HOW TO BUY A RECEIVER

FIRST TESTS: SONY'S PORTABLE CD PLAYER

85 GIFT IDEAS FOR AUDIOPHILES

NEW TECHNOLOGY: HI-FI STEREO ON FLOPPY DISCS

NEW ON CD: HANDEL'S MESSIAH WAGNER'S RING LOUIS ARMSTRONG ...AND MORE
Introducing

one brilliant idea

on top of another.

Unmatched FM Stereo/AM Stereo reception and video control makes them fantastic. X-Balanced circuitry makes them phenomenal. Sansui's 130 watt S-X1130 and 100 watt S-X1100 Quartz PLL Audio/Video receivers are so far advanced, they even have a special decoder that lets you receive broadcasts of all AM stereo systems.

What's more, their unique X-Balanced circuitry cancels out external distortion and decisively eliminates IHM, for the purest all-around listening pleasure.

But the advantages don't stop there. Both receivers are complete Audio/Video control centers that are radically different—and significantly more versatile—than any others on the market. The S-X1130 delivers all the highly advanced audio and video performance of the S-X1100, with the added bonus of sharpness and fader controls for enhanced video art functions. And both units offer additional audio dexterity with "multidimension" for expanded stereo or simulated stereo, plus sound mixing capabilities.

For more brilliant, innovative ideas, check out our full line of superior receivers.

You'll know why we're first, the second you hear us.

There's more worth hearing and seeing from Sansui. Write: Consumer Service Dept., Sansui Electronics Corp., Lyndhurst, NJ 07071; Carson, CA 90746; Sansui Electric Co., Ltd., Tokyo, Japan.
MORE MET STEREO

The Metropolitan Opera and Texaco have arranged to upgrade the regular Saturday Met radio broadcasts by providing an improved signal and by increasing the availability of stereo to include all of the 330 stations in the network that carries the broadcasts. National Public Radio stations in the network will continue to be served by NPR's satellite. Commercial outlets will be equipped by the Mutual Broadcasting System to receive the improved stereo signal via satellite too. The forty-fifth season of Texaco-sponsored Met broadcasts begins December 1 with Rossini's Barber of Seville.

NEW JAZZ SERIES ON CD

PolyGram has launched a new Silver Collection of jazz on Compact Disc with recordings by eight artists represented on its Verve label. Each in the series of CD compilations offers over an hour of music by a single artist at the regular CD price. Digitally remastered and available in CD format only, the initial release includes collections by Ella Fitzgerald (from the Songbooks), Billie Holiday, Louis Armstrong, and Harry James.

TECH NOTES

Technics will be introducing three new CD players at $400, $500, and $600. The $400 player will have 15-step random-access programming; the other two have remote control and more extensive features....The research engineers at Sansui have developed a digital companding system that can fit 14-bit digital audio into 8 bits. Initial use will be for broadcast distribution systems, but there are potential consumer applications....Kodak's new 8mm camcorder is in stores and reportedly selling well to video novices....WKMU-FM, the University of Missouri's radio station, has begun broadcasting with a British-developed surround-sound system called UHJ Ambisonics. The BBC has been using the system for dramatic and music programming, and recent records and CD's on the Nimbus and Unicorn labels have been encoded with it. Audio Design Calrec of Bremerton, Washington, is distributor for the decoders....Matsushita, parent company of Technics, Panasonic, and Quasar, is observing its 25th anniversary in the U.S. by establishing a $10-million education foundation. The company started in the U.S. in 1959 with only three workers, and today it employs 7,000 people here....The Compact Disc Group, which promotes the CD, has donated to the Library of Congress a copy of every CD released in the U.S....Harman Kardon's new VHS Hi-Fi VCR is called a "high-fidelity audio/video cassette deck" to emphasize its dual functions.

NIPPER'S CENTENNIAL

This year marks the one-hundredth anniversary of the birth of RCA's mascot, the black-and-white fox terrier named Nipper (1884-1895). Born in Bristol, England, Nipper was portrayed with a phonograph by artist Francis Barraud, who called the picture His Master's Voice. It became the logo for HMV in England and RCA in the United States. In the late Sixties, RCA phased out the dog-and-horn symbol, but given a new look in the mid-Seventies, Nipper was phased back in and is now seen on most RCA products.
Maybe you'd expect to pay a lot for a high-speed dubbing system with Dolby® B noise reduction. Fact is, our Realistic® SCT-70 actually costs less than many ordinary decks. And its high speed makes copies of your personal tapes in half the time without sacrificing audio quality. Or, you can monitor your recordings while making real-time copies. No second deck or patch cords are required. Even playback is more convenient, because you can load two cassettes and play them in sequence, automatically. Of course you also get the other features you need for first-rate quality. Come in for a demonstration and discover why a dubbing deck is the better buy. Only $199.95. Use your Radio Shack/CitiLine Card.

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Julian Hirsch and Christopher Greenleaf put the Pioneer Centrate FEX-95 to the test

Hirsch-Houck Labs Equipment Test Reports
Nakamichi BX-300 cassette deck
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Buyers' Guide to Receivers
The AM/FM stereo receiver has been one of the most popular hi-fi components of all time by Ian G. Masters

Holiday Gifts for Audiophiles
The editors and contributing editors of STEREO REVIEW recommend accessories, records, books, and games for audiophiles

The Care and Feeding of a CD Player
An owner's guide to the total health of a Compact Disc system by David Ranada

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An exclusive test report by Julian Hirsch

New Hi-Fi Horizons
CompuSonics' system for recording on floppy discs may have far-reaching effects by David Ranada

MUSIC

Record Makers
The latest from Twisted Sister, the Canadian Brass, and Lou Reed, The Nutcracker on TV, new operas on video, and more

Best of the Month
Split Enz, Bernstein's Petrouchka, Gelber's Beethoven, and Don Sampson

Vol. 49 No. 12 December 1984 (ISSN 0039-1220)

Cover: Design by Sue Llewellyn, Photo Roberto Brosan
My family and friends tell me I am hard to shop for, and every Christmas they try to prove their claim by giving me totally inappropriate presents. So to be sure that I enjoy the holidays I always buy a few gifts for myself, and I advise you to do the same.

Although I have caroled on in recent months about the allure of music on video and the advantages of the digital Compact Disc system, I still listen to more music on LP than in any other format. The recordings I’m going to suggest that you give yourself for Christmas are, therefore, all available on the black LPs we know and love.

First is Randy Newman’s soundtrack for The Natural (Warner Bros. 25116-1). It contains a little Mahler, a little Wagner, a lot of Copland, and enough Hollywood magic to prove that Newman is not just a sardonic troubadour, but the legitimate heir to a great tradition of composing for film.

If you have a sense of humor about music, I recommend a program of famous themes from the classics affectionately and amusingly arranged for flute and accordion by the Cambridge Buskers. It is their latest album, “Music Abbreviation 101” (Deutsche Grammophon 413 339-1).

A bargain on the Vox Turnabout budget label is the album of four Vivaldi concertos for guitar and string orchestra (TV 34796) performed by the Argentine guitarist Ernesto Bitetti and I Solisti di Zagreb. Bitetti is a brilliant soloist, and the disc is recommended not just for guitar enthusiasts.

A brilliant soloist on another instrument is the young Chinese violinist Cho-Liang Lin. His newest album, “Bravura” (CBS IM 39133), is made up of display pieces by Sarasate, Kreisler, and others. Lin is accompanied at the piano by Sandra Rivers, and they are particularly impressive in Falla’s Suite populaire espagnole.

For bravura playing on the piano choose any of the albums in Jorge Bolet’s series of recordings of Liszt’s works on London. I am especially fond of the song transcriptions (LDR 71096). Volume 3 (410 115-1) includes the even more pyrotechnical Sonata in B Minor.

More intimate works for the piano are Schubert’s Impromptus, available in two excellent new recordings by Murray Perahia (CBS IM 37291) and Radu Lupu (London 410 125-1). For more Schubert, buy the Quintet in C Major (Angel DS 38009) played by the Alban Berg Quartet with cellist Heinrich Schiff. For mature Brahms get the sonatas arranged for flute and accordion by the Argentine guitarist Bitetti, a brilliant soloist, and the disc is recommended not just for guitar enthusiasts.

For the return or safety of artwork, photography, or manuscripts. However, the publisher assumes no responsibility for the return or safety of art work, photography, or manuscripts.

STEREO REVIEW
DECEMBER 1984
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RIGHT NOW YOU CAN FIND OUT WHERE TO SEE AND HEAR PRODUCTS ADVERTISED IN STEREO REVIEW. CALL OUR TOLL-FREE 800 NUMBER.

For a demonstration of products from any of the advertisers listed below, call the STEREO REVIEW TOLL FREE 800 number. You'll get the name and location of a nearby dealer who will be happy to let you see and hear the components in action.

But call right now. The STEREO REVIEW "Where-To-Buy-It" Program for this issue ends December 22. After that date you'll have to contact the advertiser directly.

Stereo Review

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LETTERS

More Southpaws

Just when the storm has passed about the flopped Dual turntable photo in your June issue, I find another problem picture on page 70 of the October issue. It shows three members of Exile playing guitars apparently in reverse. My first thought was, “Are all these guys left-handed?” Then I closely scrutinized the drummer and found his hi-hat to be placed on the right, quite opposite from the norm. Is this yet another flopped picture, or is the Exile group really as different as you say?

Christopher M. Bruya
Ellensburg, Wash.

Exile is different in that the group has a new country image and is more successful than the average band. In Edouard Manet’s The Spanish Singer (a gift of William Church Osborn to the Metropolitan Museum of Art) we have artistic evidence that the guitar can be played left-handedly. The members of Exile, however, are right-handed. The picture was flopped. Sorry.

A band with three left-handed guitar pickers is as rare as a good country song out of Nashville these days.

John Welch
Langley, Wash.

Speaker Talk

After reading Ralph Hodges’ Column on the “sophisticated loudspeaker” (October), I feel like the village chief who was sitting next to his medicine man, deep in the rain forests of New Guinea, listening to a drum beating in a faraway village. The chief turned to the medicine man and asked, “What are they saying?” The medicine man answered, “They say boom di boom di boom.”

What is Mr. Hodges trying to tell me? I am in the process of buying new speakers, so I found your last issue very timely and easy to read, but Hodges’ story is something else.

William W. Menz
Winston-Salem, N.C.

I have been irritated several times over the last few years by the lack of respect tendered the “high end” by Stereo Review, beginning with Alan Lofft’s infamous article (October 1982). Needless to say, I was most pleased to read and reread Ralph Hodges’ column, “The Sophisticated Listener.” It could have been titled “The Sophisticated Listener.” It basically touches on the difference between someone who is an audiophile and one who is not. No value judgments were applied or im-
plied, unlike some earlier articles. Thank you, and may I now continue to read Stereo Review in peace?

STAN EVANS
Louisville, Ky.

Peace—boom di boom boom boom!

Equalizers

In a back issue of Stereo Review (April 1981) I read a test report in which Julian Hirsch stated that "precisely equalizing a home listening room rarely improves the sound quality." I was dumbfounded because I was about to pay a goodly sum for an equalizer. I'd like to be sure I understood Mr. Hirsch's comments. Would it be a worthwhile purchase? All I have in mind is compensating for speaker-response anomalies and room acoustics.

EUGENE GASH
Oklahoma City, Okla.

Julian Hirsch replies: An equalizer can compensate for certain speaker-response deficiencies and for a few room-response effects, but it is not a panacea for these problems. Some equalizers (particularly with RTA's built-in or used externally) are presented as being able to produce a flat response at the measurement position. Usually they can, but the result is invariably an overbright sound that requires a high-frequency rolloff to become listenable. A good equalizer is, in effect, a talented tone control and as such can be beneficial. But, as with tone controls, you must adjust by ear for the most pleasing sound. Don't expect RTA's or other instruments to make that judgment for you.

Rock of Ages

I have one suggestion for your magazine: stop printing the "Popular Music" review column! Whatever idiot is writing this column obviously has no musical taste whatsoever. For instance, in your September issue he gave a rave review to Neil Sedaka's latest record. Anyone who would listen to a Neil Sedaka record, let alone enjoy it, is definitely too old to be writing reviews for popular rock music.

Face it! Rock music is almost always terrible, and Neil Sedaka is not an exception. His records are presented as being able to produce a listenable low end frequency response "hump" caused by the dynamics of your car's interior. How? With the 180 Hz Acoustic Compensation Control. It returns mid bass sounds to their natural balance and reduces power demands on the amplifier.

The Dual-Direction Automatic Azimuth Adjustment is an exclusive feature of our auto-reverse decks. It adjusts the tapehead to achieve accurate zero azimuth in both directions. And that eliminates high frequency "dropout." But the list of significant features goes on. So ask your dealer for all the facts. Once you see and hear the Audia line for yourself, we think you'll agree it isn't just the only system to listen to. It's the only system to look to. For state-of-the-art performance and aesthetics that simply won't be outdated.

At Audia, true art allows no compromise in reproducing sound accurately. Even in the hostile audio environment of a moving vehicle. AndAudia's high-end receivers, tuners, amplifiers, equalizers, and speakers is living testimony to that belief.

With over forty years of experience, no wonder Audia was the first to introduce many state-of-the-art features, engineered to give you absolute performance.

Features like our FM Diversity Tuning System. With two FM front ends and antennas, it detects and monitors multipath noise, instantaneously locking onto the strongest, clearest signal. So you get optimum reception all times.

We've also corrected the unde

CD, Pro and Con

One week ago I bought a Compact Disc player, and what I did NOT get with the deal is as follows: a rumbling turntable, a misaligned cartridge, a stylus that has to be replaced twice a year, cracking and popping even on so-called audiophile records, a step-up device for certain cartridges, record-cleaning paraphernalia, static-control paraphernalia, and uppit salesmen cutting down my carefully considered choices of components to sell me their inventory overstock.

What I did get was fifty to seventy minutes of the best music I ever heard without having my listening interrupted to turn over a record. I don't care if they say the sampling rate is too low (what- ever that means) or the sound doesn't
THE ULTIMATE MACHINE

JVC'S NEW R-X500B RECEIVER IS A SUPERB EXAMPLE OF HOW FAR JVC WILL GO TO BRING YOU THE ULTIMATE IN SOUND.

Some hi-fi equipment delivers slightly higher fidelity. Especially when it's designed by JVC. In fact, JVC's entire line of high fidelity components is known throughout the world for technological brilliance and painstaking craftsmanship.

The R-X500B receiver is a case in point. With the technology of JVC's power amp, equalizer and tuner, plus remote equalization and unheard-of refinements, it is virtually without equal.

ADVANTAGE: A POWER AMP WITH INCREDIBLE POWERS

The R-X500B boasts two of the highest refinements in power amp technology available today—Dynamic Super A and Gm Driver. Dynamic Super A improves performance in two significant ways. One, it renders music reproduction silky and pure by eliminating offensive switching distortion. Two, it capably controls speaker motion by forming an ideal interface between the amplifier and the speaker.
JVC's newest technology, Gm Driver, improves actual in-use performance at all listening levels, high and low, by driving the power stage at a constant voltage.

**ADVANTAGE: AN EQUALIZER WITH A GRAPHIC DIFFERENCE**

Since 1966, when JVC pioneered equalizers for home use, we have remained in the very forefront of equalizer technology.

The computer controlled graphic equalizer in the R-X500B is a superb example of engineering to achieve an end. It combines unequalled versatility with automatic capabilities, while maintaining sonic integrity.

Five equalized responses can be memorized for instant recall at a touch. And an infrared wireless remote control makes it possible to adjust equalization from your armchair without sacrificing sound quality.

In a further refinement, JVC engineers opted for an LSI to handle electronic switching for both channels at seven different control frequencies. The result—electrical loss and tonal degradation never enter the picture.

**ADVANTAGE: A TUNER AS SMART AS A COMPUTER**

The R-X500B puts an advanced microcomputer in charge of the digital synthesizer tuner and references it to the accuracy of a quartz oscillator, making it highly versatile and easy to use. The microcomputer lets you preset 15 AM and 15 FM frequencies, scan them all for 5 seconds each, read out aerial signal strength in 5dB increments, plus much more.

**SPECIFICATIONS**

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<td>Output Power</td>
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<td>100 Watts per channel, min. RMS, both channels driven into 8 ohms, from 20Hz to 20kHz, with no more than 0.007% total harmonic distortion.</td>
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<td>Centre Frequencies—63, 160, 400, 1k, 2.5k, 6.3k, 16kHz</td>
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<td>50dB Quieting Sensitivity</td>
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<td>Mono—14.8dB/16dB</td>
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**ADVANTAGE: JVC**

It is the attention to engineering detail and craftsmanship evident in the R-X500B which separates every JVC hi-fi component from all others. JVC makes changes in design for the sake of improvement. Not just for the sake of change. And the result is the difference between excellent and average. See, and hear, this difference at your nearest JVC dealer.
measure up to ultra-high-end turntables (which cost ten times as much as my CD player). I couldn't get near the same sound from a turntable for the money I paid for the CD player. Now I can direct my attention to my real reason for having a stereo system: music!

AL LARSON
Lake Worth, Fla.

My dissatisfaction with the directions audio is taking has been building, and Ralph Hodges' August column on digital dithering has finally stimulated me to write.

While I believe that some anti-digital sentiment may be a product of the cartridge, arm, and turntable high-end fanatics not wanting to see an easy means to achieve "status sound" without hocus-pocus, mine is not so inspired. I have sought for many years successful alternatives to the vinyl disc, collecting recordings on open-reel, cassette, and recently on LaserDisc and Beta HiFi.

There is no question that digital sound is polished and spectacular, but it is spectacular in the kind of way a Tomita-style electronic transcription is spectacular. I enjoy electronic music, and I am pleasurably amused by the clever transcriptions of Wendy Carlos, Tomita, etc. The electronic sheen of digital recording, however, is not the work of clever sound mixing; it sounds changed. In the concert hall I have never encountered the strange string gloss heard on digital recordings. In real life brass instruments do not bite like radio static, and high percussion never takes on the phasey spread it does on digital recordings. The changes wrought to sound by the digital process are most noticeable in recordings of opera. Words are virtually unintelligible.

If the classical record-buying business is suffering, perhaps the executives should rethink digital before too many more priceless performances are half lost between the numbers, the gaps filled in by dithering. Let me remind record collectors that those silver, laser-read discs are capable of excellent sound reproduction when FM analog audio is recorded as it is on many Pioneer releases on LaserDisc. The Compact Disc is an improvement only over the eight-track cartridge.

HENRY J. MYERS
Vancouver, B.C.

Heavy Breathing

I love the new Compact Discs, and I love chamber music, but I do not love all the noise I hear in CD recordings of string quartets. I have heard many live performances of internationally known quartets, but only on CD's do I ever hear such heavy breathing. The Smetana and Vermeer Quartets ruin their CD recordings for me with all that "hissing" sound. As an ensemble player myself and a woodwind player, I know that it is not necessary! Breathing—yes, but not so loud you can hear it across the room. I feel so strongly about this that I would like to suggest that critics and reviewers let us know about it in their reviews.

REUBEN D. LANE
Phoenix, Ariz.

Correction

In our test report of the Yamaha M-80 power amplifier and C-80 preamp (November 1984) we stated the price of the M-80 incorrectly. The correct price of the M-80 is $950; the C-80 is $750 as listed.

YAMAHA
Yamaha Electronics Corporation, USA, P.O. Box 6660, Buena Park, CA 90622

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I didn't buy my car stereo backwards.

Why should you?

My car stereo dealer told me if you want clean, clear accurate sound—choose your speakers first. Because if the speakers can't handle it, you won't hear it. No matter what kind of sound your receiver pulls in.

Then he told me: Jensen. If you want to hear it the way they played it, choose Jensen speakers first. Jensen invented car speakers in the first place. And they're a leader today. Simply because they know how to deliver the goods.

Naturally I got a Jensen receiver to go with my Jensen speakers. Great team, designed to play best together. Makes sense. Makes great sound, too. I want to hear it all. With Jensen, I do.

JENSEN
When you want it all.

CIRCLE NO. 13 ON READER SERVICE CARD
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NEW PRODUCTS

Infinity

The two-way Infinity RS-11 loudspeaker houses a 4-inch polypropylene cone woofer with a long-throw voice coil and a 1-inch polycarbonate tweeter. It can handle 50 watts of power and is rated to produce a sound-pressure level of 87 dB at 1 meter with a 1-watt input. Impedance is 6 to 8 ohms. Frequency response is given as 75 to 23,000 Hz ± 3 dB. Each enclosure, 12 x 5 x 7 inches, weighs 6 pounds. Price: $112 per pair. Infinity Systems, Dept. SR, 7930 Deerling Ave., Canoga Park, Calif. 91304.

Circle 121 on reader service card

TDK

A new video tape from TDK, HS High Standard, is being introduced as an improvement over the company's current Super Avilyn tape. It uses ultrafine Super Avilyn particles to increase the rated luminance signal-to-noise ratio 3 dB and the chrominance signal-to-noise ratio 2.5 dB. The audio signal-to-noise ratio improves 1 dB in the VHS format and 0.5 dB in Beta. HS video tape is available in L-750 length for Beta VCR's and T-120 for VHS VCR's. Price: $16.90. TDK Electronics, Dept. SR, 12 Harbor Park Dr., Port Washington, N.Y. 11050.

Circle 123 on reader service card

Sawafuji America

The Digital 20 loudspeaker from Sawafuji America has an array of "Dynaplate" transducers instead of ordinary cone drivers. There are sixteen bass and four midrange units. Each transducer is 6½ inches square and consists of coils etched into the surface of the Polysol- pon pleated diaphragm. Magnets are mounted behind the diaphragm in the middle of each coil loop. The resulting sound radiates equally to front and rear. Ribbon tweeters reproduce the high frequencies. The crossover frequencies are 600 Hz and 5,000 Hz.

TDK

The Digital 20 is rated for a maximum power of 200 watts and impedance of 4 ohms. Frequency response is given as 30 to 20,000 Hz. A sound-pressure level of 90 dB is produced with a 1-watt input when measured at 1 meter. The speaker is 30 inches wide, 36 inches high and 2 inches deep, and it mounts on an 8-inch stand. It is finished in wood veneer with a black grille cloth. Price: about $1,800 per pair. Sawafuji America Corporation, Dept. SR, 23440 Hawthorne Blvd., Torrance, Calif. 90210.

Circle 120 on reader service card

NEC

Both audio and video sources are handled by the AV-200E audio/video control center from NEC. There are inputs for a tape deck, tuner, TV, and two VCR's. One set of input/output jacks for a VCR is located on the front panel and one on the back. A video image enhancer improves contrast and sharpness for either playback or dubbing. The audio amplifier section is rated to produce 12 watts of power per channel. A single tone control changes the balance of low and high frequencies, and a synthesizing circuit simulates stereo from mono sound sources.

NEC

The AV-200E enables the user to dub video tapes from one VCR to another, to add audio tracks to videotape from a cassette deck, to record audio and video with a hi-fi VCR without reconnection, to watch one source while recording another, and to record FM simulcasts with a suitable hi-fi VCR. Price: $199. NEC Home Electronics, Dept. SR, 1401 Estes Ave., Elk Grove Village, Ill. 60007.

Circle 124 on reader service card

Ultrx

The Ultrx UA1000 car stereo power amplifier is rated at 50 watts per channel from 20 to 20,000 Hz with total harmonic distortion of no more than 0.05 percent. The slew rate is 40 volts/microsecond. The amplifier's DC-to-DC converter has highly efficient switching to minimize battery drain. RCA line-level jacks are used for compatibility with other components, and the main power and speaker leads feature detachable connectors. Price: $200. Ultrx, Dept. SR, 1200 West Artesia Blvd., Compton, Calif. 90220.

Circle 125 on reader service card

Polk

The VideoSound loudspeakers from Polk Audio contain magnetic shielding so they can be positioned next to television screens without distorting the picture or changing its tint. The speakers can be connected directly to outputs on a stereo TV set or to a stereo receiver. According to the manufacturer, the VideoSound speakers are efficient enough to be driven by the low-power amplifiers built into most stereo TV units.

Polk

The three models, sized to match 25-inch, 19-inch, and 12-inch television sets, are finished in silver or black. Each contains a 6-inch woofer and a 1-inch dome tweeter. The largest, the VS-25, adds a 6-inch sub-base radiator. All three models are 8 inches wide and 11 inches deep. The VS-25, 21 inches high, is priced at $339.90 per pair; the VS-19, 17 inches high, is $259.90 per pair, and the VS-12, 14 inches high, is $199.90 per pair. Polk Audio, Dept. SR, 1915 Annapolis Rd., Baltimore, Md. 21230.

Circle 126 on reader service card
IF YOU'RE OBSESSIVE ABOUT DIGITAL AUDIO, WELCOME TO THE CLUB.

It's the Sony Digital Audio Club. The world's first club dedicated to creating awareness and understanding of the remarkable technology behind compact disc players—from the company most qualified to provide it.

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NEW PRODUCTS

** Sony Digital Audio Club welcome package and benefits.

Esotek

The Esotek SWX-12DB multiple-subwoofer crossover network can accommodate up to four subwoofer/bi-amplifier systems. Its four low-frequency outputs can be used in any combination, including bridging. The low-frequency crossover frequency is 100 Hz, although 75, 80, 85, 90, or 110 Hz may be substituted. Low-frequency response is d.c. to crossover frequency, high-frequency response is crossover frequency to 100,000 Hz. The unit has a self-contained, regulated power supply. The black ABS plastic enclosure measures 6 x 6 x 2.75 inches. Price: $119. Esotek, Dept. SR, 1412 SW 102nd, #175, Seattle, Wash. 98146. Circle 127 on reader service card

Audio Pro

The Audio Pro B2-100 subwoofer uses a built-in 80-watt amplifier to drive two 8-inch woofers mounted in a push-pull configuration that is said to minimize distortion (rated at less than 1.5 percent at a 96-dB sound-pressure level). The two woofers are supplemented by a bass reflex port that is aimed downward. Audio Pro recommends that the B2-100 be connected between a preamplifier and an amplifier, although it can be connected directly to the speaker terminals. Controls on the unit adjust the subwoofer crossover frequency (from 40 to 200 Hz), and the bass cutoff of the satellite speakers (from 50 to 200 Hz) to match the subwoofer to the satellites. A third control sets the sensitivity of the subwoofer to equal that of the satellite speakers. In standby mode, the subwoofer turns itself off automatically when it detects incoming audio signals and switches to standby five minutes after the signals cease. The cabinet measures 19 x 16 x 35 inches. It weighs 141 pounds. Price: $1,495. Sonic Research, Dept. SR, 27 Sugar Hollow Rd., Danbury, Conn. 06810. Circle 128 on reader service card

Rotel

The Rotel RX 850 quartz, digital-synthesis stereo receiver has eight AM and eight FM presets, and its power output is 30 watts per channel into 8 ohms from 20 to 20,000 Hz with no more than 0.05 percent total harmonic distortion. Inputs include tape, video, CD, and phono. The receiver can handle two pairs of speakers with front-panel switching. Also on the front panel are tone controls for bass, midrange, and treble and a headphone jack. The tuner's usable sensitivity is rated at 1.9 microvolts, the capture ratio at 1.5 dB.

The RX 850 measures nearly 17 inches wide, 3½ inches high, and 15 inches deep. It weighs 15 pounds. Price: $299. Rotel, Dept. SR, Isobanke International, P.O. Box 653, Buffalo, N.Y. 14240. Circle 129 on reader service card

RCA

The RCA Dimensia audio/video system consists of a complete set of audio and video components designed to operate in an integrated fashion. All components may be operated by a single remote-control device. The system may be purchased in its entirety or assembled one piece at a time.

The commands from the remote control are accepted by the monitor/receiver, which communicates them to the other components in the system. The commands are then confirmed by a display on the monitor screen. The Dimensia components are a 26-inch color monitor/receiver, a VHS Hi-Fi VCR with five heads, an AM/FM quartz tuner, a linear-tracking turntable, a Compact Disc player, an autorverse cassette deck with Dolby noise reduction, a 50-watt integrated amplifier, and two three-way speakers. Optional cabinets to house the equipment are available.

Price of the entire Dimensia system: $5,000. RCA, Dept. SR, 600 North Shore Dr., Indianapolis, Ind. 46201. Circle 130 on reader service card
Sony

Three Sony Trinitron television sets with built-in stereo decoders are able to receive multichannel stereo TV broadcasts now being transmitted by some stations. The new models have speakers on both sides of the screen and built-in stereo amplifiers. All three have remote control, multiband cable-ready tuners, and a pay-TV switch for remote access to a scrambled premium channel looped through a cable company's converter box. Prices: KV-2680R (shown), $1,249.95; KV-2681R, $1,299.95; KV-1980R, $899.95. Sony Corp., Dept. SR, Sony Dr., Park Ridge, N.J. 07656. Circle 131 on reader service card

Panasonic

Panasonic's PV-9600 portable video cassette recorder can record and play back tapes in VHS Hi-Fi, making it convenient to record the sights and sounds of a concert with high-fidelity audio. In the hi-fi mode it is rated to achieve a wow-and-flutter of less than 0.005 percent, a dynamic range greater than 80 dB, and stereo separation greater than 60 dB.

For home use, the PV-9600's deck section (with the tape transport) snaps on top of the quartz-synthesizer tuner section (which also acts as power supply and battery charger). The top-loading unit receives 139 channels and features a fourteen-day, eight-event timer. A seventeen-function wireless remote control is included.

The cue and review function operates in SP, LP, and SLP modes. The cue and review function operates in SP, LP, and SLP modes. A back-up system protects the unit's memory for one hour in case of power failure. Price: $1,500. Panasonic, Dept. SR, One Panasonic Way, Secaucus, N.J. 07094. Circle 132 on reader service card

dbx

Two program-route selectors, the 220X and 400X, have been introduced by dbx. Each has inputs for three tape decks, three sound processors, and a noise-reduction unit. The 200X allows direct dubbing from one tape deck to another with no interconnections. The 400X allows dubbing with the use of signal processors and noise reduction. The 400X also contains LED's to indicate the path of the program signal. Prices: 200X, $129; 400X, $229. dbx, Dept. SR, P.O. Box 100C, 71 Chapel St., Newton, Mass. 02195. Circle 133 on reader service card

Ego

The Ego SE-6 loudspeaker has a 6-inch polypropylene woofer and a 1-inch soft-dome tweeter with a port in between. The crossover frequency is 3,000 Hz. Frequency response is rated at 75 Hz and cuts it by 4 dB at 200 Hz to compensate for typical automotive acoustics. Other features include automatic fades, four-digit LED indicator for remaining time, record return, intro scan (to play the first ten seconds of each selection), search, record mute, memory repeat, blank skip, automatic bias and equalization selection, ten-segment LED level meters, timer operation, and memory stop.

Frequency response is given as 30 to 19,000 Hz ± 3 dB with metal tape. The signal-to-noise ratio is specified as 75 dB with Dolby C, and wow-and-flutter is 0.04 percent, weighted rms. The deck, finished in black or silver, measures 17 inches wide, 4 inches high, 11 inches deep. Price: $379. Yamaha Electronics, Dept. SR, 6660 Orangethorpe Ave., Buena Park, Calif. 90620. Circle 134 on reader service card

Yamaha

A rotating head in the Yamaha K-600 cassette deck allows automatic reverse for uninterrupted playback of tapes. The Sendust record/play head is turned over at the end of each cassette side. The take-up reel and capstan are driven by two different motors, and a third motor is used for the rotation of the playback head.

The K-600 has a unique equalization circuit designed for making tapes for use in the car. It boosts response by 6 dB at 75 Hz and cuts it by 4 dB at 200 Hz to compensate for typical automotive acoustics. Other features include automatic fades, four-digit LED indicator for remaining time, record return, intro scan (to play the first ten seconds of each selection), search, record mute, memory repeat, blank skip, automatic bias and equalization selection, ten-segment LED level meters, timer operation, and memory stop.

Frequency response is given as 30 to 19,000 Hz ± 3 dB with metal tape. The signal-to-noise ratio is specified as 75 dB with Dolby C, and wow-and-flutter is 0.04 percent, weighted rms. The deck, finished in black or silver, measures 17 inches wide, 4 inches high, 11 inches deep. Price: $379. Yamaha Electronics, Dept. SR, 6660 Orangethorpe Ave., Buena Park, Calif. 90620. Circle 135 on reader service card

DCM

The QED 1A loudspeaker from DCM makes use of electronic correction circuitry to optimize frequency and time-delay response for a controlled, coherent radiation pattern. The speaker contains a ¾-inch tweeter, 8-inch woofer, and an acoustic lens. The enclosure uses tongue-and-groove construction with accents of solid oak. Rated sensitivity is 90 dB measured at 1 meter with a 1-watt input. The speaker's power range is 10 to 200 watts. Price: $657 per pair. DCM, Dept. SR, 670 Airport Blvd., Ann Arbor, Mich. 48104. Circle 136 on reader service card
by Larry Klein

**Spontaneous Erasure**

*Q* Several days ago I dubbed three songs at the end of a C-90 tape that had a collection of my favorites. I played the tape completely before putting it away, and it sounded fine. Today I played the tape again and almost all the highs are gone and the volume fluctuates and is very low. I know it's not a problem with the tape or the recorder, because I've since rerecorded the same three songs on the same tape and they sound fine. What happened?

**A** I can think of several ways to account for your experience. If there was a minute particle of dirt on the play head, it would cause exactly the problems you heard during playback. By the time you rerecorded the three songs, the dirt particle had become dislodged, and everything was fine. If that was the case, your original should have been restored to fidelity also.

A bad or misplaced pressure pad in the cassette shell could also cause your problems, but I can't imagine how it could repair itself.

A third possibility is that somehow the cassette in question came too close to a strong magnetic field and suffered partial erasure. How or why? Well, twenty-five or so years ago when I was hired as technical editor of *Popular Electronics*, one of my first assignments was to construct an experimental flying-saucer detector. The design was simple enough; it consisted of a finely balanced magnetic rod that when moved by external forces would trigger an alarm. It seems that flying saucers are notorious for the powerful, but erratic, magnetic fields they create.

**Flat Sound**

*Q* Suppose a recording engineer makes a mixdown using a monitor system that deviates significantly from flat frequency response. Would the subsequent recording sound more faithful to the original when played back on a monitor speaker having a flat frequency response? Or would it sound better on a monitor with a frequency response approximating that of the one used by the recording engineer? Is an audio system always optimized by being adjusted to yield flat frequency response?

**A** Although your question may seem purely theoretical, it actually addresses some real-world matters. About a dozen years or so ago, a well-respected speaker company's entire consumer sales campaign was based on the fact that their speakers were used extensively as monitors in recording studios. Their ads stated, in so many words, that if you wanted to duplicate what the recording artist and engineer heard, you would have to listen through the same speakers they used.

The plausibility of that sales approach crumbled when you learned that the frequency characteristics of the company's home speakers were far from flat and, furthermore, differed radically from those of their studio monitors. While the studio monitors were reasonably flat in response, the home speakers had, as I recall, a bass bump at about 70 Hz and a substantial (8 to 10 dB) peak between 7,000 and 8,000 Hz. Any recording engineer foolish enough to use the home versions of the speaker for monitoring purposes would have found himself overwhelmed by the hot high end and would undoubtedly use an equalizer to reduce the 7.5-kHz peak in the final mix. The resulting record would then have a built-in dip at 7.5 kHz and would sound right only if played through speakers with a complementary built-in peak. As you might expect, on normal program material the speakers they used under discussion sounded excessively bright—"piercing" was the term used by some listeners—and certainly unpleasant to listen to if you had a critical ear.

So, in answer to your question: Yes, a system, whether in a studio or a home, should be set up to be as flat as possible. And then, depending upon the needs of the program material, it can be "touched up" with an equalizer to achieve the desired sonic quality.
WE SOLD ONLY 3,000,000 OF THESE HEADPHONES.

SO WE MADE THEM BETTER.

Ah, our legendary HD 414's. They've become the standard of recording and broadcast studios. The favorite of critics and music lovers everywhere. And they're even used by NASA. Which explains, in part, why they've outsold every other headphone.

So why tamper with success?

Because as good as the transient response and dynamic range of the HD 414 were, we found ways to make them even better. And as comfortable as the HD 414's Open-Aire® design was, we were able to improve it with larger cushions and lower headband pressure.

The result: Our new, improved HD 414 SL. Audibly superior with analog records, tapes and broadcasts. And incredible with digital.

Audition them—as well as our more modestly-priced 410 SL—at your Sennheiser dealer. And hear what happens when the world's leading headphone innovator won't leave well enough alone.
PIioneer CenRate FEX-95  
Tuner/Cassette Player

by Julian Hirsch and Christopher Greenleaf

The Pioneer Centrate system is a group of deluxe, high-end car stereo components that together form an automotive sound system of exceptional quality and versatility. Its heart is the FEX-95 Supertuner III tuner/cassette player, which has a unique combination of features and control flexibility while meeting the special performance requirements of automobile operation.

Other Centrate system components include two seven-band graphic equalizers, one of which also senses the ambient noise level in the car and adjusts the average volume level smoothly to compensate for different noise backgrounds, a wireless infrared remote control, a 30-watt-per-channel power amplifier (the unit's audio outputs are at line level), a powered subwoofer, and a selection of Pioneer car speakers. The elements of the Centrate system interconnect with proprietary DIN plugs and cables, which simplifies installation of the Centrate system but discourages mixing Centrate components with others.

The FEX-95 has a PLL digital-synthesis tuner with Pioneer's proprietary Supertuner III circuitry, which is resistant to multipath and FM overload. The tape transport is an autoreverse system with three motors and a four-gap head that can play in either direction without having to be turned over. The player uses Dolby B and Dolby C noise reduction. Unique to the FEX-95 is a digital clock with a timer that enables it to switch from any source to a desired radio program automatically. Two different stations and times can be programmed. The FEX-95 lacks internal power amplification and must be used with an accessory amp.

All controls except for bass, treble, and balance are pushbuttons that operate through logic circuits. The door of the cassette bay doubles as a display panel with lights to indicate the status of virtually all functions, including volume level. The unit must be powered in order to open the door flap, and, once a cassette is in the tape well, the door may be opened or closed without affecting play. A second push of the button that opens the bay ejects the cassette. Controls inside the bay include balance, treble, bass, noise reduction, blank-tape skip, (AM) wide/narrow band, and the tuner's local/distant switch. The inside of the door is imprinted with diagrams explaining how to set the clock and program the timer (a two-event, twenty-four-hour cycle) with up to two preset frequencies for specified tune-in times.

The tape player automatically senses tape type (120 µs or 70 µs) and takes up tape slack when a tape is inserted. Loading and ejecting are by a motor-driven mechanism. The pinch-roller disengages when the car's ignition is switched off, when tape-transport problems threaten to endanger the tape, or when the ambient temperature (from the sun or adjacent equipment in the car) becomes too high for safe playing. Tape controls include both fast-wind modes, blank-skip entry buttons, selection scanning, direction reverse, tape-player on/off, one-side repeat, and program function release. There is a tiny button above the tape power button which, when pressed by a sharp object such as a pen, clears all logic instructions and returns the deck to a neutral, ready-to-command state.

The function indicator lights above the buttons on the display panel light up to show tape operation controls; different indicators light up for tuner function, making tuner use and tape play, which share many buttons, quite distinct and not easily confused. Direction of tape play is indicated by an arrow in the display panel, while flashing LED segments simulate the rotation of the tape hubs in the appropriate direction at a slow rate. In some other players, rewind for one play direction is fast forward for the other, but this player eliminates that very confusing situation by tying the fast-wind controls to the tape-play direction.

It was the tape section of the Pioneer FEX-95 that most distinguished itself. Not only was the frequency response very good, but it was very nearly the same in both directions of tape movement.

Tuner controls are for manual tuning, six AM presets, twelve FM presets, band choice (AM, FM 1, FM 2), local/distant, (AM) wide/narrow band, preset timer setting, scanning (five-second sampling in either direction), tuner power, and a clear button that clears all programmed frequencies and places the tuner in a command-ready state.

The illumination is excellent, yet unobtrusive, working well even at dusk. Each push of a button elicits a clear, high-frequency "peep" to acknowledge a received command. In addition, the volume, which can be adjusted throughout its thirty-one-step range either by short taps or by holding one of the two adjustment buttons down for rapid but control-
lable increase/decrease, signals each step of adjustment with a peep. An eight-segment LED display clearly indicates the volume; the whole display flashes when the volume-attenuator switch drops the set volume by a substantial amount for momentary attention to a passenger, a toll collector, or another distraction.

The Pioneer FEX-95 is 71/8 inches wide, 61/2 inches deep, and 2 inches high. Price: $699.95. Other components in the Centrate system include the CD-59 infrared remote control, $99.95; the EQ-003 graphic equalizer, $199.95; and the GM-A120 power amplifier, $169.95. Pioneer Electronics, Inc., Dept. SR, 5000 Airport Plaza Dr., Long Beach, Calif. 90815.

Lab Tests
Because of the dedicated cable connections between units of the Centrate system, we had no direct access to the audio outputs of the FEX-95, so its performance was combined with that of the GM-A120 power amplifier. The FM tuner section had good, though not outstanding, performance in most key areas. It had the usual auto-blend system, which began to blend the stereo channels when the signal level fell below about 50 dBf (85 microvolts at its 75-ohm antenna input). Although the tuner output is nearly monophonic at most signal levels under 30 dBf, this feature tends to keep its noise level more uniform with signal fluctuations.

The FM distortion was about the same for mono and stereo. Channel separation was over 30 dB through most of the audio range. The alternate-channel selectivity was an excellent 90 dB (highly desirable for a car radio). The AM rejection, a good 66 dB at 65 dBf input, fell off to only 40 dB at 45 dBf (50 microvolts). The only measurement in which the FEX-95 was disappointing was its capture ratio, 8.5 dB at 65 dBf (and still 6 dB at 45 dBf). The AM tuner had the usual limited high-frequency response.

Road Tests
Using the Centrate System was extraordinarily simple and uncomplicated. Indeed, the only difficult part of the tests was wiring Pioneer's proprietary cables to feed the phono jacks leading to my Volvo's amplification. (The clear, well-written service manual helped.) Well, perhaps there's one more difficulty involved with this integrally conceived audio system: describing just how much it does and how well it does it.

Tape play in both directions was smooth, and the unit we tested performed nearly identically in both directions. Two weeks of heavy driving in the Chicago area acquainted me with numerous multitrack railroad crossings, washboard roads in Indiana counties, and the old stone-block streets of southern Chicago neighborhoods. If anything, these rivaled the more familiar Brooklyn road surfaces as a challenge to the tape transport, which paid little attention to the jiggling, shaking, and jolting it got. Pitch was always dead on, with only minor fluctuations at the worst of
CAR STEREO

the crossings in the Santa Fe shunting yards. This part of the Midwest is rich in both AM and FM stations that can be received over fairly large distances, and I was surprised to see how quickly I filled up all eighteen presets with listenable stations that stayed that way through most drives in the huge metropolitan area around the Loop. The record performance for sheer distance was WFMT’s night-time signal—ninety miles across the corn and soy fields! Other stations regularly stayed with me for up to seventy or eighty miles for the stronger ones, a good forty for the weak signals. Stereo was available at up to fifty miles (WFMT), generally falling off at forty for most broadcasters. AM reception (mono only) was interesting, because the density of adjacent and coincident frequencies from neighboring states and Canada should have resulted in confused reception a lot of the time (ask any Chica
goan). It didn’t, with the exception of one Ontario station that seemed to battle a St. Louis one for evening listening along the Lake Shore Drive. That’s distant reception at its best, if you have to complain about stations hundreds of miles away! As with other good tuners, the complaints are apt to be about the quality of broadcasts, not the reception.

Multipath was remarkably unobtrusive, even when snaking through the Loop under the El or when passing the reflective-glass-faced skyscrapers that pose such problems to FM signals. The automatic narrowing of stereo imaging that accompanies signal degradation was extraordinarily smooth.

Each control was simple to use and easy to locate at all times of day and night. The excellent illumination was not, of course, able to make every indicator uniformly legible at high noon and dusk, but the very logical layout facilitated rapid adjustment of any control. The “peep” accompanying every command was a bit too loud for me, and I could not locate its source to damp it a bit with adhesive tape. This irritation aside, it was comfortable to have each command acknowledged, as the buttons themselves give no feeling to reassure your fingers that they have done anything.

Speed of tuning and volume adjustment when the appropriate buttons were held down was just right, allowing quick adjustment without loss of fin control. I never wished for more volume steps and found that the volume attenuation was especially handy for dealing with tolls and unexpected questions from the back seat. Welcome, too, were the separate power on/off switches for the tuner and tape player. Having no inadvertent blasts of radio intrude at the ejection of a tape was welcome. I do not keep commuter’s hours, but I can appreciate the convenience of the timer, which can, for example, turn off the tape player and switch in a 5 p.m. news program automatically, so you don’t have to keep an eye on the clock.

The record performance for sheer distance was WFMT’s night-time signal—ninety miles across the corn and soybean fields.

In sum, Pioneer’s costly but beautifully engineered FEX-95 is flexible, versatile, dead easy to use, and physically attractive. The Supertuner III circuitry is decidedly a worthy continuation of what has been a memorable series of improvements to AM and FM performance.

Pioneer’s Supertuner III circuitry is a decidedly worthy continuation of what has been a memorable series of improvements to AM and FM performance.
Please accept Sony's sincerest apology for making all car stereos obsolete.

SONY INTRODUCES THE WORLD'S FIRST CAR COMPACT DISC PLAYER.

To state it bluntly, the difference in sound quality between the new Sony Car Compact Disc Player and everything else is like the difference in performance between a Ferrari and a Model T.

One noted audio critic at High Fidelity magazine said, "In all my road testing to date, I've never heard it so good... It can stand comparison against the best home CD players we've tested... The new Sony Car Compact Disc Player is the real thing in every sense."

And not only are wow and flutter unmeasurable, but its phenomenal 90dB dynamic range will sound that way forever. Because Compact Discs are played by a laser beam, not a tape head. So you can't wear them out.

To test-drive the Sony Car CD Player, visit your nearest authorized Sony autoscound dealer.

And once again, accept our regrets for rendering your present system an antique.

SONY, THE LEADER IN DIGITAL AUDIO.
"It's made by who?!"

And then there's "The name's familiar, but I just can't place the face." Most people aren't aware that Magnavox makes anything as technologically advanced as the Total Audio Component System. Yet it's one of the most sophisticated, complete music systems ever assembled. It's even equipped with total remote control.

Here's how these exquisitely compatible components stack up: **Compact Disc.** From a recording sealed in an almost indestructible 5" disc, a laser beam transmits the purest, most accurate sound ever. With no background or surface noise, music takes on the emotional intensity of a live performance. **Turntable.** Microcomputer controlled, fully automatic with linear tracking. **Tuner.** Digital synthesized with 8AM and 8FM random presets. **Cassette Tape Deck.** Full record, playback features, including auto reverse. **Amplifier.** Delivers 100 watts per channel at .05% THD, 20Hz-20kHz at 8 ohms. **Speakers.** Two 12" woofers, two 5" mid range, two 3" tweeters.

Well, now that you know us better, maybe next time you run into a Magnavox, instead of saying "who?" you'll say "hello."

MAGNAVOX
America's best kept secret.
Why Test Prototype Audio Products?

The timing of a new product's introduction is a complex work of marketing choreography requiring close coordination between a company's engineering, manufacturing, and marketing departments. Very few companies seem to do it well.

Obviously, a manufacturer would prefer to have the advertisements for his new product coincide with its availability in retail dealers' showrooms. A premature announcement can result in consumer apathy or outright rejection when a product finally does become available (as happened late last year in the home computer field). On the other hand, delaying the announcement of a product until it is widely stocked can be financially risky for both manufacturers and dealers.

In an ideal marketing situation, the product has been fully debugged by its designers and is in production (or about to be produced) at the time of its announcement. Unfortunately, that ideal situation is the exception rather than the rule, and unexpected production delays can throw the entire marketing program off schedule. Even if the product has been available for some time in its home market—for audio products, that's usually Japan—some modification is always needed to make it suitable for foreign markets. For example, an import to the U.S. may require changes to get UL (Underwriters Laboratories) approval.

The review of a new product in Stereo Review can have a major impact on its marketing success, since so many serious audiophiles depend on our reviews for much of their pre-purchase information. It would make everybody happy if our reviews, the company's advertisements, and the product's availability coincided in time or at least came pretty close together.

But our lead time for testing and reporting on a product is typically four or five months (between receipt of the product and the publication date of the report). Only rarely, with products of extraordinary interest, can the lead time be reduced, but even then it is three months or so. That means that we must have a fully functioning, representative sample of the product in our hands several months before it reaches the dealers, let alone the public, and often well before advertising has appeared or even been prepared.

Often, however, there is no final American version of the product available for testing at that point. It is not uncommon for us to receive a Japanese version (modified for our power-line voltage and frequency, FM-tuning frequencies, and the like), which may—or may not—be essentially the same in its performance as the units that will finally reach these shores. Major Japanese companies frequently designate a limited number of early units as "review samples" in advance of full regular production. And often there is no final instruction manual written in English. A photocopied rough translation from the Japanese is sometimes our only source of detailed information on the product we are testing. In extreme cases we may receive an untranslated Japanese manual, or simply none at all! Fortunately, the U.S. importer is usually able to supply us with enough background information that we can properly perform our evaluation.

There is another, potentially more serious aspect to this situation, however. What if the submitted sample is not identical to the regular production models? The differences may be minor (slight changes in values or placement of components, or in internal adjustment settings), but they can result in a review that may be either more or (usually) less favorable than a final model would receive. Sometimes, for example, we find incorrect values for phono-cartridge termination resistance and/or capacitance, or an incorrect FM de-emphasis time constant, or even more serious discrepancies that are eventually corrected in later production. If the submitted unit is from a "pilot run" (a limited production series to verify the manufacturing processes and adjustments established for the product, as well as its basic design) it is likely that there will be many changes, some minor and a few fairly major, before full production is started. More often than not, such a pilot unit suffers in our review because of flaws that will not be present in a set that an American consumer will eventually be able to buy.

Theoretically, the opposite could also occur: a hand-tailored prototype or pilot-run product could outperform later production units. But my experience has been that this almost never happens.

A hand-tailored prototype could, perhaps, outperform later production units. But my experience has been that this almost never happens.

Tested This Month

Nakamichi BX-300 Cassette Deck
Shure V15 Type V-MR Phono Cartridge
Genesis 44 Speaker System
Demon DP-37F Turntable
REDEFINITION.

THE CARVER RECEIVER: Redefines your expectations of receiver performance with the power you need for Digital Audio Discs plus virtually noise-free stereo FM reception. A receiver with astonishing performance incorporating two highly significant technological breakthroughs: Bob Carver's Magnetic Field Power Amplifier and his Asymmetrical Charge Coupled FM Detector.

ESSENTIAL POWER: Your system needs an abundance of power to reproduce, without distortion, the dynamic range of music on Digital Audio Discs and fine analog recordings.

The Magnetic Field Amplifier in the CARVER Receiver gives you 130 watts per channel* of pure, clean power with superbly defined, high fidelity reproduction.

The Magnetic Field Amplifier produces large amounts of power (absolutely necessary for the accurate reproduction of music at realistic listening levels) without the need for heavy heat sinks, massive transformers, and enormous power capacitors required by conventional amplifier design.

Unlike conventional amplifiers which produce a constant, high voltage level at all times, irrespective of the demands of the ever-changing audio signal (Even when there is no audio signal in the circuit at all!), the Magnetic Field Amplifier's power supply is signal responsive. Highly efficient, it produces exactly and only the power needed to carry the signal with complete accuracy and fidelity.

The 130 watts per channel* CARVER Receiver is about the same size and weight of conventional receivers having merely 30 watts per channel! NOISE-FREE RECEPTION: The AM-FM CARVER Receiver gives you FM stereo performance unmatched by that of any other receiver.

As it is transmitted from the station, the stereo FM signal is extremely vulnerable to distortion, noise, hiss and multipath interference.

However, when you engage CARVER's Asymmetrical Charge Coupled FM Detector circuit, the stereo signal arrives at your ears virtually noise-free. You hear fully separated stereo with space, depth and ambience!

"This receiver combines the best elements of Carver's separate tuner and amplifier... The Carver Receiver is, without question, one of the finest products of its kind I have ever tested and used. Bob Carver is definitely an audio and r.f. genius." Leonard Feldman, Audio Magazine, June 1984

"I consider the Carver Receiver to be the "most" receiver I have yet tested in terms of the quantitative and qualitative superiority of almost all its basic functions." Julian D. Hirsch, Stereo Review, April 1984

The CARVER Receiver has been designed for fidelity, accuracy and musicality. You will want to visit your CARVER dealer for a personal audition of this remarkable instrument.

*130 watts per channel RMS into 8 ohms, 20 Hz to 20 kHz with no more than 0.05% total harmonic distortion.

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POWERFUL MUSICAL ACCURATE

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TECHNICAL TALK

has undergone a well-established quality-control procedure.

There is yet another pitfall in the early-production evaluation process, and this one is most likely to turn up with products of domestic manufacture, usually from smaller companies in which the engineering development and marketing operations are not as distinctly separated as in larger companies. The designer may produce one virtually hand-made sample (or perhaps a few) of his new product and show it at the Consumer Electronics Show, where it attracts much favorable attention. If it is submitted for review, we sometimes find that numerous minor details have been executed poorly or totally ignored. Typical examples include inaccessible internal fuses (I once had to ship an amplifier on three round trips from coast to coast to have its fuses replaced, since they blew every time the outputs clipped), confusing control markings or operation, or other easily corrected goofs that no doubt will be (or should be) corrected in regular production. When that sort of thing occurs, we may give the product a less than enthusiastic review. It is probably unfair to what could turn out to be a good product, but we have to call them as we see them.

In the rapidly changing hi-fi market, it may be unreasonable to expect that many products will remain in production for much more than a year. But it does happen. When we review such long-lived units, they usually fare very well, probably because they were completely engineered, debugged, and documented before we received them, and the consumer who buys one can expect to get exactly what we tested. I personally enjoy testing and using such high-quality hi-fi components (which do not necessarily carry correspondingly high price tags, by the way), and I do not attempt to disguise my feelings about them.
Sony revolutionizes the compact disc revolution.

If there are still a few among you who have any lingering doubts as to who the leader in digital audio really is, consider the following:

On October 1, 1982, Sony set the music industry on its ear with the creation of the world's first compact digital audio disc player.

Today, with over 30 companies joining the revolution, Sony is starting two others: The Car Compact Disc Player and the Portable Compact Disc Player.

Combine that with the fact that the CDP-111, shown above, represents another addition to the world's largest family of home compact disc players, and one thing should become abundantly clear:

While other companies are claiming advanced circuits, Sony has taken a somewhat different course.

Advanced products.

SONY. THE LEADER IN DIGITAL AUDIO.
DIGITAL DYNAMITE FROM TDK.

TDK enters the digital recording era with a BANG! Introducing our exclusive HX-S metal-particle formulation for Type II (High-Bias) recordings. It delivers everything promised by metal tape—or any cassette deck with a Type II switch.

High frequency saturation ceases to be a problem since TDK HX-S is capable of an MOL of +4 dB at 10 kHz.

HX-S also delivers exceptional high-end response. Plus a wider dynamic range. With further improvements in overall sensitivity of up to 1.5 dB.

These superior recording characteristics make HX-S perfect for dubbing high-powered, treble-intensive digital source material with optimum results.

And TDK makes sure the performance never fizzes, with our specially engineered, trouble-free Laboratory Standard cassette mechanism for durability and reliability. Plus the assurance of our Lifetime Warranty.

So before you try any other cassette, pick up TDK HX-S, the first metal particle formulation for Type II (High-Bias) and digitally-sourced recordings.

It's absolutely digital dynamite.

©1984 TDK Electronics Corp.
To own a three-head cassette deck made by Nakamichi has long been the impossible dream of many a budget-bound audiophile. That dream can now become reality with the introduction of Nakamichi’s BX-300, at $650 its lowest-priced three-head deck. While the new machine obviously cannot include all the innovative features of its more costly line-mates, the BX-300 is not a compromised, stripped-down model. It is a dual-capstan deck that includes all the absolutely necessary features for topflight cassette recording. It is every inch a Nakamichi.

Nakamichi’s tape heads and transport designs are in large measure responsible for the company’s extraordinary reputation. For the user, separate record and playback heads provide the acid test of recording: the chance to compare the input signal against the recorded output instantly. For the designer, they afford the opportunity to optimize the widths of the record and playback head gaps. Using a wide record gap enables the signal to penetrate the full depth of the tape’s magnetic coating during recording, and a narrow playback gap prevents treble losses during playback. In the BX-300 the record-head gap is 3.5 micrometers wide, the playback gap only 0.8 micrometer wide. Special head “geometry” is also used on the playback head to reduce the “contour effect” and thereby insure a smooth response to very low frequencies.

A d.c. servomotor directly drives the take-up capstan, which is belt-coupled to the supply capstan. The two capstans have slightly different diameters and flywheels with different masses so that they do not have a common resonant frequency. The transport mechanism uses a combination of materials that further inhibits vibration, which can appear on the tape as wow and flutter.

The speed differential between the two capstans is used to set the tape tension across the heads (the supply side turns slightly more slowly), permitting Nakamichi to incorporate an exclusive feature other manufacturers would do well to emulate: when the tape is held against the playback head, a small protruding boss pushes the cassette’s internal pressure pad back, out of contact with the tape. Although the pressure pad is needed in many tape decks to insure proper contact between tape and head, it is not necessary in a properly designed transport, and eliminating its effect reduces “scrape flutter” and modulation noise.

In the BX-300, a separate d.c. motor is used to turn the reel hubs, and a third powers a cam mechanism that operates the brakes and head mechanism more smoothly and quietly than conventional solenoids do.

When tapes are loaded into the cassette well, power is briefly applied to the reels, taking up any slack. The cassette-well door is easily removed for head cleaning and demagnetizing, but it affords only moderate label visibility. While most tape decks today use sensors to detect the cassette type and set the appropriate bias and equalization automatically, the BX-300 retains the traditional Nakamichi pushbutton selectors. The front panel also includes a user-adjustable bias control, though any adjustment must normally be made by ear, since no built-in test generators are provided. The record-level indicators are ten-segment-per-channel peak-indicating LED’s calibrated from -40 to +10 dB, which provides only fair resolution.
The dimensions of the Nakamichi BX-300 are 17 x 10 x 4 ½ inches, and its weight is approximately 12½ pounds. A rear-panel jack is provided for an optional remote-control accessory (RM-200). Price: $650. Nakamichi U.S.A. Corp., Dept. SR, 19701 South Vermont Ave., Torrance, Calif. 90502.

Lab Tests

We measured the playback response of the BX-300 using our IEC-standard BASF ferric and Cr0₂ calibrated tapes. It was very smooth, with the slightly rising response at the extreme high frequencies we have come to expect in decks that seek to obtain response out to 20 kHz. At the 18-kHz upper limit of our test tapes, the playback signal had noticeably less fluctuation than with most decks, an indication of good mechanical design.

While 20-kHz response is no longer the sole province of Nakamichi cassette decks, very few manufacturers attempt to maintain the kind of extended and flat low-frequency response the BX-300 provides. The S/N and wow and flutter were no less exceptional.

Overall record-playback response was measured using the Nakamichi EX-II (ferric), SX (chrome-equivalent), and ZX (metal) tapes supplied by the manufacturer. We have found these tapes to be extremely similar in performance to the top formulations of TDK and Maxell. At the −20-dB level used for frequency-response measurements the overall response from all three tapes was within +1, −1.5 dB all the way from 20 to 20,000 Hz. At the IEC standard 0-dB level, which is 4 dB above the level used for 0 dB on the BX-300 and most other Japanese recorders, treble response fell off predictably in the upper octaves, as shown in the graph. With the Dolby C noise reduction turned on, however, the metal ZX tape was down by only 3 dB at 20,000 Hz. While 20-kHz response is no longer the sole province of Nakamichi decks, as it once was, very few manufacturers attempt to maintain the kind of extended and flat low-frequency response the BX-300 provides.

As the figures in the accompanying chart show, signal-to-noise ratios were exceptionally high,-wow-and-flutter no less exceptionally low. Rewind and fast-forward times were better than average. Dolby tracking error was very low for Dolby B but slightly higher than usual with Dolby C owing to a 3- to 4-dB rise in response in the low mid-frequencies. As this error was at recorded levels of −20 to −40 dB, however, it was inaudible (besides being a characteristic that varies slightly from unit to unit). Overall sensitivity was slightly greater than on most decks, and tape speed was absolutely exact.

Comments

There are many decks at the same price (and even lower) that will give you more features and gimmicks than the Nakamichi BX-300. None, however, is likely to give you better sound quality. Whether the explanation lies in the tape heads, the rock-steady transport, the disengagement of the pressure pad, or some other factor(s), there is a clarity and smoothness to the sound quality of the BX-300 that we do not often find in the cassette medium. And while we would have liked higher resolution around 0 VU in the record-level indicators, the human engineering is well nigh faultless as well. In short, if you've been dreaming about the quality deck you could never afford, wake up to the Nakamichi BX-300.
For mature audiences only.

The V-1100: Aiwa's most sophisticated, most powerful audio system ever.
New crush

MERIT

Low Tar Filter

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8 mg *tar,* 0.6 mg nicotine av per cigarette, by FTC method.
SHURE V15 TYPE V-MR
PHONO CARTRIDGE

Julian Hirsch, Hirsch-Houck Laboratories

FEATURES
- Masar-polished Micro-Ridge diamond stylus tip
- Beryllium Microwall/Be tubular stylus cantilever
- High-efficiency magnetic structure with low-inductance coils for freedom from capacitance effects
- Dynamic Stabilizer brush to reduce the effects of record warp, remove dust, and reduce surface static charges
- Side-Guard stylus-protection system (withdraws stylus into body if excessive sideways force is applied)
- Precision jig for alignment of the cartridge in the turntable
- Recommended tracking force: 1 gram
- Recommended load: 47,000 ohms in parallel with 100 to 400 picofarads
- Weight: 6.6 grams

When we originally reported on the Shure V15 Type V moving-magnet phono cartridge in 1982, we acclaimed it as the best all-around cartridge available at the time. Upgrading the Type V must have been a formidable challenge, but Shure’s new V15 Type V-MR actually provides a substantial improvement in the tracking ability of what was already the best-tracking cartridge we knew of. It also retains the original’s flat frequency response, low distortion, and Dynamic Stabilizer (a front-mounted antistatic dust brush that effectively damps the low-frequency cartridge/arm resonance to improve the tracking of warped discs).

The improvements derive from a new stylus assembly, the VN5MR. When this is sold with the Type V body, the combination is known as a V15 Type V-MR cartridge. An older Type V cartridge can be upgraded to Type V-MR status simply by replacing its stylus with a VN5MR. The “MR” stands for Micro-Ridge, which refers to the special shape of the new stylus, a shape that provides a smaller tracing radius than the Hyperelliptical (HE) stylus used on earlier Type V’s.

On a Micro-Ridge stylus a narrow ridge is formed along the tracing portion of the diamond stylus tip. This ridge, the only part of the stylus actually to touch the groove wall, has a playing radius of only 0.15 mil (thousandth of an inch), but its radius is 3 mils measured at right angles to the direction of stylus travel. While the new stylus has a tracing radius 25 percent smaller than that of the original Hyperelliptical design, its radius along the slope of the groove wall is fully twice as large. The result is a distribution of the rated 1-gram tracking force over a larger area and a concomitant reduction of groove-wall indentation by the stylus—and thus a reduction in record wear.

Tracking ability (the ability of the stylus to stay in contact with the groove wall during high-velocity excursions) is improved too. Shure’s “total trackability index” (TTI) rating, which combines tracking ability with the relative indentation factor of the stylus, is its “figure of merit” for cartridge tracking. The MR version of the Type V has a substantially greater TTI rating than the HE version, which Shure had claimed to be the world’s leading cartridge in that respect.

The Shure V15 Type V-MR tracked 100 micrometers at its rated tracking force with such a total lack of strain we have no doubt it could go considerably higher.

Like the V15 Type V-HE, the V-MR comes with an unusually complete array of installation aids and tools. Also included are a computerized printout of Shure’s performance-verification measurements of the cartridge and a certificate redeemable for a copy of the Shure TTR-117 tracking-ability test record. Price: V15 Type V-MR cartridge, $275; VN5MR replacement stylus, $125. Shure Brothers, Inc., Dept. SR, 222 Hartrey Ave., Evanston, Ill. 60204.

Lab Tests
In testing the V15 Type V-MR we took the opportunity to retest the Type V-HE by the simple expedient of substituting a VN5HE stylus for the newer VN5MR. By using the same cartridge body and changing only the stylus assembly, we were able to assess the differences between the MR and HE versions without the effects of slight sample-(Continued on page 39)
INTRODUCING

THE MOST ADVANCED HOME ENTERTAINMENT SYSTEM IN THE WORLD, SPEAKS FOR ITSELF.
This is the brain of the entire audio/video system. It listens to, carries out and confirms all commands.

You can start to build the Dimensia home entertainment system with this revolutionary, 26" diagonal, "square-screen" Monitor/Receiver. Inside, it contains a unique micro-chip computer that listens to your commands and then communicates them to other computers in each of the system's audio and video components. It's so intelligent that when you push "VCR-PLAY," it will automatically turn on the VCR and stereo amplifier, put the VCR in "PLAY" mode, turn on the monitor, and switch the monitor to the proper VCR viewing channel—all simultaneously, and all with a single command. To make things simple, the monitor will confirm that your order has been carried out by displaying "VCR-PLAY" on the screen. In fact, simple, step-by-step confirmation of all commands is displayed on-screen so you'll know the exact status of each component.
THIS IS THE CONTROL CENTER OF THE ENTIRE AUDIO/VIDEO SYSTEM. IT COMMUNICATES YOUR EVERY COMMAND TO ALL AUDIO AND VIDEO COMPONENTS.

DIMENSIA
Intelligent Audio Video

This single remote control is your key to all of Dimensia’s 7 separate audio and video components. It gives you total control over virtually every operational function, instantly and effortlessly. You simply enter a command, and the monitor’s computer carries it out.
This is the next dimension of sight and sound. A system so advanced that all of Dimensia's audio and video components operate with a single remote control. You control all VCR programming, playing and recording functions. You control all important functions of every component: all volume levels, all station selections, all channels. You control virtually everything. And all audio components can operate independently of video components. With Dimensia's single remote control, you can even perform multiple functions simultaneously. (For example: record a broadcast channel on the VCR while recording an album on the stereo cassette deck, and, at the same time, watch a completely different broadcast channel.) Best of all, while Dimensia is a total system, it's also totally flexible. So you can get the excitement of Dimensia all at once, or build the entire system component by component.

The total system consists of 7 interactive components: Revolutionary 26-inch "square-screen" Monitor/Receiver, VHS Hi-Fi Stereo Video Cassette Recorder, Integrated Amplifier, AM/FM Tuner, Audio Cassette Deck, Linear Tracking Turntable, Compact Digital Audio Disc Player and Twin Stereo Speakers. And Dimensia's remarkable 26-inch Monitor (measured diagonally) will keep you informed of every component's status with an on-screen display. It will even give you simple, easy-to-understand cues for
TOTALLY INTERACTIVE, TOTALLY INCREDIBLE.

Performing sophisticated functions—making a simply incredible system incredibly simple to operate. And all component hookup is made drudgery-free (and virtually foolproof) by utilization of RCA's exclusive SystemLink™ connection system. You just connect the monitor to the amp using the system's color-coded cable and then connect the amp to the next audio device (which is connected to the next device, and so on). Because of SystemLink™, you can arrange any or all components in existing bookshelves or cabinets. Or you can house Dimensia in RCA's custom built oak or ebony cabinets.

For performance specifications and more detailed information about RCA's incredible Dimensia system, write: RCA Consumer Electronics, Department 32-312FF, P.O. Box 7036, Indianapolis, IN 46207-7036.
to-sample variations among cartridge bodies or changes in tone-arm mounting and alignment.

For most of the tests (with both styli) we set the tracking force to the rated 1 gram (plus another 0.5 gram to cancel the upward force of the Dynamic Stabilizer). The frequency response was measured with load capacitances of 200 and 335 picofarads; the effect of capacitance changes on the high-frequency response was negligible, and we used the lower value in later testing.

We made the usual measurements of frequency response, crosstalk, output voltage, tracking distortion, tracking ability as a function of tracking force, and vertical tracking angle. All measurements were made using the Micro-Ridge stylus and repeated with a Hyperelliptical. (In the “Measurements” box the HE figures are in parentheses.)

Comments
As with our tests of the original V15 Type V, we find it difficult to avoid superlatives when discussing the new MR version. The two were very similar in almost all respects, although the MR had slightly flatter overall frequency response. Also, our attempts to measure tracking distortion, whether intermodulation or 10.8-kHz tone-burst distortion from the Shure TTR-102 and TTR-103 test records, were fruitless. The readings were so low, and so unrelated to recorded velocity levels, that we must conclude that they were the residual distortions of the test records or the test setup. Even a graph of the measurements would provide no further enlightenment.

There was one real, and most impressive, difference between the two versions, however. The 300-Hz tones of the German Hi-Fi #2 test record, which could be played only up to the 70-micrometer level at 1 gram by the HE, were tracked without strain at the record’s maximum level of 100 micrometers by the MR. When the force was reduced to 0.75 gram, the MR tracked 80 micrometers and the HE tracked the 60-micrometer level. At only 0.5 gram (well below the rated minimum for these cartridges), the MR tracked 60 micrometers, but the HE could track only up to about 40 micrometers.

To put this into perspective: by our standards, a true hi-fi cartridge should be able to track at least the 60-micrometer level of the German Hi-Fi #2 record at its rated tracking force. We have found a number of cartridges that could barely meet this standard. Only a few of the best can track as high as 100 micrometers at their rated operating force. The Shure V15 Type V-MR, on the other hand, tracked 100 micrometers with such a total lack of strain that we have no doubt it could go considerably higher if suitable test records were available. And, while we can see no real advantage to operating this cartridge below its rated 1-gram force, at 0.5 gram it can outperform most high-quality cartridges operating at 1.5 to 2 grams! (The latter force level is at the danger point in terms of long-term record wear.)

Most important, the V-MR sounds as good as it measures, with a notable lack of coloration and distortion. There are a few other cartridges that can do pretty much the same, but only on recordings whose peak levels are not excessive. The V15 Type V-MR, however, will perform superbly with any record we know of by virtue of a tracking ability that is (to our knowledge) unmatched in the industry. If you hear any distortion when using a V15 Type V-MR, the odds are very high that it is from the record, not the cartridge!

Circle 141 on reader service card

"... This toccata by Wanda Landowska sounds a wee bit fuzzy, Manchester. Try a little more spit on the stylus."
GENESIS 44 SPEAKER SYSTEM

Julian Hirsch
Hirsch-Houck Laboratories

A surprising speaker, the Genesis 44. It certainly looks distinctive: the integral base of this two-way, floor-standing system tilts the cabinet back for best coverage of the listening area. If you don't like the leaning-tower look, however, the support angle can be changed to make the cabinet vertical. Adding to the speaker's unusual appearance are the broadly beveled front edges of the cabinet, which are angled back at 45 degrees in order to reduce diffraction effects that could alter the speaker's dispersion pattern.

Despite the Genesis 44's rakish bearing, unsnapping its beige cloth grille reveals an apparently unremarkable driver complement. Vertically aligned on the front panel (which, like the rest of the cabinet, is finished in walnut-grain vinyl veneer) are a 0.8-inch "hard dome" tweeter, a nominally 8-inch woofer, and a 10-inch passive-radiator cone to augment the lowest frequencies. The stiff, treated-fiber woofer cone provides a mechanical low-pass crossover action, and both low-frequency cones have compliant-edge surrounds to allow the large, linear cone excursions necessary for good bass output with low distortion. At 1,100 Hz there is a crossover to the ferro-fluid-cooled tweeter. The dome shape of the tweeter is described as "double inverted," although there is nothing visible externally to explain this unusual nomenclature.

The room-response curve of the Genesis 44 system was exceptionally uniform and smooth, one of the most nearly ideal that we can recall making.

The speaker has no external level or balance adjustments. An amplifier power of at least 30 watts per channel is recommended to drive the Genesis 44's nominal 6-ohm impedance. Insulated spring clips for wire connections are recessed into the rear of the cabinet, which measures 31 1/2 x 18 x 8 7/8 inches. Each speaker unit weighs 42 pounds. Although appearing laterally symmetrical, the speaker units are identified as "left" and "right." Price: $700 per pair. Genesis Physics Corp., Dept. SR, Newington Park, Newington, N.H. 03801.

Lab Tests

The manufacturer suggests placing the Genesis 44 speakers a couple of feet from the wall, and their normal tilt to the rear makes this an obvious choice. We measured the room response from a pair of speakers located as recommended. For quasi-anechoic FFT response measurements, we placed a single speaker cabinet well away from the room walls with the microphone 1 meter in front of the grille. Low-frequency response and distortion were measured at frequencies between 100 and 25 Hz with the microphone as close as possible to the driven cone (and again close to the passive cone). The drive level for the distortion test was 4 volts, the input required in the midrange to produce a 90-dB sound-pressure level at 1 meter from the front of the speaker.

The respective bass-response curves for the driven and passive cones were combined with due allowance for their relative areas, and the combined curve was spliced to the smoothed and averaged room-response curve, corrected at high frequencies for the known absorption properties of the room. The resulting composite curve was exceptionally uniform and smooth. Between 200 and 15,000 Hz, the
variation was a mere ± 2 dB, making this one of the most nearly ideal loudspeaker room-response measurements we can recall making.

The high-frequency room-absorption correction lifted the curve between 10,000 Hz and 20,000 Hz by about 5 or 6 dB. The axial frequency response, measured with our IQS 401L spectrum analyzer, confirmed the reality of this effect. The FFT axial response was within 5 dB overall from 180 to 17,000 Hz (or to 20,000 Hz if the broad maximum between 17,000 Hz and 20,000 Hz was disregarded). The output dropped rapidly between 20,000 and 24,000 Hz. Response curves made on axis and 45 degrees off axis were very close up to 7,000 Hz, differing by only about 6 dB in the vicinity of 15,000 Hz. The phase characteristics of the Genesis 44 were excellent.

The power-handling ability of the speaker was measured with short low-duty-cycle tone bursts (typically 2 cycles on and 64 or 128 cycles off) at 100 and 1,000 Hz. The acoustic-output waveform from the speaker did not differ significantly from the electrical driving waveform for inputs up to 500 watts at either frequency (based on the actual 4-ohm impedance we had measured at these frequencies). We usually extend this measurement to 10,000 Hz, but apparently the small dome tweeter was not able to absorb the average input of several watts—its voice coil burned out. We hasten to point out, however, that this was hardly the fault of the speaker, since at the point when the tweeter burned out we were applying a burst amplitude of somewhere around 50 volts rms, which translates to about 350 watts!

Comments

Fortunately, we usually listen to a product at some length before testing it, so our testing mishap did not affect our listening evaluation of the Genesis 44. Within a few seconds of starting to listen to these speakers, it was evident that the Genesis 44 is not a “typical” two-way speaker. In fact, the sound we heard from the system transcended anything that might have been inferred from our measurement data.

From the response curves and distortion measurements, it would be natural to conclude that the Genesis 44 is a smooth, uncolored speaker with a very wide-range response and considerably above-average dispersion qualities. Well, it is certainly all of that, but it is much more besides. The Genesis 44’s created an unmistakable feeling of depth in many stereo programs that was simply lacking in the sound of other speakers with which we compared them. This was the sort of effect we might have expected to hear from speakers having unconventional radiation patterns designed to create such a spatial characteristic. Despite its unconventional appearance, however, in many respects, including price, the Genesis 44 is about as conventional a simple crossover system, the very small-diameter tweeter, and the beveled cabinet edges, which are known to reduce diffractions.

The Genesis 44’s created an unmistakable feeling of depth in many stereo programs that was simply lacking in the speakers we compared them with.

Whatever the reason(s), the Genesis 44 proved to be a system to which we could listen indefinitely without being reminded that we were listening to loudspeakers. There are relatively few speakers that we have been reluctant to return to the manufacturer after testing them. The Genesis 44 is one of that small group.

Circle 142 on reader service card
DENON DP-37F TURNTABLE

Julian Hirsch, Hirsch-Houck Laboratories

FEATURES
- Two-speed direct-drive design
- Low-mass, dynamically balanced, straight tone arm (effective length 220 mm)
- Microprocessor-controlled tone-arm movement
- Electromechanical damping of arm/cartridge low-frequency
- Resonance
- Electronically applied tracking force and antiskating compensation
- Automatic, repeat, and manual playing modes
- Operating controls accessible with the dust cover lowered
- Quartz-referenced turntable speeds

The DP-37F is very stable: a vigorous blow on the turntable's base or dust cover was required to dislodge the stylus from the record groove.

Mount any cartridge in a tone arm, and the two will resonate together at a very low frequency. The arm/cartridge resonance can affect the low-end response of a phonograph system through a rumble-emphasizing boost of the very lowest frequencies. In bad cases the resonance can make the system more susceptible to skips from warped records or external vibrations.

The best way to combat such resonance is to damp it out. Some cartridges use a special brush to perform this function. Another route is to damp the tone arm electromechanically. This latter is the path Denon chose for its DP-37F, a fully automatic direct-drive turntable with a microprocessor-controlled tone arm whose low-frequency resonance is damped in both the vertical and the horizontal planes by an electrical servo system. Aiding the electronics in controlling the influence of external vibrations are four softly sprung mounting feet.

The dynamic operation of the DP-37F’s straight-line tubular tone arm is fully controlled by its servo system. With the power off, the arm and cartridge are initially balanced by rotating a conventional threaded counterweight, but all further tracking adjustments are applied electronically by turning one of the two knobs recessed into the arm base.

According to Denon, the amount of electronic damping required to control the amplitude of the low-frequency arm/cartridge resonance is a function of the cartridge's compliance. Since this parameter is not ordinarily known by the user, the damping control is calibrated and set to match the tracking force. The rationale for this is that, all else being equal, the required tracking force is inversely proportional to the stylus compliance, while the resonance frequency is inversely proportional to the square root of the compliance. Theoretically, the internal damping built into the cartridge and arm pivots should also be considered, but since in practice the servo damping need only be approximately correct for substantial benefits, the Denon engineers opted for the simplified adjustment of the control.

The Denon DP-37F can be operated as a semi-automatic turntable if desired, since lifting the tone arm from its rest also starts the turntable motor. However, simply pressing the start button causes the arm to move slowly toward the platter, which starts rotating just before the arm reaches it and is at correct speed by the time the cartridge is lowered to the record surface. At the
Never before has so much technology been concentrated in one modestly priced cassette deck. No other recorder in its class can claim to possess the three essential ingredients of sonic perfection—the legendary Nakamichi Discrete 3-Head approach to recording, the unique Direct-Drive Asymmetrical Dual-Capstan Diffused-Resonance transport, and the most sophisticated wide-range low-distortion electronics in the industry.

*Its name—The Nakamichi BX-300.*

*Its heritage—Nakamichi.*

*Its destiny—Legendary.*

See it...Hear it...You can afford The Sound of Nakamichi.
end of the record (or whenever the stop button is pressed) the pickup rises and returns to its rest, shutting off the motor. Alternate operations of the lift button raise and lower the pickup.

The Denon DP-37F has a handsome vinyl-veneer wooden base and a hinged, slightly tinted plastic dust cover. It measures 17 inches wide, 16 inches deep, and about 5 3/4 inches high, and it weighs approximately 16 1/2 pounds. Price: $325. Denon America, Inc., Dept. SR, 27 Law Dr., Fairfield, N.J. 07006.

Lab Tests

Denon's instructions state in one place that the cartridge weight should be between 4 and 6 grams (including mounting hardware) and in another that it should be between 4 and 9 grams. Since we had no difficulty in balancing our 6 1/2-gram test cartridge, we assume that the wider range is correct. A plastic overhang gauge is supplied for setting the cartridge's position in the headshell. The measured tracking error of the installed cartridge was low and consistent with values computed from the arm dimensions.

It was not possible to measure the arm's effective mass directly, since the turntable must be on (and rotating) in order to have any downward force applied by the arm servo, and our arm-mass test fixture is not designed for operation on a rotating platter! However, the low mass of the arm could be inferred from the nearly ideal 10-Hz resonance of the arm/cartridge system. With our ultra-low-frequency test record, the resonance was barely visible as an arm vibration when the Q-DAMPING control was set to zero. Near the upper end of the damping-control range, the arm vibration was too slight to be visible. It was apparent that this adjustment is completely non-critical and that the dial can safely be set to match the vertical force or slightly higher.

The turntable speed was exact, and it was unaffected by line-voltage fluctuations or normal load changes. Rumble was low, and so was flutter, which measured approximately the same with DIN or CCIR (quasi-peak) weighting and with JIS (rms) weighting. The tracking-force-linked antiskating compensation appeared to be optimum, and the arm's lateral position did not shift significantly when it was raised or lowered by the lifting mechanism.

The Denon DP-37F showed remarkable insensitivity to the shaking or bouncing that can occur when a turntable's supporting surface is not sufficiently stable. Most turntables are unable to track in such an environment, but the DP-37F seemed to be immune to the sort of jarring that can result from careless operation of its controls. Even a strong rocking or shaking action had no real effect on the record playing—there was not even a transient "wow," which such an action will produce with almost any belt-driven turntable. A vigorous blow on the turntable's base or cover was required to dislodge the stylus from the groove. This was a most convincing demonstration of the effectiveness of the arm-damping servo at the lower infrasonic frequencies. The soft mounting feet provided only average isolation from conducted vibration at audio frequencies or in the upper infrasonic range.

The automatic operation of the DP-37F was flawless, if somewhat leisurely. The start/stop cycling times gave the subjective impression of being longer than our stopwatch indicated, perhaps because of the overall quietness and smoothness of the player's operation.

Comments

The styling and finish, as well as the performance, of the DP-37F were in keeping with the image of quality that Denon has established. Our only (very minor) criticism concerns the unusually stiff control-button action. After all those "feather-touch" controls we have encountered over the past few years, it was disconcerting to give a light tap to the start or stop button or the arm-lift button and receive no response. It takes a strong, positive pressure to operate these controls, which close with a very positive (and audible) click. You're not likely to select the wrong function by accident.

As we see it, the strongest point of the DP-37F, the one that distinguishes it from most other fine turntables, is the effective servo-control of its arm dynamics. This feature simultaneously reduces the low-frequency arm/cartridge resonance and makes the player nearly immune to the jarring associated with operating its controls or that can result from a less than optimally rigid supporting surface. The DP-37F is a fine record player whose performance matches its good looks and ease of operation.

Circle 143 on reader service card
CAMEL LIGHTS

It's a whole new world.

Today's Camel Lights, unexpectedly mild.

Shunned by purists, the AM/FM stereo receiver has been one of the most popular hi-fi components of all time—for the good reason that it makes sense.

Andberg's "receiver" is actually a TPT 3011A tuner and TIA 3012 integrated amp unified by solid rosewood end panels and common styling. Price: $1,755.
The receiver, which incorporates several components in one chassis, appeals to different buyers for different reasons. For the first-time buyer it reduces the number of choices he has to make in assembling a component hi-fi system. For anyone on a budget it is a good buy because the use of one chassis for several functions is economical. For a person with limited space a receiver is easier to install than separate components, and it takes up less room. Even for an experienced audiophile the receiver's many virtues will make it the logical choice for the center of his secondary system.

But there's a certain snobbishness among some high-end audiophiles when it comes to the receiver. Perhaps it's because the audio manufacturers seem to make things too easy by combining all the electronics most people need in one component, removing some of the challenge of putting together an audio system. Perhaps it's just that an all-in-one piece of equipment makes so much sense that in the minds of purists it simply can't perform as well as a system that has been put together with a lot of experimentation and sweat.

In spite of such attitudes, however, in the real world the receiver constitutes the most common way to buy audio electronics, and the industry has responded by producing a bewildering variety of models. Choosing the one that is right for your purposes can be an exercise in frustration, but as with anything else in audio, a process of elimination can make the selection more manageable.

Jensen's AVS-1500 audio/video receiver has a TV tuner as well as AM and FM. Price: $990.

Carver's "The Receiver" has a magnetic field amp with 130 watts/channel and the company's unique FM tuner circuitry. $749.
VC's R-X500B is a microprocessor-controlled AM/FM receiver with a 100-watts/channel amp. It also has a five-band, five-memory graphic equalizer, 15 AM and 15 FM presets, a remote control, and pushbutton controls. Price: $650.

The first thing to consider is whether you need a receiver at all. By a long-standing, if illogical, convention, a unit that only receives radio signals is called a "tuner," and the term "receiver" refers to a unit that in addition to receiving radio signals also includes a power amplifier and a preamplifier to handle signals from turntables, CD players, tape decks, and video players.

Chances are, if you are putting together a system from scratch, a receiver is the most practical thing to buy. But if you have no interest in FM or are in an area without adequate FM coverage, you would be better off buying an integrated amplifier, which is the same thing without the tuner. If you are much interested in AM, you're better off with a separate radio because the AM sections of most receivers are pretty terrible, but AM stereo may change that to some extent.

If you have a requirement for large amounts of power, that is the one thing that might make a receiver an inappropriate choice. There was a time when a number of manufacturers produced receivers that pumped out several hundred watts per channel, but the market for them proved to be so small that the companies quickly reverted to more modest wattages—rarely more than a hundred watts or so per channel. This is entirely adequate for most people, but if you need to produce wide dynamic range with very inefficient speakers in a huge room, then a separate power amplifier is probably the answer.

Assuming that your demands are more or less modest, and that a receiver is the most sensible format in which to buy your electronics, several general points should be borne in mind before you actually start shopping. The first is that you really make no sacrifice in quality by choosing a receiver over separate components in the same general total price class. Electronic technology has long since arrived at the point where the finer points of amplifier and tuner design are well known and relatively inexpensive to execute, so the performance you can expect from most receivers will be almost as good as that of better-quality high-end components. (And even there, the differences, where they exist at all, are not huge.) If a dealer starts talking about the particular "sound" of a receiver, it's time to find one who knows what he's talking about.

By long-standing, illogical, convention a "receiver" not only receives radio signals, but it also includes a power amplifier and a preamplifier.

The manufacture of receivers— unlike some other components— requires a large investment in design and production facilities. Therefore, only the major companies are equipped to enter this market. The likelihood that any one of them would turn out a really sub-standard product is very slim indeed. There are differences between brands, of course, but in choosing a receiver you will want to give a lot of attention to what it will do, not just how well it does it— the features, not just the specs.

Since differences do exist, there are some specifications that are important in receivers. While most units will meet what we would consider minimum hi-fi specs, some will not, and others may far exceed them. When evaluating a receiver's performance, independent tests (such as those that appear in STEREO REVIEW) can be very useful, and reprints of these are often available from dealers. Bear in mind, though, that manufacturers will only reprint reviews of models that perform well in tests, so a visit to the local library may give you a better perspective on how a given brand or model stacks up.

Whether you read test reports or the manufacturer's own specifications, you will be confronted by a mass of information that can be very confusing, particularly if your knowledge and interests are not primarily technical. Much of the data can safely be bypassed: things like distortion, noise, capture ratio, and so forth are commonly sufficiently good that they will not be cause for rejecting a unit.

One spec that may or may not be important to you is the sensitivity of the FM tuner section. If you live in a major urban center and listen primarily to local FM stations, then FM sensitivity is relatively unim-
important—most signals will come booming in strongly enough that even a low-sensitivity front end will be good enough most of the time. But sensitivity can be important if you are situated in a fringe area or want to listen to stations some distance away.

Sensitivity is measured in terms of the amount of noise (or hiss) in the signal because an FM signal gets quieter as it gets stronger. The more sensitive the tuner, the smaller the signal required to produce an acceptably low noise level. Originally, a 30-dB signal-to-noise ratio was considered adequate for specific purposes, and most modern receivers can routinely produce this level with signals of less than 2 microvolts (µV).

This method of measuring sensitivity has several drawbacks, however. The first is that the 30-dB reference point is, after all, a very noisy level. Second, the measurement refers to a mono signal in a time when virtually all FM is stereo (and stereo is inherently a much noisier proposition). And third, the rating in units of microvolts presupposes an antenna impedance of 300 ohms in a time when it is generally preferable to use the 75-ohm input available on most tuners.

A more useful way to rate sensitivity is to raise the reference level to 50-dB and make the measurement in stereo as well as mono. The figure will typically be only a microvolt or two higher in mono, but in stereo the spec will often exceed 40 µV (300-ohm input) for the same tuner. To overcome the ambiguity caused by different antenna impedances it is better to rate sensitivity in units called dBf—that is, decibels referred to 1 femtowatt (one quadrillionth of a watt, or 10^-15 watt).

Buy as many watts as your budget will stand, because the greater dynamic range of today’s recordings makes big demands on peak capability.

Most receivers will have a 30-dB sensitivity (sometimes called usable sensitivity) of between 10 and 15 dBf, with the mono 50-dB quieting sensitivity running 2 or 3 dBf higher. Typical stereo 50-dB quieting-sensitivity figures will be around 35 to 40 dBf.

The frequency response of the FM section is usually specified as well, and it should not deviate by more than 1 dB. Beware of one possible misconception with this specification: some manufacturers, to be consistent with other frequency-response measurements, specify it from 20 Hz to 20 kHz; others specify a narrower band, from 30 Hz to 15 kHz. The latter may look like inferior performance to the uninhibited, but it’s not. The FM signal itself only extends from 30 Hz to 15 kHz, so quoting response for that band is adequate.

Another tricky one sometimes is FM channel separation. In theory, this is a reasonable thing to specify because the tuner has to do some neat tricks to derive true stereo from what comes over the air. But psychoacoustic tests have shown that 20 dB is enough channel separation for proper stereo imaging and localization. The 20-dB figure is fairly easy to achieve at 1 kHz, where most manufacturers measure it. Much more difficult, and therefore more revealing as a specification, is a similar measurement at, say, 10 kHz.

Two specifications relating to the phono input are worth keeping an eye on as well. Frequency response here (as opposed to the overall response of the receiver) represents the phono preamp’s ability to create an accurate inverse of the standard RIAA recording curve, which is used by record companies to reduce surface noise and to cram as much as possible on a disc. If the receiver’s phono response isn’t within a decibel or less of the curve, then flat response elsewhere in the unit will not help matters, at least when playing records.

The other thing to look for is an adequate phono input overload level. A phono cartridge produces a very low output when coasting along with “average” program material—in the neighborhood of 2 millivolts—but musical peaks can make momentary demands many times greater, particularly with digitally mastered recordings. If the input preamp has insufficient overload level, it will distort on peaks right at the start, and nothing that happens later in the chain will clean up.
Denon's DRA-750 is a 70-watt digital-synthesis receiver with variable bias for Class A operation at low power levels. Price: $550.

Sansui's S-X1130 is a 130-watt audio/video receiver with video signal processing and jacks for two VCR's and a VDP. Price: $950.

Atelier R1 shows its European origins in its styling. It has a 35-watt amplifier section and an analog tuner. $500.

Yocera's R-851, 85 watts per channel, has MOSFET output transistors, a parametric equalizer, and a digital tuner. $855.

One specification that is always of great interest is power output. The number of watts you will need to drive your speakers depends on the efficiency of those speakers, the size and relative "deadness" of your listening room, and to a certain extent the sort of program material you are planning to play.

As a general rule, you should buy as many watts as your budget will stand. This is partly because the much greater dynamic range of today's recordings makes larger demands on an amplifier's peak capacity than in the past (particularly if you're into Compact Discs). For an average listening level, the amp may be putting out only a couple of watts, but a 20-dB peak—not at all unusual in music—will create a momentary power wattage demand one hundred times as great. Even a bare-
ly perceptible increase of 3 dB requires double the number of watts. More to the point, however, is the fact that you really have to work hard to blow a speaker by overpowering it, but tweeters are notoriously intolerant of being underpowered. A low-powered amp is likely to be clipping much of the time, and clipping generates a lot of high-frequency harmonics as well as a lot of mechanical stress as the coil tries to follow the distorted signal. Eventually the coil fries or the tweeter fails mechanically. A high-powered amp will be producing a small number of watts most of the time, but it will be clean even on peaks. Many receivers include specifications for momentary peak power and dynamic headroom that indicate the ability to handle the short-term power surges.

Your power requirements will identify the segment of the receiver market you should be looking at, at least roughly. There are receivers at practically every output level, but there is little point in being too precise about how many watts you require. The difference in maximum output between a 50-watt receiver and a 100-watt receiver is only 3 dB, after all, so splitting hairs trying to choose between a 45-watt unit and a 50-watt one is pointless. Most people find 40 to 60 watts adequate; so, unless you have critical demands, that is not a bad range to start looking in.

The power you choose affects more than just the receiver's performance. In the first place, manufacturers generally add more features to their receivers as they ascend the wattage scale, so if you have unusual operational demands, you are probably going to have to invest in higher output to realize them. Second, audio companies usually price their receivers on the basis of their power output, and the nominal price you will pay for a given number of watts will generally be pretty consistent from brand to brand. Therefore, in choosing a receiver, you have to go through a kind of balancing act between price and features within any given wattage range.

So far, the only thing that has reduced the choice has been output power: specifications, while important, are rarely out of line, and prices—list prices, at any rate—tend not to vary too much, so you are likely to be pretty safe whatever you choose.

Other factors do come into play, however. The availability of certain brands can be important, for instance. If you live in a smaller community, with a relatively small selection of audio stores to choose from, you would do best to pick brands that are available locally. Also, if you are purchasing other components or speakers along with a receiver you can usually bargain for a favorable package deal. On the other hand, you may want to take advantage of a particularly good

Onkyo's TX-85 Integra receiver is rated to deliver 80 watts per channel. Its features include a dynamic range expander, dbx encode and decode circuits, a synthetic stereo simulator, DNR noise reduction, and a digital-synthesis tuner with sixteen presets. Price: $620.
Pioneer's SX-V90 audio/video receiver has 125 watts/channel, the company's proprietary DDD tuner circuitry, and switching for two VCR's, a video disc player, TV, and a video monitor. It also has the usual audio switching. Price: $800.

Radio Shack's Realistic STA-2500 receiver, 100 watts per channel, has digital-synthesis tuning, twelve station presets. $499.95.

Technics' SA-550 70-watt receiver has TV sound tuning in addition to AM and FM. It also has simulated stereo and a jack for an add-on stereo TV decoder. $450.
price at a certain store, or with a particular line, and this is worthwhile if it means that you can buy a slightly better unit or upgrade some other part of the system. Or you may simply have had good experience with a particular name and want to stay with it—that’s the best recommendation of all.

After picking a wattage range, a price range, and an acceptable group of brands, you should be fairly close to a decision. Some physical considerations may be appropriate at this stage. What a receiver looks like should not, perhaps, be a factor in your choice, but it inevitably will be. The unit will form part of your decor, and it should fit in as well as possible. The same is true of the receiver’s size: a unit that is too large may cause practical problems in your listening room, while an unusually small one may cost more than a “standard”-sized receiver that performs similarly.

Finally, probably the most important aspect of a receiver is what it allows you to do. The range of possible features that can be included in a receiver is huge, and you have to decide before you make your final selection just what uses you are going to make of your equipment.

If, for example, you expect to do a lot of tape copying, your choice will have to be restricted to units that accept two or more tape decks and provide for dubbing between them. If you have a hi-fi VCR, it will need its own tape loop. Or if you own a substantial number of older records that are in less-than-pristine condition, you may want to consider a built-in graphic equalizer or at least a low-pass filter switch. Your radio habits might determine how many station presets you want.

Future considerations also come into play here. Are you likely to be interested in AM stereo? Do you need extra aux inputs for a CD player, a video-disc player, or another line-level source? How about a built-in TV-band tuner? Do you prefer knobs or pushbuttons? Is remote control a necessity? Extra speaker outputs? The list is almost endless, and practically any combination of features is available from someone, probably at about the price you are prepared to pay.

It’s not easy to make a choice because there is such a variety of receivers available. But the variety is really no more than a confirmation that buying a receiver is a sensible and convenient way to buy electronics, whatever some audio purists may think.
trying to settle on a suitable Christmas gift for a music-loving audiophile can be risky. It's a little like picking out a tie for a man, who will wind up wearing it only when he sees you coming (if then), or a perfume for a woman, who will look upon the particular brand you've selected as fit only for a call girl.

To reduce the risk of buying gifts that fail to please, we have asked our editorial staff and regular contributors to recommend items they have enjoyed or found useful. We ruled out major audio components because of their expense and because most people would rather select those for themselves. The result is a list of records, books, and accessories, each of which has the personal endorsement of at least one of the music-loving audiophiles on our staff. While reading it you may well find something with which to reward yourself at holiday time. You've been good, haven't you? The Editors

Barbara Aiken, Editorial Assistant
I recommend the Mini-Vac cleaner. It's a lightweight vacuum cleaner that is perfect for cleaning delicate things like records, stereo and video equipment, typewriters, lenses, negatives and jewelry. It can be a.c. or d.c. powered. It is compact, portable, and versatile. Price: $29.95.

Chris Albertson, record reviewer
I wouldn't be without a portable Halon fire extinguisher. As hi-fi grows in the home to include video and perhaps add-on computer equipment, there may be a risk of electrical fire from inadequate wiring. Halon fire extinguishers come in three sizes from $59.95 to $99.95. They will not damage sensitive electronic or mechanical equipment, and they require no clean-up.

Christie Barter, Music Editor
The only record album I received as a gift last Christmas is one that has given me a lot of pleasure during the year, and I believe it would make someone on your list happy as well. It is an album of glorious singing by Elisabeth Schwarzkopf, on five discs spanning over twenty-five years of the soprano's phenomenal recording career. Beautifully packaged by EMI's French company, Pathé Marconi, under the title "Les Introuvables" (EMI 1546133), the set is available as an import for $44.90 from International Book and Record Distributors, 40-11 24th St., Long Island City, N.Y. 11101.

For the CD collector I'd suggest the Nagaoka Compact Disc cleaner ($29.95), which does an equally good job on video discs.

Louise Boundas, Managing Editor
"Charlie Parker on Verve, 1946-1954" is a ten-disc set of bop improvisations, in beautifully remastered mono, that goes a long way toward explaining the alto saxophonist's legendary status. The Verve set, a Japanese import that lists for $99.80, would make a lavish present for any serious jazz collector. When you invest a lot of money in your records, it's certainly worthwhile to invest a little time in taking care of them. A couple of swipes with the Decca record brush, which boasts "1,000 bristles for every groove," takes only a couple of seconds. A British import, the handsome little brush is available in local record and equipment stores for $17.99. It will get less of a workout if you also invest in antistatic record sleeves. Nagaoka provides these in packages of fifty for $12.

One of the best gift books around this season is Jonathan Cott's Dylan (Rolling Stone Press/Doubleday,
Wonder what Dylan would have said in, say, 1962 if anybody had predicted he’d be the subject of a coffee-table book?

Bill Burton, Associate Editor

Don’t let Compact Discs get you into bad habits. Take care of your fragile LP’s with the Discwasher Diskit record-care system. It includes the cleaning brush, fluid, the Zerostat antistatic gun, and the SC-2 stylus-care system. All this for only $55. Parts of the system are also available separately. The Zerostat alone, for example, costs $23.

If you want to mount your speakers on the wall so they can swivel and direct sound where you want it, take a look at the brackets made by Pivotelli. They allow speakers to be positioned for optimum imaging without taking up floor space. Prices: $39.95 to $59.95.

The AT 605 audio isolation feet from Audio-Technica can prevent vibrations from bothering your turntable. The feet are adjustable for height, and the kit includes a bubble level. The set of four feet costs $29.95.
Richard Freed,
record reviewer

The new autobiography Galina, A Russian Story by the great Russian soprano Galina Vishnevskaya (Har- court Brace Jovanovich). It is no mere recitation of career triumphs and backstage gossip, but a powerful and personally detailed report on the conditions of musical life in the Soviet Union. The portraits of Shostakovich, Prokofiev, Bulgarin, mezzo-soprano Elena Obraztsova, et al., as well as Vishnevskaya's husband, Mstislav Rostropovich, have a close-up sharpness that makes them unforgettably real. And so does the gutsy chronicle of her own artistic pilgrimage. This is not an "as told to" book but one that reminded me of what Verdi wrote once about Manzoni's novel I promessi sposi: "It is a true book; it is as true as truth." Price: $19.95.

I'm still very happy with the LAST record-care system ($29.95), which with its liquid cleaners and preservative restores and seals in the quality of LP's and 45's.

Phyl Garland,
record reviewer

Wynton Marsalis's latest record, "Hot House Flowers" (Columbia FC 39530). It's a group of standards that will appeal to a lot of people who are not necessarily jazz enthusiasts. The young trumpeter's Stardust is gorgeous.

Christopher Greenleaf,
car-audio reviewer

All the welcome recent improvements in record pressing notwithstanding, there are many records around, old and new, that cause lots of nonmusical, low-frequency energy to pass through the stylus and into the rest of the audio signal path. Nakamichi's SF-10 infrasonic filters, $15 a pair, fit between your amplifier's line output jacks and the cassette deck's inputs. The SF-10's eliminate rumble (and some of the very deepest bass), permitting the tapes you record to be made at a high enough level virtually to banish hiss and—car audio fans, take special note—eliminate garbanve bass intrusion from warps and elderly platter bearings. For full-range dubs from quiet discs, just remove the SF-10's and reconnect. For car stereo head and capstan cleaning, I recommend the Allsop 3 Ultraline cleaner, which costs $15.95.

David Hall,
record reviewer

Living in a fringe reception area, I would really look forward to receiving the Magnum 105M antenna booster (see STEREO REVIEW, September 1984, page 47). But I'd also welcome Neville Marriner's new Philips album of seven discs (412 176-1), in which he and the Academy of Saint-Martin-in-the-Fields perform the symphonies of Schubert, including Brian Newbould's handsome realizations and completions of Nos. 7 and 8 plus three movements that would have been No. 10. Also available on cassette.

Julian Hirsch,
equipment reviewer

It's important to avoid playing a record with a worn stylus, so I'd recommend Stanton's Stylus Wear Gauge, which sells for $25 and will measure use of the stylus from 0 to 1,000 hours in 100-hour increments. Your stylus should be inspected after each 250 hours of use. Other tools I consider invaluable for properly setting up a turntable and cartridge are the DB Systems DBP-10 phono alignment projector ($21.95) and the Shure SFG-2 stylus-force gauge ($8.50).

Ralph Hodges,
"The High End"

It's hard to imagine a listening room that couldn't benefit from some acoustic improvements, for which I recommend Sonex acoustic foam sheets by Illbruck. A pack of four 24-inch square sheets costs $39.95. I also use Monster Cable Helpers, a system of ties, surface-mounting straps, and wire labels that keeps everything neat and easy to locate. Cable Helpers labels cost $10, the ties $5, and the surface-mount ladder straps $6.

Larry Klein,
"Audio Q&A"

I suggest two inexpensive accessories. The cheapest is a fiber or plastic 10 x 12-inch "wallet" to hold all your relevant audio instruction manuals, sales receipts, warranties, and so forth. A central repository for audio-related material will save time and prevent loss.

And speaking of loss, an electric engraving tool, available for under $15 at Radio Shack and many hardware stores, will discourage theft and help you recover lost property. Most police departments suggest that you engrave your Social Security number on the rear panel of the equipment.

Stoddard Lincoln,
record reviewer

There are two albums I find I've gone back to many times over the past year: the Orfeo recording of Gluck's Alceste, in which Jessye Norman sings the title role (S 027823 F), and the Pro Arte album of tangos and waltzes by Ernesto Nazareth played by pianist Arthur Moreira Lima (PAD 144).

Sue Llewellyn,
Art Director

Fun Boy Three's first album for Chrysalis (CHR 1383) is at the top of my list. The lead singer of the trio is an ex-member of Madness, an English two-tone (mixed-race) band, so the music retains the sounds of reggae with the addition of back-up brass and supporting vocals by an all-female group called Bananarama. A great album for parties, though not easy to find. Tower Records in New York or on the West Coast will order it for you.

William Livingstone,
Editor in Chief

Record collectors (like me) with big hands and little manual dexterity
will find the Allsop 3 Orbitrac record-cleaning system effective and easy to use. Price: $16.95.

A couple of recordings that would be good introductions to opera for a beginner are the Mobile Fidelity Sound Lab reissues of Puccini's La Bohème with Mirella Freni and Luciano Pavarotti conducted by Herbert von Karajan and Bizet's Carmen with Tatiana Troyanos, Kiri Te Kanawa, and Placido Domingo conducted by Georg Solti. Half-speed-mastered from the original tapes, these limited editions are pressed in Japan on high-definition super vinyl and packed in heavy-duty boxes. Price: Bohème, $30; Carmen, $50.

Rocco Mattera,
Editorial Assistant

As an admirer of Verdi's operas, especially Macbeth, I couldn't wait to get my hands on Verdi's Macbeth: A Sourcebook edited by David Rosen and Andrew Porter (W.W. Norton, $39.95). It's a fascinating collection of letters to and from the composer, essays, and contemporary reviews detailing the genesis of this early work. A must for all Verdi lovers.

Louis Meredith,
video reviewer

For videophiles I recommend Koss V.I.P. VCR cleaning cassettes with disposable cleaning cartridges. The price is $15.99 for Beta or VHS, and that includes three cartridges. These fit both formats and cost $3.99 for a three-pack.

The album “Songs of the Hebrews” (Musical Heritage Society 4918H) stirs me to my Celtic roots. It includes love songs and work songs as well as many songs of the sea. Performed by clear-voiced soprano Alison Pearce and harpist Susan Drake, they sound more like art songs than folk music. Price: $5.45 to members, $8.50 to others.

Alanna Nash,
record reviewer

A video head-cleaning cassette to remove build-up and restore image quality. I recommend TDK Model TCL 30 (VHS) or LCL 30 (Beta) for $17.99. Keep a clear head and a clean machine.

Mark Peel,
record reviewer

Consider yourself a popular-music expert? Know a rock-'n'-roll know-it-all you'd like to knock off his high horse? Rock Trivia, subtitled Rock and Roll from the Beatles to Bowie, from the Pressman Toy Corp., may be the ultimate test. This board game contains 4,000 "trivial" questions in six rock categories (the Beatles get one to themselves). Questions range from the reasonable (What group did Paul Rogers come from before joining Bad Company?) to the ridiculous (Who led the Jim Mac Jazz Band?). As with its obvious inspiration, Trivial Pursuit, the fun is in the minutiae more than the game. It's $19.99 at record, book, and hobby stores.

Bill Neill,
Editorial Assistant

Anyone who plays records could use the Audio-Technica TechniClean stylus cleaner ($13.95) to keep the stylus free of dirt. The Sorbomat turntable mat ($39), made by Mission, supports a record evenly and seems to isolate the cartridge from rumble and vibration.

You can delight rock and country listeners with the record "Long Gone Dead" by the L.A. group Rank and File (Slash/Warner Bros. 9 1-25087). It's an unusual combination of the plaintive and the hard-edged.

David Ranada,
Technical Editor

My Christmas list would include the Loftech TS-1 Audio Test Set, for the audiophile interested in optimizing the performance of a system from tape deck to speakers. Available from Phoenix Audio Laboratories, the $299 device contains

MUSIC VIDEOS

A varied list of video tapes and discs selected for Christmas giving by the editors

BLUES ALIVE (RCA Columbia). A concert with Sippie Wallace, Etta James, Buddy Guy, Albert King, others. VHS stereo, Beta Hi-Fi, CED.

CARMEN BALLET (Video Arts International). Bizet "reinterpreted" by Russian composer Rodion Shchedrin. Starring ballerina Maya Plisetskaya. VHS, Beta.

THE CARS: Heartbeat City (Warner Bros.) Directed by, among others, Andy Warhol and Timothy Hutton, and starring the Cars. VHS Stereo, Beta Hi-Fi; LaserDisc.


GOTTA DANCE GOTTA SING (RKO). Excerpts from great movie musicals featuring everybody from Shirley Temple, Fred Astaire, and Marilyn Monroe to Liza Minnelli, Steve Martin, Bernadette Peters, and beyond. VHS Stereo, Beta Hi-Fi; LaserDisc coming.

THE LAST WALTZ (CBS/Fox). Directed by Martin Scorsese and starring the Band. VHS Stereo, Beta Hi-Fi; LaserDisc coming.

MEN OF CHIPPENDALES: Muscle Motion (Pioneer). Featuring no nudity, this one got a gym teacher fired because she showed it to high-school girls. For grown-ups it's a workout program, a beefcake parade, or a comedy album. LaserDisc.

READY STEADY GO, Volume 1— The Sixties (Thorn/EMI). Starring the Beatles, the Rolling Stones, the Who, the Searchers, the Dave Clark Five, Them, Lulu, etc. VHS, Beta.

VERDI: Don Carlo (Pioneer). Mirella Freni, Grace Bumbry, Placido Domingo, Louis Quilico, Nicolai Ghiaurov, other soloists. Metropolitan Opera Orchestra and Chorus, James Levine cond. LaserDisc. International opera stars in one of the Met's best recent telecast performances (see also Donizetti, above) are presented here in color, in stereo, with CX noise reduction and English subtitles. It's all live and it's all real. No material was taken from rehearsals, other performances, or remake recording sessions. The Verdi and Donizetti operas are epoch-making releases.

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a sine-wave oscillator and a digital decibel meter that doubles as a frequency counter.

**Peter Reilly, record reviewer**

*Operetta, A Theatrical History* by Richard Traubner (Doubleday, $29.95) is a buoyant and beautifully illustrated chronicle of operetta—called by Saint-Saëns "the daughter of opéra-comique who went astray—not that daughters who go astray are without charm."

**Charles Rodrigues, cartoonist**


**Fran Rosenblatt, Editorial Assistant**

The book *David Bowie's Serious Moonlight: The World Tour* (Doubleday) is a classy, lavishly photographed souvenir of the musician's now famous 1983 tour. The volume is beautifully put together, with tons of color photographs by Denes O'Regan, and thoughtfully written by Chet Flippo, with an introduction by Bowie. Price: $16.95 in paperback.

The Solid Gold Music Trivia Game could be the perfect gift for the rock/pop expert in the house. Two to twenty-four players choose from thousands of questions ranging from the very early days of rockabilly through the British invasions up to such current acts as Culture Club. Price: $15 from CBS Toys.

**Eric Salzman, record reviewer**

Last year the wonderful albums on my list were all records I had produced myself. I see no need to bring modesty into the picture now, and my suggestion for this year is "Moore's Irish Melodies" (None-such 1-79059), which I also produced. It's a collection of early nineteenth-century love songs, drinking songs, and patriotic songs performed by four excellent singers with Igor Kipnis at the fortepiano. It's gorgeous stuff, and I'm very proud of it. Price: $11.98.

**Gordon Sell, Technical Editor**

I recommend frequent cleaning of car stereo player tape heads, capstans, and pinch-rollers, as well as occasional demagnetizing. So I'd put Discwasher's Perfect Path head cleaner ($9.95) on my list along with the C.P.R. capstan/pinch-roller cleaner ($9.95) and the D'Mag head and capstan demagnetizer ($19.95). They make easy work of hard-to-reach tape mechanisms.

In one trip to a Radio Shack store you can buy enough useful and inexpensive items to fill an audiophile's stocking. For example, a can of switch contact cleaner costs $1.99, "Non-Slip" solvent to put the grip back into rubber belts and wheels costs only 99 cents, and a deluxe cassette-tape repair kit will set you back all of $4.99. A stocking stuffer that costs nothing is a Radio Shack catalog, which will provide hours of reading, wishing, and spending pleasure.

**Steve Simels, record reviewer**

I'd nominate "Like This," a Bearsville album by the dB's (1-25146), a cult band making a move toward the pop mainstream and doing it magnificently with this inventive, melodically endearing record. The music has the accessibility of Marshall Crenshaw and the quirksiness of REM. In the immortal words of Todd Rundgren, turn it up!

**Craig Stark, equipment reviewer**

I wouldn't be without my R. B. Annis Model 115 Han-d-Mag tape-head and capstan demagnetizer ($29.70). Also recommended from R. B. Annis is the Model 25/B5 hand-held magnetometer ($12.85), which will tell you if there is a built-up magnetic field on the heads or capstans that requires demagnetizing. Nagaoka has a handy tape splicing and repair kit, Model PC-507, that costs $20 and includes a splicing block, splicing tape, tools, leader tape, and hardware.

**MEREDITH'S MOVIES**

Video critic Louis Meredith lists his personal choices for the home videophile

For openers, a couple of classics and their recent, estimable remakes:
- **TO BE OR NOT TO BE** (Vestron). Ernst Lubitsch's tragicomedy, with Jack Benny and Carole Lombard. VHS, Beta.
- **TO BE OR NOT TO BE** (CBS/Fox). The Mel Brooks/Anne Bancroft update with hilarious musical numbers. VHS Stereo. Beta Hi-Fi, LaserDisc.
- **SCARFACE** (MCA). Howard Hawks's gangster classic, with Paul Muni. VHS, Beta.
- **SCARFACE** (MCA). Brian De Palma's modern retelling, with Al Pacino and half the cocaine output of Peru. VHS Stereo. Beta Hi-Fi, LaserDisc.

Then a couple of the recently reissued Hitchcock classics:
- **REAR WINDOW** (MCA). With Jimmy Stewart and Grace Kelly. VHS, Beta, LaserDisc.

Next, two from Shelley Duvall's marvelous Faerie Tale Theatre series, originally aired on Showtime:
- **THE NIGHTINGALE** (CBS/Fox). Starring Mick Jagger and Bud Cort. VHS, Beta.
- **BEAUTY AND THE BEAST** (CBS/Fox). With Klaus Kinski and Susan Sarandon. VHS, Beta.

Then a toss-up between two wonderful old comedies:
- **WAY OUT WEST** (Nostalgia Merchant). With Laurel and Hardy. VHS, Beta.
- **ABBOTT AND COSTELLO MEET FRANKENSTEIN** (MCA). Starring you-know-who, and obviously the inspiration for Ghostbusters. VHS, Beta.

And, finally, what will doubtless be the hit of the Christmas season:
- **THE EMPIRE STRIKES BACK** (CBS/Fox). Starring the whole Star Wars gang plus Billy Dee Williams. VHS Stereo, Beta Hi-Fi. I want it in LaserDisc!
THE
CARE AND FEEDING
OF A
CD PLAYER

An owner’s guide to the total health of a Compact Disc system
by David Ranada

LIKE any household pet, a component stereo system will give you the greatest enjoyment if you take care of it. Luckily, both the care and feeding of a digital Compact Disc player are easy. One of the hallmarks of the CD system is that it indeed needs so little care. There are no styli to keep clean or replace when worn or damaged, no elaborate disc-handling rituals to learn, and no requirements for an arsenal of fluids and machinery to keep dust from sullying fragile vinyl grooves. To keep the digital sound stream flowing with as little trouble as possible, there only a few guidelines to be followed.

Practically every CD-player manual I’ve seen contains a set of general guidelines for home-component care. These should be followed with every part of a stereo system but particularly in the case of a CD player. So keep a player away from direct sunlight and other heat sources, don’t block the unit’s ventilation holes (if any), and keep it away from moist and other mechanism-corroding environments.

Special care should be taken to keep the player from violent physical jolts. While most people don’t regularly drop their CD players, less catastrophic mechanical jolts can seriously misalign the laser scanning mechanism. Remember, the tracks on a CD are spaced only 1.6 millionths of a meter apart. Players vary in their sensitivity to bumps and their ability to recover from them, and it’s best not to discover your player’s limitations the hard way. Take seriously the instruction manual’s admonitions to replace the locking screws (if any) whenever transporting the CD player.

Another type of shock can also seemingly damage a player: an electrostatic discharge (spark) caused, for example, by shuffling across a carpet and touching the player on a dry winter day. Digital electronic equipment in general, from CD players to large mainframe computers, is notoriously susceptible to being reset or “hung up” by the voltage surge generated by a spark discharging through or around the circuitry. In bad cases damage can result to ultra-sensitive components—like the semiconductor laser in a CD player. While CD lasers are very well protected (by circuitry and the surrounding enclosure), and while I don’t know of any reports of CD-laser spark damage, I have myself caused a couple of players to...
stop operating by a spark. If this happens to you, the best way out—after trying to regain control via the front-panel switches—is to turn the player off, wait for about 30 seconds for the circuits to discharge fully, and then start the player up again.

The only other important care recommendations for a CD player also concern the laser scanning mechanism. The laser will eventually burn out. The failure will be sudden and will result in an unusable player. Most lasers will last through at least 2,000 hours of playing time before this occurs, however, and replacement should be a rather inexpensive operation (less than $100).

What’s important about laser burnout is that its effects can also be produced by dirt, dust, or grime on the laser’s objective lens, the last thing the beam passes through before it hits the disc. The laser and lens systems in front-loading players are well protected from dust and prying fingers. Those in top-loaders are not. The objective lens in a top-loading player can be cleaned—but only if there’s reason to suspect that it is causing a malfunction—with a cotton swab moistened with a photographic lens-cleaning fluid. The player manufacturer may recommend another cleaning method or fluid. Any such advice should override mine.

Disc Care

The portion of the CD system requiring the most care and cleanliness is the software. The discs are not, as some would have it, indestructible, nor are they hard to damage. But even in the worst cases, the amount of trouble or money required for preventive care doesn’t even approach that required for the protection of analog discs.

Scratches pose the greatest danger to the faultless playback of a Compact Disc. Though the disc plays only on one side (the one without the label), scratches on either side can prove fatal to it. In fact, on the label side of a CD only a thin layer of hardened lacquer separates the digital information from damage. The playable side protects the data with a 1.2-millimeter thickness of tough plastic.

A scratch on the label side can actually destroy data; a scratch on the playable side merely obscures data. Depending on the severity of the scratch (curved scratches concentric with the center of the disc are worst, radial scratches the best") and the abilities of a player’s tracking and error-correction systems, the data errors caused by a scratched disc may be rendered totally inaudible, or they can cause problems ranging from a short dropout or click to skips, locks, or total unplayability (if the innermost area of the disc containing the cue information is badly damaged).

Conclusion: Avoid scratching either side of a Compact Disc. You needn’t go through any elaborate precautions with CD’s or become obsessive about scratches on them (as you might with your LP’s). Just refrain from placing them in dangerous positions where they can be dragged across a surface (like a table top), and pick them up by the edge and/or the center hole.

Fingerprints and dust, the deadly duo in analog discdom, are of little concern with the CD system. The optical system will ignore most dust particles still adhering to the rapidly spinning disc (they are out of focus to the player); dust can be washed off with running water and the disc blotted dry with a towel; and fingerprints can be removed with a lightly applied swab dipped in 91 percent isopropyl alcohol or a mild detergent solution.

Player Feeding

When the Compact Disc system was introduced, there were quite a few CD’s released which could be considered the audio equivalents of bad junk food. Their awful sound quality left a bad taste, and their uninteresting music gave no nutrition. Now, more than two years later, the situation has changed for the better. It is still difficult to find a CD with truly exceptional sound quality (that’s not an easy task with analog discs either), but there is much more interesting music in the 2,000-plus CD releases available in this country. Significant factors in this changeover are a willingness of larger record companies to reissue older, classic material and the adventurous contributions characteristic of small record companies.

Perhaps the most important recent development in digital audio is the release of older analog-master recordings on CD. Two years ago, several record company executives expressed to me the view that putting out older material, basically, they took the attitude that the CD was a digital medium that deserved only digitally recorded material. Never mind that many older analog recordings were of immense musical value and that much of the newer digital recordings sounded worse than their analog forebears. This attitude also ignored the fact that good sound is only half the CD story; the other is convenience in handling an archivally permanent medium.

But no longer. Record companies are seeing the (profitable) light of day. RCA has rereleased on Compact Disc old Elvis classics (some in wonderful digital mono), EMI has digitized the Beatles’ Abbey Road, CBS has brought out Bruno Walter’s great Columbia stereo recordings (including the historic Mahler performances), and London’s analog recording of Wagner’s Ring is joining the Eurodisc digital Ring on Compact Disc.

Even the anti-digitalists at Sheffield have released some of their direct-to-disc recordings. (If Sheffield were truly concerned with delivering high-quality sound, and not in merely proving that direct-to-disc recordings can sound better, they would have made their CD masters from playbacks of their analog records and not from analog “back-up” tapes filled with hiss.) In any case, may the CD reissues continue, for they not only give us a chance to replace our old, worn-out analog pressings, but they reveal to younger listeners the glories of phonographic history.

For those willing to explore beyond Ravel’s Boléro or Vivaldi’s Four Seasons (each with more than a half-dozen CD recordings), additional expansion of the CD reper-
The great recordings of the Columbia Symphony under Bruno Walter are now on CD's from CBS.

Rameau: Pièces de clavecin, Harmonia Mundi France HM 90.1120.
Debussy: Piano Music, MMG MCD 10003.

Two very different recordings of very different French music. The Rameau is an excellent recording of two beautiful harpsichords. Its front-center image is unusually lifelike. Imaging in the Debussy disc is less precise, but the distance from the piano and the amount of hall ambience are well judged.


Denon's test disc is the best CD test record made. Its tones can be used to check out the rest of your system (if you have a voltmeter or an oscilloscope), and there are a few useful music excerpts. The two most spectacular tracks on "The Digital Domain" are of jet planes and helicopters. The rest of the electronic or electronically processed music is just as bad as the stuff I was turning out when I studied electronic music.


These are paradigms of how to take advantage of CD sonics with nonclassical music. "It's a Good Day" is very natural-sounding, with a voice quality free from excess "enhancement." "Tricycle" contains some wonderful synthesizer work with very low frequencies.


None of these discs, from master tapes about twenty years old, can be called spectacular. All are plagued by analog-tape hiss and distortion at high levels. Despite this, they all sound vivid and "live," and they illustrate the virtues of old-style recording practices. The use of large recording studios, not-too-close microphoneing, minimal inter-instrument sound isolation, and lack of artificial reverberation and other signal processing all contribute to the surprisingly realistic sound quality. It takes the newest audio medium to bring out the oldest audio truths.
The accent is on ease of access in this custom installation by Gordon Sell

Usability, accessibility, and flexibility were the goals of David Eisenberg, a Short Hills, New Jersey, insurance broker, when he set out to install his hi-fi equipment in his turn-of-the-century house. Since Eisenberg often works at home, he wanted an audio system that could be operated and enjoyed from his office desk as well as from a chair in the living room.

The desk and the wall unit are located in an alcove off the living room and on the opposite end from the speakers. The preamp, tuner, turntable, and CD player are within arm’s length of Eisenberg’s chair, and his records, tapes, and Compact Discs are conveniently stored in the wall unit. Accessibility was achieved by putting the equipment shelves in front of an 18-inch set-back in the wall. This arrangement leaves room to get behind the equipment through a door in the side of the wall unit.

There is a small exhaust fan above the door to provide ventilation for the equipment. The wood panels to the left of each component are removable to accommodate any wider components that may be added to the system. The wall unit was designed by Beth Blumefeld Interiors of West Orange, New Jersey, and built by Henry Ramm of Randolph, New Jersey.

Eisenberg has been an audiophile since the early Sixties when he built his first kit components, a Stereo 70 amplifier and FM-3 tuner by Dynaco. He listens mostly to classical music. His present equipment includes (from top to bottom in photo) a Winegard FM antenna, a Heath SB-614 station monitor, dual VU meters, a dbx 20/20 computer equalizer/analyzer, a Nakamichi ZX-7 cassette deck, a Hitachi DA-800 Compact Disc player, an Oracle turntable with an SAEC tone arm and a Talisman Sapphire cartridge, a Crown Straight-Line Two pream-
 amplifier, a Crown FM-2 tuner, an Audio Pulse Digital Time Delay, an NAD 2140 amplifier (for delay speakers), eighteen flashing lights that do nothing, and an Ampzilla GAS 500 power amplifier. The main speakers are ProAc Studio 3's, and the delay speakers are Acoustic Research AR18's.

The listening room is very large and has a high cathedral ceiling, and the chapel-like ambience is only heightened by the time delay. The lack of short-delay overhead reflections is wonderful.

Incidentally, the device under the digital clock in the photo at left is not a Rube Goldberg version of an old phonograph, but a functional telephone that Eisenberg created from odds and ends in his electronic workshop. He also built a sound-activated system that will turn on his turntable and preamp lamps at the snap of a finger.
Imagine a digital-audio Compact Disc player whose dimensions (5 x 5 1/4 x 1 1/2 inches) and weight (1 1/4 pounds) approximate those of a stack of four CD's in their plastic cases. Imagine also that this player is not an oversimplified novelty, but a full-featured stereo component with all the important features of larger CD players. Moreover, although its electronic performance is essentially equal to that of a standard home CD player, and although you can hook it up to your component system and listen to it through your speakers, it can be battery-powered and is suitable for portable operation. The remarkable device you've been imagining is Sony's D-5 Discman portable CD player. It is available now, and it is selling for just $299.95.

To be sure, the Discman isn't all that tiny in actual use. It requires an external power supply, but even in that it's versatile. You can use its a.c. adaptor, which plugs into a wall socket and connects to the Discman through a 6-foot cable. Or, if you intend to carry it around, you can put it in a carrying case with a battery pack that takes six C cells. The case, the EBP-9LC, does not come with the player and will cost you an additional $49.95. The C cells can be replaced by a rechargeable NiCad battery pack (KR-C-F-2, price to be announced) that provides 5 1/2 hours of playing time per charge. And you can even get a car-battery cord for it (DCC-120, $36.50).

Despite the additional space taken up by the power supplies, the D-5 is well suited for use in cramped and/or mobile quarters like campers, trailers, summer homes, boats, or airplanes. And, of course, those who must have the latest electronic wonder on their belts will probably choose to carry a Discman (in its case) in lieu of a cassette Walkman. A more attention-grabbing personal portable could hardly be imagined! Its performance is quite comparable to that of most full-size home units, we discovered, and its features include track selection—one at a time—up to the maximum possible of ninety-nine, visual display of track and time status, and fast scanning in either direction with audible monitoring of the program. Yet it is much smaller and considerably less expensive than any other CD player we know of.

The Discman is a top-loading player; pressing a button on the top right-hand corner of the unit pops the disc compartment open. A loss of power will release the compartment lock so that a disc can be removed if the batteries give out. The rear of the unit has the input jack for the power sources and a mini stereo phone jack used for the D-5's fixed line-level output. A 3-foot cable with a mini stereo phone plug on one end and two conventional RCA phono plugs at the other adapts the D-5 to the inputs of a component stereo system. The variable headphone output is on the right side of the player. It too is a mini stereo phone jack, and it can be used for driving any dynamic headphone.

The remaining controls are on the front panel—they are the front panel. There are fewer controls on the Discman's front panel than on the simplest home CD players because many of its buttons serve more than one function. For example, the PLAY button (single arrow) is also the PAUSE control, depending on what state the player is in when the control is
HIRSCH-HOUCK LAB MEASUREMENTS

- Maximum output level: 1.9 volts
- Left-right level match: 0.2 dB
- Maximum headphone output level: 2.6 volts
- Total harmonic distortion at 1,000 Hz: 0.0036% referred to 0 dB; 0.0025% referred to -10 dB; distortion masked by noise of lower levels
- Intermodulation distortion: 0.008% referred to 0 dB; 0.016% referred to -10 dB
- Signal-to-noise ratio: 86.5 dB unweighted, 91 dB A-weighted
- Channel separation: 86 dB at 10,000 Hz, 55.5 dB at 20,000 Hz
- Frequency response: +0.2 to -2.1 dB from 20 to 20,000 Hz (see graph)
- Interchannel phase shift: 3° at 10,000 Hz, 5° at 20,000 Hz
- Square-wave performance: slight 20,000-Hz ringing after level transitions
- Cueing time: 5.5 seconds
- Impact resistance: top, A; side, B
- Cueing accuracy: A
- Defect tracking (figures are size of largest defect successfully tracked): signal-surface damage, 900 micrometers; pointed dots, 800 microns; simulated fingerprint, pass

Getting Small

Three technological developments have given Sony designers the ability to cram the works of a CD player into the space of the Discman:

- Use of large-scale integrated circuits (LSI's),
- A reduction in the power necessary to drive those circuits, and
- A substantial reduction in the bulk of the laser-optical scanning assembly.

The "large" in LSI actually refers to the amount of circuitry integrated on a silicon "chip"; the chips themselves remain smaller than thumbnails. The Discman's primary LSI actually incorporates the functions (and the thousands of transistors) previously found in four separate LSI's, and some "discrete" circuitry besides. These functions include motor speed control, data-flow synchronization, digital-data demodulation, subcode (track number and timing) extraction, error detection and correction, and data interpolation.

A related, and crucial, characteristic of the chips used in the Discman is that many of them are made by the CMOS process. This manufacturing technique produces chips requiring a small fraction of the power that the earlier, easier-to-produce NMOS chips used. Also contributing to lower power consumption is the use of a liquid-crystal display, which uses much less power than LED's or vacuum-fluorescent indicators. A glance at the large power-supply transformer and bulky voltage-regulation circuits in any home CD player will demonstrate how important a lowering of operating power is to the reduction in player size.

Besides, low power consumption also permits battery-powered, portable operation, the raison d'être of the Discman.

Sony also shrank the size of the plugs, will need an adaptor to fit the D-5 headphone jack. Sony, of course, recommends a Sony headphone for use with the Discman (the MDR-M77, $85).

The unit we tested was a prototype, one essentially identical to planned production models. Our measurements were made with the same standard test discs we use for
Those who must have the latest electronic wonder on their belts will probably choose to carry a Discman, with its battery pack, in lieu of a cassette Walkman. A more attention-grabbing personal portable could hardly be imagined!

Our tests of cueing accuracy, error correction, and the ability to withstand physical shock were performed subjectively, as usual. Since the D-5 doesn't have pre-programmable track selection, for cueing time we measured the period required to start the Philips TS-4A test record. When we tested it for immunity to physical shock, the Discman did very well. It was quite resistant to tapping on the top cover (above the disc) and moderately resistant to side impacts. And while it was playing a disc, the player could be picked up and moved around, turned over, or otherwise handled as though it were being worn over the shoulder.

Try as we may, we cannot escape the sense of awe and amazement that the Sony Discman arouses in us. Less than two years ago, we tested a number of first-generation CD players from various manufacturers. They were bulky home-stereo system components, typically about the size of a stereo receiver, weighing as much as 30 pounds, and costing upwards of $1,000. Most of them could not play through all the calibrated defects on the Philips TS-4A test record, and some were so touchy that you had to avoid tapping their cases, even lightly, under penalty of detracking. Yet, here we have a pocket-size CD player, in most respects a better performer than those early models, at about a third of their price. Refreshingly free of flashy features (where could one fit an array of lights and buttons on a miniature front panel?), the Discman is so easy to use that it took us only a few minutes to feel at home with its operation. Is it any wonder that we are impressed?

Our laboratory test results show that the Discman CD player lives up to the standards established by the many home-component players we have tested, with distortion and noise performance to compare with the best of them.

Granted, some of its measured performance figures are not quite the equal of the latest home CD players. To put this into perspective, however, the performance of the Sony Discman so far surpasses that of any analog record player that no comparison is possible. In spite of this, it is priced just above a typical budget-category analog turntable fitted with a good cartridge. The only difference that we think might be audible between the Discman and some other CD players (in a direct A/B comparison) is its slightly reduced high-frequency output—which may be peculiar to our sample. In any case, it is one of the most trivial complaints one could make about any hi-fi component.

If you are violently opposed to the Compact Disc concept, for whatever reason, this little gem probably won't change your mind, but you are the loser. If you have been waiting for the price of CD players to reach affordable levels, your wait is over. And if total portability appeals to you, here it is.

David Ranada

Sony miniaturized its first CD laser for use in the Discman (right).
HERE we go again—another revolutionary audio technology is about to be visited upon us. CompuSonics, a small American company with big hopes and a mastery of microcomputer technology, has come up with the first truly different way of handling audio signals since Edison's phonograph. Their methods, if they meet high-fidelity and marketplace requirements, stand to be at least as important to developments in recorded sound as the recent and not yet fully consolidated digital-audio revolution.

CompuSonics has proposed, developed, and demonstrated a system of recording, reproducing, and processing digital-audio signals that normally require circuits and a recording medium capable of handling tremendous amounts of data. Their system, however, uses low-capacity storage and transmission media. Their first consumer product will be a digital-audio floppy-disc recorder, the DSP-1000. It is hoped that the DSP-1000 will be able to record up to an hour of high-fidelity stereo sound on a computer-type 5½-inch high-density floppy disc, a medium that would normally hold no more than a few seconds of digital audio if it were recorded in the form used by the Compact Disc system. The projected initial price for the DSP-1000 is between $1,000 and $1,200, and the special "superfloppy" discs required will cost $10 or less apiece.

Plans call for the system to be introduced in the first half of 1985. It is hoped that record companies will eventually offer prerecorded floppy discs. (A floppy disc, for you non-computer types, is a disc cut from a double-sided sheet of magnetic tape and encased in a flexible plastic jacket. It is read and recorded by a "disc drive" containing magnetic heads that contact the two magnetic surfaces through slots in the jacket. Computer folks usually spell disc as "disk" and refer to 5½-inch floppy disks as "diskettes." A "superfloppy diskette" will hold an estimated 50 megabytes—400 million bits—of information.)

Less Is More

CompuSonics has gone beyond present-day digital audio and enlisted advanced microcomputer chips to accomplish the difficult task of recording a high-data-rate signal on a relatively low-data-capacity medium. Setting it too simply, from a pair of normal line-level audio signals the DSP-1000 generates a typical digital-audio signal (16-bit linear PCM as used in professional digital-audio recorders and the CD system), but it records on the floppy disc only the data necessary for a subjectively accurate reproduction of the signal.

All conventional methods of audio recording since the invention of the phonograph are based on the storage of an audio waveform. Even the CD system stores waveforms, albeit in numerical (digital) form. But not all of the information contained in an audio waveform need be recorded to allow reproduction of the original sounds. Many ingredients of an audio signal are inaudible since, among other possible reasons, they may be very low in level and thereby masked by louder components of the total signal. We simply can't hear everything impinging on our eardrums or picked up by a microphone. Sounds that are too soft can be safely removed from the digital-audio "bit stream" without a change in the perceived sound quality but with a decrease in the amount of data to be recorded.

In the DSP-1000 the job of deciding what is absolutely necessary to preserve and what can be safely left unrecorded is given to several Texas Instruments TMS320-series signal-processing microcomputers. They have
been programmed according to a mathematical model of part of the human hearing process, thereby making the CompuSonics system the only method of audio recording based fundamentally on psychoacoustics, on the mechanisms and methods by which we perceive sound. Once the data have been analyzed and condensed, the rest of the system consists of circuits to do the relatively straightforward job of formatting, coding, and recording the data on a floppy disc. On playback, the process is reversed. The circuits feeding the line-level outputs resemble those in a CD player (16-bit linear digital-to-analog converters, output filters, etc.).

These operations produce an astounding reduction in data. During Compact Disc playback the audio data stream off the disc at the rate of 1,411,200 bits per second. Early prototypes of the CompuSonics system had an equivalent data rate of 320,000 bits per second, and production models are expected to achieve a rate of only 160,000 bits per second. (For a few more technical details see the box on the next page.)

The CompuSonics system could be a development of the utmost importance regardless of whether the DSP-1000 is widely accepted or not, for with a greatly lowered digital-audio data rate the potential applications extend far beyond home recording. Consider the following possibilities:

- Direct broadcasting of CompuSonics-type digital-audio signals would require one tenth of the bandwidth required for normal PCM. Dozens of digital-audio channels would fit in the space occupied by one television station.
- Digital-audio recordings could be distributed, at either the manufacturing or the retail level, via high-speed computer-telephone data links (telerecording).
- Very complex processing of audio signals could be achieved without excessive cost. Imagine a computer-controlled processor that would combine the functions of a click, pop, and hiss remover, a stereo image-enhancer synthesizer, a preamp, an equalizer, and a dynamic-range enhancer—all costing no more than a typical home computer. If CompuSonics made public certain aspects of their processes and circuitry, a signal-processing software industry could spring up.
- The CompuSonics system offers unprecedented control over the generation—not just recording—of complex sounds. Music synthesizer manufacturers and sci-fi movie makers, among others, would never go back to old ways of doing things.
- The reduced data rate makes slightly easier—though not necessarily more practical or less costly—an otherwise utopian solid-state-memory recording system, in which nothing moves but electrons.

Of course, all of these developments depend on the audio quality of a CompuSonics-encoded signal. Will the system be good enough to meet the strictest criteria for high audio fidelity? From a preliminary data sheet on the DSP-1000 the answer seems to be yes. The record-playback frequency response is given as 20 to 20,000 Hz ± 0.5 dB, harmonic distortion at 1,000 Hz as less than 0.007 percent, wow and flutter as being below measurable limits, and dynamic range, signal-to-noise ratio, and channel separation as all being over 91 dB. This is performance comparable to the Compact Disc system. However, since the CompuSonics system depends on the limitations of the human hearing process, the best evaluation of the DSP-1000 will have to be a listening test.

Demonstrations last September and October showed a great deal of promise. While the sound quality was hard to judge—because of the less-than-ideal listening situations—it was quite good by any standard. It was certainly at least the equal of a high-quality analog cassette deck. Only the playing time, 3 to 4 minutes in mono, did not meet this reporter's expectations. Before the DSP 1000's introduction the duration of a disc is expected to be extended to practical lengths by continued refinements in the signal-processing programs and by the availability of floppy discs of greater data capacity.
Assuming that the DSP-1000 fulfills its manufacturer's expectations in performance, what challenges does the system face in the marketplace? First off, it should be said that owners or prospective purchasers of Compact Disc players need not worry that the CD system is about to be rendered passé. Far from it. The technical and financial support for the CD system is too strong, the potential for further technical development too great for the CD system to be rendered obsolete less than three years after introduction. Certain important CD features (text, graphics, computer-data storage) are only just now beginning to be exploited.

It is possible that eventually there can be some degree of compatibility between the two recording methods since the CompuSonics audio-data signals are digital pulses that can be recorded on a CD just as easily as any other digital information. In fact, use of the CompuSonics-type encoding on a CD would yield a pressing with a maximum playing time of several hours. Additional circuitry would have to be added in new-model CD players for this to occur, however, and older CD players would not be easily adaptable to any CompuSonics-encoded Compact Discs.

In any case, the CD will probably enjoy better support from record companies (at least at first) and will retain its superior ability to withstand handling damage. (A CompuSonics floppy disc, like any computer floppy disc, can be rendered unusable by fingerprints or scratches on the exposed and easily touched magnetic surfaces.)

Because of the DSP-1000's recording capability, the consumer products most threatened with obsolescence by the CompuSonics system are the home audio recording formats (analog cassette and open-reel decks, hi-fi VCR's, and digital audio adaptor/VCR combinations). The DSP-1000 will be able to make recordings of equal or superior quality (low noise, low distortion, flat frequency response, no wow or flutter) with a relatively inexpensive recording medium. If the system does well in the marketplace, the disc-recorder price will fall to very reasonable levels (less than $500 within five years, according to one estimate).

The most serious contender for the home-recording dollar also has yet to reach the production stage, (Continued on page 117)

The accompanying computer display shows how the spectrum (frequency content) of a few violin notes changes over a short period. Frequency runs from left to right, amplitude reads vertically, and time runs into the screen (the most recent sounds are at the "back" of the display).

This picture is not as detailed as it could be since it shows the action of the CompuSonics encoding scheme and many bits have already been eliminated. Frequency, for example, is not shown continuously as in a test-report frequency-response graph. This is the result of the finiteness of the CompuSonics system, a multi-band digital spectrum analysis. The critical-band theory of hearing (explained more fully in "Audio Specifications and Human Hearing," STEREO REVIEW, May 1982) holds that all sound perceptions are the result of spectrum analyses performed by the ears.

While the ears are constructed as spectrum analyzers having several thousand very narrow filter bands each, the CompuSonics patent applications call for a digital analyzer with 128 bands spaced equally across the audible spectrum.

Likewise, time does not flow continuously but is chopped up into 0.01-second intervals, the period between spectra (the lines running from left to right) being 0.01 second. The CompuSonics scheme takes frequency-spectrum "snapshots" one hundred times every second. This rate was chosen, according to the patent application, because "it is short enough that the human ear physiologically hears a sequence of 0.01 second changes in total signal as a continuous integrated whole." These snapshots are "directly analogous to the stream of frames" in a motion-picture film. The spectra occurring between snapshots are ignored, reducing the amount of data to be recorded.

There is still another level of data reduction yet to be done before the information shown in the display is ready for recording. Note the lines running from front to back over the peaks of the spectral snapshots. These lines represent the amplitude changes in each spectral band, but they can also be thought of as waveforms suitable for data reduction themselves. And in the CompuSonics encoding system that's exactly what happens. Every 0.1 second, a catalog of the 128 band-amplitude waveforms (my terminology) is made. Another catalog compares at a glance all 128 waveforms, compares them with those in the last band-amplitude catalog, and eliminates the ones that are simply repeats. Whether a band-amplitude waveform is already matched by one in the last waveform catalog is determined by standard statistical methods for measuring the fit of two curves to one another.

All this means that the CompuSonics system is constantly changing its behavior according to the properties of the signal. Signals with rapid changes (beginnings and endings of notes, and other transients) are recorded in great detail. Simple signals (continuous tones) require very little data, just a few bits saying, in effect, continue what you were doing the last time. Since rapid changes in audio signals are the exception rather than the rule, the amount of data that needs to be recorded is greatly reduced.

Three sets of data representing an audio signal end up on a CompuSonics floppy disc: (1) A bit stream representing the wideband level of the audio signal at 0.01-second intervals, (2) a bit stream indicating which spectrum-analysis bands have audio-signal content, and (3) a catalog of band-amplitude waveforms for the active bands.

During playback the spectrum analyzer is replaced by a bank of 128 synchronized digital oscillators spread across the frequency band. Which oscillators are activated and how much each one contributes to the output signal are determined by the three recorded bit streams. The output waveform is an addition of the oscillator outputs and is "at a level of perceptual resolution so that what the human ear will hear is indistinguishable from the original for most source material.''.

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Five video cassettes just now being released by Kultur feature either the Bolshoi or Kirov Ballet Companies. One of the tapes, "The Ultimate Swan Lake," was produced at the Bolshoi in Moscow last May and is notable for having a narration by Gene Kelly. Other titles in the series are Les Sylphides, The Nutcracker, The Firebird, and La Bayadère.

Is that the high-school graduation picture (below) of the Wicked Witch of the West? No, just a casual pose by Dee Snider of Twisted Sister, the self-proclaimed "dirtbags of rock-and-roll." Thanks to Pioneer Video, you now can see and hear more of Snider and his cohorts in what, to our knowledge, is the first heavy-metal LaserDisc. Titled "Stay Hungry," after the band's current Top Ten album, the disc is an audio album, the disc is an expanded version of a live MOTIONAL video cast, fleshed out with a staged production for the American Ballet Theatre has filled television screens across the country at some point in December, and this year's telecast of the Public Broadcasting Service network, on December 5, will mark its eighth appearance. And it is again a gift to viewers from IBM. Baryshnikov's dancing partner is Gelsey Kirkland, the National Philharmonic of London plays the popular Tchaikovsky score under the direction of Kenneth Schermerhorn.

Wretched Excess Department: "All they do in this town is give awards," moaned Woody Allen in Annie Hall, "Best Fascist Dictator—Adolph Hitler." Well, Adolph wasn't there, but yes, that's the Divine Miss Bette Midler and Dan Aykroyd (above) in their capacity as co-hosts of the recent MTV Video Music Awards (Dan's the one with the erect pinkie). In case you missed the gala, broadcast live from New York's Radio City Music Hall and later syndicated to non-cable stations by Metromedia, the big winners included the Cars' You Might Think, Herbie Hancock's Rockit, and Michael Jackson's Thriller. Also honored, in a so-called Music Video Hall of Fame, were the Beatles, their director Richard Lester, and the ubiquitous David Bowie, who, as one was observed, by now is a video.

As part of his 1983 Avery Fisher Prize violinist Elmar Oliveira was awarded a recording contract by the Moss Music Group. It could be considered a continuation of his existing contract, however, because he had already made two albums for MMG. One was a coupling of violin sonatas of Bloch and Richard Strauss, the other a collection of encore pieces titled "The Virtuoso Violin." On the Vox Cum Laude label, MMG has now released Oliveira's third record for the company. It contains music of Bartók, Bloch, and Brahms.

You know it's Christmas when The Nutcracker plays TV. For seven years now Mikhail Baryshnikov's production for the American Ballet Theatre has filled television screens across the country at some point in December, and this year's telecast of the Public Broadcasting Service network, on December 5, will mark its eighth appearance. And it is again a gift to viewers from IBM. Baryshnikov's dancing partner is Gelsey Kirkland, the National Philharmonic of London plays the popular Tchaikovsky score under the direction of Kenneth Schermerhorn.

MTV-time: Aykroyd, Midler

While the soprano Galina Vishnevskaya was basking this fall in critical acclaim for her autobiography, Galina (see page 56), her husband, cellist-conductor Misislav Rostropovich was receiving honors in Italy. On hand in Venice to conduct and appear as soloist with the orchestra of the Italian Radio, Rostropovich was awarded the Life in Music prize by the Homage to Venice Association. The prize has been given in the past to guitarist Andrés Segovia, pianist Arthur Rubinstein, and conductor Karl Böhm. Rostropovich was also decorated as a Grand Officer of Merit of the Italian Republic, one of the country's most prestigious honors.

Jazz on PBS-time: Getz

This month, however, PBS is offering an hour-long special, Jazz Comes Home to Newport, reporting on the 1984 Newport Festival. Featured on the program, made possible by the JVC Company of America, are performances by Dave Brubeck, Dizzy Gillespie, and Stan Getz. The scheduled air date is December 12 at 10 p.m. EST, but you should consult your local PBS schedule to confirm.

Getz is newly represented on LP and tape, too, with "Poetry," an album of duets he cut for Elektra/Musician with the late pianist Albert Dailey. And Gillespie is featured in a "Giants of Jazz" set recorded in Switzerland in 1972 and just released by Concord Jazz. Both were reviewed in last month's issue. Note: Sony Video has released three jazz video LP's—"The Mel Tormé Special," "San Francisco Blues Festival," and "Freddy Hubbard Studio Live."
**Canadian Brass:** a salute to Mozart with a nod to Boy George

**W**hite-rimmed shades and an upcoming single titled *Boy Mozart* notwithstanding, the Canadian Brass (above) deny that they're going the way of androgynous punk. The single owes its timeliness not to Culture Club's *Boy George*, but to *Amadeus*, the new movie about Wolfgang Amadeus Mozart.

For several months the Brass (as they're known) have been breaking up their otherwise classicly oriented concerts with *Boy Mozart*, a vocal quintet based on a theme from the popular G Minor Symphony. Audiences have enjoyed it so much that CBS has released it as a single—a pop single—next month.

The group's latest album of bona fide Baroque music on CBS Masterworks is "Brass in Berlin." A recording the group made with members of the Berlin Philharmonic, it is reviewed this month (page 90).

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**Why is Lou Reed scowling?** Frankly, we can't figure it, given the success of his current, critically acclaimed "New Sensations" album, but though Lou seems to be in a bad mood, fans of the Godfather of Punk Rock will soon have something to smile about. Yes, Polygram has unearthed the near-legendary, often bootlegged, never released fourth Velvet Underground LP, originally recorded (circa 1968) by Lou and his cronies for now-defunct MGM just prior to the band's departure for Atlantic and their penultimate studio creation, "Loaded." Newly remastered and in genuine stereo, the package, tentatively titled "V.U.," includes early versions of songs that later turned up on Lou's RCA solo albums (*I Can't Stand It, Lisa Says*), as well as the movie debut, the critically hailed though shoestring budgeted *Purple Rain*, has, at this writing, grossed over fifty million dollars in the U.S. alone. Who says short people got no reason to live?

**Prince and protégé**

Incidentally, the kid's movie debut, the critically hailed though shoestring budgeted *Purple Rain*, has, at this writing, grossed over fifty million dollars in the U.S. alone. Who says short people got no reason to live?

**G**racenotes: Look for *This Is Spinal Tap*—easily the funniest rock-and-roll movie ever made—from Embassy Home Video. And note that the home package also includes the bogus band's *Hell Hole* video as well as their "Heavy Metal Memories" greatest-hits commercial. . . . A teacher in Peoria, Illinois, was fired this summer after showing a male aerobics video to her class of eighteen-year-old girls. Reviewing the Men of Chippen-dale's *Muscle Motion* in the April 1984 issue, our own Louis Meredith called it "the sleeper comedy video of the year." Where's Peoria's sense of humor? Answer next month. . . . MGM/UA has announced that by year's end all of its VHS Hi-Fi video cassettes will be duplicated from digital audio masters. . . . Proof that rock-and-roll is here to stay: a recent survey by a leading record-industry marketing consultant firm indicates, surprisingly, that fully one-third of pop record-buyers are over the age of twenty-four. Equally unexpected, their listening tastes are neatly split between soft-rock and New Wave.
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SPLIT ENZ: AN APPELLING BALANCING ACT

MAYBE it's shell shock from being slammed to the rug by screaming heavy-metal clods and drum-machined to distraction by synth freaks, but I find myself defenseless against the off-beat pop charm of the Split Enz. Here's a band that actually plays recognizable tunes. What a relief!

Split Enz's new A&M album, "Conflicting Emotions," is indeed strangely out of sync with these technology-ridden times. The sound of piano, clavier, and woodwinds in among the guitars is only part of it. The members of this New Zealand group are also accomplished lyricists and stylish vocalists who are fully capable of perpetrating a love song with the unapologetic sentiment of a Barry Manilow. Message to My Girl, for instance, with a heart-breaking piano hook that nods to Joe Jackson, is the kind of romantic trifle that can just as easily wind up on Adult Contemporary playlists as in the Top Ten. Then there's Bullet Brain and Cactus Head, a rhythmically supercharged, surrealistic parable of big-power conflict that's more apt to land songwriter Neil Finn in Bedlam than Billboard.

It's this perilous balancing act between the conventional and bizarre that's so appealing about the Split Enz. Occasionally the "conflicting emotions" collide in a single song. Our Day, as an example, is a loving meditation on the impending arrival of Finn's first child, but the song is propelled by a driving rhythm guitar figure that seems more appropriate for the soundtrack of an auto race than a pregnancy.

This is not to suggest that "Conflicting Emotions" is like a case of musical whiplash. Rather, it keeps you happily off balance. Strait Old Line sounds like a swing band that's discovered the electric guitar—a parade of flute, vibes, and tack piano march along behind a cheerily walking bass, only to get jabbed and nudged from behind by Finn's insistent rhythm guitar. On Working Up an Appetite, his pipsqueaky voice just manages to make itself heard above a thunderous crush of African percussion. Elsewhere, the Split Enz's exquisitely detailed yet graceful, uncluttered arrangements suggest an inexhaustible pop mother lode. Unpredictable, eclectic, and unaffected, "Conflicting Emotions" elicits emotion but no argument. It's a gem.

Mark Peel

SPLIT ENZ: Conflicting Emotions.
Split Enz (vocals and instrumentals). Strait Old Line; Bullet Brain and Cactus Head; Message to My Girl; Working Up an Appetite; Our Day; No Mischief; The Devil You Know; I Wake Up Every Night; Conflicting Emotions; Bon Voyage A&M SP 4963 $8.98, © AAM 5011 $8.98.
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BERNSTEIN’S PETROUCHKA: SIMPLY SUPERB

The music for the ballet Petrouchka, as conducted by Leonard Bernstein in his ongoing cycle of Stravinsky recordings with the Israel Philharmonic, yields yet another vital listening experience. Using the composer’s 1947 revision of the score, with its more elaborate writing for solo piano, Bernstein skirts some of the heartless virtuosity of recent readings I’ve heard; he imparts an element of character to the various episodes without some of the obvious underlining that sometimes mars his work. The opening pages are a shade fast, with the celesta more than usually prominent in the street-tune bit, and Petrouchka’s rage at the end of the scene with the Moor might have had more tension built into it. But the final Fair Scene and conclusion are simply superb and sonically most impressive.

This appears to be the first recording of the Scènes de ballet since the two Stravinsky himself made for Columbia. Billy Rose, who commissioned the piece for his Seven Lively Arts revue, never did present the work in its sixteen-minute entirety. That was left for the composer himself to do in 1945 with the New York Philharmonic. Bernstein’s reading is somewhat less taut than Stravinsky’s stereo version with the CBS Symphony Orchestra, but he makes a lot of the “big tune” about four minutes from the close.

As with Bernstein’s other Israel Philharmonic recordings from Deutsche Grammophon, this one was pieced together from live performances (and presumably rehearsals as well), but there is almost no audible audience noise. Only the overlap of the drum beats leading into the final Fair music between sides one and two would lead one to believe that these were not studio sessions.

As with Bernstein’s other Israel Philharmonic recordings from Deutsche Grammophon, this one was pieced together from live performances (and presumably rehearsals as well), but there is almost no audible audience noise. Only the overlap of the drum beats leading into the final Fair music between sides one and two would lead one to believe that these were not studio sessions. Bernstein: vital listening


INDISPENSABLE BEETHOVEN FROM GELBER

The still-youngish Argentine pianist Bruno Leonardo Gelber has been appearing with American orchestras with some regularity over the last dozen years or more, but his recordings of Beethoven, Brahms, and Schumann, once available from Saphim and Connoisseur Society, have all but disappeared. Now he has resumed his recording activity in grand style, on the Orfeo label, with three sets of variations by Beethoven. They are, in descending order of substance and familiarity, the so-called Eroica Variations in E-flat, Op. 35; the Thirty-Two Variations in C Minor, WoO 80; and the Gelber: subtle and profound

Six Easy Variations in G Major, WoO 77, all on original themes.

On the strength of these performances alone, Gelber would have to be recognized as a musician of commanding stature, an interpreter who combines intellectual depth and genuine passion in his approach—one who has technique to burn but never for mere display. His grasp of the structure of these diverse works is at once subtle and profound, enabling him to spin each one out with apparent spontaneity and in a character uniquely its own. The digital recording, too, is perhaps the most impressive representation of a piano I have ever heard. It is extremely lifelike and superbly focused in presenting both the crispness and the warmth in Gelber’s playing and the handsome quality of the instrument itself, and the DMM pressing, with absolutely silent surfaces, could pass for one of the better Compact Disc issues.

The recording is in fact available in CD format, as well as LP and cassette. In one form or another, and regardless of duplications it might create in an individual collection, I think this is a really indispensable release. There are other fine accounts of these works, but there is never an overabundance of examples, like this, of either the composer’s or the performer’s being quite so well served.

Richard Freed

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Performance: Idiomatic
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This is Antal Dorati’s most distinctive statement of Bartók’s Concerto for Orchestra as well as the most beautifully played and recorded of his four recordings of it. While other interpreters tend to stress the display element or overemphasize the folk character of this work, Dorati, thoroughly at home with the idiom, presents a lyrical, fairly serene view of it. His tempos now tend to be somewhat broader in the fast movements and a little brisker in the central Elegia, and the reading as a whole radiates a special intimacy.

The exceptionally evocative performance of the Two Pictures glows with a similar lyrical radiance and unlabored feeling for the folk flavor. The greater degree of subtlety and spontaneity in these performances, I think, gives this new issue a decided edge over Lorin Maazel’s very attractive analog recording of the same two titles with the Berlin Philharmonic. The new Philips must also be first choice among digital and CD versions of the concerto. R.F.

BEETHOVEN: Variations (see best of the Month, Page 80)


Performance: A winner
Recording: Glorious

This is Vladimir Ashkenazy’s third recording of the Brahms B-flat Concerto in a little more than twenty-five years; his second, with Mehta and the London Symphony, is still available and has considerable appeal, particularly in the last two movements, but it is not in the same league with this new one. Few oth-

A NEW MESSIAH ON CD

HANDEL’s Messiah has come down to us from the days of its first performances as both high art and community rite for both Christmas and Easter. With some twenty recordings of it listed in Schwann, there is an enormous range of styles to choose from—"original instruments" Baroque-type readings, Baroque-style performances with modern instruments, performances using the Mozart orchestration, and of course the large-scale treatments beloved of our Victorian ancestors.

Throughout his long musical career, Robert Shaw has been intensely aware of choral singing as a vehicle for community moral(e) uplift. Accordingly, in his new Telarc recording of the complete Messiah, which on Compact Disc can be heard in just two passes through the player, Shaw takes a middle-of-the-road stylistic stance.

In the size of his chorus (sixty voices) and orchestra (forty-one plus positiv organ and harpsichord), and in a moderate amount of ornamentation for the solo vocal parts, he takes due account of Baroque practice. We are informed in the accompanying program notes that the harpsichord realization by Layton James is from Handel’s figured bass, and that a bassoon line has been added to double the tenor part.

Though the opening Sinfonia seems a bit stiff in articulation, the pacing of the performance as a whole is brisk and marked by superior musicianship and execution on the part of all five solo singers. One of them, mezzo-soprano Alfreda Hodgson, is a Kathleen Ferrier prize winner and a veteran of the oratorio circuit on and off records. The others are young, fresh-voiced musicians of highest caliber. “Every valley shall be exalted,” as sung by Jon Humphrey, sets the standard for all that follows in this department. It is the most satisfying rendering I’ve heard since the celebrated 1940 Aksel Schiötz recording.

As for the chorus, Shaw’s prowess as a trainer and conductor of choral ensembles is such that we would expect nothing but the best, which is what we get from the Atlanta Chamber Chorus. There is body, firmness of attack, steadiness of rhythm, and a feel for the organic phrase throughout the whole here, reaching perhaps a peak in “Lift up your heads” and in the deeply moving “Since by man came death.”

Shaw’s record of Messiah is not a blockbuster of the Mormon Tabernacle Choir type, nor is it as bright in sound as some of the Baroque-style performances. This stems from the nature of the Atlanta recording locale, which is a shade plusher. Within this limitation, the recorded sound is just as honest and clear as it can be, and Shaw’s disposition of the choral forces is such that maximum stereo effectiveness is achieved with no trace of exaggeration. The balance between soloists, chorus, and orchestra is exemplary. David Hall
ers from any source are, for that matter, for this is one of those very special recordings in which all the elements come together to refresh a well-loved work without distorting its familiar contours, and to yield deeper pleasures with each hearing.

The performance is on the broadest scale, yet never suggests monumentalism or any sort of self-consciousness. Ashkenazy has the measure of the work's poetic and dramatic essence down to the ground, and Bernard Haitink, as sympathetic a collaborator here as in their recent recording of the E Minor Concerto, has the Vienna Philharmonic on its very best behavior. How many times Robert Scherwein has played the cello solo in the third movement of this work I would not dare to guess, but I would dare to suggest it has never before been so unpretentiously unpretentiously unpretentiously as here. The fugal passage for strings in the middle of the scherzo might have had more punch, but nothing else here leaves room for improvement.

The whole texture, throughout the performance, is palpably Brahmsian, as V are inclined to regard that term---mellow, warm, yet marked by a dignified restraint that guards against sentimentality. The "great and childlike finale," as Tovey called it, is especially endearing in its unroughened gushiness, which gives full weight to the "grazioso" marking. The recording itself is glorious, preserving all these qualities in full without ever getting in their way. If not "definitive" (how can any one performance of such a work be so regarded?), this is one of the few accounts of the concerto to stand beside the classic ones by Gilels/Reiner, Toscanini/ Horowitz, Arrau/Giulini, and Solo- mon/Dobrowen, and it is without question all-surpassing in respect to sound quality.

R.F.


Performance: Classical
Recording: A bit confined

Klaus Tennstedt's reading of the Brahms First is not quite so sternly rugged as Klemperer's and certainly far removed from the highly charged manner of a Stokowski or Bernstein. Rather, it recalls Felix Weingartner's classic—but not cold—Beethoven and Brahms recordings of the Thirties.

Power tempered with moderation characterizes Tennstedt's opening movement, and he avoids wallowing in the implicit sentiment of the Andante movement. Flow is the thing in this third movement, in which repeats are minimal. Tennstedt saves his fire for the finale, where the initial adagio is rendered with a high sense of drama, a sense of almost visual imagery enhanced by careful emphasis on woodwind coloration.

This is not Brahms as a "cocktail of every hue and color," but Brahms as clear, cool mountain spring water—a salutary idea, but one that not every listener will go along with. The recording is generally fine and full, but it seems somewhat confined at the climaxes in terms of the spacious outdoors feeling that I feel this music deserves, especially in the finale.

D.H.

HAYDN: Trumpet Concerto in E-Flat Major. Wynton Marsalis (trumpet); National Philharmonic Orchestra, Raymond Leppard cond. CBS 0 12M 38667 two discs, © 12MT 38667 two cassettes, © M2K 38667 two Compact Discs, no list price.


Only Leonard Bernstein's unique recording of the Mahler Second made at Ely Cathedral a decade ago is longer than this one, though Harold Farberman's new one on Vox Cum Laude comes close. Lorin Maazel opts for the solemn Totenfeier approach to the opening movement rather than depicting it as a Faustian conflict. His phrasing, especially as it approaches cadences, is stretched at times almost to the breaking point. The andante intermezzo is a slow-motion affair in which the ending is drawn out to a point of almost unbearable suspense. Deliberation is also the rule in the scherzo, and in the slow central section the loss of momentum becomes disconcerting.
However, the Urlicht song movement and the solemnly apocalyptic finale, which can both stand up to an expansive tempo, are more convincing. Not the least astonishing element in this performance is having soprano Jessye Norman sing the contralto role, which she does with a richness and body worthy of the legendary Marian Anderson in her prime! It is well that the strong-voiced soprano Eva Marton partners Norman in the finale, since their voices are a good match in both body and power of projection.

If it's big sound you're after, this recording has plenty of it, especially in the timpani and tam-tam. The CBS album notes do not indicate where the recording was made, but the sound is bright and rather reverberant with pronounced stereo imaging in spots. What I hear of the organ in the final pages is the real thing, not electronic, but it sounds out of tune.

This is not Mahler for the dedicated Mahlerite, but some may enjoy the individuality of the interpretation—and certainly the sound of Jessye Norman's voice, if only for the few minutes she is called upon.

John W. Freeman

MOZART: Concert Arias. Sol nascence; Per pietà, bell'idol mio; Per quel paterno ampiesso. Ah, non lasciarmi; no; Ah, t'invola; Non so d'onde viene; Nehmt meinen Dank; Chi sa, qual sia. Lucia Popp (soprano); Mozarteum Orchestra, Leopold Hager cond. DEUTSCHE GRAMMOPHON 410 961-1. $11.98.

Performances: Variable to excellent Recordings: Adequate to good

MOZART: Concert Arias. Non curo l'affetto; Fra cento affanni; to non chiedo; No, the non sei capace; Sperai vicino il lido; Ah, non sai qual pena sia; Vorrei spiegarti, oh Dio!; Ah se in ciel, benigna stelle. Edita Gruberova (soprano); Mozarteum Orchestra, Leopold Hager cond. DEUTSCHE GRAMMOPHON 410 960-1 $11.98.

PYRAMID: Concert Arias. Sol nascence; Per pietà, bell'idol mio; Per quel paterno ampiesso. Ah, non lasciarmi; no; Ah, t'invola; Non so d'onde viene; Nehmt meinen Dank; Chi sa, qual sia. Lucia Popp (soprano); Mozarteum Orchestra, Leopold Hager cond. DEUTSCHE GRAMMOPHON 410 961-1. $11.98.

RAMEAU: Pygmalion. Michael Goldthorpe (tenor), Pygmalion; Marylin Hill Smith (soprano), La Statue, Cephise; Anne-Marie Rodde (soprano), L'Amour. English Bach Festival Singers and Baroque Orchestra, Nicholas McGegan cond. ERATO/RCA STU 71507 $10.98, C) MCE 71507 $10.98.

Performance: Unbending Recording: Very good

Pygmalion appears to have become Rameau's most popular operatic work, or at least the most often recorded. And a charming piece it is, with its delightful dance music and opportunities for showy, Italianate singing. Michael Goldthorpe's light tenor and fine out the music, imbuing it with intensity as well as soft persuasion.

Edita Gruberova's cooler timbre and assertive address place more distance between her and the listener: so do the DG engineers, evidently out of respect for the size and cutting power of her voice. The first aria on side two, from Metastasio's text for Demofoonte, is almost too much for her, but she recoups with an exemplary air meant for Anfossi's Zemira, showing suave legato, gentle tone, and non-strident highs as well as dramatic involvement. Leopold Hager's accompaniments tend to plod.

D.H.

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French diction in the title role puts him in good stead for the airs in the French style, but when he reaches the coloratura stanzas in the final aria, his passagework begins to lack clarity and brilliance. Nicholas McGegan, for his part, seems to have one basic tempo for everything, which, despite occasional variations, makes the dances sound pretty much alike.


Performances: Both intense Recordings: Both very good

Verklärte Nacht, with its amalgam of post-Tristan harmonic texture and Brahmsian thematic manipulative technique, has long since taken its place in the concert repertoire, chiefly in the 1943 revised string-orchestra version. The original sextet version, especially in this brilliantly controlled reading by the augmented LaSalle Quartet, carries with it a special intensity. Yet, the climactic moments carry greater weight in the string-orchestra version. Stokowski’s 1960 recording, now on Seraphim, is especially instructive on this point, and it is a superbly disciplined performance as well.

Vladimir Ashkenazy is no Stokowski, but he does elicit playing of truly Tchaikovskian intensity from the English Chamber Orchestra, and his reading of Wagner’s Siegfried Idyll is nicely shaped, almost Bruno Walther’s in its glowing warmth. London’s digitally mastered sound is excellent.

From my point of view, however, the Schoenberg String Trio is the pièce de résistance of all the works on these two records. Schoenberg said that it describes being snatched from the jaws of death. The structural intricacy is there, but the high drama of the music itself and its intense spirituality do end up as art that conceals art. The intellectual element does not dilute the drama, nor does the drama compromise the structural integrity of the whole. The Schoenberg String Trio is surely one of the masterpieces of the twentieth century. It is also one of the most difficult to perform satisfactorily.

The three players from the LaSalle Quartet succeed fully in their realization, as did the Santa Fe Chamber Music Festival Players in their earlier version for Nonesuch. Deutsche Grammophon’s sound seems to me a shade more neutral in the UK, where Rotel was designed and conceived, is overwhelming.

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own insights into the music. The sound, as on all the Audiofon discs I've heard, is exceptionally vivid and sensibly focused, a demonstration of how good an analog recording can be.

The Ländler on Richard Goode's Nonesuch disc may be regarded as a more appealing filler than the single Schumann movement that Shure plays. I don't think I've ever heard Schubert's, if perhaps a shade less overtly dramatic. Throughout the work Goode's performance of the sonata little dances set forth more beguilingly, while timpani and cymbals sound together for the first time in the score. Likewise, the famous "Convalescent" finale is just as convincingly Schubertian as on all the Audiofon discs I've heard.

My interpretive touchstones on records for the Schubert Great C Major Symphony have been recordings by Walter, Krips, Szell, and Toscanini, which in a sense, say, I lean toward readings of this music with a touch of distortion about sixteen seconds after the third repetition of the opening trumpet-timpani statement, where timpani and cymbals sound together. For dealer nearest you call TOLL-Free 800-633-2252 Ext 828

SCHUBERT: Symphony No. 9, in C Major (D. 944, "Great"). Berlin Philharmonic Orchestra, Klaus Tennstedt cond. ANGEL 4XS-37898 $11.98, © 4XS-37898 $11.98.
Performance: Even-tempered
Recording: Good

The Landler on Richard Goode's Nonesuch disc may be regarded as a more appealing filler than the single Schumann movement that Shure plays. I don't think I've ever heard Schubert's, if perhaps a shade less overtly dramatic. Throughout the work Goode's performance of the sonata little dances set forth more beguilingly, while timpani and cymbals sound together for the first time in the score. Likewise, the famous "Convalescent" finale is just as convincingly Schubertian as on all the Audiofon discs I've heard.

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STRAVINSKY: Petrouchka (see Best of the Month, page 80)

WAGNER: Siegfried Idyll (see SCHOPENBERG)
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Collections


Performance: Slick
Recording: Splendid

The Canadian Brass and the Berlin Philharmonic Brass together prove beyond a doubt that they can transform anything into an effective brass piece. But while this is feasible for Renaissance vocal music, so much is lost in transcriptions of string music that you wonder why they bother. The Pachelbel depends on the sheen of strings, Gabrieli’s In ecclesiis depends on the contrast of solo and massed voices and brass, and Jesu, Joy of Man’s Desiring (erroneously listed here as Jesu, meine Freude) depends on an obbligato contrasting with the chorus. The ensemble virtuosity is certainly admirable, but only an ardent brass buff could really accept it all musically.

S.L.


Performance: Idiomatic
Recording: Excellent

Bennett Lerner and Phillip Ramey were something more than godfathers in respect to the Copland and Thomson pieces recorded here. Two years ago they persuaded Copland to complete the Proclamation he began in 1973, and Lerner got him to finish the Midday Thoughts, begun as far back as 1944. Thomson’s deliciously contrasting little Tangos were composed in 1923, but the Portraits were sketched only last year, one a deadpan study of Lerner, the other an agitated one of Ramey. Ramey’s own Fantasy is quite the most substantial piece in this collection in terms of depth, contrasts, and technical demands as well as sheer length (about ten minutes). The dozen little pieces by Paul Bowles, composed between 1934 and 1947, also exhibit a range as remarkable as their conciseness. The Barber and Bernstein pieces are the only ones here that have been recorded before; in both cases, I feel Lerner’s brisk approach brings a certain gain in cohesiveness. The piano sound, except for a slight clanginess in the opening Copland piece, is absolutely first-rate, and it is enhanced by the Teldec DMM pressing.

R.F.
CHRISTMAS MUSIC
An eclectic list of recommended, recent recordings

CHARPENTIER: Un Oratorio de Noël (Harmonia Mundi HM 5130). William Christie conducts his early-music group, Les Arts Florissants.

CHRISTMAS BRASS MUSIC (Supraphon 1111 3157). Performed by the Prague Brass Soloists.

CHRISTMAS CAROLS (Deutsche Grammophon 413 590-2). Repertoire ranging from the fourteenth century to the present, sung by the Choir of Westminster Abbey directed by Simon Preston. CD only.

CHRISTMAS WITH CARLO BERGONZI (Orfeo S 030821 A). The tenor is accompanied by the Austrian Radio Symphony under Paul Angerer.

CHRISTMAS WITH THE KING'S SINGERS (MMG 1126). Carols sung by the English group of six male voices.

A COUNTRY CHRISTMAS, Volume 3 (RCA CPL1-5178). With Alabama, Waylon Jennings, Charley Pride, Ronnie Milsap, others.

HALLÉ CHRISTMAS (Musical Heritage Society MHS 4805L). The Hallé Orchestra of Manchester, England, is conducted by Maurice Handford.

KING'S COLLEGE CHOIR: O Come All Ye Faithful (Argo 414 042-1). Carols sung by the great choir of Cambridge University's King's College, directed by Stephen Cleobury.


SACRED CAROLS FOR CLASSICAL GUITAR (Eagle LGAR 7003). Beautifully played by James Sundquist, with extremely informative notes.

SAINT-SAENS: Oratorio de Noël (Calig CAL 30512). Performed by the Bach Chorus and Orchestra under Diethard Hellmann.

SCHÜTZ: Christmas Story (Orfeo S 002811 A). The Munich Motet Choir and soloists sing this music of the seventeenth century.

THE SOUND OF CHRISTMAS (CBS FM 39167). With Placido Domingo, Katia Ricciarelli, Mirella Freni, Peter Hofmann, others.

A VICTORIAN CHRISTMAS (Arabesque 6525). The seasonal music that must have echoed through Windsor Castle toward the end of the last century, sung by the Robert DeCormier Singers.

On his second Masterworks album, Wynton Marsalis continues to astound the classical world with his trumpet virtuosity. Conducted by Raymond Leppard (who also accompanied Wynton on his Grammy-winning debut album), this new disc of Baroque music features a special appearance by soprano, Edita Gruberova.

On his classical debut album, jazz superstar Bob James uses the latest keyboard technology to add new perspective to the music of French composer, Jean-Philippe Rameau. The result is a delight: the perfect synthesis of Baroque music and electronic genius. A surprisingly "natural" sound that expresses Rameau's work as never before!

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#3

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If they're all "experts", why do they all disagree? The truth is that it takes more than enthusiasm and the ability to pontificate to make one an expert. Most self-proclaimed experts lack any consistent method of evaluating equipment on a musical basis (you know the type, "The bass is a little better on this speaker, but if you really want highs..."

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CLASSICAL MUSIC

WAGNER'S RING ON COMPACT DISC

RICHARD WAGNER'S four-opera cycle Der Ring des Nibelungen ranks, in my view, among the greatest creative achievements of the human mind. Eurodisc, an East German company, has made the first all-digital recording of The Ring, and that very pleasing performance is now available in the United States on eighteen Compact Discs. I am amazed that the new recording technology has been applied so early in the digital era to such a serious musical undertaking, and the result is a triumphant example of technology in the service of art.

When a Bayreuth Festival performance of The Ring was shown on public television last year, a lot of critics had a good time comparing this intricate tale of lust and greed to the TV series Dallas and the Star Wars cycle of movies. Wagner's tetralogy, of course, is elevated by its incomparable music. And despite the dramatic weaknesses of the Ring cycle—its great length, its repetitiousness—the music bypasses the listener's critical faculties and goes directly to work on the senses from the first note of Das Rheingold through Die Walküre and Siegfried to the last note of Göttherdammernung.

The Eurodisc performance, with Marek Janowski conducting the Dresden Staatskapelle, is a carefully nuanced reading that provides a goodly number of sensory thrills. Janowski has better singers than Pierre Boulez did for the PBS telecast and the Philips recordings. On the whole Janowski's singers have smaller voices than the leather-lunged
Wagnerians of the Thirties and Forties, and this vocal characteristic emphasizes the human aspects of the story rather than the supernatural. My reference standard for *The Ring* on recordings is the set directed by Gerbert Solti on London Records. Compared with that heroic performance, the new set seems more intimate and lyrical, though not without excitement.

When Janowski’s *Rheingold* was released here on LP’s, it got unenthusiastic reviews, and on CD’s it is the least impressive of the dual parts of the cycle. But intensity and interest increase in *Walküre* and continue to build in the last two operas.

Although Theo Adam lacks a beautiful or well-focused voice, he brings authority to the role of Wotan, which he has been singing for two decades. Siegmund Nimsgern, who has more impressive vocal equipment, is a very effective Alberich (the Nibelung of the title). Peter Schreier is a satisfactory Loge in *Rheingold*, and his beautiful lyric tenor makes his Mime in *Siegfried* much more than the usual grotesque caricature. With the exception of Donner, the other roles in *Rheingold* are performed at least adequately, and the Rhinemaidens, led by Lucia Popp, are fine.

The level of singing is raised in *Walküre* by Jessye Norman (in opulent voice) as Sieglinde, Siegfried Jerusalem as Siegmund, and Matti Salminen (Fafner), Don Jonasson (Woglinde), Karl Heinz Stryczek (Donner), Matti Salminen (Fafner), Siegfried Jerusalem (Siegmund), Kurt Moll (Hunding), Jessye Norman (Sieglinde), Karl Heinz Stryczek (Donner), and other soloists and choruses. (The sound here may not be surprising response from even modest speakers.) Librettos are supplied, but the indexing points for easy location of specific passages within acts are not accessible on all players. With so great a musical work there is no performance, no recording that will satisfy everyone. This is a solid *Ring*, however, that will reward study and continue to give pleasure for years.

Making A-B comparisons between the Janowski *Ring* on CD’s and the Solti *Ring* on LP’s proves that there’s a great deal of life in the old set still. I love the performance, and the analog sound (vintage 1958-1965) is remarkable. Remastered, the Solti *Rheingold* has been released on Compact Discs by London Records, and the sound is quite good. Speakers with very low bass response will reveal some bumps and thumps that require tone-control adjustment, but they are scarcely audible on ordinary speakers.

The entire Solti *Ring* on Compact Discs will be released by London momentarily. Collectors of recordings of this work will be very busy for a long time making comparisons. Deutsche Grammophon will release Herbert von Karajan’s *Ring* recording (1966-1970) on CD’s next year, and Philips has started reissuing on CD’s a Bayreuth Festival recording, conducted by Karl Bohm, that has been unavailable for several years. I urge you to start listening and join in the fun.

*William Livingstone*

**WAGNER: Der Ring des Nibelungen.**

Theo Adam (Wotan), Siegmund Nimsgern (Alberich), Peter Schreier (Loge, Mime), Yvonne Minton (Fricka), Ortrun Wenkel (Erda, Waltraute), Lucia Popp (Woglinde), Karl-Heinz Stryczek (Donner), Matti Salminen (Fafner), Siegfried Jerusalem (Siegmund), Kurt Moll (Hunding), Jessye Norman (Sieglinde), Jeannine Altmeyer (Brünnhilde), Norma Sharp (Waldvogel, Gnome), Hans Günter Nöcker (Gunther), other soloists and choruses. Dresden Staatskapelle, Marek Janowski cond. **EURODISC Das Rheingold** three CD’s 610 058-233, *Die Walküre* five CD’s 610 064-235, **Siegfried** five CD’s 610 070-235, *Götterdämmerung* five CD’s 610 081-235, no list price

**WAGNER: Das Rheingold.**

George London (Wotan), Kirsten Flagstad (Fricka), Eberhard Wächter (Donner), Set Svanholm (Loge), Gustav Neidlinger (Alberich), other soloists. Vienna Philharmonic, Georg Solti cond. **LONDON** three CD’s 414 101-2, no list price.

**A FEW GOOD DEALERS**

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Gene Rubin Audio, Monterey Park

Audible Difference, Pismo Beach

Keith Yeates Audio, Sacramento

Stereo Design, San Diego

House of Music, San Francisco

**COLORADO**

Audio Alternative, Fort Collins

**FLORIDA**

Sound Components, Coral Gables

Sound Components, Fort Lauderdale

Sound Source, Marathon

Audio Gallery, Miami

Audio Gallery, Sarasota

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Victor’s Stereo, Morton Grove

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CIRCLE NO. 4 ON READER SERVICE CARD
MOE BANDY AND JOE STAMPLEY: The Good Ol' Boys—Alive and Well. Moe Bandy and Joe Stampley (vocals); vocal and instrumental accompaniment. Where's the Dress; Honky Tonk Money; Wild and Crazy Guys; Daddy's Honky Tonk; Alive and Well; Still on a Roll; and four others. COLUMBIA FC 39426, © FCT 39426, no list price.

Performance: Beer-belly special
Recording: Good

Y'all know what a good ol' boy is, doncha? Well, to paraphrase Florence King, one of my favorite writers, a good ol' boy is that peculiar Southern specimen of pork-bellied male that mounts bar stools crotch first, regularly jabs holes in his thumbs with fish hooks, and, as proof of his requisite manly crewcuts, always has boils on the back of his neck from the barber's clippers.

Several years ago, Moe Bandy and Joe Stampley, both proponents of the honky-tonk school of country music, decided to join up for a hell-raisin' tribute to that aforementioned breed of rural...gentleman. They carried it further than they expected—got several albums out of it—and then Moe decided he didn't want to wear that hat no more, and the good ol' boys divorced, sort of.

Now they've got their Moe-Joe workin' again, in an album of humorous red-neck ditties that do a swell job of supporting their big single, Where's the Dress, a clever send-up of the Boy George phenomenon. Like a fella taking his first swig of moonshine whiskey, you've got to have your mouth set just right to appreciate a lot of this, but Bandy and Stampley pull it off with the timing and finesse of Bob and Ray, or Stiller and Meara, not to mention Steve and Eydie.

Moe and Joe are a couple of wild and crazy guys. If you've ever done any honky-tonk hell-raisin'—or wanted to—check these ol' boys out. You'll want to go out and rev up the truck. A.N.

THE EVERLY BROTHERS

The Everly Brothers' "EB 84" is a nearly perfect comeback album for the duo that more or less invented two-part harmony in rock-and-roll style. Not one of the least of its pleasures is the simple sound of the voices.

Over a decade after the Everly Brothers' public, acrimonious professional separation, and nearly thirty years since they helped make the Fifties less boring than Dwight Eisenhower would have had them, the astonishing truth is that Don and Phil Everly are singing better than they did in their hit-making prime. On numbers like Paul McCartney's On the Wings of a Nightingale and Bob Dylan's Lay, Lady, Lay, which must now be ranked as one of the all-time great Dylan cover versions, their vocal blend is more heartbreakingly evocative, in its inimitable Appalachian way, than ever.

Much of the credit for this surprising turn of events is clearly due hero producer Dave Edmunds, who has provided the Everlys with a smashing, contemporary pop/rock/country backdrop. Edmunds's particular genius has always been to make his history lessons sound fresh, and the aural perspective he's supplied Don and Phil is a brilliant combination of Eighties sophistication and backwoods primitivism. The production of "EB 84" could hardly have been bettered.

Still, the album belongs to the Everlys, and they carry it magnificently. There are no grand themes here: the emphasis is on well-crafted songs and gorgeous singing. Nevertheless, there's an ineffable dignity to the duo's music-making that supplies a subtext, a kind of mature authority that almost makes me believe that growing up gracefully is something to look forward to.

Will this album appeal to that segment of the record-buying public too young to remember how much these guys have contributed to American Pop? It could. I'm crossing my fingers. Will it strike a responsive chord in anybody old enough to have swooned to the Everlys' sound from the back seat of a '58 Chevy? Absolutely. Does it deserve an audience wide enough to contain both demographic groups? Indubitably. But ignore my raving and listen for yourself.

Steve Simels

THE EVERLY BROTHERS: EB 84. The Everly Brothers (vocals and guitars); other musicians. On the Wings of a Nightingale; Danger Danger; The Story of Me; I'm Takin' My Time; The First in Line; Lay, Lady, Lay; Following the Sun; You Make It Seem So Easy; More Than I Can Handle; Asleep. MERCURY 422-822 431-1 $8.98, © 422-822 431-4 $8.98.
BILLY BRAGG: Life's a Riot with Spy vs Spy. Billy Bragg (guitar, vocals). The Milkman of Human Kindness; To Have and Have Not; Richard; A New England; and three others. Utility UTIL 1 $5.98.


Here's an interesting little record from one of the new breed of post-punk folkies. Billy Bragg sings his mordant, funny little tunes to his own solo guitar accompaniment, just like that fellow Dylan used to do, except that young Bragg

(as befits somebody who grew up on the Ramones rather than Woody Guthrie) prefers a cheapo electric model to an acoustic Gibson or Martin. Actually, for once, the Dylan comparison is not so far-fetched as you might think, as there seems to be a genuinely original talent here.

Bragg's tunes are alternately cynical and endearingly tender, he's got a real feel for the political protest number, and he can be wickedly funny. But be warned. This was Bragg's publishing demo, recorded live onto a two-track tape recorder without benefit of overdubbing, so it is raw and unpolished in a way that may not appeal to fans of currently fashionable high-tech pop. Nevertheless, there's something here that deserves to be heard, something simultaneously as old fashioned as the Childe Ballads that Fairport Convention used to sing and as up-to-date as an Elvis Costello album (and a lot more authentically English-sounding). Definitely worth checking out. S.S.

KAREN BROOKS: Hearts on Fire. Karen Brooks (vocals); vocal and instrumental accompaniment. Showdown; Born to Love You; A Little Common Kindness; Bull Rider; Hearts on Fire; Give It Up; and four others. Warner Bros. 25051-1 $8.98, © 25051-4 $8.98.


Over the past eight years or so, Karen Brooks's songs have been recorded by such progressive-country artists as Travis Tritt, Jerry Jeff Walker, Gary P. Nunn, Rosanne Cash, and Emmylou Harris. So, in the time-honored, record-company tradition, only one of Brooks's own songs (and a co-written tune at that) appears on this record; her second LP. It's a terrific album. Brooks, who has seemed timid and scared (and rather weak-voiced) in her television appearances, sounds full, vital, and confident here, and she easily transcends the submissive, "kick-me-beat-me-hurt-me" attitude of most Nashville female singers.

Brooks is a woman with passion and guts, willing to speak up and out but able to show her tender side too. The songs, mostly about disappointed romance, are by Rodney Crowell, Hank DeVito (of Crowell's Cherry Bombs band), Eric Kaz, Randy Meisner, John Hiatt, Dave Loggins, and Brooks's writing partner, Randy Sharp (who contributes two of the most affecting tunes here), so you can tell this is a smart album right off. In addition, with backing by ex-Doobies Keith Knudsen, Bill Payne, and John McFee, and with supporting vocals by Lee Sklar, Dave Hungate, Jim Horn and the joyous Bonnie Bramlett, everything is as it should be, when it should be. Brooks may not have the widest range in the world, but that hardly matters when stacked up against the heart she pours into her performances. Trust me on this one: just go get it. J.N.

THE COYOTE SISTERS. The Coyote Sisters (vocals); vocal and instrumental accompaniment. I've Got a Radio: Nobody Moves Likes Us; Straight from the Heart; Into Your Life; Floating World; and six others. Morocco 6063 $7.98, © M75-6063 $7.98.

Performance: Junk food. Recording: Good.

The Coyotes are three distaff back-up singers, formerly with John Denver and others, now gathered together as a trio...
The music seems equal parts Chuck Berry, Merseybeat, Rockabilly, Sam the Sham, and John Philip Sousa—which is a roundabout way of saying the Drongos' inventiveness is almost limitless and defies classification. The production on their record, the first and only release on the independent Proteus label, is amateurish and occasionally wrongheaded. Having been recorded by three different producers in three different studios. But even the dull sound seems strangely right for a record that captures a band at the threshold of making it. Here's hoping they do. M.P.

EXILE: Kentucky Hearts. Exile (vocals and instrumentals). She's a Miracle; I've Never Seen Anything; Camin' Apart at the Seams; Give Me One More Chance; Somethin' You Got; If I Didn't Love You; and four others. Epic FF 39424, © FET 39424, no list price.

Performance. Popeyed

Recording: Good

Good pop music, a friend once told me, should be like a good love affair, or good sex, made up alternately of tension and release. With that in mind, we come to "Kentucky Hearts," Exile's fol-

NEIL DIAMOND: Primitive. Neil Diamond (vocals); orchestra. Turn Around; Crazy; Primitive; My Time with You; One by One; and five others. Columbia QC 39199, © QCT 39199, no list price.

Performance. The usual

Recording: Good

Enormously rich, undeniably famous, and still incredibly boring, Neil Diamond continues to shower his audience with his special brand of "sensitivity" and "meaningfulness." On this album he presents several of his own compositions, including the clammy One by One and the totally wet Brooklyn on a Saturday Night. Both are about as interesting as listening to slipped feet descend a staircase. Things don't pick up one iota, either, when he dawdles over performances of such things as Crazy, Turn Around, and Sleep with Me Tonight by the team of Burt Bacharach and Carole Bayer Sager (Bacharach). Undoubtedly Diamond has many fans, but then so do minor tranquilizers. P.R.

THE DRONGOS. Jean McAllister, Richard Kennedy (vocals, guitar); Tony McMaster (vocals, bass); Stanley John Mitchell (vocals, drums). Eye of the Hurricane; Ghost Ship; Overnight Bag; Closed Doors; and six others. Proteus LP $8.98, © MC $8.98 (from Proteus Records, 9 West 57th St., Suite 4503, New York, N.Y. 10019).

Performance. Delightful

Recording: Poor

Sooner or later, every music writer stumbles across a puzzle like the Dron-gos—a band of seemingly limitless promise that is somehow lost on the movers and shakers who run the record business. The Drongos' debut album contains ten nimble, infectious, clever, immediately likeable songs. The tunes of this New Zealand group are models of invention and conceit.

Drummer Stan Mitchell will set up a lively counterpoint with one of Jean McAllister's circus-organ riffs on one tune, then square off with Tony McMaster's nose-diving bass the next. Over this snappy rhythm section, left-handed guitarist Richard Kennedy, who plays his instrument strung upside-down like Jimi Hendrix, sends out a fusillade of tone-perfect harmonics and razor-sharp arpeggios, spinning chord after chord and lick after lick, until you're sure you're listening to three guitarists instead of one.
low-up album to their impressive Epic debut LP of last year. The good news is that the band is beginning to find its own "sound," not just scattershot styles. But the bad news is that the songs aren't as soulful or even as interesting as those on the first Epic LP, even though they may be better crafted.

This is a much more pop-influenced record than the group's last effort, their entry into the country field, and as such, it owes a lot to old-time rock-and-roll and r- & b. Nothing wrong with that, of course, except that what we have here is too much release, too much of a good thing, without any more than a shred of suffering (Comin' Apari at the Seams) or an ounce of guilt—two of the staples of country music.

All the same, there are about six potential singles on "Kentucky Hearts," some of which retain the old-time country and gospel underpinnings of the last album, and all of which carry the group's sparkling vocal and instrumental work. Taken individually, they'll sound terrific, but news is that the songs as a whole, however, they seem about as shallow as a three-foot grave. I can't think of anyplace where there's less tension than that.


Performance: Sui generis
Recording: Excellent

Here's a band that validates Spinal Tap's supposedly tongue-in-cheek assertion that the music they and similar bands make is best appreciated by fourteen-year-old white boys. Helix isn't as funny as Spinal Tap. In fact, they take the heavy-metal clichés very seriously, although to their credit they do do a cover version here of Gimme Gimme Good Loving, an old bubblegum classic that is still good for a few laughs. The rest of the time, however, this is the usual exhortatory macho nonsense, totally without irony, faceless in its peculiarly high-decibel way, and proof that the late Lester Bangs was on the money when he suggested that if you removed the vocal tracks from any six or seven popular heavy-metal albums at random, even their most fanatical adherents would have trouble telling them apart.

NICK LOWE AND HIS COWBOY OUTFIT: All New Material. Nick Lowe (vocals, guitar, bass); Billy Brenner (guitar); Paul Carrack (keyboards), other musicians. Half a Boy and Half a Man, Break Away. You'll Never Get Me Up (in One of Those). Awesome; and six others. COLUMBIA FC-39371. @ FCT-39371. no list price.

Performance: Not his best
Recording: Appropriate

Nick Lowe's a talented guy, but he's been coasting recently, and this record continues the trend. It starts promisingly enough (Half a Boy), with rowdy Tex-Mex organ work à la Joe "King" Carrasco, but boredom sets in pretty fast.

As usual, the album bounces around stylistically, with a little blues, a little fake Buddy Holly, a little Al Green-style r- & b, and a little etcetera, etcetera. But if there's a point of view, it seems to be nothing more than "I've got an album to do." I doubt there's anything here I'll listen to again, with the possible exception of Hey Big Mouth, a glorious frat-party instrumental buoyed by wonderfully quirky production.

TEDDY PENDERGRASS: Love Language. Teddy Pendergrass (vocals), vocal and instrumental accompaniment. In My Time, So Sad the Song: Hot Love, and five others. ELEKTRA/ASYLUM 60317-1 $8.98, @ 60317-4 $8.98.

Performance: Pendergrasssy
Recording: Good

More than two years have passed since a controversial car accident confined
Teddy Pendergrass to a wheelchair. In that time, his old label has issued two albums of out-takes, but "Love Language," the singer's Elektra/Asylum debut, is all new. He never had a great voice, and he sounds somewhat out of breath here, but Pendergrass can still deliver his songs in a soothing manner. This is a good, skillfully rendered album of fairly predictable material. That and the Pendergrass name should assure its success.

C.A.

PUBLIC IMAGE LTD.: This Is What You Want This Is What You Get. Public Image Ltd. (vocals and instruments). Bad Life; This Is Not a Love Song; Solitaire; Tie Me to the Length of That; The Pardon; and three others. ELEKTRA 60365-1 $8.98, © 60365-4 $8.98.

Performance: Genius is pain
Recording: Very good

John Lydon, the former Johnny Rotten of the Sex Pistols, claims that this new PIL record is the band's first blatantly commercial effort, which I suppose depends on your perspective. From mine, I don't think Olivia Newton-John has much to worry about since "This Is" is the usual mix of ersatz funk riffs (dressed up with soul-horns this time), lame-brain orientalisms, and endless keening vocals by Lydon that suggest an unappetizing cross between Eric Burdon in his psychedelic phase and the deranged Kaddish of a punk rabbi. To give these characters their due, there are some occasionally interesting noises here, and it's quite obvious that the rage they're spewing out is genuine. But too much of it is too unintentionally funny, and I can't get particularly worked up over anybody who writes a song (Tie Me to the Length of That) about how mean his mother was to him. Well, Norman Bates, maybe. . . . S.S.

RUBBER RODEO: Scenic Views. Rubber Rodeo (vocals and instruments). Need You Need Me; Anywhere with You; Walking After Midnight; The Hardest Thing; House of Pain; and four others. MERCURY 818 477-1 $8.98, © 818 477-4 $8.98.

Performance: Vulcanized
Recording: Very good

Imagine the musical children that might come from a mating of the Carter Family and the B-52's, and you will get a vague idea of what to expect from Rubber Rodeo. An American-bred but European-inspired sextet, Rubber Rodeo tries to integrate the high-tech side of rock and the crinoline side of country, something about as easy as sneezing, coughing, and belching all at the same time. The band itself calls this hybrid sound Prairie Modern, while others call it 'punktry,' since it's really a New Wave blend of pedal steel and synthesizer.

A couple of years ago, Rubber Rodeo came out with an eerily synthesized version of Jolene, one of Dolly Parton's decidedly genius efforts, and I have to admit it gave me a stir. On "Scenic Views," however, their first major-label album, the Grand Ole Opry leanings have all but disappeared in favor of a more mechanical kind of Brian Eno-like, art-pop synthesis. The lyrics are inane, the melodies are out on field maneuvers, and too many of the songs don't seem to have any focus. There is a streak in me that can appreciate and even be amused by much of this, but from a country point of view, Rubber Rodeo's current brand of beehive kitsch has about as much honest emotion as a Hostess Twinkie. A.N.

SIOUXSIE AND THE BANSHEES: Hyæna. Siouxsie and the Banshees (vocals and instrumentals). Dazzle; We Hunger; Take Me Back; Belladonna, Swimming Horses; and five others. GEFFEN GHS 24030 $8.98, © M5G-24030 $8.98.

Performance: A downer
Recording: Mausoleum rock

My vote for this year's fun couple has to go to Ian MacCullough of Echo and the...
Bunnymen and Siouxsie Sioux. Siouxsie and the Banshees’ “Hyena” could almost be a companion album to the Bunnymen’s “monumental” bummer, “Ocean Rain”—dreary violins, flat vocals, and enough psychological trauma to keep a team of Freudians listening sympathetically right into the next century. Produced in dull, cavernous tones, “Hyena” features some well-played, appropriately bleak organ and guitar by Robert Smith to complement Siouxsie’s sober chanting. As for the songs, they’re full of pain, suffering, and the instruments of suffering—poison, sharp objects, starvation, darkness, even vampire bites.

SOUTHSIDE JOHNNY AND THE JUKES: In the Heat. Southside Johnny and the Jukes (vocals and instrumentals). Love Goes to War; New Romance; Love Is the Drug; Captured; I Can’t Live Without Love; and five others. MIRAGE 90186-1 $8.98, 90186-4 $8.98.

Performance: Just misses
Recording: Okay

Southside Johnny Lyon has clearly become one of the all-time great white r- & b vocalists, but on a fundamental level “In the Heat” just misses. The problem seems to be Billy Rush’s writing. Yes, Rush knows contemporary black music as well as the Sixties soul stuff he cut his teeth on, and yes, his new songs, which in general attempt a vaguely modern funk groove, are in the abstract perfectly respectable. But they simply don’t catch the character that Johnny has portrayed in the past so appealingly—the woozy-yet-lovable romantic who inhabited songs like I Don’t Wanna Go Home and the rest of the early Jukes favorites.

The protagonist Johnny plays here is a little more urban, a little more worldy, and a lot less distinctive than before. A few of Rush’s tunes (Over My Head, in particular) do manage to summon up the eternal Asbury Soul Man, but in the main the combination of Rush’s material and John’s singing is like a Coasters record written by people other than Leiber and Stoller—that is, a classic mismatch of actor and script.

That said, there’s some appealing stuff in “In the Heat”—a swell remake of the Temptations’ Don’t Look Back and a version of Tom Waits’s New Coat of Paint that cements the Jukes’ reputation as the premier poets of Closing Time at the Local Watering Hole. And if the album as a whole is never as epochal as the stuff these guys did with Miami Steve van Zandt, it is never less than listenable.

THE SPECIAL AKA: In the Studio. The Special AKA (vocals and instrumentals). Bright Lights; The Lonely Crowd; Girlfriend; Free Nelson Mandela; and six others. CHRYSALIS FV 41447, © FVT 41447, no list price.

Performance: Good
Recording: Tight

Jerry Dammers, once a member of the Specials, is now playing piano and organ and writing most of the songs for a group called the Special AKA. Less frantic and more introspective than the Specials, this new outfit continues to explore reggae and ska, with occasional forays into New Orleans-like铜管, trumpet, trombone, and organ combine to create a thick, dark mix well suited to Dammers’s lyrics—in songs like Bright Lights and The Lonely Crowd—dealing with the cynicism, isolation, and boredom of modern, big-city living. The other songs are less effective, though, tending to a kind of preachy self-righteousness. Bill Neill

BILLY SQUIER: Signs of Life. Billy Squier (vocals, guitar, synclavier), vocal and instrumental accompaniment. All Night Long; Rock Me Tonite; Eye on You; Take a Look Behind Ya; Reach for the Sky; and five others. CAPITOL SJ 12361 $8.98, © 4XU 12361 $8.98.

Performance: Great junk
Recording: Outstanding

The smartest thing Billy Squier did in making “Signs of Life” was to enlist as
coproducer Jim Steinman (whose credits include Meatloaf, Air Supply, and Bonnie Tyler). Squier’s straightforward, hard-driven package has been juiced up here with an array of studio techniques and tricks, synthesizer and guitar effects, sharper ensemble direction—dramatic pauses and flashy entrances—and a cleaner sound.

It’s the little things that make Steinman’s work so appealing. Like the cymbal struck with thunderous force in “All Night Long,” or the shuffling syncopation and snapping synthesized percussion that stalk one another in the introduction to “Rock Me Tonight.” The big things—Squier’s dull, die-cut rock songs and whiny vocals—fall beyond Steinman’s power to save. “Rock Me,” for instance, slips from its riveting intro into a trident, predictable AOR kickstep you’ve heard a million times. It’s not just overworked, it’s ugly to start with. This kind of rock is also typically plagued by overwrought, obscure writing; “Signs of Life” is only a slight improvement on the breed. Squier has penned a few genuinely interesting verses and coined a few strong images, but most of these songs wear their lyrics like a ball and chain.

TACO: Let’s Face the Music. Taco (vocals); orchestra. You Are My Lucky Star; Winchester Cathedral; Flash; Married; and seven others. RCA CPL1-4920 $8.98, © CPK1-4920 $8.98.

Performance: Moderate fun
Recording: Good

Taco Ockerse, the Dutch-born, German-based performer, had a major hit a couple of seasons ago with his revival of the old Irving Berlin standard “Puttin’ On the Ritz.” By imaginative use of electronic instruments and ghostlike vocals that had overtones of both Tiny Tim and “Signs of Life,” Taco created a really new interesting dance sound. In this new album he tries the same approach on several songs, but it really only works once—on another Irving Berlin song, “Let’s Face the Music.” The gimmick has worn thin. When Taco attempts experiments, as in “Opera-Rap,” where he uses excerpts from Carmen or other operas over a rap background, the results are less than riveting. And material in which he had a composing hand, such as “Married” and “Sayonara,” really goes nowhere fast.

KIRI TE KANAWA: Come to the Fair. Kiri Te Kanawa (soprano); Medici String Quartet; members of the National Philharmonic Orchestra, Douglas Gamley cond. Come to the Fair; The Last Rose of Summer; Greensleeves; Comin’ thro’ the Rye, and eleven others. ANGEL 0 DS-38097 $11.98, © 4XS-38097 $11.98.

Performance: Studied
Recording: Good

Dame Kiri Te Kanawa, the great Australian soprano, goes rural to little effect. She is the possessor of one of the rippest and lushest vocal instruments around, but most of the time here she sounds as if she’s humming in her dressing room while waiting to go on. Unfortunately she has also chosen to follow in the deadly “tradition” of performing “folk” songs as if they’re some brand new idea. She makes some lovely sounds in “The Last Rose of Summer,” but more often, as in “Comin’ thro’ the Rye,” she remains firmly in the “watch my lips, I’m singing to you” groove. And that’s a bore.

P.R.
and drag—since 1976; it is a measure of the wondrous times we live in that they are finally achieving a breakthrough commercially. You can’t exactly call them pedestrian, of course, but we’ve heard and seen all this before, though in less extreme form. To be fair, the group’s songs are deliberate cartoons and in their way almost clever. The playing is skillful, and there are fewer references to dealing with the devil than customary in the genre, for which I personally am grateful. Other than that, however, what inhabits the grooves of “Stay Hungry” is largely unremarkable, though I should add that I find it hard to seriously dislike any group that dedicates a song, the title tune, to Arnold Schwarzenegger.

IAN TYSON. Ian Tyson (vocals, acoustic guitar); instrumental accompaniment. Oklahoma Hills; Tom Blasingame; Sierra Peaks: Will James; Murder Steer; Goodnight Loving Trail; Hot Summer Tears; and four others. COLUMBIA FC 39362, © CFT 39362, no list price.

Performance: Familiar terrain
Recording: Good

Canadian-born Ian Tyson was writing c-&-w-flavored songs even during his Ian and Sylvia folksinging days, but it wasn’t until his last album, the exquisite "Old Corrals and Sagebrush," that Tyson gave his full attention to the western part of c-&-w, without a twang of Billy Bob country. Now he’s back for an encore, and like "Old Corrals," this album is a mix of traditional western songs that trace the trails of the cow-pokes of yesteryear and modern songs based on the old legends and themes. Since "Old Corrals" had the sound and feel of an instant classic, a follow-up album of the same quality was a tall order to fill. And if "Ian Tyson" does not have quite the drama of the previous album, it has no less the beauty.

Tyson, who produced the album, has multitracked his rich, fluid voice to sound like a modern-day Sons of the Pioneers, and at times his voice has a marvelous, Marty Robbins quality that is set off by the plain-fashion playing of Tyson’s usual fine pickers. To those who still yearn for the thrill of a western sunset, Tyson extends an invitation “to the land of opportunity,” where he runs his own ranch in Alberta. No matter how few crank up their horsepowered Broncos for the Canadian west, this is a magnificent journey in song. A.N.

Collection

Performance: Something different
Recording: Mostly good

This set was put together by a fellow named Liam Sternberg, who, if memory serves, concocted Stiff’s famous “Akrón” sampler, and it is similar in being a collection of home-grown recordings by unknown bands from a flourishing local scene—in this case the Texas post-punk underground. Not surprisingly, the results are variable. Also unsurprisingly, a lot of the music, though hardly all of it, seems to have a perceptible Texas feel. Stylistically, there’s a fair amount of variety, from Dan Del Santo’s consciously eclectic melange of r-&-b styles (Jamaican, African, American), to the Commandos’ revisionist Sixties Brit-Pop, to David Bean’s unclassifiable Dylanesque musings. But all of it has real freshness and vitality, and the closing cut, the Tribe’s Leave Me in the Desert, even has a hint of the classic Texan hippie-punk attitude—that peculiar something you can hear in old records by Doug Sahm or Will James: a sort of uncanny visionism.

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**JAZZ**

**DICK HYMAN: Eubie.** Dick Hyman (piano). Memories of You; You're Lucky to Me; Tan Manhattan; Charleston Rag; Love Will Find a Way; It Ain't Gonna Give Nobody None of This Jelly Roll; and four others. **SINE QUAM** $71017 $4.98.

Performance: Characteristically bland

Recording: Good

Guitarist Earl Klugh's "Wishful Thinking" is a lush elevator ride for people who like plenty of frills and sweetness. It is totally lacking in substance, and you'd swear you have heard these innocuous strains before. Klugh is certainly equipped to soar beyond the top floor, but, alas, he continues to play it safe. I don't care what floor this is—I'm getting off.

C.A.

**BOBBY MCFERRIN: The Voice.** Bobby McFerrin (vocals). Blackbird; I'm My Own Walkman; Music Box; El Brujo; I Feel Good; I'm Alone, A-Train; The Jump; and two others. **ELEKTRA/MUSICIAN** $9.98.

Performance: Boring

Recording: Good remote

Like Leon Thomas, the jazz yodeler, Bobby McFerrin can sound quite engaging, but what does he do with his voice borders on the gimmicky, and he has crossed that border with a solo album called "The Voice." It contains over forty minutes of unaccompanied vocal utterings that might have been interesting if served in moderation. Here, they unfortunately add up to a study in tedious self-indulgence.

C.A.

**THE NEW BLACK EAGLE JAZZ BAND.** The New Black Eagle Jazz Band (instrumentals). Shake It and Break It; Perdido Street Blues; Dippermouth Blues; Snake Rag; Dallas Blues; Ain't Gonna Give Nobody None of This Jelly Roll; and four others. **SINE QUAM** $71016 $4.98.

Performance: Stomps and joys

Recording: Quite good

The New Black Eagle Jazz Band actually made this set for a rock label in 1971, but it was not released until now. The band went on to modest success, but this recording represents its infancy, and, all things considered, its seven members do a creditable job of recreating the spirited flavor of Louis Armstrong's Hot Seven group with a Bunkish bit of revivalism stuffed in. Good fun.

C.A.

**EARL KLUGH: Wishful Thinking.** Earl Klugh (guitars); instrumental accompaniment. Tropical Legs; A Natural Thing; Once Again; All the Time; Take It from the Top; The Only One For Me; and two others. **CAPITOL** ST-12323 $8.98, **4XS-12323** $8.98.

Performance: Characteristically bland

Recording: Good

Earl Klugh (guitars); instrumental accompaniment. Tropical Legs; A Natural Thing; Once Again; All the Time; Take It from the Top; The Only One For Me; and two others. **CAPITOL** ST-12323 $8.98, **4XS-12323** $8.98.

Performance: Characteristically bland

Recording: Good

Guitarist Earl Klugh's "Wishful Thinking" is a lush elevator ride for people who like plenty of frills and sweetness. It is totally lacking in substance, and you'd swear you have heard these innocuous strains before. Klugh is certainly equipped to soar beyond the top floor, but, alas, he continues to play it safe. I don't care what floor this is—I'm getting off.

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Performance: Delightful
Recording: Excellent airchecks
No, Fats Waller never recorded with Bessie Smith, as Dave Dexter alleges in his notes for this record, but he did create music of lasting value, and here's swinging, witty proof. Only three of these thirteen tracks, originally broadcast in 1938 and 1940, duplicate material Waller recorded commercially. The sound of the band is familiar enough: this is Waller's regular Rhythm group, with Gene Sedric, Al Casey, Cedric Wallace, and Slick Jones, with John Hamilton (1940) or Herman Autrey (1938) on trumpet, and there are also a couple of okay vocals by Kay Perry. Technically, that sound has been preserved superbly. In all, an entertaining set that adds much to Waller's already impressive recorded legacy.  C.A.

Collection
Performance: Delightful
Recording: Good
To many pop music fans, jazz is a little like unsweetened porridge, and the very mention of Thelonious Monk sends them scattering. No one should have any such apprehension about a new album titled "That's the Way I Feel Now," the original name of a tune that has since become, simply, Monk's Mood. It brings together jazz and rock performers for a two-disc tribute to the late pianist/composer.

Monk's music was full of surprises and whimsy, two qualities that are perfectly intact in this collection. It is a delight, from Dr. John's Mortonian treatment of Blue Monk and a superb Misterioso by Johnny Griffin with the Carla Bley band to appropriately eccentric readings of Ba-Lue-Bollvar-Ba-Lues-Are and Criss Cross by Was (Not Was) and guitarist Eugene Chadbourne, respectively. There is also a fine, effective duet on Friday the Thirteenth by Bobby McFerrin and Bob McDorough, and the beauty that so often marked Monk's tunes comes through on three superb tracks: 'Round Midnight, played by Joe Jackson (on piano) against a seventeen-piece cushion of strings and reeds; Reflections, a guitar and synthesizer weave by Steve Kahn and Donald Fagen; and a stunning reading of Ask Me Now by former Monk saxophonists Steve Lacy and Charlie Rouse.

There is much more to please the ear here, and it is all well packaged and annotated. Producer Hal Willner is to be commended for conceiving and realizing this album, and for including a cross-referenced list of currently available Monk releases to aid listeners wishing to hear these twenty-three tunes in the composer's own versions.  C.A.
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EDITH AND MARCEL (Francis Lai-Charles Aznavour). Original-soundtrack recording. Edith Piaf, Mama Béa, Charles Aznavour, others (vocals); various orchestras. Atlantic 80153-1 two discs $11.98, © 80153-4 one cassette $11.98.

Performance: Piaf splendid Recording: Interesting.

This album is an interesting artistic and sonic pastiche, a mixture of the old, original recordings by Edith Piaf, facsimile performances of Piaf material by Mama Béa, and newly composed songs by Francis Lai and Charles Aznavour. As such it serves as the score for a new French film biography of Piaf and her lover, the boxer Marcel Cerdan. The affair ended tragically (Cerdan was killed in a plane crash), but to the French it has remained a media event comparable to Tristan and Isolde, Taylor and Todd, and JFK and Jacqueline all rolled into one glossy package.

And a very glossy, very long-winded package this two-record set is. It holds the interest mainly through the splendid original Piaf performances of her classics, such as "Bal dans la rue," "La vie en rose," and "Un homme comme les autres." Mama Béa, a famous Piaf sound-alike, offers songs like "La prière" with style and authority but none of the tattered Piaf magic. Charles Aznavour also contributes a few performances, but he too pales alongside the great Piaf.


Performance: Spirited Recording: Fair.

Forbidden Broadway, a send-up of the real thing, has been running at a place called Palsson's Supper Club in New York for almost three years, which explains why none of the shows parodied here is still around. Some of the numbers derive from oldies like "Hello. Dolly!" and "Follies," others from the more recent "Evita, Nine," and even "Amadeus," (music courtesy of Mozart). But as you listen to the album, you get to thinking (music courtesy of Mozart). But as you listen to the album, you get to thinking back, fondly, to the originals and, with all due respect to Gerard Alessandrini's new lyrics, realize how good so many of the songs really are. In any case, the cast of five performs with unfailing high spirits, and the whole thing sorts out as an affectionate romp (except for some rather sharp words directed toward Barbara Streisand).

Giorgio Moroder's reconstruction of Fritz Lang's 1926 science-fiction film classic is a masterwork of celluloid surgery and a musical mess. Moroder restored missing scenes, inserted still photos he'd unearthed while researching the film, added color, and recast the subtitles, all in an attempt to make Lang's hereofore incomprehensible epic somewhat understandable. He also added a soundtrack that undoes all the good his careful preservation achieved.

(Continued on page 112)
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As a record album, "Metropolis" has the appeal of a K-Tel release: you could call it "Heavy Hands," a collection of white, sexy, heavy-metal rock stars. The music is just what you'd expect from this group: slick, superficial, hyperbole—perfect for pumping iron or aerobics. But as a soundtrack it's even worse. The too-literary lyrics, in trying to explain in music what you're seeing on the screen, provide a clumsy running commentary that only makes Lang's already hokey story that much sillier. Worse yet, the sound of today's stars makes it impossible for the viewer to suspend disbelief.

The sound of Sylvester Stallone attempting to sing is something akin to a Vegemetic stuck on a steak bone, but Stella Parton and Kin Vassy make a dynamite country duet team, and Dolly does her share of fine dramatic singing on a couple of tunes ("One Emotion After Another, What a Heartache"). As film soundtracks go, this one is clearly above average.

**SINGIN' IN THE RAIN.** Original London-cast recording. Tommy Steele, Sarah Payne, Danielle Carson, Roy Castle (vocals); chorus and orchestra, Michael Reed cond. 1 Can't Give You Anything but Love; Too Marvelous for Words; You Are My Lucky Star; Fascinating Rhythm, and nine others. SAFARI RAIN $12.98, © TC-RAIN $12.98 (from International Book and Record Distributors, 40-11 24th St., Long Island City, N.Y. 11101). Performance: Terrific
Recording: Very good

To savor some of the sunny outlook of this show just listen to the title tune or Good Morning, both by the songwriting team of Nacio Herb Brown and Arthur Freed for the screen's first all-talking, all-singing, all-dancing musical, *The Hollywood Revue of 1929. Singin' in the Rain,* of course, went on to be the title tune of the popular MGM movie starring Debbie Reynolds, Gene Kelly, and others. It went on further to become the title tune of this winning West End musical starring one of England's favorite stars, Tommy Steele. The show opened at the London Palladium in June last year, and it looks as though it will enjoy a long, glorious life there.

The cast recording is an unending delight. Seven tunes from the early film version, including You Are My Lucky Star, have been worked around some additional material like Cole Porter's Be a Clown and George and Ira Gershwin's Fascinating Rhythm. It's all pure froth, and all good fun. Great for any day, rainy or not.
HARD TO HOLD. Rick Springfield, Janet Elber, Patti Hansen, others.
MCA HOME VIDEO 80073 VHS Stereo and Beta Hi-Fi: $69.95.

Performance: Cutesy
Recording: Okay

Rick Springfield is a pretty good AOR singer/songwriter with a bad rep based solely on the fact that he’s movie-star good-looking. Unfortunately, he makes his cinematic debut here with a film that asks the oldest question in the world: Can a successful rock-and-roll star find happiness in the arms of a woman who reads Hilton Kramer’s New Criterion magazine in bed? To be fair, Springfield is undeniably charming in a soap-hero way, and he seems a decent-enough actor, but the screenplay in a soap-hero way, and he seems a fair, Springfield is undeniably charming woman who reads Hilton Kramer’s world: Can a successful rock-and-roll his cinematic debut here with a film good-looking. Unfortunately, he makes solely on the fact that he’s movie-star

You may have seen this 1954 Bolshoi film of Prokofiev’s ballet Romeo and Juliet before, but the producers of the videocassette release have eliminated the narration, which tended to detract from its flow. The story of these star-crossed lovers is sufficiently well known that no words are really necessary. Add to Prokofiev’s splendid music a stupendous performance by Galina Ulanova, superb choreography and staging, and you have a very impressive production that you will enjoy over and over again. C.A.

SHCHERDIN: Anna Karenina. Maya Pisleetskaya, Alexander Godunov (dancers); orchestra, Yuri Simonov, cond. VIDEO ARTS INTERNATIONAL VAIR-B7

This ballet version of Leo Tolstoy’s Anna Karenina was written by the Russian composer Rodion Shchedrin, whose music shows influences of Shostakovich and Stravinsky, particularly the former. The cinematic effects are kept to a minimum in this tastefully designed production, which was filmed in 1974 for theater release. The choreography, by ballerina Maya Pisleetskaya, is simply superb, revealing a wonderful sense of humor and flair for the dramatic. Even the strange cuts, which lend a bizarre air to this film, seem somehow appropriate. Originally filmed for wide-screen projection, the picture does not match the proportions of the TV screen, so the producers have chosen to shrink the picture somewhat. This means having a black top and bottom border and slightly elongated dancers, but the decision was a wise one because it preserves as much as possible the pictorial composition of a beautiful production. The video images are a bit fuzzy, but the tape offers a rare artistic treat. C.A.
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NEW HI-FI HORIZONS
(Continued from page 70)
the digital-audio cassette recorder.
It was expected that a standard recording and tape format for these machines would be set by the middle of this year, but disagreements among the Japanese companies involved have slowed the standard-making process considerably. Once agreement on a digital-cassette standard has been reached, it’ll take about a year for the production lines to get rolling, which means an introduction in 1986 at the earliest. If the CompuSonics system is released on schedule, and is selling well when the digital cassette decks arrive, you can count on a marketing conflict of intercontinental proportions.

It is possible that there may be some degree of compatibility between the CompuSonics system and the Compact Disc since the CompuSonics signals are digital pulses that are well suited for impression on a CD.

The most intense battles facing CompuSonics, however, will probably not be with the rest of the audio industry, certain companies of which have already taken out licenses for producing CompuSonics systems. The biggest challenge will be convincing those vocal, die-in-the-wool audiophiles who are now convinced that digital audio in any form is the work of the devil and anathema to the cause of high fidelity. It’ll be a tough job persuading those who now decry the inadequacy of the CD system’s data rate (enormous though it is) that the CompuSonics methods, which purposefully record far less data than the CD system, are up to the task of high-fidelity sound recording and playback. But CompuSonics’ computerized modeling is nothing if not a mathematical and electronic abstraction of part of the subjective process of sound perception, something common to all people (even audiophiles). The audiophile’s credo (“sound quality in excelsis”) is precisely what CompuSonics’ engineering efforts are all about: the DSP-1000 is being designed to sound right. And we are all anxiously waiting to find out whether it sounds good enough.
by Ralph Hodges

Cable Comments

A year and a half ago, with admirable temerity, this magazine presented the results of blind listening comparisons of several different types of speaker cable. The tests were intended to shed light on the question of whether money spent on relatively costly "audiophile" cables was money spent well. In the results, the audiophile entry did not statistically distinguish itself, in terms of sound, from ordinary 16-gauge zip cord. Only skinny, 24-gauge zip cord was statistically different, and this seemed to be attributable to the very non-mysterious quantity of d.c. resistance (wire with high resistance interacted with changes in speaker impedance to alter its frequency response). The conclusion of the tests seemed clear enough to warrant the statement that possession of the audiophile cable appeared to confer no benefit other than prestige.

But, as will happen in matters of audio subtlety, this journalistic exercise generated at least as much heat as light. Probably no happy owner of such cables forsook his satisfaction, and vigorous dissent bordered on the attitude, "If this be science, give us superstition." The magazine offered to entertain any suggestions for a better test but heard from no takers. Nevertheless, exotic cables continue to be made, bought, and discussed seriously, making us wonder what other opinions are abroad to account for the interest of the market.

If you want to get heavily into cables, it turns out there's a good bit to think about. Resistance, capacitance, and inductance can all be measured, and theoretically they should all be at a minimum for a neutral cable, but perhaps not for the "best-sounding" cable in a specific system. You may consider the conductor material, its purity, and the fineness to which individual strands of a cable bundle are drawn. You may contemplate whether each strand should be separately insulated, and what dielectric properties cable insulation has in general.

A vocal minority insists that, even for alternating current, a cable is directional, and care should be taken to ensure that the "sending end" of the cable is upstream in the signal path and the "receiving end" is downstream. Cables are said to self-generate signals of their own when subjected to vibration ("microphony"), and the influence of where they are run, their proximity to other signal carriers, and ferromagnetic materials in general, whether they are coiled or twisted, can all be brought into question.

Finally, cables, whether speaker wires or patch-cord interconnects, can and should be thought of as an electrical extension—a true component part, actually—of the equipment they string together.

The conclusion of the STEREO REVIEW tests seemed clear: possession of the audiophile speaker cable appeared to confer no benefit other than prestige.

The reviews that audiophile cables get from some of their intended direct beneficiaries, loudspeaker manufacturers, are interesting and mixed. David Wilson, whose WAMM creation bids pretty fair to being today's most expensive home speaker system, certainly subscribes to them, but confesses he holds no brief for any particular design philosophy. Tim Holl, formerly of Acoustic Research, and Andy Petite of Boston Acoustics, both representative of more "establishment" speaker products, find merit in the low resistance of audiophile cables, but not really in any of their other characteristics.

John Bowers, long the head of research and development at B & W Loudspeakers, is more expansive on the subject. "I admit I've been as suspicious [about the claims made for exotic cables] as anyone, but after considerable experience with them, I concur that there are differences."—Bowers

"I've been as suspicious (about claims for cables) as anyone, but after considerable experience with them, I do concur that there are differences; there always are. My attitude is, take a measurement, then listen, etc., and if your ears don't agree, go back and do the measurement again. Because your ears can't be wrong.

"I'm not saying these differences are improvements, or that there isn't an appalling lot of mumbo-jumbo clouding the issue. But it's just good common sense and good engineering practice to use heavy, high-quality cable. We have ourselves been beeping up the cable we use for internal wiring of our speakers, because doing so can't be wrong, even if we're not entirely sure it's righter."

For now, I also side with the difference-hearers, having every reason to believe that, with certain components at least, a change in cabling will lead to a change in sound, sometimes subjectively for the better, and occasionally subjectively and even very objectively for the worse. Still, I'm no fonder of mumbo-jumbo than Bowers, and I suspect that cables and some of their effects remain mysterious only because, as he points out, research remains sadly neglected. A neglected area is, of course, ripe for improvement, and that's the promise held out by getting involved in one, even if there are likely to be some small risks as well.
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