Stereophile's "Joint Loudspeaker of 2000." (Vol.23 No.9, Vol.25 No.8 WWW)

B&W Signature 800: \$20,000/pair  
(Vol.25 No.6 WWW)

Burmester Audiosystems B99: \$49,995/pair  
(Vol.25 No.6 WWW)

Calix Phoenix Grand Signature: \$67,500/pair  
(Vol.26 No.6 WWW)

Dynaudio Evidence Temptation: \$30,000/pair  
(Vol.24 No.12 WWW)

Focal-JMLab Grande Utopia Be: \$80,000/pair  
(Vol.26 No.9 WWW)

Linn Komri: \$40,000/pair  
(Vol.25 No.4 WWW)

Meridian 8000 digital active: \$49,000/pair  
(Vol.24 No.11 WWW)

Mission Pilastro: \$40,000/pair  
(Vol.25 No.12 WWW)

Revel Ultima Studio: \$10,995–\$11,995, depending on finish \$\$\$

Stereophile's "Joint Loudspeaker of 2001." (Vol.23 No.12, Vol.24 No.1, Vol.25 No.6 WWW)

Rockport Technologies Antares: \$41,500/pair  
Stereophile's "Joint Loudspeaker of 2002." (Vol.25 No.8 WWW)

Snell XA Reference: \$25,000–\$30,000/pair, depending on finish  
(Vol.25 No.4 WWW)

Triangle Magellan: \$32,900/pair  
(Vol.26 No.6)

Wilson Audio Specialties MAXX: \$38,900/pair ☆  
(Vol.22 No.5 WWW)

Wilson Audio Specialties WATT/Puppy System 7: \$22,400/pair  
(Vol.26 No.9 WWW)

## A — Restricted Extreme LF

Audio Physic Avanti III: \$12,495/pair

The floorstanding Avanti III sports a non-ferrofluid, dual-concentric ring-radiator tweeter developed by Vifa that is spec'd all the way out to 40kHz. Two pairs of side-mounted, 61/2" woofers — four units per side — in push-push configuration allow a narrow front baffle. The III sits on a pair of metal stabilizer cross-braces and setup is critical, MF insisted, to getting best results. "If cleanliness is next to godliness, the Avantis were next to godlike — so clean, so detailed, so revealing," he said. Yet, when everything (including the source material) was right, they sounded "so rich, so fundamentally correct and satisfying." Tonal coloration was impressively low and the Avanti III offered "superb dynamics at both ends of the scale and never sounded compressed, even when played at ultra-high SPLs." Aside from a slight but very noticeable leanness in the midbass — off-putting for those needing warmth and richness, he warns — the Avanti ranks with the Infinity Prelude as, subjectively, the least-colored speaker MF has reviewed. Price is for black finish; veneers add \$1000/pair. (Vol.24 No.8 WWW)



Canton Karat Reference 2 DC: \$10,000/pair

JA: "The Canton's smooth but somewhat treble-forward balance will work better in larger, well-damped rooms than in small, sparsely furnished spaces... With its powerful-sounding low frequencies, clean and grain-free highs, coloration-free midrange, high sensitivity and dynamic range, and stable, precise stereo imaging, the Karat Reference 2 DC easily justifies its flagship position in Canton's range." (Vol.26 No.1 WWW)

Dynaudio Confidence C4: \$16,000/pair

The Confidence C4 has much in common with its cost-no-object cousins in Dynaudio's Evidence line, without giving up much to them. Uses the Esotar2 tweeter featured in the Special Twenty-Five. The first-order crossover and four drivers overlapping through the upper-bass region meant JA had some trouble finding positions in his listening room where the speakers worked optimally. He ended up settling for low frequencies that "were more weighty than was strictly normal," but was still pleased: "While the Dynaudio Confidence C4's low frequencies will sound most neutrally balanced in large rooms, its top octave might then sound a little mellow. But in the right room, the listener will be knocked out by its natural-sounding midrange, its high-frequency transparency and lack of grain, and its well-defined, stable stereo imaging, none of which have been achieved at the expense of the speaker's musical communication." (Vol.26 No.3 WWW)

EgglestonWorks Andra II: \$18,900/pair

The goals set for the Andra II were to give the original Andra more accurate amplitude response, higher efficiency, deeper bass response, and a major increase in overall transparency. Revisions include extensive changes to the cabinet, an entirely new crossover, new wiring, and modification of the drivers. Despite PB's efforts to get the Andra II to misbehave, "there was no strain, no compression of the size of the soundstage, and there was every bit as much grace and finesse in the low-level passages...as in the sheer horsepower and unflappability of the earth-shattering segments... Dynamically, the Andra II was a behemoth power lifter that could dance like Baryshnikov." Its greatest strength was its ability to let music breathe and flow: "It excelled at communicating the essences of music as much as at reproducing the sound." (Vol.20 No.10, original; Vol.25 No.11 WWW, Andra II)

Infinity Intermezzo 2.6: \$1500/pair \$\$\$ (stands necessary)  
Stylish two-way satellite with powered woofer and a single-band, variable-frequency parametric equalizer that can attenuate the "room bump" that most listening spaces have between 20 and 80Hz. According to MF, once set up properly, the Intermezzos offered "outstanding bass response without mucking up or slowing down the midband." Overall performance, he decided, "was so satisfying that I could live with them, at least for pop and small-combo jazz. But for full orchestral weight and the suggestion of the hall space, you do need those bottom few octaves." Top-end response sounded "free of grain, natural, and not at all bright or sizzly. In fact, listeners used to peaky tweeters might find the sound lacking in detail and transient snap until their ears adjust, at which point the enormous amount of inner and low-level detail the Intermezzo's tweeter is capable of revealing will become apparent." JA decreed, "This is yet another in a series of superbly engineered, high-quality loudspeaker designs emanating from Harman's Northridge plant. It is a tribute to its designers, and to the research and testing facility set up there by Floyd Toole." Matching stands cost \$199/pair. (Vol.24 No.6 WWW)

Innersound Eros Mk.III: \$7995/pair

Hybrid electrostatic and moving-coil loudspeaker with remote-controlled active crossover and bass amplifier module. LG was "pleased and vexed." As he put it, "The Eros Mk.III's best quality

was their first-rate imaging: They generated a seamless, wall-to-wall soundstage that did not seem to emanate from the speakers themselves... The mids and highs were fast, transparent, and rich, with a sheen and harmonic structure that were stunningly new and different. ...The speakers 'disappeared' and engulfed me in sound... Never had I heard such a large soundstage, such a distinctive layering of instruments and vocalists, or such realistic crowd noise... At the same time, I had to deal with a loose internal ribbon cable, a rattling electrostatic screen, woofers that overloaded and bottomed out, a bass response that didn't reach the lowest octave, the need for ultra-precise speaker placement, and a sweet spot that seemed only millimeters in diameter." JA: "Only in the bass did I feel that the Eros failed to reach the level of achievement offered by the electrostatic panel. But if you're content with what the InnerSound speaker offers in that region and can cope with having to sit with your head clamped in the sweet spot, the Eros will offer a lot of magic for not a lot of money." (Vol.26 Nos.4 & 5 WWW)

Joseph RM33si Signature: \$7499-\$7799/pair  
depending on finish

CS raved that "Jeff Joseph and Richard Modaferrri have achieved something special with the RM33si," an "Infinite Slope" design that allows the woofer to roll off quickly while the tweeter comes on gradually. CS was impressed: "the RM33si suggested a complex flavor — like a fine old Bordeaux revealing layer on layer of body and bouquet...to reveal a web of heretofore unimaginable sensations." However, JA was bothered by finding the '33si's sensitivity significantly lower than the specified 88dB, and was concerned by a measured lack of integration between the midrange unit and the woofer. However, while CS said that "It's easy to misconstrue the RM33si's extraordinary levels of clarity and resolution as being cool, dry, bright, or analytical," JA decided that "In my room with my ancillaries, there was simply too much treble energy." But JA did agree with CS that "The RM33si did present an astonishing wealth of recorded detail, and their soundstaging was simply superb!" Late 2002 upgrade changes the lower crossover point and improves the midrange/tweeter integration. CS found a "more natural and satisfying" fill between the bass and midrange frequencies. "What had essentially been a highly resolved, coherent two-way speaker with an integral subwoofer is now a full-bodied three-way — a highly refined white-wine speaker that now suggests a more layered, textured red." Price includes Sound Anchor stands. (Vol.24 No.10, Vol.25 No.1, Vol.26 No.1 WWW)

KEF Reference 207: \$15,000/pair

Five-way, reflex-loaded, magnetically shielded, floorstanding loudspeaker. uses a revised Uni-Q drive-unit and a supertweeter, mounted atop an elliptical cabinet. "Suffice it say," concluded JA, that the 207 appears to embody everything the English company has learned about drive-unit and speaker-system design in the 40 years since it was founded by the late Raymond Cooke." He was impressed by the speaker's combination of LF extension and clarity, as well as its "broad, stable, and deep soundstage." He summed up: "sounds excellent: clean, powerful, extended low frequencies, uncolored, natural-sounding midrange, and stable, precisely defined stereo imaging." (Vol.26 No.2 WWW)

Krell LAT-1: \$37,500/pair

Krell's first loudspeaker is a six-driver, three-way floorstander in a 250-lb, all-aluminum enclosure. The LAT-1's rated sensitivity is above average at 91.5dB. After he'd put pedal to metal, LG was moved to label the LAT-1 a topnotch performer: "Its bass response had plenty of speed, power, and drama," but deeper bass "was not as prominent." LG found the midrange "transpar-

ent and timbrally accurate, with no smearing or congestion," the treble "clear and extended, with no brightness, hardness, or edge." The LAT-1's lack of compression or distortion allowed LG to enjoy "the greatest musical dynamic range I've experienced in my listening room to date." The Krell is for "Anyone who demands the absolute peak of midrange clarity and bass speed," LG summed up. JA's measurements revealed that a big, beefy amp is best to drive it. JA: "It appears that, with his first speaker design, Krell's Dan D'Agostino has worked hard at achieving a successful balance." (Vol.24 No.8 WWW)

Lumen White Whiteflame: \$27,500/pair

Highest-tech ceramic drivers are mounted in a stylish wavelike plywood enclosure that lacks any kind of damping. "Resolution, resolution, and resolution, from the midrange all the way up." raved MF. When paired with tubes, the Whiteflames offered Class A sound: an "effortless, seamless, natural musical performance subjectively free of obvious colorations or dynamic constraints at either end of the scale." With solid-state amplifiers, however, the Whiteflames sounded edgy and etched and soundstaging was "too compact laterally and overorganized." A major cabinet resonance in the upper-bass will bother some listeners more than others. Pure diamond tweeters add \$6000/pair. (Vol.25 No.10 WWW)

Magnepan Magneplanar MG3.6/R: \$4375/pair \$\$\$ ☆

BD declared this three-way planar dipole "sensational," and that it met all his expectations with its huge soundstage and superb front-to-back layering with "continuous ambience field." The MG3.6/R's bottom end is an improvement over the MG3.5's, BD noted, with no obvious transition from its excellent upper midrange to the ribbon tweeter. "Pure, articulate upper bass and midrange, airy detailed highs... and explosive dynamics." Slightly less forgiving than earlier models but with a high level of transparency, and best driven by a powerful amplifier. "In some respects, it's the best speaker I've heard, period!" Price is for oak finish; cherry veneer adds \$300/pair. (Vol.23 No.8 WWW)

MartinLogan Ascent: \$4195/pair

"Great engineering, superb industrial design, world-class fit and finish, excellent detail and resolution," summed up ST, who found this electrostatic to have a "nearly seamless" sound. However, "don't assume that the Ascents will work best where other, conventional speakers have worked well for you. Try to place them in a room like my listening room, which allows for lots of placement options." Best matched with tube amps. Price dependent on finish. (Vol.24 No.12)

MartinLogan Prodigy: \$10,995/pair

The "imposing" Prodigy couples a proprietary electrostatic panel with a chunky bass module, using technology that is trickled down from the company's flagship \$70,000/pair Statement Evolution2. The ForceForward woofer array is intended to reduce LF room interactions. Stereophile webmaster Jon Iverson agrees with LG that the Prodigy requires a significant amount of break-in. "Sure," said LG, "overall I was swayed by the usual electrostatic attributes — low distortion, timbral accuracy, and deep, wide soundstaging that took my breath away — but music I'd always loved came alive in a brand-new way. Instrumental timbres and colors became much more vivid, intense, and startlingly realistic." He also noted that "Its bass blossomed when driven hard," sounding "forceful and taut, the instruments separated and more distinct ...Solid, clean bass extended down to 31.5Hz." The woofer meshed well with the electrostatic panels, he felt, and the midrange was "transparent, timbrally accurate, and free of congestion and distortion. The treble spectrum was smooth and beguiling, with no brightness, steeliness,

or metallic edge. The Prodigys were also able, LG reported, to maintain image stability at high volumes. What impressed him the most? The Prodigy's Big Time Dynamics. Stereophile's "Joint Loudspeaker of 2001." (Vol.24 No.7 WWW)

mbl 111B: \$19,690/pair

This four-way, omnidirectional, floorstanding loudspeaker may be "very strange-looking," but the sound it emitted was "pure magic" — that is, with its perforated metal grilles removed. Otherwise, JA found their sound anything but magical, marred by "hummy" and "hashy" qualities. The 111B was highly insensitive, though with powerful amplification and the grilles removed, a pair of them provided "seamless" balance, "addictive" clarity, and a "well-defined" soundstage. Indeed, JA was assured that the 111Bs could reach the goals all high-quality loudspeakers strive for — "wide dynamic range; superb extension at both frequency extremes; a neutral, musical communicative midrange; clean, grain-free highs; and stable, accurately defined imaging" — but only at a certain price: "The speaker looks drop-dead gorgeous with the grille in place, but you need to remove it to get the sound quality you've paid for." (Vol.25 No.8 WWW)

Merlin VSM Millennium: \$8960/system

"Strip away its exotic accoutrements," suggested MF, "like the automotive clear-coat finish and the metal inlay strips, and the VSM Millennium is your basic two-way vented box — a floor-standing minimonitor." Outboard BAM bass equalizer, available in both single-ended and balanced configurations, applies 5.2dB boost at 35Hz. A chamber at the bottom of the cabinet is filled at the factory with 23 lbs of sand, and, unusually, an outboard Zobel network consisting of a series Hovland capacitor and a resistor is placed across the speaker terminals. The Millennium Edition VSM is distinguished by the buyer's choice of wiring harnesses and a number of other changes designed to maximize its performance with solid-state ("S" version) or tube ("T" version) electronics. Sound? MF: "What drew me in first was [the VSM's] smooth, airy, graceful top end, delicate yet detailed. It sounded downright luxurious without being syrupy or unctuous." The VSM's retrieval of microdetails "was among the best I've ever heard from any speaker at any price." And with no glare or congestion. Dynamics? "It conveyed plenty of macrodynamic punch, though it didn't pack a really big wallop," decided MF. Price is for premium finish and single-ended BAM with rechargeable battery (Vol.24 No.9 WWW)

Peak Consult InCognito: \$13,000–\$15,000/pair, depending on finish

Two-way loudspeaker with dedicated and nonremovable stand, which houses the crossover for better mechanical and electrical isolation. JM: "The InCognito excels at bass (though not deep bass), midrange sweetness, and coherence, and has a very warm and nonfatiguing treble. Imaging and soundstaging are first-rate." Perhaps related to its lack of deep bass was JM's perception that the InCognito "really 'came alive' only at volume levels to some extent (but not hugely) above" his usual ones. (Vol.26 No.9 WWW)

Quad ESL-988: \$6500–\$7150/pair, depending on finish

Full-range electrostatic that, for the most part, is an updated version of the classic Quad ESL-63 (WWW). Wrote ST, "What more could an audiophile want than a pair of ESL-988s? You get world-class resolution. Superb, stable soundstaging. Spectacular transient response. And sound as neutral as it gets. The only things you don't get are very deep bass, the ability to play crazy loud, and sexy styling." Improvements over the ESL-63 include a stiffer, more rigid frame, better-quality wiring in the delay lines,

and higher-quality copper in the electrodes. ST found that these changes resulted in more top-end extension and better bass. Nonetheless, he felt that these are not speakers for hard rockers. But those who enjoyed the ESL-63 will surely be fond of the '988. (Vol.24 No.11)

Quad ESL-989: \$8500-\$9350/pair, depending on finish  
The electrostatic ESL-989 adds two bass panels to the '988, which is the current version of the classic ESL-63, and is said to have higher power handling. Nonetheless, LG found that music that exceeded peaks of 94dB triggered the speaker's protection circuit. Still, the ESL-989s shook LG's listening room with "lots of satisfying bass," and added outstanding midrange response, topnotch imaging, wall-to-wall soundstaging, smoothness, focus, low distortion, and low listening fatigue." While the speaker rolls off sharply below 30Hz or so, during his listening sessions, LG couldn't think of another loudspeaker he'd rather own. By contrast, PM couldn't get the '989's mid-bass integrated at all in his solid-walled UK room, preferring the smaller ESL-988 (as does ST). Typical US dry-wall construction will probably better match the speaker's bass tuning, therefore. AD added that "The '989 played music with as much tunefulness, drama, and scale as I've ever asked for or heard from other speakers... And not only was its bass extension perfectly satisfying, but, with the exception of the speed of bass fundamentals... the bass quality of the Quad '989 was astoundingly good." Unlike LG, AD never heard a hint of strain or distress, even when playing the Quads at extremely loud volumes (though it is fair to point out that his room is smaller). JA was impressed by how well the '989 handled the midrange and by its "superbly stable" imaging, but found problems with positioning the speakers to get the low-bass/upper-bass transition optimized. Price depends on finish. (Vol.25 No.11, Vol.26 No.5 WWW)

Revel Performa M20: \$2000/pair \$\$\$ (stands necessary)  
Two-way, reflex-loaded loudspeaker. Although "the M20 didn't have that last vestige of bass definition that you get from an optimally aligned or even slightly overdamped sealed-box design," JA still found that "the M20 offered enough bass extension to sound bigger than it really is." Bass reproduction was clean, free from overtones and overhang; the midrange was "free from coloration and exceptionally revealing of recorded detail." While the top treble octaves were "as character-free as its midrange," JA noticed that some high piano notes were "presented a little more forward in the soundstage, and the overall balance was on the slightly bright side." Still, JA trusted them so much for their clarity and stereo imaging that he decided to use them for most of the monitoring during the mixing and mastering of Cantus' Let Your Voice Be Heard CD. "Partnered with high-quality components and set up in not too large a room, the Performa M20 offers virtually Class A performance at an affordable price." Matching stands cost \$200/pair. (Vol.25 No.1 WWW)

Triangle Celius: \$1995/pair \$\$\$

The only drawbacks ST could come up with were the Celius' looks, its long break-in time, and the tendency of its somewhat lightweight balance to become hard and congested at very high volumes. Other than these minor details, he was simply overwhelmed by this four-driver, three-way speaker. "Great dynamics, open, fast, almost electrostatic sound, superior low-level resolution," he writes. "A \$2000/pair speaker should know its place — which is to sound much less good than a \$5000/pair speaker. The Celius did not know its place... Its sound was, in a word, breathtaking." Takes kindly to tubes. (Vol.24 No.10)

Vienna Acoustics Mahler: \$9800/pair ☆

This three-way, reflex-loaded floorstander has two side-mounted 10" honeycomb woofers per side, plus two 7" pulp-cone midranges and a 1.2" silk-dome tweeter. It's "gorgeous," purred RD, with excellent power handling and exceptional dynamic capability. It's easy and smooth, but also expert at tracking transient peaks — and large-scale orchestral works are its best friend, said RD. The soundstage is exceptionally wide and deep, focused, transparent, with high resolution and precise imaging. The midrange balance was just about ideal, said he, despite a room-related peak at 50Hz. "In every other respect, the performance of the Mahler is state-of-the-art." (Vol.23 No.4 WWW)

Wilson Audio Specialties Sophia: \$11,700/pair

JA had great expectations for the Sophia right from the start, and in no way was he disappointed: The three-way, floorstanding, reflex-loaded loudspeaker had a way of "reproducing the wide dynamic sweep of a symphony orchestra in full measure" that left him captivated. "I felt there were no dynamic limits, that there was almost nothing between me and the event captured." The wide dynamic range was complemented by extended lows that allowed JA to easily "follow the tune," making it so that individual instruments "never descended into undifferentiated mush." High frequencies were "delicate," the midrange was "neutral," and the bass region "laid bare every little inflection." JA had only one minor criticism: The speaker's tonal balance was slightly forward in the mid-treble, leading to a soundstage that was not as deep as he might have liked. The midbass might also be a bit excessive in some rooms, he warned. Nevertheless, "The Sophia is the best value-for-money speaker to come from Wilson Audio...[It] raises the bar for the almost-twice-the-price WATT/Puppy." (Vol.25 No.7 WWW)

## B

*Editor's Note: Note that all the full-range Class B recommendations, with the exception of the Totem Acoustic Mani-2, are floorstanding models.*

## B — Full-Range

Audio Physic Virgo III: \$6995/pair

"A well-engineered, beautifully executed, and great-sounding" three-way floorstanding speaker that is basically a minimonitor allied to a subwoofer. Unlike earlier Virgos, the III's woofer subsystem uses two passive radiators; each side-wall houses a vertical array of woofer and radiator. BD: "The Virgo's strengths, weaknesses, and overall presentation were much more akin to the [Magnepan MG3.6/R's]. The sweet, delicious highs, the rich, tangible images, and the huge, three-dimensional, walk-in soundstage — all reminded me of the '3.6/R's most captivating attributes." However, "the Virgo didn't seem to have the incredible precision, focus, and clarity of the Thiel CS6, or its dynamic impact and power." JA: "The III appears to be an excellent successor to the original Virgo, which was one of my favorite speakers in the late 1990s." Price is for black finish; add \$500 for wood veneers. (Vol.26 No.9 WWW)

Focal-JMLab Electra 926: \$3995/pair

The Electra 926, a full-range floorstander, gives "a taste of Utopia for a lot less money." The woofers and midrange driver use the proprietary woofer cone developed for JMLab's Utopia series. It all made Sam quite hungry: "The midrange and treble were exceedingly smooth and very extended. This speaker did not soften or sweeten the sound...[It] was revealing, yet not ruthlessly so." (Vol.25 No.6)



Joseph Audio RM22si Mk.2: \$2499–\$2899/pair, depending on finish \$\$\$ ☆

Chip Stern first encountered this “sweet, clear, articulate floor-standing design” at the 1998 CES; since then he has added to his description the phrases “airy, dynamic, and uncolored” and “holographic, precise, and nonfatiguing.” He warned that those who like a lush sound may find the RM22si “kind of dry at first,” but also said it “should provide plenty of thrills and chills to fans of acoustic music searching for the ultimate in two-way coherence.” Late 2002 changes, according to CS, resulted in “better fill between woofer and tweeter, and the overall presentation, while not necessarily brighter, was more brilliant, airy, and articulated. Likewise, I found greater ease and resolution in the midrange. When pushed really hard, the bass had greater coherence and focus.” (Vol.21 No.11, RM22si Signature; Vol.25 No.10 WWW, Mk.2)

Kharma Midi-Grand Ceramique 1.0: \$32,500/pair  
MF had a problem with the Ceramique’s lower frequencies: “the bass lacked solidity, punch, and definition. Extension measured strong below 30Hz, but it didn’t sound strong.” Mikey wondered if the speaker might simply require a larger room to fully express its “enormous sonic picture,” but he also noted that “instruments were subtly softened.” Nonetheless, while that bass keeps the Kharma from Class A, “the combination of the slight softness on top and bottom and the rich midrange and expansive soundstage resulted in a beautifully balanced, seamless, incredibly transparent picture,” MF concluded. “In terms of dynamics at both ends of the scale, low-level resolution, delineation of inner detail, harmonic integrity, transparency, and every other performance parameter, the Midi-Grand delivered the goods.” (Vol.26 No.1 WWW)

Opera Super Pavarotti: \$1995–\$2195/pair  
The floorstanding Super Pavarotti held all the characteristics of fine, careful Italian craftsmanship. ST went into detail: “Superb finish. High-quality drivers. Civilized sound that I, for one, could live with for years. And reasonable selling prices. A loudspeaker is furniture, after all. You have to look at it, not just listen.” The upper midrange and treble were “sweet, smooth, nicely extended,” the bass was “very dynamic, quite tight, and extended, without bloat,” and the soundstage was “very wide, deep and seamless.” ST cautions that “The Super Pavarotti is not for those who crave hi-fi excitement. ... This speaker sang; it didn’t zing.” (Vol.25 No.9)

Paradigm Reference Studio/100 v.2: \$1900–\$2400/pair, depending on finish \$\$\$ ☆  
“There’s much more to the ‘v.2’ designation than meets the eye,” RD discovered of this redesign of Paradigm’s three-way, four-driver, reflex-loaded floorstander. The v.2 has new tweeter and midrange drivers, curved side panels, changes in cabinet construction and bracing, and is 23 lbs heavier. “Exceptionally unfussy to set up,” RD found, and “top-to-bottom tonal balance is exceptionally even.” The midrange is neutral and the top end is on a par with others at the price. The v.2 fixes the slight edge in the earlier version’s mid-treble, as reported by TJN, and its first-rate bass approaches that of the \$8995/pair Dunlavy SC-IV/A, said RD, who noted good power handling and other Audiophile Family Values. JA agrees: “excellent measured performance at a very competitive price.” (Vol.23 No.6 WWW)

PBN Montana SP3: \$3995/pair  
BW: “PBN’s second major revision of the SP is better than the original in every respect — and bigger, having gained 1” in height, 3” in width, and 11/4” in depth... The new driver complement includes larger, 7”, Vifa mid-woofers and a 1” fabric-dome tweeter, and the crossover has metalized polypropy-

lene capacitors, said to improve upper-octave transparency... The SP3’s power handling is rated at 180W vs the original’s 160W, and the low-bass cutoff is now specified at 30Hz vs the original’s 35Hz... The SP3 offered up the essence of the music with all the punch, air, and detail audiophiles demand, and all the soulfulness music-lovers need. It is ideal for rooms of medium to large size, and its slim profile and elegant finish will be compatible with almost any style of decorating.” While bass-heavy recordings were good, the SP3 lacked the convincing last bit of power at the absolute bottom. (Vol.20 Nos.1 & 6, Vol.26 No.8 WWW)

Sonus Faber Cremona: \$7495/pair  
“The midrange and treble had the expected Sonus Faber magic,” said ST: “sweet, smooth, completely free of grain, with not a hint of hardness.” Bass and treble were well extended and the overall sound was “clear and pure — crisply articulated without being overetched.” Sam does wonder if the Cremona is “too nice-sounding,” but concludes “The tonal balance is superb, the bass is quite extraordinary (though you do have to work with room positioning), and the looks are to die for.” (Vol.26 No.1)

Thiel CS6: \$7900/pair ☆  
“The CS6 offers high perceived value,” JA said. “It is beautifully constructed, well balanced, and, once set up optimally, with a gutsy amplifier and high-quality sources, sounds simply superb... dynamics were startlingly natural... forceful and clean deep-bass presentation gave the music a powerful foundation.” However, “the midrange didn’t offer quite the same degree of clarity or cleanness that so distinguished the bass or treble octaves... But for me, at least, this was a minor problem, offset by the many things the Thiel did right.” But it does keep the CS6 from scaling the Class A heights. (Vol.21 No.3; see BD’s “Follow-Up” in this issue WWW.)

Totem Acoustic Forest: \$3000/pair  
Two-way, 3’-high tower loudspeaker. The Claw is standard; a self-centering ball-bearing support is available separately for \$395/set of 6, as is the optional Beak Tuning Pod (\$100/pair). LG found that the Forest produced clean bass down to 40Hz in his room. The sound was generally “solid, transparent, and dynamic without being edgy, and the bass response was controlled and eminently detailed.” He also thought the midrange was “very seductive; it excelled with vocal, clarinet, and piano recordings, voices and instruments floating free of the speaker positions... [and] provided a wealth of musical detail, making it easier to delineate spatial positions.” The Forests’ imaging, LG found, was first-rate, with a wide, deep soundstage, even though the sweet spot was small. (Vol.24 No.4 WWW)

Totem Acoustic Mani-2: \$3995/pair ☆ (stands necessary)  
JA’s effusive encomium noted that the Mani-2’s “combination of clean treble, transparent midrange, natural dynamics, and powerful extended bass allowed the speakers to step to one side, allowing the music to communicate in a most effective manner.” While \$4000 for a pair of small stand-mounted speakers may not sound like good value, JA pointed out that the Mani-2 produced a sound that belied its price and size, and that it would perform admirably in rooms unsuitable for more physically imposing speakers. 2001 samples of the Mani-2 were marked by a combination of clean treble, natural dynamics, and powerful, extended bass. Again reminiscent of the earlier sample, however, was a low sensitivity and a forward-balanced midrange resulting in “some very-high-frequency ‘wispieness’ on some recordings.” Nevertheless, wrote JA, “The overall balance was expansive and grain-free, aided by an enormous but still well-defined soundstage... A solid Class B loudspeaker.” (Vol.19 No.2, Vol.24 No.10 WWW)



Vandersteen 2Ce Signature: \$1549/pair \$\$\$ ☆  
(stands optional)

To CS, the current version of Richard Vandersteen's best-selling three-way design suggested "the bloomy barley scent of sturdy Guinness Stout; the deep earth tones of heavy brown bread dipped in honey; your grandmother's meatloaf accompanied by mashed potatoes with roasted garlic, caramelized onions, gobs of butter, and heavy cream — in a word, comfort foods." The laid-back top end isn't for everyone, he thought, and errs on the side of bass and midrange. Bass "believable and musical," even if not the most linear or focused CS had ever heard. "Timbres were lifelike and true, if slightly sweetened, and big orchestral swells were handled with enormous power and conviction." Some compression at lease-busting levels. The key is the matching equipment, thought Chip. Bottom line: a warm, deeply extended, musically engaging presentation. Optional stands add \$125/pair. (Vol.16 Nos.4 & 9 WWW, 2Ce; Vol.23 No.10 WWW, 2Ce Signature)

## B — Restricted LF

Audio Physic Spark III: \$2995/pair \$\$\$

At 39" high with a narrow baffle, the smallest, least expensive floorstander in the Audio Physic line is best suited for small- to medium-size rooms. "No one could say that the Spark is topped-off!" chortled Sam. "Yet the highs were not tipped-up, either." With a balance slightly on the dry side, it worked best with the liquidity of tubes, found ST. "If possible, listen with the speakers in front of your room's long wall," said he. Halfway into his room, "the bass firmed up and dynamics greatly improved," with especially dynamic (but not overdone) mid- to upper-bass. No stridency or peaky quality in the treble, but it wasn't the most refined treble ST's heard. "I could have done with greater definition, more delicacy — but I'd probably have to pay more. ...The big things were the soundstaging and imaging, of course — nothing short of spectacular." Price is for black finish; wood veneer adds \$500. (Vol.24 No.7)

B&W Nautilus 805: \$2000/pair \$\$\$ ☆ (stands necessary)  
The drivers of the two-way 805 are derived directly from the N-801, with a lower 120W system power rating. LG loved 'em. "The N-805 quickly swept me into the music, and I found myself listening with my eyes closed. It was as if a special light had been switched on in my mind...This is a terrific loudspeaker, and an example of what I really love about high-end audio." LG found taut, punchy midbass and "stunningly transparent" highs, plus a sweet, dynamic midrange "made for a first-rate listening experience." Powered subs recommended for sustained, very deep bass, but otherwise not required. One of LG's "all-time favorites." ST weighs in with "I'll second LG's recommendation!" PM says it has a "wickedly clean treble, a lovely lack of boxiness, loads of detail, and looks very stylish indeed." Co-winner, 1999 Stereophile "Joint Budget Component of the Year." Matching stands cost \$600/pair. Original Class A rating a bit optimistic, feels ST, compared with the Nautilus 803. (Vol.22 No.10 WWW)

Dynaudio Special Twenty-Five: \$4800/pair  
(stands necessary)

The Special Twenty-Five borrows technology from Dynaudio's top loudspeakers. JM: "How do they sound? Fabulous... But with high-quality parts, conservative (first-order crossover) design, and flawless execution, what's not to like? (Well, okay — the Euro-nanny speaker terminals are not to like.) \$4800/pair is admittedly rather stiff, but the audible family resemblance to the Evidence and Confidence goes a long way in justifying that." (Vol.26 No.1 WWW)

Dynaudio Contour 1.3 Special Edition: \$3499/pair ☆  
(stands necessary)

The "Special Edition" is a luxury edition of Dynaudio's classic but no-longer-available 1.3 Mk.II two-way. ST recommends avoiding tiny single-ended triodes for power — the SE is only 85dB sensitive at a nominal 6 ohms. "When partnered with a hefty amplifier, this little speaker can do big bass," he said. The sound was "authoritative"; he felt it played loud while remaining refined, natural, and full-bodied. ST reveled in their "ability to deliver a full, rich tonal balance" when played well out into the room. Voiced "beautifully," they "deal with demanding dynamics on a recording" with no trouble. RN described the original 1.3 as "Among the very few loudspeakers at any price that are, as near as I could tell, totally uncolored." Of the less-expensive Mk.II, JA thought its driver integration sensitive to ear height and its tonal balance on the cool side, with a bit too much energy in the 4–10kHz octave. "But oh, what a huge, stable soundstage with a high degree of transparency and refinement." PM agrees: "combines a high standard of neutrality with surprising power, weight, and drive," though he cautions that a reasonably powerful amplifier is advised. MasterStands add \$399/pair; UltimaStands add \$699/pair. (Vol.19 No.11, Mk.I; Vol.23 No.8 WWW, Mk.II; Vol.22 No.12 WWW, SE.)

Earthworks Sigma 6.2: \$3500–\$5000/pair, depending on finish (stands necessary)

The two-way, reflex-loaded, magnetically shielded Sigma 6.2 is the first loudspeaker from Earthworks, a pro-audio manufacturer best known for its superb microphones. JA: "The Sigma 6.2 had a slight tendency to brightness that was more apparent the farther away I sat, and made the speaker very revealing of recorded detail." This "analytical quality" made it an excellent studio monitor. "Despite the 6.2's superb intelligibility, this was not allied to any tendency of the speaker's balance to become hard or fatiguing. ...Other than the slight plateau in the mid-treble and a touch of congestion in the lower midrange, the Earthworks was about as free from coloration as I have experienced. Its midrange was simply superb. ...Imaging specificity was excellent. ...The Sigma 6.2 got out of the way of the music in a most satisfying manner." The listener must sit fairly close to gain best soundstage and presentation. (Vol.26 No.6 WWW)

Focal-JMLab Cobalt 816 S: \$1895/pair

Focal-JMLab Cobalt 806 S: \$1095/pair \$\$\$ (stands necessary)  
Two similar speakers, one floorstanding, one stand-mounted that uses the same 1" Tioxid 5 tweeter as the Electra 926, and the 6.5" bass/midrange driver and "W"-sandwich cone membrane from JMLab's Utopia series. Of the 806, ST said that he heard "an exceptionally wide and deep soundstage, with precise imaging and excellent centerfill," a midrange and treble that were also "exceptional," and a sound that was "delicate and detailed and very, very smooth." He was most impressed by the 806 S's "electrostatic-like speed." Drawbacks included the "inevitable lack of deep bass" and limited loudness. Of the 816 ST commented that he heard "the same set of virtues that I'd noted with the 806 S...along with some welcome bass extension. But I didn't hear quite the holographic image that I got from the stand-mounted monitors...For nearfield listening in a smaller room, I'd give first consideration to the 806 S. For listening in a larger room, and farther away from the speakers, I might give the nod to the 816 S." Both are "clean, clear, quick. The way I like it and the way to go," he sums up. (Vol.26 No.9)

Morel Octwin 5.2: \$4400/pair (stands necessary)  
(See JA's review in this issue.)

Rethm The Third Rethm: \$4180/pair

The 3'-tall Third Rethm employs a 9'-long hyperbolic horn and a 6" Lowther driver, the DX55, both of which endow the speaker with great efficiency while requiring little from an amplifier in terms of current or damping. While Lowther drivers are often guilty of an "upper-mid/lower-high peakiness," AD found that "The Third Rethm was mostly, though not completely, free from that bite I associate with the Lowthers I otherwise love. . . . Even placed close to the rear wall, the Third Rethms sounded spacious, with uncannily stable and precise imaging for a Lowther, and a fine sense of depth. . . . And then there's that Lowther presence, immediacy, and — yes — tunefulness, all of which the Third Rethm had in spades." While being "supremely efficient," they "remained sufficiently bass-challenged." Bass response disappears below 80Hz. Some people will find it breathtakingly dynamic, one of the best "affordable" speakers for the SET set; others will say it's bass-shy and aggressive. Both are right in their way. To the former camp AD would recommend it as low Class B (limited LF, of course), but to the latter he'd represent it as low Class C or even Class D. (Vol.26 No.5)

Totem Model 1 Signature: \$1995/pair ☆ (stands necessary)  
An improved parts package marks the difference between the Model 1 and the Signature version. LG writes of "astonishing LF response for such a small speaker, with improved reproduction of vocal music, dynamics, soundstaging, and bass response [compared to] the original." It also, he says, "plays louder and overloads more gracefully than the manufacturer's larger, more expensive Tabù loudspeaker." He admired the Model 1's (\$1595/pair) "smooth, sweet highs, strong dynamics, palpable three-dimensional imaging, and strong bass response." Although he cited an on-axis upper-midrange prominence, he also liked their "tight, solid, rhythmic bass and palpable imaging." The 2003 version of the Model 1 adds improved encapsulated silver wiring and larger, polypropylene-bypassed capacitors. LG: "The wiring and capacitor upgrades have improved the speaker's overload characteristics, its midrange reproduction of vocal music has become more involving, and the soundstage now extends from wall to wall of my listening room." The treble remained rolled-off and sweet, while the deepest bass notes lacked some mass. (Vol.16 No.4, Model 1; Vol.21 No.1, Vol.26 No.4, Signature Model 1 WWW)

Triangle Titus: \$495/pair \$\$\$ ☆ (stands necessary)  
This stand-mounted minimonitor has the same basic "house" sound as Triangle's Antal and now-discontinued Zephyr, and hit our ST "comme un coup de foudre — like a clap of thunder. No \$500/pair speaker should resolve like this." The Titus had definition, delicacy, and detail — ST has heard more expensive speakers sound more constipated! Could use a sub, he cautions, but offers "nearfield magic" in "soundstage city." Minimalist crossover makes it tube- and even SET-friendly. Next to the full-range Antal and Celius, this is ST's favorite Triangle. Add \$295 for stylish Boomerang stands. (Vol.23 No.8, Vol.24 No.5)

## C — Full-Range

Audes Jazz: \$1999/pair

With this two-way, reflex-loaded "handed" floorstander from Estonia, KR was forced to disregard common practice and the manufacturer's recommendations when positioning the Jazzes. He switched left for right so that the tweeters were outboard, in order to get the speakers to create a solid image. The results: "The overall sound was balanced, fairly smooth, and decidedly not 'hi-fi.' The bass was full but not truly powerful or extended. . . . Treble detail was adequate without noticeable

brightness, but from time to time a piano note or similar sound would jump out, suggesting some irregularity in the overall response. . . . Spatial presentation. . . . was quite good in the longitudinal axis, with decent depth and fill between the now-reversed speakers. Laterally, the soundstage was adequate, but barely extended beyond the speakers." "One of the most enjoyable and non-challenging speakers around," KR adds. (Vol.26 No.6 WWW)

Meadowlark HotRod Shearwater: \$3195/pair

With their first-order crossovers, don't sit too close to the Shearwaters, warned CS. However, sitting back 7–9' created a sweet spot that blossomed and bloomed: "Soundstaging snapped into focus with commensurate levels of depth, lateral coherence, and inner illumination that were realistic, involving, and utterly magical." CS was "captivated by the quality and quantity of the Shearwater's bass: extraordinarily taut and snappy, yet richly detailed and warmly focused," and noted, "the Shearwater's low-end performance was neither lean nor lacking, but a tad laid-back." While "rhythm and pacing were exceptional," the Shearwaters "lacked some of the requisite pop needed to satisfy hard-core rockers." While Chip "rarely found the Shearwater wanting in its presentation of raw rock or R&B recordings," he did warn that "it might be too mannerly and refined for some tastes." (Vol.25 No.9 WWW)

Mirage OM7: \$2200/pair

LB found that the soundstage created by the floorstanding, reflex-loaded, Omnipolar OM-7s was solid: "The soundstage didn't change much with changes in my position in the listening seat — or even as I moved around the room." He was most impressed by the depth and power of the OM-7's bass: "True, concussive, feel-it-in-your-chest whumps were not unusual." His recommendation: "If you've got a room that can handle deep bass and isn't too lively, and you like a more natural, relaxed take on the stereophonic imaging thing, then the OM-7 is definitely worth a listen." (Vol.24 No.11)

RBH 641-SE: \$1499/pair

Initially, JA was bothered by this slim floorstander's low frequencies. Midbass was sufficient, and extension was apparent down to the 40Hz 1/3-octave band, but the bass never seemed fully connected with the upper frequencies." Inverting the woofers' electrical polarity improved this situation, providing better upper-bass definition. Top octaves were "perhaps a little too sweet," with "extremely detailed" treble, while "the bass region was a little shelved-down." JA was very impressed, however, by the 641-SE's imaging: "The soundstage . . . was consistently wide and deep, with no feeling that sounds were localized at the loudspeaker positions." Price is for black finish; add \$300/pair for wood veneer. (Vol.25 No.10 WWW)

Rega Jura: \$850/pair

Small for a floorstander at just over 32" high, reported ST, "But don't let its size fool you: this speaker is capable of putting out some adult bass — well below 40Hz in my listening room. . . . As is usually the case with Rega, simplicity is the Jura's thing." A wide variance in impedance may make for a bad match with single-ended triode amps. The sound, said ST, featured a "smooth but slightly recessed midrange and very generous bass. . . . The treble was nicely extended, in a soft-dome sort of way." The midrange was excellent, he said, with "natural warmth and an appealing sweetness of tone on up into the treble. Easy on the ear." "A fair measure of dynamic grip and tension," adds PM, "though the bass is a little too full, and the treble a tad strong." (Vol.24 No.4)

Thiel CS1.6: \$1990–\$2390/pair, depending on finish  
JA had to work hard to get these speakers to sound their best in his listening room, balancing low-frequency weight against residual hardness in the low treble. With the speakers optimally set up, JA found that “the overall sound was still a little bright.” This was complicated by the CS1.6’s long break-in time: “At the end of a month of everyday listening, I was still not sure that they’d reached equilibrium.” Nevertheless, the Thiels shone as highly sensitive speakers with “astonishing resolution, matched by equally superb stereo imaging.” JA determined the CS1.6s to be best suited for LP playback in rooms of small to medium size. He also ended up regarding their optional outrigger supports (\$200) as mandatory to place the listener’s ears on the optimal axis. (Vol.25 No.9 WWW)

## C — Restricted LF

Joseph Audio RM7si Signature Mk.2: \$1799–\$1999/pair, depending on finish ☆ (stands necessary)  
JA decided that the original ‘7si was a mellow-balanced (but naturally detailed) minimonitor that represents good value. Of the Signature version, the word that popped up most often in JA’s notes during auditioning was “sweet.” He also noted that the RM7si’s “rich, big-hearted balance” and “smooth treble . . . laid bare all manner of recorded detail without spotlighting.” Excellent dynamics and imaging, if a bit plump down below — but not “one-notey,” our Ed. noted. CS found the Mk.2 to be “bigger, fuller, clearer, and more open” than the original RM7si Signature. “There was more tangible weight and impact, greater transient speed and dynamics, with enhanced midrange presence, detail and focus. Better yet, the top end seemed more fleshed-out and extended, which contributed to better soundstaging depth and height.” Stereophile’s “2002 Joint Loudspeaker of the Year.” (Vol.23 No.8; Vol.25 No.10 WWW)

Kirksaeter Silverline 60: \$698/pair (stands necessary)  
While this German speaker had a definite lack of low bass and a top end that wasn’t overly extended,” BD found that “Between the frequency extremes, the Silverline 60 had a vibrant, natural sound that seemed a touch forward but free from gross colorations.” The soundstage wasn’t deep, but was “coherent” and “seamless,” and “stretched smoothly across the plane of the speakers and extended a few feet outside of each one.” Similarly, while image dimensionality was only “okay,” presentation of detail was “captivating” and “realistic.” “A wonderful little speaker,” BD concluded, “and a solid value at \$698/pair.” (Vol.26 No.1 WWW)

Monitor Audio Silver S2: \$749/pair (stands necessary)  
This small reflex-loaded, magnetically shielded two-way marries a 1" dome tweeter to a 7" cone woofer, both of C-CAM aluminum-magnesium alloy. The S2’s most obvious characteristic was its mellow treble, accompanied by a respectably low level of coloration and a clean upper midrange. The lower midrange, however, lacked clarity, and the upper bass was a bit exaggerated. Its stable, well-defined stereo imaging and dynamics were strong suits. JA: “While the speaker does have an identifiable character, being balanced on the warm, mellow side, this is probably a good thing, given inexpensive electronics’ tendency to have glary trebles. While I had some criticisms — that hooty cabinet bothered me perhaps the most — the Silver S2 never gave less than enjoyable results, and is very well-finished considering its affordable price.” (Vol.26 No.8 WWW)

Paradigm Reference Studio/20:\$650–\$900/pair, depending on finish (stands necessary) \$\$\$ ☆  
“From the upper bass to the upper midrange, the harmonic structures of sounds, their timbres, were as natural as I’d heard

from any speaker,” BJR said. “The reproduction of vocals, woodwinds, and brass instruments on well-engineered acoustic recordings was spooky in its realism.” Minor quibbles: “HF range was slightly highlighted, giving the sound a rather crisp presentation,” and, while the bass was “extended, natural, quick, dynamic, tuneful,” it had “a slight roundness or warmth in the 60–80Hz range.” Still, “by a wide margin, the finest speaker under \$1000/pair I’ve ever heard.” KR is also a fan: “The Studio/20 v2 is a benchmark loudspeaker: I’ve not heard anything smaller and/or cheaper that is such a superb music-maker.” Matching Premier stands cost \$179/pair. (Vol.21 No.2, Vol.24 No.2, Vol.25 No.5 WWW)

Spendor S3/5se: \$1249–\$1449/pair, depending on finish (stands necessary)

This small two-way, sealed-box loudspeaker is intended to be used with stands 24–31" high (not included). Upgrades to the original S3/5 include a pricier 3/4" ScanSpeak tweeter and a lower (3.5kHz) crossover frequency. AD was most impressed by the S3/5se’s ability to sound bigger than it was: “Obviously, the fundamentals were not there, but through a striking combination of second harmonics and realistic ambience or pressure...the Spendor got across the idea of deep bass if not the thing itself.” He noted “tight and crazy-deep” bass that was “nothing short of startling.” Compared to the original S3/5, the ‘se “sounded more refined in almost every musically important way.” However, AD could not get it to vividly re-create voices: “The Spendor’s failure to do so remained its most notable shortcoming, certainly more so than dynamic compression, lack of bass, or anything else so obvious.” Price depends on finish. (Vol.26 No.7)

Triangle Zerius 202: \$1095/pair

“The Zerius worked the customary Triangle magic: very good low-level resolution and a very tight, fast, controlled sound overall.” Compared to the more expensive Celius, however, ST found the three-way Zerius lacking refinement in the upper midrange and treble. Nor did it handle power quite as well. Nonetheless, the low-level resolution was about as good as ST has heard for under \$1500, and imaging and soundstaging were excellent. He recommends tube amplification for best results. (Vol.25 No.3)

Westlake Audio Lc5.75F: \$1999/pair (stands necessary)  
This two-way, stand-mounted, reflex-loaded speaker had MF pleasantly surprised by its sound. He found it “relaxing and easy on the ears” and to “combine a pleasing, open frequency balance, fine low-level resolution, an authoritative and coherent rhythmic presentation, and superb imaging and soundstaging...The key to its success was a balance of strengths unmarred by such serious deficiencies as consistently audible frequency blemishes, doubling or other gross forms of distortion at high SPLs, or dynamic compression.” JA agreed: “As MF found, the Lc5.75F may appear to have some measured blemishes, but these have been arranged not to interfere with the manner in which the speaker reproduces music.” MF: “As long as you don’t press the Lc5.75Fs beyond reasonable limits, you’ll be amazed by what these well-engineered little speakers can do — so long as you provide them with a clean environment and appropriate associated equipment, including the right stands.” (Vol.24 No.11 WWW)

## D

Athena Technologies AS-F2: \$599/pair

BJR was taken by the sound of the AS-F2 right out of the box: “The AS-F2 presented an open, detailed, coherent, and neutral sound that reminded me of much more expensive floorstanding speakers.” Though high frequencies were “a bit forward” and



"in-your-face," the AS-F2 was marked by a "detailed and natural midrange," with "forceful, dynamic midbass." BJR was especially impressed by the AS-F2's low-bass extension and definition. His only real complaint was that the speakers outperformed their price range, needing "to be mated with electronics of higher quality and price than one would normally associate with a \$599/pair speaker." (Vol.25 No.8 WWW)

JBL Studio S38 II: \$599/pair (stands necessary)

From the start, it was clear to BJR that the three-way, ported S38 was a far cry from JBLs of yore. "Vocals and piano highlighted the speaker's superb reproduction of lower and middle midrange timbres, which were as natural and as transparent as those of any speaker I've heard for under \$1000/pair." However, the JBL exhibited an emphasis in the upper midrange and lower high frequencies that manifested itself differently, he found, depending on the instrument involved. "All percussion sounded natural, but on well-recorded jazz discs... ride cymbals sounded more closely miked than they actually were." The speaker's emphasis in the upper midrange and lower highs may not be to everyone's taste, says BJR, but he was less equivocal about the lows: "The S38's bass performance was mighty impressive. In my large listening room, I was able to achieve tight, clean bass extension down to 35Hz, although I noted slight emphases at around 50Hz and 100Hz... There were two areas in which the S38 performed better than any speaker under \$2000/pair I've ever heard: First was its ability to play at extremely loud volumes without coloration or strain... Second, the S38 had the widest dynamic contrasts of any budget speaker I've heard." (Vol.24 No.6, SGHT.7 No.2 WWW)

NHT SB-3: \$600/pair (stands necessary)

BJR: "I had never been as impressed with a bookshelf speaker as I was with the NHT SB-3. It has an appealing tonal balance, does very little wrong, and, at its price point, sets a new standard for bookshelf designs in the areas of detail resolution, bass extension, and dynamic articulation." Last Stand speaker stands add \$200/pair. (Vol.25 No.11 WWW)

Polk LSi7: \$820/pair (stands necessary)

Ported, magnetically shielded, two-way miniature using a 1" ring-radiator tweeter. BJR noted four areas in which the LSi7's performance excelled: "1) Continuous and extended dynamic range on all types of music, from the softest passages to the loudest bombast... 2) Extraordinary retrieval of detail and ambience. 3) Pinpoint image specificity on a wide, deep soundstage. 4) Detailed, extended, airy, and natural high-frequency resolution." However, two areas of the speaker's timbral personality (a thick mid-upper bass and a forward quality in the upper midrange on certain instruments) will require careful equipment and musical source matching. (Vol.26 No.3 WWW)

PSB Alpha B: \$249/pair \$\$\$ (stands necessary)

With this, the third and latest version of the Alpha, a long-recommended two-way bass-reflex bookshelf speaker, Paul Barton has trickled down some of the design and manufacturing innovations of his more expensive Image Series. BJR was thrilled: "The PSB is a classic example of the benefits of trickle-down technology in a serious high-end speaker design." He found that the Alpha B "excelled with vocals," presented "excellent articulation of subtle transients and microdynamic inflections," and showcased superb detail resolution and low-level dynamic resolution. One caveat: "The PSB's only real shortcoming was its limitations in high-level dynamics on passages that had considerably complex, highly modulated content, significant bass energy, or both." Nonetheless, BJR was pleasantly shocked: "Even now, considering again the quality of construction and sound of these remarkable little boxes and checking the price yet again, I'm still shaking my head." (Vol.25 No.5 WWW)

PSB Image 4T: \$649/pair \$\$\$

Video-shielded, front-port floorstander with metal-cone/dome drive-units. A lot of technology for the price, declared BJR, who found a smooth, natural tonal balance that sounded superb with vocals: lots of body and no colorations. A transparent midrange revealed inner transient detail, and Bob says the Image loved woodwinds. "Its bass performance was uncanny, with a bottom-end extension I didn't think possible from a speaker of this size and price." The upper treble could get a tad ragged on some higher-frequency passages, but dynamics were a strong suit. "Kicked major butt," as BJR put it. The speakers didn't call attention to themselves, the PSBs disappearing into the wide, deep soundstage. They also did little wrong, offering a coherent and neutral sonic presentation, concluded BJR. Borderline Class C. (Vol.24 No.2 WWW)

## E

Acoustic Energy AEGO2: \$399

MF shook his head in wonder at this neat'n'petite, simply extraordinary-sounding powered sub and satellite speaker system, which you can hook up directly to your CD player. "Every so often a product shows up that surprises the hell out of me... What poured forth was what I would have to call high-end audio. It wasn't perfect, but it was way superior to any other small sat-sub system I'd heard — particularly in terms of low coloration, but in every other sonic department as well." He found "an absolutely stunning, detailed, and believable midband," and a surprisingly large soundstage that was "free from the constraints of the tiny boxes." J-10, too, is mightily impressed. "Hey, where're you hidin' the real speakers?" he only half-jokes, looking for the man behind the curtain. (Vol.24 No.3)

Mission m71: \$250/pair \$\$\$ (stands necessary)

Two-way reflex-loaded miniature loudspeaker that replaces the Mission 731i but at a lower price, and, in BJR's opinion, with greater performance. BJR enthused, "The m71 exhibited levels of detail resolution, transparency, and low-level dynamic articulation in the timbrally natural midrange beyond anything I've heard thus far from any speaker costing less than \$1000/pair... The m71's bass definition, extension, and dynamic bloom exceeded the performance of any other bookshelf speaker I've tested." But "Be careful to pair it with high-quality electronics; otherwise, its midrange resolution and bass reproduction will not be fully realized." PM agrees that the m71 is impressively free from "boxiness," but its weakness, in his view, are its lacks of dynamic "grip" and drive, which keep it from Class D. Mission Stance stands cost \$200/pair. (Vol.25 No.2 WWW)

Paradigm Atom v.3: \$189/pair (stands necessary)

Though he was a bit put off by its very low price and very small size, BJR was quickly set at ease by the Atom v.3's sound: "The entire midbass region, although a touch warm and rounded, was well-defined and uncolored. . . . The Atom's convincing reproduction extended into the midbass region with no loss of definition, weight, or impact." A second strength was "a level of transient articulation, clarity, and naturalness in the upper midrange and lower highs that reproduced percussion with startling realism." However, BJR confessed, "Although the lower high frequencies were impressive, the extreme top end seemed a bit rolled off." He also became aware of "a thick chestiness" in a narrow region of the lower midrange. Nevertheless, "Congratulations to Paradigm for setting a new benchmark for true audiophile performance that anyone can afford." Magnetic shielding adds \$20/pair. (Vol.25 No.9 WWW)



## K

Gershman Opera Sauvage, Aerial 20T, Piega C8, Epos Epic, PSB Platinum T8, Alón Li'l Rascal Mk.II, Legacy Focus 20/20.

### Deletions

*Athena Technologies S2 and S3/P3, Dynaudio Evidence Master, Infinity Prelude MTS, Monsoon FPF 1000, Naim NBL, Revel Performa F30, Thiel PCS, Triangle Antal, all not auditioned in a long time; B&W CDM1 NT and CDM9 NT, JMLab Chorus 706, all no longer available.*

## Subwoofers

## B

Paradigm Reference Servo-15: \$1500–\$1750, depending on finish ☆

This compact, self-powered, servo-corrected subwoofer has multiple control settings, and so offers numerous setup options. LG says it is well-engineered and “gives no sign of the distortion, overload, or bloat that is heard with so many subwoofer units.” He also says, “Combined with dynamic loudspeakers or dynamic satellite speakers, it delivers borderline Class A sonics; Class B with electrostatics.” KR is currently using the Paradigm with great success in his multichannel system. Price is for black ash laminate; light cherry or rosewood adds \$250. (Vol.22 No.8)

*Editor's Note: There are currently no Class A, C, or D subwoofers listed.*

## K

Intelligent Audio 1A-643 Subwoofer System, James.

### Deletions

*Velodyne HGS-18 in favor of new model, review underway, PSB Alpha Subsonic 5, not auditioned in a long time.*

## Headphones & Headphone Accessories

## A

Cary Audio Design CAD 300-SEI: \$3995 ☆  
The ultimate (tube) headphone amplifier. See “Power Amplifiers.” (Vol.18 No.9, Vol.23 No.12 WWW)

Grace Design Model 901: \$1495

For JM, this headphone amp was “one of the most ‘gotta have it’ pieces of gear I’ve played with in a dog’s age.” Unusual in that it accepts digital inputs from 32kHz to 96kHz. JM: “The Grace 901 performed flawlessly. ...[Its] essential sonic character was refreshingly rich and full-bodied, without being sludgy or lacking detail.” While designed as a quality-control tool for mixing and mastering recordings, the 901 “lacks the frequency, temporal, or cross-feed processing functions that other headphone amps offer as means of trying to make the headphone listening experience more like listening to speakers in a room.” JA’s measurements indicated that 24-bit data “doesn’t lower the noise floor by as much as the very best D/As around... But the 901 is a) a headphone amplifier, and b) its price is a small fraction of those cost-no-object behemoths.” (Vol.26 Nos.3 & 8 WWW)

HeadRoom BlockHead: \$3333

Using Sennheiser HD-600s with custom balanced cables, J-10 found intimacy: “My involvement was total... Through the BlockHead, there was an absolute intimate sound delivered via a warm but acutely dynamic, speedy, and hugely transparent delivery that rocked my world. . . . The sound was dynamic, with terrific timing, great bass, a fabulous, rich, textured midrange, and extended, sweet highs. The acoustic bass was smashing, powerful, and deep, seeming to define the musical space in a way that few components can... The HeadRoom BlockHead reached, for me, total and absolute headphone reference quality.” JA agrees, and bought a BlockHead to monitor his recordings. (Vol.25 No.7 WWW)

HeadRoom Max: \$1599 ☆

Designed to take advantage of new surface-mount parts, the Max is the finest headphone amp yet from HeadRoom, says WP. While he found it fast, transparent, articulate, and unusually capable of exploiting the frequency extremes, he praised above all its “coherent articulation of the essence of music... With this amplifier and a state-of-the-art headphone such as the Sennheiser HD 600, dynamic headphone technology has come of age” and “Electrostats no longer outperform their competition.” Same circuit, employing a different volume control, is available in more utilitarian chassis as the Maxed-Out Home HeadRoom for \$999. Spring 2002 auditioning by JA continues the recommendation. (Vol.20 Nos.2 & 12, Vol.21 No.2 WWW)

Sennheiser HD 600: \$449.95 ☆

WP, KR, and ST are unanimous in calling these the best dynamic headphones they’ve ever heard. “The only ones with which I have ever been physically or sonically comfortable,” says KR. “Sennheiser has kept all of the qualities that made the HD 580 among the best of its breed, and in several areas has even managed to better it impressively,” according to WP. Says ST, “The magic of the HD 600s is their midrange — a purity of tone, especially when driven by tubes, that is quite special.” Astonishingly transparent when driven in balanced mode by a HeadRoom BlockHead, found J-10 in July 2002. (Vol.21 No.2 WWW)

Stax Omega 007 System II: \$6265

Stax Omega 717 System II: \$6140

The \$4030 SR-007 Omega II Earspeaker electrostatic headphones can be powered with either of two “energizers”: the newer, solid-state SRM-717 (\$2875) or the similar-looking tubed SRM-007t (\$2945). The 007t was “a bit more immediately colorful, with softer and rounder bass and not as extended a top or bottom — but was sweeter and more engaging. The solid-state 717 also displayed a full tonal palette: its bass was tighter, its highs more extended and, yes, less sweet. But it was quite good in the midband, which was something of a welcome surprise. J-10 summed up: “The Omega II headphone system is an outstanding choice for those who want clean, clear, fast, revealing sound. If I have to go through life with only one of the Stax amps, give me the tubed SRM-007t.” Soften the sound slightly by going for the tubes, or keep the greater extension and lovely midrange of the solid-state SRM-717. (Vol.18 No.3, original Omega; Vol.24 No.7, System II WWW)

## B

Grado SR125: \$150 \$\$\$

BJR: “The SR125 is a neutral, detailed, and warm-sounding headphone . . . with extended frequency extremes, wide dynamic range, and the ability to sound natural at a wide range of volume levels.” It was in their use as playback monitors that BJR found how truly special they could be: “Not for one instant were they aurally or physically fatiguing. They were simultaneously musical

and revealing of every nuance I recorded, but were amazingly comfortable on my head — more so than any headphone I've ever used." In BJR's opinion, the highest bang for the buck in the Grado line. (Vol.25 No.6)

**HeadRoom Supreme: \$449 \$\$\$ ☆**

Small, beautifully made, battery-powered solid-state amplifier based on a proprietary surface-mount module and featuring switchable intrachannel cross-feeding and time delay to render headphone listening to stereo programs less artificial-sounding. The effect of this is surprisingly subtle in A/B comparisons, but proves much less fatiguing in long-term listening sessions. Includes a treble-boost switch. Drives dynamic headphones to high levels with authority and excellent clarity, without this being associated with any brightness. JA bought a Supreme to drive his Sennheiser HD 580s, with which it makes a very musical-sounding combination. His subsequent auditioning of the \$549 Cosmic version suggests that it is, indeed, cosmic. (Vol.17 Nos.1 & 2, Vol.19 No.7, Vol.21 No.2 WWW; see also WP's review of the \$129 HeadRoom Traveler Bag in Vol.18 No.10 WWW.)

**Sennheiser HD 580: \$259.95 \$\$\$ ☆**

Ultra-smooth, ultra-detailed, open-back dynamic headphones with full, extended low frequencies. Alvin Gold found the HD 580s to be "too civilized," and WP says that some audiophiles miss the grain and other "hi-fi" signifiers that the Sennheisers simply don't exhibit. Comfortable. JA's dynamic headphone reference till he heard the Sennheiser '600. (Vol.17 No.12. See also "Industry Update," Vol.17 No.1, p.41; TJN's headphone review in Vol.17 No.2, p.114; and SS's review of the Sennheiser IS 850 headphones in Vol.18 No.10.)

**C**

**Grado SR60: \$69 \$\$\$ ☆**

The SR60 offers a rather dark-toned balance, with a full bass and excellent resolution of detail. A more forward midrange, however. Uncomfortable. (Vol.17 Nos.6 & 10 WWW)

**D**

*Editor's Note: There are currently no Class D headphones listed.*

**K**

Sony MDR-7506 headphones, Musical Fidelity X-CanV3 headphone amplifier, Shure E5c.

#### *Deletions*

Musical Fidelity X-CanV2 headphone amplifier replaced by new model.

## Complete Audio Systems

**A**

Linn Knekt Kivor hard-disk multizone music system: custom pricing dependent on configuration  
The Kivor comprises the Tunboks hard-disk server and the Oktal multichannel DAC. Like the Tunboks, the Oktal can be used in standalone fashion in a single system or in conjunction with the Linn Knekt Tunboks and Intersekt control center in a complete Linn Knekt multizone system. A slightly lightweight balance but a freedom from treble grain and a soundstage that was wide and deep, JA found. However, there were a couple of inconveniences: "The only way I could get the Oktal to recognize an S/PDIF input was to unplug the RJ-45 jack. ...I couldn't get it to lock on

to a datastream with a 96kHz sample rate." The Tunboks can store an astounding 57 days, 7 hours of uncompressed CD-quality music. "In theory," noted JA, "it should be possible to port those files from my PC to the Tunboks via its USB or Ethernet jacks. In practice — at least for now — the only way I could get those files into the Tunboks was to burn them as uncompressed WAV files on to CD-Rs, then rip them with the Tunboks, subjecting them to a second round of MP3 encoding . . . and potentially further degrading the sound quality." Nevertheless, as part of the Knekt system, he found that the Tunboks offered both "access and quality." (Vol.24 No.12 WWW)

## Signal Processors

**A**

**Rives Audio PARC analog equalizer: \$2800**

Of this two-channel, three-band parametric equalizer with Parametric Adaptive Room Compensation (PARC), KR said, "the PARC was completely transparent in both the critical midrange and the revealing treble range," while in the lower midrange and bass, "the PARC was changing the sound, as intended." Deep male voices were "always firmer, better defined harmonically and spatially, and easier to distinguish musically." Large and complex passages of music were also improved: "I realized that, although there was no sapping of energy, there was a greatly enhanced facility to hear more of what was going on within the orchestra. PRaT (Pace, Rhythm, and Timing) fans will appreciate what PARC does to delineate the pulse and meter of the music." (Vol.26 No.7 WWW)

**TacT Audio RCS 2.0 digital equalizer/preamplifier: \$4248**  
See "Room Acoustics Treatments." (Vol.24 No.9 WWW)

**Z-Systems rdp-1 reference: \$5000 ☆**

A digital preamp, but, as KR points out, "a flexible and friendly parametric equalizer" as well. "The best way to correct tonal imbalance in speakers and source material. The tone control for the digital age." However, he cautioned, it is not a universal Band-Aid. "While the rdp-1 can modify the amplitude response of [a] speaker, it cannot correct phase interactions between drivers, nor can it change the radiation pattern of [a] speaker." But used judiciously, "it is a valuable tool." After making it his 1998 "Editor's Choice," JA bought one of the review samples and uses it to apply judicious EQ when he masters Stereophile recordings. (Vol.21 No.7 WWW)

## Miscellaneous Accessories

**Audio Research Tube Damping Rings: \$3.95 each ☆**

Damping rings for all AR products are now available to the public at large. They're made of a proprietary polymer material that converts kinetic energy to heat, and their improvements are not subtle, exclaims BJR: tighter, cleaner, deeper, more dynamic bass; more coherent transient attacks; crisper, more extended highs; plus "improvements in the reproduction of subtle gradations of low-level dynamics." Give 'em a whirl — the cost is minimal. (Vol.23 No.2, Vol.26 No.8)

**Audiodharma Cable Cooker v.2.5: \$649**

Breaks in virtually every kind of cable there is in order to "enrich and warm up" its sound. MF found the Cable Cooker to alleviate new cables' "objectionable constriction and brittleness." He said,

"I don't know how many audiophiles would be willing to drop \$649 on a cable break-in device, but any audiophile club ought to consider it. For a reviewer, the Cable Cooker is essential." (Vol.24 No.12)

**AudioPrism Noise Sniffer RFI/EMI detector: \$199.95 ☆**  
An "electronic detective in the campaign to eliminate noise," said Chief Willis. "Simply plug it in and turn up the volume — its small built-in loudspeaker will reveal where your problem outlets are." Then you can turn to AudioPrism's QuietLine Parallel AC line filter for a cure. "A must-own product, period," says BD. "10-4," adds J-10. (Vol.21 No.12)

**AudioQuest binding-post wrench: \$10.00 ☆**  
A great idea improved — similar to the original Postman, but with a metal sleeve reinforcing the sockets. (Vol.20 No.9)

**Caig ProGold Wipes: \$10.99/50ct**  
For cleaning electrical connections, available from [www.markertek.com](http://www.markertek.com). JM: "A small but powerful stocking-stuffer. ...You'll feel like a pro!" (Vol.25 No.12 WWW)

**Digital Recordings Audio-CD Hearing Test: \$24.95 ☆**  
This system permits useful evaluation of hearing thresholds with only a CD player and a pair of headphones. KR reported that it reveals any significant gaps in your hearing. (His own results were "close to ideal, especially considering my age and usual haunts." Whew.) "Ever wonder why others don't hear what you do? This simple test will tell you, even though you may not like the answer." Such a card. (Vol.23 No.1)

**Mondial MAGIC video ground isolator: \$99 ☆**  
Provides effective antenna and cable-feed isolation for those whose video systems have hum problems. A splitter version is available for \$149. (Vol.15 No.2, Vol.24 No.6)

**Shakti electromagnetic stabilizer: \$230 ☆**  
Passive component containing passive circuits intended to absorb and dissipate the EMF generated by active audio gear. J-10 and WP found them effective to varying degrees, depending on the components they were used with. J-10 discovered that "focus, transparency, clarity, and speed were better, as was the sense of pace." RD found that the Sonic Frontiers SFD-2 Mk.II sounded better — less upper-midrange grain — with the Shakti placed on the chassis above the transformer. WP uses them on his power amps, but cautions that using too many in a system will close it down and make it sound dull. (Vol.19 Nos.2 & 4; see also "Industry Update" in Vol.21 No.4)

**Sound Alignment Systems by Checkpoint — P770 laser alignment tool: \$210 ☆**  
"The ideal device for positioning speakers," RD said energetically, agreeing with LB that it should be "in the tool chest of every audiophile who wants to get the best sound from loudspeakers." It's easy to use — just turn it on, hold it against the speaker's front panel, then adjust the speaker's position until the "appropriate toe-in and vertical orientation are obtained" — and is much more effective than "eyeballing the speaker from the listening position." (Vol.21 Nos.1 & 11, Vol.24 No.8)

**Stabilant 22 contact enhancer: \$28.95/5ml bottle**  
Used to increase the reliability of contacts, available from [www.posthorn.com](http://www.posthorn.com). JM: "An initially nonconductive complex block polymer liquid that, under the influence of electricity, becomes conductive. Furthermore, it does not cross-link to form sludge. Pretty nifty!" (Vol.25 No.12 WWW)

**Thor Audio The Phono-Burn: \$350 ☆**  
An MF fave. "Burns in phono stage and entire systems for those who can't wait, and especially for reviewers of analog gear." Just plug it into a CD player and your phono section, set the player

on Repeat for either the MM or MC CD track, and let it cycle for a day or so. If the phono section is connected to your system, it can also "burn in" your entire system, MF pointed out. "No audiophile club should be without one." (Vol.21 No.10)

**WBT 0101 RCA plugs: \$93.80/4 or \$22.40 each ☆**  
The best, although the original steel locking collet, now replaced by brass, gave rise to neurosis. WBT 0144 RCA plugs cost \$80/4. Distributed in the US by Kimber Kable. Both now include a complete set of strain-relief ferrules and a length of WBT 4% silver solder, hence the price change. (NR, but see "Industry Update," Vol.12 No.9.)

## K

Jensen Isolation in-line transformers.

## Power-Line Accessories

**Acoustic Zen Gargantua II AC cable: \$1488, 6ft**  
PB: "Optimized for low resistance and loop inductance,[this is] a big, stiff mutha that is a complete pig to muscle into place. ...The Gargantas let the Lamm M2.1 and Halcro dm58 power amplifiers show exceptional dynamic response against a background of utter, grainless quiet while allowing the distinctive sonic character of each amp to speak clearly...The Gargantua is not cheap, but its performance put it into the company of the best power cords on the market." Longer lengths cost \$160/ft extra; less \$80/ft for shorter cable. (Vol.26 No.1 WWW)

**Audience powerChord: \$379/6ft.**  
"The wonderfully flexible powerChord, too, was a winner, significantly cleaning up the sound by lowering the noise floor, opening up the space between instruments, and significantly improving the system's resolution of low-level and inner detail." Though BD's reference, Synergistic Research's AC Master Coupler, offered better senses of space and ambience, the Audience was very nearly as good and much easier to use. (Vol.25 No.8)

**Audio Power Industries Power Wedge Ultra 116 power conditioner: \$1589 ☆**  
WP described this balanced AC line conditioner as a "well-built, intelligently thought-out solution to the problems of power-line-borne noise and the vagaries of ground-loop hum." Though he cautioned that you shouldn't look for any line filter to compensate for a lagging component, if your system is refined enough, the 116 "can take it to an even greater resolution." In this context, it got his emphatic recommendation. (Vol.22 No.4)

**AudioPrism LF-1 Mk.II Quietline Parallel AC line filter: \$224.95/8 ☆**  
An important step in the war against noise. According to BW, these devices look like AC adapters minus the wires, and contain "extremely effective noise-suppression circuitry that works by shunting all the noise to the 'neutral' side of the power line." In his house, all noise "vanished instantly as soon as the QuietLine was plugged in." For best results, use the LF-1 on the same circuit as the offending device. (Vol.21 No.12)

**Electra Glide Fatboy AC cable: \$2000**  
"That a 6' length of cord from wall socket to component should make such a big difference don't make no sense!" mused MF. "Don't ask me why AC cords should make any kind of significant sonic differences. But they do!" While reviewing the Chord integrated amp, MF noted "the expensive and very stiff Fatboy

proved best overall in showcasing the Chord's astonishing speed and delivery of detail and transients... Bottom line: With a rich-sounding tube amp, I'll bet the Fatboy would sing. ...If you're addicted to speed and detail and can drop two grand, you'll appreciate its performance." Of the less expensive Electra Glide Reference Glide AC cord (\$1100), MF said it "increased blackness, focus, bass solidity, detail, and dynamics." (Vol.21 No.11, Reference: Vol.24 No.7, Fatboy)

Equi=Tech 2Q: \$2689

Equi=Tech Q650: \$1279

Two high-resolution bifilar-wound isolation transformers with magnetic and Faraday shielding. The Q650 is designed to be used with low-current-draw front-end components. CS: "Everything sounded smoother and quieter, with blacker backgrounds — which set off tonal colors in bold relief. Images were more centered and resolved. The bass was tighter and more tuneful, more forward and detailed, with greater authority and scale — which contributed to a realistic sense of rhythm and pace." The high-current-capacity 2Q features 20A/120V input with a Hubbell plug inlet, ground-fault protection, re-set circuitry, two unswitched outlets, and four analog and four filtered digital AC receptacles. CS: "Low-frequency extension was simply phenomenal, with greater scale, authority, harmonic body, and liquidity. ...My amp sounded as if it had significantly more power, dynamic headroom, and speed." (Vol.26 No.6 WWW)

JPS Labs Aluminata: \$3499

A no-compromise (but stupid-priced, according to JA) power cord that confers dramatic performance enhancements on any high current device (such as power amps), says CS, who found it made his amps sound more dynamic and more efficient, while providing a solid foundation for the deepest, most convincing soundstaging imaginable. A must-audition product for owners of the priciest most demanding muscle amps, summed up Stern. "Dead black quiet, like most JPS cables," sums up KR, pointing out that that's "all for the best in a power cable." (NR, but see CS's VTL review in Vol.25 No.11)

JPS Labs The Digital AC Cable: \$349

Uses "very-high-purity" stranded copper conductors, insulated to a 300V rating and said to contain a special compound that absorbs and dissipates high-frequency energy. AD: "The Digital AC endowed the music with a better sense of flow and a smoother, more 'liquid' presentation... The sound was more open...with an easier, more natural sense of movement from note to note...The performance as a whole also seemed more dramatic and, in some spots, downright louder." He purchased The Digital AC to use with his Sony SACD player. (Vol.26 No.4 WWW)

Kimber PowerKord 10: \$10/ft, plus \$120 for termination ☆ ST uses Kimber Kords throughout his system, and noted tremendous differences with a Jadis Defy-7. But try before you buy, he warns. (NR)

Monster Power AVS 2000 Automatic Voltage Stabilizer: \$1499.95

A computer-controlled Variac transformer that holds the output voltage within 1% of 120V, the AVS 2000 relieves the stress put on component's circuitry. CS preferred the effect the AVS 2000 had on his front-end gear opposed to that which it had on his amplifiers: "Despite impressive improvements in midrange detail and resolution, I found I wasn't getting as much of a sense of the frequency extremes, particularly heft and body in the deep bass, as I did when the amplifiers were plugged directly into the wall current." However, when plugging the AVS 2000

into his front-end components, Chip noted, "There was greater resolution on every level — the overall presentation was clearer and more open, with greater precision and definition, less grunge." (Vol.26 No.6 WWW)

PS Audio P300 Power Plant: \$1245 ☆

Described as a "regenerative AC synthesizer," the Power Plant is a two-channel, class-A/B bipolar balanced design with twin transformers — essentially, an audio power amp with a (variable) single-frequency output and a regulated output voltage. It is intended for use with source components at a maximum load of 200W. RD was much smitten: "The benefits...were such that it took a real effort of will...to take it out of the system." The most striking effect was in the upper midrange and above, which was "stripped of 'electronic' overlay... Recordings old and new sounded fresher, more immediate — more like real music." Other pluses: enhanced resolution, greater depth, better pace'n'rhythm. Raising the AC frequency (50–120Hz available) produced "a startling sonic improvement" that improved the sound of every component RD tried with the P300. Runs hot, he warned, but gets his vote for Stereophile "Product of the Year 2000." JA is equally impressed, finding that the P300 illuminated the slightly gray presentation of the Mark Levinson No.380S (which the No.32 Reference avoids with internal AC regeneration). "I can now live with the '380S for a while longer," he sighed. Ease and liquidity seduced his ear and backgrounds were more black. RD says of the MultiWave update that it "makes such a difference that I consider it a mandatory option well worth the extra \$250." (Vol.22 No.12, Vol.23 Nos.5 & 12 WWW)

PS Audio Ultimate Outlet: \$299

"For those unfortunate souls whose audio systems are still powered by AC as it comes out of the wall socket," wrote RD, "I recommend PS Audio's Standard Ultimate Outlet as the least expensive product that demonstrates the audible benefits of PSA's approach to power-line conditioning." With the Standard UO, transient crispness was heightened, dynamics were increased, the focus of images within the soundstage was improved, and the music, in general, became more involving. Upgrading to the \$399 High Current UO brought greater improvements to dynamics, deepened the soundstage, and increased bass clarity. (Vol.24 No.12 WWW)

Synergistic Research Reference AC Master Coupler X-Series: \$650/5ft, with Mini-Power Coupler

"Brings out the best in whatever components you hook it up with," declares J-10 of the AC Master Coupler X. "Lets the music through more effortlessly." More expensive Master Coupler2 — \$1800 for 5'! — is stiff and unwieldy, but one of the best out there, says J-10. Particularly suited to amplifiers and for other high-current applications. The more expensive Designers' Reference Master Coupler2 (\$2000/5ft.) is a J-10 favorite. (Vol.24 No.11)

Wireworld Silver Electra Series III+ AC cable: \$750

Lush, with lots of midband delicacy, found MF of his current favorite all-around power cord. He noted its similarity of sound to PS Audio's Lab Cable. "I feel foolish writing that an AC cord is 'intoxicating,' " he writes, "but there you go!" (Vol.24 No.7)

## K

PS Audio PowerPort and FIM AC outlets.

## Deletions

PS Audio Lab Cable no longer available.



# Stands, Spikes, Feet, & Racks

## Good Speaker Stands

There are too many possibilities, but, briefly, a good stand has the following characteristics: good rigidity; spikes on which to rest the speaker, or some secure clamping mechanism; the availability of spikes at the base for use on wooden floors; if the stand is steel, provision to keep speaker cables away from the stand to avoid magnetic interaction; and the correct height when combined with your particular speakers (correct height can be anything from what you like best to the manufacturer's design height for best drive-unit integration). Though *Stereophile* hasn't reviewed speaker stands, it's not because we think they're unimportant — for speakers that need stands, every dollar spent on good stands is worth \$5 when it comes to sound quality. Brands we have found to offer excellent performance are Arcici Rigid Riser, Merrill (see Vol.18 No.1, p.39), Sound Anchor, Sanus Systems Steel and Reference, and Linn. (Sound Anchor also makes an excellent turntable stand, reports TJN.) Interface material between the speaker and the stand top plate is critical: Inexpensive Blu-Tack seems to reduce the amplitude of cabinet resonances the most (see Vol.15 No.9, p.162).

Audio Points by Star Sound Technologies:  
\$35.99–\$89.99/set of 3

Highly polished point of solid milled brass, claimed to have been developed along the theories of Coulomb Friction, transfer resonant energy through the virtual point away from the component. 28 sizes and thread combinations available. (NR)

Audio Selection Cones (formerly German Acoustics):  
\$11 each ☆

These effective brass-colored steel cones have removable hardened tips. (NR, but see Vol.15 No.9, p.162.)

AudioPrism Iso-Bearings: Small (2.5mm), \$59.95/3;  
Large (3.3mm), \$89.95/3 ☆

Squishy, nonreactive polymer balls with plastic cups are recommended by CG for effective acoustic isolation. (NR, but see Vol.15 No.9, p.162.)

AudioQuest Sorbothane Big Feet: \$79/4 ☆  
Now in a more reactive formulation in bright blue, these feet are the best means of isolating components from vibration. (NR)

Aurios MIB component supports: \$299/3  
RD highly recommends these footers. Of the latest 1.2 version, he writes, "Do everything the originals did, but leveling is much less critical." (Vol.24 No.5)

Black Diamond Racing Pyramid Cones: \$20 each ☆  
"Expensive, but very effective," according to J-10. WP and JA, who generally use these whenever they need to support electronic components, agree. (Vol.21 No.6)

Black Diamond Racing The Shelf: \$440–\$875 ☆  
Heavy, costly, but extremely free from torsional flex, this loaded carbon-fiber isolation platform impressed WP with a "marked increase in perceived silence" when placed under equipment. He also noted that low-level musical information became more prominent with the support in his system. J-10: "Transparency was greatly enhanced, coupled to a greater sense of air and original acoustic." WP maintains that when he "wants to really hear what a component is doing — as free as possible from the effects of its environment — it ends up on The Shelf." (Vol.19 No.2, Vol.21 No.6)

Boltz CD 600 storage rack: \$269; expansion kits, \$159  
Boltz LP shelves: \$529 for a three-shelf unit; each additional shelf: \$149

Surfing the Net ([www.boltz-usa.com](http://www.boltz-usa.com)), MF found these do-it-yourself racks: each is 48" high, 24" wide, just 6" deep, and holds 600 CDs! You can double or triple the capacity with the expansion kits, and the racks are now available pre-assembled. Now available as equipment racks, TV stands, and LP shelves. MF bought the LP rack, which consists of a heavy base and three shelves; additional shelves (3' wide by 10" deep) run \$149 each, and you can stack 'em to the ceiling! "Really well-made and incredibly sturdy," reported The Analog One. Free shipping. (Vol.22 No.11, Vol.24 No.1)

Bright Star Air Mass 3: \$129 ☆

Ingenious, inexpensive, and effective air-bladder product that damps out floor and air-borne vibrations, MF said. WP agrees. Originally called Air Mass 1. (Vol.20 No.2)

Bright Star Audio Rack of Gibraltar 1 equipment stand: \$1895 ☆

Bright Star Audio Big Rock 1: \$199 ☆

Bright Star Audio Little Rock 1 Isolation Pod: \$165 ☆

Bright Star Mini-Rock F VPI isolation base: \$144 ☆

A very effective isolation system for control of unwanted vibrational energy. Individual components float on a sand bed for energy dissipation, and are weighted down with the Little Rock to minimize spurious vibrations. The payoff is enhanced resolution of the music's nuances, says DO. RN adds that this system consistently tightens the bass, increases sonic transparency, and smooths treble hash and grain. The Bright Star TNT Big Rock is a \$275 sand table specially sized to support the TNT. WP, MF, BD, and BJR all use one under their VPIs, as they provide a stable surface and offer such sonic benefits as a lower noise floor and increased bass. The Mini-Rock F is specially sized for use under the TNT's flywheel. (Vol.16 No.5; Vol.18 No.11, Mini-Rock F; Vol.20 No.4, TNT Big Rock.)

Bright Star Rack of Gibraltar 2 equipment stand: \$2450 ☆  
Rigid, super-stable platform for audio equipment, and the "carrier" for the Ultimate Isolation System: air-base (Air Mass) and sand-filled damping platform (Big Rock) makes a "sandwich" of sorts. The Gibraltar 2, with its two-wide, three-high, widely spaced, large shelves, isn't quite ready for MoMA and boasts no neon lights, but "in its simplicity and quality it's attractive, even elegant," said BD. He recalled Louis Henri Sullivan, who immortalized the phrase "form ever follows function." Suitable for turntables, superbly built, and the best BD has ever used. (Vol.23 No.5)

Bright Star Ultimate TNT Isolation System: \$1060 ☆  
Simple, affordable, effective isolation system for the VPI that combines a static pneumatic isolation mount with mass loading. WP noted that "high frequencies seemed clearer, less smeared — harmonics leapt off strings and floated independent of the fundamental...Bass sounded more deep and taut, especially sustained notes or anything in the bottom two octaves of the piano." BD agrees, finding that the Isolation System lowers the TNT's (already low) background noise, resulting in subtle but noticeable improvements in image dimensionality, ambience, and inner detail. (Vol.20 No.7)

Golden Sound DH Cones, Squares, and Pads ☆

With the Cones alone, J-10 "noted a lift in overall transparency, with a slightly tighter focus." Using the Squares alone, "the sound was softer than the Cone/Square combo...but nevertheless got high marks for a sweet and pleasant presentation." And in combination? "The highs and upper midrange were beautiful and

open, the midrange had just the right amount of juice, the lower midrange wasn't boomy at all, and the bass extension was excellent." ST is also a fan, particularly of the Pads, which "wrought quite an improvement in sound under my Cary SE300Bs." Super Cones, \$100/set of 3; Jumbo Cones, \$70/set of 3; Large, \$50/set of 3; Medium, \$40/set of 3; Small, \$20/set of 3. Squares, \$30/set of 3, \$40 set of 4; Super Pads, \$250 (19" by 17" by 1/2" thick); Golden Sound Pads, \$150 (12 1/2" by 17 1/2" by 1/2" thick); Acoustic Discs, \$120/set of 12. (Vol.20 Nos.11 & 12, Vol.24 No.5)

Grand Prix Audio Monaco equipment stands:

\$2495–\$4495

Despite their stylish, lightweight design, a four-shelf Monaco stand can carry up to 150 lbs per shelf, for a maximum total load of 500 lbs. PB: "More than anything else, the Monaco brought a sense of focus and a difficult-to-explain sense of calm" to the sound of everything he placed on them. Loading the hollow stainless-steel columns with lead shot produced another increment of improvement: "Backgrounds became quieter, low-level detail retrieval improved markedly, and dynamic contrasts took on greater subtlety and sharper contrasts." Using separate isolation footers under components only "muddled things," providing evidence of the "fundamental soundness of the GPA approach to vibration control." The amp stand is expensive but "works as promised and looks cool too," decided MF. A 3-shelf system costs \$2495; 4-shelf system, \$3495; 5-shelf system, \$4495; base module, \$1500; short or tall module, \$999; amplifier stand, \$999; carbon-fiber/Kevlar composite shelf, \$850. (Vol.24 No.7, amp stand; Vol.25 No.12 WWW)

Lovan Classic II Modular Racks: \$484–\$672 based on shelf size and board color

An elegantly simple, adaptable, and absolutely rigid rack design consisting of spiked three- or five-footed modules designed for stability and for stacking in combinations of high- and low-height modules. Supporting columns can be filled for additional stability. KR's double-width AVR rack shelves needed a layer of DynaMat to completely deaden them. (NR)

OSAR Selway & Magruder equipment racks: Selway complete system, \$895; other Selway options, \$230–\$385; Magruder options: \$295–\$445 ☆

WP found these items noteworthy for their construction: three well-made racks nested to give "the [appearance] of being a single unit." Options include the ability to damp the frame with lead shot or sand, the possibility of adding Sorbothane pucks or brass cones, and, of course, a choice of colors and proportions. The Selway series is sized for "standard audio components"; the Magruders are "perfect for larger, heavier power amplifiers." (Vol.22 No.6)

PolyCrystal equipment racks: \$499.95–\$899.95, depending on size and number of shelves

The reference standard for rackage chez Scull, reports J-10. The stands are easy to set up, rigid, well-braced, very attractive, and serve as "delivery systems" for PolyCrystal shelving. They're made of a material consisting of diverse components ground down to a crystalline state and suspended in a hardened polymer. Especially in conjunction with 'Crystal cones and footers, J-10 says, the Racks "made big improvements in overall clarity and freedom from the muck'n'mire of everyday resonances." He advises checking their tightness after a few days; after that, they should stay tight as a drum. (Vol.23 No.11)

PolyCrystal-coated Brass Spikes: \$49.95/4 (1.25in); \$79.95/4 (1.75in) ☆

Tall and slim, the Spikes are made of brass encased in PolyCrystal and have 1/4"-20 threaded shafts, which allow them to be substituted for the stock threaded spikes on electronic components or speakers. J-10 found them effective, calling the resultant sound "beautifully open, clear, and lovely" — if "a touch darker-sounding" than some others. (Vol.21 No.4)

Rollerblock Series 2+: \$399/set of 3, \$499/set of 4 ☆

For improved resolution from your CD player (or any other digital equipment), ST recommended these precision-machined items, which consist of a block with a ball bearing set in a hemispherical depression. Once they're in place, he said, the sound "just tightens up, cleans up, clears up. I hear more low-level information. Imaging improves. Timing, too... Transients are crisper. I hear improvement in just about every respect." The only drawback (outside of cost) is that the player might "roll around a little" when you load a disc or hit Play. SD concurs with ST's enthusiasm; MF became a believer in the "high-roller" phenomenon when he put his Virgos on the similar Yamamura speaker bearings. (Vol.22 No.4)

Salamander Designs Archetype System equipment racks:

\$109.95–\$499.95, depending on size and finish ☆

Remarkably versatile system of equipment and accessory racks that had WP redecorating like crazy. Extremely handsome wood finishes make these easy to integrate into real homes. Those desiring the utmost in stability and rigidity will need to seek other solutions. (Vol.20 No.9, Vol.21 No.10)

Salamander Designs Synergy System equipment racks:

\$249–\$949, depending on size, options, and finish ☆

Modular audiophile furniture "just brimming with options, and so handsome" that it stopped WP in his tracks. Its versatility stems from the four posts that securely support top and bottom, and are grooved to accommodate the optional doors, side panels, shelves, and drawers. WP said he got "that sense of clarity and detail" when he placed equipment on the shelves with spikes or rubber pads instead of on the top plate, which "tended to add a very slight degree of haze." Extremely solid and stable — recommended for anyone looking for a solution to audio clutter. (Vol.21 No.10)

Sanus Systems CF-4/CF-5 component stands:

\$519.99/4; \$569.99/5 ☆

Latest versions of component racks of four and five shelves that TJN recommends as being a good value. Assembly required. (Vol.14 No.11, Vol.16 No.10)

Sound Anchors Cone Coasters: \$14 each ☆

These discs, machined from a sandwich of stainless steel, Kevlar, and polyester, are designed to prevent speaker spikes from ruining your floors and to prevent vibrations from being transmitted through wooden floors. BJR found that using them with his Alón Vs resulted in greater perceived detail and "faster" bass. (NR)

Symposium Acoustics Energy Absorption Platform: \$499 ☆

Symposium Ultra Isolation Platform: \$599

The top and bottom of the Ultra platform are aluminum, while the middle is made up of several unequal-thickness layers of vibration-damping material designed primarily to drain vibrational energy away from your component, rather than to provide isolation from external vibrations or footfalls. It succeeded at lowering noise and enhancing resolution, while bringing "an entirely subjective sense of ease" to listening, said JM. The less-expensive platform jazzed MF with the "top-to-bottom authority, focus, and slam" that his system gained when the platform was installed under his turntable. Prices are for 19" by 14" size; 19" by 21" costs slightly more. (Vol.20 No.5. Vol.26 No.3 WWW)

Ultra Dynafet: \$225/set of 3

SD found these isolation feet — made of machined brass and ebony and equipped with a polished ball bearing — to work well with a wide range of components. Similar to Symposium Rollerblocks, they're available through Arcici and Music Direct. (NR)

Vibrapods: \$6 each; available singly or in packs of 4 ☆  
KR: "Placed under CD players/ transports, DACs and preamps, the small (<3" diameter), formed Vibrapods isolate and enhance performance. Five different models rated for loads of 2–28 lbs; match the quantity to the component. I keep a box of them around so that no component goes without." A KR favorite. (NR)

Walker Valid Points: \$295/set of 3 large cones and 5 discs; other sizes available ☆

Heavy brass-alloy-and-lead cones, with points that rest atop large, brass-ringed, lead-filled "tuning discs." "Definitely worth checking out," said MF, "and Walker will refund your money if you're not satisfied. (You must return the set within 30 days in the original condition.)" MF adds that "not only do I like them a lot, they're well worth the price — as I clearly found when I put a set under the Ayre K-1 and added a few of the discs on top." Combined height may be too tall for some racks. Super Tuning Kit (\$425) includes three large cones, five discs, and four 1" discs. (Vol.20 No.5, Vol.21 No.11)

Zoethecus audio stands: \$569–\$1682, e.Shelves, \$34 each; z.Pods, \$140 each; z.Slabs, \$200 each

Attractive frames carry e.Shelves (aluminum-topped, medium-density fiberboard), z.Pods (nine-layer, constrained-layer-damped), and/or solid z.Slabs, which rest on phenolic corner crossbraces dotted with Isodiscs to "isolate the shelves from floor- and airborne vibration." e.Shelves are best for mechanical devices like turntables and transports, z.Pods for electronic ones. According to MF, "the isolation part works extremely well...the energy-draining shelves seem to work as well," though he now says they "can impart a slightly 'squoochy' sound to some components." (Vol.22 No.7)

K

Bright Star IsoNodes.

## Room Acoustics Treatments

ASC Cube Tower: \$608 ☆

"A smaller, more cosmetically acceptable, more affordable version of the classic Tube Trap," writes BJR. "Very effective at taming mid- and upper-bass room anomalies. Looks like an attractive Vandersteen speaker sitting there in the corner." (NR)

ASC Studio Trap: \$368 ☆

Adjustable tripod-mounted room-tuning device that represents the "latest in TrapThink from ASC," according to J-10, who uses an array of Studio Traps to great effect in his Manhattan loft. The front half is treble-reflective for a brighter sound, while the back side is treble-absorptive for a drier acoustic. He highly recommended the Traps for "anyone whose family will allow them to populate the listening room with gobos." (Gobos are "sound-absorbing panels used to surround performers in recording studios.") Stereophile's "Accessory of 1999." (Vol.21 No.12)

ASC Tube Traps: \$288–\$778, depending on size and style ☆  
Relatively inexpensive but remarkably effective room-acoustics treatment. Tube Traps soak up low-to-high bass standing-wave resonances like sponges. WP agrees, using Traps to optimize the

acoustics of his room for MartinLogan SL3 electrostatics, while BD used 'em to optimize his room while auditioning the Thiel CS7.2s. Using the Music Articulation Test Tone (MATT) from Stereophile's Test CD 2 (STPH004-2), he first positioned them for smoothest overall response and articulation, then "dialed-in depth, dimensionality, and ambience." A chart recorder graphically showed the changes. In the end, "The sound was fantastic," quoth BD, who recommends them unconditionally. (Vol.9 No.3, Vol.15 No.2, Vol.16 No.12, Vol.19 No.1, Vol.20 No.5, Vol.23 No.2 WWW)

Echo Busters Decorative Room Treatments: from \$165 each  
Bass Buster: Helmholtz quarter-round bass absorber, wood-framed with foam core, \$498/pair. Echo Buster: flat-panel, high-frequency absorber, wood-framed with foam core, \$165 and \$235 each. Double Buster: flat-panel, mid-to-high-frequency absorber, wood-framed with rigid convex panel core, \$180 each. Echo and Double Busters can stand free or be hung on a wall. Effects were often subtle, but worth the effort. With the Bass Busters, BD found, "The room had gone from essentially unlistenable to having excellent bottom-end balance and articulation." Of the Echo Busters, he said, "Improved image focus was probably the biggest benefit, manifesting itself most obviously in an increase in the dimensionality and tangibility — the density — of images." Double Busters improved soundstaging, "expanding and opening up the stage, increasing the space between performers, and creating around them a coherent, live-feeling space." CS and KR are also fans of the 'Busters. (Vol.26 No.9 WWW)

RPG Diffusor Systems Acoustic Tools for Home Theater ☆

Effective method of adding diffusive and absorptive treatment to a listening room. RPG Diffusor Systems offers complete room-treatment packages, called Acoustic Tools for Audiophiles I and II, which can be installed in a matter of hours. RPG also offers its "SoundTrac" package for no-compromise home-theater installations, working directly with the client, architect, and/or acoustic consultant. (Vol.11 No.4, Vol.16 No.5; see also TJN's article on listening rooms in Vol.14 No.10 WWW.)

TacT Audio RCS 2.0 Digital Room Correction System/Preamplifier: \$4248

The DSP-based TacT measures how the speaker system and room together reproduce test signals, determines the differences in the frequency and time domains between the original test signals and the measured ones, and develops and applies a corrective filter. According to KR, "Because it also has the ability to control gain (or, more properly, attenuation), signal polarity (for each channel individually!), and to select among its digital and analog inputs, it can also, with its tiny, lightweight remote control, function as the preamp/control center for a full system." You'll need a long RS-232 cord to the laptop or PC on which the TacT software is installed, though this is "not needed for daily operation," assured KR. He wasn't very happy with the setup information provided, and the Help file didn't give much. Another big issue for KR: "The TacT system provides no useful verification or assessment of the success of the corrected system response. There is a facility for comparing the correction filter with the original measurements onscreen, but no way of remeasuring the supposedly corrected system/room. ...Nonetheless, the flexibility of the RCS system permitted me to create the response I needed." But, he concluded, "subjectively, the final result was my perception of vastly improved resolution of detail across the spectrum. Initially, I thought the bass seemed a bit less full. It was, but, with continued listening, it became apparent that a pervasive bloom associated with the listening room's low-frequency resonances



had been removed. Consequently, the bass was exposed with greater definition and impact. ...Instead of hall sound, the RCS let me hear this hall's sound, and transmitted the instruments with uncanny immediacy... The longer I lived with the TacT Audio RCS 2.0, the more I was convinced that it brought me much closer to the sound of live music, and that room correction should be a mandatory part of any serious audio system." Price includes A/D (\$699) and D/A (\$599) modules; RCS 2.0 D/D with neither costs \$2950. (Vol.24 No.9 WWW)

## Loudspeaker Cables & Interconnects

*Editor's Note: Rather than place cables in the usual "Recommended Components" classes, we've just listed those cables that members of the magazine's review team either have chosen to use on a long-term basis or have found to offer good value for money. They are therefore implicitly recommended. Where a cable has been found to have specific matching requirements or an identifiable sonic signature, it is noted in the text. "Try before you buy" is mandatory with cables; many dealers have a loaner stock to make this easier.*

## Interconnects

Acoustic Zen Silver Reference II: \$948 1m RCA; \$998 1m XLR

The top of Acoustic Zen's line and made of seven-nines silver, the SR II offered, according to PB, a near-ideal balance of superb low-level resolution, harmonic richness, speed, and dynamics. "Bass was firm, deep, and defined, the midrange open, silky, and richly detailed." The interconnects worked equally well with tube and solid-state components, he found, concluding "I would not have been surprised had their price been twice as high." However, "not the best choice for a system that already sounds bright or forward." \$500/m for longer cables, 15% off for 0.5m. (Vol.26 No.1 WWW)

Alpha-Core Micro-Purl: \$78/1m pair (Cu); \$127/1m pair (Ag)

BD found that all the Alpha-Core cables shared these characteristics: "powerful, slightly forward, a touch cool, and having great extension and power at the frequency extremes." Detail and dynamics were very good at the louder end of the scale. Very-low-level detail, however, was lost. Similarly, wrote BD, "While the soundstage as a whole was reasonably deep, the individual images lacked dimensionality." While the Ag interconnects lacked the Cu's slight bass prominence and forward perspective, the Cu had a warmer tonal balance and more expansive soundstage. BD: "Their failings...are in dealing with a level of subtlety that's likely not a huge consideration with the gear they're priced to match. ...I unhesitatingly recommend their inclusion in any budget system, and strongly suggest that anyone cabling even an upscale system give them a serious audition." (Vol.24 No.10)

Alpha-Core Triode Silver Quartz: \$186/1m pair

BD found this silver-conductor interconnect to sound much more like a "super version of the Micro-Purl Cu," but with "a lot of the inner detail and textural nuance that the Micro-Purls lacked." Whereas the Micro-Purls proved to be a great budget cable, the TQ2s "are a step beyond 'good for the money' and well into the realm of 'good at any price.' Coupled with their still very modest cost, their performance represents a true bargain — one of those undiscovered gems." Price is for unbalanced interconnect with RCAs. (Vol.24 No.10)

Analysis Plus Solo Crystal Oval 8: \$399/1m

MF: "For transient clarity, linearity, low-frequency nimbleness, high-frequency extension, and overall cleanness, the Analysis Plus was extremely impressive. It was neat and tidy, left no loose ends, and was free of glare, grain, or other annoying artifacts. The fast attacks of vocal sibilants and cymbals were handled with impressive clarity and ease. The bass was very tight, extended, well-controlled, and correctly sized." (Vol.26 No.4 WWW)

Audience Au24: \$417/1m pair, unbalanced, \$300/additional meter; \$776/1m pair, balanced, \$600/additional meter

"The Au24s had a neutral, relaxed sound," said BD, "with good extension at the frequency extremes and a wide, deep soundstage." However, they did not reach the density of tonal colors and the extreme inner detail of the expensive Nordost Valhalla. Nor could they match the Nirvana S-X Ltds.' incredibly natural soundstage reproduction. Nevertheless, "The Au24s were no slouch, just a bit off the standard set by the very best I've heard." (Vol.25 No.8)

AudioQuest Anaconda: \$1250/m pair, balanced (XLR) or 1m pair, \$800/pair each additional meter

"Triple balanced" design containing three identical pairs of conductors, one for each leg of a balanced connection, or two for ground and one for hot in an unbalanced connection. Conductors are solid, ultra-pure copper. BD was struck by their "bold" sound: "Big dynamically, big spatially, and big tonally . . . This big, expansive nature was particularly captivating with relatively simple arrangements, and especially with studio recordings where there truly was empty space (real or artificial) between the images to portray. With denser arrangements, however, where the images were more crowded together, the Anaconda's big sound could occasionally work against it." About to be discontinued. (Vol.26 No.6 WWW)

Cardas Golden Reference: \$917/1m pair ☆

"Low-energy-storage" balanced or unbalanced cables with three types and layers of shielding, and thin-wall tubing surrounding copper Litz conductors coated in urethane enamel, with a low capacitance of 7pF/foot. "Gave me the color, air, transparency, and liveliness I so much enjoy, while banishing any and all mechanical/electronic effects," said J-10. "Relaxed, forgiving, but entirely virtuoso...can work wonders in the right setup." (Vol.23 No.2)

Harmonic Technology Pro-Silway II: \$439/1m balanced pair; \$399/1m single-ended pair; \$240/additional stereo 1m pair

A hybrid of two filaments of copper and two of 6N-pure (99.99997%) silver. The braided copper outer shield is plated with pure silver and insulated with Teflon tape or air-foamed PE (polyethylene with air bubbles as the main dielectric). The connectors are "NASA grade," according to Harmonic Tech. Caused a significant change in the sound of the Audio Research VTM200 MF was reviewing: "The bass firmed up and rejoined the music, the midrange took on a richer, more full-bodied texture, and the top remained extended, detailed, and ultra-revealing, but not quite as right." In comparison to the Analysis Plus Solo Crystal Oval 8, MF said, "The Harmonic Technology cable resulted in greater delicacy and transparency; an increased ability to experience and 'feel' instrumental textures; and more, and more tactile, bass... However, there was somewhat less bass control; rhythmic flow was somewhat impeded, and transients, while crisper and more detailed, were also slightly edgier and less finely drawn. But the net effect of the more tactile bass and the crisper transients was an overall sound of greater warmth and apparent detail." (Vol.24 No.1, Vol.26 No.4 WWW).



Harmonic Technology Truth-link:

\$299/1m pair balanced; \$249 single-ended

SD found the well-made Harmonic Technology line of cables and interconnects competitive with the best he's heard, "and a real bargain to boot." (NR)

Hovland Music Groove 2 tonearm cable: \$795/any length up to 1.5m pair, with RCA or straight DIN terminations; \$835, with 90 DIN connector ☆

This silver-plated copper cable — MF's reference for the Graham tonearm — embodied a "relaxed, warm, 'physical' " sound with "detail, depth, dynamic authority, and three-dimensionality." It sounds rolled-off only if you're accustomed to bright, he said, rolling his eyes. XLR preamp connector adds \$60. (Vol.21 No.2, Vol.23 No.5, Vol.24 No.2)

JPS Balanced Superconductor 2: \$1399/1m Gold

Neutrik XLR-terminated, \$200/additional 0.5m ☆

These unwieldy double runs of the already stiff Superconductor2 coax became KR's resident balanced interconnects as of early '99. Eerily quiet backgrounds and silky and detailed highs, even with 7.5m runs in noisy NYC. (NR)

Kimber Kable KCAG-147:

\$460/1m pair, XLR or WBT-RCA connectors ☆

Unshielded but astonishingly transparent, and offering improved image focus and even better clarity when compared with Kimber's PBJ. A JE and TJN favorite. (NR, but see Vol.16 No.7)

Kimber Kable PBJ: \$84/1m pair, RCA or XLR termination \$\$\$ ☆

Unshielded cable that CG found to come very close to KCAG in his system, citing its HF detail, air, clarity, and tonal accuracy. For those with RFI problems, Kimber's KC1 (\$116/1m pair, RCA or XLR termination) is the same cable with a grounded shield, but doesn't sound quite as good. (Vol.16 No.7)

Kimber Kable Silver Streak-147: \$240/1m pair, with

WBT-RCA connectors; balanced: \$330/1m pair ☆

This low-impedance, low-resistance cable "represents a major performance breakthrough for the price," said ST. Its secret? Only the signal-carrying portion of the braid is silver — the returns are copper. ST reported gains in clarity and quickness. "The sound is cleaner, quicker, less confused...I suggest you run with the Streak." BW adds that the Kimber's excellent resolution of detail and transients has to be balanced against the fact that it might add too much "zip" to already bright systems. (Vol.19 No.11)

Kimber TAK tonearm cable: \$250-\$600/1m pair, depending on material ☆

TAK Ag is similar in tonality and texture to Silver Audio's Silver Breeze. Its overall sound is "smooth, detailed, and slightly cool," with "unsurpassed natural clarity and freedom from edge." Might be too much of a good thing in systems that are already very smooth, in which case the similar-sounding TAK H has a more "golden glow" from the midrange up, and more "transient traction and solidity." TAK Cu's glow is even more golden, if less liquid than the silver-based versions. All three have good low-level resolution and pitch-black backgrounds. (Vol.23 No.5)

MIT MI-330 Proline Shotgun: \$849/1m pair;

\$1289/25ft pair ☆

MIT's network boxes are "designed to control the energy storage and release in the audioband," explained BD. "Tonal purity, precision, a huge soundstage, holographic detail and ambience recovery, and dense, dimensional images" were all parts of the mix. Other interconnects and speaker cables could sound a touch blurred at the edges in comparison, he noted. "Without a doubt, they were a key piece of the best system I've had in my 20 years of listening." Guess he liked them. Impedance-matched to system. (Vol.23 No.3)

MIT MI-350 Twin CVTerminator Series II: \$1495/1m pair ☆  
BJR's reference interconnect. "Transparent, dynamic, and impressive performance at frequency extremes," says he. (NR)

Nirvana S-L Series: \$750/1m; \$860/1.5m, \$1185/2m SC; \$1620/3m ☆

BD says, "The Nirvanas are slightly laid-back in character, perhaps just a bit soft on sharp transients and at the frequency extremes, but with a natural coherence and ease that make a lot of other cables sound slightly strained. Other strengths include a huge soundstage and images that are detailed and tangible, but not the least bit etched or spotlit." (NR)

Nirvana S-X Ltd.: \$1185/0.5m pair; \$1400/1m;

\$1620/1.5m ☆

The S-X is not a replacement for the S-L, but was designed to carry very-low-level signals with reduced noise, explains BD. Litz construction with "95 isolated, multi-gauge, multi-strand, oxide-free, Lab Grade fibers per conductor with FEP insulation." Hand-assembled and extensively tested, each cable takes a full day to make. The soundstage is wide and deep, with space between and around instruments very apparent. One of the best cables BD's heard, and significantly better than the already fine S-L. "One sensational interconnect," he concluded. (Vol.23 No.8)

Nordost Valhalla: \$3300/m pair, with RCA termination; balanced (XLR) configuration, \$60 extra; additional length, \$1000/m

Although these cables are "insanely expensive," BD was sure that you'll love what they do for your system. Images were detailed, distinct, and densely filled-in and three-dimensional. The soundstage moved out farther than BD had ever experienced. However, while it was obvious that the Valhallas were special, it was also obvious that they had a distinct tonal signature. BD wrote, "The system always had a lighter, drier sound with the Nordost — the tonal balance was shifted slightly upward, and the overall presentation was a touch cooler than with other wires." RD: "Expensive, but, boy, are they good!" (Vol.24 No.11)

Pure Silver Connection (PSC) PST 8: \$450/1m pair ☆

Balanced interconnects featuring solid, silver-plated 6N copper and round conductors. LG reported that they reduced system hum problems and were "highly recommended!" (NR)

Stereovox SEI-600: \$2500/ 1m pair

Designed by digital cable guru Chris Sommovigo, the very expensive SEI-600 is terminated with the elegantly chunky, serially engraved Xhadow RCA connectors. JM: "Every technical aspect of this cable is distinctive, from the elliptical solid-core multi-strand geometry through insulators, shields, terminations, and the outer covering, a nostalgic braid of black fabric. ...Stereovox cables avoid the sense of sterility or coolness that often comes with extraordinary focus and detail. Indeed, there seem to be no tradeoffs in midrange liquidity and richness." (Vol.25 No.12 WWW)

Straight Wire Serenade: \$350/1m pair; \$180/additional meter ☆

"Crystalline, extended highs," crowed CS, "lightly bloomy mids, and good bass focus. But it's the soundstaging that stood out at this price point." Exceptional bass focus and control with pinpoint harmonic detail and a nice, clear, airy midrange. A solid all-around system performer, the Chipster concluded. (Vol.23 No.4)

Synergistic Research Alpha Sterling X-Series:

\$199/1m pair; \$299/1m pair, with Active Shielding interconnects with Mini-Power Coupler

With the Alpha Sterling's Active Shielding engaged, CS became suddenly aware of "a wealth of spatial cues — stupefying dimen-

sions of soundstage layering. The heightened sense of dimensionality was intoxicating.” And with the Mini-Power Coupler, CS found the soundstage to extend beyond the rear wall, “conveying greater depth and dimensionality.” (Vol.24 No.11)

Synergistic Research Designers’ Reference X-Series: \$2000/1m pair, with Mini-Power Coupler; \$500/pair each additional 0.5m

These interconnects do everything superbly, says BD, who found that they’re essentially neutral in terms of tonal balance and dynamics across the frequency spectrum. Particular areas of excellence, he sums up, include a realistic balance of inner detail and coherence, image dimensionality, and ambience recovery. J-10 agrees, noting that the Synergistic is “wideband, ultradynamic (micro’n’macro), colorful, harmonic, detailed, [with] lots of air in a huge soundstage, deepest bass, beaucoup de midrange resolution and texture, [and] highs as sweet as your equipment can dish out.” However, he did find it “a touch biased toward the large-gestured and grand rather than the small and well-formed.” J-10 reports a significant improvement in refinement and power handling with a Master Control Center and Active Shielding. CS found that adding Active Shielding “seemed both to illuminate and deepen the soundstage and generally firm things up.” Timbres were “more natural... with enhanced bass energy, which translated into deeper, more holographic soundstaging, greater front-to-back imaging and focus... and greater retrieval of ambient information and microdynamics.” (Vol.21 No.1, Vol.24 No.11)

Synergistic Research Resolution Reference X-Series (Active Shielding): \$1000/1m pair; \$200 each additional 0.5m  
CS declares, “If Discrete Shielding represented a significant improvement in the performance of [Synergistic’s] old Resolution Reference Mk.II interconnects, then the upgrade to Active Shielding is profound. Imagine your soundstage illuminated from within, as if you were used to filtering white light through a prism and getting the three primary shades, whereas now you’ve got dozens of different hues and colors no one knows the names of.” He was also overheard muttering about soundstage layering of “stupefying” dimensions. CS reports similar results with the speaker cable, and promises more later. Additional 0.5m, \$350. (NR)

Wireworld Equinox III+: \$195/1m pair, \$62.50 each additional 0.5m ☆

Relatively inexpensive cable with “an impressively clean midrange” and a top end that is “unencumbered of grain and edge,” decided MF. (Vol.23 No.10)

## K

Wireworld Gold Eclipse III+, Silversmith Audio, Monster Cable Sigma Retro, AudioQuest Cheetah, DiMarzio.

### Deletions

*AudioQuest Python replaced by King Cobra not yet auditioned; Acoustic Research HT-130 and Madrigal CZ-Gel-1 no longer available.*

## Loudspeaker Cables

Acoustic Zen Satori Shotgun: \$1188/8ft pair (\$100/ft extra for longer length; less \$50 for shorter lengths)  
The all-copper Satori Shotgun has a total gauge 7 AWG. PB: “If the [Acoustic Zen Silver Reference II] represented a stunning bargain, the Satori Shotgun took the concept of value into another universe... Deep, taut, articulate bass? Check. A harmonically rich but uncolored midrange? Double check. Smoothness, purity, and world-class extension on top? Triple check. At times there

seemed as if there was just a dash of silvery mellowness on top, but the Satori Shotgun never seemed to impede the retrieval of low-level detail on reverb trails, cymbal strokes, brushed snare drums, or the sheen of massed violins.” Longer lengths cost \$100/ft extra; less \$50 for shorter lengths. (Vol.26 No.1 WWW)

Alpha-Core Python MI2: \$287/8ft biwire pair

BD: “Of all the Alpha-Cores, the Python MI2 speaker cables sounded the most like a budget cable...Unlike the interconnects, the MI2’s tonal balance was somewhat to the warm, dark side of neutral. Their bottom end was full and powerful, but lacked a bit of dynamic snap and precision. On top, there was a noticeable lack of air and extension...The midrange lacked dimensionality and inner detail. ...Their soundstage was also foreshortened in depth... The bottom line: The Python is a good budget cable but no giant-killer... I certainly recommend that they be considered for inclusion in a low- to midpriced system.” (Vol.24 No.10)

Analysis Plus Oval 9: \$347/8 ft pair

Hollow oval cable designed “by physicists and engineers who helped NASA, Motorola, Mitsubishi, and others,” claims the documentation, which also states that all members of the design team “hold advanced degrees in electrical engineering or physics” and that their specialty is “the art of computer simulation.” The best relatively inexpensive speaker cable Mikey has heard. “You won’t be disappointed,” he sums up. (Vol.24 No.1; see also MF’s comments on the Oval 8 in Vol.26 No.4)

Analysis Plus Solo Crystal Oval 8: \$870/8ft set  
See “Interconnects.” (Vol.26 No.4)

Audience Au24: \$1115/3m pair, single wire, \$300/additional meter; \$2430/3m pair, biwire, \$700 additional meter

“It was as a speaker cable that the Au24 really shone.” BD actually preferred the Au24 to his reference Valhalla in terms of tonal balance, imaging, resolution of inner detail, and soundstaging. (Vol.25 No.8)

AudioQuest CV-4: \$28/ft pair, terminated

A rather stiff but basically neutral-sounding solid-core cable that JA recommends highly. Can be a little bright with the wrong speakers. (NR)

AudioQuest Everest: \$7800/6ft pair; \$10,400/ 8ft pair

These physically heavy speaker cables are at the top of AudioQuest’s speaker line. Simply put, J-10’s crazy about them. Extended, linear, with powerful bass, a clear and harmonically pellucid midrange, and beautifully sweet highs, he says. What more do you want except a truckload of cash to buy ‘em with? It’s hard to do better, he sighs. (NR)

AudioQuest Gibraltar: \$850/10ft pair, single bi-wire

configuration, spade-lug or banana-plug termination  
Each half of the twin lead houses a helical wind of four solid ultra-pure copper conductors with one set for bass signals, the other for treble, while the overall twin-lead layout keeps the two sets magnetically separated in a true biwire design. BD found that the flexible Gibraltar was “easy to run and accommodated most extreme bends and crinks... The Gibralters caught me off-guard with their subtlety and nuance, and even by sounding slightly muted at times... Tonally, the AQs were slightly to the warm side of neutral and a bit bigger on the bottom than my other cables... Their soundstage was a little narrower than that produced by my other cables, with images concentrated between the speakers and, if anything, slightly recessed...[They] also didn’t seem to produce quite as much air, or reproduce the space around the images as well as I’m used to.” Nevertheless, KR has settled on a 6’ double biwire run of Gibraltar as his standard cable for speak-

ers that permit biwiring. The set consists of two full-length runs sharing only the amp-end terminals and is priced, appropriately, at twice the price of single runs. JA also finds the Gibraltar an excellent value. (Vol.26 No.6 WWW)

Harmonic Technology Magic Woofer: \$2000/8ft quadruple set, \$250 each additional 1ft quad  
See Pro-Silway II interconnect for build details. All Harmonic Technology cables are said to take advantage of "amazing" discoveries in metallurgy that eliminate what they call "crystalline barrier distortion." While reviewing the Audio Research VTM200s amps, MF said, "With the Magic Woofer cable, the system finally began to communicate the music's emotional center. . . . It was as if a switch had been thrown. I know that sounds a bit dramatic, but it was unmistakable." His new reference. (Vol.24 No.1, Vol.26 No.4 WWW)

Harmonic Technology Pro-9 Plus: \$888/8ft pair for bi-wire; \$860/8ft pair for Mono-wire  
See "Interconnects." (NR)

Kimber Kable BiFocal-X: \$1300/8ft pair, with WBT connectors ☆

A different Kimber cable design, the BiFocal-X offers "a well-balanced mix of characteristics that should mate beautifully with a wide range of systems," according to BD. He adds, "These cables do just about everything right and are among the very best I've heard." (Vol.21 No.5)

Kimber Kable BiFocal-XL: \$1920/8ft pair, with WBT connectors ☆

The XL version of the BiFocal cable doubles the number of connectors, and "in the right system is a big step up in every way," reported BD. The improvement, he says, "adds just a bit of tangibility, and slightly better extension and accuracy at the frequency extremes." (Vol.21 No.5)

MIT MH-750 Shotgun: \$999/8ft pair, plus terminations ☆  
Output-Specific Speaker Interface with built-in termination network and Iconn interchangeable screw-on connectors. Impedance-matched to the system they're used with. See MIT MI-330 interconnect for sonic description. (Vol.23 No.3)

Naim NACA5: \$10/ft \$\$\$ ☆

Inexpensive spaced-twin cable that ST found to work well with the Spondor S100 loudspeaker. Worth investigating as a good-value cable, thinks JA. (NR)

Nirvana S-L Series: \$970/2m IC, \$1185/3m ☆  
A BD favorite. See "Interconnects." (NR)

Nordost Valhalla: \$4200/m pair, with banana-plug or spade termination; additional length, \$1900/m  
The Valhalla contains 40 silver-plated copper micro-monofilament conductors, each polished and wrapped with a monofilament spacer prior to encapsulation in the Teflon ribbon. Similar to the Valhalla interconnect, the speaker cable's overall presentation was "clean, airy, and detailed," according to BD, "without ever being over-etched or harsh. . . . The portrayal was incredibly compelling from top to bottom, but the midrange...seemed almost holographic...[They] sounded almost relaxed — but still clean and precise — and their images were dense, detailed, and dimensional." (Vol.24 No.11)

Pure Silver Connection (PSC) R50: \$1250/3m pair ☆  
Features biwiring via silver-plated, solid-copper spades in tandem with gold-plated banana plugs. Optimized speaker response in LG's system. "They're solid-silver ribbons, incorporating 'Cuiletto 1' ribbon for the highs and R30 ribbon for the lows." Again, "highly recommended!" (NR)

RadioShack 18-gauge solid-core hookup wire:

\$3.99/60ft spool \$\$\$ ☆

Ridiculously cheap way of connecting speakers, yet ST reports that this cable is okay sonically. You have to choose for yourself whether to space or twist a pair for best sound (or even whether to double up the runs for less series impedance). (NR)

Stereovox LSP-600: \$6950/ 2.5m pair

Terminated with proprietary angled silver spades. See "Interconnects." (Vol.25 No.12 WWW)

Straight Wire Maestro II: \$680/10ft pair, \$60/additional ft ☆  
Clean and tight with little residual brightness after burn-in, notes KR. In the 6' lengths he uses, they're extremely revealing of amp and speaker foibles. (NR)

Straight Wire Serenade: \$980/10ft pair, \$80/additional ft  
"In tandem with the matching interconnects," said CS, the Serenade speaker cables proved profoundly involving and musical. "While I wouldn't characterize their performance as 'flat,' it was quite natural and nicely detailed, with excellent bass resolution and dynamic presence, a transparent midrange, and a sparkling top end." (Vol.23 No.4)

Synergistic Research Alpha Quad Active X-Series:

\$399/10ft pair, with Mini-Power Coupler

See "Interconnects." (Vol.24 No.11)

Synergistic Research Solid-State Reference X-Series:

\$6800/10ft pair, with Mini-Power Coupler

BD finds these speaker cables, like the Designers' Reference interconnects, to be essentially neutral. "They add so little character of their own to a system's sound that they'll likely seem unimpressive on first listen," he warns. CS agrees, adding that he was "impressed with the way they just get out of the way and let you zero in on the music ... [they] throw a good image with a lot of air in it, natural highs, smooth midrange, and nice, tight, uncolored bass." J-10 concurs: "one of only a handful at the very top of the cable hill." (Vol.21 No.1, Vol.24 No.11)

Wireworld Equinox III+: \$795/2.5m biwire pair ☆

Good value. See "Interconnects." (Vol.23 No.10)

## K

Wireworld Gold Eclipse III+, Silversmith Audio speaker cables, Monster Cable Sigma Retro speaker cables.

## Digital Data Interconnects

*Editor's Note: Extensive auditioning by RH suggests that all the coaxial data cables listed below are better than conventional, TosLink-fitted, plastic fiberoptic cables, which in general don't give as tight a bass or as focused a soundstage (see the introduction to "Digital Processors"). "You don't get that essential sharpness of image outlines, the sound becomes more homogenized," quoth he. However, we have found that TosLink interconnects are preferable in some situations where high levels of RF noise can exist, such as in the case of computer soundcards. JA also points out that the specific character of any particular cable will depend heavily on the transport and processor it connects.*

Apogee Electronics Wyde-Eye: \$37.95/0.5m; \$47.95/1m; \$51.90/2m; \$59.90/3m; \$73.90/5m; \$89.90/10m \$\$\$ ☆

"If you haven't heard this 110 ohm balanced data cable, you're missing out!" crows LL, adding that it's "more transparent, more musically honest than any I've heard — and it's ridiculously cheap!" JA is also impressed, and uses 50' lengths for his Stereophile recording sessions. KR, however, while agreeing that



Wyde-Eye is an excellent value, notes that it is less transparent-sounding than the (much more expensive) Illuminations. Also available for the same price in a 75 ohm version for S/PDIF applications, using Canare's true 75 ohm RCAs. (NR)

AudioQuest OptiLink Pro 2: \$350/1m, with AT&T-ST termination ☆

Expensive ST datalink that JA and JE recommend highly. Excellent bass performance, with power, clarity, and dynamic contrast, says JE. Rich sound. ST terminations can be fragile, adds JA. (Vol.16 No.11)

AudioQuest VSD-4: \$350/1m

Rather stiff S/PDIF (unbalanced) datalink, that JA feels is the best he has used. Price is for 1m; add \$75 for each additional 0.5m. Can be terminated with RCA, BNC, or "F" connectors. (NR)

Canare DigiFlex Gold model RCAPE003F: approx. \$11.32/3ft ☆  
Before you try any of the expensive coaxial links, CG advises trying this inexpensive, true 75 ohm cable with Canare crimp RCA connectors. He rates it as his first choice in a digital cable at any price, even preferring it to the Kimber AGDL. JA uses the 110-ohm version in various lengths for CD mastering. (Vol.16 No.7)

Digital Precision X-60 i2Digital: \$199.99/1m

Chris Sommovigo's new S/PDIF cable has replaced the Kimber D-60 as KR's reference and it's cheaper! Terminated in BNCs with BNC-RCA adapters (standard), the X-60 seems as invisible as any KR has used and, used in matched lengths, let's him compare digital components on an equal footing. Other lengths available ([www.i2digital.com](http://www.i2digital.com)) (See KR's review of the Mark Levinson No.360S in this issue.)

Kimber D-60: \$290/1m, RCA or BNC termination \$\$\$ ☆  
It's hard to get Stereophile writers to agree on anything, but RH, RD, J-10, LB, RR, and WP all use this S/PDIF digital interconnect, originally called Illuminati D-60, as their reference. "Sometimes mercilessly revealing," KR admits, "but never harsh." "Fast, open, and detailed," raved J-10. "Focused and nuanced," says WP. "Smooth yet highly detailed, spacious soundstage, and lack of hardness and edge," says RH. (Vol.19 No.5)

Kimber Orchid: \$560/1m ☆

Expensive, but the best AES/EBU link JA has used. J-10 loved the Orchid's midrange liquidity and detail, but preferred Illumination's S/PDIF cable overall. SD (almost) doesn't equivocate: "Probably the best out there for now. . . . A stunner!" RH and RD are also fans. New lower price usefully brings this cable in reach of more music lovers. (Vol.19 No.5)

## K

AudioQuest OptiLink-5, DH Labs Silver Sonic D-110.

## Deletions

Madrigal MDC-1 no longer available.

# FM Tuners

## A

Fanfare FT-1A: \$1595

The FT-1A improves on the earlier FT-1 in its ability to scan both up and down the FM dial in stereo mode by remote, and in its use of firmware that allows easy field upgrades. Like the previous model, the tuner is analog-tuned with a digital frequency display and a choice of wide or narrow IF bandwidths. Listening tests revealed that the FT-1A gave up none of the FT-1's strengths, including excellent sensitivity, good quieting, and thoroughly musical sonics. (Vol.24 No.10)

Magnum Dynalab MD 108: \$5850 ☆

"Gets [radio stations] even after they've signed off," marveled DAS. Tuner offers balanced mode, the sound of which, he thought, "did justice to the finest FM stations. In unbalanced mode, the audio quality had less refinement but was still very good." 1.5dB capture ratio is "adequate for all but the most stubborn cases," although sensitivity in Super-Narrow bandwidth position was lower than spec. Stereophile's "Analog Source of 1997." (Vol.20 No.5)

## D

Tivoli Audio Model One table radio: \$99.99

"The Tivoli Model One is a radio stripped to its essentials: no stereo, no station memories, no remote control, no tone controls," said ST. This design from the late Henry Kloss didn't like being played very loud, ST discovered, but was "plenty loud for a typical office, and, ultimately, loud enough for me." He heard "a richness, a warmth, a generosity of tone, and a clarity that made for enjoyable listening. I was never fatigued." "A bit boomy," said JA, "but pleasantly so." (Vol.24 No.3)

Tivoli Audio Model Two stereo table radio: \$159.99

Just like the Model One, but on "stereo-oids," the Model Two uses the same 3" speaker and the same vernier tuning dial, but adds a dedicated Aux position. Its AM reception is slightly better than the original's, though still not great. ST: "If you want the best AM radio possible, you should probably tune elsewhere." He sums up: "Non-fatiguing — perhaps contoured to boost the upper bass a little and roll off the treble, but okay by me. Nuts to neutrality, especially in what is basically a radio." He admires the Model Two for what it is, and for not pretending to be what it isn't. (Vol.25 No.4)

*Editor's Note: There are currently no Class B & C FM tuners listed.*

# FM Antennae

*Editor's Note: No indoor antenna can compete with a good roof or mast-mounted outdoor antenna, but because apartment dwellers often don't have a choice, we list the following indoor models that we have found to work well: AudioPrism 8500 (\$499, Vol.14 No.6), AudioPrism 7500 (\$299, Vol.12 No.5), Magnum Dynalab 205 FM Booster (\$350, Vol.10 No.6), RadioShack amplified indoor FM antenna (\$29.99, Vol.19 No.11), and Fanfare FM-2G (\$89.95, Vol.20 No.12). Outdoor antennae we have reviewed and recommended are the Antenna Performance Specialties Sniper (\$595) and Antenna Performance Specialties APS-13 FM (\$199), the original versions of which were reviewed in Vol.19 No.3.*

# Books & Software

AudioControl Industrial SA-3051 Spectrum Analyzer: \$995 ☆

Portable (battery-powered) and inexpensive 1/3-octave analyzer with pink-noise source, ANSI Class II filters, accurate calibrated microphone, and six nonvolatile memories. Parallel port can be used with any Centronics-compatible printer to print out real-time response. Factory update increases maximum SPL capability, and resolution to 0.1dB. (Vol.11 No.6, Vol.12 No.3)

CALSOD loudspeaker system optimization program, version 3.10: \$269, with on-disc manual I (standard 1.40 version: \$69.95)

User enters measured drive-unit response, impedance and sensitivity, and target response; program designs appropriate



crossover filter networks. Latest version handles double-ported bandpass enclosures and can calculate the effects of LF room gain, enclosure leakage, and absorption losses in sealed-box, vented-box, passive-radiator, and bandpass systems. Thiele-Small parameters can be calculated from two impedance measurements, and data can be imported from the IMP PC-based measurement system. Standard 1.40 version costs \$69.95. Available from Old Colony Sound Lab, P.O. Box 243, Peterborough, NH 03458. Tel: (603) 924-6526. Fax: (603) 924-9467. (Vol.13 No.11)

David Moulton's Playback Platinum Test CDs: \$39.95 each  
Four-volume lecture series that covers the fundamentals of audio from a popular-music production standpoint: Vol.1, Loudness, Compression, Distortion; Vol.2, Stereo Miking; Vol.3, Equalization; Vol.4, Digital Audio: Sensory Listening Tests. Each volume is on a separate CD, which comes in a hardbound, textbook-sized book that includes about 50 pages of additional text keyed to each track of each lecture. JM: "I'm impressed with how Moulton & Co. take material that has the potential to be dauntingly dry, and make it enjoyable and memorable by adopting at times a 'radio drama' approach." (Vol.26 No.5 WWW)

ELAC Technische Software CARA REL 2.1 Plus program: \$74.95

To use CARA, one must create a full three-dimensional model of the listening room, using the program's CARACAD module. KR: "By 'full,' I mean that all room dimensions and surfaces are defined: doors, windows, furniture, soffits, bays, etc." Kal found it time-effective to reduce the complexity of the model (eg, remove smaller objects) and the order of reflections (3-4) for the early iterations, at which point the number of possible speaker and user positions is large — an 800MHz Pentium III can take 48 hours or more to run even that modest a set of variables. "Several simplified runs will tell you which arrangements deserve more investigation. After that, you can limit the range of positions for speakers and listener while progressively increasing the number of reflections and adding more feature details, as a confirmation of the optimum arrangement." Checking predictions against the results with ETF or with TacT RCS measurements confirmed CARA's conclusions to an amazing degree. KR: "Wouldn't you like to know how well a speaker might work in your room before you buy it? I would." Runs under Windows. Web: [www.cara.de](http://www.cara.de). (Vol.24 No.9 WWW)

ETF 5.x room response software: \$149 ☆

KR says, "This Windows 95 program is the most cost-effective and critical way to assess your room and system acoustics and monitor your adjustments to them. Unlike modeling programs, ETF actually measures room responses and modes, and is an essential tool for users of equalization and correction systems." J-10 and SD agree. Compared with Acoustisoft's ETF 4.0 software, which was reviewed by KR, ETF 5.0 contains a revamped interface, a full MLS-based signal generator/analyzer with both post-process and pseudo-real-time capabilities. Very easy to use and requires only a decent duplex soundcard and microphone. [www.etfacoustic.com](http://www.etfacoustic.com). (Vol.21 No.7 WWW)

Gold Line DSP 30 Spectrum Analyzer: \$1625 ☆

Portable (battery-powered) 1/3-octave analyzer with higher dynamic range and better signal resolution than the ubiquitous AudioControl (one software option gives 60 bands between 27Hz and 800Hz). Features six memories and a variety of post-processing options; can also be controlled by an external PC through its RS-232 port. Latest software includes a Windows-based interface and other refinements. (NR)

LEAP-5 (Windows): \$1495 ☆

Highly recommended by DO and much used by professional designers, LEAP imports raw drive-unit data (it accepts Audio Precision and MLSSA files as well as data produced by Audio Teknology's own \$1395 LEAP 4.0 Loudspeaker Measurement System) and optimizes a speaker system's crossover network to meet the user's target specifications, on- or off-axis. (It also averages responses to give a speaker's power response.) Available from LinearX Systems, Inc., 9500 SW Tualatin-Sherwood Road, Tualatin, OR 97062. Tel: (503) 612-9565. Fax: (503) 612-9344. Web: [www.linearx.com](http://www.linearx.com). (Vol.13 No.11)

RPG Diffusor Systems Room Optimizer Software: \$99

MF recently moved to a new home with bare, reflective walls — where to plunk the speakers? RPG Diffusor Systems' Room Optimizer Software — available from, among others, Audio Advisor — to the rescue. Plug in the room's dimensions (they must be rectangular) and the program will output the location where the modal response is flattest and the speaker-boundary interference is minimized. It'll also tell you where to sit! (Vol.22 No.11)

SpectraLAB 4.32 rev.15: from \$795 ☆

An outstanding computer-based FFT analyzer suited for both acoustic and electronic measurements. Capable of 24-bit/96kHz sampling and a whopping 1 million FFT points when paired with an appropriate soundcard such as the LynxONE or Digital Audio Labs' CardDeluxe. [www.soundtechnology.com](http://www.soundtechnology.com). (NR)

The Complete Guide to High-End Audio: \$29.95 (soft-cover) plus \$5.00 S&H ☆

Written by erstwhile Stereophile writer Robert Harley, The Complete Guide to High-End Audio offers explanations of how to listen critically, how to optimally set up your system, and how to get the best sound for your buck. It will also give you the background and technical information you'll need to get the most from reading Stereophile. Beginning audiophiles must read the appendices first. Hardcover edition costs \$39.95 plus \$4.95 S&H. Second edition (not reviewed) was published in fall 1998. Available from Acapella Publishing, P.O. Box 80805, Albuquerque, NM 87198-0805. Tel: (800) 848-5099. (Vol.18 No.3 WWW)

Visual Ears: \$89, plus \$3 S&H ☆

Inexpensive but excellent computer program for PCs and Macs. Available from KB Acoustics, P.O. Box 50206, Eugene, OR 97405. Tel: (541) 935-7022. Allows an audiophile to move simulated loudspeakers and a simulated listening seat around a simulation of his or her room (in three dimensions) to find the position that gives optimal performance below 200Hz or so. (Vol.13 No.12, DOS; see "Industry Update" in Vol.19 No.4 and "Fine Tunes" in Vol.21 No.8, Windows.)