SPOTLIGHT ON SPEAKERS

LISTENING TESTS: 9 BOOKSHELF SPEAKERS GO FOR THE GOLD

A/V SHOPPING: HOW TO BUY A VCR

MULTIROOM MADE EASY

TESTED Proton Power Amp, Sony CD/Laserdisc Player, M&K Speaker, more
Marlboro Lights

The spirit of Marlboro in a low tar cigarette.

SURGEON GENERAL'S WARNING: Smoking By Pregnant Women May Result in Fetal Injury, Premature Birth, And Low Birth Weight.
With Cinema DSP, you’ll be amazed

Bats screech overhead. Wolves howl in the distance. And footsteps crunch across your living room floor. No, it’s not your imagination. You’re hearing sounds placed around the room, just as the director intended.

All courtesy of Yamaha Cinema DSP. The home theater technology that gives dialogue more definition. Music, more dimension. And sound effects, more graphic detail.

Only Yamaha Cinema DSP creates phantom speakers that fully replicate the experience you get in multi-speaker movie theaters. It sounds so real, in fact, you’ll swear you hear sounds in places you don’t even have speakers.

As you might imagine, a breakthrough like this is no small feat. It’s accomplished by multiplying the effects of Digital Sound Field Processing and Dolby Pro Logic.

Digital Sound Field Processing is Yamaha’s unique technology that electronically recreates some of the finest performance spaces in the world.
at what comes out of the woodwork.

And Dolby Pro Logic is the technology responsible for placing sound around the room, matching the dialogue and sound effects with the action on the screen.

Together, these two technologies allow Yamaha to offer a complete line of home theater components that outperform other comparatively priced products on the market.

Stop by your local Yamaha dealer for what could be a very eerie demonstration. Maybe we can't talk you into a system, but that doesn't mean we can't scare you into one.

For the sales location nearest you, call 1-800-4YAMAHA.
In the theater of the mind, anything is possible. But in Energy's complete home-theater speaker system, only reality counts. Two satellites in front and two behind immerse you in refreshing sound. A dialogue speaker at front and center places you face to face with the actors on the screen. Radical dual subwoofers extend all the way down to 35Hz, the bass enveloping you in sonic swell. This is one heart-pounding ride. Catch it if you can at your Energy showroom.

MOVING PICTURES NEED MOVING SOUND.

THE ENERGY HOME THEATER SURROUND SOUND SPEAKER SYSTEM
The nine $500-$600 bookshelf speakers we tested for this issue: clockwise from top left, the JBL L1, B&W DM-610i, Celestion 7 Mk II, ADS LA400k, NHT I.3A, PSB PSB-500, Design Acoustics DA800, Camber 3.Oti/SM, and Jamo 307. See "Off the Shelf" beginning on page 62.

Photograph by Dan Wagner
The nation's first high-power direct-broadcast satellite (DBS) service was rolled out in Jackson (Mississippi), Shreveport, Little Rock, Tulsa, and Albuquerque in late June and early July. Launch of the $1 billion Digital Satellite System (DSS), a venture involving RCA, the DirecTV subsidiary of GM Hughes Electronics Corp., and the USSB division of Hubbard Broadcasting, was big news at the 1994 Summer Consumer Electronics Show in Chicago. RCA announced that the initial batch of DSS dish/receiver packages delivered to dealers in Jackson sold out the first weekend. The $699 equipment package comprises an 18-inch satellite dish, a TV-top receiver that accepts a personalized access card for billing (via a built-in modem), and a remote control.

The service went on line with seventy-five channels but is expected soon to offer more than 150 channels of near-laserdisc-quality programming, including $2.99 pay-per-view movies, cable-TV channels, and commercial-free music channels. Programming packages are being sold by DirecTV and USSB at rates comparable to cable TV. By the time you read this, DSS should also be available in Roanoke, Indianapolis, and at least five other major cities. RCA says the system will go nationwide by year's end, at which time it hopes to have sold half a million dish/receiver packages. Sony plans to start selling its DSS equipment in 1995. Meanwhile, cable-operator-owned PrimeStar has stepped up promotion of its medium-power DBS system, introduced in 1990. Channel capacity of the system, which requires a 39-inch dish, will soon be expanded from forty to seventy-seven. PrimeStar is also replacing the analog satellite receivers it leases to cable subscribers with digital receivers. The company hopes to go from 70,000 to 250,000 subscribers by the end of the year.

CLASSICAL SEPTEMBER
Congress has passed and President Clinton has signed a resolution declaring September 1994 Classical Music Month. The action is intended to increase the presence of classical music in American life, with a special emphasis on music programs for young people in public schools.

A/V DIGEST
Polk Audio's new LS f/x surround speaker ($439 a pair) features a switchable dipole/bipole radiation pattern. The company recommends using the out-of-phase dipole pattern when the speakers are placed to the side of the viewer and the dipole pattern when they are placed behind the viewer. . . . Go-Video has announced availability of the first 8mm/VHS dual-format VCR. The $1,099 deck is equipped with VHS Hi-Fi sound and has an "automatic assembly editing" mode. . . . Eight models in Zenith's new TV lineup are equipped to receive the StarSight on-screen program guide service now broadcast to 90 percent of all U.S. homes via PBS affiliates and certain cable channels. The $1,099 deck is equipped with VHS Hi-Fi sound and has an "automatic assembly editing" mode.

ACCOLADES 'N' ANNIVERSARIES
The Art Levis Foundation award for excellence in consumer electronics journalism went to Stereo Review Technical Editor David Ranada for his article "Inside MiniDisc" in the March 1993 issue. . . . Verve Records, a distinguished jazz label founded by Norman Granz in 1944, is celebrating its fiftieth anniversary. . . . Anniversaries of twenty-five years are being celebrated by the Cleveland Quartet, the Tokyo String Quartet, and the Chamber Music Society of Lincoln Center.

BOOKS
House of Collectibles (201 E. 50th St., New York, NY 10022) has published The Official Price Guide to Compact Discs ($15), a guide to collectible and used CDs, by Jerry Osborne and Paul Bergquist. . . . The Complete Guide to High-End Audio by Robert Harley is available for $29.95 in softcover, $39.95 in hardcover, plus $4.95 shipping and handling. Call 1-800-848-5099 to order.

AUDIOPHILE TEST DISC
Chesky Records has released a new sampler/test CD, "Best of Chesky Classics & Jazz and Audiophile Test Disc, Volume 3." In addition to eleven music selections, the $14.98 disc includes demonstrations of microphone technique, instrument placement, natural vs. artificial imaging, 16-bit vs. 20-bit analog-to-digital conversion, and more.

MUSIC NOTES
Fifty violinists from twenty countries have been chosen to participate in the International Violin Competition of Indianapolis to be held from September 9 to 25. Previous winners include Mihaela Martin, Kyoko Takezawa, and Pavel Berman. . . . Genius grants awarded annually by the MacArthur Foundation have been given to two jazz saxophonists—$300,000 to Anthony Braxton and $372,000 to Ornette Coleman.
“You can’t get it wrong.”

INTRODUCING POLK’S NEW LS f/x HIGH PERFORMANCE SURROUND SPEAKER

“Where should you put your surround speakers? It depends...on the shape of your room, where you sit, decorating considerations and even the kind of sound you like. I didn’t want to decide for you so I created a surround speaker that provides uncompromising performance – no matter where you place it. You can’t get it wrong.” — Matthew Polk

The new LS f/x is the only surround speaker that enables you to choose the sound radiation pattern, either dipole or bipole, that best suits your needs. It features a built-in wall mounting system and can accommodate an optional bracket for special mounting needs. And, thanks to our groundbreaking technology, Dynamic Balance®, you’ll get performance so true to life you’ll feel like you’re on the movie set.

For more information on the LS f/x and other LS home theater speakers, or for the location of your nearest authorized Polk dealer, call 1-800-377-POLK.

Audition the new LS f/x and see why Matt Polk says, “you can’t get wrong.”

Polk’s stylish LS f/x surround speakers mount easily to your wall and are available in black or white to complement your decor.

CIRCLE NO. 36 ON READER SERVICE CARD

5601 Metro Drive, Baltimore, Maryland 21215 USA (410)358-3600.

“Polk Audio”, “The Speaker Specialists” and “Dynamic Balance” are registered trademarks of Polk Investment Corporation used under license by Polk Audio Incorporated.
Life's a Beach

The item on "Beach Changers" in August "Bulletin" does a disservice to your readers in implying that CD changers in boomboxes are at home on the beach. In fact, it is about the worst environment for any CD player. The accompanying illustration shows four hazards (five if you include the seagull about to make do-do on your favorite CD): sand, water, salt, and sun.

Most portable CD and cassette units are not sealed adequately to prevent infiltration by sand and moisture. Water, especially salt water, causes heavy corrosion of printed-circuit-board components. Salt air and sea fog have the same effect. Corrosion is like cancer and spreads even after attempts at cleaning. Replacing the circuit board is about the only cure, and that is usually prohibitively expensive. The hot sun can do damage as well.

While the boomboxes you list are all excellent products, I would suggest that at the beach people use only players specifically designed for it, and even those should be kept zipped inside a beachbag with only the headphones outside.

BRENT JESSEE
Service Manager
United Audio Centers
Northbrook, IL

Middle-Class System

In response to "Systems" in July, thank you for finally showing a system that relates to the middle-class person. Spending $2,500 for an entire A/V system seems prohibitive even for it, and even those should be kept zipped inside a beachbag with only the headphones outside.

STEVE KLOSTERMAN
Coldwater, OH

Speaker Comparison Tests

Thank you for Tom Nousaine's comparison tests of six midprice floor-standing speakers, "Stand Up and Be Counted" (July). Obviously, when a consumer decides to buy a new component, he or she must compare such things as sound quality, price, and appearance. Considering the multitude of components and designs available even in the same price range, it is difficult to do that based on single reviews. I hope you continue to do comparison tests.

KEVIN BROWN
Sunnyvale, CA

We appreciate the effort that went into the comparative speaker tests in the July issue, as we have gone through a great many blind-blind listening comparisons ourselves. But we feel compelled to draw your attention to some areas in which the test procedure could be improved:

Measurements. The author stated that frequency-response measurements were taken "at a distance of 0.5 meter (about 1.5 feet)." While it was flattering to see that the Paradigm 7se Mk III had the smoothest overall response, his measurement method actually indicates only the use of good, resonance-free drive units. It cannot show proper integration of the tweeter and woofers (and port) in anything other than a small two-driver system. The minimum proper integration distance for the Paradigm 7se Mk III is approximately 0.5 meter (1.5 feet).

Level matching. This is very difficult at the best of times, and yet it is extremely important. Even a small difference in level can dramatically skew listener preference. The article says that level matching was done "using pink noise" with "an A-weighted filter." In a telephone conversation, Mr. Nousaine stated that he used a 1-kHz tone to match levels. Using a 1-kHz tone to set levels will lead to meaningless level adjustments and invalid conclusions. B-weighted pink noise yields the best correlation between measured and perceived loudness.

Speaker positioning. The article says that the speakers were "lined up three abreast on each side." A fourth speaker was "placed directly atop one pair of the contestans." While care was taken to keep the speakers away from room boundaries, an unfortunate oversight occurred in not considering the effect of setting three speakers side by side and one on top—it creates a huge "baffle." It is not difficult to predict that a normally thin-sounding speaker could sound more "natural" in that setting than a speaker like the Paradigm 7se Mk III, which was designed to have a very natural, full-bandwidth sound without a large baffle area.

The anchor speakers. The article indicated that a pair of "anchor" speakers, of some presumed quality, were always located in "positions 2 and 4" and used as a "reference" for the listeners. As an "anchor" was used to guide listeners through their trials. In valid blind-blind testing, anchor speakers are never revealed at any time during the test to either the listener or the tester. The reason an anchor speaker is put into a blind-blind test is to help correlate current test results with previous test results of other speakers. They should never be used as a guide or "reference."

The Paradigm 7se Mk III is a very natural performer with good linearity even at high listening levels. The pair of anchor speakers used in the test are described as "high-quality two-way bookshelf systems"
“Nothing less than a steal.”
—Robert Harley, *Stereophile*

There’s something in this review of our GDA-600 digital-to-analog converter that the competition doesn’t want you to see. Maybe it’s the fact that the GDA-600 makes digital formats sound richer and more musical. Or that it has advanced 20 bit conversion architecture and a Class “A” analog output stage. But what they really don’t want you to see is that the GDA-600 costs much less than you might expect. For the full review see *Stereophile*, Volume 17, No. 3, (March ’94). Or, if your copy has been stolen, give us a call.
with 8-inch woofers and 3/4-inch soft dome tweeters." Speakers with such a driver complement normally have a high crossover frequency to protect the tweeter from failure. The 8-inch woofer must then operate well into the midrange, where it becomes directional, causing some loss of clarity in the upper midrange. As the "reference" speakers for the test, however, they will be presumed to be correct, and speakers with better upper-midrange performance may actually be scored lower for being "too clear." Using a "reference" in this way skews listener perceptions and preferences and invalidates the test results.

When combined with proper technical measurements (on-axis frequency response, response measurements that include early reflections, and total acoustic-energy response), taken in a suitable environment (an anechoic chamber), blind-screen listening tests are invaluable. They must be done, however, with an eye to removing the possibility of drawing the wrong conclusions from wrong techniques.

Scott Baoby
Director of R&D
Paradigm Electronics
Woodbridge, Ontario

Tom Nousaine replies: The speakers were level-matched using pink noise and a sound-level meter. Occasionally we verified drive levels to the speaker terminals with 315-Hz and 1-kHz sine waves. I'm sorry about the confusion. Level matching is very important for valid comparison.

Placing speakers three abreast could indeed create a partial baffle that might affect a speaker's sound. To guard against such problems, I confirmed each speaker's basic sound character in subsequent independent listening tests with the speakers in precisely identical locations and no other speakers nearby.

Finally, listeners were instructed to use the "reference speaker" as an anchor to help them maintain consistency between sessions. Such use of an anchor to maintain inter-session reliability is a valid analytical technique. Listeners were told to rate all the speakers on a scale of 0 to 10, with the lowest number indicating "unacceptable" and the highest "perfect, or the best imaginable stereo sound." The reference was described as an anchor near the middle of the scale and not as a performance standard. Listeners often cited individual speakers in the tests as superior to the anchor in specific performance categories and overall.

Keyboard Immortals

During the 1950's, "Keyboard Immortals," music of turn-of-the-century master pianists, was available on the radio and on open-reel tapes produced by Joseph Tu-

shinsky, president of Superscope. I am very interested in securing some of those tapes or even the original master tapes. Can anyone provide information on sources or leads for further searching?

Allen E. Watt
167 Via Los Miradores
Redondo Beach, CA 90277

Pink Floyd Hits the Wall?

Ron Givens could not have been more wrong in his August review of Pink Floyd's new album, "The Division Bell." Just because it's not the band's best work doesn't mean it should be dismissed. How can you possibly expect them to keep turning out albums like "Dark Side of the Moon" and "The Wall" for more than twenty-five years? Instead of seeing "The Division Bell" as a "post-peak album," accept it for what it is, a new experience from a highly regarded band.

Eric Pennell
Franklin, MA

Digital Dissenter

I'm writing in support of Paul Gordon's letter about "the horror of digital sound" in June, and I take issue with the responses to it from Juan Gonzales, Alex Canizales, and Steven Carter in August. It's exactly the people who don't know what Mr. Gordon means by "lack of tonal ambience"
Here's a great way to build a collection of your favorite movies on laserdisc! Just write in the numbers of the 3 laserdiscs you want—any combination, at any time after doing so. You may return the selection at our expense for a full refund. Details of the Club's operation with 10-Day Risk-Free Trial. We'll send member! You may cancel membership at any time. Eligible for our generous bonus fulfilling your obligation, you'll be continue your membership after expense. May return the selection at our expense.

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BUY YOUR FIRST SELECTION NOW—AND HAVE LESS TO BUY LATER! □ Also, send me my hrst selection for $19.95, plus $1.50 handling, which I'm ceding to:

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The smooth, natural sound of speakers by Henry Kloss (founder of AR, KLH & Advent) can now be enjoyed outdoors: on the patio, by the pool, even on boats. The Outdoor is a compact, water-resistant speaker with accurate, wide-range sound. It comes in two versions: one free standing ($279 pr.); one for in-wall mounting ($329 pr.). Both versions are very well made, with stainless steel hardware and gold-plated connecting terminals. Use them in white, or paint them any color. Because we sell factory-direct, with no expensive middlemen, these speakers cost far less than they would in stores. Call for a free catalog and find out why Audio says we may have “the best value in the world.”

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Noted critic Richard Freed has chosen the best available CD recordings of the most often performed music in the classical orchestral repertory. Hundreds of recordings of symphonic works from Bach to Wagner!

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who would believe wholeheartedly in digital audio. If you’ve never heard it, you can’t miss it.

Keith Jarrett
Santa Barbara, CA

Indigo Girls
Why are critics so quick to pounce on anything that’s a little original or artistic? Alanna Nash’s August review of the Indigo Girls’ new album, “Swamp Opera,” was typical. If the Indigos are “stuck in that college-freshman phase,” then where are Mariah Carey, Janet Jackson, and Whitney Houston? In grade school?
I’d much rather hear a performer attempt something new and risk failing than hear more of the same.

John Shirley
Philadelphia, PA

Disappearing Tenors
Please allow me to answer Jamie James’s query, “Where Have All the Tenors Gone?” (July): Some have died, and some remain. But then, he did not ask where the great tenors have gone. I guess that’s why Mario Lanza’s name was missing from his article. The only tenor I ever heard worth his salt was Lanza. I would choose his “Nessun dorma” over Pavarotti’s or Domingo’s anytime—no contest!

Harvey Freilich
Parkland, FL

MiniDisc
Anthony Lunn’s July letter about David Ranada’s “Digital Chaos” (May) blasts the MiniDisc as “miniaturized beyond common sense and ... not quite as good as digital should be.” I am not equipped for ABX double-blind testing, but I find it very hard to hear much if any difference between a CD and an MD of the same recording.

Gerald A. Hoff
Houston, TX

“Digital” Stereo Review
Just discovered you on America Online! What a great idea! I’m enjoying this new “digital” service as much as the “analog” magazine.

Robert A. Palmer
Niceville, FL

Corrections
David Hall’s July review of a set of the Carl Nielsen symphonies referred to a “1942” Leonard Bernstein recording of the Fifth Symphony. The correct date is 1962.

“Sounds of the Streets” in June’s Popular Music section (page 87) mistakenly stated that Rhino’s “The Doo Wop Box” has three CD’s. It is a four-disc set.

We welcome your letters. Please address correspondence to Editor, Stereo Review, 1633 Broadway, New York, NY 10019. You should include your address and telephone number for verification. Letters may be edited for clarity and length.
“Bone Shaking.”
Rich Warren, Chicago Tribune

In 30 days you’ll see what Rich Warren is talking about when Polk Audio revolutionizes subwoofer technology.
Amazing New 3D Surround Sound Technology.

NuReality is proud to introduce a revolutionary development in audio technology—the Vivid 3D™ series of sound enhancement products. Thanks to patented SRS (○)® technology, Vivid 3D systems retrieve ambient information lost by traditional stereo processing to create 3D surround sound from only 2 speakers.

Easy to Install.

Vivid 3D products are easy to install with your existing audio system. You can use Vivid 3D products to enhance virtually any audio configuration—from a portable CD player with only 2 speakers to a full 5 speaker surround sound system. In addition, Vivid 3D products are fully compatible with surround sound technologies, such as Dolby Pro Logic®.

Surprisingly Affordable.

NuReality offers a complete family of Vivid 3D products with prices starting under $100. You can choose the Vivid 3D Studio™ which incorporates a built-in amplifier. Or the affordable Vivid 3D Plus™ which is perfect for portable stereo systems. To experience 3D surround sound for yourself, call NuReality at 1-800-301-8086.


* Quote excerpted from a review of the SRS (○) technology from the April 1992 issue of Audio Magazine. The Vivid 3D sound enhancement system won the Retail Vision "Best Product" award in May 1994, and the Innovations award from the International Consumer Electronics Show in June 1994. Vivid 3D systems incorporate SRS (○) technology which won the "Ultimate" award from Game Player magazine in July 1993.

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RCA

RCA's Dolby Pro Logic-based RV3791F receiver offers twelve music and video surround-sound modes, four video and five audio inputs, a subwoofer output, and a remote control. Power output is 60 watts each to the three front speakers and 25 watts each to two front and two rear surround speakers. Price: $899. RCA, Thomson Consumer Electronics, Dept. SR, 10330 N. Meridian St., Indianapolis, IN 46290-1024.

BOSE

Bose's Lifestyle 12 System provides everything needed for home theater except the video source and TV monitor: a sleek music center/preamp featuring a built-in CD player and AM/FM tuner, a radio-frequency remote control, five magnetically shielded Acoustimass 5 "double cube" speakers, and an Acoustimass powered bass module. In addition to an 80-watt bass amplifier and separate 40-watt amps for each satellite, the bass module contains a proprietary surround decoder. Price: $2,200. Bose, Dept. SR, The Mountain, Framingham, MA 01701-9168.

HUBBELL

Hubbell Sound Systems, a new speaker company, is offering the HS542 (shown with Sanus RF24 stands), featuring a 1-inch aluminum-dome tweeter and two 5¼-inch woofers. The 18½-inch-tall cabinet is finished in oak veneer and fitted with gold-plated biwirable binding posts. Frequency response is given as 70 Hz to 25 kHz ±3 dB and sensitivity as 92.5 dB. Price: $799 a pair. Hubbell Sound Systems, Dept. SR, P.O. Box 30136, Des Moines, IA 50310.

SAMSUNG

The VR8704 is Samsung's least expensive four-head VHS Hi-Fi VCR. It features an eight-event/one-month programmable timer for unattended recording, bilingual on-screen menus, automatic tracking adjustment, and a universal remote control. Price: $299. Samsung, Dept. SR, 105 Challenger Rd., Ridgefield Park, NJ 07660-0511.
AVALON ACOUSTICS
The Monitor speaker from Avalon Acoustics combines a 7-inch woofer and a 1-inch titanium-dome tweeter in an 18-inch-tall sculpted cabinet finished in walnut veneer. The speaker has a 3-inch-thick front baffle, which is said to minimize vibrations, and is covered by a five-year limited warranty. Anechoic frequency response is given as 60 Hz to 24 kHz ±1.5 dB and sensitivity as 87 dB. Price: $2,695 a pair, optional stands, $340 a pair. Avalon Acoustics, Dept. SR, 2800-B Wilderness Place, Boulder, CO 80301. • Circle 124 on reader service card

PHILIPS
The Philips CDC 936 five-disc carousel CD changer lets you change three discs while one is playing. It features a digital output, a remote control with volume, and a favorite-track-selection/title memory for more than 100 discs; when there is a "programmed" disc in the changer, selections play back in the preferred order. Price: $300. Philips, Dept. SR, P.O. Box 14810, Knoxville, TN 37914-1810. • Circle 125 on reader service card

DISCOUT
The DiscOut suction-cup device from K.P. and F. Inc. eases a CD out of its jewel box. Available for $4.95 (plus $2 shipping) from K.P. and F. Inc., 63 Southwood Dr., Orinda, CA 94563; telephone 510-256-0243. • Circle 127 on reader service card

CAMBRIDGE SOUNDWORKS
MultiMedia by Henry Kloss, a powered speaker system from Cambridge SoundWorks, can be used with a computer or a small music system. It comprises two magnetically shielded 3-inch cubes in gray-beige or gray as shown and a 5 x 8 x 9-inch bass module/amplifier finished in black vinyl. Available factory-direct for $179 (plus shipping) with a thirty-day money-back guarantee. Cambridge SoundWorks, Dept. SR, 154 California St., Newton, MA 02158; 1-800-367-4434. • Circle 128 on reader service card

NUREALITY
NuReality’s Vivid 3D system is an add-on sound-enhancement device that plugs into the audio output of a sound-card-equipped computer or a video-game system. The 4 x 1 x 5-inch box incorporates patented Sound Retrieval System (SRS) ambience circuitry, which is said to enhance game-playing realism by creating a three-dimensional effect with only two speakers. Encoded source material is not required, and the system works with both mono and stereo programs. The ambience level is adjustable. Price: $99. NuReality, Dept. SR, 2907 Daimler St., Santa Ana, CA 92705-5810. • Circle 126 on reader service card

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### Columbia House

**The Face of Rock.**

| Various Artists | Rhythm, Country & Blues (MCA) | 474-536 |
| Meat Loaf | Bat Out Of Hell II: Back Into Hell (MCA) | 475-328 |
| Sammy Hagar | Unboxed (Geffen) | 478-107 |
| Proclaimers | Hit The Highway (Chrysalis) | 478-513 |
| Benedicent Monks Of Santo Domingo | Chant (Ange) | 479-067 |
| Celine Dion | The Colour Of My Love (500 Music/Epic) | 467-662 |
| Phish | Host (Elektra) | 477-919 |
| David Lee Roth | Your Tiny Little Mouth (Reprise) | 476-333 |
| Gerald Albright | Smooth Atlantic | 475-152 |
| Aerosmith, Get A Grip | (Geffen) | 485-075 |
| Stone Temple Pilots | Core Atlantic | 473-043 |
| Pearl Jam | Ten (Epic) | 
| Tony Bennett | Steppin' Out (Columbia) | 476-431 |

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**R&B/DANCE/RAP**

| Various Artists | MTV Party To Go, Vol. 4 | Featuring Red Hot Chili Peppers, TLC, En Vogue, etc. (Tommy Boy) | 478-824 |
| Various Artists | MTV Party To Go, Vol. 3 | Featuring Jodeci, Boyz II Men, etc. (Tommy Boy) | 478-810 |
| Various Artists | The Best Of The Village People | (Capitol) | 478-8131 |
| LMFAO | The Heels Mixtape | (Delicious Vinyl) | 478-305 |
| The Brand New Heavies | Bronski Beat (Virgin) | 478-8176 |
| K7 | Swing Batta Swing (Tommy Boy) | 478-866 |
| Juice | Time Is Now (Gran/Reprise) | 453-058 |
| Hammer | The Funky Headhunter (Giant) | 472-262 |
| Jadecori | Diary Of A Mad Band (Uptown/ MCA) | 473-1116 |
| A Tribe Called Quest | Midnight Summer (Jive) | 472-260 |
| Domino (RayDeeJam/ Chaos/Columbia) | 472-225 |
| Salt-N-Pepa | Very Necessary (Next Plateau/London) | 467-637 |
| Babyface | For The Cool In You (Epic) | 464-222 |
| Shaqueillo O'Neal | Shaq Diesel (Jive) | 470-427 |
| Zapp & Roger | All The Greatest Hits (MCA) | 470-344 |
| Color Me Badd | Time And Chance (Giant/Reprise) | 468-702 |
| Dr. Dre | The Chronic (Deaf Row/Interscope) | 463-796 |
| Queen Latifah | Black Reign (Motown) | 471-466 |
| Luther Vandross | Never Let Me Go | (Epic/LV Records) | 467-175 |
| Boyz II Men | Copacabana, High Hurray (Motown) | 424-754 |
| Madonna | The Immaculate Collection (Sire/Warner Bros.) | 414-729 |
| Janet Jackson | Rhythm Nation 1814 (A&M) | 389-918 |

### Columbia House

**The Face of Rock.**

| Various Artists | MTV Party To Go, Vol. 4 | Featuring Red Hot Chili Peppers, TLC, En Vogue, etc. (Tommy Boy) | 478-824 |
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| Madonna | The Immaculate Collection (Sire/Warner Bros.) | 414-729 |
| Janet Jackson | Rhythm Nation 1814 (A&M) | 389-918 |

See details on other side.

- Morrissey—Vauxhall & 1000 Kindle (Sire/Reprise) | 479-341
- Fourplay—Between The Sheilas (Warner Bros) | 474-578
- Otmar Liebert & Luna Negra—The Hours Between Night & Day (Epic) | 478-149
- Danzig—Thrall—Deamonsweatlive (American) | 462-333
- The Black Crowes—Shake Your Money Maker (American) | 462-184
- Barbra Streisand—Back To Broadway (Columbia) | 481-988
- Little Texas—Big Time (Warner Bros.) | 460-204
- Paul McCartney—All The Best (Capitol) | 495-776
- Deep Forest—(550 Music/Epic) | 459-479
- Gloria Estefan—Mi Tierra (Epic) | 459-497
- Anthrax—Sound Of White Noise (Elektra) | 458-489
- John Cougar—American Fool (RCA) | 423-566

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Sade—Love Deluxe
Machine (Epic, AC/DC—Live
Attitude (Epic)
Joe Diffie—Honky Tonk
(Capitol)
Orig. Sndtrk (Epic
Mariah Carey—Music
Skits
Mrs
Mr
Dwight Yoakam—This
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Cypress Hill—Black Sunday
Tina Yothers—Oh Boy
Whorl Bohn.

Van Morrison—Moondance (Warner Bros.
Jim Hendrix—Electric Ladyland (Reprise)
The Allman Brothers Band—At Fillmore East (Atlantic)
Rod Stewart—Rod (Geffen)
The Very Best of The Righteous Brothers (Columbia)
Elton John—Goodbye Yellow Brick Road (Polydor)
Grateful Dead—Skeletons From the Closet (Warner Bros.
Roy Orbison—The All
Time Hits, Vols. 1 & 2
Ekaya—Watermark (Reprise)
Jetwood Mac—Greatest Hits (Warner Bros.
The Beach Boys—Made In The U.S.A. (Capitol)
Bad Company—Can’t Get Enough Of Your Love (Atlantic)
The Cars—Greatest Hits, Vol. 1 (Capitol)
Janis Joplin—Janis (Columbia)
The Best Of Blondie (Chrysalis)
Creedence Clearwater Revival— Chronicle, Vol. 2
Guns ’N’ Roses—Use Your Illusion II (Geffen)
Spin Doctors—Pocket Full Of Kryptonite (Elektra)
Red Hot Chili Peppers—Blood Sugar Sex Magic
(Warner Bros.)
Ozzy Osbourne—No More Tears (Epic, Atlantic)
Ozzy Osbourne—Tech (Geffen)
Moby—I’m Broken, 5 Minutes Alone
(Atlantic)
One Time

9. I am

10. I have a telephone
(1) Yes (2) No

11. I have a credit card
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• You always have 10 days to decide: if not, you may return the Selection at our expense.

• Extra Benefits, More Savings. Beginning with your very first magazine you’ll save money on your favorite music. And after you fulfill your membership obligation, you’ll enjoy our new “Buy More, Pay Less” bonus plan. You get a single CD for half price, $5.99, or even $3.99 with every CD or cassette you buy at regular club price (shipping and handling additional).

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Your Selection, do nothing—it will be sent automatically. If you’d prefer an alternate selection, or none at all, just mail the response card the next day. You’ll receive the complete selection at our expense.

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NEW PRODUCTS

**SENTEC**
The SC9 preamplifier ($700) from Sentec America is part of a Swedish-made line of compact audio components recently introduced in the U.S. The 13 x 2\(\frac{1}{2}\) x 6-inch preamp features six line-level inputs and a Class A output stage said to be capable of driving 150-foot cable runs without signal degradation. The company also makes the 6 x 2\(\frac{1}{2}\) x 13\(\frac{1}{2}\)-inch PA9 mono amplifier (not shown, $600), rated to deliver 60 watts into 8 ohms or 100 watts into 4 ohms. Sentec America, Dept. SR, Route 9, Stockport, NY 12172-0329.

*Circle 129 on reader service card*

**EMERSON**
You can wake up to your favorite CD with Emerson's ADS2805 clock radio. It combines a single-play CD player, AM/FM radio, digital clock with two independent alarm sections, and two 3\(\frac{1}{2}\)-inch speakers in a 15 x 6 x 8-inch molded-plastic enclosure. Features include an automatic loudness-compensation circuit, a bass-boost button, and a headphone jack. The system accepts a 9-volt battery that backs up its memory in the event of a power failure. Price: $150.


*Circle 132 on reader service card*

**ORION**
Orion's 8-inch XTR 8 MB (left, $144 a pair) and 6\(\frac{1}{2}\)-inch 6.5 MB ($119 a pair) mid-bass drivers are designed to "fill the gap" between the woofer and midrange in a car system. Respective bandwidths are 80 Hz to 2 kHz and 80 Hz to 6 kHz; mounting depths are a shallow 2\(\frac{1}{4}\) and 2\(\frac{1}{4}\) inches. Orion, Dept. SR, 118 W. Julie Dr., Tempe, AZ 85283.

*Circle 131 on reader service card*

**RF ENGINEERING**
The RC-8-PS power controller from RF Engineering lets you program an automatic turn-on/off sequence for all the components in an A/V system. It has two current-sensing outlets, eight switched outlets, a computer port, and an infrared controller for sixteen components. Each power line is filtered and protected against surges. The device is rated to handle 40 amperes. Price: $1,250. RF Engineering, Dept. SR, 8884 Wagner St., Westminster, CO 80030.

*Circle 133 on reader service card*

**BLUE ROOM**
Alien speaker? The House Pod from Blue Room, a new division of B&W, features a 21-inch-tall fiberglass cabinet and includes chrome wall brackets, which can be substituted for floor spikes (shown). Rated response is 45 Hz to 20 kHz ±2 dB. Available factory-direct for $1,900 a pair (plus shipping) from Blue Room Loudspeakers, Dept. SR, P.O. Box 8, N. Reading, MA 01864; telephone 508-664-2712.

*Circle 130 on reader service card*
NEW PRODUCTS

SONY

Sony says its SA-VA1 powered home theater speaker system (TV and stand not included) can be set up in less than 10 minutes. The system, which includes a pair of 41-inch-tall main speakers and two small surround speakers (not shown), boasts a built-in Dolby Pro Logic surround decoder (note control panel on speaker at left) and five amplifiers, rated to deliver 95 watts to each three-way tower, 20 watts to a pair of inward-firing center-channel tweeters (one per tower and 25 watts each to the surrounds. A wireless remote control is included. Price: $700.

JVC

JVC’s XM-D1 portable MiniDisc recorder has a flip-up LCD screen, a jog dial for high-speed scanning, four editing modes, one set each of analog and digital inputs and outputs, and a 10-second buffer memory said to prevent audible skipping. Included are a remote control, an AC adaptor/battery charger, and a rechargeable battery. Dimensions are 7¼ x 2¼ x 5½ inches. Price: $1,300.

NSM

The Model 50 from NSM Loudspeakers combines a 6½-inch woofer, a 6½-inch midrange, and a soft-dome tweeter in a 9 x 36 x 10-inch acoustic-suspension cabinet finished in walnut or oak veneer or matte black. Frequency response is given as 35 Hz to 20 kHz ±3 dB, sensitivity as 87 dB, power handling as 200 watts, and nominal impedance as 16 ohms. Price: $1,495 a pair.

CASE LOGIC

Case Logic’s PF-200 ProFile Compact Disc Library holds 200 discs, each in a protective sleeve with an ID pocket on top. Price: $100.

MB QUART

MB Quart’s 9¼-inch-wide QL CTR center speaker (left, $229 each) is timbre-matched to several of the company’s existing speakers as well as its new 11¼-inch-tall QL Point Five bookshelf model (right, $299 a pair), designed to handle front- or surround-channel duties in a home theater. Both speakers are two-way systems. Low-frequency limits are given as 70 and 68 Hz, respectively.

Case Logic, Dept. SR. 6303 Dry Creek Parkway, Longmont, CO 80503.

MB Quart, Dept. SR. 25 Walpole Park S., Walpole, MA 02081.

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Bose announces a new technology for better sound. And a new standard for floorstanding speakers.

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In researching the purchase of an A/V system, I have discovered that some authorities say you can't use the same speakers for home theater as for normal music listening, while others say you can. Are the requirements of the two really so different?

Scott Cutler
Long Beach, NC

A The question of which speakers are suitable for which application reminds me of the classical-vs-rock speaker arguments of my audio adolescence. Back then, the assumption was that all speakers were flawed, so you should pick the ones whose imperfections best suited the kind of music you liked. Ultimately, neutral speakers became the norm, and people used them for all types of music; if certain spectral effects were wanted by the record producers, it was up to them to build them into the recordings rather than relying on the speaker manufacturers to provide the appropriate spectral imbalance.

Nowadays a similar argument is sometimes advanced with respect to music and movie sound, and the answer is essentially the same: Fundamentally, a good speaker is a good speaker. If it sounds good with well-recorded music, it will also sound good with well-recorded movie soundtracks, and vice versa.

Asking for Treble

I bought my speakers more than twenty years ago, and I am satisfied with them except for the treble. I know that years ago you could buy separate high-frequency speakers, but I'm not sure that's the way to go. Do you have any suggestions on improving my sound?

Charlie Presti
New Milford, NJ

A Simply parking stand-alone tweeters on top of your speakers might work satisfactorily, provided you can vary their level to achieve a reasonable balance with the existing speakers. It's a cheap enough option that it's probably worth a try even if it doesn't work.

I wouldn't hold out much hope for that approach, however. Matching the various elements of a speaker system is a delicate balancing act involving the dispersion of the drivers, their sensitivities, their natural rolloffs, and their tendency to interfere with one another, especially at high frequencies. If it were a simple process, all speakers would sound great. You have two options. Stick with what you have and dial in a touch of equalization to spruce up the treble, or treat yourself to a new pair of speakers— you just might be pleasantly surprised.

Extra Surround Speakers

In a home theater system, instead of using a pair of dipole-radiating speakers for the surrounds, couldn't you use two or more pairs of conventional speakers driven from the surround amplifiers (obscuring impedance, polarity, etc.) and placed in the same fashion as in a movie theater? Would the additional speakers create a sufficiently diffuse sound field?

Mark R. Spiering
Waukesha, WI

A That depends very much on the room and the specific positioning of the speakers. It might work, but any benefit would be small. On the other hand, in most rooms, the speakers would have to be fairly close to each other, and that is likely to cause coloration from acoustic interference. Multiple surround speakers work in a theater because it's a large space and the various speakers are at very different distances from a given listener, which produces the desired diffuse quality. That's much harder to achieve in a typical home listening room.

Unshielded Center Channel

In my home theater setup I use a small two-way speaker for the center channel, placed directly on top of my television. Although the speaker is not shielded, it sits on a steel plate the same size as the top of the monitor from a speaker's magnetic field. The one thing to be wary of is that small amounts of magnetism can gradually affect your picture over time, the changes happening so slowly that you might not notice. Check the color every few months to make sure it's not being affected, if it is, you can usually restore it to normal by removing the offending speaker for a day or two to let the television set recover.

Randy Ground
Lorena, TX

A It's unlikely. In fact, using a steel plate is one recommended way to shield a TV monitor from a speaker's magnetic field. The one thing to be wary of is that small amounts of magnetism can gradually affect your picture over time, the changes happening so slowly that you might not notice. Check the color every few months to make sure it's not being affected, if it is, you can usually restore it to normal by removing the offending speaker for a day or two to let the television set recover.

Loud Power

My wife and I like all kinds of music and often listen at high volume. I am planning to buy a pair of Klipschorns, which have a sensitivity of 94 dB, and I have a choice of amplifiers to drive them. One rated at 100 watts a channel, the other at 200 watts. I'm concerned about damaging the speakers with either too much or too little power when driving them at high levels. Which of the amplifiers I'm considering would be safer?

William Zaugg
Jupiter, FL

A Wow. If you want loud, you're gonna get loud! But don't worry about damaging your speakers or the amplifiers. Underpowering is a problem only if you have to drive your amplifier into chronic clipping to get the level you want; by the same token, over powering is simply feeding more power to the speaker's voice coils than they can handle, thereby burning them out. Klipschorns are so sensitive that you will never even want to feed them more than a fraction of the output of your amplifier; any more and you wouldn't be able to stand the din. For that reason, I'd go for the smaller amp, especially if there is a significant cost saving. And I'd probably send the neighbors a plate of home-baked cookies every now and then, too.

Undoing Biamping

My mid-component system is designed for biamped speakers, so the amplifier has separate outputs for the highs and lows in each channel. I would like to upgrade the speakers in this system. How would I go about connecting the amplifiers I have to conventional speakers?

Philip M. Allgood
Palm Bay, FL

A You may not be able to. If there is a way to switch the electronic crossover out of the circuit and feed a full-range signal to one or both of the internal amplifiers, one set of amps could drive ordinary speakers, assuming you have enough power (in fact, you might want to use the bass amplifier—it probably produces more watts). Otherwise, you may have to choose speakers that can be biamped or biwired: there are lots of models that have both biwire/biamp and the more usual single-wire terminals. Be careful to insure that the crossover frequencies of the speakers and the amplifiers match, or can be adjusted to match, though, or achieving balanced response will be well nigh impossible.

If you have a question about audio, send it to Q&A, Stereo Review, 1633 Broadway, New York, NY 10019. Sorry, only questions chosen for publication can be answered.
Bose announces a new concept in floorstanding speakers – less bulk, more sound.

The brand new 501™ Series V speakers have been engineered to take up a minimum of floor space (less than this magazine page) with absolutely no compromise in sound.

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Our Direct/Reflecting® speaker technology, based on measurements taken in better concert halls, reflects a portion of the sound off your walls. For more realism. For more stereo. Even if you're sitting closer to one speaker than the other.

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Fallen Giants

The pages of audio magazines are filled with test reports, opinion columns, record reviews, and all sorts of articles that demand the attention of people interested in good music reproduction. Usually, these articles are written by men and women whose job is to stick to the facts. It's rare for them to reveal private thoughts or directly betray their personalities. Still, over the years, readers inevitably paint mental pictures of the authors behind the stories they read, forming attachments to them, coming to respect and value their work. Because you have let audio journalists enter your life, and perhaps established a sort of friendship with some of them, I'd like to reflect on the accomplishments of five of the best and brightest, all of whom have died in recent months.

Certainly, even as we celebrate the birth of a healthy child to a friend or colleague, we expect to hear occasionally of the death of someone we love or admire. That balance of joy and sorrow represents the motion of the pendulum that clocks our own passage through life. Sometimes, though, that balance seems to be upset, and too many are taken away too suddenly. Such has been the case among the fraternity of audio journalists. Although their deaths were inevitable, and in some cases expected, it is still a shock that so many are so suddenly gone. It's as if the earth briefly traveled through some mysterious ether that thinned our ranks. Since late last year, Ralph Hodges, Herman Burstein, Bert Whyte, Bart Locanthi, and Len Feldman have all passed away.

Ralph Hodges was well known to every reader of STEREO REVIEW. His column, “The High End,” ran in these pages for ten years and shared the knowledge gained from a lifetime of experience. I always liked Ralph’s columns and somehow found it fitting that each issue concluded with his words on the last page. His pieces were both thoughtful and witty, and I admired them for their perspective. Although he was a sharp critic and passionate about sound quality, Ralph was never overwhelmed by it. Whereas some writers allow their passion for audio to make them silly and petulant, throwing temper tantrums and indulging in name-calling, Ralph remained far above that.

I never met Herman Burstein, but I remember reading his “Tape Guide” column in Audio magazine when I was a kid; in fact, it ran for four decades. He answered thousands of questions in print, and thousands more in direct, personal responses to readers. Clearly, he was a man of immense knowledge. But Mr. Burstein also had the gift of explaining complicated things in very few words. I once wrote an article on double-blind listening, with a sidebar on the statistics used to express the results. A few days later, Mr. Burstein sent me a brief, hand-typed letter that beautifully described the intricacies of statistical probability derived from the binomial distribution. I’ve never found a more lucid explanation of the topic, and I refer to it even today.

Bert Whyte was among the most colorful of audio journalists. First and foremost, he was a recording engineer. He engineered some of the first stereo recordings with Leopold Stokowski in 1951. He later co-founded Everest Records, where he first used 35-millimeter magnetic film for stereo recording. Those recordings are still considered to be among the best ever made. Bert was well known to contemporary readers for his “Behind the Scenes” column in Audio magazine, where his knowledge of recording techniques and audio technology let him appraise software and hardware with absolute precision. He was equally knowledgeable and precise in his love of haute cuisine. Whether he was recording a symphony or preparing a sauce, Bert sought perfection.

Bart Locanthi was probably not well known to most readers of consumer audio magazines because he chose professional journals as his forum. An audio professional’s professional, Bart solved some of the toughest engineering problems over a fifty-year period. His developmental work on loudspeakers and power amplifiers remains highly relevant; many of today’s products can trace their lineage back to his work. Bart stayed on the cutting edge. He was an early advocate of digital recording, and most recently he evaluated data-reduction algorithms, pushing audio engineers to improve their efforts. I remember calling him one day to clarify a point in a paper I had written on high-frequency dither. He had much better things to do, but he spent an hour on the phone explaining all the details to me, not content to quit until he was absolutely satisfied that I understood every aspect of the problem.

Len Feldman was an industry legend and a household name to anyone interested in audio technology. He was unquestionably the most prolific audio journalist of his day, and one of the most widely knowledgeable. Len fearlessly tackled topics ranging far and wide throughout audio technology, writing and lecturing with incredible clarity. He was tireless in his activities. He wrote for Audio magazine and many other trade and consumer publications, chaired countless technical committees, helped establish technical standards, testified before legislative bodies on consumer audio issues, developed a new tuner technology, wrote seven books on audio and electronics, consulted with audio manufacturers, and traveled the world touring manufacturing facilities and attending technical seminars. Len was everywhere. He even installed the stereo system in the White House for President Jimmy Carter.

I first met Len in 1982, when I started writing professionally. I was well aware of his prominence and was surprised that he would take the time to encourage me to enter the field. To me, that kindness and consideration from a veteran to a newcomer was the most important measure of his distinction. He was a wonderful man and a consummate professional. I am honored to have known Len and his four colleagues. I admire the care and expertise they brought to their work and the high personal and professional standards they set for themselves. Their benefit to the audio community is immeasurable. Later today, or perhaps tomorrow, pick out one of your favorite recordings and listen to it. Turn it up a little louder than usual. They would appreciate hearing it too.
GO BUMP IN THE NIGHT.

MIDNIGHT MARTINIS
Stir Seagram’s Gin and dry vermouth over ice and strain into chilled glass. Garnish with black olive.

THE SMOOTH GIN IN THE BUMPY BOTTLE.

Those who appreciate quality enjoy it responsibly.
Consumer Reports' Audio Tests

Measuring and evaluating the positive and negative attributes of almost any electronic home entertainment product poses more problems and pitfalls than one could have imagined at the outset. Some of them are technical, related to the actual testing and measurement process, but those are usually solvable (though not necessarily easily or cheaply).

I speak from personal experience. In 1954 I was an electronics engineer working on a variety of projects, none of which had much to do with audio. I had been an "audiophile" (a recently coined word) for about five years, at a time when much of an audio system could still be (and typically was) built by the user. The availability of my employer's lab facilities on my off-hours naturally led me to testing, albeit sometimes crudely, home-brew and store-bought components that I and fellow enthusiasts brought in.

Consumers Union was even then evaluating consumer products of all types. I have been a member of CU since 1947 and have usually found its publication, Consumer Reports, to be helpful and informative. Nevertheless, CU was (unwittingly) the catalyst that led me to become an audio reviewer.

In what I believe was its first venture into component hi-fi, Consumer Reports presented a test of a number of amplifiers for home music systems. To my amazement (and everyone else's), its "Best Buy" and "Best Performing" amplifier was the Bogen DB-20, an inexpensive and undistinguished public-address amplifier! The report concluded that it had better overall performance than the considerably more expensive (and vastly superior) McIntosh MC-30. That was, to me and several fellow audio enthusiasts, a clear indication that a different approach to audio component testing was sorely needed. The result was our Audio League Report, the first "underground" hobbyist audio review publication.

What was CU's mistake? Mostly a combination of poor judgment and (I suspect) a scarcity of audiophiles on its staff. But CU has cleaned up its act significantly over the past four decades. CU's current audio tests are certainly exhaustive, but in my opinion the most valuable features of its articles on audio equipment are their explanations in layman's language of the significance of the technical terms and common jargon used in the consumer electronics field, plus reasonable explanations of the real differences between similar components in different price ranges.

A recent CU report on stereo and A/V receivers provides a tabular listing of power ratings, actual measurements for all channels into loads of 8, 6, and 4 ohms, and the number of audio and video inputs and outputs provided on each receiver. For the tuner sections, sensitivity, selectivity, and overall performance are each rated on a five-step scale. CU also provides an extensive comments section that does a pretty good job of calling readers' attention to good or bad features of each product.

Probably my major disagreement with CU's reports is their rank ordering of a number of generally similar competing products. Most readers of these reports tend to choose on the basis of a "best buy" rating or at least the highest overall score in the product ranking. That is not necessarily unreasonable, but unless there are substantial differences in such factors as performance, reliability, or ease of use, I find no basis for quality ranking. CU does point out that the differences between closely ranked products are usually insignificant, but it seems unlikely that such a qualification will succeed in erasing from readers' minds the implication inherent in a rank-ordering that one product must be the best of the lot and the others merely also-rans.

Loudspeakers present even greater difficulties. CU's speaker ratings are presented primarily in graphic form. Two frequency-response plots are given for each speaker: One, in black, is the speaker's measured response driven with a flat signal; the other, in red, the result of changes made with "typical" tone controls to produce the flattest response curve. These plots are accompanied by corresponding "accuracy" ratings on a 100-point scale, arrived at by unknown means, and an indication of the amount of bass and treble tone-control correction (in decibels) needed to achieve the results shown in the red plot and score. CU implies that since typical receiver tone controls cover a ±10-dB range (roughly correct), a change of 1 or 2 dB can be produced by a proportional knob rotation, which is only rarely the case and at best almost impossible to estimate accurately with uncalibrated controls. Consumer Reports also provides indications of each speaker's relative ability to play low bass loudly and its rated and measured impedance, along with some other information.

Finally, apparently on the basis primarily of the accuracy ratings assigned to the speakers, the speakers are listed in order of "overall score," which is shown as a bar graph on a scale ranging from poor to excellent. I find little relationship between these rankings and my own reactions to those speakers I have also tested. It seems to me that ranking products whose ultimate quality is almost completely subjective is a risky business.
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Pioneer has upped the ante in the emerging world of interactive multimedia with its LaserActive format, which combines the same high-quality analog video used for laserdiscs with excellent digital video and graphics as well as CD-quality digital audio. Besides playing standard music CD's and laser discs like any combi-player (though without automatic side-change), the CLD-A100 LaserActive player has a port for an optional slide-in module—three different modules (or "packs") are available—to handle software in a wide variety of other formats: Sega Genesis video games, Sega CD's, NEC/TurboTechnologies DuoSoft discs and game cartridges, Pioneer LaserKaraoke sing-along discs, and 12-inch Pioneer LaserActive discs.

The dozen initial LaserActive releases are heavy on games—a couple of them in the "interactive movie" category—but there are also education-oriented programs. They run high, however—$120 apiece—and the player's versatility isn't cheap, either. The CLA-A100 costs $735, the game modules $485 each—and you need both to handle all the formats mentioned except LaserKaraoke. For that you need the $350 karaoke pack (which has two microphone inputs, a pitch shifter, and an echo control).

Setting up the player is the same as hooking up a laserdisc machine: You connect it to your audio system via a pair of standard RCA-type jacks (or an optical digital output) and to your TV via an RCA video output. Then it's a simple matter of slipping one of the hardcover-book-size modules into the player's port and, in the case of the game packs, plugging in a wired control pad. I connected the player to a 25-inch Sony TV and an Onkyo A/V receiver that feeds a pair of B&W 802 speakers.

Since the success of any new format ultimately depends on the software, I focused my attention squarely on the new LaserActive discs. I managed to get my hands on nine of the twelve currently available titles. Oddly enough, there are two types of LaserActive discs: You need the Sega pack to play Mega LD discs and the NEC pack to play the LD-ROM variety (fortunately, I had both game modules). Discs scheduled for release later this year will work with either module, according to Pioneer. All in all, the company expects to have about twenty titles in stores before Christmas.

Let the Games Begin
Once the CLD-A100 was jacked into my A/V system, I limbered up my fingers for an interactive workout and popped in "Rocket Coaster," a one-player car game in which you find yourself racing against the clock on a bizarre roller-coaster track that might make weak stomachs queasy. The computer-generated background images, resembling Dali paintings, are spectacular. Adding to the fun is the Roland Sound System (RSS) encoding, which delivers a convincing surround-sound effect using only two speakers.

"Pyramid Patrol" is a space-age shooting game in which you try to enter a Martian pyramid without being blasted to bits by alien ships. High-quality computer-generated graphics set it part from other video games in the shoot-'em-up genre.

Taking a break from the game action, I slipped in "Great Pyramid," a mildly interesting educational disc covering ancient Egypt from the Old Kingdom to Cleopatra. An easy-to-use menu system lets you view narrated footage of artifacts and monuments or zero in on specific subjects, such as biographies of different pharaohs.

"I Will—The Story of London" is a two-sided disc. On one side is a tour
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of Great Britain that's an okay travelogue. The other side is an interactive mystery movie involving the theft of a priceless environmental invention. Your job is to sift through clues and unmask the thief. The video is top-quality, but the acting is amateurish and the game play limited (there's a driving course and casino games like blackjack).

"Manhattan Requiem," an interactive murder mystery based in the Big Apple, is far more intricate than "I Will," with more than thirty characters to interrogate and loads of locations to visit. The goal: Find out who murdered Sarah Shields, a bar pianist. Some of the voiceovers and dialogue are unintentionally funny. You can even take a break from your sleuthing and play blackjack or listen to jazz.

Back to the games: In "Hi-Roller Battle" you're a helicopter pilot whose mission is to obliterate secret terrorist bases while dodging enemy fire. The graphics are better than in most computer and video games, but it's still no match for computer games like "Gunship 2000," which are far more challenging.

"Triad Stone," on the other hand, is a brilliant combination of Disney-grade animation and game play. Controlling the hero Ashe as he jumps and slashes bad guys to defeat the evil king Ballul is like commanding Bugs Bunny during a chase scene with Elmer Fudd. This is a true gaming breakthrough, and it has a Dolby Surround soundtrack to boot.

The last title, "Quiz Ecosaurus," is one of three discs that work only when the NEC/TurboTechnologies game pack is inserted. It's an environmental-themed educational game for children featuring multiple-choice questions and rudimentary animation.

The Verdict

Pioneer's CLD-A100 LaserActive system handles standard music CD's and laserdiscs as well as a wide variety of interactive formats for entertainment and education.

software support. At this writing, twelve companies were designing software in the LaserActive format. As a result, all of the games are made in Japan—and it shows in the instructions and narrations.

The other looming obstacle is price. Simply to play a LaserActive disc requires a hardware investment of $1,220 (basic player plus one game module), and then you have to shell out up to $120 per disc depending on how much the dealer discounts (the average list price of a 3D0 or CD-1 title is $40 to $60 in comparison). Granted, you can play CD's and laserdiscs, but in that role the CLD-A100 is nothing more than a midline combi-player (the addition of dual-side laserdisc play would be nice).

Asking $1,220 for a game machine, albeit a superior and quite versatile one, is asking too much. Now that Panasonic has dropped the price of its 3DO machine to $499 (from $699) and many good titles are being released, that system is more than vaporware. Philips has lowered the price of its CDi 220 CD-I player to $399 and offers a catalog of more than 100 titles; the company is also pushing a new generation of enhanced-graphics games, which require the use of a $250 plug-in Digital Video Cartridge.

Still, Pioneer's is the only system that lets you play CD's, laserdiscs, and five different game formats, one of which offers some of the best video games outside of an arcade.
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BIC Home Theater Speaker System

DAVID RANADA • TECHNICAL EDITOR

The four different components that make up BIC's home theater speaker system are available separately. Indeed, the system price is simply the sum of the prices of the components that make it up, meaning you don't get a break for buying them all together. But that shouldn't pose a problem: It is one of the least expensive complete home theater speaker systems with any pretension to quality.

Most numerous in a complete BIC home theater setup are the V52 satellite speakers ($165 per pair). You'll need two pairs of V52's because they do double duty as both front left/right and surround speakers. They are of ported design with a 4½-inch woofer and a 1-inch dome tweeter in a cabinet measuring 7 inches wide, 11¾ inches high, and 7¾ inches deep. Presumably to reduce diffraction problems, the side edges of the cabinets are beveled. Nominal system impedance is 8 ohms; sensitivity is given as 90 dB sound-pressure level (SPL) with a 1-watt input. Those two specs apply to all the speakers in the system, as does the use of spring-type cable connectors.

The V52 manual suggests that you can use one as a center-channel speaker, which would have the virtue of providing an exact sonic match among the left, right, and center speakers. But V52's are sold only in pairs, so you would end up with an extra speaker. You might prefer to use BIC's dedicated center speaker, the V52 Plus ($159 each). It uses the same tweeter and two of the same woofer as the V52, all mounted in a horizontally oriented ported cabinet measuring 18 x 6½ x 11¾ inches. Recommended placement is directly above or below a television screen.

Bass for the system—the satellites and center speaker are thin-sounding when used alone—is provided by the V-12 subwoofer ($300), which in turn is driven by the SWA-100 dedicated subwoofer amplifier ($399) with built-in crossover circuitry. The V-12 and SWA-100 are also sold together as a general-purpose powered subwoofer system for $699. The V-12 consists of a 12-inch long-throw woofer in a large vented cabinet measuring 16½ x 21 x 18½ inches, including the removable grille. Compared with other subwoofers reviewed here recently, the V-12 is relatively lightweight. The resulting ease of positioning is further enhanced by (saints be praised!) built-in wheels. For those who want to use an amplifier other than the SWA-100 with the V-12, the subwoofer's recommended crossover frequency is 85 to 120 Hz (the V-12 has no internal crossover), with a recommended amplifier power of from 20 to 100 watts.

As its model number implies, the SWA-100 amp is rated to provide 100 watts into 4 or 8 ohms over its power bandwidth, which in this case extends over bass frequencies only (specifically from 20 to 70 Hz ±3 dB). Into 8 ohms, the continuous power rating falls to 70 watts, but with 2 dB of dynamic headroom. Calculations incorporating the V-12's sensitivity lead to a predicted maximum short-term peak subwoofer SPL of around 110.5 dB at 1 meter, which is plenty loud enough for most domestic listening.

The amplifier's internal crossover has a high-pass section to remove bass frequencies from the signals to the front left and right speakers at a rate of 6 dB per octave below 85 Hz. The crossover's corresponding low-pass section removes high frequencies from the subwoofer signal at 24 dB per octave above 85 Hz. Input sensitivity is given as 25 millivolts for the SWA-100's rated power output.

From the front, the SWA-100 looks like a basic power amplifier: a black box measuring 12 x 4½ x 12¾ inches with one knob (volume) and one switch (power). From the back, things look a bit more complicated. The SWA-100 can receive its signals either from line-level outputs (preamp outputs or the pre-out jacks on some integrated amplifiers and receivers) or from speaker-level outputs. The various input-hookup options are clearly explained and illustrated in the amplifier manual, as is the use of the different types of rear-panel input connectors (spring clips for speaker inputs and outputs, phono jacks for line-level signals). The amplifier proper has only one output, a pair of multiway binding posts for connection to the subwoofer. A back-panel switch must be thrown from its 8-ohm to its 4-ohm position if you connect two V-12's (or any other 8-ohm subwoofers) in parallel to the SWA-100's output or use a single subwoofer with a rated impedance of less than 4 ohms. "Do not attempt to use
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two subwoofers that are rated less than 8 ohms each with the SWA-100,” the manual warns.

Thanks to the well-written and well-illustrated manuals, I had no trouble hooking up the system. BIC gives somewhat conflicting advice on where to locate the surround speakers, however. The manual recommends that the surrounds “be positioned behind and slightly to the sides of the viewer/listener,” but the accompanying diagrams show what I interpret as placement to the sides and slightly behind, a preferable arrangement.

The wheels on the V-12 subwoofer were particularly welcome because

even with a microphone connected to a spectrum analyzer, finding a good location for it proved more difficult than expected, and it had to be moved more than usual. The V-12’s output peaks slightly at around 60 Hz, and it can tend toward “one-note” bass if it is poorly located. Our standard locations, where other subwoofers had been used successfully before, did not produce the best results. Instead, the BIC V-12 worked best on the center line of our listening room, a placement not normally conducive to flattest bass response because of room resonances. Experimentation with subwoofer positioning is still the order of the day.

Getting a good “splice” of the subwoofer’s response curve with that of the other speakers in the system also got a better splice of the response curves when I inverted the subwoofer’s phase relative to that of the other speakers in the system, something you might want to try by simply reversing the subwoofer connections (amplifier red to subwoofer black, and vice versa).

When pushed hard with sine waves of 40 Hz and below, the V-12 emitted a considerable amount of disharmonious “port noise” as the air flow through its two ports became turbulent. The effect was never noticeable as such on the music I played, however, most of which doesn’t have very strong signal content below 40 Hz. Even with explosive movie soundtracks, the port noise couldn’t be heard over all the other loud sounds in the program.

The V52 satellites and the similar-sounding V52 Plus center-channel speaker had basically the same slightly colored but generally pleasing frequency response. The speakers had a “forward” sound quality, which I attribute to the roughness of the transition to the subwoofer and the corresponding slight dip in the upper bass.

The responses of the satellites and center speaker also exhibited a possibly intentional deep dip at around 3 kHz. That response characteristic, which the BIC speakers have in common with at least one small, highly regarded, and very expensive high-end loudspeaker, can impart a good sense of image depth to a lot of recordings without totally sacrificing tonal quality. (This is a fascinating psychoacoustical “trick” that you can simulate with a parametric equalizer and a set of speakers with flatter response.) Image precision was very good on both soundtracks and music.

In sum, although the BIC home theater system isn’t the be-all and end-all of surround-sound speaker systems, it won’t be the end-all of your wallet, either. It is a good bargain for anyone on a tight budget who wants a taste of the excitement of home theater.

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California Audio Labs DX-1 CD Player

KEN C. POHLMANN • HAMMER LABORATORIES

Although possibly not a household name, California Audio Labs, or CAL, is well known to audiophiles as a manufacturer of high-quality digital audio equipment and as the first to make a CD player with a vacuum-tube analog output section. The new DX-1 is a fully solid-state design, however, and the company's lowest-price CD player to date.

Outwardly, the DX-1 is a pleasing departure from earlier CAL designs, which tended toward the stodgy. Its low-slung chassis and black plastic front panel give it a very contemporary, European look and will particularly appeal to those enamored of bilateral symmetry. The disc-loading drawer is in the middle of the panel, with a green liquid-crystal display (LCD) directly below it. The display's vocabulary is limited to the basics: track number, track time, a sixteen-position track calendar, and notations for random, programmed, repeat, and music-scan playback. A remote sensor is nestled beside the display. Some users may find the display somewhat dim and illegible. On the other hand, those who dislike obtrusive displays will be happy to learn that this one's backlighting can be turned off from the remote control. (Some people insist on turning them off because they think such displays contribute distortion to the audio signal, but it's my humble opinion that these people are missing a few fries from their Happy Meals.)

There are three buttons on either side of the display for drawer open/close, play, pause, stop, previous track, and next track. A power button completes the front-panel complement. The player's more advanced features are accessible only from the remote control. Its twenty-eight buttons duplicate the principal front-panel controls while adding two-speed forward and reverse search (audio level is reduced by 12 dB), random track playback, disc repeat, music scan (plays the first 15 seconds of each track), display selection for elapsed or remaining time in a track or total time remaining on the disc, twenty-track programming, and a twelve-key numeric keypad for direct track access and track-sequence programming.

The rear of the chassis is occupied with phono jacks for left and right analog signal outputs and a single digital output, which can be used with a 75-ohm coaxial interconnect cable (not supplied) to attach the DX-1 to a digital recorder or an outboard digital processor or digital-to-analog (D/A) converter. (Common audio cables should not be used for such a connection.) The DX-1 does not have an optical digital output, which is unfortunate because so many digital inputs on equipment these days are optical only. Finally, there is an IEC-type detachable AC cord with a three-prong plug. Fit and finish of the product are very good throughout.

The owner's manual is thorough and mainly helpful. For example, it reminds you that if you elect to keep the DX-1 (or any audio component) powered at all times, it is particularly important to invest in a good surge and spike suppressor and to unplug the

**DIMENSIONS**
17 inches wide, 3 1/2 inches high, 12 1/2 inches deep

**PRICE**
$595

**MANUFACTURER**
California Audio Labs, Dept. SR, 16812 Gothard St., Huntington Beach, CA 92647

PHOTO: JAY CLAYTON
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**From one listening session to another, the consistent impression was of very, very solid audio performance.**

equipment when atmospheric conditions become threatening. On the other hand, it also recommends that the laser lens be cleaned periodically with “appropriate user-application kits.” I vigorously question the risk/reward ratio of such a practice.

The DX-1 is very Spartan inside its steel chassis, with only a fraction of the interior volume actually occupied, but there are many unusual design details sprinkled throughout. The disc transport is a linear worm-drive design (as opposed to the radial swing arm used in some players). It employs a single-beam laser pickup and digitally controlled servos for maintaining tracking, focusing, and rotational speed. Although made mainly of plastic, the transport’s critical head section is die-cast, and overall it is well built and appears quite sturdy. In addition, whereas the lenses in most CD laser pickups are made of plastic, the DX-1’s is made of glass. CAL’s faith in the device is such that it is used in all of the company’s players and transports.

The D/A converter used in the DX-1 is made for CAL by Matsushita—a sigma-delta (1-bit) design with 16-bit resolution. Unique in our experience, the converter is mounted on a circuit board that is attached to the disc trans-
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PORT ITSELF. CAL says that this decreases the signal path between drive and converter, hence reducing interference and jitter. That may be true with respect to the digital signal path, but it lengthens the analog signal path; in particular, both audio channels must pass through a thin, flexible ribbon cable that electrically connects the transport to the main circuit board. Thus, at the very least, the CAL design is not completely free of compromise.

The main circuit board contains a single large surface-mount chip, which probably handles the player's digital control systems, and also the power-supply and audio-output stages. There is an EMI (electromagnetic interference) line filter on the AC input line; its inductor and capacitors help eliminate noise from the AC power line. Right nearby is the power supply, with a resin-potted and shielded transformer that is said to generate less electromagnetic interference than standard transformers. When the DX-1 is turned on, its analog and digital outputs are muted for 13 seconds while internal components reach stable operating voltages.

CAL says that the audio signal is equalized to simulate the frequency response of a moving-coil phono cartridge, which is said to impart an "analog-like sound." The analog output stage employs FET integrated-circuit (IC) op amps and a downstream discrete-component signal path with 1-percentage-tolerance metal-film resistors and high-quality capacitors. Examination of the underside of the main circuit board reveals that even electrical engineers can have a sense of humor: There, etched in copper amidst a maze of traces, is "Where's Waldo?"—the modern equivalent of "Kilroy Was Here."

The DX-1 enjoyed smooth sailing on the test bench. Its frequency response was extremely flat (much flatter than that of any moving-coil cartridge we know of: by the way), channel separation exceeded 70 dB across the audio band, and both noise and distortion were very low. Maximum interchannel phase error was a negligible 3.4 degrees, but if you're really desperate for something to worry about, that is slightly higher than usual. Much more important was the converter's excellent low-level linearity. Perhaps most impressive, however, was the tracking performance of the laser pickup. It was able to negotiate the 4,000-micrometer defect on my Pierre Verany #2 test disc—the most extreme defect available on the disc. Only once before have I seen a player execute that feat. If you buy your audio equipment by the numbers, the DX-1's suggest that you should reach for your wallet.

Most of us like to listen first, though. The differences in sound quality between good CD players are infinitesimally small compared with those between such components as tuners, equalizers, ambience processors, microphones, headphones, and loudspeakers, not to mention listening rooms, listening positions, and even haircuts (hair over the ears reduces consistency in fault-finding usually means that fantasy, not fact, is at play. The only consistency from one listening session to another was an impression of very, very solid audio performance. Satisfied with the sound, I tried a number of very old, badly scratched discs; the transport faithfully played through these data minefields without complaint. Throughout the audition, I was impressed with the speed of the pickup, which responded exceptionally fast to track-access and search commands. Finally, I should note that the player was largely immune to impacts on its top and sides.

Although there is great economy in the design of the DX-1, the CAL engineers were careful to spend their budget where it was most needed and to refrain from wasting resources on less important aspects. Unlike reproduction of analog sources, a very fragile enterprise in which any lapse ruins the whole, digital reproduction is generally quite robust and enables considerable flexibility. In my opinion, the CAL designers have understood this characteristic perfectly and have exploited it to wring impressive performance from fairly modest parts.

In other words, the DX-1 is an example of what good engineering is all about. Almost any engineer can create an inefficient design that performs well and costs a lot, but only the genuinely talented can achieve great results at low cost. If you admire that kind of audio engineering, you'll appreciate the California Audio Labs DX-1 player.

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**MEASUREMENTS**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum output level</td>
<td>1.98 volts</td>
</tr>
<tr>
<td>Frequency response</td>
<td>20 Hz to 20 kHz+0.01%</td>
</tr>
<tr>
<td>De-emphasis error (at 16 kHz)</td>
<td>-0.21 dB</td>
</tr>
<tr>
<td>Channel separation</td>
<td>100 Hz</td>
</tr>
<tr>
<td></td>
<td>0.054 dB</td>
</tr>
<tr>
<td></td>
<td>1 kHz</td>
</tr>
<tr>
<td></td>
<td>95.6 dB</td>
</tr>
<tr>
<td></td>
<td>20 kHz</td>
</tr>
<tr>
<td></td>
<td>57.1 dB</td>
</tr>
<tr>
<td>Signal-to-noise ratio (A-std.)</td>
<td>97.3 dB</td>
</tr>
<tr>
<td>Quantization noise</td>
<td>-90.3 dB</td>
</tr>
<tr>
<td>Dynamic range</td>
<td>94.6 dB</td>
</tr>
<tr>
<td>Distortion (THD+N)</td>
<td>0.005%</td>
</tr>
<tr>
<td></td>
<td>1 kHz at 0 dB</td>
</tr>
<tr>
<td></td>
<td>0.034%</td>
</tr>
<tr>
<td></td>
<td>20 Hz to 20 kHz at 0 dB</td>
</tr>
<tr>
<td></td>
<td>0.004 to 0.025%</td>
</tr>
<tr>
<td>Linearity error (-90 dB)</td>
<td>+1.1 dB</td>
</tr>
<tr>
<td>Interchannel phase shift</td>
<td>(at 20 kHz)</td>
</tr>
<tr>
<td></td>
<td>3.4°</td>
</tr>
<tr>
<td>Defect tracking (Pierre Verany #2 test disc)</td>
<td>&gt;4,000 µm</td>
</tr>
</tbody>
</table>
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M&K S-90 Satellite Speaker

JULIAN HIRSCH • HIRSCH-HOUCK LABORATORIES

Miller & Kreisel Sound Corporation is probably best known for its broad line of powered subwoofers, but M&K also makes a number of full-range loudspeakers. Among these is a group of satellite speakers designed primarily to be used with a separate subwoofer.

The S-90 is in the middle of the M&K satellite-speaker line. It has a 6 1/2-inch woofer operating in a sealed enclosure and crossing over to a 1-inch soft-dome tweeter at 2 kHz. The S-90's nominal impedance is 4 ohms, its rated sensitivity 90 dB, and its rated frequency response 72 Hz to 20 kHz ±2 dB. It is recommended for use with amplifiers rated between 50 and 200 watts per channel and is designed to withstand unclipped 200-watt peaks without damage.

The S-90's enclosure is as unconventional as its other design features. The sides are tapered toward the front, giving the user the options of using it either upright (aiming forward) or on its side (aiming slightly downward). Like most speakers, the S-90 should normally be installed at the ear level of a seated listener, but if that is not practical, it should at least be aimed at the listener's ears.

The cabinet, not much larger than the drivers and crossover components it contains, is handsomely finished in oak woodgrain on all external surfaces except the front panel, which is flat black and normally covered by a removable cloth grille. Several pieces of foam plastic are cemented to the front panel to control diffraction from the panel edges. The enclosure appears to be about as rigid as a concrete block, giving a "click" instead of the usual "thump" or "bong" when struck with the knuckles.

The input connectors (five-way binding posts) are recessed into the rear of the cabinet. In the same section are two three-position miniature toggle switches, Midrange Contour and Treble Contour, that modify the speaker's frequency response and sensitivity to suit individual requirements. The Normal settings of both switches, with the switch levers up, are designed to give the speaker its flattest response when it is located well away from the room boundaries. The bottom setting of the Midrange Contour switch, labeled Special, optimizes the response for installations where the speaker is against a wall or other room surface; it also gives the system its highest efficiency. The middle, or Low Efficiency setting, on the other hand, sacrifices efficiency and maximum output for a "warmer, mellower mid-bass sound," as the installation manual puts it. The Treble Contour switch reduces the tweeter level in two steps when moved to its middle or bottom setting.

The S-90's manual says in plain language what the speakers are and are not designed to do and what to do or not do in installing and using them. It is also notable for its reminder that there is no "right" sound from any speaker and that the user should feel free to adjust it until it sounds the way he or she feels it should. The manual also goes into considerable detail on setting up the speakers for a home theater and on numerous other factors for getting the best results.

We placed the M&K S-90 speakers on stands of approximately the optimum height for both measurement and listening purposes. The averaged room response, from 500 Hz to 20 kHz, was among the flattest we have ever measured from a loudspeaker, varying less than ±2 dB over that full range. Subsequent quasi-anechoic MLS measurements produced similar results. The tweeter's horizontal dispersion was exceptional, with the response 45 degrees off-axis diverging from the forward response by less than 2 dB at 10 kHz and by only 7 dB at 20 kHz.

The close-miked woofer response, essentially flat from 2.5 to 1 kHz, climbed smoothly to a +8-dB maxi-
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mum between 150 and 70 Hz and rolled off at 12 dB per octave below that frequency. Our best splice of the two response curves retained their individual features: a remarkably smooth and flat response from a few hundred hertz to 20 kHz and a somewhat elevated output between 100 and 200 Hz. The response fell off at lower frequencies but remained at a useful level for almost an octave below the speaker's specified 72-Hz lower limit.

Playing low-frequency test tones, I was astounded to hear a clear, palpable 31.5 Hz coming from these diminutive speakers. Although the output was considerably weaker than at higher bass frequencies, it obviously consisted mostly of the fundamental frequency. Many (if not most) speakers several times the size of the S-90 cannot match that feat. A further demonstration of that achievement was the low woofer distortion, a mere 10 percent at 20 Hz with a 2.83-volt input. Not only was that about as low as we can recall measuring from a speaker over the range of 100 Hz to 2 kHz, but in the lowest octaves it was less than we would expect from speakers far larger and costlier than the S-90.

Impedance was about 5 ohms at 20 and 180 Hz, with peaks of 16 ohms at 62 Hz and 23.5 ohms at 1.3 kHz. Sensitivity was as rated, 90 dB SPL (sound-pressure level) at 1 meter with a 2.83-volt input, using the Normal setting of the Midrange Contour switch. At the Low Efficiency setting, the sensitivity was 84 dB, and at the Special setting it was a very high 95 dB. The Tweeter Contour switch changed the output (principally above 4 kHz) in 2-dB steps. The speaker's group-delay curve was not only the flattest we have measured, with an overall variation not exceeding 75 microseconds from 3 to 19 kHz, but one of the smoothest.

The M&K S-90's power-handling was more typical. The woofer cone bottomed with a rasp on a 45-watt single-cycle burst at 100 Hz (it suffered no damage, however). At 1 and 10 kHz our amplifier clipped before the speaker showed audible distress, at respective outputs of 380 and 860 watts.

The sound of this little giant was truly excellent. There was a slight warmth, probably due to the elevated upper-bass and lower-midrange response, but it delivered a clean, well-balanced sound even without additional help in the lower octaves. The M&K S-90 is a really first-rate small speaker, and when we added a couple of good subwoofers (not from M&K), the combination amounted to a formidable speaker system indeed.

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The Proton AA-2120 is a powerful "dual mono" stereo power amplifier whose channels share only a cabinet, power cord, and on/off switch. The amplifier circuits for the two channels are completely separate, each on its own board and fed by its own transformer and power-supply circuit. The circuit boards are actually mirror images of each other, yielding a completely symmetrical layout on either side of the amplifier's center line.

When the AA-2120 is turned off, its front panel is virtually featureless, with only the pushbutton power switch visible. When the button is pressed, two large output-level meters, softly illuminated in green, appear behind the normally dark glass window panel that covers most of the amplifier's front surface. The meter scales are calibrated logarithmically both in watts, over a range of 7 milliwatts to 240 watts, and in decibels relative to the amplifier's 120-watt rating into 8-ohm loads. Between the two meters, a pair of protection LED indicators appear if the amplifier is overloaded or its outputs become short-circuited.

The AA-2120's rear apron contains a pair of phono-jack signal inputs, a control jack that enables remote switching of the amplifier from a Proton AP-2000 preamplifier (a considerable convenience in view of the amplifier's maximum AC-line power consumption of 750 watts), and two pairs of speaker output terminals. Although these terminals resemble conventional insulated binding posts, they would not clamp bare-wire leads and, in fact, were usable only with single banana-plug connectors (they are spaced too widely for dual banana plugs).

The AA-2120 is a fairly compact amplifier considering its power ratings (120 watts per channel into 8 ohms, 180 watts into 4 ohms); its weight is more consistent with them, however. The amplifier has no fan, and its heat sinks are internal, but it is well ventilated and did not become unreasonably hot during our tests (and only mildly warm in normal listening).

The AA-2120 easily surpassed its power ratings in our test. Encouraged by its obviously high current capability, we also ventured to test its dynamic output with 2-ohm loads, into which it delivered a staggering 440 watts per channel at the clipping point. The amplifier's frequency response was perfectly flat (within 0.01 dB) from 20
The Proton AA-2120 power amplifier delivered a staggering 440 watts per channel dynamic output into 2-ohm loads.

**Measurements**

<table>
<thead>
<tr>
<th>Output at clipping (1 kHz)</th>
<th>8 ohms</th>
<th>4 ohms</th>
</tr>
</thead>
<tbody>
<tr>
<td>8 ohms</td>
<td>160 watts</td>
<td>245 watts</td>
</tr>
<tr>
<td>4 ohms</td>
<td>13 dB</td>
<td>13 dB</td>
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<table>
<thead>
<tr>
<th>Clipping headroom (re rated output)</th>
<th>8 ohms</th>
<th>4 ohms</th>
</tr>
</thead>
<tbody>
<tr>
<td>8 ohms</td>
<td>1.3 dB</td>
<td>1.3 dB</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Dynamic power</th>
<th>8 ohms</th>
<th>4 ohms</th>
<th>2 ohms</th>
</tr>
</thead>
<tbody>
<tr>
<td>8 ohms</td>
<td>168 watts</td>
<td>312 watts</td>
<td>440 watts</td>
</tr>
<tr>
<td>4 ohms</td>
<td>1.5 dB</td>
<td>2.4 dB</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Distortion at rated power</th>
<th>8 ohms</th>
<th>4 ohms</th>
</tr>
</thead>
<tbody>
<tr>
<td>8 ohms</td>
<td>0.038%</td>
<td>0.063%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>A-weighted noise (re 1-watt output)</th>
<th>-84 dB</th>
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</table>

<table>
<thead>
<tr>
<th>Sensitivity (for 1-watt output into 8 ohms)</th>
<th>90 mV</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Frequency response (see text)</th>
<th>20 Hz to 20 kHz +0.1, -0.18 dB</th>
</tr>
</thead>
</table>

Hz to 20 kHz in one channel, and the other had an audibly negligible rolloff of 0.18 dB at 20 kHz. In checking bandwidth, we found that both channels were down 1 dB at 70 kHz and 4 dB at 200 kHz.

An amplifier with that kind of performance, including very low noise and distortion, is not likely to impart any sound character of its own to good program material, and the Proton AA-2120 was no exception to that rule. Although we did not have the companion AP-2000 preamplifier available, it seems likely that the combination of the two components would make a very compatible and listenable amplifier system.

Scientists used to say you couldn’t make charcoal in the open air. Lucky we never heard them.

We’ve been making charcoal to mellow our Tennessee Whiskey since 1866. The secret is using hard maple wood, and just the right touch with a hose. Instead of ash, like the scientists said we would get, our rickers get charcoal every time. Men from up at the university have been impressed by our methods. Though a sip of Jack Daniel’s, we believe, is all the research they ever needed.

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Sony MDP-800 CD/Laserdisc Player

Sony's MDP-800 player stands at the top of the company's combination CD/laserdisc player lineup. As a deluxe model, it provides a very complete array of convenience functions, and the digital audio section features Sony's advanced High Density Linear Converter (HDLC) 1-bit digital-to-analog (D/A) converters for superior audio performance. The converters are driven by a 45-bit, eight-times-oversampling digital filter.

To many, the automatic side changing for videodisc playback will be the MDP-800's most important feature. But to me, most appealing was the player's high-quality 8-bit digital frame-store, which enables it to perform a large assortment of video tricks with long-play CLV laserdiscs as well as short-play CAV discs. Those tricks include variable-speed bidirectional scan and freeze-frame, bidirectional frame-at-a-time playback (Step Play), a strobe effect (called Flash Motion), stop-motion with continued audio playback, and a digital picture store that can display a memorized frame even while you are playing a CD or another laserdisc. This last feature is especially interesting: Try freezing an overall shot of a symphony orchestra and then playing a symphonic CD, or use it for a kind of changeable video wallpaper or artwork display. The stored frame is lost when the player is turned off, however.

Digital processing is used in other video-enhancing ways. There's a digital time-base corrector "for crisp picture verticals and smooth accurate color," and a digital comb filter usefully reduces dot crawl and other chrominance/luminance interference artifacts when the player's S-video outputs are used. Besides an enormous set of cueing, repeat, and programmed-playback features, the MDP-800 has a microphone input for sing-along (karaoke) playback—"with adjustable echo, no less. One thing the MDP-800 does not have is an RF (antenna) output, so you must have a TV set with composite- or S-video inputs to view its video output (most sets have them these days). Otherwise, you have to feed the player's video signal into a VCR and use the VCR's RF modulator to supply the signal to your TV over Channel 3 or 4.

Besides two complete sets of stereo audio, composite-video, and S-video outputs, the MDP-800's back panel also contains one optical digital-audio output connector, an attenuator switch for reducing audio distortion with karaoke playback, and a Control S input jack for remote control of the player by pointing the supplied remote at a (Sony) TV with a corresponding Control S output jack.

Lose that remote and you'll lose ac-
cess to most of the player’s features: The front-panel controls provide only the most basic cueing functions and laserdisc side change. It would have been nice to have had a jog/shuttle control on the front panel, as many other players do. The remote itself is not laid out as logically as it could be—related controls aren’t always close together—but there is some differentiation among the buttons by shape and size. Even the usually redundant and annoying jog/shuttle on/off button serves a useful function here: Pushing it switches the remote’s shuttle ring from bidirectional high-speed scan to bidirectional variable-speed playback (a fine distinction, to be sure). I would have preferred, however, that the inner jog dial, which controls frame-by-frame stepping, remained on and did not require pushing the on/off button to activate it.

The MDP-800’s multitude of features is explained in an amazingly well-organized and seemingly complete manual (I may have missed a couple of features, there are so many of them). Although it is relatively easy to find a description of a specific control—an index is provided—this is one manual that will reward reading from beginning to end. In particular, don’t skip the explanation of the manual’s overall organization.

By and large, the MDP-800 did very well on the test bench. The measurements for analog soundtrack performance are only average, but the rest are all at least very good and some are excellent. Among the latter are those for audio frequency response and D/A converter linearity. Maximum output level was very slightly below the de facto 2-volt standard, which is okay since it means that the MDP-800 is unlikely ever to overload typical surround-sound decoder circuitry (it’s better in this case to be a tad too low than too high).

The video performance, though excellent all around, fell slightly short of the best we have measured in horizontal luminance resolution and bandwidth and in differential phase and gain. But you aren’t likely to notice these differences, even on direct comparison, when playing normal program material as opposed to test patterns. The player’s Picture Enhance function acted as a video mid-frequency control, boosting the signal around 2 MHz when in sharp mode and thereby providing a modest increase in picture sharpness without adding noise. As seems to be true of all laserdisc players, chroma (color) output was slightly low, but the automatic gain circuitry in your television set will bring it into the right ballpark. Any necessary fine-tuning can be accomplished with the set’s color control (something you will do as a matter of course if you correctly set up your monitor using a videodisc-recorded color-bar test pattern).

Although the results are not tabulated, we looked at the audio background noise spectrum when playing a minimum-noise dithered 16-bit signal (as opposed to the standard but less revealing all-zero test signal). The MDP-800 performed well, with no crosstalk of video sync signals and virtually no leakage of power-line harmonics (only one inaudible component on the right channel at 120 Hz, 109 dB below full output). The overall background noise level in this test was about 5 to 7 dB higher than the theoretical minimum, depending on frequency, which is very good, if not perfect, performance.

We also attempted, for the first time,
In The Mid ‘70s We Now We’ve Created

The people who work at Cambridge SoundWorks - including our cofounder Henry Kloss (who also founded AR, KLH and Advent) - have been involved with the concept of home theater from the beginning. In 1969 (years before VCRs and cable TV), Henry Kloss founded Advent, the company that introduced the first home theater audio/video systems - complete with big-screen TVs and digital surround sound. We have had an ongoing relationship with the people at Dolby Laboratories, creators of Dolby Surround Sound, since Henry Kloss introduced the first consumer products with Dolby noise reduction over 20 years ago. And now at Cambridge SoundWorks we believe systems factory-direct, with no expensive middlemen, you can save hundreds of dollars. We believe the products on these pages represent the country’s best values in high performance home theater components. Audio critics, and thousands of satisfied customers, agree. Stereo Review said “Cambridge SoundWorks manufactures loudspeakers that provide exceptional sound quality at affordable prices.” Audio suggested that we “may have the best value in the world.”

Our Center Channel Speakers

we have set a new price-to-performance standard for home theater components. Because we sell carefully matched and tested home theater speaker systems, you can save hundreds of dollars. We believe the products on these pages represent the country’s best values in high performance home theater components. Audio critics, and thousands of satisfied customers, agree. Stereo Review said “Cambridge SoundWorks manufactures loudspeakers that provide exceptional sound quality at affordable prices.” Audio suggested that we “may have the best value in the world.”

Center Channel Speakers

Cambridge SoundWorks manufactures three speakers for use as center channel speakers in Dolby Pro Logic home theater systems. All three are magnetically shielded so they can be placed near a TV or computer monitor. Model Ten-A is a small, affordable two-way speaker. $75. Center Channel is identical to a Cambridge SoundWorks Ensemble satellite (but with magnetic shielding). $149. Center Channel Plus uses an ultra-low, ultra-wide design that is ideal for placement above (or, with optional support stand, below) a TV monitor. $219.

Surround Speakers

Cambridge SoundWorks makes two “dipole radiator” surround sound speakers. Dolby Laboratories recommends dipole radiator speakers for use as surround speakers. The Surround has a very high power handling capacity and is often selected for “high end” surround sound systems. Audio, describing a system that included The Surround said “In many ways the surround sensation was every bit as good as far more expensive installations.” $399 pr. The smaller The Surround II is arguably the country’s best value in a dipole radiator speaker. $249 pr.

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The original Powered Subwoofer by Cambridge SoundWorks consists of a heavy-duty 12" woofer housed in an acoustic suspension cabinet with a 140-watt amplifier and a built-in electronic crossover. *Stereo Review* said it provides "deep powerful bass...31.5 Hz bass output was obtainable at a room-shaking level... they open the way to having a 'killer' system for an affordable price." $699. Our Slave Subwoofer uses the same woofer driver and cabinet, but does not include the amplifier or crossover. It can only be used in conjunction with the Powered Subwoofer. $299. The new Powered Subwoofer II uses a 120-watt amplifier with an 8" woofer. $399.

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**The critically acclaimed Ensemble II speaker system by Henry Kloss. $439**

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We Know How To Make Loudspeakers.

**The Sony MDP-800 can display a memorized laserdisc frame on your television screen even while you play a CD.**

to characterize playback performance when reproducing signals transferred from a 20-bit original format to a 16-bit CD by means of a noise-shifting system—in this case, Track 44 of the "Best of Chesky, Vol. 3" demo/test disc (Chesky JD111). Such systems are designed to alter the shape of the noise floor, reducing noise below the usual 16-bit minimum in the frequency range where the ear is most sensitive at the expense of increased noise at very high frequencies, where the ear is less sensitive. The MDP-800 delivered only about 5 dB lower noise out of a theoretically possible 20-dB or greater improvement (at 4 kHz) over its reproduction of standard 16-bit triangular PDF dither. That means that the potential benefits of lower background noise and distortion provided by such 20- to 16-bit conversion systems as Sony's own Super Bit Mapping will only be partially fulfilled by the MDP-800. Another laserdisc player we had on hand provided approximately equal performance in this regard, but one relatively inexpensive carousel CD changer yielded a stunning 14-dB improvement under the same test conditions.

The results of this test—which is a very challenging one, since it requires a player to do several things to near perfection simultaneously—should be taken as provisional, pending the availability of a test signal specifically designed for it. They should also be considered pretty much irrelevant unless the recording being played actually contains signals that take full advantage of the noise-shaping technology. So far, we haven't found any. Although I could clearly hear the difference in noise level between the MDP-800 and the CD changer when playing the Chesky test track at very boosted levels, I could not when playing the music provided on that disc at more reasonable volumes.

While not an absolutely stellar performer in every respect, the MDP-800 scores high in features, manual readability and organization, and overall audio/video performance. Having bought one, probably only the most critical user would ever find reason to replace it.
The Carver name evokes an almost mystical following among serious music lovers.

And justly so. Carver power amplifiers have generated critical acclaim year after year, model after model, with one—the TFM-35—universally acknowledged as "one of the best audio amplifier values in the world." Upgraded to the TFM-35x, with high fidelity enhancements so advanced, it also exceeded the strict specifications of THX® home theater.

One look, one listen, will confirm Carver's passion for aural perfection. Gold plated input jacks, 5-way binding posts, dual analog meters. Expansive headroom that faithfully—no, stunningly—reproduces the dynamic peaks of digital music and movie soundtracks.

Witness the superiority of Carver separates: Flawless sound, low distortion, instant and authoritative response to octave fluctuations in the center channel. Note the abundance of power: At 360 watts per channel @ 4 ohms (triple that of a top receiver), merely one of the most powerful audio amplifiers available for both music and home theater.

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"For Movie Sound we know of NO Comparably Priced System that beats it."

- VIDEO MAGAZINE, January, 1994

"Deep bass without the aid of big, expensive amplifiers. Sounds panned from side to side as smoothly as their corresponding images flew across the screen."

- SOUND & IMAGE, Summer, 1993

"We quickly discovered what a difference the right sound system can make! The subwoofers added tremendous excitement to the movie watching experience."

- POPULAR ELECTRONICS, January, 1993

"Cerwin-Vega produces a powerful and taut sound. The impact can be especially felt in the midrange, which will pound you with rotor blade sweeps from Apocalypse Now."

- SATELLITE ORBIT, June, 1993

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Turn it up.

CIRCLE NO. 11 ON READER SERVICE CARD
Spreading speakers through your home could be easier (and cheaper) than you think.

Here in the late twentieth century, electricity in every room is a convenience we take absolutely for granted. Running water anywhere we want it is another modern wonder that escapes our everyday notice. But flick-the-switch music? Hot-and-cold running hi-fi, wherever we like, all over the house?

Why not? The current state of audio technology makes such a miracle almost simple, and perfectly practical—without necessarily requiring a second (third, fourth) mortgage to accomplish. Setting up a system that can provide honest high fidelity throughout the house, or at least in two or three rooms, is now a rational goal, and there's a multiroom audio solution to fit most layouts and budgets with a minimum of difficulty.

If you're starting from scratch and have an unlimited budget (or at least a very large one), you can proceed directly to "Go," hire a custom A/V installer, and kick the stops out with one of the numerous high-end multiroom sound distribution and control systems available today. Multicomponent, five-figure-price-tag arrays such as those from Audio Design Associates and Audioaccess, to name but two, can distribute high-quality sound and full system functionality to a dozen rooms or

BY DANIEL KUMIN
Sonance's DB4 (top, $109) and DB6 (bottom, $175) can switch as many as four or six pairs of speakers, respectively, from a single stereo amplifier output. Pushing the button at the far right engages protection resistors to keep the impedance seen by the amplifier at a safe level.

The Recolon W440 900-MHz wireless speaker system ($300) consists of two powered minispeakers with built-in receivers and a transmitter that can send two channels of audio up to 150 feet. Extra speakers are available, enabling coverage of multiple rooms from one transmitter.

JBL's mix-and-match SoundEffects line includes the components shown above: a pair of Sat 2 speakers ($399) mounted on the portable Taxi stand together with a Power 20 stereo amplifier and a 900-MHz RF receiver (stacked at the bottom). Stand, amp, and receiver are sold together with an RF transmitter (not shown) as the Magic 2 system ($649).

The Audioaccess KP1 wall-mount keypad ($200) controls basic and some not-so-basic operational functions for the company's multiroom systems, including zone and system on/off, source selection, volume adjustment, and transport control for CD players, tape decks, and VCR's.

Besides Dolby Pro Logic surround sound and the other usual accoutrements of a contemporary A/V receiver, the Marantz SR-82 ($899) has a multiroom mode that uses the surround-channel amplifiers to drive loudspeakers in a remote room, enabling independent source selection and volume control.
more on your family estate. But if your domicile falls more on the two-bedroom-ranch end of the scale, don’t despair. You still have plenty of sensible, affordable options.

**Look Ma, No Wires**

Probably the most painless option is the wireless one. Wireless hi-fi has long been the Holy Grail of multiroom sound, and thanks to a recent change in FCC regulations, the 900-MHz RF (radio-frequency) band is now open to low-power, short-range FM use, with sufficient bandwidth to make truly high-fidelity systems a reality. Wireless 900-MHz systems are capable of providing audio quality equal to or better than broadcast stereo FM and typically work over distances up to about 150 feet.

Among the first to capitalize on this airwave opportunity was Recoton, an audio-accessories maker that has previously offered various lower-fi wireless systems, including one that used AC house wiring to distribute medium-fi sound to small powered speakers through the wall sockets. The company’s latest lineup features several 900-MHz solutions. Its W440 system (less than $300) bundles a pair of amplified (10-watt) mini-speakers with a compact 900-MHz transmitter; the speakers’ receiving circuits and antenna are built in. The transmitter connects to a set of tape or preamp outputs on your receiver, amplifier, or preamp. The speakers have to be plugged into AC outlets for power but are otherwise unencumbered—no wires back to the main system. The W440 system is rated to deliver a frequency range of 50 Hz to 15 kHz with a signal-to-noise ratio (S/N) of 60 dB and channel separation of 30 dB. In addition, each individual speaker can be set to receive and reproduce a left-channel, right-channel, or mono (left-plus-right) signal. Recoton’s lower-power, slightly simpler W400 (less than $250) operates similarly, and the company is readying new 900-MHz systems aimed at surround-sound, outdoor, and higher-power/higher-performance applications.

Another company with 900-MHz wireless speakers is Florida’s Chase Technologies. Its system includes a small tabletop transmitter and a pair of two-way, 10-watt powered minispeakers for less than $300. The Chase system is battery-operable and has a sig-
MULTIROOM METHODS

Falling between your basic multiroom-receiver system and a full-race (and race-car-priced) whole-house media system are plenty of sophisticated possibilities. All require hard-wiring of at least the speaker connections between the “home” room and each remote room, but each works to simplify multiroom installation and operation.

From Audioaccess, a company that offers a wide range of higher-end custom multiroom gear, comes the MRX ($4,500)—a sort of super-multiroom receiver that includes six on-board stereo amplifiers (that’s twelve channels at 40 watts apiece), six pairs of speaker outputs, a six-bus source/output-select system, and a six-channel IR receiver/transmitter system. The net result is a six-zone multiroom system created essentially by a single component comparable in size to an ordinary receiver, though somewhat more costly. A combination IR-eye/in-wall-controller keypad (about $250 each) is available to provide remote-room control, and a single infrared system remote controller is included.

Bang & Olufsen has long championed multiroom design, and its current lineup follows the tradition. The Danish maker’s Beomaster 7000 receiver can be configured to provide full-control multiroom audio/video, with two-way intercomponent communications, for as many as sixteen rooms using B&O’s Beolink 7000 tabletop touch-pad remote controller ($3,000 for receiver and controller together). The Beolink 7000 automatically sets itself to provide only the controls relevant at the moment, and it incorporates a display that shows system and source-component data, such as FM station ID or CD time and track info, even in a remote room. A wireless RF remote-control link and powered Beolab speakers can be used to complete each remote room.

Bose’s Lifestyle Music Systems are based on an unusual hybrid design and singular, sleek styling. The Lifestyle 10 ($1,849) bundles a dual-zone tabletop CD player/tuner/multiroom controller with a three-piece Powered Acoustimass 5 Series II loudspeaker system usable in either the main room or a remote locale. (Bose makes a variety of other active speakers for use with its Lifestyle systems.) But the slickest bit is the system’s supplied remote controller, a wireless radio commander that can fully manage the system from anywhere within a radius of 100 feet or so. So once you’ve run line-level wiring from the main component to the remote room (or rooms), you’re done. Bose also offers two less costly Lifestyle models that drop the dual-zone feature but keep same-source multiroom operation and remote control can deliver freedom from the onerous task of rout-}

Going the wireless route has a lot of attractions—principally, of course, freedom from the onerous task of routing speaker and control wires from room to room. RF-based signal distribution and remote control can deliver almost the full panoply of multiroom virtues with unmatched ease. On the downside, there aren’t a lot of wireless systems on the market yet, though it seems likely that more 900-MHz models will appear, and they can be relatively costly: A pair of wireless powered speakers will cost about twice as much as an equivalent set of conventional passive extension speakers.

Getting Wired

Where a bit of simple room-to-room wiring is not out of the question, you
WHERE DOES THE TWEETER OF A HIGH FIDELITY LOUDSPEAKER BELONG?

This question may confuse those who believe that the measure of a loudspeaker is the number of its drivers. It will also elude those who have never bothered to question conventional driver placement, which always separates the woofer from the tweeter.

In fact, the most acoustically correct location for the tweeter is precisely at the center of the woofer. This strategic placement creates a single sound source, allowing high and low frequencies to reach your ears at the proper time, regardless of where the speakers are placed or where you are sitting. (No wonder KEF’s patented Uni-Q° is the technology of choice for advanced Home Theater applications.)

Perhaps the greatest benefit of the KEF Q Series speakers is that they sound as good in your home as they do in the showroom.
have a broader array of multiroom choices. At the most basic level, a simple multipair speaker switchbox, such as those produced by Adcom, Audio Control, Niles Audio, Russound, Sonance, and others, can distribute music from a single receiver or amplifier to several rooms while compensating for the low impedance that would ordinarily be imposed by multiple speaker pairs connected simultaneously. Cost is fairly minimal. The switcher will set you back about $50 to $150, and passive local volume controls, either inwall or desktop, will run another $20 to $40 per room. Such a simple extension-speaker layout can do the trick for many systems where simply piping music to another room or two is all that’s desired. But remember that you have only volume controls in the remote room—you’ll still have to trek back to the main room to change discs, stations, or music sources.

There are some much more interactive alternatives, however. One of the most economical is found in a new breed of A/V surround-sound receivers that incorporate an alternative, multiroom identity. In multiroom mode, they put the amplifier channels normally used for the surround (“rear”) speakers to work independently, creating a dual-zone system that can feed two or possibly several rooms, with different sources playing in each zone if desired (FM in one, CD in the other, for example) and independent volume control. Simple, clever, and cost-effective. The only real drawback is that you lose the receiver’s surround-sound capability in the main room when you switch to multiroom mode. Makers of such multiroom hybrids include Carver, Marantz, Onkyo, Philips, and Pioneer, among others, with prices starting at around $450.

But wait a minute! How do you control your system from that secondary room—skip tracks, select sources, or adjust the volume? Most multiroom receivers feature an elegant, built-in solution: readiness for an infrared (IR) repeater system. Whatever their origins, IR repeaters all work similarly. A small infrared “eye” is located in the remote room (often built into a standard wall-box panel) and connected to the host receiver’s back panel via a dedicated jack. (You do have to route this wire from room to room, as well as the speaker wires for the remote loudspeakers.) Commands received via the IR link from the remote room are relayed through the receiver and out another jack to a broad-dispersion, high-power IR repeater, or “blaster,” that floods the equipment in the main room with the control codes. Meanwhile, “native” commands for the receiver—and same-brand components interconnected via the back-panel integrated remote links provided in most models these days—are received directly. In fact, in a one-brand, all-compatible-component system, the IR blaster is often unnecessary.

Either way, commands originating from the remote room are relayed efficiently to main-room secondary components such as CD players and tape decks as well as to the receiver itself. With the IR-repeater link, listeners in the remote room enjoy full command and control over the system, including volume adjustment, source selection, and source-component control for their zone. Remote-room commands can originate either from original remote controllers (carried from room to room) or from a universal controller loaded with the main-system components’ command codes and dedicated to the remote room.

It sounds complex, but most IR-repeater systems are actually reasonably simple and easy enough to set up and use—assuming you can manage the requisite wiring. An IR-repeater set, consisting of a single eye and a main-system blaster, costs about $100 to $150 in most cases, and most manufacturers of multiroom receivers make matching repeater system.

There are also plenty of retrofit IR-repeater options at similar prices from companies such as Niles Audio, Sonance, and Videolink that can add limited multiroom capability to almost any system. Adding an IR-repeater setup to a conventional, remote-controlled hi-fi system equipped with extension speakers wired to a remote room enables you to command the system from the secondary location. What you don’t get with such an arrangement (that you do get with a multiroom/multisource receiver or a more specialized multiroom system) is the ability to listen to different sources in the two rooms or to control volume independently.

Multiroom capability is an increasingly popular element in component design. Expect to see it incorporated in ever more new receivers, separates, and even rack systems. At the same time, sophisticated new wireless systems exploiting the 900-MHz band seem all but certain. And a 900-MHz wireless digital system capable of distributing multiple channels of CD-quality sound without physical links seems a distinct possibility—one we hope some enterprising innovator will soon exploit. So if a multiroom expansion is on your horizon, the prospects are bright.
Why won't conventional hi-fi speakers work for Home Theater?

You need three front speakers - left, right and center - to achieve realistic home theater. A stereo pair would place the dialog in the center (where it belongs) from only one listening position. You can’t use conventional hi-fi speakers for the center channel, even shielded models, because their dispersion patterns prohibit raising them too high or laying them on their sides.

KEF’s proprietary Uni-Q® driver, which places its tweeter at the center of the woofer, allowed KEF’s engineers to create the ideal center channel speakers, the Models 100 and 90. Their uniform dispersion patterns let them be placed beautifully above or below the screen, creating the impression that the sound is coming directly from the screen. Moreover, the Models 100 and 90 are both Reference Series, which not only ensures their quality and consistency; it permits their use as satellites and their seamless integration with other KEF Reference and Q-Series loudspeakers.

The Uni-Q driver. One of a series of KEF scientific achievements dedicated to one goal: the most realistic performance in your home.
Goin’ Mobile

Walk into Curt Fortier’s 1,000-square-foot mobile home in Auburn Hills, Michigan, a suburb of Detroit, and you can’t help but notice what he refers to as “a very nice but somewhat strange little A/V system.” Nice because it sounds “great,” he says, and looks good in his living room. Strange because all of the electronics are in an adjacent room—well, sort of. Actually, the components are housed in a homemade cabinet with a special extended shelf and a “window” that lets a few of them peek through to the living room via a cutout in the wall.

Fortier devised the unusual cabinet to save precious living-room space (while providing access to the equipment from the back) and to make an “ultra-modern” design statement. The cutout is trimmed in glossy black Formica to match the sleek silver and black Bang & Olufsen components it surrounds—a Beomaster 5000 receiver, a Beocord 5000 cassette deck, and a Beogram 5005 turntable and a Beogram CD 7000 CD player. “It looks more like modern wall art than an A/V system,” notes Fortier, thirty-eight, a one-time rock-concert promoter who has spent the past ten years working for General Motors as an electrician. He even rigged it so that a ceiling spotlight controlled by low-voltage microswitches illuminates the B&O quartet whenever the receiver or cassette deck is activated.

But to get to the heart of this deceptively simple setup, you have to look beyond—or in this case behind—the elegant B&O facade, to Fortier’s pride and joy: a Lexicon CP-3 Plus digital surround processor. One of the most sophisticated A/V processors on the market, the $3,000 powerhouse doubles as a Home THX-certified Dolby Pro Logic decoder and a versatile music enhancer capable of simulating a number of acoustic environments.

“It does phenomenal things,” Fortier says proudly. “I bought it for movie soundtracks, not music—I couldn’t understand why anyone would want to listen to music in a coliseum.” But within a few months he had become addicted to the listening spaces he could invent with the CP-3 Plus for both music and video. He also likes the way it displays control settings on the TV screen.

The CP-3 picks up a line-level signal from the B&O receiver’s equalizer output and hands it off to a trio of power amplifiers: one Adcom GFA-545II and two Carvers, the four-channel AV-64 and the two-channel TFM-6cb. The Adcom amp delivers 100 watts each to a pair of 3-foot-tall Klipsch Forté main speakers featuring midrange and high-frequency horn drivers. “They were the first Klipsch speakers small enough to put in a living room when I bought them in 1986,” Fortier recalls. “They sounded more realistic to me than any other speakers I auditioned.”

Fortier bridged two channels of the Carver AV-634 to drive a KEF Model 100 center speaker with 120 watts and used the remaining 60-watt channels to power a pair of ADS L300e minispeakers that he bracket-mounted to the ceiling near the back of the room to use as surrounds. He chose the KEF 100 primarily for its high power-handling capability, but since it’s not a perfect match for the Klipsch Forté’s, he says, “I’m going to try one of the new Klipsch center-channel speakers.”

The Carver TFM-6cb delivers 65 watts each to the side surrounds, a pair of Polk Audio RM-2000 satellites bracket-mounted at about the same height as the tweeters of the main speakers. Fortier concealed all surround wiring by running it underneath the floor and up inside the walls to the speakers.

Completing the audio side of the lineup is a Velodyne F-1000 powered subwoofer tucked away under the coffee table; it packs an 80-watt amplifier and is rated down to 20 Hz. On the video side are a Sony SLV-595 VHS Hi-Fi VCR and a Sony Trinitron XBR series 27-inch console TV. Although the entire system can be operated using Denon’s RC-770 programmable remote—a Videolink infrared repeater system relays commands to the Lexicon—Fortier generally relies on one of the two B&O tabletop remotes in his living room.

After more than a decade of component collecting, Fortier estimates that he has shelled out between $15,000 and $20,000, including $400 for his Stax SR-Gamma electrostatic headphones. He’s also learned a thing or two along the way.

“I used to believe that to get the very best sound quality all you had to do was buy the best amplifier and the finest speakers,” Fortier says. “Well, I’m not so sure that’s true any more. I now believe that it may be possible to get a more realistic sound using some of today’s processors. One thing’s for sure: I’ll retire from GM long before I finish tweaking the CP-3. Maybe I’ll leave a note in my will that says, ‘Try this. . . .’” —Bob Ankosko
Nine midprice bookshelf speakers show their stuff.

A couple of months ago we learned that $500 to $600 will get you a pair of great-sounding, moderately sized floor-standing loudspeakers. But modern life brings overcrowded cities, jammed freeways, high-fiber/low-fat diets, and the general feeling that big may sometimes be better but small is often preferable and sometimes more beautiful. So naturally we were very interested to see what an equally sized fistful of dollars would bring in the competitive bookshelf-speaker market.

The bookshelf speaker was popularized in the 1950's with the original Acoustic Research lineup of acoustic-suspension (sealed-box) speakers, which were so remarkably small compared to previous speakers of equal bass extension that they could actually fit onto a bookshelf, albeit a fairly substantial one. Hence the bookshelf nomenclature. Actually, many so-called bookshelf speakers are much too large and heavy to fit onto a normal shelf, but all nine of our contenders seem svelte enough to be shelf-mounted, although the largest would require a husky ledge. In fact, they vary widely in almost all respects—size (footprints from about one-half to three-quarters of a square foot, volume from a little less than one-half to a little more than one and a half cubic feet), low-frequency extension (50 to 100 Hz), sensitivity (in-room, 90 to 96 dB), and woofer...
diameter (5 to 8 inches)—but not in price, which ranges from $500 to $600 a pair.

The Speakers

**ADS L400e ($600 a pair).** The diminutive L400e is the largest of the ADS lineup of minispeakers but the smallest of our comparison group. It is a sealed two-way system with a 1-inch dome tweeter and a 6½-inch rubber-surround woofer in a high-density wood-laminate cabinet with a press-on, perforated sheet-metal grille. Crossover between the drivers is 24 dB per octave at 2 kHz. Features include automatic tweeter protection and convenient dual-binding-post inputs on standard ½-inch centers. The speaker comes in matte black or arctic white, and a wall-mounting bracket is available as an extra-cost option. It is rated for use with amplifiers of 10 to 100 watts per channel.

**B&W DM-610i ($500 a pair).** The B&W DM-610i is nicely sized and shaped, making a quite satisfying and cartable package. Like the Celestion, Camber, and PSB offerings, it sports a full-face cloth grille under which reside an 8-inch polypropylene woofer and a 1-inch metal-dome tweeter. B&W describes the DM610i as a “stand/shelf mounting, two way, second order closed-box digital monitor system with bi-wiring/bi-amplification facility,” which pretty much says it all, except that the two strapped pairs of input binding posts are on 1-inch centers (too wide to accommodate dual banana plugs) and that the crossover frequency is 2.5 kHz. The black woodgrain finish is very attractive, and the drivers have cute gray trim rings that are visible if you choose to use the speaker without the grille. The speaker is recommended for use with amplifiers of between 30 and 100 watts per channel.

**Camber 3.0ti/SM ($599 a pair).** The complicated nomenclature suggests that the Camber 3.0ti/SM may be a different sort of animal. Start with the styling, the nonremovable cloth wrap and the solid top. Move to the biwiring terminals mounted underneath the cabinet (on standard ¾-inch centers, though). Finish with the driver complement: an 8-inch copolymer-cone woofer with die-cast frame and a ¾-inch titanium-dome tweeter (placed off-center on the baffle) with a proprietary one-piece stamped dome/suspension system, crossed over at 2.7 kHz and mounted in a well-braced and well-damped bass-reflex enclosure. Recommended power is 15 to 150 watts.

**Celestion 7 Mk II ($500 a pair).** The Celestion 7 Mk II is nearly the same size and shape as the B&W speaker. It has a simulated black-ash finish, dual binding-post inputs (on 1¼-inch centers, however), and a classy plastic-frame cloth grille that snaps into place. The driver complement includes an 8-inch, felted-fiber cone woofer with rubber surround matched to a 1-inch titanium-dome tweeter through a 12-dB-per-octave crossover at 3 kHz. The bass-reflex system is rated for use with amplifiers delivering from 10 to 120 watts per channel.

**Design Acoustics DA800 ($600 a pair).** The DA800 is somewhat unusual relative to the other speakers in this comparison. Its 8-inch woofer is on the bottom of the main vented cabinet, which is in turn mounted on a small pedestal to give the woofer “breathing room.” The only three-way system in the group, the DA800 has a 5-inch midrange driver and a ¾-inch metalized-dome tweeter with magnetic-fluid cooling on its front panel. Crossovers are at 150 Hz and 4 kHz. The front drivers are hidden by a smart, snap-on cloth grille, which complements the speaker’s black woodgrain finish. Signals get to the speaker through dual binding
posts on standard 3/4-inch centers. Design Acoustics says the DA800 can be used with amplifiers rated at 15 to 200 watts per channel.

**Jamo 307 ($500 a pair).** Like the ADS, the Jamo 307 qualifies as a true minispeaker, with a volume of only about half a cubic foot. The bass-reflex system uses a 5-inch woofer crossed over to a 1-inch dome tweeter at 3 kHz. It comes in a sharp-looking black or mahogany woodgrain cabinet with an especially clever grille that is held in place magnetically. Amplifier connections are to binding posts on 1-inch centers; separate pairs for the woofer and tweeter are normally strapped together but are separable for biwiring.

**JBL L1 ($500 a pair).** Exquisitely finished in black-ash woodgrain, the JBL L1 uses a 61/2-inch plastic-cone reflex-loaded woofer with a die-cast frame and rubber surround crossed over at 3 kHz to a 1-inch titanium-dome tweeter. Signals are delivered to dual binding posts on standard 3/4-inch centers. JBL says the L1 can be used with amplifiers of 35 to 200 watts per channel.

**NHT 1.3A ($500 a pair).** About the same size as the JBL L1 but a little lighter, the NHT 1.3A has that classic NHT look: a mirror-image pair with front baffles angled at 21 degrees and a super-glossy black finish on all six sides of each speaker. A very attractive snap-on grille covers about two-thirds of the front panel. The two-way sealed system uses a 61/2-inch polymer-cone woofer with rubber surround mounted above a 1-inch soft-dome tweeter cooled with magnetic fluid. Signals are delivered through dual binding posts on standard 3/4-inch centers.

**PSB PSB-500 ($500 a pair).** Although the largest in this group, the PSB-500 is still relatively small as loudspeakers go and will actually fit on a lot of shelves. Its bass-reflex cabinet is finished in black woodgrain and completely covered in front by a cloth grille. The two-way system uses an 8-inch polypropylene woofer with damped rubber surround and a 3/4-inch cloth-dome magnetic-fluid-cooled tweeter with an 18-dB-per-octave crossover at 2.2 kHz. Signals reach the speaker through dual binding posts with standard 3/4-inch spacing.

**Testing Methods**

Lab testing included in-room frequency-response and impedance measurements made with the MLSSA system. For the response measurements we employed the MLSSA adaptive-window technique, which uses a frequency-selective temporal window to calculate in-room response curves that match human hearing sensitivity fairly well. These graphs include fewer room artifacts than those we printed in our July comparison of floor-standing speakers, with the result that they tend to appear smoother at low frequencies and thus are not directly comparable with the July graphs.

We measured voltage sensitivity by driving a single speaker from each pair with 2.8 volts (equivalent to 1 watt into 8 ohms) of wide-band pink noise and measuring the in-room output with an Audio Control real-time analyzer in unweighted SPL (sound-pressure level) mode. Because most manufacturers rate sensitivity for "free field" (anechoic) conditions, our in-room figures are typically about 3 dB higher than theirs.

The primary listening evaluations were conducted in three evenings of four sessions each. Each session was a blind listening comparison of three of the nine speakers under test. The fourth session each night was a "bake-off" comparison of the speakers that had ranked first in the preceding three sessions. All listeners were seated on the stereo center line.
and no more than two of the four listeners on the panel participated in any one session.

Because the results of the three bake-offs were not unanimous, we decided to finish off with two "super showdowns." In the first, with two of our four listeners participating, the three speakers that scored best overall in the bake-offs were compared head to head. In the second, with another listener added, the top two scorers from the first showdown were pitted against the top-ranked speaker from our July comparison of floor-standing speakers in the same price range.

Listeners rated speakers numerically on spectral balance (naturalness of tonal reproduction), spatial rendition (stability and realism of the stereo image), and dynamics (how loudly and softly the speakers could play without distortion or loss of clarity), and then ranked them in order of preference in each session.

In each session, all the speakers were individually driven by separate power amplifiers and level-matched using pink noise and an Audio Control AC3050a real-time analyzer. Each speaker was assigned one of three locations on a small table near an optimal stereo location in the listening room, with the left and right speakers approximately 6 feet apart and 9 feet from the listener. All the speakers were placed well away from any walls—the arrangement most manufacturers recommend as optimal. (B&W and Celestion suggested that their speakers would work best placed against the front wall, however.)

For ease of comparison, each speaker pair was assigned to Position 1, 3, or 5 of a five-position rotary switch. Positions 2 and 4 always selected a high-quality two-way "anchor" speaker that served as a handy constant reference point throughout the sessions. The anchor was arbitrarily assigned a slightly less desirable location than the speakers under test and was never moved. The speakers under test were initially assigned to sessions, locations, and switch positions by random lottery. Thereafter their order in the sessions, their loca-

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**MEASUREMENTS**

<table>
<thead>
<tr>
<th>Speaker</th>
<th>Minimum Impedance</th>
<th>Sensitivity</th>
<th>Frequency Response (on-axis)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADS 400c</td>
<td>4.6 ohms at 103 Hz</td>
<td>92 dB</td>
<td>96 Hz to 20 kHz ±5.0 dB</td>
</tr>
<tr>
<td>B&amp;W DM-610i</td>
<td>4.0 ohms at 126 Hz</td>
<td>94 dB</td>
<td>55 Hz to 20 kHz ±4.9 dB</td>
</tr>
<tr>
<td>Camber 3.0t/SM</td>
<td>5.9 ohms at 163 Hz</td>
<td>93 dB</td>
<td>78 Hz to 20 kHz ±4.7 dB</td>
</tr>
<tr>
<td>Celestion 7MKII</td>
<td>4.2 ohms at 7.7 kHz</td>
<td>96 dB</td>
<td>100 Hz to 20 kHz ±3.9 dB</td>
</tr>
<tr>
<td>Design Acoustics DA800</td>
<td>3.2 ohms at 125 Hz</td>
<td>94 dB</td>
<td>100 Hz to 20 kHz ±5.8 dB</td>
</tr>
<tr>
<td>Jamo 307</td>
<td>4.6 ohms at 214 Hz</td>
<td>94 dB</td>
<td>110 Hz to 20 kHz ±5.8 dB</td>
</tr>
<tr>
<td>JBL L1</td>
<td>4.8 ohms at 159 Hz</td>
<td>92 dB</td>
<td>64 Hz to 20 kHz ±7.0 dB</td>
</tr>
<tr>
<td>NHT 1.3A</td>
<td>5.8 ohms at 170 Hz</td>
<td>90 dB</td>
<td>96 Hz to 20 kHz ±5.3 dB</td>
</tr>
<tr>
<td>PSB PSB-500</td>
<td>3.8 ohms at 30 Hz</td>
<td>94 dB</td>
<td>50 Hz to 20 kHz ±4.9 dB</td>
</tr>
</tbody>
</table>
tions, and their switch-position assignments were carefully staggered to guard against bias.

Source material for the comparisons consisted of ten musical excerpts transferred to a recordable CD (CD-R), then used exclusively and in the same order for every session. Included were male and female vocalists, small ensembles with acoustic and electric instruments, a female choir with organ, a big band, and a full symphony orchestra. Listeners could adjust volume as they saw fit, but each session was started at the same preset level.

The listeners, all male, ranged from twenty-five to forty-nine years old. Three of the five had also participated in the July comparison of floor-standing speakers. Listening tests lasted 2½ to 3 hours total per evening for a set of three comparison sessions plus bake-off. There were 10- to 15-minute breaks between sessions, during which speakers were swapped.

Results

**ADS L400e.** The L400e had quite decent measured response for such a small speaker, averaging ±4 dB from its relatively high half-power (−3-dB) point of 96 Hz and extending cleanly to 20 kHz except for a crossover dip at 5.5 kHz and a 6-dB tweeter peak at 12.5 kHz. Off-axis response carried the same shape except that high frequencies were sharply attenuated beyond about 30 degrees. Sensitivity was reasonable.

Despite its attenuated low bass, the L400e had a natural overall spectral balance, with only a very mild coloration on female voices and some loss of low-level detail. When pushed into overload the speaker’s sound became compressed and frazzled, but it managed to handle abuse without loud rattles.

Although the ADS was a reasonably natural-sounding speaker overall, it was the only one in the comparison that never scored first in any session, although it was a close second twice. Listeners commented that the system “always sounds like reproduced music” and had “slightly hollow vocals.” The L400e should work very well in a den or office, or perhaps in a small surround system as a main or surround speaker. For serious listening, you would probably want to add a subwoofer, and the system might benefit from placement on a wall.

**B&W DM-610i.** The 610i was near the top in overall tightness of response, and its curves seemed to have the fewest intermediate small jiggles, so one could argue that it was the smoothest of the bunch. At 45 degrees off-axis its response was within ±2.75 dB from a respectable 55 Hz up to the limits of audibility, which was the tightest measured response at that angle. Sensitivity was very good, but the impedance dipped to 4 ohms in the upper bass, calling for caution if a pair of 610i’s is used in parallel with another set of speakers.

Sonically, this British rascal was super-clean and very, very natural—truly a pleasure to listen to. It did lose some composure when asked to play too loudly, however, and the woofer even popped loudly when playing a big-band jazz piece at the limit.

Listeners heaped praise on the B&W. It finished first in five of eight initial session rankings and seemed destined to take first place before the NHT bested it twice in the showdown sessions. Comments included: “Very natural-sounding, well-balanced spectral qualities, great soundstage”; “most convincing overall image, best focused, most detailed, widest stage, far and away the best”; “big, spacious
Midband performance was outstanding; 45 degrees off-axis, the 7 Mk II’s response was ±3 dB from 100 Hz to 20 kHz. Low-frequency extension was marginal, however, suggesting that Celestion’s against-the-wall placement recommendation is well taken. Sensitivity was the highest of the group, but its low minimum impedance counsels caution when paralleling these beauties with another pair of speakers.

The Celestion 7 Mk II sounded excellent, with a clean, natural spectral balance, cleanly and delicately handled sibilance, and very good octave-to-octave balance. Its high sensitivity gave its sound a high immediacy quotient, with no screech or blat. I found that very appealing. Overload control was very good as well. On super-low stuff the Mk II just shut off, with no thrashing or rattle, although the woofer could be made to bottom on really low, loud material. This ain’t no subwoofer, but I thought it was a really fine-sounding speaker from the chest up. The listeners were not as enthusiastic, however, and the 7 Mk II wound up smack in the middle of the pack, with high marks for “good tonality and midrange” and “nice, broad image” but with downticks for “lack of bass” and “constricted dynamics.”

**Design Acoustics DA800.** As with several of the other speakers, the DA800’s measured response improved as we moved off the main axis. Straight ahead, it rose from the speaker’s 100-Hz half-power point to 20 kHz, with a 6-dB tweeter peak centered on 16 kHz. The response flattened considerably off-axis, however, to about ±3.6 dB from 100 Hz to 16 kHz at 45 degrees. Sensitivity was above the average for the group, but impedance dropped to a minimum of 3.2 ohms in the upper bass, so be careful about running a pair of these puppies in parallel with other speakers (your amplifier should be rated to handle 2-ohm loads if you do).

The DA800 delivered pretty natural reproduction of voices but not a lot of detail. Horns sometimes sounded colored, and the system droned and thundereously on dynamic bass material. It handled overload reasonably well, with only slight blatting on the loudest stuff. The DA800 sounded much bigger on orchestral works than its bass response would lead you to believe. The listeners were not overly enthusiastic about it, though. Comments included “sounds unnatural,” “loud, punchy drums,” “unrealistically large image for this material,” and “loses definition on complex passages.”

**Jamo 307.** The Jamo 307, similar in size to the ADS, had even more limited bass, falling off by 3 dB by 110 Hz. On-axis response rose steadily with increasing frequency, interrupted by a crossover notch at 4.8 kHz and culminating with the tweeter peak at 14 kHz, which was about 6 dB above midband level. Off-axis, however, the output flattened nicely as the crossover notch filled in and the excessive tweeter energy fell off. Sensitivity was excellent and the impedance very manageable.

The Jamo’s sound had a mildly distant character with a trace of hollowness, but there were no in-your-face colorations. Detail was only average, and bass was decidedly lightweight. With Herculean input, the woofer could be made to bottom out, but in general the speaker handled rudely loud situations with grace. In the listening sessions the 307 managed one first-place finish but was otherwise undistinguished. Comments included “exaggerated highs,” “highs had an edge, almost a sizzle,” “no bass,” and “lacks high-end definition of the anchor.”

**JBL L1.** The L1 has an aggressive tweeter, its on-axis response climbing nearly 10 dB from midband to 20 kHz. Things got much better off-axis, where the 4-kHz crossover

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**LISTENING COMPARISONS**

<table>
<thead>
<tr>
<th>INITIAL SESSIONS</th>
<th>NUMBER OF TIMES RANKED</th>
<th>MADE BAKE-OFFS</th>
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<tr>
<td>B&amp;W DM-610i</td>
<td>3</td>
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<tr>
<td>Camber 3.0ti/SM</td>
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<td>0</td>
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<tr>
<td>NHT 1.3A</td>
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<td>2</td>
</tr>
<tr>
<td>Celestion 7 Mk II</td>
<td>1</td>
<td>2</td>
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</tr>
<tr>
<td>Jamo 307</td>
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<tr>
<td>PSB PSB-500</td>
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<td>ADS L400e</td>
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<tr>
<th>BAKE-OFFS</th>
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<th>THIRD</th>
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<th>SECOND</th>
<th>RANK</th>
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<td>B&amp;W DM-610i</td>
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<tr>
<td>Camber 3.0ti/SM</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
</tbody>
</table>

* Failure to make a bake-off assigned a rank of 4.
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Peter Tribeman
President, Atlantic Technology
notch filled in and the overall high-frequency response flattened out. By 45 degrees off-axis the response was actually ±2.5 dB from 63 Hz to 12 kHz, compared with the ±7-dB variation straight ahead. Bass extension to 63 Hz was exceptional for this group but only average in a more general sense. Sensitivity was reasonable and about average for this crowd.

The L1 sounded much better than its on-axis response might suggest. It had a sweet, clean overall character, with only a trace of spit on difficult material. Vocal balance was surprisingly good but went mildly fuzzy at overload levels. The low end was forward—"comin' at ya—and could get a tad cavernous on electric bass. On super-loud overload the woofer offered mild noises of protest, but overall the L1 had good control and just clammed up when hit with signals too low for it to handle.

Listener opinions on the L1 covered the waterfront, and it even won the bake-off on the third evening, beating out the NHT and PSB head to head. That was the only bake-off it made, however, and despite a good showing it didn't score well enough overall to get into the super showdown.

Listeners' comments included "best bottom end with excessive highs," "not as hard," "deep bass but poorly defined," "sounds dark, narrow image compared to No. 1" [Switch Position 1, B&W in this case]. I thought the JBL had the best fit and finish of the group.

**NHT 1.3A.** The NHT 1.3A measured superlatively in terms of evenness of radiation, with response 30 and 45 degrees off-axis very similar to that on-axis, which was about average (the main deviations were a crossover notch at 4 kHz and tweeter peaking at 12.5 kHz). Bass extension, as with a number of other speakers in this comparison, was fairly limited. The response had an overall upward tilt typical of the small speakers in this crowd. Boundary reinforcement from wall placement would probably strengthen the 1.3A's bottom end. Sensitivity was on the low side for this group of speakers.

Sonically, the 1.3A had a natural, polite delivery, with plenty of juicy detail and sexy focus. Bass was light in comparison with some of the other speakers, and music with lots of steely highs could get squeaky and irritating. Low organ notes and other ultra-low bass signals were just turned off like a switch thanks to the sealed design, meaning that the 1.3A might blat a little when overloaded but won't chatter and bang.

Listeners were sharply divided about the NHT, tending to rank it either first or last in initial sessions. Comments included "most natural," "cleaner, more localizable if a bit bright," "best soundstage," "bright, shiny, but clearest high end," and "no bass, annoying." The NHT kicked butt in the super showdown, however, besting the B&W 610i, which was the speaker most often ranked first in previous sessions. One listener noted: "Tough call between No. 3 [Switch Position 3, the B&W in this case] and No. 1 [Switch Position 1, the NHT in this case] for most selections, but No. 1 has best soundstage and cleaner sound, although No. 3 sometimes sounds more natural."

**PSB PSB-500.** The PSB was the big kid in this competition, so naturally it had the best low-frequency extension. Frequency response was pretty tight on-axis and slightly better than 30 degrees off-axis, as the crossover dip filled in and the tweeter rise tapered off. At 45 degrees the treble nosedived above 10 kHz. Sensitivity was very good. The impedance dipped to just under 4 ohms at the very bottom of the range.

The PSB was practically the only speaker in this field to try reproducing really deep bass, but even it had a good deal of trouble down there sometimes, rattling into overload and popping occasionally on complex, loud big-band passages. On the other hand, it delivered good, clean, solid bass on all common acoustic and electric instruments. The general presentation was very good, with slightly less detail than some of the other speakers and a mild huskiness noticeable only in direct comparisons. Listeners were not excited by the PSB, which finished out of the basement only once (though it did come in first that time). Comments ran: "good bass punch and extension... but excessive lower midrange/upper bass," "female voice too husky," "muddy but consistent throughout rest of range [beyond the bass]."

**Final Thoughts**

All of the speakers in this comparison proved to be basically good performers, and together they demonstrated once again that you can get a lot of good sound for not a whole lot of money. What do you give up by not buying a similarly priced floor-standing speaker? From the results of this test and the one of floor-standing models in the July issue, we'd say about half an octave of bass. In return, you get greater flexibility of placement, and from about 100 Hz up these bookshelf speakers seemed to be in the same class as their floor-standing cousins.

As a quick-and-dirty test of that conclusion, we pitted the NHT and B&W against the KEF Q30, which ranked first in the floor-standing comparison. The listeners again favored the KEF, giving it higher marks for "working better over the entire range of music," while the NHT was termed "cleanest but a bit thin in direct comparison." A good subwoofer would probably close the gap in most cases.

Among the nine bookshelf speakers considered here, I personally preferred the B&W overall for music, with the NHT and Celestion not far behind. Your preferences might differ somewhat as well, which brings us to an important final point: There's no substitute for listening. Differences in room acoustics and personal taste can be substantial. Even in the very controlled conditions of these comparisons, the results were somewhat ambiguous, reflecting the closeness of the competition and the preferences of the various listeners. These tests are best used as an aid to making your decision, not as a substitute for your own ears.
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"The Titan would be absolutely fantastic in any role: main, surround, and/or dual-channel center. Bravo!"

Tom Noubane, "Sound & Image"
Kent Nagano is the antithesis of the imperious, haughty maestro. Meet him personally, and you’re struck by his informality—shoulder-length hair, jeans, loafers—and his self-effacing modesty. Speaking softly and choosing his words with diplomatic aplomb, Nagano would rather praise the achievements of others than boast of his own.

But once this boyish, slightly built, forty-two-year-old conductor strides onstage, a different Nagano appears. The same meticulous precision is there, but it is coupled with an urgent physicality. During his New York debuts last spring—at Carnegie Hall (with the American Composers Orchestra) and at the Metropolitan Opera (in Poulenc’s Dialogues of the Carmelites)—Nagano’s baton carved weighty, expansive gestures, and he threw his whole body into the music-making, bending his knees, lunging from side to side. Yet there was never a hint that his stage presence was artificially cultivated.

And that may explain why he is not as well known in his native America as he should be. Lacking any interest in self-promotion, he is perfectly content to let his career unfold at its own pace—as his astonishingly late New York debuts suggest.

“You’re right, my visibility is much less here,” he admitted during a chat at his New York hotel. “But these are issues that are really completely out of your hands as a performer. You don’t get to say where you’re going to have the privilege to work. The fortunate thing is that whatever the situation may be today, it won’t be that way tomorrow. So one needs to step back and get perspective.”

America still has an uncanny ability to drive its best native-born conductors to European shores. And make no mistake about it: Nagano is one of the finest American conductors of his generation. Since 1989 the music director of the Opéra de Lyon, since 1990 the principal guest conductor of the London Symphony Orchestra, and since 1991 the music director of the Hallé Orchestra in Manchester, England, Nagano has been neglected only in the United States. Finally, though, that situation may be changing.

Born in the San Francisco Bay Area to Japanese-American parents, Nagano first came to the public eye in 1978, when he was appointed music director of the Berkeley Symphony—a destitute institution whose very sur-
vival was in question. Within three years, he had rescued the orchestra financially and raised its standards to near-professional levels. And he did so not with standard repertory, but with twentieth-century music, particularly the works of Olivier Messiaen. By coaxing Messiaen himself to come to Berkeley, Nagano pulled off a coup for the orchestra—and for his own career.

Through Messiaen, Nagano met Seiji Ozawa, who invited the young man to assist him in the Paris Opera première of Messiaen’s St. Francis of Assisi. So impressed was Ozawa that he took Nagano back to the Boston Symphony Orchestra as his assistant. Then, in one of those big breaks that every conductor since Bernstein has dreamed of, Nagano was asked to substitute for Ozawa that evening on one day’s notice, and with no prior experience with the work.

That evening was a triumph, and further recognition soon followed. In 1985, he won the Seaver/NEA Conductor’s Award, which enabled him to study with Bernstein, Ozawa, and Boulez—three maestros he deliberately chose because of their vastly diverse interpretive temperaments. Gradually, his work with the Paris Opera began to win him a reputation as an opera conductor. So perhaps it was not that surprising when he was named music director of the Opéra de Lyon.

Typically, Nagano minimizes his own role in turning the Opéra de Lyon into an international phenomenon, one whose innovative recordings—including Poulenc’s Carmelites, Prokofiev's The Love for Three Oranges, Busoni’s Turandot and Arlecchino, and John Adams’s The Death of Klinghoffer—have won global acclaim.

“When I came into the picture, I was given a real mandate. I was asked to expand the operatic repertoire, oversee the enlargement of the ensemble, and prepare the company to go into their new opera house, which would be four years down the line. It’s true that I’m the one who actually conducts the performances and does most of the training and rehearsing. But the direction of the opera company is something that’s much bigger than any of us. For me it’s been more successful than I ever thought was possible in any opera house, because I could never have imagined this kind of cohesion, enthusiasm, and teamwork.”

Nagano has become well known to English audiences through his frequent guest appearances with the London Symphony, but he wasn’t offered a permanent post in Britain until 1991, when Manchester’s ailing Hallé Orchestra invited him to become its music director. It was an offer he had every reason to refuse. Since the death of Sir John Barbirolli in 1970, the Hallé Orchestra had been in continual decline, and it seemed that no one could halt the downward spiral.

“As you can imagine, I was advised very strongly not to go to Manchester,” he told me. “It’s hard to say why I made the decision. It has something to do with the fact that I felt [it was] a special privilege to work with these players, some of whom played with Barbirolli.”

In just two years in Manchester, Nagano has pulled off a revitalization even more miraculous than Berkeley’s. “My concerts are sold out, and people have embraced the orchestra as a real extension of their own community. It’s truly extraordinary. I walk down the street and people know who I am and what the orchestra is going to play that night.”

Nagano, who despises the jet-set lifestyle of the globe-trotting maestro, has cut back his schedule so that he can concentrate on Lyons, London, and Manchester (and find some time with his wife, the pianist Mari Kodama). As a result, he may become an even less frequent visitor to the United States. Yet he compensates for his absence with a high-profile recording schedule. Thanks to long-term contracts with two major labels—Virgin Classics (EMI) and Erato (Elektra Classics)—Nagano has been able to record unusual repertory that would otherwise be missing from the catalog. Dialogues of the Carmelites, recorded since the original-cast version in 1957, is just one example; Carlisle Floyd’s Susannah, to be released this month on Virgin Classics, is another.

Nagano’s recordings are characterized by long, seamless lines that unify even the most episodic scores, by an unflagging rhythmic momentum, and by a fine balance between textural clarity and sensuousness of color. But his discs have tended to reinforce the impression that he is a twentieth-century specialist who still lacks experience in the standard repertory, an accusation he strenuously denies.

“Choosing works to record is not necessarily reflective of your total output. I feel that when you make a recording it should be the very best one available. Otherwise you see the same pieces duplicated over and over again, and many times with really questionable quality. Why would the Opéra de Lyon want to record Butterfly? But I can think of a million reasons why we would want to record Carmelites.”

And Americans, he reminded me, still have a skewed impression of his orchestral repertory. “I just came from two weeks in London, where we did the Pagannini concerto and Mahler’s Fifth. In Manchester, my repertoire will be predominantly eighteenth- and nineteenth-century. In Lyons, we initiated a Puccini cycle that we’re still involved in. It’s true that, for whatever reason, people here haven’t heard me perform much of that music.”

Patient as always, Nagano is convinced that eventually he will be known for all the music he conducts, not just the new and unusual items. “It’s curious to see what labels or reputations follow you around. But I think, given time, people understand what it is you’re trying to do.”

One day, when Nagano’s abilities are more accurately perceived, some major American orchestra may try to lure him with the offer of a directorship. He doesn’t deny that he’d like such an invitation. But he is willing to wait calmly until that day arrives.

“I must say that I do feel like an American,” he said wistfully. “In spite of the fact that I really feel comfortable in several countries right now, when I come to American soil I feel psychologically I’ve come home. So I’d love to work in America when the time and circumstances are right. But not before.”
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Home Theater Speaker Systems by BIC America

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Is that top-loader you bought back in 1981 starting to get a little balky? Are you staring at the new Pro Logic receiver next to your old mono VCR, wondering what it would be like to have a hi-fi model so that you could enjoy surround sound from rental tapes? Do you wind up pulling your hair out every time you try to program your VCR to tape something while you’re away? Maybe it’s time for a change. Hi-fi machines have grown more popular and less expensive over the last few years, and at the same time manufacturers have made real strides in producing VCR’s that are both more versatile and easier to use than older models.

Probing Performance

Before we get into nifty new features, let’s talk performance. If your present VCR doesn’t make the grade performance-wise, you definitely owe yourself a new one.

First, you must decide on format: VHS, Super VHS (S-VHS), 8mm, or Hi8. Although 8mm is a popular camcorder format, it hasn’t caught on for home VCR’s, probably because 8mm rental tapes are as rare as hens’ teeth. Since we won’t be dealing with camcorders in this discussion, let’s put aside 8mm and its high-end cousin Hi8. That leaves VHS and Super VHS.

Super VHS has yet to make a real impact in the general marketplace, but it is capable of a higher-quality picture than VHS, and videophiles should give it serious consideration (see page 00, “Why Super VHS?”). Still, S-VHS recorders are expensive, prerecorded S-VHS tapes are hard to come by, and when you rent, you’re going to be playing regular VHS anyway. VHS, on the other hand, is the bread-and-butter format, the one used for most VCR models and most videotape releases, and the one most people buy.

In 1985 JVC introduced a fully compatible improvement over standard VHS called VHS HQ (for “High Quality”). It’s a feature that’s worth looking for, although not every HQ deck offers all the improvements JVC envisioned, and it’s often difficult to tell what is and isn’t included in a particular HQ deck. The three ingredients to look for are luminance noise reduction (or YNR), chrominance noise reduction (or CNR), and white clip level extension (or WCL). YNR and CNR are playback functions that reduce “snow” and color-blotching. They’re very useful but are also the most complex of HQ circuits to implement, so they’re often missing. Every HQ deck has WCL, which augments the apparent sharpness of black-to-white transitions during recording. S-VHS it’s not, but every little bit helps.

VHS Hi-Fi is an absolute requirement for every STEREO REVIEW reader, whether you wish to set up a home theater or simply to enjoy decent stereo sound on a modest system. VHS Hi-Fi eliminates the wow and flutter of the linear audio soundtrack and provides full-range response (20 Hz to 20 kHz), almost CD-quality dynamic range (90 dB), relatively low distortion, and theoretically perfect channel balance and phase coherence—characteristics that are required for proper Dolby Pro Logic decoding in a home theater. (Under no circumstances
At the top of Magnavox's new four-head VHS Hi-Fi lineup is the VR9362 ($360), which features VCR Plus recording, on-screen menus in English or Spanish, slow-motion playback, front-panel A/V inputs, and a universal remote control with a jog/shuttle dial.

VHS HI-FI CAPABILITY IS AN ABSOLUTE REQUIREMENT.

Mitsubishi's VHS Hi-Fi HS-U500 ($499) automatically adjusts recording parameters to get the best performance from the tape. It also features an on-screen menu system and a "rapid start" transport said to display a picture within 0.3 second of selecting a command.

Sony's four-head Super VHS SLV-R1000 ($1,499) boasts VCR Plus recording, a flying erase head, automatic digital tracking, a jog/shuttle dial on the deck's flip-down control panel and universal remote control, and an infrared cable-box controller.

should anyone contemplating home theater invest in a non-hi-fi VCR?) VHS Hi-Fi decks also invariably have MTS (multichannel television sound) tuners so that you can tape, say, the Letterman show in stereo.

Most of today's video movies carry hi-fi soundtracks, which will deliver excellent sound quality as long as your deck is hitched to a good audio system. The average VHS Hi-Fi deck does a decent job of recording and playing audio, but, as with any stereo component, differences in quality exist that are not necessarily apparent in the specs. Your best guides are a knowledgeable and honest salesperson, the manufacturer's reputation, magazine reviews, friends with recent buying experience, and your own ears. While it's tough to compare sound quality on the sales floor, one thing you can do is listen very carefully during quiet scenes to make sure there's no excessive background noise.

Every VHS deck offers a choice of two recording speeds: SP, for 2 hours of taping on a T-120 cassette, and EP (or SLP), which provides 6 hours of recording on the popular T-120 length. You select the speed for recording; the deck automatically adopts the correct playback speed. A few decks also record at an intermediate LP speed (4 hours on a T-120), although it's not a function you're likely to use often. Most decks play LP tapes even if they don't record at that speed, but no deck that I know of provides special effects such as freeze-frame, frame-advance, and slow-motion on LP recordings.

In theory, SP recordings should have better picture resolution and exhibit less snow and color-blotching than EP recordings, but the degree of improvement depends on the deck (and the tape) you use. Also, four-head decks, which have separate pairs of record and playback heads for the SP and EP modes, can be expected to outperform their two-head counterparts, which use the same heads for both speeds. Although there's no difference in VHS Hi-Fi performance between SP and EP, dropouts are likely to be fewer and shorter in duration at the fast speed, which is another reason to choose SP recording over EP. Nonetheless, EP is more popular (which I guess says that most people value tape savings more than quality), and most VCR's provide cleaner special effects in EP than in SP.

If pristine freeze-frame, slow-motion, and variable-speed search are im-
important to you, look for a deck with a digital frame memory to capture scenes frame by frame and eliminate those streaky "noise bars" that appear on simpler decks. Decks with digital memory may (but need not) also provide strobe effects, multipicture freeze-frame (on decks offering picture-in-picture, or PIP), digital zoom, and such frivolous wonders as solarization and mosaic effects.

Noise bars are caused when the heads mistrack the recorded information. The bars can occur at normal playing speed as well as in effects modes and are especially common with rental tapes that have been heavily used and abused. Some decks have digital tracking systems that correct the situation automatically, others have manual tracking controls, and a few decks offer both. The digital-tracking decks I've used have worked well, and I think it's an option worth considering.

Among the more advanced performance pluses worth considering are digital time-base correction, digital noise reduction, and digital color separation. (This is the digital age!) Time-base correction reduces picture jitter and bending that occur when you play a slightly damaged tape. Digital noise reduction is more effective than analog circuitry to implement VHS HQ's YNR and CNR systems. And, similarly, digital color separation is more effective than an analog comb filter in reducing dot crawl, the tendency for color dots to "crawl" along the edge of an image. Dropout compensation can also be implemented digitally, and when a multiplicity of these technologies are used, the combination is often advertised as digital video processing.

Favorite Features

Some features are so common that you can largely take them for granted: cable compatibility (the ability to receive cable channels as well as ordinary broadcast channels), auto channel selection to search for available channels and load them into the tuner's scanning memory, a clock and program timer for recording in your absence, a tape counter with memory, a wireless remote control, and the like. But you should ask some questions even about these basic features:

How many events does the unattended recording system accommodate? Over what time period? How

Zenith's four-head VHS Hi-Fi VRM4220HF ($369) offers automatic digital tracking, a quick-start tape-loading mechanism, slow-motion playback, multilingual on-screen programming, and a built-in head cleaner. A universal remote control is included.

Toshiba's VHS Hi-Fi M-760 ($550) uses six video heads to produce noise-free special effects and EP recordings that are said to be virtually indistinguishable from SP recordings. It also boasts an enhanced version of VCR Plus recording that's compatible with cable boxes.

RCA's Super VHS VR721HF ($749) sports a built-in cable-box controller that automatically selects the proper cable channel for recording. Other features include VCR Plus recording and a universal remote with digital jog/shuttle controls.

Hitachi's Super VHS VT-S772 ($899) is a five-head model with a flying erase head that also features a built-in video tilter, a high-speed rewind mode, VCR Plus recording, and an illuminated universal remote control with an LCD panel and a jog/shuttle dial.
JVC's Super VHS HR-S6900 ($1,000) features an automatic editing mode: You select up to eight scenes, designate the playback order, and the deck automatically assembles them for dubbing onto a second VCR. It also has a jog/shuttle dial.

Sharp's VHS Hi-Fi VC-H914U ($400) uses a new four-head system that's said to deliver near-SP-quality video in the EP mode. Features include double-speed frame advance, on-screen menus, a built-in head cleaner, and a universal remote control.

Panasonic's VHS Hi-Fi PV-4464 ($549) features cable-box-compatible VCR Plus recording, over-size on-screen menus, automatic digital tracking and picture adjustment (for worn tapes), and a jog/shuttle dial on both its front panel and its universal remote control.

ASK QUESTIONS, EVEN ABOUT BASIC FEATURES.

long is memory retained in case of a power outage? Is the remote control dedicated to the VCR, or is it preprogrammed with control codes for other equipment (TV, videodisc player, etc.) so that it can serve multiple purposes? If it can control other components, is it limited to those from the same manufacturer, or does it "know" the codes for other companies' equipment? Or is it a "universal" remote that can "learn" any set of codes? Can it control a cable box? A little detective work may be in order.

One of the latest programming features found in many VCR's is Gemstar's VCR Plus. VCR's equipped with this system can be set for unattended recording simply by entering the multidigit PlusCode that appears next to the listings in TV Guide and other publications. Well, it's almost that simple. Although PlusCode "tells" the VCR the starting time, duration, and channel of the program you want to tape, you still have to "teach" the VCR which channel each broadcaster or cable operator uses in your area, a one-time setup for which you'll find instructions in the manual.

Even that nuisance may soon be passé. Gemstar recently announced VCR Plus with CallSet, which is expected to be included in some 1994 models. With CallSet, "one toll-free telephone call programs the unit in seconds for the consumer's exact VCR model, cable box model, the entire cable channel line-up and even the correct date and time." CallSet also offers immediate recording of in-progress TV programs. Gemstar also plans to offer the VCR Plus Control Tower, a universal remote control with VCR Plus instant programming.

Thanks to a recent FCC ruling, the difficulties that some folks have experienced trying to utilize their VCR's programming features with a cable box will be a thing of the past. At the moment, however, you may wish to consider a VCR that communicates with a cable box via an infrared link (assuming that your cable box can be remotely controlled). Some VCR's use an infrared repeater on the top surface—klutzy, but it permits you to place the
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no product has borne the brunt of so many user-friendliness jokes as the VCR. Let’s face it: VCR’s are complex toys loaded with eclectic features, some of which are not easy to use. Matters are improving, though. Many decks now offer on-screen programming—some menu-based, some icon-based, some more intuitive, some less. You judge which suits you: a remote with individual buttons for every function you desire, or a simple controller that provides access to on-screen menus or icons.

The jog/shuttle dial is an increasingly common feature that lets you scan through a tape very slowly or very quickly; such maneuvering can be particularly useful when editing. It’s more convenient than a touchpad when you want to zero in on a specific field, and it can be used for channel scanning, too. The dial may appear on the VCR’s front panel, on the remote, or on both. If the edit bug bites, look for a deck with a flying erase head. These provide cleaner, smoother insertions than fixed erase heads.

Front-panel A/V inputs are worth considering if your video routine involves temporarily connecting a camcorder or other source deck. If the source deck is “compatible” with the recording deck (read: made by the same manufacturer), synchronized editing may be an option: You advance both decks to the point at which you wish the transfer to occur and hit the pause button on both; when you release the recording deck from pause mode, the source deck automatically goes into play mode.

With synchronization, you can also assemble edit—that is, press the recording deck’s pause control at the end of a scene, advance (or return) the source deck to the beginning of the scene you wish to append, pause it, and release the record pause. Just remember to transfer audio and video simultaneously. Although you can overdub linear audio tracks, you can’t overdub the VHS Hi-Fi track without erasing the video information. For videophiles who do a lot of editing, Go Video sells the only dual-well hi-fi VCR, the GV-3060, for $899.

If you record multiple programs on a tape, VHS index search makes it easier to find the one you want to view. Index search automatically marks the tape’s control track at the start of each recording so that you can zip to a program by simply entering the number of programs you want to skip and hitting the rewind or fast-forward button. Some index-search decks can preview each recording for a few seconds before speeding to the next, and some can also search for the end of the last recording to permit a smooth transition from one to the next. On the horizon is another Gemstar development: Index-Plus. It’s an automatic indexing/tape-ID system that displays an on-screen list of all taped programs and lets you play them in any order.

Even decks without index search often have a feature called memory rewind that lets you return to one point by resetting the tape counter. Others permit you to fast forward or rewind by specifying a time after which playback will automatically commence. Segment repeat between marked points is available on some decks, and automatic rewind and stop when the tape runs out during recording is common. Auto rewind, stop, and eject are typical for tapes whose safety tab has been removed. Auto playback on loading a tape without a tab is another common feature, as is auto ejection of a tape without safety tab if you try to record on it.

Companies vie with each other on how many features they can offer. There are too many for me to mention all of them or rank them by relative merit. For example, exactly what is the relative value of a built-in head cleaner? If you use good tape, head cleaning is rarely necessary, and if you gunk up the heads with a bad tape, it’s questionable whether a self-cleaning system can easily fix the problem.

On the other hand, features that I find valuable are missing on some new models. Adequate audio-level metering is one, and the ability to adjust audio recording level is another. Some current VHS Hi-Fi models use preset recording levels. If they match the source, fine; if not, too bad. Source levels are reasonably standardized but not perfectly so. Some of the VCR’s dynamic range is squandered on the mismatch, and I’d gladly trade a head cleaner for level controls with a solid detent that suggests the appropriate setting for “standard” sources. And then there is the ultimate idiocy, level indicators but no level controls! Indicators are of no earthly use without controls.

Oh, well. Caveat emptor.
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Every few years, I get the urge to upgrade my home theater/audio system. I’ve been doing this since I bought my first stereo equipment thirty-four years ago, and I’m still at it today.

For the past five years I’ve thoroughly enjoyed my Yamaha AVX-100 audio/video amplifier. The AVX-100 provides only Dolby Surround decoding, however, not Pro Logic. Wanting to upgrade to Dolby Pro Logic, I started looking at new A/V products about six months ago. To my amazement, even with the enormous variety of surround processors and A/V preamps, amps, and receivers on the market, I have yet to find anything that provides all the features of my aging AVX-100. I came close to buying a new A/V amplifier at least half a dozen times. I even bought four, tried them, and returned them. It would appear that in order to have Pro Logic, I have to sacrifice something.

My AVX-100 seems to be a treasure duplicated by nobody, apparently not even Yamaha. The primary features it provides that I’ve grown accustomed to are:

1. Six A/V inputs (I have several VCR’s);
2. Provision for switching audio and video independently (I like to keep the video on while I listen to CD’s or radio, and it’s a good feature for receiving simulcasts or for watching a sports broadcast while listening to another narration of the game);
3. Ability to record from any source while viewing any other;
4. Separate pre-out and main-in jacks for all channels;
5. Visual feedback when changing volume.

The AVX-100’s volume control is most intelligent. A ¼-inch-long red LED on the knob provides a clear visual cue as to where the volume is set and which way it’s moving when you change it from the remote. And there’s also an on-screen volume up/down display that lingers for one second (not two or three), giving you feedback that, yes, you have changed the volume by a single increment. Without such feedback, I tend to hold the button down too long. This system works perfectly for me.

The first new piece of equipment I encountered was a Fosgate Model
Five surround processor, which I intended to use in conjunction with my AVX-100. The surround modes were extremely pleasing, but the ergonomics were horrid. The volume control—up/down buttons—supplied no visual indicator whatsoever, so there was no way to preset the volume and, of course, no visual feedback.

Next I scrutinized a Denon AVR-3000 receiver. Its volume control had a little red light on the knob but gave no on-screen display. I would have tried it nonetheless except for its method of source selection. The front-panel display showed the current surround mode but not the currently selected input. In fact, there was no way to see which source was selected without pressing the audio or video selector button, which then switched to the next source in line, so I had to round-robin through the choices back to where I started. I was not amused.

When I gazed upon the Onkyo TX-SV999PRO receiver, I fell in love with its solid beauty. Its volume control was gigantic, and it sported the little red light I've grown so accustomed to. Two different salespeople told me it had more features than any other receiver on the market. I was two minutes from handing over my plastic when I double-checked the back panel. Although pre-out jacks were abundant, there were no amp-in jacks. For parties, I like plenty of oomph in the surround speakers. Since I have a separate power amp for the front speakers, I wanted to use the receiver's most powerful amps for the surrounds, as I do with my AVX-100. Not possible.

I looked at Kenwood’s new KC-X1 tuner/preamp. It boasts separate audio and video switching and Home THX processing. It looked appealing, except for the damnedest volume control ever. You have to turn the dial so many times to raise or lower the volume that you’d think you wereumping water. Worse yet, the very visible readout on the panel shows volume level in decibels of attenuation—you know, from high to low numbers, just the thing family members need to drive them crazy.

I looked at some high-end units, including the McIntosh C-39 and Proceed PAV preamps. Both displayed a large, easy-to-see number on the panel for volume (low to high), but neither had an on-screen display. For four times the price of everything else, you get Home THX and Pro Logic, but only one music surround mode. I know my ears can’t hear the difference, only my ego, but c’mon, guys, how about a few features just to compete with the rest of the world?

Finally, I brought home Sony’s new STR-GIES A/V receiver, which provides a computer-like graphical interface on screen. It intrigued me because I’m in the computer business. I’m sure that in five years all home theater equipment will work this way, but there will be growing pains. You operate the receiver by pointing to screen menus and clicking on-screen buttons with an egg-shaped remote. An antenna must be strung near the TV to pick up the radio signals from the remote.

The Sony receiver’s ability to control all the equipment in your system and to program the system is unbeatable. On-screen displays of VCR, CD, tuner, and tape buttons are well designed and easy to use. Sony just overlooked the one thing we do more than anything else—change volume! To do that, you have to display the main menu, select the volume menu, and then point and click volume up or down. Then, and this takes the grand prize, you have to put the remote down on a flat surface (so it doesn’t move) or hold it absolutely frozen still, or guess what? The on-screen display won’t go away. Never. Beat that. I tried my Sony TV’s remote to see if its volume up/down buttons might just possibly work so I wouldn’t have to go through this nonsense. Nope.

A couple of extra buttons on the remote, for volume adjustment and channel selection, would make the STR-GIES usable, but I wouldn’t hold my breath. I’ve seen this sort of thing with computers countless times. New design concepts are applied universally, and the old method is trashed as if it never had value. Eventually, the best of both approaches are blended, but it takes years to break the mold.

If merging audio with video wasn’t enough for you, then hold onto your hat for the merging of A/V with computer-style user interfaces: It’s going to be a blast. Meanwhile, I’m having fun watching the confusion. I’ve also been lucky. My old AVX-100 still works like a dream. I’m just hoping I can find an equal replacement before it finally dies. I’m afraid I may be in for a long wait.

Alene Freedman is president of the Computer Language Company, Point Pleasant, Pennsylvania.
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CIRCLE NO. 27 ON READER SERVICE CARD
Lyle Lovett Mellows Out (Sort Of)

Has Julia Roberts tamed Lyle Lovett? On his fifth album, the Texas eccentric abandons both the solemnity of his last record, "Joshua Judges Ruth," and the bitterness and misogyny that has marked his work since the beginning of his career. "I love everybody," he declares in the title song, although he almost renamed the album after another song that taps into his darker side: Creeps Like Me.

Actually, Creeps Like Me, which captures a psychotic's nonchalance through the juxtaposition of off-center thinking and the simplest of folk melodies, is by far the most compelling song here, blending Lovett's oddball humor and skewed take on life with the disturbing character studies he perfected in 1988's "Pontiac." The song opens with a scene of an old lady lying on her death bed while her grandson eyes her gold tooth ("Just before she died, she said / 'Son, you can have my tooth, but do I / Really have to go?'"), and moves on through the family to include Uncle Leon, whom the protagonist keeps in a closet. "You look surprised / You shouldn't be," Lovett sings, "This world is full of creeps like me."

Much of the rest of the album returns to the Guy Clark/Townes Van Zandt-style Texas country-folk of Lovett's early years, although he shifts into his Louis Jordan big-band-and-blues mode at will. Much of the rest of the album returns to the Guy Clark/Townes Van Zandt-style Texas country-folk of Lovett's early years, although he shifts into his Louis Jordan big-band-and-blues mode at will. Not always successfully. Penguins, a nearly free-form jazz sketch with horns and soulful back-up singers, builds on an essential riff and a provocative phrase or two ("Oh, Lord, I go for penguins... Penguins are so sensitive to my needs") but never really goes anywhere. Similarly, Hello Grandma, a cool jazz piece wrapped around a telephone conversation with the relative of an old girlfriend, can't quite deliver a payoff.

But even less-than-peak Lovett still antes up gems (more often lyrical than musical) like They Don't Like Me, a new groom's meditation on the tension with his in-laws ("He said, 'Son, just call me Dad / We'll treat you like the only boy / We wish we never had'"). and Record Lady, one of two songs here that follow Lovett's earlier pattern of sizing up women according to physical attributes ("She's got the cutest little cartridge that you've ever seen"). Elsewhere he goes on about Fat Babies and his desire to have the Skinny Legs and cute rear-end of an unnamed singer/songwriter.

Of course, if Lovett intends to turn his life around and try to be happy for a change, he now faces the biggest musical challenge of his career: how to make his musings on modern romance more universal and still enthralling. In other words, "I Love Everybody" is Ground Zero in Phase Two of the Continuing Saga of the Life of Lyle Lovett or not.

LYLE LOVETT
I Love Everybody
Skinny Legs; Fat Babies; I Think You Know What I Mean; Hello Grandma; Creeps Like Me; Sonja; They Don't Like Me; Record Lady; Ain't It Somethin'; Penguins; The Fat Girl; La to the Left; Old Friend; Just the Morning; Moon on My Shoulder; I've Got the Blues; Good-Bye to Carolina; I Love Everybody
CURB/MCA 10808 (52 min)
Zimerman's Virtuoso Debussy

Pianists who record Debussy's Préludes usually give us both books of them, and in some cases Books I and II fit on a single CD. Deutsche Grammophon has issued Krystian Zimerman's new recording in a two-disc set without additional music; that may seem extravagant, but such a consideration simply evaporates when one hears the performances.

Like Claudio Arrau and all other really successful interpreters of these intriguing pieces, Zimerman is not unduly concerned with the "Impressionist" label but seems to allow the music to define its own character, which in his hands at least borders on what most of us would regard as Romantic. He is definitely not one of those "objective" performers of Debussy who restrain every dramatic impulse. These are virtuoso pieces, after all, and he is not shy about the technical resources he brings to them. He finds urgency and intensity in the music—the reflective pieces as well as the more demonstrative ones—and does not settle for polite understatement. The levels of both poignancy and conviction in such pieces as Feuilles Mortes and Des Pas sur la Neige are marks of the sensitive artist's reliable instinct in drawing the line between total involvement and overindulgence.

There are occasional hints of self-conscious over-assertiveness—in the start of Les Collines d'Anacapri, for one, and at the climax of La Cathédrale Engloutie—and some listeners may be more puzzled than convinced by Zimerman's apparent probing for darker meanings in La Danse de Puck. But there is nothing in these twenty-four performances that can be called superficial or self-serving, and there is very much that is stimulating, revelatory, and deeply satisfying.

While I remain loyal to Arrau's Philips set, and the midprice one by Paul Jacobs on Nonesuch is far more than just a good buy, the Zimerman set is something everyone ought to hear, and anyone who does is almost certain to want to hear it again. The recording itself is close up and does is almost certain to want to hear it again. The recording itself is close up and does is almost certain to want to hear it again. The recording itself is close up and does is almost certain to want to hear it again. The recording itself is close up and does is almost certain to want to hear it again.

The Allman Brothers Get Real

The Allman Brothers Band has broken up and reformed several times over the past quarter century. They've been back on several occasions by death (founding members Duane Allman and Berry Oakley) and the death-in-life of various addictions. They've been through both good and hard times, surviving to a point where they can't help but become more wise and philosophical. Having thus endured and persevered, they keep improving as a band, and their new album is further proof that older can be better, even in the ageist arena of rock.

"Where It All Begins" continues in the tough, resurgent vein of its studio predecessor, "Shades of Two Worlds"; collectively, the two albums represent some of the strongest work of the band's career. The Allmans' secret is a live-in-the-studio approach with all seven members playing at once, and "Where It All Begins" has a knife-edged immediacy that just can't be patched or overdubbed. Moreover, there's a thematic thread that runs through these songs, whether written by guitarist/singer Dickey Betts or keyboardist/singer/guitarist Gregg Allman. Though Betts and Allman never collaborate, their heads seem to be in the same place; both men write about outlasting the blues, about facing inner demons, changing their lives, and proceeding forewarned against temptation.

On "Where It All Begins," they wrestle with the things that would lead them away, and the result is an album in which every guitar lick, vocal growl, and rhythmic thrust attests to that struggle. "Sailin' 'Cross the Devil's Sea" is the strongest work of the band's career. The Allmans' secret is a live-in-the-studio approach with all seven members playing at once, and "Where It All Begins" has a knife-edged immediacy that just can't be patched or overdubbed. Moreover, there's a thematic thread that runs through these songs, whether written by guitarist/singer Dickey Betts or keyboardist/singer/guitarist Gregg Allman. Though Betts and Allman never collaborate, their heads seem to be in the same place; both men write about outlasting the blues, about facing inner demons, changing their lives, and proceeding forewarned against temptation.

The album closes with Temptation Is a Gun, a serious, uncut blues on which Allman draws from the depth of his experience in one of his mightiest vocals. It ends this remarkable album on a note of foreboding that is appropriately edgy. No
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Rossini’s Complete “Semiramide”

When Rossini undertook to write what was to be his last opera for the Italian stage, he chose a subject that at least fifty other composers (Caldara, Vivaldi, Hasse, and Gluck among them) had already set. The basic plot of the Semiramide (Semiraminde) legend is indeed ageless; Sophocles’ Elektra is a variant of it, and so is Shakespeare’s Hamlet.

Queen Semiramide, the story goes, murders Nino, the Babylonian king, with the help of Assur. Assur aspires to rule in Nino’s place, but the mortal blow intended for Assur strikes Semiramide instead.

Semiramide (1823) sums up all that Rossini had accomplished in the genre of opera seria and, at the same time, points toward the final phase of his operatic career, his Parisian grand operas. Everything about it is large-scale: its symphonic overture, massive choruses, brassy orchestration, ornate arias, and elaborate ensembles. Until fairly recently, performances of it were compromised by substantial and at times quite disfiguring cuts—even the pathbreaking 1966 recording on London, treasurable nonetheless for capturing Joan Sutherland and Marilyn Horne at their zeniths in the lead roles. Deutsche Grammophon’s new recording, however, gives us all of Semiramide, following the Rossini Foundation-authorized critical edition of the score, and thus reveals the opera in all its inexhaustible richness. Unlike the earlier set, in which the two stars are inadequately supported, this one has a whole cast of singers able to meet Rossini’s fearsome demands head-on. The vocal personalities of the leads, soprano Cheryl Studer (Semiramide) and mezzo-soprano Jennifer Larmore (Arsace), are different from their gallant predecessors’. Studer slights none of the technical challenges of the title role, but through clear enunciation and meaningful textual shadings she illuminates more of the drama than Sutherland did. Larmore’s warm mezzo lacks Horne’s chesty splendor, but she is second to no one in the operatic range. The vocal personalities of the leads, so-tame (young general Arsace), are different from their gallant predecessors’. Studer slights none of the technical challenges of the title role, but through clear enunciation and meaningful textual shadings she illuminates more of the drama than Sutherland did. Larmore’s warm mezzo lacks Horne’s chesty splendor, but she is second to no one in the operatic range. And when the two match their voices in the duet “Alle più care immagini,” they render Rossini in excelsis.

Equally outstanding is bass Samuel Ramey, particularly in Assur’s doom-filled aria “Ah! la sorte ci tradi.” The young prince Idreno’s brave flights into the stratosphere are admirably served by tenor Frank Lopardo. The Ambrosian Opera Chorus and London Symphony Orchestra are in top form. Conductor Ion Marin seems to drive the chorus to the limit in the early ensembles, but his general brisk pacing maintains an exciting momentum throughout. George Jellinek ROSSINI: Semiramide

Studer, Larmore, Ramey; others: Ambrosian Opera Chorus; London Symphony. Marin cond. DEUTSCHE GRAMMOPHON 437 797 (three CD’s, 227 min)

THE ALLMAN BROTHERS BAND
Where It All Begins
All Night Train; Sailin’ ‘Cross the Devil’s Sea; Back Where It All Begins; Soulshine; No One to Run With; Change My Way of Living; Mean Woman Blues; Everybody’s Got a Mountain to Climb; Where It All Begins
THE ALLMAN BROTHERS BAND
Where It All Begins
All Night Train; Sailin’ ‘Cross the Devil’s Sea; Back Where It All Begins; Soulshine; No One to Run With; Change My Way of Living; Mean Woman Blues; Everybody’s Got a Mountain to Climb; Where It All Begins
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SYD BARRETT
Crazy Diamond
EMI R1412 (three CD's, 179 min)
Performance: Out there
Recording: Fine

It's ironic that history now deems Pink Floyd founder Syd Barrett worthy of a boxed set, considering he was pronounced a hopeless bum out upon his involuntary ejection from the Floyd in 1968. Well, maybe Barrett did trip himself beyond the pale, but these three discs (including twenty alternate takes) document a free-flowing creative mind whose like has rarely been heard before or since. Barrett produced songs in plenitude for a spell, with help from his former or since. Barrett produced songs in plenitude for a spell, with help from his former bandmates and others, before beating a retreat from the world. Languid, gentle, lovely, and talented, Barrett's songs, one of which—The Sun, Moon and Stars—is among the most affecting in her repertoire.

That song appears on "Phoenix," Bell's new acoustic country-folk album, although here it's harder to find the melody, the focus, and the definition, if not the melancholia. Bell's characters sit in dark corners and try to figure out what went wrong, but their situations may not always be what you expect. For example, if the album's opener, "Frankenstein," presents a bewildered, miserable creature who hasn't a clue why he's among the living ("I've got stitches all over my body") or why everybody's calling him by this strange name ("I don't know who I am / I don't know what I've done") as a singer, Bell sounds like a pile of wood shavings stirred up by a strong wind. But he's never less than compelling, especially when he's singing Victoria Williams and John Cale, and if you have to dig a little deeper sometimes, that's refreshing in these days of cookie-cutter hunks and bartone clones. Besides, Bell just may be the last undiscovered Houston/Austin songwriting genius. Get in on the ground floor. A.N.

LLOYD COLE
Bad Vibes
RYKO 10306 (56 min)
Performance: Dour
Recording: Very good

Lloyd Cole remains one of the sharpest songwriters around, but this album documents a curdled sensibility from its title on down. Mostly, Cole sounds like he's slipping under the volcano (to borrow the title of Malcolm Lowery's novel about a day in the life of an alcoholic), and "Bad Vibes" abounds in references to excessive consumption. Just look at the cover photo—a black-and-white study of the singer clenching a cigarette, ashes tipped around his feet, face unshaven, eyes fatigued and rimmed with dark circles, literally backed into the corner of an empty room. The only thing missing is a drink.

The songs themselves are often quite lovely despite the air of despondency that predominates, and throughout Cole sounds jilted and forlorn. "You up and left me cold turkey when you knew I could not tie my own shoe," he accuses in Love You So What. But rather than try to tidy up an untidy situation, Cole creates a collage-like effect, inserting everything from hip-hop-style drum samples to a pedal steel's piquant sweetening. All these disparate currents coming together as they do in life, both inside and outside oneself, make for a forceful movement toward something (self-destruction?), and Cole nails the cheerless contemporary Zeitgeist with unfinishing certitude in Fall Together, this album's Big Statement. "Nothing very good or very bad ever lasts for very long," he sings over and over as the music squalls around him. "Bad Vibes" is an album that may be better appreciated in hindsight, as a bottoming-out that precedes—if body and spirit are willing—a more hopeful and unclouded outlook from Lloyd Cole.

WILLIE DEVILLE
Backstreets of Desire
FORWARD 71486 (58 min)
Performance: Mostly good
Recording: Excellent

For at least part of "Backstreets of Desire," Willie DeVille appears to be suffering from a bout of Springsteen Syndrome. This hyper-extension of the cerebral cortex causes a set of symptoms chiefly characterized by a tendency to write bombastically about love and the state of the world, as if some unshakable truth hangs on every tremulous phrase. The always likable and talented DeVille falls prey to this affliction here and there in his new album, offering up such bits of wisdom as "Nothing's as
heavy as an empty heart" and "They say the heart is a lonely hunter," while numbers like All in the Name of Love try to compress too much wisdom into too little space.

The good news is that DeVille hits his natural stride on the fourth track. Even While I Sleep, an enchanting love song that's got the feel of the city in its urban R&B underpinnings. Elsewhere, DeVille's streetwise New York sensibility comes together with the myriad musical influences of New Orleans, where he now lives, in a musical gumbo that's both sly and supple. Dr. John lends a hand on Voodoo Charm, a track that's better than the whole of his recent "Television" album. But the real surprise here is an all-acoustic, mariachi-hand version of Hey Joe recorded with Los Camperos de Nati Cano. Their spirited performance attests to what a visionary encyclopedia of soul like Willy DeVille can bring to a piece of music. As Buck Owens put it, all he's gotta do is act naturally. P.P.


carnival
career retrospective on the band.
In the case of the spiffy new four-CD boxed set "The Who: Thirty Years of Maximum R&B" (MCA 11020), the answer is a qualified yes; there are enough previously unreleased tracks here to satisfy hardcore Who nuts and, for more casual fans, all the hits are included in swell-sounding, newly remastered versions. (Personally, I would have ditched the post-Keith Moon stuff in favor of, say, the often-bootlegged studio version of Summertime Blues, but I'm a hardcore Who nut.) As you might expect, the set also contains an illustrated booklet with detailed discography and a critical essay by (wotta surprise!) Dave Marsh. A good job, though at this point a bit superfluous. S.S.

PETER HIMMELMAN

550 MUSIC/EPC 57626 (59 min)
Performance: Weighty
Recording: Very good

Peter Himmelman's new "Skin" is a concept album with an ambitious mission: to force people to ponder the very grounds of existence. It wonders about the purpose of life, speculates about what awaits us in the afterlife, and tells a story about a spirit who gets a second chance to redeem himself. It wanders beyond Judeo-Christian dogma to posit some comprehensible notion of what earthly life and the afterlife are all about, broadly resembling Albert Brooks's serious comedy Defending Your Life. Both movie and album begin the same way: a self-absorbed, money-loving materialist, who gets a second chance to redeem himself. Overwhelmed by recording in RCA's old Studio B (where Elvis used to lay down tracks) and being surrounded by country's top talent (Mattea and Jonell Mosser on backing vocals, Tim O'Brien and Jerry Douglas on mandolin and electric guitar). As with any Gorka album, this one suffers from the occasional bad line ("A heatless low head of esteem") and a tendency to overdo a good thing (Mosser's over-testifying on Talk About Love). But all that becomes idle carping when Gorka rolls out a really good song like Thoughtless Behavior, a kind of interior monologue about a reckless young man ("I went off in the cruel world like a gun in a crowded room") who throws away everything that matters. He also scores big with Up Until Then, about a feisty woman who got dumped on too many times, and

Carnival Knowledge (Second Hand Face), about a sad clown with a large nose who saves up for plastic surgery.

With the right kind of handling, Gorka could achieve the kind of mainstream country success that Carpenter has—balancing the more commercial fare with meaty tunes that may never become singles but define him as a writer nonetheless. Whether he wants to or not is the real question, but either way, this album is the answer. A.N.
Each song here offers some stunning new angle or insight on a waylaid soul’s progress through spiritual cleansing (11 Months in the Bath of Dirty Spirits, Clean) and rebirth (They’re Naked and They’re Calling Me Down). There’s potent social commentary in Disposable Child, a moving song about the plight of the unwanted in a sick, overpopulated world. Himmelman achieves an anhemic grandeur on song after song, be it the air of conviction and regret that drives him to sing, “I’m out of time, I need to spend some time with you” in The Sth of August or the fierce sense of life spiraling downward in Chaos and Void. The album closes on a note of grace and hymnlike benediction with Been Set Free, which decrees the sojourner’s rueful final lesson: “If I had only believed in love, I could have been set free.”

“Skin” is just the latest achievement by an artist who merits wider hearing. How anyone could pass up this wise treasure in favor of the fool’s gold that’s clogging the airwaves these days is beyond me. P.P.

Thank you, music lovers

Good news for fans of the mutant strain of American music typified by Warner Bros. cartoon maestro Carl Stalling and his more avant-garde friend Raymond Scott. Spike Jones—the zany bandleader who was the daddy of them all—is back, as witness the release of “Spiked” (BMG/Catalyst 61982) and “Musical Deprecation Re: The Spike Jones Anthology” (Rhino 71574, two CD’s). Jones was the pioneering musical satirist whose brilliantly executed (and hilarious) deconstructions of cornball pop tunes (My Old Flame) and classical chestnuts (Rhapsody from Hunger) defined the outer limits of good taste back in the Forties and Fifties. Happily, both new compilations are worth getting; Jones’s has the virtue of completeness, while BMG’s strikes a fine balance between the familiar and the previously unreleased, as well as boasting liner notes by the suddenly ubiquitous Thomas Pynchon. Post-Modernism begins here. S.S.

The album closes on a note of grace and hymnlike benediction with Been Set Free, which decrees the sojourner’s rueful final lesson: “If I had only believed in love, I could have been set free.”

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The Lion King

Original Motion-Picture Soundtrack

DisneY 60855 (46 min)
Performance: Locks vocals
Recording: Excellent

For my money, Disney’s magnificent new animated epic didn’t need songs; the animation and the characters were entertaining enough on their own, thank you very much. So entertaining, in fact, that while you’re watching you’re hardly aware that said songs, by Elton John and Tim Rice, are with perhaps one exception not much better than average Off-Broadway, a fact that’s painfully obvious upon listening to the soundtrack CD. Memo to John and Rice: I knew Little Mermaid/Beauty and the Beast writers Menken and Ashman; I know the work of Menken and Ashman; sirs, you are no Menken and Ashman. In any case, unless you’ve got a kid who’s just Lion King crazy, you should probably pass on this and wait for the video. S.S.

John Mellencamp

Dance Naked

Mercury 514 522 428 (29 min)
Performance: Hypnotic
Recording: Live-sounding

Somebody once said that if John Mellencamp recorded for a small indie label everybody would think he was the coolest alternative guy around. That’s probably true—certainly there are only a handful of mainstream megaselling rock stars who go their own way so resolutely—and Mellencamp’s new album is one of his coolest ever. Stripped down and spare (several songs dispense with bass altogether), lyrically cryptic, and hot-on-the-heels of last year’s “Human Wheels,” the new “Dance Naked” finds the veteran rocker and his crack (criminally underrated) band performing an experiment in texture and groove; the songs sound like demos that nobody wanted to clutter up, and they’re all
**Popular Music**

left-of-center without working up a sweat about it. True, nothing here besides a neat cover of Van Morrison’s ‘Wild Night’ is as catchy as Mellencamp’s usual radio hits (or as autobiographically bleak as the whole of 1991’s “Whenever We Wanted”), but there’s a serene consistency to the record that more than compensates, and the guitars are endlessly interesting. Not the Great John Mellencamp Album, perhaps, but I doubt anything quirkiest will be released by an artist who gets VH-1 play any time soon. Highly recommended.

S.S.

**Mandy Patinkin**

Experiment
ELEKTRA/NONESUCH 79330 (46 min)
Performance: Plumply attractive
Recording: Excellent

At last! Broadway’s most charismatic actor-singer has finally made an album that works on home-listening terms. Unlike Patinkin’s previous solo efforts, which wrongly aimed at duplicating the all-out emotional range of his stage performances (with pow dynamics that can be exciting in a theater but frazzle the eardrum in a living room), this time he uses his warm, genuinely musical voice in a strictly mellow but passionately intimate way. He proves how uniquely expressive he is at restrained emotive levels with a splendidly varied group of ballads by the likes of Harry Chapin, Fats Waller, Stephen Sondheim, and Cole Porter. Simply terrific.

R.H.

**The Proclaimers**

Hit the Highway
CHRYSLASIS 28602 (44 min)
Performance: Fretful
Recording: Very good

Marriage, child-bearing, fighting with the wife, divorce, and lawyers, with a little bit of Jesus and a nip at the bottle thrown in for good measure, and everyone lives unhappily ever after. That seems to sum up the story told on “Hit the Highway,” the Proclaimers’ third album (and first since the film ‘Benny and Joon’ served as an unlikely launching pad for their hit “I’m Gonna Be 1500 Miles”), five years after its release. The Proclaimers are older and wiser, with the ecstatic union of their voices now conjoined in complaint as often as celebration. Not surprisingly, “Hit the Highway” is a bit of a downer when measured against its release. The Proclaimers make their way along life’s road toward better times.

P.P.

**Run C&W**

Row vs. Wade
MCA 11041 (32 min)
Performance: Smiles all around
Recording: Good

Proving that Run C&W is more than just a silly one-shot group, Russell Smith, Vince McLain, Bernie Leadon, and Jim Photoglo return to show they’re actually a silly two-shot group, playing sweet soul music bluegrass style, the way God intended. If you heard their first album, “Into the Twangy First Century,” you know what to expect: soul standards done up with banjo and backwoods vocals, more than a little tongue in cheek (they call themselves the Fabulous Burns Brothers—Rug Burns, Side Burns, Wash Burns, and Crash N. Burns), a lot of well-placed heart, and fine musicianship. If you missed “Twangy,” then you need to hear “Row vs. Wade,” although this time they import big stars George Jones and Vince Gill (in the album’s weakest performance) instead of poking fun at all of Nashville which was one of the delights of

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their debut. Musical highlights: a medley of Flatt & Scruggs's Hot Corn, Cold Corn with Chris Kenner's I Like It Like That and a full bluegrass version of Sam Cooke's Bring It on Home to Me. Irresistible! A.N.

**Shoes**

Propeller

BLACK VINYL 10294 (46 min)

Performance: Peerless pop

Recording: Good

“Propeller” is spine-tingling pop of the first rank, a melody lover’s confection that will satiate anyone who has a sweet tooth for the stuff. (I, for one, am hopelessly addicted.) The three Shoes continue to use their limitations as an asset, recognizing that fine-tuned arrangements mean more than virtuosity in the world of pop tunes. Thus, no single parts or voices jump out as much as the songs themselves. Slightly more aggressive than the Shoes’ norm, “Propeller” kicks off with a sprightly number from Gary Klebe called Animal Attraction that’s got some bewitching chorus harmonies and a touch of hard rock, in the straight-ahead beat and crunch of the guitars. Jeff Murphy’s Troubled Water sounds like a “Revolver” outtake with its Tomorrow Never Knows air of phased voices, slow tom-tom rolls, and guitars cutting a delirious swath through the time-space continuum.

John Murphy’s Don’t Do This to Me is a shimmering jewel of a pop tune notable for its squeaky-clean lack of clutter and chiming guitar hooks. A few songs later, he pulls an about-face with what may be the most forceful track in the Shoes’ catalog. Tore a Hole, in which hard, slushing guitars and cool, gauzy vocals go together as naturally as chips and guacamole. Such guitars and cool, gauzy vocals go together as naturally as chips and guacamole. Such guitar hooks are forever expected to carry on as New Wave’s nutty square-peggers, ranting and raving while performing their weird acoustic trio shriek. Gordon Gano’s weary know-it-all whine wears awfully thin over the course of “New Times,” as do his various complaints, which sound like the terminal kvetching of talky college kids interred in some smoke-filled dorm room of the mind. Bassist Brian Ritchie’s “world music” touches only confuse what used to be at least an uncluttered presentation, adding an ill-fitting air of pretension to Gano’s nasal screeds. The album is as unrelievedly irritating as a bad case of poison ivy, but it reaches a critical mass with Machine, a tuneless, effects-filled drone in which a voice screams, “I’ve got a machine that took over the world but nothing changed.” In a word, avoid. P.P.

**Lari White**

Wishes

RCA 66395 (37 min)

Performance: Ready for radio

Recording: Very good

Singer/songwriter Lari White’s 1993 debut, “Lead Me Not,” deservedly wowed the critics, who not only applauded White’s wide range of styles and first-rate writing and performance skills but also saluted the idea of a female newcomer who had the audacity to go more for art than commerce. So what happened? Nobody bought the album, largely because it stiffed on radio.

Now RCA has given White a second chance—more than many record companies do—but the clear implication in the production and the choice of material is, “If you don’t score with this one, you’re out of here. As such, “Wishes” is a highly commercial record that fits the Hot Country radio format and doesn’t inspire much of any kind of country’s real artists.

**Violent Femmes**

New Times

ELEKTRA 61553 (53 min)

Performance: Hang it up

Recording: Okay

The Violent Femmes remind me of some typecast character actor who’s fated to act out the same continuing role and essentially forbidden from growing up. The Femmes are forever expected to carry on as New Wave’s nutty square-peggers, ranting and ranting while performing their weird acoustic trio shriek. Gordon Gano’s weary know-it-all whine wears awfully thin over the course of “New Times,” as do his various complaints, which sound like the terminal kvetching of talky college kids interred in some smoke-filled dorm room of the mind. Bassist Brian Ritchie’s “world music” touches only confuse what used to be at least an uncluttered presentation, adding an ill-fitting air of pretension to Gano’s nasal screeds. The album is as unrelievedly irritating as a bad case of poison ivy, but it reaches a critical mass with Machine, a tuneless, effects-filled drone in which a voice screams, “I’ve got a machine that took over the world but nothing changed.” In a word, avoid. P.P.

**Wish We’d Said That**

“M”adonna?

She’s over...a tramp I’d o’ell.”

—comedian Dennis Miller on a recent installment of his HBO series, Dennis Miller Live.

**Collections**

**In Their Own Words, Volume One**

RAZOR & TIE 2813 (69 min)

Performance: Evesdroppingly good

Recording: Varies

In 1990, Jimmy Webb, Fred Koller, and a bunch of other first-rate pop, folk, country, R&B, rock-and-roll, theater, and blues singer/songwriters sat around on stage at the Bottom Line in New York City and traded songs. The night was such an artistic triumph (and great fun, to boot) that it started a tradition. Each year since, a comparable group has gathered at the club to emulate the Southern “guitar pull” and explain the stories behind the songs. The result, on this compilation disc of the highlights of the first four years, is something host Vin Scelsa’s liner notes correctly describe as “a cross between group analysis and a lively private party.”

While few of these live renditions have much polish, many of them carry terrific emotional urgency. Ex-Blues, Dave Alvin recounts how he became enthralled with the story of a Civil War-era uncle who died at Andersonville, and then performs the song. Janis Ian explains how today’s parents steer their own kids to her classic At Seventeen, and then offers a performance that is at once thrilling and painful in its universal truth. But some of the most unexpected pleasures come when several artists cover other people’s songs, transforming them almost entirely, as when Lucinda Williams makes Bob Dylan’s Positively Fourth Street sound more vulnerable than vitriolic.
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QUICK FIXES

ANDY BRECKMAN
Proud Dad
GADFLY 201 (37 min)
Big yuk (and occasional poignant perceptions) from the former comedy writer for David Letterman turned folkie. Pick hit: the apocalyptic Indemnity, in which Breckman, worried about our sun going supernova, consoles himself with the thought that, "At least it's gonna shut John Denver's trap." Good point. S.S.

JAZZ AT THE MOVIES BAND
White Heat/Film Noir
DISCOVERY 77008 (54 min)
Sizzling arrangements of music from such hard-boiled movies as Key Largo, Double Indemnity, and Touch of Evil beautifully evoke the atmosphere of deserted cities, asphalt jungles, and love affairs in which hearts are cold, sex is hot, and there is no commitment. Need to add a dramatic subtext to your party? Put this CD on and stand back.

THE JAZZ BUTCHER CONSPIRACY
Waiting for the Love Bus
CREATION/TRISTAR 75763 (69 min)
More unclassifiable weirdness from Pat Metheny's wacko fusion outfit, but it's Julio's sexy, unabashedly old-fashioned approach that's boss. Nothing crazy 'bout that. R.H.

KISS MY ASS
MERCURY 522 123 (46 min)
Performance: Witty
Recording: Good
Kiss's influence on musical artists of the Eighties and beyond has been a lot more far-reaching than the music itself might suggest. After all these years, old Kiss records still sound like hoary, ham-fisted arena-rock for pre-Beavis and Butt-head baby boomers. But the fact that the make-up-era Kiss was brutish and crude doesn't diminish the reality that it was also a hell of a lot of tongue-wagging, fire-breathing fun. The children of Kiss, lest you doubt their impact, include the varied likes of Lenny Kravitz, Garth Brooks, and Dinosaur Jr., all represented on this laugh-a-minute tribute album.

The only real dud here is Extreme's extremely literal version of Strutter (you didn't really expect a German metal band to grasp the irony, did you?). Some of "Kiss My Ass" is just way too much (the Gin Blossoms' tongue-in-chick Christine Sixteen, the Lemonheads' lascivious Platter Caster), some of it slams pretty hard (Anthrax's Wanna Be Seen, the Lemonheads' lascivious Platter Caster), but on listening to this greatest-hits package it becomes clear the group was nonetheless more influential than heretofore suspected. The live stuff in particular sounds like the live stuff in Extreme's original, mostly post-reissue, Kiss records, with the added benefit of an element of the unaggressive alternative-folk take on the familiar material. The finest moment on the album is also the most explosive—Irishman Luka Bloom bending L.L. Cool J.'s I Need Love into an emotional manifesto of loneliness, lust, and longing. Stirring and erotic, it isn't so much a performance as a personal deliverance. Not everything succeeds completely, when Joey Ramone launches into I Wanna Be Sedated, his electric guitar sounds beamed in from New Jersey on a bad channel. But there's so much to like here that after awhile you won't really care about the flaws, and any collection that runs the gamut from the late Arthur Alexander to Richard Thompson already has a leg up. This is a little gem you'll be telling your friends about.

A.N.

ESQUIVEL
Space Age Bachelor Pad Music
BARNONE 043 (38 min)
These wigg pop/orchestral gems from the Golden Age of Stereo, originally created to show off late-Fifties/early-Sixties hi-fi systems, are remarkably sophisticated (no sampling, obviously) and eerily prescient (wanna bet Ernie Morricon was listening?). Trivia note: A few tracks here will be familiar to fans of Ernie Kovacs, who used some of them to accompany his video work. S.S.

THE FIGGS
Low-Fi at Society High
IMAGO 72877-21042 (46 min)
Very nice debut from a young band purveying late-Seventies punk-pop with lots of hooks and obvious nods to every- body from the Buzzcocks to the Beatles. Hmm... seems Green Day really started something. S.S.

SLEEPY LABEEF
Strange Things Happening
ROUNDER/PYART 75762 (60 min)
Rockabilly legend Sleepy LaBeef, possessor of a basso profundo that makes Johnny Cash sound like a wuss, essays all manner of American roots styles here (blues, country, rock-and-roll, gospel), and excels in every one. Phenomenal. S.S.

MOTHER EARTH LULLABIES
PLANET ME! CDK22 (60 min)
Unlike most children's records made up of songs with catchy lyrics, this lullaby album is designed for nap times and consists of Scott Fitzgerald's serene instrumentals and environmental sounds from Richard Hooper. Titles such as Ocean of Dreams, The Forest Sleeps, and Melting Snow indicate the prettiness of the whole program, which is also good for calming frazzled parents. W.L.

TANNI
Live at the Acropolis
PRIVATE MUSIC 82116 (69 min)
You know, some days I really kinda miss Mantovani. S.S.

YANNI
The finest moment on the album is also the most explosive—Irishman Luka Bloom bending L.L. Cool J.'s I Need Love into an emotional manifesto of loneliness, lust, and longing. Stirring and erotic, it isn't so much a performance as a personal deliverance. Not everything succeeds completely; when Joey Ramone launches into I Wanna Be Sedated, his electric guitar sounds beamed in from New Jersey on a bad channel. But there's so much to like here that after awhile you won't really care about the flaws, and any collection that runs the gamut from the late Arthur Alexander to Richard Thompson already has a leg up. This is a little gem you'll be telling your friends about.

A.N.
JAZZ REVIEWS

Mose Allison: Allison Wonderland
The Mose Allison Anthology
RHINO/ATLANTIC 71689
(two CD's, 138 min)
Performance: Unique
Recording: Good remastering

Singer/pianist Mose Allison is one of the great unclassifiable figures in modern jazz. Is he a bebopper? A Delta Bluesman? A satirical songwriter à la Randy Newman? The answer, of course, is all of the above and more, including one of the major, if unheralded, influences on the original British Invasion (the Who covered his Young Man Blues on their groundbreaking “Live at Leeds” album, and Jeff Beck and the Yardbirds may have literally invented heavy metal with their take on Allison’s I’m Not Talking).

Both those songs are included in this superb new Allison retrospective, along with gems like the original version of his classic Parchman Farm (the blues don’t get any cooler) and such drily ironic numbers as Your Mind Is on Vacation (“But your mouth is working overtime”) and the recent (1988) Ever Since the World Ended. Throughout, Allison’s vocals are pretty much definitive for (in his own words) “a little middle-class white boy out tryin’ to have some fun,” his piano work is endlessly inventive in his patented minimalist Ray Charles manner, and his various sidemen—including such high-class jazzbos as Joe Henderson, Billy Cobham, and Arthur Blythe—provide impeccably idiomatic support. There’s also a complete discography, excellent liner notes by Irwin Chusid, and reminiscences by Allison himself. In short, “Allison Wonderland” is a terrific tribute to a true American original. Don’t miss it. S.S.

CLEO LAINE
Blue and Sentimental
RCA/BMG 61419 (60 min)
Performance: Title says it
Recording: Good

From Francesca Blumenthal’s new classic The Lies of Handsome Men to Bessie Smith’s old standby Soft Pedal Blues, Cleo Laine and hubby-arranger John Dankworth put a genuinely bluesy, soft-lights gloss on a set of first-rate tunes. There are helpful guest assists along the way from the likes of Gerry Mulligan, George Shearing, Jay Leonhart, Mike Renzi, and Joe Williams. Best track: an ultra-sensuous take on Ellington’s Creole Love Call. R.H.

BOBBY WATSON
Gumbo
EVIDENCE 22078 (44 min)
Performance: Choice
Recording: Very good

On his current Blue Note releases, saxophonist Bobby Watson displays fine musicianship, exemplary choice of musical companions, and exquisite taste. But he’s had those virtues in abundance for years, as witness this reissue from 1983. “Gumbo” features the Horizon Quartet: with bassist Curtis Lundy, pianist Mulgrew Miller, and—replacing regular drummer Kenny Washington—Marvin “Smitty” Smith. Add trumpeter Melton Mustafa and saxophonist Hamiet Bluiett (on the title tune) and you have an extraordinary album. Watson and Lundy shine throughout, but I am most impressed with Mustafa, whose assertive trumpet/flugelhorn work is glorious icing on an already sinfully delicious cake. Miller—like Lundy, a survivor of the Betty Carter group—has really come into his own since these performances were recorded. But he’s no slouch here, and Bluiett’s baritone comes down to earth for this guest appearance and blends nicely into the environment. I have only one complaint: 44 minutes isn’t long enough when the music is this good. C.A.
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Hugh Wolff leads his Saint Paul Chamber Orchestra through a most attractive program. The concerto grosso-like Bartok Divertimento is for me the gem in this collection, not only for the slow movement's deeply moving lamentation in Magyar style but also for the superb work of the solo string quintet that stands out against the larger string body. There is elegant command throughout of portamento and kindred techniques that in the right hands can give a performance real soul. The outer movements go splendidly, though I would have liked a shade more drive in the finale's fugato episode. The justly popular Romanian Folk Dances, which Bartok arranged for orchestra in 1917, are a joy, with notably expressive clarinet playing. This sequence dovetails perfectly into the two Kodaly dance cycles, which are usually heard in symphonic-scale readings. The Saint Paul players, however, carry off their more modest versions with great class; there's fine playing by the solo winds in the Marosszek set and some canny use of rubato and portamento by the strings in the Galanta series. A large part of the credit for the effectiveness of this CD belongs to the production crew, which has provided remarkably full-bodied sonics as well as beautiful depth contrasts between the large and small string bodies in the Bartok Divertimento.

D.H.

Singer Shirley Verrett has been known to break boundaries before. After triumphing on stage and on records in the great mezzo-soprano roles, she turned to the dramatic-soprano repertory and scored again. Now she's gone Broadway, taking the role of Aunt Nettie in the widely acclaimed, Tony Award-winning revival of Rodgers and Hammerstein's Carousel at Lincoln Center's Vivian Beaumont Theater. Her acting skill, which was always apparent in her opera portrayals, has helped her fit right in with the company of mainly young actors. And while she never sounds "operatic" in her big numbers, June Is Bustin' Out All Over and You'll Never Walk Alone, she sure sings 'em. The original-cast album of the Lincoln Center production is on Angel. You can also hear this great American singer in arias by Gluck, Donizetti, Berlioz, Saint-Saëns, Verdi, and others in RCA Victor's "Shirley Verrett in Opera..." to be released in October. Recorded in the mid-Sixties, these selections are available on CD for the first time in this collection.

After hearing Esa-Pekka Salonen's marvelous and grand gestures in his Mahler and Sibelius performances, this Debussy disc comes as a low-key surprise. Though they're committed, muscular readings, he seems determined to maintain an almost Stravinskian emotional aloofness in the three Nocturnes as well as in the somewhat precious and meandering La Damoselle Élue. Though not quite Boulezian in their clarity, the performances use color relatively sparingly, leaving one to marvel mostly at the music's cunning structure—and at so-
prano Dawn Upshaw, who is in typically articulate form for Damaiselle. But the lack of atmosphere is confounding.

Much is clarified, however, by the Martyrdom of St. Sebastian fragments, which represent a later and far more abstract effort. Salonen seems to be retracing the composer's musical path in this program, choosing a sequence of pieces whose predominately modal melodies may not fall easily on the ear but do penetrate the soul. This is not a Debussy disc for everybody, but it's cleansing to listen to after recordings richer in orchestral color. D.P.S.

**GAY/Britten: The Beggar's Opera**

Soloists; chamber orchestra, Bedford

ARGO 436 850 (two CD's, 108 min)

Performance: Excellent singing

Recording: Excellent

Just after World War II, Benjamin Britten became involved with the idea of a non-grand opera, a music-theater or chamber opera. How natural for him to turn to the great granddaddy of all such works, John Gay’s _The Beggar’s Opera_ from the eighteenth century. Brecht and Weill had their go at it two decades earlier: their radical approach included a new and biting score with a jazz edge. Britten chose a different route: fidelity to the original words and tunes, but all recomposed, reharmonized, and recored in his own style.

Some of the settings are fairly simple, reharmonized and orchestrated in a manner that brings out the folk-song qualities of material that was, after all, mostly filched from folk sources by Gay himself. Other numbers are extended by canon and counterpoint, and some are built up into big ensembles; there is also an original overture and some scene music that helps to sew everything up. The seaming of words and that brings out the folk-song qualities of material that was, after all, mostly filched from folk sources by Gay himself. Other numbers are extended by canon and counterpoint, and some are built up into big ensembles; there is also an original overture and some scene music that helps to sew everything up. The seaming of words and tunes, but all recomposed, reharmonized, and recored in his own style.

The Argo recording, like a number of recent operatic releases, suffers from an overall lack of dramatic direction, and as actors the performers are unequal and quite conventional. But this is a singers’ _Beggar’s Opera_, not an actors’. All of the leads are first-rate vocalists and perfectly in sympathy with Britten’s idea of the piece. In addition to Ann Murray as Polly and Yvonne Kenny as Lucy, Philip Langridge is a surprisingly harmless but quite charming Kenny as Lucy, Philip Langridge is a surter of St. Sebastian fragments, which represent a later and far more abstract effort. Salonen seems to be retracing the composer's musical path in this program, choosing a sequence of pieces whose predominately modal melodies may not fall easily on the ear but do penetrate the soul. This is not a Debussy disc for everybody, but it's cleansing to listen to after recordings richer in orchestral color. D.P.S.

**GRIEG: String Quartet**

MENDELSSOHN: Quartet No. 2

Shanghai Quartet

DELOS 3153 (64 min)

Performance: Appealing

Recording: Very rich

The Shanghai Quartet, formed at that city’s conservatory in 1983, now comprises three young Chinese players (the two violinists are brothers) and an American cellist. It has been making a very favorable impression in both Europe and America in the last seven or eight years and is currently the ensemble in residence at the University of Richmond in Virginia. The two works chosen for this debut recording are among the most endearing in the repertory (with several parallels in terms of both structure and substance), and the performances are affectionate, warm, and communicative.

The very richness of Delos’s sound may strike some listeners as creating an inappropriately orchestral consistency. And yet the vitality, the conviction, and the all-round musicality in evidence here add up to an infectiousness that is bound to provoke a warm response—and high expectations for the Shanghai Quartet’s next release. R.F.

**HARBISON: Symphony No. 2; Oboe Concerto**

SESSIONS: Symphony No. 2

Beckett; San Francisco Symphony, Blomstedt

LONDON 443 376 (70 min)

Performance: Splendid

Recording: Excellent

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CLASSICAL MUSIC

SCHUMANN: Piano Concerto; Introduction and Allegro Appassionato; Variation and Allegro
Dalibor: Vienna Symphony Orchestra, Inbal
DENON 75859 (62 min)
Performance: With loving care
Recording: Just right

Born and trained in Paris, pianist Michel Dalibor may not fall into the high-profile world-class category in terms of public image. But if his performance here of the Schumann Piano Concerto is representative of his work, as a musician he ranks among the best. He brings just the right blend of classicism and Romantic ardor to the wonderfully varied and complex first movement; the phrasing, elegantly proportioned but at the same time flexible, is perfectly suited to Schumann's high-Romantic musical language. Delicacy reigns supreme in the gracious middle movement, where conductor Eliahu Inbal conjures some meltingly beautiful sound from his Viennese players. The finale, with its exultant leaping motif, is no let-down, being superbly realized from start to finish by soloists and orchestra alike. The honesty and impulse of the whole performance left me walking on air.

The shorter concentrated pieces that fill out the CD are far from negligible, particularly the Introduction and Allegro Appassionato, Op. 92, which starts off like a dream and without warning plunges into a storm of highly charged, tempestuous writing. The Introduction and Allegro, Op. 134, from the composer's last period, has lovely things in it, including a haunting recurrent lyrical motif, but also episodes of thrashing solo passagework that seem curiously out of sync with the rest. Be that as it may, this is a fine program performed with verve and affection, and very well recorded. Highly recommended!

D.E.

R. STRAUSS: Five Songs
MAHLER: Eleven Early Songs
Schmidt: Radio-Sinfonie-Orchester Berlin, Gertz
RCA VICTOR 61184 (62 min)
Performance: First-rate
Recording: Good

Early Strauss and early Mahler make an interesting combination, and the warm and cultivated baritone of Andreas Schmidt proves to be an appealing voice for them. He is not entirely comfortable, however, in Stravinsky's 'Dans Trois' and 'Der Einzige'; two songs that call for a true bass. Written around the turn of the century, all five
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Strauss songs were conceived with a lush orchestra in mind. The most extraordinary is Notturno, a 15-minute ghostly evocation along the lines of Schoenberg's Erwartung, dating from roughly the same period. Schmidt strives valiantly to assert himself over the orchestra, with not much help from conductor Cord Garben, who revels in waves of Straussian sound.

The Mahler songs, drawn from two early collections, are mainly settings of poems from Das Knaben Wunderhorn. Written for piano accompaniment, they are heard here in Luciano Berio’s orchestrations, which capture the Mahlerian moods and colors while occasionally overpowering the songs’ essential simplicity.

**STRAVINSKY: The Rite of Spring; Petrushka**

Oslo Philharmonic, Jansons
EMI 54899 (67 min)

**Performance:** Impressive

**Recording:** Vivid

Both of these performances are impressive, giving solid evidence that Mariss Jansons has brought his Norwegian orchestra to the level of Europe’s finest. The precision and brilliance of the playing are so striking, the detail so stunningly revealed at every point, that I can’t imagine many listeners caring that Jansons opted for the 1947 version of Petrushka rather than the somewhat more richly colored original of 1911. In The Rite of Spring as well, those performing qualities go hand in hand with a virtually infallible sense of natural momentum.

And yet... there is something missing here; a certain air of detachment tends to rule out getting much beyond the surface in terms of drama or characterization. It’s hard to put my finger on it, but it’s the difference between a performance we must admire profoundly and one that draws us in irresistibly—between “impressive” and “absorbing.” Orchestral playing on this level always gives pleasure, and the more so in a recording as vivid and well-defined as this one, but this particular coupling is more appealing in Pierre Boulez’s recent Cleveland remake on Deutsche Grammophon or in the newly refurbished Monteux/Boston recording on RCA at midprice (even though Monteux’s Rite is mono). And both Monteux and Boulez used the original 1911 score of Petrushka.

**R.F.**

**TCHAIKOVSKY: Eugene Onegin**

Soloists: Chorus and Orchestra of Welsh National Opera, Mackerras
EMI 55004 (two CD’s, 142 min)

**Performance:** Of unusual interest

**Recording:** Very good

The EMI set is sung in an English translation that closely follows the sense of the Russian libretto while retaining its rhyme schemes; the rhymes are often intrusive, however. The Philips, sung in Russian, was recorded in a studio by the same team performing the opera at the Théâtre Chatelet in Paris and thus provides some of the “reality” of a live recording. Charles Mackerras and Semyon Bychkov both marshal their forces to fine effect, though I find greater identification with the work in Bychkov’s reading.

The young Russian baritone Dmitri Hvorostovsky, Onegin in the Philips set, commands a voice of unusual beauty—full, warm, exactly focused, yet capable of the “edge” his world-weary, self-centered char-
The vivacious, exuberant Olga is well drawn in both sets, by Olga Borodina on Philips and Patricia Bardon on EMI. Neil Shicoff (Philips) admirably brings to life her lover, a callow eighteen-year-old poet. Neil Rosenshein fares less happily on EMI; he is more impassioned moments, when his voice sounds reedy. Both Alexander Anisman and John Connell are effective vocally and dramatically as Prince Gremin. Their arias find their way into the absent Tatyana are sung with dramatically as Prince Gremin. Their arias find their way into the absent Tatyana. The Swedish virtuoso Christian Lindberg is clearly a master of his instrument, and conductor James DePreist and the Malmo Symphony players deliver first-rate support. With good sound throughout, this CD offers enjoyable and colorful listening even if you're not a trombone fancier. Bravo! to Awadagin Pratt, the young Naumburg International Piano Competition winner, for making his debut recital a success.
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BACH: French Suites
Ton Koopman (harpsichord)
ERATO 94805 (70 min)
Ton Koopman caused some ripples in early-music circles by bringing his ebullient spirits and generous ornamentation to such serious Bach works as The Well-Tempered Klavier. But even his critics might enjoy these performances of the French Suites, which are more plausible vehicles for his brand of musicmaking. Bach's cascading scales turn into adventurous musical roller-coaster rides, and the slow movements are like witty, at times earnest, conversations.

BEETHOVEN: String Quartets, Op. 59 ("Razumovsky"), Nos. 1 and 3
Brandis Quartet
NIMBUS 5382 (72 min)
The Brandis Quartet recorded No. 2 of the "Razumovsky" series for Harmonia Mundi in 1981. These versions of Quartets Nos. 1 and 3 are excellent middle-of-the-road readings, though the noble opening cello solo of No. 1 is treated a bit too casually. Handsomely spacious sound, with highly effective lateral imaging in the scherzo of No. 1. The fugal finale of No. 3 has lots of momentum without sounding rushed.

BRYARS: Incipit Vita Nova; Glorious Hill;
Four Elements; Sub Rosa
Hilliard Ensemble; Gavin Bryars Ensemble;
other musicians
ECM 1533 (57 min)
Gavin Bryars is one of those new European composers who writes slow, wrenchingly spiritual music. He takes texts and scenarios from such unlikely places as the Italian Renaissance (Dante and Pico della Mirandola in Incipit Vita Nova), Tennessee Williams (Glorious Hill, originally a scene music for a 1987 London production of Summer and Smoke), the water-earth-air-fire choreography of Lucentia Childs (Four Elements), and even a tune by Bill Frisell (Sub Rosa). The music, the playing, and the recording are unfailingly seductive.

MENDELSSOHN: Symphonies No. 3 ("Scottish") and No. 4 ("Italian")
Bamberg Symphony, Flor
RCA VICTOR 60893 (67 min)
Claud Peter Flor has presented first-rate Mendelssohn credentials in the earlier portions of the cycle the present disc apparently concludes, and the performances offered here are enjoyable enough in their tidy, somewhat understated way. The competition, however, is formidable, and there is simply more animation, luster, and all-round style in other recordings of these works.

FROM A TO Z
Electronic Music by Amirkhanian, Bimstein, Dockstader, Dresher, Kasinskas, Lukasik, and Pamela Z
STARKLAND ST-203 (72 min)
Unlike the electronic-music anthologies of the 1960's and 1970's, which often sounded like the inside of a diesel engine, "From A to Z" is full of fresh, inventive sonorities and often a genuine sense of fun. Paul Dresher is represented by a hypnotic 1982 dance score, Underworld, and Joseph Lukasik delivers an even more ambitious dance piece, Utamaro's Dreams (1986). The San Francisco-based Pamela Z's vocal-dominated work is like Meredith Monk gone wild. I particularly enjoyed her Obsession, Addition and the Aristotelian Curve.

JULIANNE BAIRD
Handel Arias
Brewer Chamber Orchestra, Palmer
NEWPORT CLASSICS 85568 (58 min)
Soprano Julianne Baird's first Handel anthology is something to celebrate. Some of the arias here are culled from previous recordings, but lots are new, including such chestnuts as "Lascia ch'io pianga" from Rinaldo and "Mysel I shall adore" from Semele. They make up an intelligently planned sequence that shows many aspects of Handel's manner. A few instrumental overtures and dances round out the program. Rudolf Palmer's Brewer Chamber Orchestra isn't always polished, but the players show great sympathy for the Baroque idiom.

HOMAGE TO SARASATE
Barton; Sanders
DORIAN 90183 (79 min)
The violist Ritchel Barton and the pianist Samuel Sanders do well by Sarasate's famous exhibition piece, the Carmen Fantasy, but this beguiling CD also contains the less familiar Spanish Dances and other pieces that have moments of an almost excruciating beauty. Barton, who is only twenty-one, already has a lush tone, and she leans into the sensuous curves of the melodies in a most enticing way.

ANNE SOPHIE VON OTTER
Love's Twilight—Late Romantic Songs by Berg, Korngold, and Strauss
Von Otter; Forsberg
DEUTSCHE GRAMMOPHON 437 515 (64 min)
Performance: Excellent
Recording: Very good
T urn-of-the-century Vienna was the common spiritual home of Alban Berg, Erich Korngold, and Richard Strauss, and the Swedish mezzo-soprano Anne Sofie von Otter convincingly brings them together in this absorbing recital. The lush Romanticism of Strauss and Korngold's music is rarely echoed by the more "modernistic" Berg, and yet even such a Berg song as Traumgekrönt is infused with Romantic spirit, while the Strauss and Korngold songs here go far beyond the harmonies of Brahms and even Wolf. In any case, this gifted singer distinguishes the self-consciously modernist approach and creates a stylistic unity for the entire program.

Recommended to anyone interested in twentieth-century lieder, this recital also places Korngold's long-neglected œuvre in its proper historical niche. As their recording of Grieg songs last year indicated, and this disc confirms, Von Otter and her compatriot, pianist Bengt Forsberg, form an extraordinary partnership.
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LASER DISC -11-
30 Years Ago

Size counts: The cover story in the September 1964 issue was a seventeen-page profile of Charles Ives by David Hall. "It's supposed to be bad business in the magazine trade to give one subject the space you normally use for three or four," editor Furman Hebb observed, "but Charles Ives is too important to be cut down to convenient article length."

New products this month included Jensen's Delta DL-220 loudspeaker, a three-element, 12-inch driver with a frequency range of 25 to 16,000 cps (Hz), the Sennheiser MD421 directional studio microphone (40 to 16,000 cps), and the Ampex 1000 series, three low-price ($300 to $400) tape decks with a rated frequency response of 30 to 18,000 cps.

In test reports, Julian Hirsch generally liked the performance of the Vernon 47/26 transistorized tape recorder, but he pointed out that "the square edges of its handle make its fifty-five-pound weight rather uncomfortable to carry." He also tested the ADC Brentwood 303a bookshelf speaker system, which he described as sounding "very live and open . . . this is not just another box."

Thanks for Sharing: In Letters, reader Harold Lansky of Detroit took issue with one of the magazine's pop reviewers in unusually succinct terms. "Gene Lees," he wrote, "is a fink."

20 Years Ago

Tough Times in Margaritaville: Singer/songwriter Jimmy Buffett told interviewer Noel Coppage that before his career took off he "was a fantastic shoplifter .... I can still get a whole chicken in my pants."

In Best Recordings of the Month, Eric Salzman was bowled over by Jorge Bolet's RCA disc of Liszt opera transcriptions ("Bolet is not Liszt, but he is about as close as you can come"). and Chris

10 Years Ago

In the September 1984 issue, the editors reported on the Summer Consumer Electronics Show held in Chicago and selected fourteen of the most exciting new products. Among them were the 150-watt-per-channel Tandberg TPA 3006A amplifier with MOSFET output devices, the Technics SL-P15 CD changer, which (for $1,500) could play up to fifty-one discs in any order, the Denon DP-37F turntable, the first European-made CD-4 quadraphonic phono cartridge, and the bargain-priced ($200) Heathkit AD-1013 four-channel oscilloscope.

Reader outrage over Paul Kresh's July put-down of new recordings of Erich Korngold's concert music dominated the September Letters column. Typical was the reaction of William Gunther, music director of the Bronx Philharmonic, who wrote, "I prefer Viennese grace to stupid words by an ignorant critic!"

More Letters: Reader Barrett Eisenstat, commenting on the design changes introduced in the June issue, asked, "What happened? You lampoon Yuppies but transform the entire magazine for Yuppie tastes." The editor's reply: "We decided to try to have it both ways." —Steve Simels
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No sound? Touch the help key and a scrolling display points the problem and offers a solution.

The Class H+ amp sends equal power to all the channels for optimum home theater sound.

The remote controls other Technics audio components and most brand-name video components.

The low impedance switch helps prevent blowing or damaging your speakers.

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