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Closeup on the Big Screen

HOME THEATER, THE SOUND
How to Choose Surround Speakers

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TESTED
Harman Kardon A/V Receiver, Paradigm Speaker, Sunfire Amp, and
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GETTING SATISFACTION
The Verity Group, a market-research firm serving the consumer electronics industry, has announced the winners of its fourth annual Verity Customer Satisfaction Index (VSCI) Awards. The winners are chosen on the basis of more than $1,000,000 interviews with a sampling of consumers who represent the population as a whole, and in general the results show that customer satisfaction with consumer electronic products is very high. Among the winners in various categories are Alpine (car stereo), Kenwood (home CD player), Mitsubishi (VCR and TV larger than 30 inches), Pioneer (home stereo receiver and one-brand stereo system), and Sony (home tape deck).

FACTS & FIGURES
A survey by the Consumer Electronics Group (CEG) of the Electronic Industries Association shows that for the majority of high-income buyers of audio equipment, quality is more important than price. (High income is defined as $35,000 for singles, $45,000 for married couples.) In deciding on purchases, 68 percent reported that sound quality was the most important factor, followed by price and brand recognition. When asked the reason for buying new stereo components, 63 percent said it was to improve sound quality, and 62 percent said it was to take advantage of new technologies. . . . According to another CEG survey, more than 70 percent of U.S. households own at least one piece of car stereo equipment that did not come with a new car. Nearly 70 percent of households with incomes of $40,000 or more own at least one car cassette head unit . . . A report from InfoTech, an international multimedia market-research firm, shows that the number of installed CD-ROM units grew to 26.9 million worldwide in 1994, up 137 percent from the preceding year. The U.S. accounted for the largest increase, followed by the U.K., Germany, and Japan.

ENDURING FAME
The National Academy of Recording Arts and Sciences (NARAS) has granted lifetime-achievement awards to the singers Patsy Cline, Peggy Lee, and Barbra Streisand, to the Chicago soul pioneer Curtis Mayfield, and to the composer/arranger Henry Mancini. Recordings admitted into the NARAS Hall of Fame this year are the Beatles' "Abbey Road," "Jazz at Massey Hall" (with Charlie Parker, Dizzy Gillespie, Bud Powell, Max Roach, and Charles Mingus), Hoagy Carmichael's Star Dust, Spike Jones's Cocktails for Two, and Sophie Tucker's Some of These Days.

HIGH POINTS
The Recording Industry Association of America has announced that Fleetwood Mac's album "Rumours," released in 1977, has sold more than 10 million copies in the United States, making it the second-best-selling album in history, after Michael Jackson's "Thriller" with sales of 24 million. . . . The newest release by the children's recording artist Joe Scruggs, "Ants" (Shadow Play), received the 1994 National Parenting Publications Honors Award. . . . According to the music industry magazine Pollstar, the Rolling Stones' "Voodoo Lounge" tour took in more than $121 million, making the band the greatest money-makers in concert history.

VIDEODISCS GET SMALL
In almost back-to-back announcements, rival coalitions heralded what promises to be a new era in home video, based on advanced, high-density, CD-size digital videodiscs (DVD's). Sony and Philips kicked off in early January at the Winter Consumer Electronics Show, but Toshiba and Time Warner one-upped them just a few weeks later with details of their own system and backing from much of the rest of the audio and entertainment industries, including Matsushita (Panasonic, Technics, Quasar), Thomson (RCA, GE, ProScan), Pioneer, Hitachi, JVC, Denon, MCA (Universal), MGM/UA, and Turner Home Entertainment. Fortunately, the systems are more similar than different in their essentials, and talks aimed at unifying the formats in time for the projected 1996 launch are under way. Both systems pack 135 minutes of high-quality digital video onto a single side, and picture quality, in the limited demonstrations so far, appears to surpass not merely that of Video CD but also that of laserdisc.

MUSIC NOTES
Graphix Zone and Columbia Records have released "Bob Dylan: Highway 61 Interactive," an exploration on CD-ROM of Dylan's world from the 1960's into the 1990's, with 10 full-length songs, 42 others, and an interactive time line of significant events in Dylan's life. Price: $59.95 . . . The Leonard Bernstein Jerusalem International Music Competitions begin this year with a contest for conductors open to qualified applicants of ages 24 to 37. The deadline for applications is April 15. For more information contact the Amberson Group, 25 Central Park West, New York, NY 10023; phone, (212) 315-0640.

BOOKS
McFarland and Company, of Jefferson, NC, has published Howard Feinstein's High Definition Compact Disc Recordings ($29.95), evaluations of more than 1,400 technically excellent CD's. . . . Harper-Collins has brought out Mozart, A Life ($35), an ambitious biography by the distinguished music historian Maynard Solomon . . . Miller Freeman Books has issued a new version of the All Music Guide ($24.95), which in 1,400 pages describes and reviews more than 23,000 CD's, LP's, and tapes in twenty-two categories ranging from blues, children's, and rock to world beat and zydeco.
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**LETTERS**

**Record of the Year Awards**

One might expect that Stereo Review's Record of the Year Awards in February would be drawn largely from albums reviewed in "Best Recordings of the Month" during the previous twelve months. Surprisingly, that was hardly the case for 1994.

Among the popular selections, two of the six winners and eleven of the thirteen honorable mentions had not warranted a "Best of the Month" review. Among classical selections, three of the six winners and six of the eleven honorable mentions had not made it to "Best of the Month" ranking. That is a marked level of inconsistency between monthly and annual recognition. Were there too many cooks in the kitchen?

WILLIAM F. PANK
Rowayton, CT

"Best of the Month" albums are nominated by the individual critics who write the reviews. Record of the Year Awards are open to nominations from all of our critics and editors, a diverse group with diverse opinions; one person's imperishable masterpiece can be another's unlistenable noise.

**Disgraceland**

Parke Puterbaugh should find another line of work. His choice of Pink Floyd's "The Division Bell" as one of the ten worst albums of the year (February) shows a lack of understanding of music as an expression of the human spirit.

REMY L. GAFF
Rochester, NH

Obviously Mr. Puterbaugh is out of touch with what the record-buying public regards as good music.

SAM SCAMARDO
Bryan, TX

**DSS Pros and Cons**

I recently purchased the RCA Digital Satellite System (reviewed by Rich Warren in January), and I've found that the video is only slightly better than what I am getting on cable, and the audio is no better. The only exception is pay-per-view movies, which have laserdisc picture quality and near-CD sound. Yes, DSS is relatively inexpensive, and it works rather well. But I guess I expected some sort of miracle.

Also, there have been several rainstorms locally since I installed my system, and I have lost the signal completely for several minutes at a time. Has RCA switched to the MPEG-2 standard yet? If so, is that supposed to correct the problems during rainstorms?

WILLIAM HINSON
Jacksonville, FL

In "DSS at Home" (January), Rich Warren states that his C-band system scans some twenty-seven satellites. What seven satellites are they? Other systems from 1-800-554-7325.

My C-band equipment can scan the entire spectrum of satellites from east to west (or vice versa) in just under 1 1/2 minutes, which includes reaching for my UHF remote control. Is Mr. Warren using a hand crank?

DANIEL K. NICHOLSON
Ossian, IN

I bought my satellite dish almost ten years ago. To compare DSS with a good C- or Ku-band system is unfair to DSS. Anyone who thinks MPEG-1 video is even close is blind; our local dealers never recommend using a VCR with the system. I know DSS is new technology, and there are lots of warm feelings about anything digital, but let's stick to reality. Where's the data?

If Rich Warren's Toshiba TRX-2220 C-band receiver has sparklies and takes 5 minutes to acquire a signal, he is not getting "excellent reception."

LAWRENCE WITT
Brookings, OR

Rich Warren replies: I cannot comment on Mr. Hinson's observations about DSS picture and sound quality, since I have no idea how his equipment is connected. As for rain fade, I have watched the system through three major storms in my area. In only one, with 45-mph winds driving rain into the dish, did I experience any signal interruption, and then only briefly. The transition to MPEG-2 is supposed to be complete by the end of March. Its main effect should be to improve picture quality and increase channel capacity, however.

Satellite TV Week lists twenty-two C-band and five Ku-band satellites, although one of them, Telstar 402K, is currently inoperative. My 8-foot dish takes almost 5 minutes to scan from the easternmost to the westernmost satellite. System scan speeds vary depending on ambient temperature, dish size, actuator, and receiver.

My ophthalmologist says my eyes are in perfect condition. I've been watching C-band for seven years and have used both the top-of-the-line GI 2750R receiver and the Toshiba. Reception is usually excellent, although area satellite installers tell me that sparklies are not unusual on a few transponders from this location. The best MPEG-1 video can surpass most analog video.

[Editor's note: We have received very few complaints of rain fade. Based on that and information from the DSS consortium, we suspect that most people who do experi-
Even Orson Welles didn't sound this real.

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Crunching footsteps behind you. Laser beams shooting over your head. Just a typical night at home with Adcom's home theater GTP-600 tuner/preamplifier. At Adcom's level of critically acclaimed performance it doesn't just produce surround sound. It creates effects that are out of this world.

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Surround yourself now at your Adcom dealer.

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We invite you to visit your Rotel dealer and audition the RCD970BX. If you're impressed with the sound, wait until you hear the price.

The Sound of "Robocop"

In "The Sound of Movies" in January, author Karl Straley discusses films transferred using optical soundtracks and mentions, as an example of what can be missing, "...those deliciously thunderous footsteps of ED-209 in Robocop? Can't even hear 'em!"

As the audio engineer who actually did the transfer of Robocop for home video, I can assure Mr. Straley that I did not use an optical soundtrack! In fact, this was one of the first films released in the extremely wide-dynamic-range Dolby SR audio format, and for the transfer to videotape I used a 35mm, Dolby SR-encoded, Dolby Stereo L/R/T (surround-encoded) theatrical-mix magnetic soundtrack. It was transferred, synchronized with the video, to a digital audio tape, and the "thunderous" footsteps of ED-209, and everything else in that soundtrack, were there on the DAT!

I cannot, of course, be responsible for what happens after the original transfer. On occasion a duplicator may "screw it up," but this is happening less and less as time goes on. The VHS Hi-Fi format does not have the same dynamic range or headroom as DAT, and sometimes wonderful theatrical mixes must be processed (usually compressed) to "make it" safely, without distortion, to the analog world. If this processing is not done carefully enough, the results can be less than perfect.

GENE HOBSHON
Chief Audio Engineer, All-Post, Inc.
Burbank, CA

Correction

The March test report on the Polk Audio RM7000 speaker system incorrectly states that the PSW100 subwoofer included in the system is magnetically shielded, which it is not. Also, the RM2000H satellites are 4 3/8 inches wide rather than 3 3/8 inches.
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AIWA
Aiwa’s DX-C100M 100-disc CD changer lets users create and store in memory a playlist of up to 99 selections from any of the discs loaded in the unit. Other features include a 1-bit digital-to-analog converter, an optical digital output, random play, four repeat modes, direct selection of discs and tracks via ten numeric buttons, and a binder to hold CD liner notes. Dimensions are 8¾ x 13½ x 14½ inches. Price: $650. Aiwa, Dept. SR, 800 Corporate Dr., Mahwah, NJ 07430. Circle 120 on reader service card

FIRSTAUDIO
FirstAudio’s 44-inch-tall M500 speaker combines two 6½-inch woofers and a 1-inch cloth-dome tweeter in a 44-inch-tall cabinet finished in mahogany Formica. Placing the tweeter between the vertically aligned woofers is said to stabilize imaging for off-axis listeners. Bandwidth is given as 37 Hz to 20 kHz and recommended power as 25 to 150 watts. Price: $1,499 a pair. FirstAudio, distributed by Nova USA, Dept. SR, 700 University Dr. E., Suite 106, College Station, TX 77840. Circle 121 on reader service card

OHM ACOUSTICS
Ohm’s Walsh home theater system is designed to reproduce music and movie soundtracks without a center speaker or (except in very large rooms) a separate subwoofer. The 43-inch-tall Walsh 200 front speaker uses a 10-inch inverted-cone driver and a super tweeter, while the 36½-inch-tall SCT-Omni surround speaker uses an 8-inch inverted-cone driver and three tweeters. The patented, top-mount inverted-cone design is said to produce three-dimensional imaging. Respective low-frequency limits are given as 32 and 40 Hz. Standard finishes are walnut, oak, black, and white (wood veneer on the Walsh 200, vinyl on the SCT-Omni). Price: $2,545. Ohm Acoustics, Dept. SR, 241 Taaffe Place, Brooklyn, NY 11205-4383. Circle 123 on reader service card

CERWIN-VEGA
Part of Cerwin-Vega’s Stealth Series, the SS 5.2 (shown, $210) and SS 6.2 ($230) car speaker systems are designed for use with a subwoofer. Each package includes pairs of 5½-inch (SS 5.2) or 6½-inch (SS 6.2) woofers with removable grilles, ¼-inch polycarbonate tweeters, and 12-dB-per-octave crossovers (not shown). The woofers are rated down to 78 and 60 Hz, respectively, and are 2¾ and 2½ inches deep. A surface/flush tweeter-mounting kit is included. Cerwin-Vega, Dept. SR, 555 East Easy St., Simi Valley, CA 93065. Circle 122 on reader service card
NEW PRODUCTS

**PROTON**
The 35-inch NT-3740, Proton's largest TV set to date, uses a flat high-contrast picture tube that's said to deliver 600 lines of horizontal resolution. It features dual-tuner picture-in-picture, which allows two TV programs to be displayed on the screen at once, decoders for closed captioning and stereo sound, a remote control, on-screen programming cues, and six speakers. There are three rear-panel A/V inputs, an A/V output, a variable-level audio output, an S-video input/output, and a front-panel A/V input. The set is 37½ inches wide and 24½ inches deep. Price: $3,000. Proton, Dept. SR, 13855 Struikman Rd., Cerritos, CA 90703. Circle 124 on reader service card.

**MB QUART**
The 33-inch-tall Quart Two XL speaker from MB Quart teams a 6½-inch woofer, 1-inch titanium-dome tweeter, and a seven-element crossover in a bass-reflex cabinet made of ¾-inch high-density particleboard with a black ash finish. Bandwidth is given as 42 Hz to 32 kHz, sensitivity as 88 dB, power-handling capability as 80 watts continuous, and nominal impedance as 4 ohms. Includes removable isolation spikes. Price: $549 a pair. MB Quartz, Dept. SR, 25 Walpole Park So., Walpole, MA 02081-2532. Circle 127 on reader service card.

**ANGSTROM**
Angstrom's Model 200 Home Entertainment Director combines an A/V preamp with switching for six A/V sources and a digital Dolby Pro Logic surround decoder that uses proprietary algorithms and FIR (finite impulse response) digital filters. It features three digital inputs and a remote control. Price: $2,995. Angstrom, Div. of MML, Dept. SR, 5273 Commerce Ave., Unit 1, Moorpark, CA 93021. Circle 126 on reader service card.

**BIC AMERICA**
BIC America's C-10 PWR powered subwoofer packs a 10-inch driver, a 100-watt amp, and an adjustable (50 to 200 Hz) crossover in a 17 x 13 x 16-inch vented cabinet finished in black woodgrain vinyl. Rated down to 32 Hz, it accepts speaker- or line-level inputs. Price: $449. BIC America, Dept. SR, 883-E Hampshire Rd., Stow, OH 44224. Circle 128 on reader service card.
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The Steve Miller Band: Greatest Hits 1974-1978 (Capitol) 33199

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Andres Vollenweider: Einig Emst (Silk) 05615
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FINE LINE AUDIO
Fine Line Audio's patented Phase Around surround-sound decoder is a passive device that connects to a stereo receiver via a tape-monitor loop. It can be configured for three- or five-channel operation and is said to "properly decode" Dolby Surround movie and music recordings. Available by mail-order for $129 (plus $7 shipping and handling) with a thirty-day money-back guarantee. Fine Line Audio, Dept. SR, P.O. Box 123, Elmira, NY 14902-0123; phone, 1-800-828-7200.

KOSS
The SW/1 powered subwoofer from Koss is designed to boost the bass output of computer speaker systems. The 12 x 5 x 10-inch module, which carries a lifetime warranty, uses two 4-inch drivers and a 20-watt amp to bolster output in the 40- to 120-Hz range. An AC/DC adaptor is supplied. Price: $130. Koss, Dept. SR, 4129 N. Port Washington Ave., Milwaukee, WI 53212.

HUBBELL
Hubbell's Sonâ© satellite speaker ($1,399 a pair, shown on Sanus RF24 stands) teams a 5½-inch woofer and aluminum-dome tweeter in a 12½-inch-tall oak-veneer cabinet; rated response is 53 Hz to 20 kHz ±3 dB. The 18-inch-square HS12DVC subwoofer ($549), also in oak veneer, has a 12-inch driver and a bandwidth of 32 to 70 Hz. Hubbell Sound Systems, Dept. SR, P.O. Box 30136, Des Moines, IA 50310.

REEL-TALK
Reel-Talk's Radio Talk Show Timer-Recorder is an AM/FM radio with a built-in cassette recorder and a VCR-like timer that can be set to record favorite programs for playback at a later time. Up to 4 hours of continuous recording is possible on one side of a C-120 tape. Available by mail-order for $99.99 (plus $15 shipping and handling) with a two-week money-back guarantee. Reel-Talk, Dept. SR, 4790 Irvine Blvd., Suite 105-406, Irvine, CA 92720; phone, 1-800-766-8255.
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GARBLED CHANNEL

Q My receiver is eight years old, and lately when I play CD's the left channel intermittently becomes garbled and distorted, and the left output meter drops in level. When I switch to the tuner, everything's fine. Can you tell me what's happening and what's the cure?

A You can probably find out by a process of elimination. Since everything's okay when you switch to the tuner, that rules out most of the receiver itself. It could be a problem with the CD player, the connection between it and the receiver, or the input selector itself. Try feeding the CD player temporarily to another high-level input — auxiliary, say, or tape. If everything is fine, you've eliminated the CD player as the source of the problem. If not, try replacing the patch cables between the player and the receiver; if that clears things up, ditch the old cables.

If these tests show that the problem is with the receiver's input jacks or selector, the cure may just be a thorough cleaning. If that doesn't work, a trip to the shop is probably necessary, but I doubt that the repair would be very expensive.

LOW-BASS PUNCH

Q I am mostly happy with my new stereo system, but it doesn't have as much low-bass punch as I would like, even though my speakers have a sensitivity of 100 dB SPL. My receiver puts out 50 watts a channel; should I invest in a new one? An equalizer? Something else?

A Speaker sensitivity has nothing to do with low-bass output; it's simply an indicator of how much output (in decibels) a speaker puts out when it's fed a given input (usually 1 watt). Speaker designers over the years have often sacrificed output in the bass to get a more even response. The speaker puts out when it's fed a given input is called the speaker's sensitivity.

If you're not sure of the function of the equalizer box that came with your speakers; would a different graphic or parametric model give the same result?

DAEN C. HENDRICKSON

A The holes might have no audible effect — meters, say, or higher current capability — there's no real point in replacing it.

SECONDHAND SPEAKERS

Q I recently bought a set of speakers, which the previous owner had attached to the ceiling with large screws. I'm not sure if the holes put all the way through the cabinets, but if they do, what effect will they have on the sound? Also, I'm not sure of the function of the equalizer box that came with the speakers; would a different graphic or parametric model give the same result?

A It sounds like a subwoofer is in order. But finding a passive model that matches the high sensitivity of your main speakers will be difficult at best, so look into a powered subwoofer — that is, one that has its own built-in amplifier and crossover. You'll be able to balance the subwoofer's output with that of your main speakers by adjusting its crossover and level control — without placing an additional burden on your existing amplifier.

REPLACING AN AMPLIFIER

Q I own a 250-watt power amplifier that dates back to the early 1970's, and I'm wondering whether I should invest in a new one or stick with what I've got. Do newer amplifiers offer significant advantages over what I have now?

A At the lower end of the price scale, you probably don't get much for your buck today. But that's largely a matter of money; in absolute terms, top-line power amplifiers back then were very good. So unless your old amp is missing something you need — metro, say, or higher current capability — there's no real point in replacing it.

PETER THOMPSON
Muskogon, MI
Definitive’s PowerField 1500 Wins the Subwoofer of the Year Award

Our extraordinary new PowerField™ 1500 features a 250-watt RMS amp, fully adjustable electronic crossover and massive 15-inch driver for only $995

“Showstoppers” – Stereo Review

Definitive's PowerField 1500 has triumphed, winning Subwoofer of the Year in the Audio Video Grand Prix. We set out to build the world's finest sounding subwoofers, and we have done it. Experts agree that we have achieved the perfect synergy of powerful, earth-shaking bass for home theater and a refined and expressive musicality.

All three Definitive powered subwoofers feature our PowerField Technology, monocoque cabinets, high-power high-current amplifiers, fully adjustable electronic crossovers and massive 15" or 18" drivers. The result is the absolute ultimate in subwoofer performance, awesome bass which thunders down below 15 Hz, yet retains complete musical accuracy for your total enjoyment.

Perfect Bass for Your System

To ensure optimum performance in your home, the PowerFields have high and low level inputs and outputs, adjustable high pass, low pass and volume controls (plus phase controls for the PF 1500 and 1800) to guarantee perfect blending with any system and superior bass response in any room.

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Three extraordinary Definitive powered subwoofers are now available: the PowerField 15 (185-watts RMS, 15-inch at $699), PowerField 1500 (250-watts RMS, 15-inch at $995) and PowerField 1800 (500-watts RMS, 18-inch at $1599). Hear them today!
trouble when the manufacturer has done all the work for you?

Motorized Noise

My receiver has a motorized volume-control knob, and when I activate it from the remote control, I hear audible static through the speakers that seems to coincide with the blinking of the red LED on the knob. The noise doesn’t occur when I adjust volume by hand. I have had the unit serviced twice and replaced all the cables, but there is still no change. Any idea what’s going on?

KEVIN HARBERT
Sacramento, CA

A would normally suspect dirt in the control itself — usually correctable by a shot of contact cleaner — but that’s obviously not the problem here or it would be audible when you made manual adjustments as well. Since it corresponds to the blinking indicator LED, I suspect some sort of electrical interference, perhaps (though probably not) with another component. Does it happen with all inputs or just with, say, your CD player? If the latter, simply rearranging the components may do the trick.

If the interference is inside the receiver itself, there’s not much you can do other than take it in for service once again. But before you do that, it might be worthwhile to borrow another, identical receiver and see if the same thing happens. If not, a qualified technician should be able to repair your receiver, otherwise, it may be a design fault.

Converting Power

I would like to buy an amplifier, but I’m stationed in Europe and the power standard here is 220 volts. If I buy equipment to use here, will it be difficult and expensive to have it converted when I return home?

MICHAEL SANCHEZ
Schweinfurt, Germany

It will either be a breeze or virtually impossible, depending on the specific model you buy. Not only is the voltage different, but the standard line frequency as well: Europe and some other parts of the world use 50 Hz rather than our 60 Hz. With some equipment, even if you do manage to find a way to adapt the voltage — no big deal — the various circuits designed to filter out AC hum might not work properly. On the other hand, lots of components are designed to work in a variety of markets, and those can usually accommodate the various line frequencies. In Japan, both 50 and 60 Hz are used domestically, so most Japan-made equipment can handle both. If, as is often the case, the component has a multiposition voltage switch on the back panel, you can safely buy that model and use it when you get home.

Vanishing Models

Several times I have bought audio equipment of a particular brand, intending to add matching models later when my budget permitted, only to find that the line had been discontinued. In one case, the manufacturer dropped the models I was interested in, in another the company had gone out of business. Is there anywhere I can go to find specific unsold or “factory extras” of the equipment I want?

BRUCE AUGUSTINE
Hollis, NH

AWhile you may be able to find specific models in audio stores if you hunt hard enough, I’m not aware of anyone who specializes in cataloging such products. Your best bet is probably the secondhand market. Audio Classics of Walton, New York (607-865-7200), publishes a catalog of new and used stereo equipment that may list some of the components you seek. Also check the newspaper want ads.

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.
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NuReality offers a complete family of Vivid 3D products with prices starting under $100. To order your free demo CD or for more information, call NuReality at 1-800-501-8086.


*This specially recorded CD recreates the experience of 3D sound from any CD player. The demo CD is available for a $5.95 shipping and handling charge which can be fully credited toward the purchase of a Vivid 3D system. This offer applies only to Vivid 3D products purchased directly from NuReality. International orders do not include freight charges, duty or VAT.

CIRCLE NO. 36 ON READER SERVICE CARD
The Battle of the Balcony

Most of us have all but forgotten that long before color television there was something called black-and-white TV. When the tiny, grainy screen was introduced it had a dramatic impact on the way people spent their free time. Feeling threatened, the mighty movie industry responded with wider-screen, more colorful movies. Then along came color television. Even though programs like Bonanza featured panoramic shots of a Hollywood set, people were fascinated with the changeover from black-and-white to color images. The NBC peacock became a national icon, and TV almost immediately gave birth to a strange new life form — the couch potato.

Now, thanks to television’s total conquest of our society, we have become a sedentary bunch — eyes glued to the screen, one hand in the bag of Fritos, the other on the remote. Television screens have gotten much, much larger, and many are now hooked up to audio systems, a growing number of which are designed to deliver enveloping, theater-like sound.

Meanwhile, many movie theaters are now called cineplexes, which means that the theaters are about the size of your living room and have screens that aren’t much bigger than a king-size projection TV. Keenly sensing that movie theaters may be facing obsolescence, the movie studios have determined that digital audio is really more than a fad and, in fact, should be incorporated into their films.

Cleariy, any new motion-picture audio system must be multichannel, with at least left, right, and center channels, two surround channels for ambience, and a subwoofer channel. To reduce the large amount of data necessary to convey all of that information, a digital cinema system must employ some sort of compression scheme. Optical soundtracks have to be robust, able to withstand hundreds or thousands of passes through the projector, so reliable error correction is mandated. In addition, the system must support high-speed copying for mass replication of films. In other words, it ain’t easy.

Perhaps the most challenging aspect of putting digital soundtracks on film is finding somewhere to put the audio data. Motion pictures normally have an optical analog soundtrack, called the stereo variable area (SVA), printed along the frame’s edge. Several digital formats have been developed that preserve this conventional optical track while adding multichannel digital audio data, optically encoded on the film itself. In other systems, external audio playback devices are synchronized to the picture using a time-code stripe added to conventional motion-picture film. Both kinds of systems provide compatibility with existing motion-picture projection systems, and in the event of catastrophic damage to the digital soundtrack, they automatically and momentarily switch to the optical analog tracks. Many companies have tried to capture the theater sound market, and failed, but now three systems have emerged as true contenders. Their technologies are all, to one degree or another, works in progress, but their goals are as visible as the big screen itself.

If you are still having nightmares about Jurassic Park, it might be because many theaters showed the film with DTS sound, a brainchild of Digital Theater Systems. DTS is a double-medium system that stores the digital audio data external to the movie film, in this case on CD-ROM’s. A time-code track placed between the picture and the standard analog optical track is used to synchronize the film with the external CD-ROM drives. DTS discs contain six data-compressed audio channels, which are delivered to external compression decoders that plug into movie-house sound systems. One of the biggest problems in any digital system is the potential for physically losing the audio tracks. DTS addresses this issue by placing the CD-ROM’s in shipping containers that fit inside the standard casings used to ship 2,000-foot projection reels to theaters.

The Dolby Stereo Digital system from Dolby Laboratories, a company with tremendous experience in both home and theater sound, hit the screens with Batman Returns. It retains analog optical tracks for compatibility and adds an optical data track between the film’s sprocket holes, on the same side as the analog tracks. The digital tracks consist of six audio channels sampled at 48 kHz, quantized with 18 bits, and encoded using Dolby’s AC-3 data-compression algorithm — a technology that is also moving swiftly into the home via laserdisc and (eventually) HDTV. While the film is rolling, a scanner reads the optical digital information, which is then demultiplexed, decompressed, and fed to the theater’s sound system.

The Sony Dynamic Digital Sound (SDDS) system debuted inauspiciously with The Last Action Hero, one of Arnold’s lesser efforts. In SDDS, as many as eight audio channels are encoded using the ATRAC data-reduction algorithm, originally devised for MiniDisc, and placed in two data tracks running outside the perforation holes, one thin stripe on each side of the film. The analog optical tracks are retained. A full-bore system has five playback loudspeakers placed behind the screen, a subwoofer, and two arrays of surround speakers, but theaters have the option of using a scaled-down version with just three front speakers.

Given these three more or less incompatible systems (the Sony and Dolby soundtracks and the DTS time-code can actually all fit on the same film, and there have been a number of dual-format releases), it is hard to predict which might win the struggle. Mainly that’s a question of cost to studios and theaters — and Hollywood muscle. But the real question is whether even souped-up movie theaters can compete with home theaters. That battle for the hearts, minds, and concession-stand dollars of Americans will determine whether we’ll go to the movies, or the movies will come to us.
Throw away any preconceptions you may have about small speakers. We already did.

Preconception #1:
Small speakers have small, anemic tweeters. Not so. The technologically advanced 25mm Kortec™ tweeter in our CR8 and CR9 is remarkably smooth, incredibly detailed, and mounted flush to the bass units for audiophile 'point-source' imaging.

Preconception #2:
A speaker must be large to deliver real bass. Our CRS monitors will astound you with their ample bass, thanks to computer-optimized DCD bass units (advanced technology borrowed from our acclaimed Lynnfield VR Series).

Preconception #3:
A cabinet is just a box. Not Compact Reference cabinets. We use non-resonant ABS baffles and internal U-bracing that quell unwanted cabinet resonance. Pick one up, and you'll be impressed by how solid they feel.

Preconception #4:
Small speakers belong only on shelves. CRS speakers can also be placed next to your TV (they're video-shielded), on your walls (the CR6 and CR7 have built-in keyholes and optional swivel-mount brackets), or on stands for true audiophile enjoyment.

We hope you're sitting down. Your view of small speakers is about to be inexorably altered. Introducing Compact Reference Series—a new line of four video-shielded compact monitors and a sleek center channel speaker. And starting at $200/pair, they completely redefine the performance standards of small speakers. See your Boston dealer or call us at 617-592-9000 for details. We now return you to your regular world-view.

Get a free copy of Number 02, the Boston Acoustics music and product magazine. Call 617-592-9000.
Video-Game Soundtracks Get Real

The stark scene opens on a frail-looking, bearded old codger cranking away on a gramophone playing a simple, tinny-sounding melody. A contemporary beat fades up. Suddenly, a boombox and a hooting gorilla come crashing down, accompanied by new-age music and a colorful jungle landscape. The robust sound and vivid graphics knock the old fellow and his music out of the scene.

The opening of Nintendo's latest blockbuster video game, Donkey Kong Country, could serve as a metaphor for the transformation that has occurred in video-game soundtracks since the days of early titles like Pong. Gone are the plinkity-plink melodies and mind-numbing blips and bleeps. As you maneuver your way through Donkey Kong Country's dozens of levels (or at least try to), the action is propelled by driving music and realistic sound effects.

In making the move from simple toys-for-boys to a more sophisticated form of entertainment, video-game companies are responding to the public's growing appetite for more realistic action with enhanced graphics and sound quality. And with competition intense in the $6 billion video-game industry, it seems that each week brings a new game or system that promises to raise the level of audio quality.

In the early days of video games, sound was "almost an afterthought," recalls Michael Kelbaugh, product testing supervisor for Nintendo. "[The soundtrack] would not be developed until the last minute. But as an industry we are now giving audio a lot more emphasis. It's as important as anything else in the game. Blips and bleeps have been replaced by more dynamics."

While the fiercely competitive Sega of America (based in Redwood City, California) and Nintendo of America (Redmond, Washington) seldom agree on anything, they both equate scoring video games to creating movie soundtracks. "We're trying to blow the people away when they put the game audio up on their speakers," says Spencer Nilsen, director of the San Francisco-based Sega Music Group, a state-of-the-art audio composition, mixing, and post-production facility. "We use the movies as the model [so we can give game players] a very personal, surround-sound experience."

The video-game industry's major break with its past step-child treatment of audio occurred when Sega and Nintendo introduced 16-bit cartridge-based systems as replacements for the crude 8-bit machines that dominated the games scene in the Eighties. The increased memory and processing speed of Sega Genesis, introduced in 1989, and the Super Nintendo Entertainment System, or SNES (1991), paved the way for game designers to pack not only more color and action into their games but to feature better-sounding and more elaborate audio tracks as well.

Video-game quality is directly related to the amount of memory designers dedicate to the audio and video portions, as well as to how much compression they use to squeeze in as much data as possible. It's also a function of the system's processing power, the storage capacity of game media, and the ingenuity of programmers and designers. Of course, budget and pricing considerations play a role in determining which features the game companies can put into their hardware and software and still remain competitive. But, as independent video-game composer Mitchell Stein points out, "Game companies now realize that better audio doesn't cost that much more."

The Sega Genesis system ($100) uses a Yamaha chip to synthesize FM tones and generate audio on the fly during game play. In 1993, Sega upped the audio ante with its Sega CD module ($229), a CD-ROM drive that connects to the Genesis console. Thanks to CD-ROM's immense storage capacity, Sega CD's incorporate generous sequences of full-bandwidth CD-quality audio. Sega also offers the Genesis...
Carver separates. The essence of total control.

Enfused by the sweetness of separates for your home theater system?

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Now you can obtain a powerful home theater command center, combining the musical brilliance of separates with the ease of a receiver, all in one versatile package: Carver’s CT-27v Dolby Pro Logic™ A/V Preamplifier/Tuner.

The CT-27v pairs flawless sound with exceptional Dolby processing, including a generous selection of DSP effects (wait ‘til you experience an old movie like *Casablanca* on our “Matrix” mode), yet without the extraneous gimmicks that undermine aural integrity.

When matched with a Carver amplifier (models from basic stereo to multi-channel), the CT-27v lets you direct power to any array of speaker combinations – a task for which a mere receiver is woefully undermanned. So you’ll achieve wider frequency response and have the dynamic headroom necessary for those explosive moments in great movie soundtracks.

In sum: the CT-27v is the heart (and soul) of the most uncompromising home theater system. For more of the story, contact Carver today for a feature length brochure.
The 3DO Multiplayer, currently available for $399 from Panasonic and Goldstar, is a more powerful 32-bit CD-based system that reached stores in late 1993. (The system was developed by the 3DO Company and is made and sold by third-party licensees.) It incorporates a custom digital signal processor that “can create interesting effects such as reverb and feedback loops” as well as digitized speech, explains R. J. Mical, co-developer of the 3DO system. It also uses proprietary algorithms to produce a 3-D surround-sound effect. Like the Sega CD module, the 3DO system plays standard CD’s — it even has a Color Echo mode that creates kaleidoscopic images in sync with the music.

Pushing the Sound Envelope

The introduction of Sega CD and the company’s subsequent licensing of the image-enhancing QSound system pushed the Genesis system’s audio performance to the next level. Sega CD’s featuring QSound — such as Jurassic Park, Ecco the Dolphin, and Ecco: The Tides of Time — offer 3-D audio and other effects. At the end of last year, Sega also rolled out its Genesis 32X module (under $160), which upgrades the 16-bit Genesis and Sega CD systems to 32-bit gaming power. Sega is promising that 32X software will deliver the first “full implementation” of QSound in video-game play.

To further enhance game soundtracks, some Nintendo and 3DO titles are encoded in Dolby Surround for playback through a Dolby Pro Logic-equipped audio rig. For the Nintendo system, the Dolby Surround lineup includes King Arthur’s World (Jaleco) and such more recent titles as Jurassic Park (Ocean), Vortex (Electro Brain), and Lost Vikings (Interplay).

3DO’s Dolby Surround list includes Shock Wave, Jump Gate, and Road Rash (all from Electronic Arts). The capabilities of the 3DO player, coupled with Dolby Surround playback, make these games among the most spectacular in terms of sound quality.

Video-game companies are also exploring new and expanded sources of content for music. The 3DO title Road Rash, for example, features fourteen rock songs from six A&M recording artists, including Soundgarden. Another 3DO title, with a classical bent, is the cleverly named C.P.U. Bach (MicroProse), which taps artificial intelligence to “write” music inspired by the works of Johann Sebastian.

Apart from the game companies’ sound-enhancing efforts, NuReality of Santa Ana, California is marketing the Vivid 3D system, an $80 add-on device incorporating the Hughes-developed SRS (Sound Retrieval System), which is designed to provide a three-dimensional effect with only two speakers. The device requires no special coding, so it can be used with any game system.

The bar will again be raised in audio performance as a host of new, more powerful game systems reach store shelves this year. Among them are Sega’s Saturn, Nintendo’s Ultra 64, and 3DO’s M2 Accelerator. Even consumer-electronics giant Sony is planning to jump on the video-game bandwagon with its PlayStation system. All of the new game systems will be CD-based (except for Nintendo’s Ultra 64) and cost more than current systems (prices are expected to range from $200 to more than $400). These next-generation game systems will also look more like traditional A/V components, which manufacturers hope will inspire more people to add gaming capability to their home theater systems. And you thought video games were just kid stuff?

“Game companies now realize that better audio doesn’t cost that much more.”

— Mitchell Stein

video-game composer

Marjorie Costello, based in New York City, is a writer/consultant specializing in consumer electronics and high technology.
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Audio magazine once said our Ensemble® speaker system may be "the best value in the world." Since then, numerous critics have applauded our Ensemble and Ensemble II systems. Designed by Henry Kloss (founder of AR, KLH and Advent), they became best sellers by offering quality construction and accurate, wide-range music reproduction — at factory-direct prices.

We're pleased to introduce new versions of our Ensemble and Ensemble II systems, as well as our new, ultra-compact Ensemble III.

The New Ensemble

New Ensemble is an improved version of our original dual-subwoofer/satellite speaker system. New Ensemble maintains the dual subwoofer design, which allows for maximum room placement flexibility. Placement of bass and high-frequency speakers in a room (and how those speakers interact with the room) has more influence on the sound quality of a room than any system we know of.

2. New Ensemble's satellite speakers use the same speaker drivers and crossover as the original, but with new midrange and high frequency balance controls.

The midrange control lets you choose the same output in the key 800-1600 Hz octave as in the original, or you can emphasize that octave by 2 dB. Ensemble satellites have relatively less output in this range to avoid the "boxy" sound typical of many speakers. This results in an "open" sound on large-scale symphonic works. For small-scaled music, the higher output position proves a "warmer" sound.

A high frequency control has three positions:
A) The same balance as original Ensemble.
B) A 2 dB high frequency increase. C) A 2 dB high frequency decrease. The switch can subtly increase the system's "airiness" (increase) or it can reduce any tendency towards "edginess" (Decrease).

In terms of "real life" performance, we believe our New Ensemble system competes head-on with speakers selling for hundreds more. Available with black-laminated subwoofers for $629, or with vinyl-clad subwoofers for $649.

The New Ensemble II

New Ensemble II is an improved version of our best-selling speaker system. It's more affordable than New Ensemble because it uses one cabinet to house both subwoofer speakers. New Ensemble II maintains the tonal balance, frequency range, power handling and construction quality of the original Ensemble II. But its satellite speakers use the same tonal balance controls as New Ensemble's.

New Ensemble II also uses a new flared subwoofer port. The subwoofer cabinet encloses two 6 1/2" long throw woofers mounted in a sealed "acoustic suspension" chamber. They project into a second chamber fitted with the flared port, which provides smoother air flow, eliminating extraneous noise on strong bass notes.

Stereo Review said the original Ensemble II "performs so far beyond its price and size it can be compared only with much larger speakers at substantially higher prices." New Ensemble II carries on this tradition, outperforming other speakers in its category, including well-known models for about twice the price. Factory-direct price: $439.

The Ensemble III

New Ensemble II gives up a little in power handling, low bass range, and efficiency. Unlike the "cube" satellite speakers you'll find in most similarly priced systems, Ensemble III's satellites are two-way speakers. Ensemble III's 6 1/2" woofer uses two voice coils in a cabinet with a flared port for smooth air flow.

With most recordings Ensemble III will sound virtually identical to New Ensemble II. It simply won't play as loud. Its construction quality is normally found only in much more expensive speakers.

Factory-direct price, including connecting wire, cutter/stripper and Hook-Up Guide, is only $329.

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CIRCLE NO. 6 ON READER SERVICE CARD
Audio’s Ongoing Evolution

As regular readers of Stereo Review appreciate, the hi-fi world has undergone some major changes in recent years. That has been dramatically evident in the focus of recent trade shows, such as the Consumer Electronics Show (CES) held in Las Vegas last January.

From its inception, “high-fidelity” audio was just that—a means of enjoying high-quality sound (usually in the form of music) in the home. In the early years, from the end of World War II to the 1950s, the improvement of component hi-fi over the console radio/phonograph that preceded it was largely achieved by putting the speaker (only one, in those pre-stereo days) in an enclosure separate from the main cabinet, sometimes adding a tweeter to improve the high-frequency response.

The roughly contemporaneous growth of FM broadcasting and the LP record made a pronounced improvement in sound quality. Many people, finding a large console cabinet to be unnecessary as well as inconvenient for a system formed of several discrete components, preferred to use a separate tuner and amplifier (with or without a record player) instead of a one-piece receiver. Those amplifiers were often derivatives of low-powered public-address (PA) models, with power ratings typically less than 25 watts.

The development of stereo FM and phonograph systems in the late 1950s and early 1960s spurred the design of two-channel amplifiers (initially, some people chose to add a separate amplifier for the second channel, and several companies produced stereo adapters that staved off system obsolescence by providing the necessary balance and gain adjustments for two amplifiers). Early in the transition to stereo FM, as in the case of stereo phonograph discs, there were several mutually incompatible encoding/decoding systems vying for acceptance, and some tuner manufacturers left space on their monophonic products for future add-on decoders that would presumably forestall incompatibility regardless of the final choice. I never heard of any of these add-on decoders actually being produced, however.

By the early 1960s, a typical home stereo system was essentially similar to today’s, and some of them are still, I imagine, doing a fine job. A feature of the 1970s was quadraphonics, a precursor of today’s much more successful Dolby Surround system, which suffered from several fatal illnesses. None of the developers of the several mutually incompatible systems (SQ, QS, CD-4) agreed on exactly what they were trying to achieve, other than putting the listener in the midst of four vaguely different and uncertainly located sound sources.

There was also an early attempt to enhance the spatial character of the sound by driving rear or side speakers with a delayed version of the main signal. That could produce some interesting effects, but the delay units were too expensive to gain a significant share of the market. Barring these efforts and the hugely successful introduction of the cassette tape recorder by Philips and its licensees, there was little fundamental change in the makeup of home audio systems until the early 1980s, when the introduction of the CD kicked off the digital revolution.

We all know what the compact disc did to the phonograph in less than a decade. Beyond that, it heralded a seemingly endless series of previously unimaginable electronic wonders based on digital technology. That can be a very healthy trend, and I am all for it. The only caution that comes to mind is the thought that merely because something can now be done for the first time, through digital means, does not necessarily make it a useful or desirable achievement.

Coming to today’s audio scene, we find ourselves in the midst of the home theater boom. At the recent Consumer Electronics Show, a large number of the audio exhibits were devoted entirely or in part to home theater, ranging from numerous displays of whole new families of loudspeakers specifically designed for that purpose to arrays of the most elaborate and expensive audio/video electronic components, video projectors, and the like.

The demonstrations of some of these audio/video systems reminded me of the early days of stereo, when recordings of locomotives, over-flying airplanes, and thunderstorms were often used to drive home in a not-too-subtle manner the difference between this new sound and the old-fashioned variety. This year I found that after a while the ear-splitting selections from Jurassic Park and other highly dynamic material, impressive as they were, got to be a bit wearying.

In fairness, a number of manufacturers displayed product lines in all price ranges that were still recognizable for their audio functions, and there were others whose video-oriented components were both affordable and practical for a large segment of the buying public.

Anyway, it is certain that home theater will be with us for some time to come. It would be easy to assume, from some of the show demonstrations and the elegant A/V installations appearing in the press, that home theater is the province solely of the very wealthy or those whose idea of entertainment consists of violence and destruction at high sound levels, ad infinitum. Fortunately, it is not limited to either group, and the explosive growth of audio/video entertainment means that it will become an increasingly attractive option for the public at large.

And, in case you are worried about stereo music reproduction sans video disappearing from the market, be of good cheer. There is a lot of life left in hi-fi as we know it. Actually, the best is yet to come.
In The Mid ‘70s We Created Home Theater. Now We’ve Created A New Way To Buy It.

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 we have set a new price-to-performance standard for home theater components.

Because we sell carefully matched and tested home theater speaker 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.”

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. $80. Center Channel is identical to a 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. Our EXO-1 electronic crossover can be used with either of our powered subwoofer systems, or with powered subwoofers made by other companies. Its high pass filters keep strong, low bass signals out of the main stereo speakers, and directs them to the powered subwoofer. $299.

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.

Powered Subwoofers
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. Our EXO-1 electronic crossover can be used with either of our powered subwoofer systems, or with powered subwoofers made by other companies. Its high pass filters keep strong, low bass signals out of the main stereo speakers, and directs them to the powered subwoofer. $299.

Home Theater Speaker Systems
We have assembled a number of home theater speaker systems that consist of center channel, surround and main stereo speakers. The combination we show here is our best seller. It includes our critically acclaimed Ensemble subwoofer satellite speaker system (with dual subwoofers), our Center Channel Plus and a pair of our best surround speakers, The Surround. You could spend hundreds more than its $1,167 price without improving performance.

For information on other home theater speaker systems - or on any of the products we make and sell - call 1-800-FOR-HIFI for your free color catalog.

Thanks.

For A Free Catalog, Call 1-800-FOR-HIFI

We Know How To Make Loudspeakers
Holding the second slot among Harman Kardon’s A/V receivers, the new AVR25 is rated at 75 watts per channel in stereo mode, 65 watts for each of the three front speakers and 25 watts for the surrounds in surround mode. In addition to standard Dolby Pro Logic decoding, it offers two surround modes, Theater and Stadium, both designed for ambience enhancement of conventional two-channel music recordings.

The receiver provides two sets of A/V connections for VCR’s (one play-only), one A/V input for a laserdisc player, two sets of connections for audio tape decks (both record/play), and one input each for a CD player, a phonograph cartridge, and another line-level auxiliary audio source. The rear-panel VCR2 play-only A/V connections have front-panel duplicates that can be selected by a front-panel push-button, effectively giving the receiver yet another A/V input, though one that cannot be switched from the remote control.

All the video connections are phono jacks for standard composite video, as are the two rear-panel video-monitor outputs. All the back-panel input jacks are arrayed horizontally, easing “blind” hookup by feel from in front of the receiver, and the various video connectors are directly above their corresponding audio jacks. In that respect, as in ease of use generally, the AVR25 represents an improvement over the top-of-the-line AVR30, which we reviewed in the April 1993 issue. The AVR25 also boasts about 1 dB more power in each channel. The AVR30 retains the advantage in versatility, however, with more inputs and seven music-enhancement modes.

A line-level preamp-out/main-in loop is provided for the front left and right channels, and there are also preamp outputs for the center and surround channels, enabling you to replace any of the receiver’s internal power amplifiers with more powerful external ones and facilitating connection of a powered subwoofer or two-channel equalizer. (The manual’s page 11 mistakenly shows a hookup driving an external front-speaker amplifier from the Main-In jacks rather than the Pre-Out connections, however. Also, the manual calls the front panel’s FM Mode button the FM Mono button, which is what it really is.) Connectors for main left and right and remote speakers are multiway binding posts that take single or dual banana plugs and wire ends, but not spade lugs.
The original cool cats of contemporary jazz, Russ Freeman And The Rippingtons, have been exploring the genre with outstanding musicianship, new ideas and innovative experiments for almost ten years. With Freeman's supple guitar work and the group's inventive performances, sakura reaches beyond the band's past musical boundaries by adding vocals to their signature instruments.

This is the place where the biggest names in jazz come together.

From the soaring classics of John Coltrane to the virtuosic stylings of Chick Corea, only Columbia House has the expertise and heritage to bring you face to face with today's greatest artists.

Look to Columbia House—where the jazz is.

PLUS A CHANCE TO GET ONE MORE FREE! details

Since bursting onto the music scene two years ago, tenor saxman Joshua Redman has made his mark on the jazz community by mixing his musical prowess with a finely-honed academic sensibility. Performing with his quartet on MoodSwing, this summer evm laude Harvard grad continues to expand his artistic vision on original compositions that soulfully explore vast and varied emotional terrains.

Joshua Redman—Wish (Warner Bros.) 466-624
Joshua Redman (Warner Bros.) 459-778
Ginger Baker Trio—Going Back Home (Atlantic) 102-558

Marcus Roberts—Gershwin For Lovers (Columbia) 469-548
Dinah Washington—Compact Jazz (Mercury) 429-613
Stanley Jordan—Stolen Moments (Blue Note) 433-417

David Benoit—Shaken, Not Stirred (GRP) 103-903
Boney James—Trust (Warner Bros.) 107-268

Basia—The Sweetest Illusion (Epic) 477-331

Rus Freeman & The Rippingtons© Sahara (GRP) 102-293
Jeff Lorber—West Side Stories (GRP) 114-090
Clarke/Cartin/Cobham/Johnson/Najee—Live At The Greek (Slamm/Dunk/Epic) 489-120
Chet Baker—My Funny Valentine (Pacific Jazz) 474-957
Charlie Parker—Now's The Time (GRP) 429-605
Dave Grusin—The Orchestral Album (GRP) 111-047
Kenny G—Duotones (Arista) 346-544
Harry Connick, Jr—Blue Light, Red Light (Columbia) 429-191
Fourplay—James, Ritenour, East & Mason (Warner Bros.) 428-334
Dave Koz (Capitol) 420-539
John Coltrane—Giant Steps (Atlantic) 371-591

Hiroshima—Hiroshima/ L.A. (Reprise/Oizawa) 101-451
Ray Charles—His Grit Hits, Vol. 1 (GCC) 365-791
Dave Koz—Lucky Man (Capitol) 461-848
Dave Brubeck Quartet—Time Out (Columbia Jazz Masterpieces) 353-060
Miles Davis—Kind Of Blue (Columbia Jazz Masterpieces) 353-045
Norman Brown—After The Storm (Mojazz) 481-796

Billie Holiday—Billie's Best (GRP) 447-607
Any 10 CDs for 1¢ PLUS A CHANCE TO GET ONE MORE FREE!

A favorite with everyone from Generation Xers to grandparents, Tony Bennett proves that his strong vocals and impeccable timing create a sound that's both hip and retro. Whether he's playing Radio City or Unplugged, Tony—backed by the Ralph Sharon Trio—has been putting his vocal signature on a sensational collection of American songbook standards for years and, like a fine wine, only improves with age.

Tony Bennett—MTV Unplugged (Columbia) 486-746

With his usurer chops, impeccable timing and soaring alto sax, five-time Grammy-winning David Sanborn has been creating soulful and elegant music for more than a decade. These 16 favorites—guests like Marcus Miller, Omar Hakim, Luther Vandross, James Taylor & Pat Austin—spotlight the virtuosic mastery of this jazz/pop superest as both soloist and bandleader.

David Sanborn—the Best Of David Sanborn (Reprise) 110-585

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Connectors for the center and two surround speakers are spring clips. An F-connector and a pair of binding posts are provided for an FM antenna and the supplied AM loop antenna, respectively, as are one unswitched and two switched AC outlets. I liked how the manual cautions against plugging high-current devices into the latter, devices like “irons or toasters.”

Miscellaneous convenience features include thirty memory presets for the tuner, a display-intensity control (bright, dim, off), and a sleep timer. The latter two features are operable only from the remote handset, which can also control selected Harman Kardon CD players and cassette decks. The remote is nicely done, with clusters of related controls differentiated variously by spacing, shape, and color.

Lab measurements showed the AVR25 to be a fine performer in the Harman Kardon tradition. That heritage is most evident in the hefty output power levels available for 4-ohm loads. Most of the other amplifier measurements also showed very good performance. The tone controls produced a non-flat frequency response when centered, however: a very slight bass rise and a -1-dB shelf above about 2 kHz. We were able to achieve flat response by turning the treble control to its 1-o’clock position and nudging the bass control down to just below its detent. But an easier way to even out the receiver’s frequency response is simply to hit the Direct button on the front panel, which bypasses the tone-control circuits altogether.

The tuner section was more middle-of-the-road in its performance. Capture ratio, AM rejection, and alternate-channel selectivity on the FM band were very good, but the frequency response, image rejection, sensitivity, and stereo signal-to-noise ratios were only average. Pilot-carrier leakage was unusually low (good). AM frequency response was typically dismal.

In general, the measured Dolby Pro Logic performance was also typical of a receiver in this price class. In Wideband operation, the center channel rolled off at low frequencies earlier than we usually find. Since most installations will use the Normal setting, which shunts center-channel bass to the front left and right speakers starting at an even higher frequency, this is of no major consequence. The slightly extended surround-channel treble response, relative to a more typical 7-kHz cutoff, was due mainly to a 2.3-dB peak near 7 kHz that delayed the required rolloff to a higher than normal frequency.

Pro Logic separation figures were fine, but the measured surround-channel noise was higher than we’re used to seeing (it wasn’t annoyingly audi-
The surround-channel overload margin indicates that there is a theoretical possibility of clipping that channel of the Pro Logic decoder with the very rare soundtrack that has high peak levels in the surround channels (or with a videodisc player with much higher than normal output). But we heard no evidence of overload in our listening tests.

Another surprise was the distinctly low surround-channel noise-reduction calibration point, which could lead to the surround outputs being overly prominent in laserdisc playback. Admittedly, many people think that even properly decoded surround outputs are too soft, so the AVR25's behavior here may not always be considered a fault. Moreover, the lowish calibration level probably brings the decoder more into line with the audio output levels of most VCR's, which are typically about 3 dB lower than those of laserdisc players.

Hookup was easy, thanks to the nicely arranged rear-panel facilities. I missed a subwoofer output, but the Pre-Out/Main-In connections are suitable for feeding a powered subwoofer or two, especially those with loopback high-pass-filtered outputs such as we used in our listening tests.

The AVR25's remote has all the controls necessary for balancing speaker levels in Dolby Pro Logic mode, a stupendous improvement over the AVR30's front-panel-only center-level knob. The speaker-balancing test signal mutes for a fraction of a second when cycling between channels, however, which makes aural level comparison more difficult (surround speaker balancing should preferably be done with an inexpensive sound-level meter in any case). The 2-dB steps provided for the center- and surround-speaker adjustments are also too large for really precise balancing. On the test bench, trying to match the levels of the other channels to that of the left front, I could do no better than 0.8 dB high on the center and 0.4 dB low on the surrounds. The disparity between fronts and surrounds therefore exceeded 1 dB, which can easily throw off a carefully balanced sound effect. During listening tests, I never felt confident that the level matches I obtained from the built-in test signal were any better. Such behavior is not unique to the AVR25, however. I would prefer to have a reduced control range on the center and surround outputs (the AVR25 provides an overly generous 70 dB) and finer gradations (more like 0.5 dB).

Once set up, the Dolby Pro Logic decoder proved accurate in imaging and sound steering. Use of a powered subwoofer (highly recommended with any medium-powered A/V receiver) enabled the AVR25 to produce sometimes enormous sound levels with special-effects-laden movies.

In contrast to my experience with some of the modes in the AVR30 and many other A/V receivers, for that matter — I found it difficult to make the AVR25's two ambience-enhancement modes sound bad. That is actually high praise for processing that can be effective in adding spaciousness to many kinds of music. There is little audible or measurable difference between the Theater and Stadium modes when they are at the same delay setting. Both send a single simulated reflection to the surround speakers, derived from the difference between the two input channels and delayed by a user-selected interval. There is no recirculating, dense-echo reverberation, however, which is probably just as well, such artificial reverberation being much easier to get wrong than right. Better safe than sorry.

A handsome component that is easy to set up and use, the Harman Kardon AVR25 is on the whole a very good receiver in its class. It is a safe recommendation for someone seeking solid but simple home theater performance at a reasonable price.

"... By the way, no trees were destroyed to make these speaker cones — they were manufactured from recycled disposable diapers."
Before attempting the operation of the Lifestyle® 12 home theater system, the following instructions should be carefully reviewed and memorized.

Operation is very intuitive...It offers style, versatility, and big sound in a small package." – Home Theater Technology

Push

One button. That's all it takes to experience the dramatic sound of the Bose® Lifestyle® 12 home theater system.

This is the surround sound system that simplifies home theater. Instead of a tower of components, you get a music center with CD player/tuner built in. Five acoustically matched speakers, each small enough to hold in the palm of your hand. And an easily hidden Acoustimass® bass module. (Not shown, because you won't see it in your home, either.) However, there is one last instruction you should follow. Hold onto your seat—after all, the sound is from Bose.

For more information and names of retailers near you, just push these buttons: 1-800-444-BOSE Ext.526
Mon.-Fri. 9-9, Sat. 9-5 ET

Better sound through research.
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Paradigm Export/BP Loudspeaker System

JULIAN HIRSCH • HIRSCH-HOUCK LABORATORIES

The Export/BP loudspeaker system, designed and manufactured in Canada by Paradigm Electronics, Inc., is a bipolar design with identical sets of drivers on its front and rear panels. The front drivers provide the signals normally heard from a conventional front-firing system, supplying program detail and image-localization information to the listeners. The rear drivers contribute spaciousness and in combination with the front drivers create a virtually omnidirectional sound field in the horizontal plane. The speakers are normally placed several feet in front of the wall behind them, so that the reflected output of the rear drivers is heard with a slight delay that contributes to the sense of ambience.

Each of the Export/BP's two sets of drivers comprises a two-way vented system consisting of a 6½-inch woofer crossed over at 1.7 kHz to a 1-inch soft-dome tweeter. Both sets of drivers are located near the top of the columnar enclosure, about 3 feet from the floor. The woofers share a common internal volume and exit port, near the bottom of the cabinet's back panel.

The enclosure is made of 1-inch-thick MDF (medium-density fiberboard) panels, heavily braced internally and damped by fiberglass and other materials. Each speaker weighs 55 pounds. The all-black cabinet is enclosed in a snug-fitting black cloth sleeve, or sock. The top and base are covered by wood plates that snap into place and hold the sleeve firmly (the bottom plate also has fittings for optional spikes, which are provided with the system). The end plates are available in a choice of finishes, including four woodgrains and a black gloss. The Export/BP is fitted with two pairs of gold-plated binding posts that permit biwiring or bi-amping. Recessed into the rear of the cabinet near its bottom, they are normally joined by gold-plated jumper strips.

The instructions furnished with the speakers are quite specific in the advice they offer on installation and placement. Paradigm also has a brochure ("The Elements of Better Speaker Design") that is refreshingly factual and free of hype — well worth reading whether you are in the market for its speakers or not.

We set up the Export/BP speakers as recommended, about 3 feet from the wall behind them and 3 to 4 feet from the side walls. The room response, averaged for the two speakers, was extraordinarily flat from 750 Hz to 20 kHz, with a ±1.25-dB variation over that range (and within ±2.5 dB down to 300 Hz). Almost unique in our experience, there was no trace of a response irregularity in the vicinity of the crossover frequency. This is the flattest response we have ever measured from a speaker over such a wide range that includes its crossover region.

The close-miked bass response reached a maximum at 170 Hz, falling by 6 dB at 65 and 750 Hz. Splicing it to the room curve was not as unambiguous as we would have liked, and the measured woofer output appeared...
to drop off faster than what we heard actually suggested. At the system's rated lower limit of 42 Hz, its output was clean and undistorted, and even at 32 Hz the room was filled with powerful, clean bass that gave no clue to the relatively small size of the speaker's woofers.

Horizontal dispersion was typical of good 1-inch dome tweeters. The output 45 degrees off-axis was down 4 dB at 10 kHz, relative to the on-axis response, and down 8 dB at 20 kHz.

Paradigm gives the Export/BP's sensitivity as 90 dB SPL (sound-pressure level) in a room and 86 dB in an anechoic environment; we measured it as 87 dB. The speaker's impedance is rated as 6 ohms nominal, and Paradigm specifies the minimum as 4 ohms, which we confirmed. The Export/BP clearly should be an easy speaker for any decent amplifier to drive.

With a 4-volt input, corresponding to a 90-dB-SPL output, the system's distortion was between 0.3 and 1 percent from 120 Hz to 2 kHz, climbing at lower frequencies to 3 percent at 40 Hz and 5 percent at 30 Hz — very impressive performance from a pair of 61/2-inch drivers. The small woofers were able to take single-cycle 100-Hz tone bursts of 325 watts into their 6-ohm impedance before the output became audibly raspy. At higher frequencies the system easily absorbed everything we could put into it with no sign of damage or distress, limited by the amplifier to between 500 and 1,500 watts in the range of 1 to 10 kHz.

The measurements essentially confirmed our impressions from the extended listening sessions that preceded them. Although the Export/BP's sound tended to be slightly "soft," there was no hint of boom or tubbiness. That can be credited to the system's combination of a remarkably clean and extended low bass together with the flattest middle- and high-range response we have seen from a speaker.

The system's basic imaging characteristics seemed to be determined entirely by its front radiation, as claimed. The vertical and lateral positioning tests of the Chesky JT-37 test CD produced stereo location effects as good as we have heard, apparently undiluted by the output from the rear drivers. But in addition to contributing to the system's overall low-bass performance, the rear drivers did contribute an unmistakable sense of air and space.

Although bipolar speakers are not new, Paradigm's execution of the concept is noteworthy. The considerable effort the company says it put into the Export/BP's drivers and construction has paid off handsomely in the speaker's superb performance.
Cinema DSP blurs the line between what

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

Yamaha Cinema DSP gives dialogue more definition. Music, more dimension. And sound effects, far greater realism, more graphic detail and superior placement. This breakthrough in realism 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.

While Dolby Pro Logic places 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.

After reading this ad, if you get the feeling that watching a movie with Cinema DSP makes a world of difference, you’re absolutely right.

But don’t just take our word for it. Hear it for yourself. Stop by your local Yamaha dealer for a demonstration today. It’s one demo that’s bound to change the way you look at movies forever. Or at least for a very, very long time. For the dealer nearest you, call 1-800-4YAMAHA.
Sunfire Stereo Power Amplifier

JULIAN HIRSCH • HIRSCH-HOUCK LABORATORIES

Bob Carver is recognized as one of the most innovative amplifier designers of our time. Founder of both Phase Linear and Carver Corporation (he is no longer affiliated with either company), he has been responsible for several of the audio world's most unusual and controversial products.

Carver's goal in his so-called "magnetic-field" amplifiers of the early 1980's was to make a highly efficient amplifier whose power-supply voltage "tracked" the signal envelope so as to minimize the power dissipation in the output transistors. At the time, he was unsuccessful in achieving that goal, although a signal-tracking power supply was included in his 1979 patent. The closest he came to a true signal-tracking supply in his magnetic-field amplifiers was a three-step approximation.

But that changed with the development of what he calls a "tracking downconverter." The tangible result is actually two amplifiers from two different companies — the Carver Research Lightstar amplifier, which we reviewed in the November 1994 issue, and the Sunfire amplifier, the first product from his new Sunfire Corporation. Although the two amplifiers operate on fundamentally similar principles, they differ in numerous design details, as well as in price, weight, and so forth.

A simplified explanation of the operation of the Sunfire amplifier is that the DC output of a conventional power supply is pulse-width-modulated by the audio signal. The supply delivers narrow pulses when the signal level is low, increasing the pulse width linearly with signal level. The result is that most of the amplifier's output voltage comes from the power supply, leaving only about 6 volts across the output transistors. The action of the switching system (the "tracking downconverter") is analogous to that of a transformer, converting a high voltage at low current to a lower voltage at higher current, but without significant power loss or heat generation.

The Sunfire amplifier is fundamentally a voltage source, with a very low internal impedance. As a result, its output voltage for a given input level remains constant as the load impedance is reduced, whereas the current output (and thus the power output) is inversely proportional to the load impedance. That characteristic is reflected in the amplifier's rated output of 300 watts per channel (from 20 Hz to 20 kHz at less than 0.5 percent total harmonic distortion) into 8 ohms, 600 watts into 4 ohms, 1,200 watts into 2 ohms, and 2,400 watts into 1 ohm. (The 2-ohm and 1-ohm ratings are based on intermittent operation, since few home power outlets are rated to deliver the required current.)

Bob Carver says that the tracking downconverter is fully effective at fre-
THE BEST VALUE IN HOME THEATER SPEAKERS IS A MATTER OF OPINION.

As I listened to the System 250, I felt as if I were part of the action, and that's exactly how it should sound with a good Home Theater speaker system. The System 250 was especially warm, producing deep, resonant bass, glass shattering surround effects, and crisp, clear dialogue. My only problem was having to give them back.

The Atlantic Technology System 250 continues to win the highest accolades, not just for its performance as a total system, but for the way each component performs individually. Therefore, when you purchase System 250 complete or as separate speakers, you'll know you're getting the finest value in Home Theater. And that's not an opinion. It's a fact. For more information or the location of your nearest dealer write or call:

Atlantic Technology
Dept. R1, 343 Vanderbilt Avenue, Hauppauge, NY 11788 Tel. 617-762-6300

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TEST REPORTS

quencies up to about 7 kHz. Because of speed limitations in the switching system, the circuit's efficiency drops progressively at higher frequencies and at 20 kHz is little better than that of a conventional amplifier. That is not a problem in normal listening, however, since the higher audio frequencies are not usually present at high levels for an extended duration (if they were, few tweeters would survive). In addition, an internal ultrasonic filter sharply reduces the amplifier's response above 100 kHz.

The Sunfire amplifier is a fairly large and heavy unit, finished in black over its entire aluminum exterior. It has no switches or controls, only a single, softly lit meter in the center of the front panel. The meter, calibrated in joules, is marked "POWER SUPPLY ENERGY" and is, for all practical purposes, a high-tech pilot light. It reads a constant 380 joules unless the amplifier is delivering its full output, in which case your speakers or your eardrums are probably in shreds!

Since the amplifier has no power switch, and would therefore normally be turned on and off from a switched AC line output on a preamplifier, we were concerned about the ability of a typical preamplifier power switch to handle its potential kilowatts of output. Bob Carver told us that the amplifier's drain on the AC line is minimal under no-signal conditions, however, and we measured it at a surprisingly low 40 watts or so. In fact, we left it on continuously for a week and it never became detectably warm to the touch. Even in normal listening, it was never more than faintly warm.

On the back of the Sunfire are separate inputs and outputs for the two channels. For each channel there are two phono jacks, marked "LAB DIRECT", and along with a standard three-pin Cannon-type balanced input, the "NORMAL" jack rolls off the response at infrasonic frequencies, to -3 dB at 1 Hz, whereas the direct and balanced inputs will pass DC.

Each channel has two separate outputs, through gold-plated binding posts that accommodate banana plugs, lugs, or wires. The outputs are marked "CURRENT SOURCE" and "VOLTAGE SOURCE" and have respective source impedances of 1 ohm and nearly zero. The "CURRENT SOURCE" output simulates the output characteristics of a vacuum-tube amplifier, whereas the "VOLTAGE SOURCE" output is typical of good low-output-impedance (high-damping-factor) solid-state amplifiers. The two sets of outputs can be used simultaneously, if desired, with biwireable speakers. Mono operation of the amplifier is also possible, either by parallel operation of both channels (through the 1-ohm "CURRENT SOURCE" outputs) or by series bridging via the balanced inputs.

The Sunfire amplifier comes with a heavy glass plate that can support the entire chassis. This is suggested as a means of raising the amplifier above a carpet (if it's placed on one) to prevent blockage of the airflow under the cabinet, although that seems an unlikely problem in a normal home installation.

We tested the Sunfire into loads of 8, 4, and 2 ohms, driving only one channel at a time to prevent interruptions from circuit breakers tripping on our AC line (we did blow the amplifier's own 10-ampere fuses on several occasions and had to resort to temporary use of 20-amp fuses to push the Sunfire to its limit into 2 ohms).

The Sunfire amplifier easily surpassed its published ratings, which are based on a limit of 0.5 percent distortion. Its distortion below the clipping point was typically well under 0.05 percent, and its dynamic and clipping-level power outputs were practically identical, as one would expect from a true voltage source. Indeed, the Sunfire proved to be a superb performer in every respect — as close to an ideal amplifier as we have ever encountered. It ran cool, sounded great, and undoubtedly could drive any loudspeaker on the face of the earth with complete aplomb. Once again, Bob Carver is off to an exciting start.
ALL BIPOLARS ARE NOT CREATED EQUAL!

8 Critics’ Choice Awards* and 5 Product of the Year Awards* in the past year alone, and over 40 Awards since 1990 makes Paradigm the number one choice for critical listeners!

“Stunning!”
- The Inner Ear Report on the Esprit/BP

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AudioSource says it designed the SW Four powered subwoofer to be compatible with a wide variety of loudspeakers, and consequently it is equipped with a full complement of adjustments. Physically, however, it is an almost featureless black box meant to be placed on the floor in (usually) an inconspicuous location.

The subwoofer is raised 2 inches off the floor by four sturdy feet, and its 12-inch downward-facing driver radiates its output through that gap. The driver itself has dual voice coils that effectively sum left- and right-channel inputs to mono. The ducted enclosure is filled with a sound-absorbing material, and its port is close to the woofer on the bottom of the cabinet.

Also on the bottom is a panel with the SW Four’s inputs, outputs, and operating controls. The controls include small knobs that enable continuous adjustment of the crossover frequency, from 40 to 180 Hz, between the subwoofer and the main speakers and of the subwoofer’s output level. The SW Four also contains a 150-watt amplifier whose heat-radiating fins are at one end of the enclosure.

Connecting the subwoofer to an audio system is a simple process, with two basic options: high-level input (through insulated binding posts) from the system amplifier’s loudspeaker outputs, or line-level input (through standard phono jacks) from preamplifier outputs. Either way, the incoming signal is filtered through the crossover circuits, which send the bass frequencies to the subwoofer amplifier and the higher frequencies to the main loudspeakers or to the main speaker amplifiers.

The remaining controls (both slide switches) are a three-position power switch and a phase switch that introduces a 180-degree phase shift (a waveform polarity reversal) into the subwoofer output to compensate, if required, for the unavoidable difference in arrival time of sounds from the subwoofer and the main speakers. In some cases such reversal will yield a better blend of the outputs from the subwoofer and the main speakers. The power switch, in addition to on and off settings, has an Auto position that is its normal recommended setting. In Auto, the subwoofer switches on automatically when a signal is received and shuts off after no signal has been present for several minutes.

The SW Four’s somewhat sparse specifications include an overall frequency range of 20 to 250 Hz and a signal-to-noise ratio (S/N) greater than 90 dB. Its instruction manual is complete and clearly written and includes interconnection diagrams that cover any likely application.

We measured the SW Four’s frequency response with close microphone spacing at each of the marked crossover frequencies — 40, 80, 120, and 180 Hz. The response from the cone was broadly peaked, with its maximum level occurring between 60 and 100 Hz at the higher settings and dropping to the range of 60 to 80 or 90 Hz as the crossover frequency was reduced. The output level from the speaker also fell off rapidly as the
crossover frequency was reduced, measuring 10 dB lower with the 40-Hz setting than with the 180-Hz setting.

Although that behavior may seem odd, it is actually of little significance to the user. The adjustment of these controls must, in any case, be done by ear, so one will normally turn up the level control to compensate for any reduction in output when the crossover frequency is lowered.

We also measured the output from the port, which proved to be very strong and had the effect of flattening out and extending the system's low bass range.

Using the 180-Hz crossover setting and with the output set for a 90-dB sound-pressure level (SPL) at 1 meter from the cone (with the subwoofer upside down), the SW Four's distortion was between 1.2 and 2.5 percent from 55 to 450 Hz. At lower frequencies the distortion increased, reaching 9 percent at the subwoofer's effective lower limit of 40 Hz.

These results have to be interpreted in light of the SW Four's intended function, which presumably is to obtain a worthwhile low bass output in a system whose main speakers lack that ability. We operated the SW Four in conjunction with a pair of small, inexpensive speakers whose response fell off below about 70 Hz. When we adjusted the subwoofer level and crossover frequency by ear, the results were quite satisfactory, with a respectable degree of low-end "body."

The other side of the coin (as with any subwoofer) is that the SW Four can easily be misadjusted to produce the kind of boomy bass often associated with speakers having inadequate woofer systems. The calibrations of its controls are rough approximations at best, and they may even be worthless for establishing the desired system response with some main speakers. Also, as a general rule, a subwoofer crossover frequency in excess of 100 Hz may cause undesirable effects, such as localization of the subwoofer position.

Bearing those cautions in mind, however, we found the AudioSource SW Four subwoofer to be an inexpensive, versatile, and effective means of enhancing the low bass performance of a modestly priced speaker system.
Like extras in a Stallone or Schwarzenegger flick, surround speakers are easily overlooked, even though they play a critical role in bringing movie soundtracks to life both in the theater and at home. Surround speakers actually accomplish two tasks. First, without calling attention to themselves, they must deliver the ambience cues — acoustic reflections, echoes, and environmental noises such as crickets and wind — that help pull us into the illusion of "being there." And, second, they must also occasionally reproduce louder, discrete sound effects, like the roar of a Klingon cruiser as it zooms directly toward the audience and overhead.

Energy's RVSS surround speaker ($550 a pair) uses two 5¼-inch woofers and two ¾-inch soft-dome tweeters in a configuration said to provide dipolar radiation above 400 Hz for good diffusion and bipolar output below 400 Hz for extended bass response.

Meanwhile, the front speaker trio is left to handle most of the music, the dialogue, and just about every imaginable kind of sound effect.

Consequently, a surround speaker's job is very different from that of a home theater's front speakers, which must provide auditory localization precise enough to track the on-screen action. A surround speaker's primary mission is to produce a diffuse sound field — one that excels in creating a sense of ambience and sonic envelopment rather than pinpoint imaging, and in which the speakers themselves are not easily localized. Placement requirements are very different, too. Depending on the room and type of speaker, surrounds can be located high on the side walls about even with the seating area (the most commonly recommended ideal), suspended from the ceiling, splayed outward on the rear wall, placed on the floor in the back corners firing toward the ceiling, or positioned elsewhere as space dictates and ingenuity devises.

Considering the important role sur-

The Sonance AiS500 ($499 a pair) is one of the few in-wall speakers designed expressly for surround-channel reproduction. Its 4-inch woofer, 3½-inch midrange driver, and ¾-inch dome tweeter are arrayed on angled baffles to disperse their output into the room.

The Definitive Technology BP1 ($350 a pair) is a small bipole loudspeaker designed to mate well sonically with the company's other speakers. It uses two 4½-inch polypropylene-cone woofers and two ¾-inch soft-dome tweeters and is available in black or white.
round speakers play in the overall performance of a home theater system, it’s surprising how little discussion (let alone debate) there is on the topic. One reason for this may be that many of us already have a pair of orphaned Small Advents, Dynaco A25’s, or similar Sixties-era bookshelf speakers salted away in the attic or garage that we gleefully resurrect when it’s time to find a pair of speakers to assume surround duties in an expanding A/V system.

Fortunately, that approach usually works reasonably well, because the surround-channel demands in a conventional Dolby Pro Logic system are relatively modest. The Dolby Surround standard calls for the monaural surround signal to be rolled off below 100 Hz and above 7 kHz, so speakers handling surround duties need not deliver deep bass, extremely high frequencies, or particularly high acoustic output. (You may nonetheless come across a few movies that exhibit deep bass in the surround channel, which is one reason some people advocate full-range surround speakers.)

The basic requirements for a good surround speaker include decent midrange performance, good dispersion (the wider the better), and adequate sensitivity (the ability to achieve moderate sound levels with a modest power input). That’s about it. While many older bookshelf designs may fall down on the dispersion question, most meet the other criteria quite well.

“Quite well” doesn’t necessarily mean optimally, however, so speaker manufacturers have been quick to introduce a variety of specialized surround speakers, tailor-made to reproduce ambience and sound effects. A major impetus in this flowering has been the influence of Lucasfilm’s Home THX certification program, which calls for surround speakers that are dipole systems. (THX technical refinements are intended to enhance the reproduction of movie soundtracks at home.) Consequently, many of the surround speakers on the market use a dipole design, which achieves a figure-eight-like radiation pattern by joining two opposite-facing driver components, wired out of phase, in one cabinet. Other speaker makers opt for a variation on the dipole theme known as a bipolar or dipolar speaker, in which two driver “halves” work in phase, resulting in more of an omnidirectional radiation pattern (see “Poles Apart: Dipoles and Bipoles Decoded” on the facing page).

At the same time, some manufacturers issue conventional speakers in identical quartets or quintets (including a center speaker), on the theory that all of the speakers in a home theater system (except the subwoofer) should be the same in order to provide integrated sound throughout the listening area. Still other surround systems rely on multiple drivers in various arrays to disperse sound as evenly as possible throughout the listening area. Which sort of surround speaker is right for your system? Without coming over and personally auditioning your setup, it’s hard for me to say. But getting to know the specifics of the different designs will help you narrow the field. The primary advantages of dipole speakers are that they are difficult to localize (when properly situated) and deliver spacious sound. The downside is that placement requirements are somewhat limiting: Ideally, dipoles should be spotted on the side walls about 5 to 7 feet off the floor, approximately even with and equidistant from the listeners. Of course, you can get away with some deviations from these rules.

Most THX-certified dipole surrounds come with expensive home theater speaker suites and may cost as much as $1,000 a pair or more if available separately. On the high end of the scale is the Fosgate Audionics SD 180 ($1,850 a pair), which offers extensive flexibility and configurability. When the SD 180 is bi-amplified (two channels of power per speaker) and used in conjunction with the company’s flagship Model Three surround processor, for example, it works as either a conventional (monopole) speaker or a dipole, depending on the surround program selected. At the other end of the spectrum is Boston Acoustics’ Model 575x ($500 a pair), which saves money by employing a single 5¼-inch woofer in conjunction with two 2½-inch midrange/tweeters in a dipole configuration.

A number of less costly, non-THX-certified dipoles have also become available in the past year or so. The onslaught has prompted Lucasfilm, holder of several patents relating to di-
Poles Apart: Dipoles and Bipoles Decoded

Hold a couple of identical marbles 2 inches apart and drop them into a bathtub of very still water. What you'll likely observe — unless you're lucky and they hit the water at precisely the same instant — is a pattern of ripples shaped like a flattened figure-eight (≈), with relatively weak and confused ripples to the sides. That mirrors the principle behind dipole surround speakers, except that the medium is air instead of water and the waves acoustic rather than liquid.

The two marbles represent a pair of identical driver sets (usually a simple woofer/tweeter complement) squeezed back to back in a single enclosure. The driver complements are wired out of phase, so that the cones of one speaker set move inward as the cones of the other move outward, and vice versa. (Actually, the type of speaker discussed here is more accurately termed a "quasi-dipole" since a true dipole uses a single push-pull membrane rather than two or more back-to-back diaphragms.) Consequently, sound radiates freely forward and back, but to either side radiation is severely curtailed, thereby creating a dead spot, or null, especially at frequencies whose wavelengths relate to the spacing between the drivers.

This phenomenon is exploited by positioning the speaker so that the null of its figure-eight radiation pattern is oriented toward the listeners on one side and against the wall on the other. As a result, very little direct sound and few early reflections reach the listeners' ears. Instead, the sound bounces off the walls, ceiling, floor, and furniture before hitting their ears, which helps creates that sense of sonic envelopment that brings movie soundtracks to life.

Bipole speakers, which are also commonly promoted for surround-sound use, are identical to dipole designs except that their back-to-back driver complements are wired in phase with one another. That produces a radiation pattern that's closer to omnidirectional, equally strong in all directions (though there is a mild reduction in certain frequencies to the sides). Going back to the bathtub analogy, it's the type of ripple pattern that would be created if you did, in fact, drop those two marbles with perfect synchronization.

Adherents of the bipole school claim an ideal balance of reflected and direct sound for the design, which they say makes it easier to localize discrete off-screen effects like gunshots, screams, etc. (Most favor using bipole speakers for the front left and right channels as well, citing their open, spacious sound and smooth power response.) Bipole surrounds are also claimed to be significantly less sensitive to placement than dipoles because of their near-omnidirectional radiation patterns.

— D.K.

KLH's novel V-01 ($200) is designed to handle all surround-channel chores on its own, mounted on the floor against the wall behind the listening area with its dipole drivers firing out toward the side walls. It has two 8-inch woofers and two 1-inch tweeters.
most other locations. The quasi-wedge-shaped speaker has a conventional dipole layout with a 4½-inch woofer and 1-inch tweeter on each of its slanted baffles, and it can be mounted with its baffles facing up or down, depending on how close it is to the ceiling.

Beyond dipole and bipole designs, manufacturers have introduced dozens of multipurpose “A/V” speakers over the past couple of years. Some include clever brackets that accommodate shelf, wall, or ceiling mounting, and many are offered in five-speaker surround-sound suites. A good example is Celestion’s CinemaStyle MP1 ($199 a pair), which combines a 4-inch woofer and 1-inch tweeter in a compact and very stylish molded cabinet featuring an integral bracket/stand with a pivoting stalk.

Finally, there are a number of surround-speaker designs that defy categorization, either by combining existing formats or by creating entirely new ones. KLH’s unique V-01 ($200), a single-point dipole design featuring a trapezoidal enclosure with an 8-inch woofer and a 1-inch tweeter on each side, is an example of a speaker that creates its own category. It’s intended to be centered on the floor directly behind the seating area, with its null aimed toward the listeners and each driver pair facing upward at a 15-degree angle. The result is said to be improved dispersion of surround effects, with the savings in cost and complexity of a single unit.

The zero space demands and near-invisibility of in-wall speakers make them a very tempting surround-channel option. But because in-walls tend to radiate sound straight out from the wall, it’s nearly impossible to find a location that doesn’t beam sound directly toward the listeners. It’s tough to experiment with placement for an in-wall, too, and even tougher to change locations once a speaker is installed.

Despite those challenges, several makers offer surround speakers designed to be flush-mounted in a wall. Some of these, including models from Snell and Triad, to name but two, are relatively high-ticket. THX-certified dipole designs that manage the trick by permitting an angled, dual midrange/tweeter array to protrude a few inches from the wall. A less expensive example is Sonance’s AiS500 ($499 a pair), an in-wall “ambient” speaker with three drivers on two angled baffles that claims broad, nondirectional dispersion.

**Surround Speaker DO’S and DON’TS**

Whatever sort of surround speakers you end up with, a few general rules apply to most setups.

First, though, the biggest “do” of all: Experiment with placement. Play a movie scene with lots of ambient sound and some three-dimensional effects while listening to the surround channel alone (turn off or disconnect the front three speakers). Try different locations until you find the ones that produce smooth, well-distributed sound with a well-balanced midrange and upper bass that is free of “hot spots.”

- **DO** consider placement carefully, rather than simply putting the speakers on the floor or a back-of-the-room shelf. Higher is usually better (at least a foot or two above your seated ear level).

- **DON’T** aim the speaker directly toward the seating area. When too much direct sound reaches the listeners’ ears, it becomes easy to localize the speaker — the opposite of what you want to achieve.

- **DO** try to arrange the surrounds more or less symmetrically relative to the listening area. If one surround is much closer to the listeners than the other, “precedence effect” will inexorably pull their attention to that side.

- **DON’T** place surround speakers smack in a three-surface corner if you can help it. Though surround bass is usually limited, corner placement may exaggerate surround-channel midbass, subtly muddying the system’s overall tonal balance.

- **DO** look for surround speakers that are tonally similar to your front speakers. A perfect match isn’t critical, but bright-sounding surrounds paired with smooth or even dull-sounding front speakers will stick out.

- **DON’T** forget about sensitivity. A 3-dB increase in surround-speaker sensitivity is like doubling your surround-channel power. And while it’s true that the surround channel’s power demands are (usually) modest compared to that of the front trio, surround power from typical systems (especially A/V receivers) is also modest. Don’t underestimate the value of ample, clean surround-channel dynamic range.

—D.K.
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Tired of that tiny TV?
A big-screen set will bring your home theater to life.

As recently as a decade ago, if you wanted a big-screen television your choices were few and, frankly, not very attractive. Projection sets were clunky and expensive, they produced fuzzy images, and the picture all but vanished if you walked too far to one side of the screen. The biggest tube set you could buy had just a 25-inch screen, often in a cabinet only grandma could love.

Boy, have we come a long way! Today, spurred by the nation's growing love affair with home theater, big-screen TV's — tube sets and projection sets alike — represent the fastest-growing segment of TV sales, while the entire category continues to post record sales. More than 26 million color TV's were sold in the U.S. last year, an astonishing figure when you consider that virtually every home already has at least one TV, and many have two or more.

If you're in the market for a new television, one with a screen large enough to make it the centerpiece of an awesome

by James Barry
Boasting a 60-inch screen in a cabinet that's only 24 inches deep — some 30 percent slimmer than previous-generation sets — RCA's rear-projection P61752EB ($3,299) features an on-screen menu system, a channel-guide mode that displays snapshots of twelve channels simultaneously, and a picture-in-picture mode with an adjustable inset window for viewing a second video source. A universal remote control is included.

At $5,995, the 66-pound TGS 200 HP is Vidikron's least expensive video projector. It projects images of between 5 and 15 feet (measured diagonally) and has three A/V inputs (one S-video) and line-level stereo audio outputs. A remote control and ceiling-mount brackets are included.

Hitachi's 46-inch rear-projection 46UX17K ($2,499) is said to be capable of delivering 950 lines of horizontal resolution and features an artificial-intelligence processor that monitors conditions such as signal quality and ambient light and automatically adjusts color, brightness, and other parameters to improve the picture. Housed in an oak cabinet, the set is also equipped with a Dolby Pro Logic decoder and a remote control with illuminated keys.

Home theater the whole family can enjoy, you're in for a treat. Today, there's a host of screen sizes, models, designs, and features to choose from, regardless of your tastes or the heft of your wallet. No matter how much you spend on your home theater system, you'll be disappointed if the TV picture isn't big, bright, and beautiful, so you'll want to consider your purchase carefully.

And there's a lot to consider, beginning with how and where you're going to use your new set — the size of the room, the type and source of programs you and your family watch most, and the number of audio and video components you already have or are planning to purchase and use in your home theater setup.

Color television — even at its biggest and most expensive — remains one of the best values around for your hard-earned dollars. The new generation of big-screen TV's use digital circuits to enhance picture quality, create on-screen setup and diagnostic menus, and deliver nonvideo information (like closed captions for the hearing-impaired). Some even provide access to on-screen program guides so that you can keep track of all those channels.

And on the audio side, a stereo decoder is standard equipment.

How Big Is Big?

First let's talk about screen size. Just how big is a "big screen"? It's difficult if not impossible to realize a theater-like experience at home — that combination of big picture and big sound that puts you right in the action — with a tiny screen. A 27-inch screen (all measurements are diagonal) is really the bare minimum for home theater, and even that will suffice only in a relatively small room. The rule of thumb is that for optimum viewing you should sit a distance from the screen that's approximately two-and-a-half times its diagonal measurement. With a 27-inch screen you should be about 5 feet away, with a 35-inch screen about 7 feet away, and so on. That suggests a pretty big room once you start talking about projection TV's with screens 50 inches or larger.

Conventional direct-view sets, those that have a glass picture tube, come in screen sizes up to 40 inches. The most widely available big-screen tube TV's are 31- and 35-inch models from many different manufacturers; Magnavox,
Sony, Toshiba, and Zenith market 32-inch sets, and Toshiba also offers a pair of 30-inch models. With price tags ranging from roughly $1,000 to $3,000, these sets will satisfy the needs of most homeowners and apartment/condominium dwellers.

If you have a really large room, you can choose from rear-projection TV's with screen sizes from 45 to 80 inches, the latter a brand new leviathan from ProScan that carries a suggested retail price of $8,499. Unlike direct-view TV's, in which the face of the picture tube is the screen, rear-projection sets use three small cathode-ray tubes (red, green, and blue) and a series of mirrors to project images on the inside surface of a translucent screen.

Two-piece front-projection systems represent yet another option, albeit typically a very expensive one. Comprising a relatively compact projector, often mounted on the ceiling, and a separate screen that is usually larger than even the largest rear-projection screens, these systems are not really TV's in the traditional sense because they're designed primarily for use with high-resolution sources like a laserdisc player and don't include a TV tuner. Front projectors start at $3,000 (for Sharp's least expensive LCD projector) and run to well over $10,000.

It's almost impossible to find a truly poor television these days, especially in the higher-ticket big-screen category. The top sets from most brand-name manufacturers offer consistent picture quality and similar convenience features. That's not to say that all high-end sets "look" the same — they don't. Each has its own distinct character. It's just that differences in picture quality are not as pronounced as they once were. There was a time when the difference in picture quality between projection sets and direct-view TV's was dramatic, but the gap has narrowed considerably in recent years. In some cases it's all but imperceptible — many retailers even display the two types side by side. The decision to buy projection or direct-view is increasingly one of taste, style, and room size. But individual impressions of picture quality are especially subjective, so focus on TV's that suit your particular taste.

Mitsubishi, a pioneer in big-screen technology and marketing, was an early leader in the projection-TV market.
JVC's 31-inch AV-31BX5 ($1,599) features a black-level expansion circuit to improve picture contrast and a universal remote control with a help button that displays operating instructions on screen. The set also has a picture-in-picture mode said to deliver a sharper image than previous JVC TV's and a child timer (for limiting daily exposure to Barney and Baby Bop).

Never again will you have to tear your couch apart in search of that "remote" remote control thanks to the Remote Locator feature offered on Magnavox's 32-inch TP3290B ($1,099). Simply press the power button and the remote beeps for 30 seconds, or until you find it and press one of its keys. The set also has a Smart Sound mode that automatically subdues those annoying volume spikes that often occur when a broadcast or cable station cuts to a commercial.

Fans of the Late Late Show will appreciate Sony's inclusion of a pair of infrared wireless headphones with its 32-inch KV-32XBR37 ($1,799, shown with optional stand). The set features dual-tuner picture-in-picture for displaying two TV programs at once, a "stand-up" universal remote control, an "orchestra seat" audio-effects mode, and several A/V jacks, including three rear-panel inputs (one S-video), a front-panel input, and a variable-level audio output.

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light to penetrate the tinted screen and produce a bright picture with good contrast, color, and sharpness. Flatter tubes provide wider viewing angles with less distortion in the corners and along the edges of the picture. Panasonic made a big splash several years ago with its SuperFlat tube, now offered in several models, including the 31-inch CT-31SF22 ($1,299). Sony has long maintained that its Super Trinitron tubes, like the one in its 32-inch KV-32XBR96S ($2,599), are the flattest on the market, while Toshiba claims that the FST Perfect tube in its CX35D70 ($2,599) has the flattest 35-inch screen you can buy.

**Widescreen Wonders**

Widescreen sets with a movie-theater-like 16:9 aspect ratio (instead of the standard 4:3) were introduced to much fanfare a couple of years ago, but they have proven slow to catch on in the U.S. although they are enjoying robust sales in Japan. Billed here as a precursor to high-definition TV (HDTV), the sets have been encumbered by high price tags and a lack of programs beyond existing letterboxed films on laserdisc and videocassette.

On the direct-view side of widescreen TV, RCA's G34170AT 34-inch set carries a suggested retail price of $4,499 and Sharp's 34W1000 34-inch Wide Vision TV lists for $3,995. On the projection side, Toshiba's 56-inch TW56D90 Theaterwide set lists for $4,999 and JVC's 55-inch NV-55BX4 for $4,499, and Pioneer offers three models that boast a slightly wider 16:10.7 aspect ratio, including the 50-inch PRO-97 ($5,000).

Like most high-end TV's, these widescreen sets include S-video jacks that separate the luminance (black and white) and chrominance (color) portions of a video signal to deliver the best possible picture quality from high-resolution sources like laserdisc players and Super VHS VCR's. The sets also offer picture-expansion modes that stretch standard 4:3 TV images to fill the wider screen.

**Keep It Simple**

Despite their increasing technological sophistication, today's televisions are fairly easy to operate. Remote controls are becoming less complicated, with fewer buttons, and control routines are becoming more intuitive. And graphic on-screen interfaces that provide an easy-to-follow menu of op-

The PanaBlack picture tube used in Panasonic's 35-inch CT35S31 ($2,099) is said to achieve a 40-percent improvement in contrast compared with other Panasonic TV's. The set also features a switchable artificial-intelligence circuit that automatically adjusts color and contrast, a menu system that displays easily identifiable icons, picture-in-picture, and a favorite-channel memory for up to twenty channels.
tions are common. Some sets even allow you to choose the "color temperature" you like best. Four new 32- and 35-inch Toshiba FST Perfect models include three color-temperature modes — cool, medium, and warm. The cool setting makes reds slightly more prominent, and the warm setting gives the picture a bluer tint.

The ProScan line from Thomson, RCA's parent company, includes an on-screen graphics menu with text and icons that help you adjust color temperature and much more. Setup instructions include detailed full-color renderings of the back panels of a VCR and TV to show you exactly where to connect each wire. If you're setting up a surround system, you can access an on-screen graphic display of a typical living-room scene, and a menu walks you through the adjustment options.

Some sets come with two remotes, a simple unit that controls only basic functions, like channel selection and volume, and a more sophisticated one with lots of buttons. Several of Zenith's big-screen TV's, like the 52-inch PV5269BT projection set ($2,699), include a multibrand remote that operates other brands of TV's and VCR's and an "everyday" remote that has only seven buttons.

If your primary problem with remote controls is simply finding the darn things, Philips offers a Remote Locator on some of its Magnavox and Philips sets. Push the TV's power button and the remote beeps for 30 seconds — or until you locate the device and touch one of its buttons.

All Those Channels

The best new TV in the world isn't going to help if you can't find the programs you want to watch (or record). It's easy if you're using a VCR or laserdisc, but what about those 500 channels that will be coming in through your cable, over the air, or by satellite? How are you going to find your favorite needle in that electronic haystack? A growing number of TV's are equipped to receive the StarSight on-screen program guide, a service available for a monthly subscription fee from StarSight Telecast of Fremont, California, and cable/satellite TV operators. In addition to displaying a grid listing seven days' worth of programming details for every channel your TV receives, the service also provides one-touch VCR recording capability, one-button access to on-air programs, and many other features. StarSight is now offered on a number of sets from Zenith and Mitsubishi and is expected to be available from Sony, Goldstar, RCA, Samsung, and Philips/Magnavox in the near future.

Another hot feature is picture-in-picture (PIP), which comes two basic ways — dual-tuner, which allows you to watch two broadcast programs at once, and single-tuner, which requires another video source such as a VCR. Some systems let you adjust the size and position of the inset picture and switch the sound between the main picture and the inset.

Of course, today's TV crop offers countless other features. One company is even considering adding an instant-replay mode to some of its sets in the hopes of exciting sports fanatics. So the sooner you get off the couch and hit the shopping trail, the sooner you'll be able to find that perfect big-screen TV — the one that will bring the theater home.

James Barry, a Boston-based writer specializing in home video and consumer electronics, has been covering the field for twenty years.

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**TV Audio: What To Expect**

**Home theater means big sound as well as a big picture, so TV makers have gone out of their way in recent years to enhance the audio performance of their most sophisticated big-screen models. Nowadays, almost all such sets incorporate much better-sounding drivers than the tiny squawkers used in TV sets of yore, and some have built-in surround-sound processors.**

Of course, chances are your home theater plans include an A/V receiver or a discrete surround-sound processor, so you should probably focus on sets that don't go onboard on the audio side. Why pay for a built-in surround decoder when you already have one? In any case, be sure to take into account the A/V equipment you're going to use with the set. Examine the TV's rear jack panel to make sure it can accommodate the kind of hookup scenario you envision, and consider how the set will mesh with your center speaker, which will more than likely rest on top of it. Also check the power ratings of the set's onboard amplifiers. The more oomph the better, because there are plenty of TV viewing opportunities that just don't require the support of a whole surround-sound system.

Some sets, like Toshiba's 56-inch TW5600 widescreen projection model, come with a built-in Dolby Pro Logic decoder. The TW5600 also includes a "subwoofer" and comes with two stand-alone surround speakers; total power output is 68 watts. Other TV's incorporate digital signal processors that simulate the ambience of various venues, like a jazz club or concert hall. In addition to both digital ambience and Dolby Surround processing, Sony's XBR7 sets — the 27-inch KV-27XBR96S ($1,699) and 32-inch KV-32XBR96S ($2,599) — feature side-mounted component speakers that can be detached to add realism and dimension to the sound.

RCA's Home Theater series big-screen TV's include the Hughes Sound Retrieval System (SRS), which provides a three-dimensional sound effect using only the set's built-in speakers. Hitachi offers what it calls a Spatially Equalized Sound (SES) system in its 31-inch 31UX5B ($1,099) that uses acoustic chambers to project sound through thin grilles next to the picture tube. Zenith calls its version of digital sound processing Spatial Equalization (SEQ). The system is said to improve bass response and high-frequency clarity as well as widening separation to enhance the surround-sound effect.

So even if you don't need it, a built-in audio system of some sort is part of the package when you buy a big-screen TV today. And for watching the soaps, most can deliver decent sound. But for serious home theater, stick with the outboard surround-sound system you probably already own, or are planning to buy.

— J.B.
As virtually every speaker manufacturer rushes to deliver “home theater” speakers to the marketplace, M&K amasses nearly twenty years of experience in the field—dating back to Hollywood screening-room installations in the 1970s.

M&K engineers have spent well over a decade studying the varied aspects of surround sound—including encoding and decoding; soundtrack recording; and the differences between reproducing sound in theaters and in homes.

M&K speakers excel in the reproduction of all source material. Accuracy, low coloration, pinpoint imaging, wide dynamic range, and deep-bass reproduction are all critical for music as well as film soundtracks. M&K Satellites and Subwoofers have been acclaimed for these attributes since the ’70s.

And this is why M&K knows that any speaker that claims to be optimized for either music or film sound, one at the expense of the other, will never reproduce either one properly.

**M&K Home Theater Systems**

Conventional speakers make the music and effects on film soundtracks compressed and dull. But M&K’s exciting dynamics and “quick” transients give you precise 3-D imaging and a lifelike presence.

M&K Satellites are timbre-matched, using virtually identical speaker drivers, crossovers, and frequency response, for a seamless 360° surround-sound performance. With an all-M&K home theater system, voices and effects do not change character when their sound moves from left to right or front to back in your room.

Even if you are just adding an M&K subwoofer, front/center, or surround speaker to your present system, M&K’s unique timbre controls allow you to “fine-tune” the sound of your new M&K speakers to achieve the closest possible timbre-match with your existing speakers—even if they are not M&Ks.

**M&K Center Channel Speakers**

Beware of inexpensive “center channel” speakers. In Pro-Logic, the center channel speaker is driven the hardest, and often reproduces as much sound as the left and right speakers combined.

Each one of M&K’s six individually-available Satellites has exceptional dynamic range and high output to meet and exceed the tremendous demands of the center channel.

**M&K Powered Subwoofers**

Legendary for their massive output, exceptional detail, and articulation, M&K’s thirteen internally-powered Subwoofers set the industry’s standards for high-performance deep bass.

M&K’s innovative Push-Pull Dual Driver subwoofers deliver a major improvement by virtually eliminating even-order harmonic distortion, and doubling efficiency (same as doubling amplifier power) with four times the output of single driver subwoofers.

Whether you choose our state-of-the-art Home THX Audio speaker system, an add-on set of surround speakers, or anything in between, no other speakers will give you the exciting performance, sound quality, flexibility and compatibility of M&K’s home theater component speakers.

**M&K COMPONENT SPEAKERS FOR THE HOME THEATER**
Amps... new technologies test the limits

POP off the connector panel cover of a Kicker si-series or X-series amplifier, and you'll immediately see what sets these amps apart from the rest of the car audio world...an innovative module docking port that accepts and powers an amazing array of active signal processors. These modules become a part of the amplifier's circuitry, eliminating the need for expensive outboard processors, cables, and all the problems (like noise and ground loops) they can cause.

Where's the Box?

At the recent Consumer Electronics Show people were baffled (pun intended) by the AEE (Active Electronic Enclosure), a module that lets deck-mounted Kicker Freear™ woofers perform like Kicker Competition™ woofers in sealed enclosures. We'll repeat that...YOU DON'T NEED A BOX TO GET SUBWOOFER PERFORMANCE THAT USED TO REQUIRE A SEALED ENCLOSURE!

KICKER X-series Competition Power Amps...
all-out high current performance for serious competitors

But that's not all. The ACR (Active Center / Rear Fill) module creates center channel and/or rear fill signals which may be assigned to either or both amplifier channels. The AEQ (Active EQ) module adds an extra low bass "kick" for you boomers out there. The ARG (Active Remote Gain) module lets you control amplifier gain from in the car, great for fine-tuning subwoofer volume.

Three 24dB/octave active crossover modules allow cascading amplifier/module combinations for bi-amp, tri-amp, or quad-amp systems. Crossover points are selected through the use of supplied chips. The ASW (subwoofer) comes with 60Hz, 80Hz, and 100Hz chips, the AMR (midrange) with 175Hz, 250Hz, 350Hz chips, and the ATW (tweeter) with 3.5kHz and 4.5kHz chips.

You can select sending either a processed or unprocessed signal through the host amp's module output connectors to another amplifier.

And, except for the $65 ARG, all current modules only cost $45 list.

Stillwater Designs is committed to developing additional modules to add more functions to the Kicker amplifiers, and more design flexibility for Kicker-equipped systems.

System design made simple

An integrated amp/module system like Kicker's makes perfect sense. You can start off with a simple mixed-mono system and gradually expand into a sophisticated four-way high performance all-Kicker system without losing any of your original investment. Instead of trading-in or selling amps as your system grows, you just plug in the appropriate module and add the new equipment.

The "Kicker" of car amplifiers

As remarkable as they are, modules aren't the only reason Kicker amps are taking the car audio world by storm. After all, they were designed to match the quality and performance of world-famous Kicker speakers.

A look inside the chassis tells you the incredible sound quality of Kicker amplifiers is the result of advanced design features more commonly found in only audiophile-quality home amplifiers and premium grade electronic components used throughout the design.
Pure, clean power

Distortion is virtually eliminated by using an ultra-clean regulated power supply with numerous noise-filtering and energy storage capacitors, a DC servo design to eliminate DC offset and the need for coupling capacitors, and a Triple-Darlington output section.

In the power supply, switching noise is eliminated by a toroidal inductor and by a large bank of premium grade energy storage capacitors...the audio circuitry is fed pure, clean DC power. The power supply is very efficient thanks to massive MOSFETs that switch the 12VDC battery voltage at high frequencies and feed a Litz-wound toroidal transformer. Litz windings (multiple strands of small gauge wire providing large amounts of surface area) take maximum advantage of the fact that high frequency current travels on the surface of a wire.

The power supply is regulated to deliver rated performance from 12.5 to 16VDC. Voltage sags won't mean substandard performance, a problem with conventional unregulated power supplies in the real world.

The signal path is among the purest you'll ever see...or hear. The DC servo eliminates all coupling capacitors (major sources of distortion in the bass and midrange) in the signal path except a high-grade DC blocking capacitor at the RCA input.

Warm Class AB biasing prevents crossover notch distortion, resulting in transparent midrange and treble response at all power levels. Cold biasing, used in many amp designs, can mean treble distortion at low output levels.

The final output stage is a Triple-Darlington configuration (multiple bipolar power transistors in three stages of current gain). Each stage successively shields power transistors in three stages of current gain). Each stage successively shields power transistors in three stages of current gain). Each stage successively shields power transistors in three stages of current gain). Each stage successively shields power transistors in three stages of current gain). Each stage successively shields power transistors in three stages of current gain). Each stage successively shields power transistors in three stages of current gain). Each stage successively shields power transistors in three stages of current gain). Each stage successively shields power transistors in three stages of current gain). Each stage successively shields power transistors in three stages of current gain).

Hidden connectors under a removable cover allow routing wiring out the back of the amplifier or through the bottom for stealth installation. Gold-plated RCA input and output jacks and nickel-plated custom power input, ground, remote turn-on, and speaker screw terminals mean easy, solid connections.

Stillwater Designs has always believed that its customers deserve every ounce of performance they pay for, so it's no surprise that before it's shipped every amp is burned in for three hours and thoroughly tested to make sure it meets specifications and Kicker's tough quality standards.

Carbon looking, start listening

The bottom line is that Kicker has created an all-out, no-holds-barred approach to car audio amplification and signal processing that takes power, sound quality, and system design flexibility to the limit.

To find out more about Kicker amplifiers and active signal processing modules, call toll-free at 800 256-5425 or write to Stillwater Designs, P.O. Box 459, Stillwater, OK 74076. You'll get free color literature and a list of Authorized Kicker Dealers where you can experience America's Music Machines.

Specifications Common on all Models

<table>
<thead>
<tr>
<th>Model</th>
<th>Rated power per channel into 4Ω</th>
<th>Rated power per channel into 2Ω</th>
<th>Rated power bridged mono into 4Ω</th>
<th>Damping Factor @ 4Ω</th>
<th>Max. damping factor</th>
<th>Max. current draw, 2Ω stereo load</th>
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**X-Series**

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<th>Damping Factor @ 4Ω</th>
<th>Max. current draw, 2Ω stereo load</th>
<th>Width</th>
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**si-Series**

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<td>115Vrms</td>
<td>70Vrms</td>
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</table>

Stillwater Designs has always believed that its customers deserve every ounce of performance they pay for, so it's no surprise that before it's shipped every amp is burned in for three hours and thoroughly tested to make sure it meets specifications and Kicker's tough quality standards.

Quit looking, start listening

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Loudspeakers may be the most controversial components in audio. Whereas electronic hardware should behave with steadfast consistency, speakers, because of complex interactions with their environment, always sound different from each other. Even identical speakers will sound different if located in different rooms, or even at different places in the same room. In addition, their behavior will be tailored to meet performance goals that vary from manufacturer to manufacturer.

So how well you like a speaker will depend on a number of factors, including (but not limited to) how it interacts with the room in which it is used, your tastes, the extent to which your preferences intersect with the sound the manufacturer is trying to achieve, and simply how good a job the manufacturer has done of designing and building the speaker to meet his own goals. That's a lot of variables, and in the end there is no substitute for your own ears. But setting some priorities will help you sort through all the promotion and evaluation you're likely to encounter in the process of choosing new speakers.

**WHAT'S ALWAYS IMPORTANT**

**Smoothness.** Although there is a degree of controversy about what exactly speaker "smoothness" means — with some considering on-axis behavior critical and others feeling that reverberant field, total-power response is paramount — all agree that speakers should have a smooth, peak-free response (see graph on the next page). Many designers consider it desirable for a system to have slightly diminished output in the "presence" region (around 3 kHz) or throughout the treble range to offset recording practices that often produce sound a bit on the "hot" side. Competent designers will insure that the attenuation is gradual and uniform, however, with no abrupt variations or discontinuities.

**Radiation pattern.** Unlike any other component in an audio system, a loudspeaker does not have a single frequency response; its output is slightly different at every angle. A speaker's radiation pattern is the way in which its response varies as one moves off its forward axis (at high frequencies this characteristic is often referred to as dispersion or directivity). Because the wavelengths of low frequencies are large relative to the dimensions of normal speaker enclosures, speakers are typically omnidirectional in the bass range, having essentially the same response at all angles. It is at middle and high frequencies where the differences become significant.

In keeping with the smoothness dictum discussed above, it is important that the radiation pattern be smooth. That is, to the extent that the speaker's response changes as one moves off-axis (the horizontal axis especially), it should do so gradually and in a way that yields smooth responses at all angles. With conventional box loudspeakers, that would normally mean a gradually deepening high-frequency rolloff at increasing angles off the forward axis, but very similar, if not quite identical, response from the lowest frequencies through the midrange and lower treble. That's most difficult to accomplish at extreme angles, with the greatest problems typically occurring where the gradually diminished off-axis output of a large driver approaching the top of its operating range dovetails into the more uniformly dispersed response of a smaller one.

Erratic off-axis behavior will adversely affect a system's power response and degrade its imaging characteristics, and for listeners sitting off-axis the direct response will be ragged as well. Although not every designer feels that strong response beyond 45 degrees off-axis is desirable, those who opt for attenuated radiation to the sides — and rear — need to make the rolloff as uniform as possible (see "Radiation Pattern" diagram).

**Bandwidth.** Flatness and dispersion notwithstanding,
proper performance requires a decent reach into the bass and treble ranges — although listening tastes will also be a determining factor. If you favor Telemann, Haydn, and Mozart — or even rock or jazz — you will probably not need speakers with flat response extending below 40 or even 50 Hz. At the other extreme, there is little musical sound of any kind above 14 or 15 kHz, and many middle-aged and older individuals cannot hear much above those frequencies anyway. Many listeners will be satisfied with loudspeakers that uniformly cover the range between those extremes.

If your tastes include synthesizer music, however, or your speakers are part of a serious A/V system (and you play such low-bass or transient-heavy showpieces as Batman, Terminator II, Gettysburg, Jurassic Park, and the THX Star Wars Trilogy), or you take pipe-organ music and the 1812 Overture seriously, you would do well to obtain a speaker system with the widest bandwidth possible, particularly in the bass range, or to invest in a good subwoofer.

**WHAT MAY BE IMPORTANT**

**Efficiency.** Although a speaker’s electrical sensitivity (the amount of sound you get out for a given amount of signal in) may be important, it will become an issue only if you have limited amplifier power available or if your listening room is large enough that even a robust amplifier will have trouble driving insensitive speakers to adequate levels. Efficiency has little to do with actual sound quality, although a speaker system with fairly low sensitivity may be that way as a result of building formidable deep-bass potential into a modestly sized enclosure.

**Output capability.** The importance of a loudspeaker’s maximum output (short of damage or severe distortion) will depend upon your listening habits. If you have a small listening room or your tastes are limited strictly to harpsichord, string quartet, or small-ensemble Baroque music, you should not require speakers that can shake your house. If, on the other hand, you like your film soundtracks and rock music loud, or if you want to approximate the sound of a live orchestra playing a Shostakovich symphony in your well-padded, expansive living room, then you should pay attention to the ability of your speakers to produce the required acoustic energy. Test reports like those in STEREO REVIEW can be helpful in this regard.

**Impedance.** Despite what you may read on the back of your receiver, most amplifiers will not have trouble driving reasonably low-impedance speakers unless two pairs are run in parallel. Most amplifiers deliver increasing amounts of power as the load impedance is reduced (to a point), and 4- or 6-ohm-rated speakers can use that increased output to advantage. Although the reactive (capacitive and inductive) elements of a speaker’s impedance may adversely affect the performance of a substandard amplifier, and a very low average impedance may cause some amplifiers to run surprisingly warm or even shut down under some circumstances, impedance itself does not influence a speaker’s inherent sound quality. What it does affect is a speaker’s sensitivity (all else being equal, reducing impedance increases sensitivity) and, in extreme cases, what sorts of amplifiers will be comfortable driving it.

**Woofer size.** All other factors being the same, a large woofer will produce better (or at least more) bass than a small one. Other factors are seldom the same, however, and a smaller woofer of more sophisticated design will often out-class larger ones of poorer pedigree. When evaluating woofers, forget your eyes and let your ears — working in combination with a bass-plentiful recording and a listening room similar to yours — do the deciding.

**Enclosure size.** Larger systems often have the ability to play louder and reach further into the deep bass than smaller ones. Cabinet size will ordinarily have little else to do with a system’s sound quality, however. There have been huge boxes holding only two or three drivers that did no better at producing high volume levels and smooth treble, midrange, and bass energy than good bookshelf systems.

**Magnetic shielding.** Although it will not affect sound quality, shielding will be important if you plan to locate your speakers within a foot or two of a direct-view television screen, where the fields from driver magnets might cause color distortion. Magnetic interference will not normally be a problem with rear-projection sets, because of their tube sizes and interior layouts, and it definitely will not be a factor if you have a front-projection setup.

**Driver count.** More drivers may mean more sound, but
The magazine that knocks you on your ear — it used to be simple. You had a car. It came with a radio. You listened. Period.

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that does not necessarily mean better sound. Indeed, a system with a few good drivers may outclass one with a lot of lesser ones (consider the number of outstanding speakers over the years that have been simple two-way designs). Although extra drivers, properly configured, can be used to increase output capability or to shape a system’s radiation pattern (witness the Allison IC-20 of a few years back or some current Home THX models), it is the quality of the drivers and how well they are integrated into a complete speaker system that primarily determine performance.

Crossover characteristics. Loudspeaker ads sometimes mention crossover frequencies and slopes or the number, type, and quality of crossover components involved. Although such information could be useful to engineers, what really matters is how the crossover works in conjunction with the individual drivers. But to those without a lot of other technical data (and the education to put it to good use), a sprinkling of information about the crossover may be more misleading than helpful. Some fine systems have elaborate crossover networks, but other fine ones have simple networks — or, like the Bose 901, none at all.

WHAT’S RARELY IMPORTANT

Ultra-wide bandwidth. Subwoofers that have powerful and flat output down to 10 Hz or tweeters that have response to well above 20 kHz may be interesting engineering exercises, but such capabilities have little to do with what you actually hear.

Driver materials. Exotic materials make good ad copy, but there are fine examples of drivers made with all sorts of materials, and no particular substance in general use has a big performance edge over any other, including good old paper. That’s not to say that materials don’t matter at all, because they do, but mainly to the engineers designing the drivers.

Woofers. Some enthusiasts swear by the acoustic-suspension principle while others adhere faithfully to bass-reflex, passive-radiator, or any of a multitude of other approaches. From an engineer’s standpoint, each configuration has its own set of advantages and drawbacks that must be considered in terms of specific design goals, but any of these configurations is capable of delivering exemplary bass, or even subwoofer performance.

Weight. Some manufacturers install average-quality drivers and crossovers in extremely heavy, thick-walled speaker enclosures. Others produce drivers with magnets that weigh in like small manhole covers. But there is no solid correlation between weight and sound quality. A number of fairly lightweight systems are world-class performers, and at least one manufacturer, as a way to extend bass response downward, built woofers for his top-of-the-line system that had lighter magnets than those he used in some of his cheaper models.

Group delay. No research has proven that group delay — a measure of phase shift versus frequency, or “time coherence” — is, in itself, a significant factor in the sound of typical loudspeakers playing normal program material. That is not to say that it is necessarily always inconsequential, but the human ear is essentially insensitive to phase above approximately 1.5 kHz, and most good speakers have reasonably low group delay in the range where the ear is sensitive.

RADIATION PATTERN

Those who feel that an irregular frequency response at extreme off-axis angles is not critical may point out that the systems they admire have reduced output to the sides anyway, making the reverberant-field variations that result from such behavior inconsequential. Now, while there is no doubt that a speaker system that radiates a substantial amount of mid- and high-frequency energy beyond 45 degrees off-axis will sound different from one that does not, there is also no doubt that a system with erratic frequency response that far off-center will not perform as well as one that has a smooth output over the same angular range, no matter how strong or weak their relative outputs at those angles. The diagram at left shows why even an attenuated off-axis signal, irregular or not, can have very audible consequences.

The full hemisphere indicates the forward radiation zone of any speaker system. The shaded section is the area covered by the on-axis to 45-degree-off-axis radiation. That is the angular spread many manufacturers consider to be far more significant than the shaded region, the total area transcribed is much larger. Even if the off-axis signals radiating into this segment are lower in level than those spread over the more forward angle, the larger area affected amplifies their impact. Rough off-axis response can color the sound and degrade imaging.

OTHER FACTORS

Loudspeaker design also involves loudspeaker durability. That depends primarily on the use of well-made enclosures, rugged drivers, and appropriate crossovers, but some speakers also have protection circuits that reduce the chance of damage from amplifier overdrive or failure. Reputable manufacturers will have substantial warranties that reflect faith in their products. Unless you are a tinkerer or have lots of patience, it’s best to be somewhat wary of designs based on exotic, unproven technology from obscure manufacturers. They may sound great, but with no track record to go on, it’s hard to know how well they will hold up or what difficulties you will face in getting them repaired if they develop problems a few years later.

Howard Ferstler is a free-lance writer and author of the books High Fidelity Audio/Video Systems and High-Definition Compact Disc Recording (McFarland, 1991 and 1994).
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Communism is gone, and Russian musicians are a hot property for Western record companies.

by Jamie James

THE TUMULTUOUS EVENTS that brought an end to more than seventy years of Communist rule in the former Soviet Union caused profound repercussions throughout every stratum of Russian society—not least in the world of music. For centuries the nation's pride and joy, Russia's musical institutions faced an uncertain future during the chaos that followed the fall of Communism in 1991. After foreign travel became freely available, some of the best players and singers emigrated to greener pastures in the West, and there were rumors that financial ruin was besetting even such great institutions as the Bolshoi and Kirov opera companies. People outside the country were beginning to ask the unthinkable: Was music an unaffordable luxury in democratic Russia?

Conductor Valery Gergiev, left, of today's Kirov Opera and Orchestra, St. Petersburg; photo at top, bass Alexander Kipnis in the 1940's as Boris Godunov.
But even to pose the question reveals a fundamental naiveté about the Russian character. As Valery Gergiev, the dynamic young conductor who has guided the Kirov through this difficult period of transition, told me when we spoke recently in New York, “Culture was always more important to the Russians than business. People could live with a very modest standard of living, but they always had thousands of books.” Although the rules have changed radically in a short period of time, today it appears that the Russian music scene has stabilized and is even beginning to flourish—thanks in large measure to the investment of the biggest foreign record companies. BMG, Deutsche Grammophon, Philips, and Sony all have major Russian orchestras on their rosters, and these cash-poor groups are recording and touring at a pace that puts their Western counterparts to shame. For example, the following releases are due in just the first months of this year: Prokofiev’s Alexander Nevsky with the St. Petersburg Philharmonic conducted by Yuri Temirkanov (BMG), Tchaikovsky’s “Manfred” Symphony and a set of Russian overtures from the five-year-old Russian National Orchestra led by Mikhail Pletnev (Deutsche Grammophon), and a collection of Russian orchestral showpieces, Rimsky-Korsakov’s little-known opera Sadko, and Shostakovich’s Eighth Symphony from Gergiev and the Kirov Opera and Orchestra, St. Petersburg (all Philips).

Sony is releasing eleven recordings, the second batch in its new line of St. Petersburg Classics, that explore the whole gamut of music from the former Soviet Union, from Tchaikovsky’s chamber music to contemporary music from the Baltics. One great find among the first set of releases was a CD of arias and folk songs featuring Zurab Sotkilava, a Georgian tenor whose brilliant, flavorful voice seems to embody the passionate soul of the Caucasian steppes.

It is a paradox that even while the Kremlin censored and suppressed the nation’s composers and leading musicians, it strongly supported such centuries-old institutions as the Kirov, the Bolshoi, and the Leningrad Philharmonic. The oppressive Soviet regime used them as window-dressing to lend itself an air of intellectual legitimacy. While anyone who resisted was cruelly punished or sent into exile—including Russia’s most famous musical son, the cellist Mstislav Rostropovich—those who were willing to play by Soviet rules enjoyed relative security and great artistic satisfaction. For instance, during the fifty years of Evgeny Mravinsky’s iron-fisted leadership, from 1938 to 1988, the Leningrad Philharmonic—now once again known as the St. Petersburg Philharmonic—was very likely the greatest symphony orchestra in the world.

Yet Russian music was only able to develop during this period at the cost of nearly complete cultural isolation. Recordings of the great Russian orchestras on the state label Melodiya were often of execrable sound quality, and they were only fitfully available to Western collectors. The greatest Russian composer of the twentieth century, Dmitri Shostakovich, continued to write prolifically, but at the cost of great personal suffering and sacrifice, which were revealed only after his death (in the controversial book Testimony, published as his memoirs).

By the time of Communism’s fall, the leadership of many of the country’s venerable musical institutions had passed to a dynamic young generation of hip, nonpolitical musicians who were very much aware of the opportunities in the West. Foremost among them is Valery Gergiev, who took over the reins of the Kirov Opera just before the death throes of the old regime.

Gergiev, for one, exudes confidence and optimism: “I don’t have any fears about the Russian musical tradition: It will never stop. For five years now, people have been saying, ‘Oh, the Kirov is losing all of its good people; the good singers will leave. It will only last another year.’ But that is not what has happened.” Yet Gergiev has not allowed the Kirov simply to drift along, a captive to its tradition of greatness; he has taken a number of initiatives to establish the company as a key player on the international music scene today. He has established creative partnerships with Britain’s Royal Opera and the San Francisco Opera and is in the process of forging such an alliance with the Metropolitan Opera. Two years ago, Gergiev founded the White Nights international arts festi-
val, which presents, in addition to performances of the standard Russian repertoire, revivals of neglected Russian operas and new works by contemporary composers. “The reason we started the White Nights Festival,” he explained, “was so that the best artists from around the world, not just Russia, would think it important to be here.” By keeping St. Petersburg on the cutting edge, he reasons, Russian singers will have a more powerful incentive than mere patriotism to stay at home.

One of the boldest musical projects to emerge in the post-Soviet era was the founding of the Russian National Orchestra in 1990. When I asked its conductor, Mikhail Pletnev, how he managed to establish the first new orchestra in Russia since 1917, he replied, “If someone asked me to do it again, I would say no. It was so, so difficult. It was absolutely impossible, but it happened.”

The players came from the ranks of many Soviet orchestras; the violin section had six players who’d been concertmasters elsewhere. In the first year the musicians were paid very little, and much of that money, Pletnev said, came out of his own pocket. But he proved to be a genius at fund-raising: Today the Russian National Orchestra is sponsored by the Getty Foundation, Chase Manhattan Bank, Chevron, and Exxon, and its board of directors includes three former heads of government: Mikhail Gorbachev (U.S.S.R.), Helmut Schmidt (West Germany), and Edward Heath (U.K.).

Another major breakthrough came in 1993, when Deutsche Grammophon offered the orchestra a recording contract. “We couldn’t believe it,” said Pletnev. “They are No. 1 in the world.” The next big project is to build a new hall for the orchestra. The Russian government has donated a plot of land across from the Kremlin, and Pletnev is now hard at work raising the money.

Despite all the accomplishments of the past few years, there are still reminders of the bad old days. In 1993 Semyon Bychkov, a native of St. Petersburg who is currently the music director of the Orchestre de Paris, resigned as the principal guest conductor of the St. Petersburg Philharmonic because the orchestra’s long-time concertmaster, Vladimir Ovcharek, was not permitted to participate in its tour of Europe and America. According to Bychkov, Ovcharek was barred from the tour because he had criticized certain policies imposed by Yuri Temirkanov, the orchestra’s music director since Mravinsky’s death in 1988.

Bychkov was outraged. When we spoke shortly after the contretemps, he said, “It goes against everything I believe, in both artistic and human terms. The orchestra didn’t say anything because they were deeply afraid. It’s so easy to instill fear: Once the big fist comes down, they know what that means.” He asked incredulously, “Is this a country sliding back to totalitarianism?” Of course, strong-willed music directors are found everywhere on the musical map; a player who publicly disagreed with, say, Riccardo Muti or Georg Solti might well find himself off his orchestra’s tour roster.

The age-old problem of all arts institutions—finding enough money to support ambitious creative programs—has become ever more acute in Russia since perestroika. Yuri Bashmet, widely regarded as the leading viola player in the world today (he records for BMG Classics), has been working to establish a competition for his instrument in Moscow but has found it difficult to raise funds. He spoke candidly with me about that and other issues.

“Money is a very serious problem for all of us in Russia now,” he said. “Many things in the Soviet system were bad, but government support for the arts was more reliable.” When it comes to the music itself, however, Bashmet has unqualified optimism.

“Money is a serious problem for all of us in Russia now,” he said. “Many things in the Soviet system were bad, but government support for the arts was more reliable.” When it comes to the music itself, however, Bashmet has unqualified optimism.

“There is no problem with finding musicians in Russia now—in Moscow there were always too many musicians.” He is particularly sanguine about the survival of the great Russian string-playing tradition. “It doesn’t depend on a professor to teach you. It’s in the blood, it’s in the air. Russia is like the United States—it’s a wide-open place. There’s a feeling there that everything is possible.

Like many of his colleagues, Bashmet is in Russia to stay. “I don’t say I am a great patriot, but my home is Russia. It’s important for my music to be there, and it’s important for me.”
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Home theaters designed around the six-channel Dolby sound system used in many state-of-the-art movie theaters, a new 5-inch videodisc, and a VCR that promises broadcast-quality images — just a few of the digital attractions poised to take us into the next millennium — were the talk of the 1995 Winter Consumer Electronics Show, which drew more than 103,000 retailers, distributors, manufacturers, and journalists to Las Vegas in January.

The show was a coming-out party for the digital Dolby Surround AC-3 system. Pioneer, JBL/Runco, Perreaux/Monitor, Kenwood, Yamaha, Enlightened Audio Designs (EAD), and Audio Design Associates hosted demonstrations using AC-3-equipped components. Prominent among this new breed was Pioneer's VSX-DS3S audio/video receiver ($1,925), slated to hit store shelves in August, EAD's $5,950 TheaterMaster A/V preamplifier, and Perreaux's $4,495 AVP 6 A/V preamp, due out in May.

Meanwhile, demonstrations of the digital videodisc (DVD) system developed by Sony and Philips drew rave reviews for its picture quality (the rival Toshiba/Time Warner DVD system was endorsed by a number of companies just weeks after the show; see “Bulletin,” page 8). It appears certain that DVD will, in one form or another, reach the market sometime next year. Sony also showcased the new digital videocassette (DVC) format, which has received the backing of more than fifty companies worldwide and also appears to be heading for store shelves in 1996. The system uses two sizes of cassettes, the larger offering up to 4 1/2 hours of recording time.

Elsewhere on the bustling home theater front, Lucasfilm announced several new THX licensees — including Adcom, B&K, Energy, Jamo, Krell, Meridian, Nakamichi, and Rotel — and promised thirty new THX laserdiscs by the end of the year. Kenwood and Technics announced second-generation THX receivers, both expected to retail for $999. ProScan, RCA's sister brand, introduced a colossal 80-inch rear-projection TV ($8,499) with built-in Dolby Pro Logic that's slated to hit stores in the middle of the year. At the other end of the spectrum, Sherwood showed its $279 RV-4050R Pro Logic receiver and Altec Lansing introduced its powered PHT5 Personal Home Theater system with built-in Pro Logic, featuring a pair of satellite speakers in mini-towers and a compact subwoofer — all for $500.

The CD mega-changer boom continued with moderately priced 100-disc models from Aiwa, Kenwood, and Pioneer and a $500 60-disc follow-up to Fisher's popular 24-disc Studio 24 changer. But Kenwood stole the scene with the DP-J2070, which can be connected to a computer keyboard if users want to streamline the task of keying in album titles and artist names. Cerwin-Vega demonstrated a prototype speaker system built around its CATA-12 point-source transducer, a woofer with a Heil tweeter folded-ribbon Air Motion Transformer in the middle.

Sunfire Corporation, Bob Carver's new company, stopped showgoers dead in their tracks with a remarkable 10-inch-square powered subwoofer that is said to use a 2,700-watt servo amplifier and a push-pull driver pair to achieve response down to 18 Hz. The mini monster is scheduled for delivery this fall with a target price of $2,000 a pair.

Things were relatively quiet, if not somber, on the MiniDisc front — even though several MD players were reported stolen from the Sony exhibit. Citing low sales, Aiwa announced that it is “stepping back” from the MD market, but Sanyo unveiled a $1,000 boombox that plays MD's, CD's, and cassettes. Sony introduced a new home MD recorder, and Sharp previewed the “world's smallest” MD recorder, the $800 MD-M20 (due out this June). The only DCC news came from Philips, which said that its previously announced DCC951 home deck and DCC170 portable recorder would be available this spring.
In video, RCA projected sales for its Digital Satellite System of 1.2 to 1.5 million units this year, and Sony is expected to jump into the market by mid-year. MPEG-1-based Video CD players were shown in a variety of configurations by Aiwa (part of a minisystem), Marantz (a dual-tray player), Sharp (part of a portable system), and Technics (a five-disc carousel changer). In another step toward its goal of producing "the perfect picture," Faroudja Labs demonstrated the $20,000 VP400 line quadrupler to a houseful of dropped jaws. Samsung, Goldstar, and Zenith announced plans to sell VCR's equipped to receive the StarSight on-screen program guide, and Magnavox previewed its $200 ImageLock system, said to dramatically improve TV reception plagued by multiple images, or "ghosts."

Navigation was the big story in mobile electronics, with more than a dozen systems on display, ranging from Alpine's simple-to-install $650 CD-ROM-based voice-navigation system to Pioneer's $2,850 video-map system, which uses Global Positioning System (GPS) satellites to determine a car's location and voice prompts to guide the driver, to the $2,995 satellite-based video-map system Sony recently began selling in California. Sanyo introduced the $570 MAX-9000 ten-disc changer, which at 9¾ x 6¼ x 3½ inches is claimed to be the world's smallest, and Panasonic unveiled a $300 cassette receiver with a CD-changer controller and a voice chip for recording short messages.

In computer multimedia, Philips and Sony announced that they have formulated basic specs for a new generation of CD's containing both graphics information and music. Dubbed CD Plus, the format was endorsed by software giant Microsoft. Creative Labs demonstrated its $2,000 Digital Edge CD recorder, dubbed "a complete write-once CD authoring and data archival solution," and Panasonic introduced the $400 FZ-10, a sleek, second-generation 3DO multiplayer. On these pages are some of the neatest products we saw at the show.

- Bob Ankosko

▶ Infinity's elegant Prelude speaker ($3,000 a pair), the first in the new Compositions series, combines a seven-driver line-source column with a sculpted base containing a 12-inch woofer and a 100-watt bass amplifier. Finished in gray aluminum, the 54-inch-tall speaker is rated down to 25 Hz and claims an unusually high 96-dB sensitivity. Companion center and surround speakers are available for home theater use.

▶ Although custom installers have been doing it for years, Pioneer is the first manufacturer to offer a subwoofer made to fit into the spare-tire well of many cars. The TS-WX50 ($150) packs an 5¾-inch driver and is rated down to 35 Hz. There's just one catch: Now you'll need a cellular phone.

▶ Audio Control's Rialto ($579) — one of the very few dedicated home-theater equalizer/crossovers we know of — offers eleven EQ bands for the front left/right and center channels, seven for the subwoofer channel, and five for the surround channel plus a programmable active crossover.

▶ Signaling the rebirth of Harman Kardon's Citation line and Harman International's decision to consolidate its Fosgate Audiorics brand under the Citation banner, the Model 7.0 THX controller/preamp ($3,150) is the successor to Fosgate's stalwart Model Three-A. The eight-input device boasts automatic input/output level calibration and twelve surround modes, including a new Six Axis setting said to improve separation and surround imaging.

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Atlantic Technology’s sleek System 350 home theater suite ($2,998), its first THX outing, comprises two 42-inch-tall, five-driver front towers, a low-profile center speaker, two wall-mountable dipole surrounds (shown on optional stands), and a pair of 175-watt powered subwoofers. All are finished in black woodgrain vinyl.

As if seven channels of power, nine digital surround modes besides Dolby Pro Logic, and inputs for an outboard AC-3 decoder weren’t enough, Yamaha’s RX-V2090 A/V receiver ($1,499) also offers independent source selection for a second system. It delivers 100 watts across the front and 35 watts each to four effects channels.

HTP International will supply a database CD (updated quarterly) with the 120-disc AcoustiVision CD changer it plans to market late this year or early in 1996. Pop the CD into the changer, hit a button on the remote, and the system cross-references all of the CD’s in the changer against the database, storing catalog information for each disc in memory. Expected to sell for $4,000 to $5,000 initially, the changer offers extensive search and play-list capabilities.

Polk Audio’s Signature Reference Theater system ($6,500) is designed to belt out 120-dB SPLs without flinching. It consists of two 26-inch-tall satellites that incorporate Polk’s Stereo Dimensional Array technology, a center speaker, two surrounds, two 250-watt powered subwoofers that rumble way down to 16 Hz, and a control box with a music/video switch and other sound-optimizing controls.

Sony is offering an optional dubbing station and sampling-rate converter (not shown) with its second-generation digital micro recorder, the NT-2. Slated to hit store shelves this summer, the tiny device records in stereo on postage-stamp-size cassettes.
CES SHOW STOPPERS

▲ Take the 12-inch woofer used in NHT's flagship Model 3.3 speaker, put it in a 19-inch glossy black cube, team it with a 250-watt amp, and you get the SW3p powered sub ($1,350), featuring 23-Hz performance and a very flexible crossover.

▲ Snell takes sound reproduction to the next level with its RCS-1000 room-correction system ($11,999), a six-channel digital processor that individually "corrects" the early-arrival response of up to six speakers in a music or A/V system. The primary goal is to reduce room-induced coloration in the 5- to 500-Hz region where the effects of room acoustics are most pronounced. The system also optimizes the room's reverberant field.

▲ One of four AC-3-ready combi-players from Pioneer, the CLD-D604 ($1,035) has a special AC-3 RF output that feeds the digital data stream from a Dolby Surround Digital-encoded laserdisc (a few are just now becoming available) to an outboard AC-3 decoder or a component, like Pioneer's forthcoming VSX-DS3S A/V receiver, that has one built in. The result: an awesome soundtrack with five discrete full-range channels plus a subwoofer channel.

▲ Surround sound without the surround speakers? That's precisely the idea behind DCM's TimeWindow SurroundScape speaker ($549 each), which uses a side-oriented 6½-inch driver and a carefully adjusted active crossover to project an ambient sound field. The hexagonal cabinet sports a black wrap-around grille and solid oak end caps finished in black.
A Pure and simple: The heart of NAD's Model 310 integrated amp (about $200) is a "super-simple" circuit design that uses about half as many components as a conventional amplifier, including a unique output stage that pairs one MOSFET device with a bipolar transistor. Slated to hit store shelves later this year, the amp delivers a modest 20 watts per channel (with less than 0.05 percent distortion) but boasts 1-ohm stability and 3 dB headroom.

There's no need for a separate powered subwoofer with Definitive Technology's BP 2000 bipolar speaker ($1,499 each) — one's already built in. Definitive combines front- and rear-firing driver trios (1-inch aluminum-dome tweeters and pairs of 4-inch woofers) in D'Appolito arrays and a 15-inch side-firing subwoofer, with its own 300-watt amp and active crossover, in a 50-inch-tall cabinet that occupies 1 square foot of floor space. Bandwidth is 15 Hz to 30 kHz. Black-lacquer or cherry end caps complement the speaker's black wrap-around grille cloth.

Cocooning for the new millennium? Bio-Innergy Systems' NEST, for Naturally Enhanced Sound Transmission, provides a full-body holographic music experience in which you hear as well as feel the music. The aluminum "cuboctahedron" structure, a form chosen for the "way it transmits acoustical and body vibrations in harmony," features velour-covered cushions, four overhead satellite speakers, and a subwoofer and a subharmonic transducer under the main platform. The 156-pound apparatus, which has built-in amplification, will set you back a mere $8,995.
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Martin Zellar used to be the leader of Minnesota’s Gear Daddies, a vaguely rootsy bunch of late-Eighties wiseguys who recorded for PolyGram and came up with one of the great goofy album titles of all time — “Let’s Go Scare Al” — before calling it quits. Since then, Zellar’s apparently had, as they say, a lot of living to do. His new solo debut, “Born Under” (a bad sign?), is as moving a piece of confessional pop as you’re likely to hear these days, a tuneful, lovely-on-the-surface song cycle of reflective country-rock musings that only barely conceal some rather world-class emotional turmoil beneath. Think of it, if you will, as a twenty-something’s “Blood on the Tracks.”

The album opens with a masterly sucker punch. Lie to Me, which in a better world would be on top of the country charts, has a sunny, instantly addictive melody and a chorus to die for, sort of like the Hollies with mesquite; it isn’t until you decipher the lyrics that you realize the protagonist is a chronic depressive who probably ought to be medicated. The rest of the songs, which are equally lovely in a sort of austere, magisterial way, are a lot more upfront about their psychic underpinnings, reaching a truly creepy apotheosis in Lay Me Down Gently, a faux waltz in which Zellar intones, “The rage will come later” to a manipulative lover. Elsewhere he makes guilt palpable, be it emotional, as in Something’s Gotta Happen, or pragmatic, as in the confession from Cross My Heart that “All our lives we’ve lived in debt / A jar of change our safety net.”

These are obviously Post-it notes from somebody’s real life, at times so nakedly emotional you almost feel like your eavesdropping is inappropriate. Fortunately, their innate catchiness notwithstanding, what keeps them from becoming Jackson Browne-styled whine-fests is Zellar’s singing. His voice is a marvel. On the more rock-oriented stuff he can growl when he needs to, but basically he comes through with a sweetly quavery and appealingly mush-mouthed tenor that’s as immediately distinctive (and sexy) as anything in current pop music. It’s an almost otherworldly sound, but at the same time it hits on a gut level; at the risk of going all Pauline Kael on you, I’d be remiss if I didn’t say that hearing Zellar for the first time is like the first time you heard Hank Williams or Elvis or even Chrissie Hynde — you’re amazed that something so unique still feels like it’s been around your whole life.

Add to all that superb backup playing by various like-minded alternative types, including members of the Jayhawks and Soul Asylum (special kudos to producer Stephen McKinstry’s gorgeously lyrical Hammond organ contributions), and what you have in “Born Under” is, oh, just the most assured debut of the year so far. Gloom has rarely sounded so lilting.

Steve Simels

MARTIN ZELLAR
Born Under
Lie to Me; Something’s Gotta Happen; East Side Boys; Falling Sky; Problem Solved; Cross My Heart; Lay This Down Gently, Summer Kind of Sad; Force a Smile; Let Go
RYKODISC 10318 (37 min)
Firkusny’s Farewell Recording

For an artist so widely admired for his elegant playing, let alone one active so many years, the pianist Rudolf Firkusny, who died last year at the age of eighty-two, made surprisingly few recordings. His discography never hinted at the breadth of his repertory, but in his last two decades he was able to record more of the music of his Czech compatriots, whom he had championed so assiduously all his life. When he made his joyous return to Prague in 1990, after an absence of more than forty years, he made his fourth and final recording of the Dvorak Piano Concerto and rerecorded both solo and concerted works by his one-time teacher Leos Janacek. In New York he recorded solo works and (with Janos Starker) the cello sonatas of his friend Bohuslav Martinu, and now, by way of memorial tribute, RCA Victor has brought out his valedictory recording, of Martinu’s last three piano concertos, taped in June 1993 with the Czech Philharmonic under Libor Pesek.

Martinu composed his Second Piano Concerto for Germaine Leroux, who introduced it in 1934, but he revised it substantially for Firkusny ten years later and composed No. 3 for him in 1948 and No. 4 (the tightknit two-part “Incantation”) for him in 1955-1956. All three concertos fairly brim over with Martinu’s characteristic vitality and drive, with his melodic and rhythmic inventiveness and imaginative coloring. It hardly needs saying that Firkusny brought to these performances not only his unique authority but also a commitment and vitality that remained undiminished. These concertos would enrich our concert life, and now younger generations of pianists have these superb performances as models of how to play them.

It is precisely because the significance of this release goes beyond that of a sentimental personal tribute that it is a truly worthy memorial — in all respects save one. RCA has come through with exemplary sound but has let us down in the documentation, which consists entirely of an appreciation of Firkusny and not a word about the music. These are not Beethoven or Mozart concertos, after all, but music virtually unknown to most listeners, who would surely have welcomed a few words of background and description with such intriguing but unfamiliar material. Nonetheless, this recording is not to be missed.

Richard Freed

MARTINU:
Piano Concertos Nos. 2, 3, and 4
Firkusny; Czech Philharmonic, Pesek cond.
RCA VICTOR 61934 (67 min)

Townes Van Zandt Paints His Masterpiece

It’s been so long since the Texas folk-country troubadour Townes Van Zandt turned out truly remarkable work that it seemed his glory days might be over. But in the nick of time, here comes “No Deeper Blue,” his first studio album in eight years and the record he’s always promised to make. Recorded in Ireland and produced by Philip Donnelly, “No Deeper Blue” resonates with the natural, shared qualities of both Celtic folk and American country, from a skewed, left-field sense of humor, to the melodic and rhythmic use of reels and rounds, to the occasional employment of such instruments as accordion and Uileann pipes. In short, it’s an inspired pairing.

As if deeply affected by the foreboding Irish history and the Irish obsession with myth and folklore, Van Zandt stocks his album with Gothic stories of death and spiritual redemption (Niles River Blues), ghost tales both chilling and humorous (The Hole, about a trip to hell compliments of a woman whose smile looked “like the grave,” and Billy, Boney and Ma), and harrowing sagas of unfathomable hardship and desperation (Marie, the story of a homeless man and his luckless traveling companion). In between, there’s plenty of steaming, electric Memphis blues and acoustic, bottleneck Delta blues, and even a lullaby for Van Zandt’s daughter.

Van Zandt has never been much of a vocalist, and his rough-road baritone gets fairly shallow in the lower register these days, but none of that gets in the way of his masterly storytelling. This is an album that sticks to the ribs and nestles in the soul.

Alanna Nash

TOWNES VAN ZANDT
No Deeper Blue
A Song For: Blaze’s Blue: The Hole: Marie: Goin’ Down to Memphis: Hey Willy Boy: Niles River Blues: Billy, Boney and Ma: Katie Belle Blue: If I Was Washington: Lover’s Lullaby: Cowboy Junkies Lament: BW Railroad Blues: Gone Too Long
SUGAR HILL 1046 (50 min)
Angelina Réaux Sings Weill And Berg

In 1933, the composer Kurt Weill got a call in the middle of the night advising him to get out of Germany; he piled what he could into the back of his car and drove to Paris. Lotte Lenya, his wife and his most famous interpreter, told the story all her life, but we now know that she was not with him because she was camping out on the French Riviera with a tenor.

Within ten days of Weill’s arrival in Paris, he had a commission from George Balanchine for a new ballet score. Despite his having broken up not only with Lenya, but also with Bertold Brecht, he turned back to his two old collaborators, and *The Seven Deadly Sins* was the result. Brecht never seemed to place much value on this strange story about two sisters named Anna from Louisiana (!), whose family, played by a sort of Germanic barbershop quartet, urges them to avoid the seven deadly sins of bourgeois life and make lots of money. Weill thought it was his best score to date, and it has worn well over the years. It now has a rather impressive discography, but even so, the new Teldec recording conducted by Kurt Masur would have to rate near the top of anyone’s comparison-shopping list.

Weill must have known that Lenya would sing in it, but he still wrote the dual role of Anna I and II for soprano, arranging it only afterwards for Lenya’s much lower voice. The original high-voice version was not heard for years for the simple reason that there are very few singers that it suits. The new recording’s star, Angelina Réaux, is very definitely one of that elite company. She is a rare example of a trained soprano who can sing theatrically in an operatic range with clarity and theatrical force, without sacrificing tone and projection and without seeming arty or diva-ish.

Réaux gets strong backing from four male vocalists — members of the remarkable and redoubtable Hudson Shad ensemble — as well as from the orchestra. The performance, recorded at a New York Philharmonic concert last year, has tremendous energy, with all the virtues of a live event, and a great deal of its bite and bounce is due to Masur, who seems to have had the time of his life directing this music.

Pairing Weill with Alban Berg’s *Lulu Suite* might seem farfetched, but (as the noted Weill scholar Kim Kowalke points out in his album notes) these contemporaneous works, seemingly so different, really have a lot in common — they’re two sides of the same coin, as the saying goes. Réaux’s role is somewhat smaller here than in the Weill — she only sings Lulu’s Song and the brief but exquisite final lines of the Countess Geschwitz — but she is hardly less convincing, and the rich orchestral performance and recording are suitably overwhelming. Next to the mocking smile and song-and-dance of Brecht–Weill, the masterpiece agonies of Berg seem heavy-handed, but they certainly provide contrast and are a tour de force for a singer who manages so well with both.

*Eric Salzman*

**WEILL: The Seven Deadly Sins**

**BERG: Lulu Suite**


TELDEC 95029 (68 min)

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**POPULAR**

- **NAT "KING" COLE:** To Whom It May Concern. CAPITOL 31773. From 1958, a Nelson Riddle-arranged and-conducted set of pop songs that never quite made it as standards.

- **ROBYN HITCHCOCK & THE EGYPTIANS:** Fegmania! RHINO 71837. Gotta Let This Hen Out! RHINO 71838. Element of Light. RHINO 71839. The wonderful and deeply weird singer/songwriter’s first three albums with his celebrated backup band, originally released between 1984 and 1986.

- **NANCY SINATRA:** Boots. SUNDAZED 6052. Sinatra’s debut — out of print for over twenty-five years — with bonus tracks including an alternate mono mix of (what else?) *These Boots Are Made for Walkin’*.

- **JOE WILLIAMS AND THAD JONES/MEL LEWIS ORCHESTRA:** BLUE NOTE 30454. A 1966 collaboration between the great blues shouter and the best big band of its day, including songs by Ray Charles and Duke Ellington.

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**CLASSICAL**

- **BACH:** Sonatas and Partitas for Solo Violin. Heneryk Szeryng. DEUTSCHE GRAMMOPHON 437 365. With two CD’s for the price of one, this 1968 set by the acclaimed Polish violinist (1918-1988) is very attractive.

- **BRAHMS:** Symphony No. 3. SCHUBERT: Symphony No. 5. Chicago Symphony, Reiner. RCA VICTOR 61793. A well-filled CD (almost 70 minutes), recorded between 1956-1960, that also includes Mendelssohn’s *Hebrides Overture*.

- **MANITAS DE PLATA AT CARNEGIE HALL:** VANGUARD OVC 8086. The great flamenco guitarist recorded on December 4, 1965, with his cousin Jose Reyes as vocalist.

- **RAVEL:** Piano Works. Pascal Rogé. LONDON 440 836. This two-fer makes an impressive package; the playing shows "...power, taste, and a fine feeling for color" (November 1975).

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STEREO REVIEW APRIL 1995 81
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ARMY. BE ALL YOU CAN BE.
PHIL ALVIN
County Fair 2000
HIGHTONE 8056 (56 min)
Performance: All over the place
Recording: Good

Phil Alvin, brother of Dave and lead vocalist for the Blasters, took eight years between his first and second solo albums, and the latter sounds as if Alvin tried to pack in everything under the stars just in case he never makes it to a third. "County Fair 2000" is an allegory for the amalgamation of "American music" - jazz, blues, gospel, country, and rock. With his guests, the Blasters, Chicago blues harmonica wizard Billy Boy Arnold, Pasadena street singer Jerome Bowman, and tap dancers Eddie Baytos and Fayard Nicholas, Alvin presents quite a sideshow, drawing songs from the portfolios of such disparate songwriters and performers as Sammy Fain and Fats Waller and finding inspiration in Carl Sandburg's collections of gospel lyrics and the music of J. E. Mainer's Crazy Mountainaires. Alvin's freewheeling approach makes the whole thing both fun and somewhat disjointed and bizarre. "Speaking of sucking scum from the bottom of the tank . . . ." says Billy Boy Arnold in a spoken introduction to a great low-down performance of Wreck Your V-8 Ford. Well, you get the idea.

CHARLES BROWN
These Blues
VERVE/GITANES 523 022 (60 min)
Performance: In peak form
Recording: Very good

Charles Brown, now seventy-four, was one of the pillars of R&B during its golden era of the Forties and Fifties. As featured pianist and singer with Johnny Moore's Three Blazers and later on his own, he influenced artists like Nat King Cole and Ray Charles with his brilliantly fluid piano statements and slithering, blues-drenched vocals. Then he lapsed into obscurity, a victim of changing popular tastes, until he was rediscovered largely through the efforts of Bonnie Raitt. It's good to have him back again.

While Brown has released two superb recordings on Bullseye Blues since 1990, "These Blues" marks his re-emergence on a major label. Appropriately, he has drawn from vintage material, working with a cohesive ensemble consisting of Danny Caron on guitar, Ruth Davies on bass, and Gaylord Birch on drums, with Clifford Solomon supplying tenor-sax solos. The effect is eerie, like slipping through a curtain of time into one of those cozy, moody, smoke-filled bars where friends would meet to listen to music back before overblown amplification made conversation all but impossible. Brown captures the essence of that time with thoughtful interpretations of such classics as Ellington's I Got It Bad (And That Ain't Good), Louis Jordan's Is You Is, or Is You Ain't My Baby, and Brown's own ruminative These Blues. He caps the set with a remarkable rendition of Amazing Grace. It is a fitting conclusion to an album that demonstrates why Charles Brown is one of the genuine treasures of American music.

S.S.

AMIE COMEAUX
Moving Out
POLYDOR 523 710 (33 min)
Performance: A star in waiting
Recording: Good

When Polydor announced they'd signed a seventeen-year-old to sing country music, eyebrows went up all over Nashville. Record-company execs are tripping over themselves to find fresh-faced singers to tap deeper into country's growing youth market, but seventeen? In a genre once dedicated to voicing the woes and sorrows of adult life?

The young artist in question, Amie Comeaux, a comely blonde from Brusly, Louisiana, turns out to be a poised, full-voiced singer that producer Harold Shedd has been watching for years. Her big, natural soprano can summon up grit when it wants or molasses when needed, and on
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P E O P L E "MUSI C"

CONTINENTAL DRIFTERS
MONKEY HILL 6123 (39 min) Performance: Assured Recording: Good

THE DB'S
Paris Avenue
MONKEY HILL 6122 (40 min) Performance: Spirited Recording: Good

O n paper, it sounds untenable: a six-member band from (literally) all over the map geographically and musically. But an honest-to-goodness band chemistry emerges over the course of “Continental Drifters.” It’s not exactly what those familiar with the power-pop pedigrees of the group’s most visible members — Peter Holsapple (the dB’s), Susan Cowsill (the Cowsills), and Vicky Peterson (the Bangles) — might expect to hear. Holsapple, for instance, plays everything but electric guitar, the instrument with which he’s normally associated, and his Garth Hudson-like organ flourishes impart a Band-like flavor to the Drifters’ rosy stew. Throughout the album, the voices of Cowsill and Peterson harmonize with a casual self-assurance; their mutual love of well-crafted late-Sixties tunes is evident in the album’s finest moment, a soulful reading of the Goffin–King chestnut “I Can’t Make It Alone.”

The Continental Drifters are a democratic entity: four of them chip in a song apiece, drummer/vocalist Carlos Nuccio adds two, and the rest come from sources as diverse as the Box Tops (Soul Deep), the Monkees (Some of the Shelly’s Blues), and Gram Parsons (the album-closing A Song for You). Peterson’s contribution, Mixed Messages, defines the emotional core of the album, which takes a long, mature look at broken (or breaking) relationships. All told, “Continental Drifters” is a record by and for adults; it will be interesting to see what happens when, as songwriters, these folks begin collaborating.

The range of Peter Holsapple’s talent becomes apparent if you compare “Continental Drifters” with “Paris Avenue,” the simultaneously released swan-song album by his former group, the dB’s. “Paris Avenue” is probably not the place to begin trying to make dB’s converts of your friends, but it includes some excellent material. The album is occasionally marred by gaffes — Holsapple practically gags his way through Lines and Dots — but it’s an enjoyable romp nonetheless.

DAVID CROSBY
It’s All Coming Back to Me Now . . .
ATLANTIC 82620 (71 min) Performance: Half and half Recording: Live (and lively)

D avid Crosby’s current clear-headedness, after a Phoenix-like rise from the ashes of crack addition, is implicitly celebrated in “It’s All Coming Back to Me Now . . .,” which rebuts the stoned-and-proud title of his early-Seventies solo album If I Could Only Remember My Name . . . Recorded live in an L.A. club, the first half of the program offers some mesmerizing, elliptical new songs (In My Dreams, Rusty and Blue) and salvage a pair of decent tunes from the otherwise sodden “Thousand Roads,” Crosby’s most recent studio album. But then the amps get cranked up to eleven, and all subtlety flies out the window. Chris Robinson of the Black Crowes chimes in on a histrionic version of Crosby’s early stoner anthem, Almost Cut My Hair, wherein the two attempt to out-shout each other. Long Time Gone, a thoughtful jewel from the first Crosby, Still & Nash album, is attacked with a similarly heavy hand. Between the operatic overkill of his vocals and repeated cries to his fellow musicians to “hit it,” summoning lengthy solos, Crosby strikes his best material with near-hysterical overstatement. Guess you just had to be there. P.P.
RAY WYLIE HUBBARD
Loco Gringo's Lament
DEJADISC 3213 (53 min)
Performance: Surprisingly literate
Recording: Very good

Best known for writing Jerry Jeff Walker's "Up Against the Wall, Redneck Mother," the anthem for the Texas progressive-country movement in the Seventies, Ray Wylie Hubbard became something of a cult name if not a cult artist in the years that followed, so difficult was it to find his work. Now, after all those years, comes "Loco Gringo's Lament," a terrific little gem in which Hubbard proves he was a far more literate writer than his previous efforts suggested. In Dust of the Chase he presents the autobiography of a card shark and hustler who counts the wages of sin ("Patience is a virtue that I don't possess / And I can't deny that heaven lies beneath a cotton dress"). And in Love Never Dies he shows he's as hip as the next guy, comparing his beloved both to "Mother Maybelle Carter's wildwood flower" and to "Marianne Faithfull's broken English."

Hubbard fleshed out this collection of meditations on life and love with a dash of homicide blues (Wanna Rock and Roll) and meditations on life and love with a dash of wildwood flower" and to "Marianne Faithfull's broken English."

Hubbard fleshed out this collection of meditations on life and love with a dash of homicide blues (Wanna Rock and Roll) and a rocking glance at the parade of young guitar pickers who, like Hiram Hank Williams, traveled down that lost highway and never came back (Loco Gringo's Lament). And in one of the album's most arresting songs, The Real Trick, he takes a peephole look behind the locked doors of a mental hospital. At times reminiscent of the best work of Waylon Jennings, Joe Ely, or Kevin Welch, Hubbard's lyrics are at once poignant, spellbinding, and enlightening. After decades of obscurity, "Loco Gringo's Lament" should push Hubbard to the forefront of the Texas school of singer-songwriters. Maybe that's where he's belonged all along.

A.N.

JASON AND THE SCORCHERS
MAMMOTH1 0010 (38 min)
Performance: Scorching
Recording: Big and boomy

This is Jason and the Scorchers as they were always meant to be - loud, proud, and kicking up clouds of dust around a proverbial Saturday-night juke joint of the mind. It's an effective mix of the two things they do best: rock unrepentantly hard, with their Southern roots showing, and tweak the heartstrings with ballads as pure as driven snow. Two numbers trade on country-ish instrumental lick sandwiched in-between the rock guitar and piano solos, and, of course, the hair. But on "Kick a Little," their third album, Little Texas once again proves they're long on commerce and short on imagination, settling for derivative themes, cookie-cutter riffs, and some all-too-mellow lyrics about estranged lovers (Amy's Back in Austin), self-esteem (Kick a Little), and folks less fortunate than the rest of us (Inside). For those who don't go for the ersatz California sound, Little Texas has included two cuts here aimed at aging Southern rockers (Hit Country Song, a heavy-handed tip of the Stetson, and Redneck Like Me). All bases covered, boys. And none too well.

A.N.

MAC MCANALLY
Knots
MCA 10992 (36 min)
Performance: Well intentioned
Recording: Good

Singer-songwriter Mac McAnally, perhaps best known for It's a Crazy World, his 1977 Top 40 single, is capable of crafting affecting, well-turned nuggets of every-anced by songs of a more contemplative stripe, such as Where Bridges Never Burn, wherein two bruised survivors come together, bonded by the desire not to repeat their mistakes ("We've both seen life come crumbling down / We've both lost loves we thought were true"), and Somewhere Within, a touching bit of country-folk introspection. The group's barnstorming, Van Halen-with-twange version of Country Roads (yes, the John Denver song) is full of sassy Dixie pride. Guitarist Warren Hodges really gets in his licks here, treating the song more like a professional wrestling event than the pastoral canvas that Denver painted. All in all, "Jason and the Scorchers" adds up to the group's best work since they hit the ground running with "Fever" more than a decade ago.

P.P.

LITTLE TEXAS
Kick a Little
WARNER BROS. 45739 (39 min)
Performance: A little is right
Recording: Okay

Little Texas is one of a myriad of six-piece country-pop groups that have blitzed Nashville in the last couple of years, all hoping to be the Eagles of the Nineties. Alas, they'd never make it past Poco. They've got the layered vocals, the slightly country-ish instrumental lick sandwiched in-between the rock guitar and piano solos, and, of course, the hair. But on "Kick a Little," their third album, Little Texas once again proves they're long on commerce and short on imagination, settling for derivative themes, cookie-cutter riffs, and some all-too-mellow lyrics about estranged lovers (Amy's Back in Austin), self-esteem (Kick a Little), and folks less fortunate than the rest of us (Inside). For those who don't go for the ersatz California sound, Little Texas has included two cuts here aimed at aging Southern rockers (Hit Country Song, a heavy-handed tip of the Stetson, and Redneck Like Me). All bases covered, boys. And none too well.

A.N.
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day country and suburban life, usually revealing a layer of unspoken conflict. But while he's slavish in his admiration for James Taylor — the vocal tone, phrasing, and, to some extent, writing — he hits the bull's-eye far less frequently than Taylor did in his prime. Here, on a record of low-key subtlety, with songs about miscommunication in marriage, fanatical couch potatoes, and keeping your options open, he generally fails to come up with anything as emotionally provocative as the hits he's written for others — Old Flame for Alabama, Two Dozen Roses for Shenandoah, and All These Years for Sawyer Brown. One powerful exception: Miracle, a fifteen-year-old delirium on love and faithfulness that closes the album. But the record never really gets off the ground. A.N.

**BARRY WHITE**

The Icon Is Love

A&M 540 115 (65 min)

Performance: Sensual

Recording: Polished

Before the hip-hop generation, the term "rap" often brought to mind the sensual basso profundo of Barry White, a singer and champion sweet-talker who could create a virtual-reality bedroom without the aid of computers. Now, after nearly sixteen years, he's returned with an album that has recaptured the public's fancy. Of course, he's still in bed — by now, White has surely made it into Guinness as the world's longest-winded lover.

What's new this time out are the variations within his repertoire. Practice What You Preach turns the tables by having White challenge his lady to make good on her boasts of sexual mastery. He hints at kinky pleasures in Sexy Undercover ("Baby, you know I'm nasty by nature") but remains discreetly playful — for all his talk, he does adhere to what used to be called good taste, avoiding profanity and literal references.

While still very much a one-man show (composer, arranger, singer, and keyboardist, as well as executive producer), White has freshened up his act by collaborating with younger writers such as Gerald Levert, Jimmy Jam, and Terry Lewis. Yet the overwhelming force throughout still lies in his romantic entreaties as he cajoles, comforts, and plays up to his baby, capping it all with the winsome reminiscence Whatever We Had. In a period when so much pop fare treats women as objects, Barry White's tender talk is welcome indeed. P.G.

**LARRY STEWART**

Heart Like a Hurricane

COLUMBIA 66411 (37 min)

Performance: Run the gamut

Recording: Very good

Despite his soulful tenor, Larry Stewart, the former lead singer of Restless Heart, country's premier middle-of-the-road band, was often blamed for R&B's cold-as-steel precision and essential blandness. On this, his second solo outing, he wants things up a tad, pumping his libido in the title tune, in which he recounts a whirlwind romance with an irresistible free spirit, and going for a secular gospel sound on Rockin' the Rock. Along the way, he dutifully plies his stock-in-trade — pretty but ultimately boring romantic ballads for the unappreciated housewife (such as She Wants to Be) and one song (Mama Needs Someone to Wanted Again). But he also stops for a well-executed dance number (One Track Mind) and one song (Mama Needs Someone to Hold Her) with a story line Nashville hasn't yet worked to death — a fatherless son's plea that his mother will find someone who made her as happy as Daddy. Such subject matter is tailor-made for Music City's most maudlin tunesmiths, from Ponder Wagoner to Harlan Howard. But Stewart makes the Marc Beeen-James Dean Hicks song not only intelligent, but rather moving. That's one word rarely applied to Stewart's earlier efforts. A.N.

**LARRY STEWART**

new and improved?

**THE BEST OF BROADWAY**

RHINO 71885 (73 min)

Performance: Definitive

Recording: Klieg-light bright

If you've ever been tempted to put together your own tape of favorite tracks from Broadway show albums released on different labels, forget it. Rhino has done the work for you, and it's a honey of a job. From Oklahoma! and Guys and Dolls to Phantom of the Opera and Les Mis, twenty hit shows since 1943 are represented in "The Best of Broadway," with an all-star roster that would take half-a-dozen marquees to accommodate — names like Ethel Merman, Mary Martin, Alfred Drake, Larry Kert, Murray Head, Michael Crawford, Patti Lupone, and so on. Most important, the songs themselves really do add up to the best of the past fifty years — and not just on Broadway. Rhino is also donating part of the proceeds to the Neil Bogart Memorial Fund for pediatric cancer, leukemia, and AIDS research. R.H.

**SKYNYRD FRYNS**

MCA 11097 (52 min)

Performance: Hit and miss

Recording: Okay

Pretty soon the tribute albums are going to be like Elvis records — laid end to end, they'll circle the globe twice. This salute to the kings of Seventies Southern rock features Alabama, Travis Tritt, Confederate Railroad, Sammy Kershaw, Hank Williams, Jr., the Mavericks, Steve Earle, Charlie Daniels, Terry McBride & the Ride, and Wynonna reprising Skynyrd's familiar songs. And while four performers — Kershaw on I Know a Little, the Mavericks on Call Me the Breeze, Steve Earle on What's Your Name, and Terry McBride & the Ride on Saturday Night Special — do something different or even inventive with the material (the Mavericks turn their cut into boogie-woogie swing, for example), most just update the production. The main problem, though, is that Skynyrd's stuff really hasn't held up very well; it sounds sophomore, dated, and often just plain lackluster in a
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decade lacking a lot of the social combustion that helped propel Ronnie Van Zant and company in the first place. If you’re a dyed-in-the-wool Skynyrd fan, you’ll have to have this. Otherwise, dig out your original records. If you must.

'TIL THE NIGHT IS GONE: A TRIBUTE TO DOC POMUS
RHINO 71878 (52 min)
Performance: Worthy of its subject
Recording: Very good

The late, great Doc Pomus epitomized the craft of rock-and-roll songwriting as well as anyone who ever lived. Many of his fans, friends, and disciples contribute solid, heartfelt performances of some of Pomus’s better-known songs on this exquisite tribute, one of the few that truly stands out from the crowd. To repeat a cliché that in utter, one of the few that truly stands out from the crowd. To repeat a cliché that in
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POPULAR MUSIC

Steve Lacy. "Who's Bridge" is both his first American date and his first session (at least that I am aware of) with just bass and drums (Brad Jones and Joey Baron, respectively). Despite the conventional instrumentation, this isn't one of those discs you can gain an accurate sense of by hitting the scan button in order to sample the first 30 seconds or so of every track. In the case of the opening Rolla II, what starts off as a dark, Cecil Taylor- like assault gradually evolves into a happy little melody with obvious allusions to Thelonious Monk. Romantic Jump of Hair likewise settles down into a ballad after a thunderous, scurrying beginning. Several numbers reverse the strategy, starting off relatively simple and growing almost comically complex with little advance warning (a jaunty blues called Gare Guillotins is a good example, but so are a stutter march called Crocodile Ted and a piece called Riambone that sounds like the mordant theme of a kid's show on TV).

The album is full of quirks and twists, and although Lacy's touch and sense of internal rhyme frequently recall Monk, the playful compositions themselves suggest Herbie Nichols. Mengelberg has successfully absorbed these influences, and his American sidemen don't miss a beat. In an era of bland piano-trio recordings, this one joins Don Pullen's "New Beginnings," Cyrus Chestnut's "Revelation," and Myra Melford's "Jump" in reminding us of the American date and his first session (at least C.A.)

LEON PARKER
Above and Below
EPICURE 66144 (47 min)
Performance: Splendid
Recording: Excellent

Rhythm, as one might expect, is the main ingredient of percussionist Leon Parker's debut album, "Above and Below," but what really makes this gem of a CD stand out is its combination of taste and musicianship. It is a well-conceived journey through a colorful weave of mood swings, all neatly wrapped in strands of rhythm. As a teenager, Parker listened to jazz — which he still listens to in his home — as well as such brass-, jazz-influenced artists as Earth, Wind & Fire and James Brown. But he was also keenly interested in the Latin rhythms of Tito Puente and Mongo Santamaria. Sprinkled generously with inventive asides, "Above and Below" is an amalgam of these influences. On All My Life and B.B.B.B., Jay McFerrin's wordless vocals are gently sponged up and squeezed into the melody, the initial trickle becoming a flood of aural delights. On It's Only a Paper Jacket, abandoning the exotic allure of The Rainforest's wilder South American Program I, the noisier South American Rainforests, with all those bird calls. Program II, the calmer South Pacific Island Rainforests, with all those bird calls.

JUNE TABOR
Against the Streams
GREEN LINNET 3096 (45 min)
A characteristically lovely solo album by the veteran British folkie who nearly stole last year's Richard Thompson tribute. Best moment: Beauty and the Beast: An Anniversary, a strange, touching sequel to the classic folk tale, and unlikely ever to be made into a Disney movie. S.S.

TROPICAL RAINFOREST
NATURE RECORDINGS 20 (60 min)
Mother Nature's orchestra of birds, bugs, mosquitos, waterfalls, and surf performs here (unhampered by human instruments) to give an authentic sound portrait of two rainforests. My cats responded more to Program I, the noisier South American Rainforests, with all those bird calls. I found the calmer South Pacific Island Rainforests of Program II more soothing. Both are beautifully recorded. W.L.

IKE TURNER
I Like Ike! — The Best of Ike Turner
RHINO 71819 (48 min)
Okay, so he may not be the nicest guy you ever met, but the fact remains he's a world-class talent — pianist, guitarist, songwriter, bandleader, producer — responsible for lots of great rock-and-roll before he ever hooked up with you know who. Pick hit: Prancing, a lethal stops-time guitar shuffle, a copy of which the late Stevie Ray Vaughn probably wore out as a kid. S.S.
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PICTURES ARE FOR ILLUSTRATIVE PURPOSES ONLY
Beethoven's D Major Piano Concerto, a transcription of his Violin Concerto, is periodically recorded, sometimes with an apologetic air, as if the piano soloist were treading carefully so as not to upset listeners' violinistic preconceptions. Olli Mustonen clearly can't be bothered with such worries: His big, muscular approach almost makes the concerto a virtuoso vehicle. That may seem blasphemous, and some of the more personal, confessional moments in the violin version just don't happen here, but there's nothing shallow about his reading. He just gives the piano part bigger bones and a broader swagger than usual, in fascinating contrast to conductor Jukka-Pekka Saraste's clean, low-vibrato, historically informed approach to the orchestral part.

In the other transcription here, Bach's Keyboard Concerto in D Major, a transcription of his Violin Concerto, is periodically recorded, sometimes with an apologetic air, as if the piano soloist were treading carefully so as not to upset listeners' violinistic preconceptions. Olli Mustonen clearly can't be bothered with such worries: His big, muscular approach almost makes the concerto a virtuoso vehicle. That may seem blasphemous, and some of the more personal, confessional moments in the violin version just don't happen here, but there's nothing shallow about his reading. He just gives the piano part bigger bones and a broader swagger than usual, in fascinating contrast to conductor Jukka-Pekka Saraste's clean, low-vibrato, historically informed approach to the orchestral part.

In the other transcription here, Bach's keyboard arrangement of his Violin Concerto, the slow movement has an appropriately melting lyricism. It's less justifiable historically to play this concerto on a modern piano than the Beethoven, but Mustonen has such a big, absorbing musical personality that it's hard to resist his interpretation.

**Beethoven:** Piano Concerto in D Major

**Bach:** Keyboard Concerto in D Major

Mustonen: Deutsche Kammerphilharmonie, Saraste

**LONDON 443 118 (54 min)**

**Performance:** Big and extroverted

**Recording:** Excellent

Beethoven's D Major Piano Concerto, a transcription of his Violin Concerto, is periodically recorded, sometimes with an apologetic air, as if the piano soloist were treading carefully so as not to upset listeners' violinistic preconceptions. Olli Mustonen clearly can't be bothered with such worries: His big, muscular approach almost makes the concerto a virtuoso vehicle. That may seem blasphemous, and some of the more personal, confessional moments in the violin version just don't happen here, but there's nothing shallow about his reading. He just gives the piano part bigger bones and a broader swagger than usual, in fascinating contrast to conductor Jukka-Pekka Saraste's clean, low-vibrato, historically informed approach to the orchestral part.

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**Handel:** Messiah

Soloists: King's College Choir, Cambridge; Brandenburg Consort, Cleobury

**LONDON 440 672 (two CD's, 143 min)**

**Performance:** Very good

**Recording:** Cloying

In his note accompanying this set, sound engineer Simon Eadon says that this "was never going to be just another Messiah," but his justification for that claim, that the recording captures "the magical acoustic" of King's Chapel, Cambridge, will leave most nonengineers unmoved, especially when the work under consideration is already available in more versions than the Bible. In fact, the recording is ultimately the undoing of the set: After a while that luscious, echoey sound becomes wearisome for chamber music seems to have deprived the ensemble sound of warmth and sonic elbow room. If you like a close, crisp sound with good instrumental separation and delineation, you have it here.

**Bruch:** Piano Tris

Ashkenazy; Perlman; Harrell

**EMI 54725 (two CD's, 123 min)**

**Performance:** Full-blooded

**Recording:** Fairly close-up

The all-star combination of pianist Vladimir Ashkenazy, violinist Itzhak Perlman, and cellist Lynn Harrell gives us Brahms's three acknowledged masterpieces in the piano-trio genre — Op. 8, in B Major, in its 1889 revision; Op. 87, in C Major, and Op. 101, in C Minor. In addition, we have the Trio in A Major attributed to Brahms, which dates from about the same period as Op. 8 but was published only in 1938. Certainly its musical language is in a similar warm, Romantic vein.

The broadly lyrical approach the performers take at the beginning of Op. 8 is sustained throughout all four works, though the playing is as alert as one could possibly ask when it comes to the scherzos. I'm used to a tauter handling of the first movement of Op. 101, but the players do make its harsher moments seem friendlier than usual. They excel in the two middle movements of Op. 101, the coyly hesitant presto and the beguiling adagante, but my favorite parts of these performances are the meltingly lovely adagio of Op. 8 and the stunning middle movements of Op. 87.

The sound as such is clean but somewhat sterile, which may have something to do with the recording locales: EMI's Abbey Road Studio 1 in London for Op. 8 and the A Major and New York's Manhattan Center for Opp. 87 and 101. The necessary damping of the acoustics of these big rooms for chamber music seems to have deprived the ensemble sound of warmth and sonic elbow room. If you like a close, crisp sound with good instrumental separation and delineation, you have it here.

**D.H.**

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Alastair Miles — are about as good as could be assembled now. The set is well worth having if only for Ainsley’s superb performance of the tenor arias. His rendition of “Every valley shall be exalted” is nearly ideal, its exquisite refinement suffused with spiritual warmth.

And what a pleasure it is to hear female singers again! For a while it seemed as though the soprano arias were irrevocably lost to countertenors, who are about as authentic for Messiah as synthesizers. Dawson, an English soprano who has turned in some fine performances on opera recordings, has a voice that seems at first too dark-hued and mezzoish for a rapturous aria like “He shall feed his flock,” but she imbues every word with urgent conviction and ultimately wins you over.

Now, if only someone would reclaim Messiah for modern instruments. . . . J.J.

HAYDN: Symphonies Nos. 31, 59, and 73
Concentus Musicus Wien, Harnoncourt
TELDEC 90843 (78 min)
Performance: Boisterous
Recording: Colorful

Many of Haydn’s symphonies have attracted nicknames, and Nos. 31, 59, and 73 are called the “Hornsignal,” “Fire,” and “Hunt” Symphonies, respectively. The horns here are four natural horns of the old, undomesticated hunting variety meant to be heard clear across Austro-Hungary. Fitting these primitive horns, with their few notes and rude sound, into the sophisticated scheme of a symphony at all was a challenge to the composer. But in their very crudeness, they also symbolize the out-of-doors, peasant life, the beauty of the countryside, and the power of the natural world, ideas that dominate these pieces. Nikolaus Harnoncourt, you can be sure, has located the loudest, brassiest, and most natural of natural horns to be found in Austria, and they kick off this disc with a blast in the “Hornsignal.” The later “Hunt” Symphony is subtler but no less out-of-this-world the horns somewhat less blatant (and that is certainly the right word) but still playing an important role.

While it is not hard to understand the picturesque programmatic associations of those two works, why No. 59 came to be called the “Fire” Symphony is obscure. But the music is Haydn at his most eccentric and colorful, with, among other things, a hopping presto opener, a slow movement that isn’t slow, a mysterious and atmospheric minuet-trio, and a hornpipe finale led by — you guessed it — horns au naturel.

These performances not only make the case for period instruments in terms of color — the instrumental timbres imagined by the composer — but present the music with the boldest and liveliest of phrasing dynamics, tempos, and general spirit. Harnoncourt’s view is clearly that this is boisterous and even irreverent music, and he is not afraid to kick it; at the same time, there is a lot of affection and care. I can’t imagine anything better.

E.S.

MOZART: The Marriage of Figaro
Soloists: Monteverdi Choir
English Baroque Soloists, Gardiner
DEUTSCHE GRAMMOPHON ARCHIV
479 871 (three CD’s, 178 min)
Performance: Exemplary
Recording: Live but excellent

MOZART: The Marriage of Figaro
Soloists: Netherlands Opera Chorus: Royal Concertgebouw Orchestra, Harnoncourt
TELDEC 90861 (three CD’s, 186 min)
Performance: Fascinating
Recording: Full and airy

Though it may be unwise to judge a CD by its program booklet, the ones packaged with these two new recordings of Mozart’s ever-durable Marriage of Figaro say a lot: Nikolaus Harnoncourt’s is thick and stuffed with all sorts of essays; John Eliot Gardiner’s is streamlined and to the point. So it is with the musicmaking, which in both cases is highly noteworthy even in a crowded catalog.

Although both are historically informed, they are so personal and individualistic that there isn’t the slightest hint of pedantry. Among the many fine things about Gardiner’s reading, recorded five, are a transparency and presence that make Mozart’s wealth of ideas leap out at you in dizzying succession. Previously obscure details of orchestration can be heard, and Gardiner makes them dramatically relevant. He also creates an arena in which the singers can make fresh approaches to their parts. The recitatives, for instance, are revelations; instead of stopping the musical momentum, as in most Figaro recordings, they speed the story along. Baritone Bryn Terfel’s voluble, sexy Figaro is all it’s been cracked up to be. The rest of the well-chosen cast is mostly Gardiner regulars — baritone Rodney Gilfry as the Count and sopranos Hillevi Martinpelto as the Countess and Alison Hagley as Susanna.

While Harnoncourt’s slow tempus, thick textures, and deliberate manner were used to great effect in his Don Giovanni recording, the approach seems unduly weighty — at least at first — for Mozart’s comedy. At times the whole march takes on a militaristic heaviness. But you soon become ac-

Liberated from the Bastille

Despite his nasty, messy firing from the Paris Opéra—Bastille last summer, the forty-one-year-old Korean-American conductor Myung-Whun Chung remembers running Europe’s most politicized opera company with great fondness.

“I have absolutely no regrets. All of these difficult moments were so minor in comparison to the rewards I’ve gotten from this experience,” he told me in Philadelphia last November, buoyed by a sensationally performed Symphony No. 4 with the Philadelphia Orchestra, which Deutsche Grammophon recorded for release within the next year. Chung had managed to put the Bastille Opera on the recording map, as much by his studio savvy as his conducting talent, with highly acclaimed interpretations of Samson et Dalila, Otello, and, especially, Lady Macbeth of Mtsensk. Unlike many musicians who pull back their performances to accommodate the sharp but cold ears of the microphone, Chung does almost the opposite. “You must give more intensity moment by moment,” he explained. “The most challenging aspect of recording is to make the emotional content strong enough to go beyond the electronic barrier.”

Some of Chung’s most successful recordings have been of the music of Olivier Messiaen, and last September, near the end of his Paris tenure, he was able to conduct the world première of Messiaen’s posthumously discovered concerto grosso, Concert à 4, with the Bastille Opera Orchestra. Deutsche Grammophon recorded the performance and will release it in May, and Chung conducts the work’s U.S. première this March with the Cleveland Orchestra.

David Patrick Stearns
customed to Harnoncourt’s interpretive rules; while there aren’t a lot of laughs, the recording is bursting with insights. Soprano Barbara Bonney is a winning, confiding Susanna, and baritone Thomas Hampson gives an accomplished if overly mannered portrayal of the Count. For the other principal roles Harnoncourt chose fresh but lesser-known singers. Baritone Anton Schenirer makes a satisfactory Figaro, and soprano Charlotte Margiono’s Countess is unusually touching. The smaller roles are cast luxuriously, with Philip Langridge as Basilio, and Ann Murray as the otherwise, with Philip Langridge as Basilio, and Ann Murray as the

**PROKOFIEV: Violin Concertos**

Nos. 1 and 2

Stravinsky: Violin Concerto

Lin; Los Angeles Philharmonic, Salonen

**SONY 53969 (69 min)**

**Performance: Infectious**

**Recording: Sumptuous**

Cho-Liang Lin certainly hasn’t been overexposed by Sony; everything he has recorded so far has fairly glowed with conviction and the most communicative sort of animation, suggesting that each and every item was a very personal choice on his part rather than a selection made in a marketing conference. That happy impression is more than upheld by this new CD, and so is that of a special rapport between Lin and the conductor Esa-Pekka Salonen, which was so apparent on their disc of the Sibelius and Nielsen concertos a few years ago. All the elements are superbly integrat-

**RACHMANINOFF: Symphony No. 3; Symphonic Dances**

Baltimore Symphony, Zinnman

TELARC 80331 (74 min)

**Performance: Splendid**

**Recording: Gorgeous**

Rachmaninoff’s two valedictory orchestral masterpieces receive the most satisfying recorded realization yet — in terms of interpretation, performance, and sound.
— from David Zinman and his Baltimore players. His readings, like those of Charles Dutoit and the Philadelphia Orchestra on a recent London CD, are free from exaggeration and fussiness, but they are decidedly warmer in tone and phrasing than Dutoit’s, and he applies just the right touch of string portamento in the right places. The high points of the Third Symphony are the slow portamento in the right places. The hushed reprise in the central adagio movement is particularly haunting, and for my taste the ferocious dance-of-death finale has never come off better. Tabe’s sound is full-bodied and splendidly balanced throughout the audible range.

While I would have liked a touch more rhythmic tension in the first two movements of the Symphonic Dances, the performance in its entirety is on the same high plane as that of the Symphony. The hushed reprise in the central waltz movement is particularly haunting, and for my taste the ferocious dance-of-death finale has never come off better. Tabe’s sound is full-bodied and splendidly balanced throughout the audible range.

D.H.

Kyoko Tabe’s debut recording, twenty-five of Mendelssohn’s Songs Without Words, was one of last year’s most attractive piano releases and created a great deal of interest in the announced Schubert follow-up. Now that it is at hand, it once again suggests that Tabe is a thoughtful artist, totally concerned with finding the key to the essential character of the music without imposing or overlaying her own personality on it. And the key, once again, is songfulness. In the opening movement of Schubert’s towering final sonata, Tabe quickly and surely establishes a mood of bleak pathos and then simply allows the song to pour out, without gratuitous underscoring. The natural momentum is so effortlessly achieved that one is not likely to stop and acknowledge it, or to think of the unself-conscious little revelations here and there as “insights” on Tabe’s part (though they surely are). There is not a single perfunctory gesture, or a single one that gets in the way, throughout the utterly convincing four-part drama, and the three posthumous piano pieces — Schubert’s final impromptus — are even more persuasive. Tabe is quite a musician, as well as a stunning pianist, and Denon has come through with exceptional realism.

R.F.

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Dame. Nonetheless, under Neeme Järvi's leadership the music has an unflagging momentum that sweeps it along, and he doesn't allow the few lyrical episodes to sink into sentimentality.

The title character is a complex figure whose feckless ambition casts him into political disgrace and personal tragedy. Baritone Sergei Leiferkus portrays him with a powerful authority that misses no dramatic points, though his instantly recognizable, somewhat bleatly tone requires some getting used to. By contrast, Anatoly Kotcherga voices the part of Kotchubei, Mazeppa's victim, in a rich and smoothly flowing bass-baritone, and soprano Galina Gorchakova, who debuts this season at the Met, is just about ideal as Kotchubey's ill-fated daughter Maria, destroyed by the enmity between her father and her lover Mazeppa. Sergei Larin, a cultivated lyric tenor, and Larissa Dyadkova, a high mezzo-soprano, make the most of their opportunities, as does baritone Monte Pederson in a supporting role.

Peter the Great defeated the Swedish army at Poltava in 1709, an episode memorialized in the opera by a noisy interlude. Under the circumstances, the financial support of this recording by Sweden's Volvo calls for special mention.

G.J.

R. STRAUSS: Four Last Songs
WAGNER: Wesendonck-Lieder; Tristan und Isolde, Prelude and Liebestod
Studer: Staatskapelle Dresden, Sinopoli
DEUTSCHE GRAMMOPHON 439 865 (60 min)
Performance: Moving
Recording: Excellent

Cheryl Studer brings intelligence and class to the Four Last Songs, inflecting the texts to emphasize meaning and coloring her voice for effect (occasionally it takes on an oboe-like timbre). Her singing is intertwined with the orchestral texture, strengthening the impression that this composition is actually a concerto for voice and orchestra. For his part, Giuseppe Sinopoli conducts the lush score with attention not only to his soprano soloist, but also to individual instrumental voices. The Wagner selections are likewise commendable. Studer again pays close attention to the texts and stresses their poetry rather more than is usual, and Sinopoli conducts with a similar concern while at the same time realizing the melodic richness of the music. His reading of the Tristan prelude is eminently satisfying.

R.A.

Collections

CAMERATA BARILOCHE
Tango!
DORIAN 90201 (58 min)
Performance: Excellent
Recording: Excellent

The six concert pieces for chamber orchestra by Astor Piazzolla, Jose Bragato, and Rodolfe Arizaga included here capture both the beauty and the threatening power of urban life in Buenos Aires along with the pervading melancholy of the tango, which inspired all of them. Piazzolla's Suite Punta del Este for string orchestra with solo bandoneon (a relative of the accordion) is polished and expressive, and his Suite for Oboe and String Orchestra is even more poetic and affecting. The entire program is performed with the utmost idiomatic authority by Argentina's Camerata Bariolche, and this recording is a most worthy addition to Dorian's series of Music of Latin American Masters.

William Livingstone

(Reviews continue on the next page.)
classical music

Vladimir Horowitz
The Private Collection, Volume One
RCA Victor 62643 (63 min)
Performance: Of interest
Recording: Quite good

In the years 1945-1950 Vladimir Horowitz performed as many as six recitals a year in New York City alone—and all of those performances were recorded on 78's for his own use. Following his death in November 1989, his wife decided to make available to the public the material that had not been represented among his commercial recordings. There is enough to fill two CD's, and RCA Victor has now issued the first, comprising music by Bach, Clementi, Mendelssohn, Chopin, Liszt, and Rachmaninoff.

The process of restoration and remastering was carried off with remarkable success; the sound of the piano is a good deal more than acceptable, allowing the listener to focus on the music-making without having to make any compromises or allowances. When we get down to musical considerations, though, we have to remind ourselves of the original purpose of these recordings, which preserve performances of works that Horowitz apparently did not find sufficiently stimulating or congenial to record commercially. The performance of Bach's C Minor Toccat from 1949, for instance, suggests little more than a dutiful gesture, and the other big piece, Chopin's F, is numbingly prosaic.

The shorter works fare better. Horowitz, alone among the great pianists of his time, championed and clearly relished the Clementi sonatas, and the three offered here receive illuminating readings, as do Mendelssohn's Song Without Words, Op. 67, No. 3, and Rachmaninoff's Etude-Tableau, Op. 39, No. 7. Many piano fanciers will find these pieces essential even if they never return to the Bach or Chopin.

Sequentia
Canticles of Ecsasy—Music of Hildegard von Bingen
Deutsche Harmonia Mundi 77320 (73 min)
Performance: Ecstatic
Recording: Effective church acoustic

Sequentia, an ensemble specializing in medieval music, is marking the upcoming 900th anniversary of Hildegard von Bingen (1098-1179), the thirteenth-century abbess of Rupertsberg on the Rhine near Cologne, by a projected series of recordings of her complete works. "Canticles of Ecsasy is the third album to be released.

This amazing figure has had a remarkable renaissance recently with all the recent focus on the artistic achievements of women, the newfound popularity of Gregorian chant, and the contemporary interest in mysticism. She called the works here "harmonious symphonies of heavenly inspiration." In the modern sense, however, there are no symphonies, no harmony or counterpoint. Technically, the works here are monophonic antiphons, responsories, and sequences intended to be sung in a liturgical context.

Sequentia is directed by its co-founder, Barbara Thornton, who is also its principal singer. The women's voices, solo and ensemble, are occasionally "accompanied" (mostly in the form of drones) by medieval fiddle, harp, and hurdy-gurdy, and there is one independent instrumental number, not really a composition but a dance-like improvisation.

The performances are indeed highly ecstatic, bringing out the intensity and joy of hymns intended to express, verbally and emotionally, feminine principles of creation and faith. They are recorded in a way that makes effective use of the acoustics of Cologne's ancient Church of St. Pantaleon. There are some errors and inconsistencies in the program booklet, but full texts and translations are provided.

E.S.
**BACH: Three Solo Cantatas**

Argenta, Ensemble Sonnerie, Huggett

**VIRGIN 45038 (62 min)**

Bach's solo cantatas are one of the supreme tests for the vocalist: intimate, often very sparsely accompanied, they leave the singer nowhere to hide. This is a fine prelude to the vocalist: intimate, of Bach's solo cantatas are one of the supreme tests for the vocalist: intimate, often very sparsely accompanied, they leave the singer nowhere to hide. This is a fine prelude to the vocalist: intimate, of Bach's solo cantatas are one of the supreme tests for the vocalist: intimate, often very sparsely accompanied, they leave the singer nowhere to hide. This is a fine prelude to the vocalist: intimate, of Bach's solo cantatas are one of the supreme tests for the vocalist: intimate, often very sparsely accompanied, they leave the singer nowhere to hide.

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**SCARLATTI: Sonatas**

John Browning (piano)

MUSCIMASTERS 57146 (71 min)

John Browning has so strongly favored Romantic and contemporary repertory that this recording of Scarlatti sonatas comes as a surprise, but a thoroughly delightful one. The elegance and vigor with which he enlivens thirty of these remarkable little works shows his love for this music, and the exceptionally vivid sound makes the imaginatively programmed sequence that much harder to resist.

---

**BARTOK: Concerto for Orchestra; The Miraculous Mandarin**

City of Birmingham Symphony, Rattle

EMI 55094 (70 min)

Simon Rattle's drive and dynamism, combined with strong musicianship, particularly in twentieth-century repertory, suggest the influence of Leonard Bernstein; he is a little less flamboyant, and perhaps somewhat more disciplined, but similarly energetic and communicative. The pulse and color of these strong and popular works, vastly different in style but both with showcase orchestrations, are perfect for him.

---

**POULENC: Stabat Mater**

Soiolas, Atlanta Symphony Chorus and Orchestra, Shaw

TELARC 80362 (58 min)

These two settings of the same medieval text provide a fascinating study in contrasts: The Szymanowski *Stabat Mater* is steeped in the Eastern mysticism that pervades several of his most remarkable large-scale works; the Poulenc is, in conductor Robert Shaw's words, "a suite of ensemble dances — from choric tarantella to stately sarabande." Neither composer could have asked for more heartfelt performances than the ones here.

---

**PIERRE SAINT-SAÉNS: Symphony No. 3 ("Organ"); Violin Concerto No. 3**

Zimmermann: Oslo Philharmonic, Jansons

EMI 55184 (63 min)

The opening moments of the "Organ" Symphony promise great things with their combination of crackling urgency, effortless grace, and an emotional connection between score and conductor that has been all too absent from Mariss Jansons's work in recent years. Elsewhere, there's an infectious sense of sweep, with beautifully calculated and prepared climaxes and structural modulations. But in the final movement the grand organ chords are played with such bracing vulgarity that even Frank Peter Zimmermann's dignified reading of the Violin Concerto No. 3 is only partial compensation.

---

**SIBELIUS: Violin Concerto**

Midori; Israel Philharmonic, Mehta

SONY 58967 (63 min)

Midori responds more tellingly to the charm and color of the Bruch fantasy — a delightful performance — than to the rugged lyricism of the Sibelius concerto. Her initial solo entrance in that Finnish masterpiece can best be described as feline, and her treatment of the succeeding passage is rhapsodic rather than cohesive. The finale fares by far the best under her nimble fingers. Zubin Mehta and the orchestra provide strong and vital back-up, with better sound than usual from Tel Aviv's Mann Auditorium.

---

**VILLA-LOBOS: Songs**

Alexander; Chaplin, Heller

ETCETERA 1165 (59 min)

Of the nineteen songs by the prolific Brazilian composer Heitor Villa-Lobos on this CD, more than half are set to or arranged from folk texts or melodies; the others are art songs. The collection includes a version of the famous *Bachianas Brasileiras No. 5* as well as a great old samba tune and a set of songs derived from the composer's score for the movie *Green Mansions*. This is wonderful music sung with a lot of feeling by soprano Roberta Alexander, though she falls a little short in matters of language and style. The capable pianist is Alfred Heller, president of the Villa-Lobos Society. The sound is boxy though.

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7. **If you have a problem with your order or the merchandise**, write a letter to the seller with all the pertinent information and keep a copy.

8. **If you are unable to obtain satisfaction from the seller, contact the consumer protection agency in the seller’s state or your local Post Office.**

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Hi-Fi/Stereo Review

SPECIAL BUYER'S GUIDE TO STEREO RECEIVERS
AN INTERVIEW WITH HERMANN SCHERCHEN
MUSIC IN OLD NEW YORK
HARPSICORD HEADACHES

30 Years Ago

In the April 1965 "Editorially Speaking," Furman Hebb turned over the editorship of STEREO REVIEW to William Anderson, using the occasion to sound off about the magazine's purpose. "Most important," he wrote, "we love music," adding that "a reader should not have to be a graduate of M.I.T. to understand our technical articles."

In the issue's lead story, Bernard Newman introduced specifications for fifty-two stereo receivers, including the imposing Electro-Voice EV-88 (height, 7¼ inches). New products included the Harvard Futterman H-3 stereo power amp (50 watts per channel) and three bookshelf speakers from Bozak. In test reports, Julian Hirsch evaluated the Scott 260 stereo amp ("The listener hears the music, not the amplifier") and the Magnecord 1024 tape deck, a $600 semipro unit he called "an outstanding value." Scott 260 stereo amp ("The listener hears the music, not the amplifier") and the Magnecord 1024 tape deck, a $600 semipro unit he called "an outstanding value."

20 Years Ago

Adventures in Literacy: In April's cover story, Canadian folk singer Gordon (Sundown) Lightfoot (old Noel Coppage, "My reading habits are atrocious. All I read is the National Lampoon and Time.") Among the new products this month were the IAD Dynamic Volume Expander, which boosted gain by more than 15 dB, Tannoy/Micro's TM55DD direct-drive manual turntable, and the Bozak Monitor-C speaker, a more decorative version of a system originally designed for studio applications. Hirsch-Houch Labs tested Nakamichi's Model 500 cassette deck, a moderately priced ($399) two-head version of its pricier three-head decks, and Sansui's QRX-7001 four-channel receiver (it decoded QS quadraphonic records), which Julian Hirsch called "the single most advanced four-channel receiver you can buy today."

10 Years Ago

In Best of the Month, Eric Saltzman had "nothing but praise for the disarming loveliness" of Peter Serkin's set of Mozart piano concertos on RCA, and Chris Albertson raved about Circle's "Paris Concert," a live album featuring Anthony Braxton and Chick Corea ("in the vanguard of modern American music"). In other reviews, Richard Freed was knocked out by Wanda Wilkomirska's violin recital on Connoisseur Society ("fabulous fiddling!"). Steve Simels had dark thoughts about "Here's Johnny!", a two-LP set of highlights from the Tonight Show ("booze and whoopee-cushion humor for the masses"), and Noel Coppage, confronted with Leonard Cohen's "New Skin for the Old Ceremony," observed that "it makes you want to give him an expense-paid month-long vacation in a cold shower."

In letters, reader Anne Marie Tilly, of Memphis, Tennessee, claimed that she'd just listened to a live version of Joni Mitchell's Big Yellow Taxi "for the millionth time and have come to the conclusion that I'm tired of it."

Stereo Review

CEREMONY, 1985

Barry Gibb, 1985

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Dahlquist's DQ-20, 1985

The cover story featured technical editor Larry Klein's basic ground rules for adding extra speakers. He noted that if your amp overheats because the combined parallel impedance of your speakers falls much below 4 ohms, it may not cause permanent damage "but can certainly put a crimp in a Saturday night dance party." In "CES: 14 Show Stoppers," Gordon Sell described promising new products at the 1985 Winter Consumer Electronics Show, including Acoustic Research's ET-1 turntable, with improved three-point suspension, Canon's VR-E10 8mm videocassette recorder, and Dahlquist's DQ-20 phased-array three-way speakers ($1,800 a pair). And in "Audio/Video Receivers," Fred Petras examined six competing A/V units, including the first of the breed — Jensen's AVS-1500 — and Sony's 80-watt-per-channel STR-AV760.

Those Fabulous Reagan Years: Reviewing Barry Gibb's "Now Voyager," Peter Reilly harrumphed that "every aspect of this album is so glossy, so tailored to a known audience, that it might have been produced by a computer at the Harvard Business School."

— Steve Simels
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CIRCLE NO. 8 ON READER SERVICE CARD
WHAT'S AUTOMOBILE MAGAZINE'S OPINION OF THE DODGE NEON?

HIGH.

Dodge would like to thank Automobile Magazine for giving the roomy, zoomy Neon Sport Coupe a 1995 All-Star award. Apparently, what with the multi-valve DOHC engine, the 4-wheel independent performance suspension and such, they had as much fun testing it as we had building it. We promise to put the award in a place of honor. Right next to Neon Sedan’s Automobile Magazine 1994 “Automobile of the Year” and European magazine Motor “World Car” awards.

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